



# **Awel y Môr Offshore Wind Farm**

## **Category 5: Reports**

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# 1 Appendix A: Overarching Evidence Plan Documents

## 1.1 Appendix A1: Terms of Reference



# Awel y Môr Offshore Wind Farm

## Evidence Plan Terms of Reference

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## List of Acronyms

Term	Definition
AONB	Area of Outstanding Natural Beauty
DCO	Development Consent Order
ML	Marine Licence
EIA	Environmental Impact Assessment
ETG	Expert Topic Group
HRA	Habitats Regulations Assessment
JNCC	Joint Nature Conservation Committee
LPA	Local Planning Authority
LSE	Likely Significant Effect
MCA	Maritime and Coastguard Agency
MHWS	Mean High Water Springs
MIEU	Major Infrastructure Environment Unit
ML	Marine Licence
MMO	Marine Management Organisation
MPS	Marine Policy Statement
NGO	Non-Governmental Organisation
NRW	Natural Resources Wales
NPPF	National Planning Policy Frameworks
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
OWF	Offshore Wind Farm
PINS	Planning Inspectorate
PRoW	Public Rights of Way
RCAHWW	Royal Commission on the Ancient and Historical Monuments of Wales
SAC	Special Area of Conservation
SCI	Sites of Community Importance
SNCBs	Statutory Nature Conservation Bodies
SoCG	Statements of Common Ground
SPA	Special Protection Area

THLS	Trinity House
WDC	Whale and Dolphin Conservation
WTG	Wind Turbine Generator
WFD	Water Framework Directive

# 1 Introduction

## 1.1 Aims & Purpose of this Document

- 1 This Evidence Plan (hereafter the "Plan") will be developed by innogy Renewables UK (innogy hereafter the "Applicant") as a formal tool for agreeing the information that the Applicant will need to supply to the Planning Inspectorate (hereafter referred to as PINS) and to NRW to respectively inform the Development Consent Order (DCO) and the Marine Licence (ML) applications for the Awel y Môr Offshore Wind Farm (hereafter the "Project"). Therefore, this document refers principally to consultation undertaken prior to the Applicant's submission of the respective applications, i.e. not inclusive of the examination period of the DCO process and the formal ML application process.
- 2 The primary aim is to ensure compliance with the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations") and that sufficient information is provided in accordance with PINS Advice Note 10 regarding Habitat Regulations Assessment (HRA) for Nationally Significant Infrastructure Projects (NSIPs)<sup>1</sup>.
- 3 The agreements and disagreements made between parties will be formally recorded within meeting minutes, agreement logs and through the Evidence Plan Report.
- 4 In addition, as the Applicant notes that much of the evidence required to inform the HRA is also relevant to the Environmental Impact Assessment (EIA), and that there may be specific areas of interest, the scope of this Plan has been expanded to include topics beyond the HRA. The topics covered are illustrated in Figure 1 below.
- 5 The primary aim of this Plan is to seek consensus (within reasonable timeframes) between all parties on the amount and range of evidence required to be collected to inform the assessments. An additional aim is to agree potential approaches for the resolution of issues with parties during the pre-application process for the DCO and ML applications<sup>2</sup>. This will allow early identification of additional data requirements and seek to reduce issues to be taken into the DCO Examination and NRW's consideration of the ML.
- 6 The Plan also seeks to make discussions more structured and efficient, allowing key environmental and consenting issues to be identified between multiple interested parties.
- 7 The Plan enables time and resources to be planned and allocated to this process by all participants.

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<sup>1</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/06/Advice-note-10v4.pdf>

<sup>2</sup> A marine licence is required under the Marine and Coastal Access Act 2009 before carrying out any licensable marine activity.



8 The development of this Plan and involvement of all parties should also follow the following general rules:

- ▲ Advice relating to specific topics should be compliant with planning, marine and legislative requirements and regulation and follow current guidance;
- ▲ Evidence levels on which the assessment of impacts is undertaken should be proportionate to the Project's potential impacts;
- ▲ Assessment methodologies and interpretation criteria should be appropriate to the potential impact, and evidence requested should be justified and consistent with the matters being considered;
- ▲ Evidence requirements should only change, prior to the agreed "cut-off" date for the finalisation of application documents, if:
  - New areas of concern are identified following initial assessment;
  - New relevant evidence or research comes to light;
  - New legislative requirements that would affect what information is required to inform the DCO and ML applications;
  - There is a material change to the Project;
  - A new proposed nature conservation site of relevance is designated; or
  - Information about a new proposed plan or development which is likely to result in significant cumulative effects becomes publicly available.
- ▲ All parties should engage pro-actively and constructively aiming to resolve issues in the pre-application phase and adhere to agreed timelines specified in this Plan unless otherwise agreed;
- ▲ This Plan does not replace or duplicate existing requirements and will be developed to fit with the DCO and ML application processes as the Plan evolves for this Project;
- ▲ The Evidence Plan process is a voluntary and informal consultation process (i.e. it is non-statutory consultation), and as such any party may terminate their involvement (at any time) with the Evidence Plan by providing written notice to the Applicant; and

- 9 This document is intended to be a working document, as the Terms of Reference for the process, to outline a set of general rules under which the aims of the Evidence Plan will be sought. Once the Terms of Reference have been agreed, any subsequent amendments will be made as an addendum to ensure that a clear and transparent audit trail is maintained. All updates are to be agreed by the Steering Group before being implemented (see Section 1.3.2).
- 10 It should be noted that this Terms of Reference document does not:
- 11 Create a legal relationship between any of the parties; nor
  - 12 Override legal and statutory obligations of the parties.
- 13 All parties reserve the right to change their/any position in response to a material change in the application (such as a design change) and/or publication of new scientific literature or evidence. However, the process will be entered into in good faith by all parties and as such it is the intention that all agreements made are upheld throughout the process (both pre- and post-application).
- 14 It should be noted that the Evidence Plan has no formal recognition for NSIPs in Wales and within the marine licensing regime. However, the applicant, NRW and PINS nevertheless agree that the Evidence Plan could be useful for this particular project.
- 15 NRW accordingly has two distinct and separate functions in respect of this NSIP and in respect of the Evidence Plan. It has a role as an advisory body, to advise the decision makers, and it also has a decision-making function in respect of the marine licence application

<sup>3</sup> The process should be entered into in good faith by all parties and as such it is the intention that all agreements made are upheld throughout the process (both pre- and post-application). It is understood that if, for example, significant new scientific research were published that contradicted the evidence supporting the EIA/HRA then parties may need to change their advice.

## 1.2 The Evidence Plan Process

- 14 The Evidence Plan process was initially developed by the Major Infrastructure Environment Unit (MIEU) of Defra to provide a formal mechanism to agree between Applicants and statutory bodies what information and evidence an Applicant for a NSIP within England or England and Wales, should submit in support of an application, with a specific focus on HRA matters. However, in practice the MIEU advises that the topic areas that may be covered by an Evidence Plan can be expanded, at the request of the Developer, to include broader EIA issues as well as HRA issues. Given that there is likely to be a degree of overlap between EIA and HRA, and that some of the potential issues encountered will be relevant to both, this Evidence Plan proposes to cover both HRA and EIA matters. Therefore, the principles of this Plan are proposed to be applied to wider EIA topics included within this Plan. The specific legislative requirements for both the HRA and EIA will be addressed as appropriate.
- 15 Initially it is proposed that there are two work streams as highlighted below, topics within the workstreams will be grouped as outlined in Section 2.1 and Figure 1:
  - ▲ Workstream 1 – covering all offshore and intertidal topics of interest to be assessed within the EIA and HRA, up to and including Mean High Water Springs (MHWS), and will extend to cover both the Welsh Territorial Waters and beyond; and
  - ▲ Workstream 2 – covering all topics of interest to onshore stakeholders landward of MHWS and some relevant offshore topics.
- 16 The structure of ETGs during the Plan will be agreed with stakeholders. It is noted that during the process the structure of the ETGs may change, such as groups may be separated out where necessary to facilitate more detailed discussion on a particular area.
- 17 The inclusion of all topics within the Plan is subject to receipt of the Scoping Opinion. The inclusion of some topics within the Plan may not be an efficient use of time. This will however be subject to discussion with all relevant interested parties and only scoped out with the agreement of the Steering Group. It is noted that the Scoping Opinion will advise on the scope of the EIA, not the scope of the HRA.
- 18 Following receipt of the Scoping Opinion, the Applicant may propose a list of topics to be scoped out of the Evidence Plan process. This will be presented to the Steering Group at the appropriate meeting and agreement sought from all attendees. This will be documented as a *corrigendum* to the agreed Terms of Reference.
- 19 The following EIA topics are not included within this Plan due to the commercial nature of assessments and consultation:
  - ▲ Aviation and Ministry of Defence Interests;

- ▲ Other Marine Users and Infrastructure; and
  - ▲ Commercial Fisheries.
- 20 If appropriate, the relevant key outcomes of these assessments (and consultation out with this Plan) can be shared with the Evidence Plan process.
- 21 The process will be fully documented; meeting minutes will be taken for each meeting by the Applicant (or their lead EIA consultant) and decisions clearly stated. The meeting minutes will aim to capture key areas of discussion, agreement and disagreement between the parties during the meeting and seek to provide a faithful record of the meeting. These will form relevant appendices to the Evidence Plan report (to be submitted with the DCO and ML Applications). Should the person attending the meeting not have authority to make such a decision, minutes should endeavour to be ratified by the relevant person or organisation within two weeks of receipt, unless otherwise agreed.
- 22 Relevant materials and position papers will be provided for parties for specific evidence approaches or issues, such as a proposed methodology, which detail the justification of the Applicant's position. These papers may be provided in advance of a meeting or the key principles of the papers will be presented in a meeting and the papers provided afterwards. These papers will be submitted to all relevant parties for written commentary and/or agreement. Where discussions are required regarding the materials then specific meetings (with the relevant parties) will be arranged by the Applicant.
- 23 A consultation log will be produced for each ETG to identify key areas of agreement or disagreement between the parties. The aim of these logs is to provide an aid to focus effort on those areas where there is uncertainty. Meeting minutes will be used as a basis to produce these logs. These logs will be used to inform the positions within the first draft of the Statements of Common Ground (SoCG) (post-application) as they will be representative of the parties' positions (pre-application) on all evidence-based aspects of the assessments and the wider project issues discussed. It should be noted that the log will inform the initial drafting of the SoCG but forms a record of pre-application consultation and positions only, i.e. the Evidence Plan log will not be updated post-application, unlike the SoCGs which may evolve through the DCO examination.
- 24 The Evidence Plan Process will be overseen by a Steering Group with Expert Topic Groups (ETGs) established (see Figure 1) to discuss and agree the evidence and assessment requirements for each EIA and HRA topic area identified.

## 1.3 The Steering Group

- 25 The Steering Group will monitor and oversee the Evidence Plan process ensuring progress. Any technical issues raised by the Steering Group will be documented and discussed at the Expert Topic Group meetings.

### 1.3.1 The Role of the Steering Group

26 The Steering Group's main function will be to oversee the development of this Plan and ensure continual progress of the Evidence Plan process. In addition, they will be required to:

- ▲ Oversee the resolution through discussion, led by (where feasible) an independent chair, of specific issues<sup>4</sup> and decisions that may arise during the development of this Plan and through the Expert Topic Group discussions (Section 2.1). Discussions will be recorded within the meeting minutes (and consultation log where appropriate) particularly where a consensus cannot be reached; and used to inform the development of the SoCG over time; and
- ▲ Ensure that discussions taking place within the individual Expert Topic Groups are consistent with the agreed approach for the EIA and HRA.

27 Decisions made by the Steering Group will be circulated to all participants in the Evidence Plan process.

### 1.3.2 The Steering Group members

28 The Applicant will nominate an appropriate body to Chair the Group, which can be agreed at the start of each meeting (with innogy managing on their behalf all administration arising). It is noted that the Chair does not have the casting vote in relation to any decisions voted on at meetings. The following organisations will be invited to form the Steering Group under the proposed roles and responsibilities:

- ▲ The Planning Inspectorate (PINS) and NRW Marine Licensing – as impartial bodies.
- ▲ innogy – the Applicant, (including the Senior Consent Manager and relevant technical specialists supporting the DCO/ML applications), together with input from their consultants, will draft the Plan and any technical documents required as part of the process;

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<sup>4</sup> It is acknowledged that the Steering Group requires the clear and systematic documentation of agreements and disagreements in order to aid resolution of issues.

- ▲ NRW’s advisory function (represented for example by the Case Manager) shall provide feedback, advice and its views as a statutory advisor to inform discussions under this Plan and support the aims of the Steering Group (as described in this Section 1.3.2) in relation to all aspects of the Plan. Communications will be shared by the attendee of the Steering Group meeting with those NRW colleagues that attend separate Expert Topic Groups, as outlined further in Section 1.3.2; and
  - ▲ Cadw (such as a Case Manager) will be invited to offer one representative to attend Steering Group meetings to represent both onshore and offshore aspects of the proposed development for DCO application topics relevant to the management of the historic environment. They would provide feedback, advice and views of this Plan, and support the aims of the Steering Group in relation to Archaeological aspects of the Plan.
  - ▲ The Local Planning Authorities (Denbighshire County Council and Conwy County Borough Council) will be invited to provide a Case Officer to attend the Steering Group meetings. Communications would be shared by the attendee of the Steering Group meeting with those colleagues that attend separate ETGs. The Local Planning Authorities will also be invited to provide feedback to the drafting and agreement of this Plan and support the aims of the Steering Group.
- 29 It is anticipated that in most cases one individual from each organisation shall attend the Steering Group meetings.

## JNCC

- 30 In the offshore area beyond Welsh Territorial Waters (12nm), JNCC continues to discharge its responsibilities as a statutory consultee while NRW acts as statutory consultee within Welsh Territorial Waters. This is distinct from the situation in Scotland and England, where JNCC’s statutory responsibilities as a consultee under relevant consenting legislation (Planning Act, s36, Marine Licence) have been delegated to Scottish Natural Heritage and Natural England. JNCC will therefore be contacted and invited to attend the ETG meetings. Where transboundary matters are under discussion, NRW will work with JNCC to provide coordinated advice as far as possible – see Section 3.4

### 1.3.3 Meeting frequency

- 31 The Steering Group will meet initially to agree this Evidence Plan and the process that will be followed going forward. Meeting frequency will be agreed by the Steering Group at the initial meeting. It is anticipated that Steering Group meetings would be held approximately twice a year and would align with key project milestones.

- 32 The Applicant will provide each panel member a Project “road map” which has been developed to outline logistics of meetings, specifically scheduling around key project milestones, possible locations and durations. The aim of the “road map” is to help interested parties plan and manage resources accordingly. This “road map” may be updated from time to time as the pre-application programme develops.

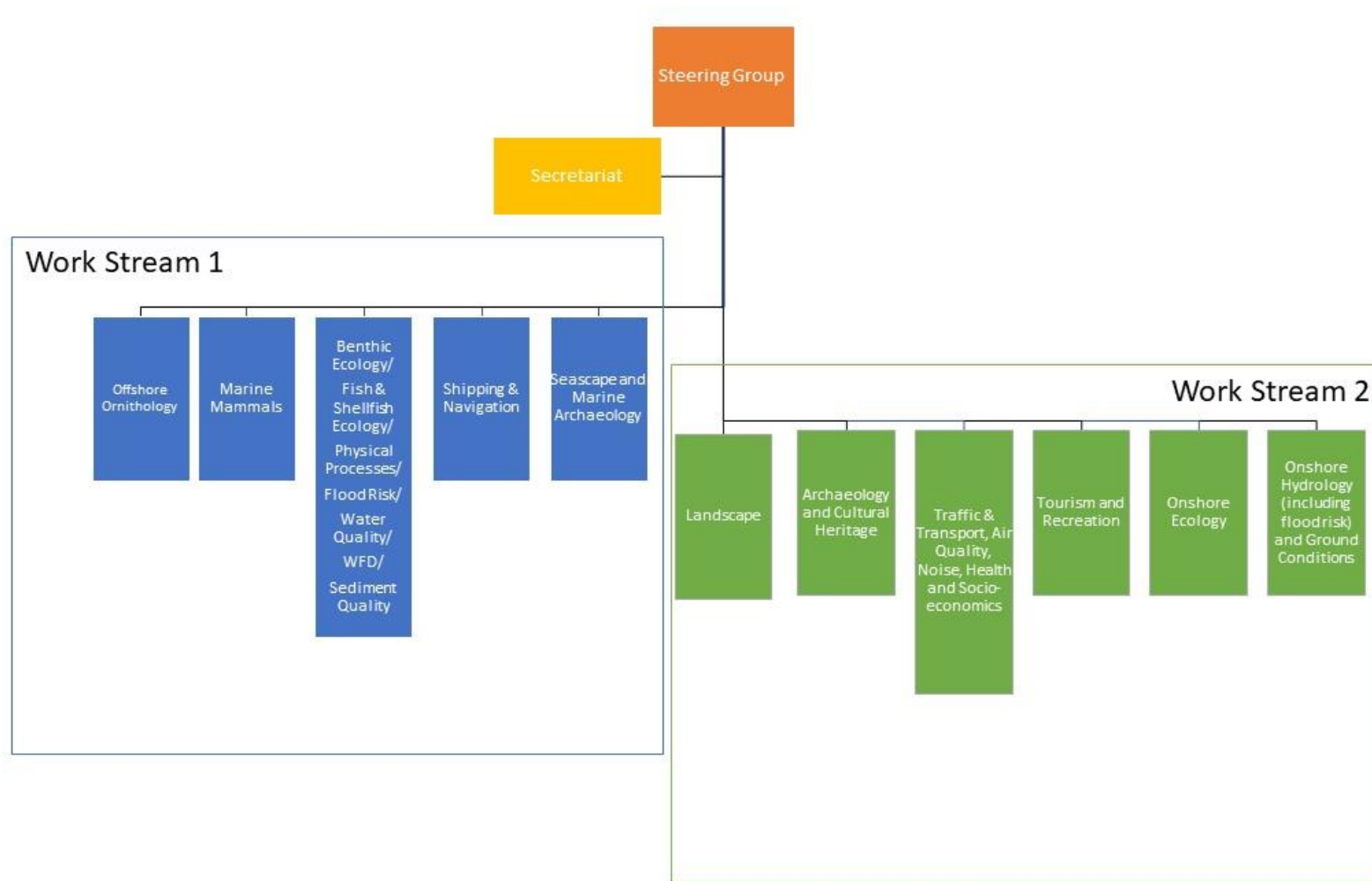


Figure 1 - The Evidence Plan structure



## 2 Scope of the Process

### 2.1 Expert Topic Groups

- 33 In order to agree and discuss the EIA and HRA evidence requirements included within this Plan, Expert Topic Groups (ETGs) will be established for each topic area with experts from relevant organisations. These have been grouped as outlined below and meetings will take place on consecutive days where achievable.

#### 2.1.1 Scope of the Expert Topic Groups

- 34 The ETGs will be formed of experts from relevant organisations relative to the topics considered as outlined below in Sections 2.1.2 and 2.1.3. They will have the following responsibilities:
- Agree methods for data collection (if not already agreed);
  - Discuss and agree the appropriateness and sufficiency of data for the assessments to be undertaken;
  - Agree realistic worst case parameters (applying a Rochdale Envelope) for assessment (where appropriate);
  - Discuss and agree the scope of the EIA/ HRA assessments through reference to the Scoping Opinion (and discussions held prior to the publication of the Applicant's Scoping Report);
  - Discuss and agree the assessment and analysis methods for both EIA and the Scope of the HRA, including agreement on appropriate thresholds, and agreeing terms for interpretation of impact and levels of significance;
  - Following assessment, discuss and agree any requirements for additional data. Any such discussions and agreements would be documented in this Plan; and
  - If significant issues are present following assessment, discuss and agree the mitigation or management requirements to reduce adverse effects.
- 35 It is recognised that this process can be iterative as the process develops, each topic group should follow the above process and agree as much as is reasonably practicable in the pre-application phase. Anything that cannot be agreed during pre-application will be documented in the consultation log (and within the Evidence Plan report) and subsequent SoCG for further discussion during the DCO examination.

- 36 Meetings will be undertaken as workshops to make the most efficient use of time. The proposed frequency of meetings is outlined within the “road maps” for each of the ETGs and will not be more frequent than required.
- 37 The facility to teleconference or video conference will also be provided for those not able to travel to meetings, however face-to-face meetings are encouraged.

## 2.1.2 Workstream 1

- 38 Subject to EIA Scoping, Workstream 1 will cover topics including but not limited to offshore nature conservation, marine processes and water quality, seascape, shipping and navigation and marine archaeology (seaward of MHWS) which are relevant to the HRA and EIA. The topics to be covered are those which have the potential to affect features relevant to or designated, including but not limited to the following legislation and policy:

- ▲ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the "Habitats Directive") as implemented by the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations");
- ▲ Council Directive 2009/147/EC on the Conservation of Wild Birds (the "Birds Directive");
- ▲ Offshore Marine Conservation (Natural Habitats & c.) Regulations 2007 (as amended);
- ▲ Conservation of Habitats and Species Regulations 2017;
- ▲ Marine and Coastal Access Act 2009;
- ▲ Protection of Wrecks Act 1973;
- ▲ Ancient Monuments and Archaeological Areas Act 1979;
- ▲ Historic Environment (Wales) Act 2016;
- ▲ Protection of Military Remains Act 1986;
- ▲ Wildlife and Countryside Act 1981; and
- ▲ National Policy Statements (EN-1, EN-3 and EN-5);
- ▲ Local Authority’s local plans and strategies;
- ▲ National Planning Policy Framework;
- ▲ MGN543 Guidance on UK Navigational Practice, Safety and Emergency Response Issue;

- ▲ Department of Energy and Climate Change (DECC), Methodology for Assessing Marine Navigational Safety Risks of Offshore Wind Farms;
- ▲ MGN 372 Guidance to Mariners Operating in the Vicinity of UK OREIs;
- ▲ International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA ASIM) O-139 the Marking of Man Made Offshore Structures;
- ▲ Water Framework Directive (2000/60/E);
- ▲ Ancient Monuments and Archaeological Areas Act 1979 (as amended by the National Heritage Acts 1983 and 2002);
- ▲ Planning (Listed Buildings and Conservation Areas) Act 1990; and
- ▲ The Protection of Military Remains Act 1986;
- ▲ The Infrastructure and Planning (Environmental Impact Assessment) Regulations 2017.

39 In consideration of the above, potential effects on the following will be considered by the ETGs including but not limited to:

- ▲ Special Protection Areas (SPA) and potential Special Protection Areas (pSPA) the bird features of interest. Rare and Vulnerable bird species as listed in Annex I of the Birds Directive will also be considered;
- ▲ Special Areas of Conservation (SAC), proposed and candidate Special Areas of Conservation (pSAC and cSAC) and Sites of Community Importance (SCI) as listed in Annex I of Habitats Directive;
- ▲ Welsh National Marine Plan<sup>5</sup> (inshore and offshore);
- ▲ Marine Conservation Zones;
- ▲ Areas of Outstanding Natural Beauty;
- ▲ Protected Species as listed in Annex II of the Habitats Directive;
- ▲ Protected wrecks and archaeological features;
- ▲ Areas of Outstanding Natural Beauty;
- ▲ Conservation areas and historical listings (where appropriate);

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<sup>5</sup> <https://gov.wales/welsh-national-marine-plan-document>

- ▲ Territorial Sea Act 1987 (up to 12 nm offshore);
- ▲ Traffic Separation Schemes;
- ▲ IMO Shipping Lanes;
- ▲ Water bodies and features protected under the WFD;
- ▲ Protected Species and Habitats listed under OSPAR Section 7 of The Environment (Wales) Act 2016;
- ▲ Conservation areas and historical listings (where appropriate);
- ▲ Protected wrecks and archaeological features; ;
- ▲ Water bodies and features protected under the WFD; and
- ▲ Indirect effects to designated features.

40 The Applicant intends to use the Evidence Plan process to agree the scope and assessment for both EIA and HRA purposes as it is acknowledged that there is much overlap in the evidence requirements for the two assessments and the key principles to be agreed are applicable to both EIA and HRA (e.g. cumulative impact assessment principles). Evidence will be collected to support EIA and HRA assessments in the following topic areas and the key stakeholders invited to form the ETGs are listed. Roles and responsibilities of participants is outlined in Section 2.2.4 below:

- ▲ Offshore ornithology:
  - NRW;
  - Natural England<sup>6</sup>;
  - RSPB;
  - The Wildlife Trusts (including North Wales Wildlife Trust); and
  - JNCC (subject to confirmation).
- ▲ Marine mammals:
  - NRW;
  - Natural England<sup>6</sup>;

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<sup>6</sup> To be reviewed on a case by case basis (including the nature of the technical issue being discussed and legal obligations).

- The Wildlife Trusts (including North Wales Wildlife Trust);
- Whale and Dolphin Conservation (WDC); and
- JNCC (subject to confirmation).

▲ Shipping and navigation:

- Maritime and Coastguard Agency;
- Trinity House;
- Chamber of Shipping;
- Royal Yachting Association;
- Port of Mostyn;
- Peel Ports;
- National Federation of Fishermen's Organisations;
- Cruising Association;
- British Marine Aggregate Producers Association;
- Commercial ferry operators; and
- Other harbour authorities as appropriate

▲ Seascape and marine archaeology:

- NRW;
- Cadw;
- National Trust;
- RCAHMW;
- LPA AONB teams (Anglesey, Clwydian Range & Dee Valley, Llŷn and any other relevant authority);
- Clwyd-Powys Archaeological Trust;
- Coastal LPAs<sup>7</sup>; and

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<sup>7</sup> Within the zone of theoretical visibility.

- Relevant LPAs (England & Wales, based on the ZTV).
- ▲ Benthic Ecology/Fish & Shellfish Ecology/Physical Processes/ Water Quality/WFD/Sediment Quality:
  - NRW;
  - Natural England<sup>6</sup>;
  - The Wildlife Trusts (including North Wales Wildlife Trust);
  - JNCC (subject to confirmation);
  - Statutory harbour authorities (to be included as necessary to discuss matters such as physical processes); and
  - Local Authorities.

### 2.1.3 Workstream 2

- 41 Subject to Scoping, Workstream 2 will cover all onshore topics (above MHWS) to be covered in the EIA and HRA and for some ETGs these will consider offshore topics (below MHWS). It is being included here in its entirety until a Scoping Opinion has been received, after which some areas may be scoped out or topics removed from future revisions of this Plan with agreement from participants and the Steering Group.
- 42 The proposed topics to be covered are those which have the potential to affect features (and any additional receptors/ effects agreed through discussion in meetings) relevant to or designated under the following legislation, policy and guidance including but not limited to:
  - ▲ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the "Habitats Directive") as implemented by the Conservation of Habitats and Species Regulations 2017 (the "Habitats Regulations");
  - ▲ Council Directive 2009/147/EC on the Conservation of Wild Birds (the "Birds Directive");
  - ▲ Wildlife and Countryside Act 1981;
  - ▲ Protection of Badgers Act 1992;
  - ▲ Countryside and Rights of Way Act 2000;
  - ▲ National Parks and Access to the Countryside Act 1949;

- ▲ The Environment (Wales) Act 2016;
  - ▲ National landscape Character Areas defined by NRW and Local Authorities;
  - ▲ Landscape Institute (2017). Visual Representation of Development Proposals;
  - ▲ The Landscape Institute with the Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3). Routledge;
  - ▲ Water Framework Directive (2000/60/E);
  - ▲ Groundwater Directive (80/68/EEC);
  - ▲ Directive on the Protection of Groundwater Against Pollution and Deterioration (2006/118/EC);
  - ▲ The National Planning Policy Framework (NPPF) (March 2012);
  - ▲ National Policy Statements (EN-1, EN-3 and EN-5);
  - ▲ The Hedgerow Regulations 1997;
  - ▲ Directive on the Protection of Groundwater Against Pollution and Deterioration (2006/118/EC);
  - ▲ Ancient Monuments and Archaeological Areas Act 1979 (as amended by the National Heritage Acts 1983 and 2002);
  - ▲ The Protection of Military Remains Act 1986;
  - ▲ Historic Environment (Wales) Act 2016; and
  - ▲ Planning (Listed Buildings and Conservation Areas Act) 1990.
  - ▲ The Infrastructure and Planning (Environmental Impact Assessment) Regulations 2017.
- 43 The Plan will also consider the requirements of relevant National Policy Statements (NPS), Planning Policy Wales<sup>8</sup> and National Planning Policy Frameworks (NPPF), Marine Plans and Marine Policy Statements (MPS) as appropriate.
- 44 Evidence will be collected to support EIA and HRA assessments in the following topic areas and the key stakeholders invited to form the ETGs are listed:
- ▲ Onshore Ecology:

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<sup>8</sup> 10<sup>th</sup> Edition, December 2017

- NRW;
- North Wales Wildlife Trust;
- RSPB;
- Local Authority Ecologist(s); and
- Natural England<sup>6</sup>.

▲ Onshore Hydrology (including flood risk) and Ground Conditions:

- NRW;
- Natural England<sup>6</sup>;
- Environment Agency; and
- Local Authorities.

▲ Landscape:

- NRW;
- Cadw;
- National Trust;
- LPA AONB teams (Anglesey, Clwydian Range & Dee Valley, Llŷn and any other relevant authority); and
- Relevant LPAs (England & Wales, based on the ZTV).

▲ Onshore Archaeology and Cultural Heritage<sup>9</sup>

- Cadw;
- National Trust;
- Local Authority Archaeological Advisors<sup>10</sup>;
- Clwyd-Powys Archaeological Trust; and
- RCAHMW.

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<sup>9</sup> This ETG will also consider the potential impacts on the setting of onshore archaeology and cultural heritage from the offshore aspects of the development, such as the presence of WTGs.

<sup>10</sup> These roles are performed by the Gwynedd Archaeological Planning Service (for Anglesey, Conwy, Gwynedd, and the Snowdonia) and the Clwyd- Powys Archaeological Trust (for Conwy, Denbighshire and Flintshire).



- ▲ Traffic & Transport, Air Quality, Noise, Health and Socio Economics:
  - Welsh Government;
  - Local Authority (Environmental Health Officer);
  - Public Health Wales; and
  - North and Mid Wales Trunk Road Agent (NMWTRA).
- ▲ Tourism and Recreation:
  - Local Authority officers representing interests such as recreation and Green Space officers etc.

45 Where there is overlap between topic areas these will be combined for ETG meetings/workshops to allow efficient use of time and allows participants to contribute to overlapping topic areas.

## 2.2 Working Arrangements

### 2.2.1 Project Description

- 46 The Project is a proposed extension to the operational Gwynt y Môr Offshore Wind Farm (OWF). The Gwynt y Môr OWF consists of 160 wind turbine generators (WTGs) and supplies approximately 500,000 households annually.
- 47 Early feasibility for Awel y Môr OWF is underway at the time of writing and therefore some project details are yet to be confirmed. The Project is expected to consist of up to 107 WTGs. The largest capacity WTG being considered at this early stage is +22 MWs. The WTGs will be situated to the west of the operational Gwynt y Môr OWF, as shown in Figure 2.
- 48 The Applicant proposes to use inter-array cables to connect the turbines and to export the power to shore, therefore it is expected that there would be up to two export cables, and up to two offshore substation platforms.
- 49 The closest part of the array is 10 km at its closest point to shore. The initial area of search for the export cabling, both onshore and offshore, is presented in Figure 2. It is anticipated that a grid connection will be made at Bodelwyddan in Denbighshire and as such export cables will be installed (underground) between the landfall and the grid connection.

- 50 There are currently several options being explored for the landfall and onshore cable route, the landing point is therefore to be determined. A Site Selection Study is currently being undertaken to identify the preferred cable route. A Scoping Request is expected to be submitted to PINS in Q2 2020, which will seek feedback on the area of search presented.

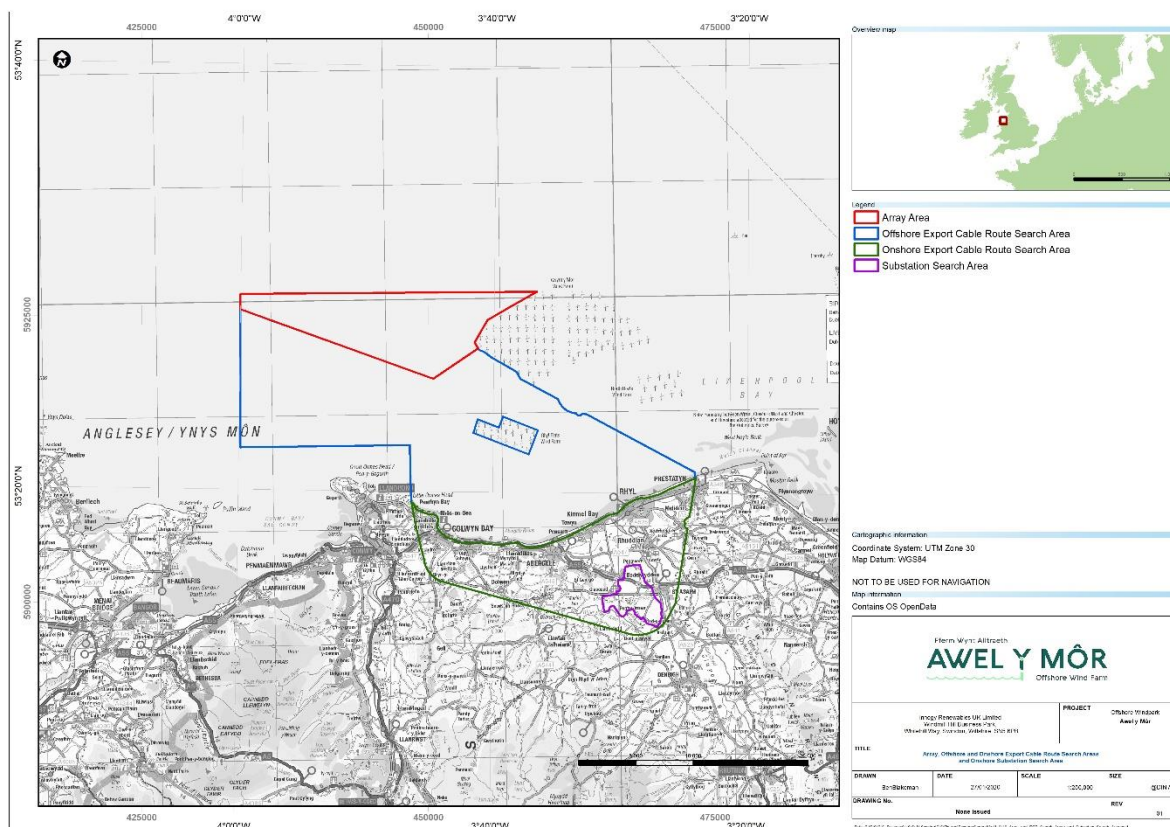


Figure 2 – Geographical overview of scoping boundary for Awel y Môr OWF

## 2.2.2 Project Timeline

51 Key project dates are presented in Table 1 below. Please note that these dates are correct at the time of writing but are subject to change.

Table 1 – Key milestones for the project

Milestone	Date
Informal consultation (prior to submission of Scoping Report)	2019 to Q1 2020
Scoping Report Submission	Q2 2020
Preliminary Environmental Information Report (PEIR) Submission	Q3/Q4 2021
DCO Application Submission	Q2/Q3 2022

## 2.2.3 Evidence Plan Timetable

52 The key dates for the Evidence Plan, based on trying to achieve the principal project dates presented below:

- ▲ An initial meeting to discuss Steering Group aims and objectives and agree outline Evidence Plan will be held (date to be confirmed at the time of writing);
- ▲ Key ETG workshops include:
  - Initial meetings were held with ETGs (November 2019 to January 2020) to discuss the Scoping Report, survey scopes of any proposed surveys (surveys already being undertaken are being discussed with the relevant authorities at the time of writing), scope of HRA/EIA, including assessment methodology. These meetings were intended to help stakeholders form their opinions by providing a detailed overview of the content of the scoping document and providing an opportunity to discuss any initial concerns. It should be noted that formal consultation on the Scoping Report will be carried out by PINS, following submission of the Scoping Report and all responses are to be sent to them directly;
  - Meetings to discuss site selection, more detailed assessment methodologies (as necessary), results of initial assessments and need for additional evidence or mitigation prior to PEIR publication – Q2 2020 to Q4 2021. There should be sufficient data available to have a meaningful discussion regarding assessment outcomes;

- Post-PEIR meeting to discuss the consultation responses received as part of formal consultation – Q4 2021. The purpose will be to discuss concerns raised and changes/updates to assessments required for final submission; and
- Final pre-application meeting to discuss any significant changes following PEIR consultation and what will be presented in the Final ES – Q1/2 2022.

- 53 Where possible and appropriate, the meetings listed above would be run as workshops, with separate meeting appointments per ETG, with all topics covered over a day. This will make the most efficient use of time as many interested parties are required to input to more than one topic area. Workstream 1 and 2 discussions will typically be held separately.
- 54 Further interim meetings may be required with specific ETGs in-between the key meetings outlined above, for instance, where there are specific topics of concern. The requirement and timing of these meetings will be determined (and agreed) at the initial ETG meeting and throughout the process.
- 55 If consultation is required with a specific interested party (e.g. if they raise a specific area of concern) *ad hoc* meetings can be scheduled, however it is preferred that no decisions (under the remit of this Plan) should be taken without being openly discussed with the relevant members of the ETG. However, where this is the case, the minutes will be made available to other ETG members on request, unless they are of a sensitive or commercial nature. Separate stakeholder meetings should be avoided wherever possible in order to make the best use of time available and ensure an efficient process. All items of discussions from bi-lateral consultation will be included within the consultation report (submitted with the DCO application) as opposed in the Evidence Plan report.
- 56 A final meeting may be required to complete and agree the consultation log for incorporation within the Evidence Plan Report and SoCG.

## 2.2.4 Roles and Responsibilities

- 57 An impartial Chair to the Evidence Plan process is fundamental for ensuring progress and driving the process to a successful conclusion. This Chair is yet to be appointed at the time of writing, and could be agreed at each meeting (see paragraph 26). The main responsibilities of the Chair will include:
- ▲ Attendance at Steering Group meetings (sufficient notice will be provided);
  - ▲ Review material provided prior to the meetings;
  - ▲ Chair the meeting, including open and close of the meeting and run the agenda according to the allotted times;

- ▲ Ensure good order is maintained at the meetings, including fairness and equality;
- ▲ Ensure all discussions points and conclusions are understood by all parties;
- ▲ Provide a summary of main points of agreement and disagreement and action points;
- ▲ Ensure progress by prompting and discussing outstanding actions; and
- ▲ Review the meeting minutes ensuring they accurately reflect the discussions and actions.

## The Planning Inspectorate

58 The main responsibilities of PINS will include:

- ▲ Attendance<sup>11</sup> at Steering Group meetings;
- ▲ Review material provided prior to the meetings; and
- ▲ Review the meeting minutes ensuring they accurately reflect the discussions and actions.

59 PINS will publish a note of the meeting on its webpage, which has been agreed by the Steering Group prior to publication, the note will be limited to the following information: attendees, location of meeting, high-level agenda items, and a summary of any section 51 advice given. No summary of the discussions or comments made should be included.

60 If Section 51 advice<sup>12</sup> is requested, this should be provided during the meeting wherever possible, and a summary provided in the notes. If the advice is not able to be provided at the meeting due to the complexity of the request. PINS should seek to provide this within a reasonable timeframe.

61 The Chair will not be expected to make the arrangements for the meetings or take the minutes of the meetings, these responsibilities lie with the Applicant. The Applicant will also be responsible for providing the required pre-meeting documentation and circulating this within the agreed timescales (one week) prior to the meeting.

62 The Chair will not be expected to participate in the ETG meetings.

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<sup>11</sup> This is likely to be via remote access.

<sup>12</sup> There is a statutory duty under section 51 of the Planning Act 2008 to record the advice that is given [by PINS] in relation to an application or a potential application and to make this publicly available.

- 63 The Chair will also not act as arbiter or decision maker for any issues arising; The Chair will act completely independently.

## The Applicant

- 64 The Applicant (or their lead EIA consultant) will provide the Secretariat (see Figure 1) for the process, undertaking the organisation of all Steering Group and ETG meetings and all secretarial duties at these meetings, providing agendas, minutes (for circulation and approval by other parties that they are a faithful representation of the meeting) and leading the discussions.
- 65 In addition to all secretarial duties, the Applicant (or their lead EIA consultant) will also provide all required evidence and documentation to facilitate discussions including the Evidence Plan itself and all other technical documents prior to meetings.
- 66 Documentation required to be discussed at meetings will be provided in a timely manner for circulation to all parties. All documentation provided under the Plan will be included as appendices to the Evidence Plan report.

## Local Authorities

- 67 The Local Authorities, if required to sit on the Steering Group, will also be required to review and assess the evidence provided by the Applicant and provide advice on the evidence requirements and evidence provided, ensuring at all times consistency of advice and in accordance with paragraph 8 (above). They will also be required to work to resolve any issues in the pre-application phase and enter into a SoCG with the Applicant.
- 68 The Local Authority will provide any relevant public domain information which may be relevant to the DCO application. They will be required to take part in the ETGs as outlined in Section 2.1.3.

## NRW in its advisory capacity

- 69 In addition to a role on the Steering Group, NRW will be involved in those ETGs outlined in Sections 2.1.2 and 2.1.3. NRW will endeavour to:
- ▲ Ensure that all materials provided in advance of the meetings have been reviewed by the case officer and technical experts (where appropriate);
  - ▲ Assess and evaluate evidence provided by the Applicant at agreed regular reviews, giving feedback on progress in accordance with Section 2.2.3 above;
  - ▲ Wherever it is considered appropriate, propose changes to the evidence requirements which are proportionate and based on findings of the evidence assessed;

- ▲ Ensure that the representative(s) on the Steering Group or ETG have the authority and technical expertise to ensure that any position formally agreed in writing within the plan process is NRW Advisory's position and not the advice of the officer only. This may require that meeting minutes are ratified following the meeting and within two weeks of the meeting (unless an alternative timeframe is agreed);
- ▲ Engage with the Applicant at the start of pre-application to discuss the Project's possible environmental impacts with a focus on potential likely impacts on EIA and HRA topics as listed in Section 2.1;
- ▲ Assess and review evidence provided by the Applicant at agreed regular reviews, giving written feedback on timescales agreed within the ETGs;
- ▲ Provide any requested relevant public domain information (e.g. conservation objectives, monitoring reports, site condition assessment data; grey literature) which they hold to inform the assessment;
- ▲ Review evidence requirements and propose changes, when applicable, which are proportionate. Clear rationale for any evidence changes will be required;
- ▲ As far as possible ensure consistency of approach to advice between this Project and other NSIPs;
- ▲ Provide advice to the applicant on evidence requirements. As far as it is possible, it is anticipated that evidence requirements will only change in line with the rules set out in paragraph 8, above, for example following:

  - The assessment of evidence provided by the applicant identifying new areas of concern;
  - Relevant evidence, information or research coming to light that would have an impact on what information is required;
  - New legislative requirements affecting the information required to inform DCO and ML applications;
  - Proposed changes to the evidence requirements which are proportionate and based on findings of the evidence assessed; and/ or
  - A material change to the NSIP proposal that is likely to change the potential impacts and therefore the evidence requirements to address these.



- ▲ Work with the Applicant to resolve as many issues as possible during pre-application, to agreed timescales unless otherwise agreed including through the Statement(s) of Common Ground. Consultation and timescales/deadlines should be agreed within ETGs or the Steering Group.

## Cadw

- 70 Cadw will participate in the ETGs as outlined herein. Cadw will be required to provide input to both Workstream 1 & 2 for matters of Archaeology and Cultural Heritage, Historic Landscapes and World Heritage Sites". Cadw would also have the same responsibilities as NRW above for offshore matters.
- 71 They will engage with the Applicant in the early pre-application phase to discuss potential environmental impacts (positive and negative) relating to risk to the known and unknown historic environment as described by the UK Marine Policy Statement and relevant National Policy Statements.
- 72 Cadw will be required to review, assess and provide written feedback on the documents and evidence provided ensuring consistency of advice and in accordance with this document and on request can provide any public domain data that they hold, relevant to this application.
- 73 Cadw will endeavour to work to resolve any issues in the pre-application phase and may enter a SoCG with the Applicant.

## Role of the other offshore Authorities

- 74 The MCA and THLS will provide advice (including topics such as qualitative assessments and knowledge) and will endeavour to attend the relevant ETGs.
- 75 The Environment Agency and Natural England will provide input on a case by case basis (including the nature of the technical issue being discussed and legal obligations).

## Role of the other Onshore Authorities

- 76 Other authorities could be included within the process as deemed necessary.

## Role of NGOs

- 77 It is acknowledged that NGOs can provide valuable input into the EIA and HRA process and the Applicant recognises the benefit of early engagement, in accordance with best practice, NGOs will be invited to take part in the Evidence Plan process ETGs.

- 78 NGOs will be provided with the same documentation as other interested parties and will be advised of the Evidence Plan process schedule, including deadlines for feedback<sup>13</sup>.
- 79 If an NGO indicates they are not able to participate in the Evidence Plan process, the Applicant will provide relevant updates to the NGO as required.

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<sup>13</sup> However, should feedback be received outside of these deadlines the Applicant will endeavour to incorporate it into the EIA wherever possible.

## 3 The Process

### 3.1 General Principle

80 This Evidence Plan process will abide by the following general rules:

- ▲ Meetings will always be scheduled with adequate advance warning to allow attendance. Where possible the date for the next meeting will be agreed at the end of each meeting;
- ▲ All documents which require technical review by parties prior to a meeting (e.g. position papers) will be available no less than two weeks prior to the meeting;
- ▲ All documents, guidance and advice provided should be as comprehensive as possible and be presented in a clear and unambiguous form;
- ▲ Deadlines for responses will be realistic and agreed by and with participants. It is noted that some participants may require longer to respond if they need to consult with advisors, where this is the case, deadlines should be met, or alternative timescales agreed;
- ▲ Participants of meetings are expected to be fully prepared for meetings, having read the required information, in order to facilitate an efficient meeting;
- ▲ Participants of the meeting are expected to be able to provide advice on behalf of their respective organisation within the meetings within their remits; and
- ▲ Clear routes of communication should be established with the Applicant and other plan participants.

### 3.2 Principles of the Assessment Approach

81 Detailed method statements for the analysis and assessment of specific topics covered within this Plan will be agreed as part of the process. However, this Plan also sets out the high level principles that are applicable to all topics, these are detailed in the sections below.

#### 3.2.1 Characterisation data

82 It should be noted that this Plan has been developed to agree the data and evidence requirements for the purposes of the HRA and EIA, with the prime function of characterisation of the site. The collection of detailed baseline data for post construction compliance monitoring will be subject to further discussion post consent.

- 83 The Applicant is required to provide sufficient data, as may reasonably be required, to undertake the assessments within the HRA and EIA. The data should be sufficient for the purpose of undertaking an EIA and HRA, i.e. to enable the assessment of impacts on receptors at site specific level, and also the wider environment in order to quantify impacts.
- 84 Data requirements (length of sampling regime and spatial extent etc.) may be agreed, if not already agreed via consultation prior to the Evidence Plan process being established. In considering requests for additional data/evidence, this will be assessed in the context of the benefit to the overall assessment i.e. would additional data change the likely outcome of the assessment.

### 3.2.2 Data Analysis and Impact Assessment

- 85 The detailed method statements to be agreed within the ETGs include but are not limited to the following areas. Separate method statements will be agreed for each topic.
- ▲ Study Areas (spatial and temporal);
  - ▲ Definition of terminology (magnitude, sensitivity, uncertainty);
  - ▲ Reference populations;
  - ▲ Assessment methodologies, analysis techniques including statistical analysis tools or models to be used;
  - ▲ Approach to Screening of sites for HRA (in and out);
  - ▲ Sites with the potential for LSE and no LSE; and
  - ▲ Apportionment of impacts to designated sites.
- 86 Additional items may be covered in addition to the primary aim<sup>14</sup> such as the requirements (if any) for project specific monitoring and/ or mitigation, and any key issues which arise through technical discussion.

### 3.2.3 Project Data

- 87 PINS will publish a high level summary of the Steering Group meetings on its website.
- 88 It is acknowledged that statements by participants may not reflect statutory advice on the application or a final position, unless otherwise indicated.

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<sup>14</sup> to seek consensus between all parties on the amount and range of evidence required to be collected to inform the assessments.

- 89 Any information of a confidential nature will be treated accordingly by all parties, subject to legal duties of disclosure and GDPR requirements.

### 3.3 Cumulative & In-combination impact assessment principles

- 90 The requirements for Cumulative Impact Assessment (CIA) within the EIA and the in-combination assessment within the HRA, will be provided by regulators and advisors (e.g. NRW) to ensure, as far as possible and where circumstances permit, that there is a consistent approach between this project and other developments.
- 91 The Applicant will ensure that the basis for assessment of impacts is transparent and clearly documented. In addition, the Applicant will clearly document the list of plans and projects that are scoped in and out of the CIA with appropriate justification, it is noted that this will be an iterative process up to the assessment "cut-off" point detailed in Section 3.5.
- 92 All assessments need to be underpinned by evidence. Inclusion of relevant projects will be agreed by the ETGs (through the provision of the long and short lists of projects for review) and based on relevant guidance at the time of application such as PINS Guidance notes 10<sup>15</sup> and 17<sup>16</sup>. In such cases justification would be provided as to the exclusion of certain projects.
- 93 Spatial and temporal boundaries should be appropriate, taking into consideration individual receptors and project specific parameters.

### 3.4 Transboundary

- 94 Transboundary stakeholders will be consulted according to best practice, current guidance and relevant legislation. This consultation will be undertaken outside of the Evidence Plan.
- 95 It is considered likely that assessment of transboundary impacts will be scoped out of this Evidence Plan for the majority of the EIA topics, due to the size and location of the development. The scope of consideration of transboundary impacts will be confirmed in the Scoping Opinion. However where required, the assessment of transboundary impacts, plans or projects will be undertaken in line with best practice, relevant legislation and in accordance with PINS' and NRW Marine Licensing Team advice. This will broadly be in the same manner as the assessment of UK based plans/projects and will follow the process described in Section 3.3.

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<sup>15</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/06/Advice-note-10v4.pdf>

<sup>16</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/12/Advice-note-17V4.pdf>

## 3.5 Assessment 'cut-off' point

- 96 It is the Applicant's view that it is reasonable to have a cut-off point within the assessment process, after which no more plans or projects, additional evidence or revised methodologies will be included within the assessment. This is to enable the assessments to be finalised for submission. The Applicant proposes that a reasonable cut-off point would be the close of the section 42 consultation following receipt of comments on the Preliminary Environmental Information Report (PEIR), unless new information is presented subsequent to this that would significantly change the outcome of the assessment (e.g. a new designation). This point is proposed so that the PEIR forms a draft ES with the key aspects of the assessment finalised to enable parties to provide consultation responses which focus on the findings of the assessments. This will be discussed within the relevant ETGs and the Steering Group.
- 97 It is acknowledged that further information and assessment may be requested by the Examining Authority during the Examination in accordance with PINS Advice Notes, such as Advice note 17: Cumulative Effects Assessment<sup>17</sup>.

## 3.6 Review of previous decisions and suggested changes within the Plan Process

- 98 In order that progress is made, agreements (as recorded in the logs) made during the Evidence Plan process will only be revisited under certain circumstances as outlined below, this will also inform the assessment cut-off point:
- ▲ The Project design is significantly changed e.g. the Project boundary or the infrastructure to be installed changes the worst-case parameters agreed;
  - ▲ Errors in the data or analysis are detected requiring re-assessment;
  - ▲ Considerable new evidence is produced and there is general consensus this should be incorporated and is likely to change the outcome of the original assessment; or
  - ▲ Changes can be agreed where they do not affect the overall Project timescales for submission.

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<sup>17</sup><https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/12/Advice-note-17V4.pdf>

## 3.7 Approach to mitigation

- 99 Where significant impacts in EIA terms are anticipated, mitigation is likely to be suggested and will be discussed through the Evidence Plan process. It is anticipated that mitigation measures may subsequently form a Requirement within the DCO, and Marine Licence (ML).
- 100 Mitigation measures must therefore be feasible from an engineering and cost perspective. They should be suitable, deliverable, effective, sufficient, proven and proportionate to the level of identified impact. The requirement for mitigation should be flexible to allow the mitigation to be informed and developed based on best available scientific understanding and knowledge, noting that different mitigation could be applied at different phases of the Project.

## 3.8 Approach to monitoring

- 101 In addition to mitigation, there are likely to be potential monitoring requirements discussed through the Evidence Plan process and secured via DCO Requirements and Marine Licence Conditions. Future monitoring requirements should be sufficiently flexible and be informed and developed on the basis of best scientific understanding and knowledge. Monitoring requirements should be appropriate and proportionate for the different phases of the project.

## 3.9 Meeting Minutes & Consultation Log

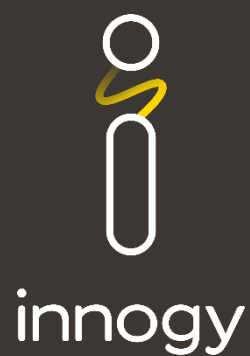
- 102 Meeting minutes will be taken for each meeting or workshop held during the Evidence Plan process, and these will be circulated following the meeting. Agreement of the minutes (or comments on them) provided within two weeks of receipt. If the minutes include agreements made during the meeting these should be ratified at the appropriate level within each organisation<sup>18</sup> so that they represent a formal position.
- 103 In addition, a consultation log will be developed for each ETG to document areas of agreement and disagreement, this will be updated as the Evidence Plan process progresses. The consultation log will be used as a basis for the SoCG with each organisation, enabling a clear audit trail of discussions and decision making and should negate the need for reiteration of previous discussion.

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<sup>18</sup> It is the participant's obligation to indicate in the meeting/ workshop where a decision/ opinion may not be ratified at an organisation level.

104 This document outlines an iterative process and will therefore be updated as the process progresses. If updates are required to this document they will be made as an addendum, thereby maintaining a clear and transparent audit trail. The Terms of Reference, as outlined in this document, will be agreed by all members of the Plan.





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## 1.2 Appendix A2: Evidence Plan Engagement Plan

## AyM Evidence Plan - Engagement Plan and ACTION LOG

[illegible]

AyM Evidence Plan - Engagement Plan and ACTION LOG

[illegible]

## ETG 1 - Shipping and Navigation

[illegible]

## ETG 2 - Offshore Ornithology

[illegible]

## ETG 3 - Marine Mammals

[illegible]

## ETG 4 - Marine Ecology

[illegible]



## ETG 5 - Onshore Ecology

[illegible]

## ETG 6 - Hydrology and Flood Risk

[illegible]

## ETG 6 - Hydrology and Flood Risk

[illegible]

ETG 7 - SLVIA

Meeting date	Action number	Action	Who?	Due Date	Open/closed	Complete date
01/10/2020	1	Consult specifically with Denbighshire and Flintshire on scope of SLVIA in relation to landscape character effects.	LT/GoBe	1 month		
	2	Look at wirelines in more detail and visit locations in Clwydian Range and Dee Valley AONB before providing feedback on scoping out of effects on landscape character east of Conwy. LT agreed that viewpoint assessment for this AONB would consider effects on visual receptors and how this might affect perceptions of the area's special qualities. RS agrees the assessment of impacts upon character areas is not required for the CR&DV AONB	RS	1-2 weeks	closed	18/11/2020
	3	Print wirelines and send to stakeholders	LT/GoBe		closed	18/11/2020
	4	Develop a tabulated list of LCAs to be scoped-in/out in each local authority, and Snowdonia National Park, with justification	LT	25/11/2020		
	5	CT to ask Robin Sandham to respond regarding landscape assessment of Conwy.	CT	26/11/2020		
	6	CT to find out about issuing shapefiles of LCAs to RWE/consultants.	CT	26/11/2020		
	7	LT to check which LCA shapefiles OPEN has received and request any still required.	LT	26/11/2020		
	8	EH to feed back on GIS data requests.	EH	26/11/2020		
	9	Check status of Snowdonia National Park management plan and follow-up.	SR			
	10	Follow-up on viewpoints 41, 5, 16,	EH	26/11/2020		
	11	Check whether a wireline is sufficient to inform assessment at VP8 with VP44 as alternative.	LT	27/11/2020		
	12	Follow-up on VP49 once site images are available.	NM	28/11/2020		
	13	Have discussion on consolidating VP37 & 47 and feed back.	RS, EH, JE, NM	26/11/2020		
	14	Provide timetable of follow-up meetings and a planned list of document submissions for archaeology and cultural heritage.	AB/GoBe	26/11/2020		
	15	Review VP table and provide agreement/comments.	All	26/11/2020		
	16	Post meeting request – OP-EN have checked what shapefiles we have received for the LCAs we discussed for each of the LPAs and Snowdonia National Park and Seascope Area boundaries for Anglesey as we do not have any of them. We would be grateful if the LPSs and NRW could arrange for us to receive these, where available	LPSs/NRW	26/11/2020	closed	18/11/2020

ETG 7 - SLVIA

	17	Provide timetable of follow-up meetings and a planned list of document submissions and site selection engagement for SLVIA	OP-EN /RWE/GoBe	26/11/2020		

## ETG 8 0 Archaeology and Cultural Heritage

[illegible]

## ETG 9 - Human Environment

[illegible]

## 2 Appendix B: Agreements Logs

### 2.1 Appendix B1: Shipping and Navigation Agreements Log



RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
MCA & THLS	It was agreed that an ETG should be formed to discuss (and seek to reach agreement on) the basis of the assessments including data, evidence, methodology and any other aspects relevant to the EIA process.	N/A	N/A	19/11/2019 - Initial Shipping and Navigation Meeting 26/02/2020 - Second meeting with MCA & THLS	N/A	N/A
MCA & THLS	It was agreed by all that Awel y Môr area is considered relatively quiet for shipping, with similar levels of traffic during summer and winter (reduced recreational vessels in winter).	N/A	N/A	19/11/2019 - Initial Shipping and Navigation Meeting	N/A	N/A
MCA & THLS	It was agreed that access to Mostyn Port should be an important consideration within the S&N assessments.	N/A	N/A	19/11/2019 - Initial Shipping and Navigation Meeting	N/A	N/A
MCA & THLS	It was agreed that Anatec's data sources to inform the Scoping Report are sufficient for scoping.	N/A	N/A	19/11/2019 - Initial Shipping and Navigation Meeting	N/A	N/A
MCA & THLS	Agreed by all that no items will be scoped out from the EIA (or NRA).	N/A	N/A	19/11/2019 - Initial Shipping and Navigation Meeting	N/A	N/A
MCA & THLS	it was agreed by all that any relevant pipelines and cables should be considered cumulatively with the project in the EIA.	N/A	N/A	19/11/2019 - Initial Shipping and Navigation Meeting	N/A	N/A
MCA & THLS	It was agreed that proposed new terminal at Birkenhead and Raynes Jetty should be considered for inclusion in the cumulative assessment	N/A	N/A	19/11/2019 - Initial Shipping and Navigation Meeting	N/A	N/A
Cruising association	post scoping liaison meeting agreeing next steps and proposed approach to consultation and onward liaison	N/A	N/A	AYM_ETG-1(CA)_minutes_011020.docx	N/A	N/A
Chamber of shipping	post scoping liaison meeting agreeing next steps and proposed approach to consultation and onward liaison	N/A	N/A	AYM_ETG1(CoS)_minutes_280920.docx	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
Dee Conservance	post scoping liaison meeting agreeing next steps and proposed approach to consultation and onward liaison	N/A	N/A	AYM_ETG-1(DC)_minutes_011020.docx	N/A	N/A
MCA & THLS	post scoping liaison meeting agreeing next steps and proposed approach to consultation and onward liaison	N/A	N/A	AYM_ETG-1(MCA-TH)_minutes_021020.docx	N/A	N/A
P&O	post scoping liaison meeting agreeing next steps and proposed approach to consultation and onward liaison	N/A	N/A	AyM_ETG-1(PO)_minutes_081020.docx	N/A	N/A
Port of Mostyn	post scoping liaison meeting agreeing next steps and proposed approach to consultation and onward liaison	N/A	N/A	AYM_ETG-1(PoM)_minutes_290920.docx	N/A	N/A

## 2.2 Appendix B2: Offshore Ornithology Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
RSPB	MacArthur Green agreed to look at the evidence as to how little tern use the site and the seasons which they are present.	N/A	N/A	25/11/19 - Offshore Ornithology and Marine Mammal Evidence Plan Meeting	N/A	N/A
NRW and JNCC	The assessment approach to migratory non-seabirds was agreed via provision of, and agreement with, a technical note submitted to ETG members.	N/A	N/A	January 2021 - NRW and JNCC comments on migratory non-seabird note	N/A	N/A
All parties	It was agreed that HRA screening for ornithological sites would be based on the Woodward <i>et al.</i> (2019) mean-maximum foraging range plus one standard deviation.	N/A	N/A	25/03/21 - Offshore Ornithology ETG Meeting	N/A	N/A
All parties	It was agreed that breeding bird features of sites further from the AYM site than the mean-maximum foraging range (Woodward <i>et al.</i> , 2019) could be screened out of the assessment.	N/A	N/A	25/03/21 - Offshore Ornithology ETG Meeting	N/A	N/A
NRW	It was agreed that the Marine Science Scotland Stochastic CRM model should be used deterministically.	N/A	N/A	22/04/21 - NRW comments on ornithology position paper	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	The CRM parameters were agreed.	N/A	N/A	22/04/21 - NRW comments on ornithology position paper	N/A	N/A
NRW	The displacement assessment parameters were agreed.	N/A	N/A	22/04/21 - NRW comments on ornithology position paper	N/A	N/A
NRW	Use of the Biologically Defined Minimum Population Scales (BDMPS) was agreed.	N/A	N/A	11/10/2021 - NRW S42 response	N/A	N/A
NRW	It was agreed that displacement during construction should be assessed as half of that during construction	N/A	N/A	11/10/2021 - NRW S42 response	N/A	N/A
NRW and Natural England	The approach to apportioning was agreed.	N/A	N/A	14/01/2022 - response to ETG actions	N/A	N/A
All parties	The sites screened into the Appropriate Assessment stage of the HRA were agreed.	N/A	N/A	14/01/2022 - response to ETG actions	N/A	N/A
All parties	The gradient approach to RTD displacement assessment was agreed.	N/A	N/A	14/01/2022 - response to ETG actions	N/A	N/A
All parties	It was agreed that the use of MigroPath and the broad-front approach was acceptable for assessing impacts to migratory birds.	N/A	N/A	14/01/2022 - response to ETG actions	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
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## 2.3 Appendix B3: Marine Mammal Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	SMRU agreed to highlighted noise threshold in the Scoping Report and a rationale as to how it could be used in the impact assessment will be included.	N/A	N/A	25/11/19 - Offshore Ornithology and Marine Mammal Evidence Plan Meeting	N/A	N/A
NRW	N/A	NRW do not agree with the HRA screening of marine mammals based on ranges . NRW's position is that SACs (with marine mammal features) within the Management Unit (MU) should be screened-in.	N/A	25/11/19 - Offshore Ornithology and Marine Mammal Evidence Plan Meeting	N/A	The HRA screening was undertaken based on the following - - Cetaceans - All European sites designated for harbour porpoise within the Celtic and Irish Sea Management Unit (CIS MU), together with consideration of potential for site connectivity. All European sites designated for bottlenose dolphin within the Irish Sea Management Unit (IS MU), together with consideration of potential for site connectivity. - Pinnipeds - All SACs designated for grey and harbour seal within the provisional UK seal MUs utilised in Special Committee on Seals (SCOS) reporting (MU 12 – Wales), together with consideration of potential for site connectivity.
NRW	Species ID is not appropriate for the images presented in the examples in Figure 1 [of the density estimates report], and that this, together with the low densities of sightings are not sufficient to inform impact assessment.	N/A	N/A	Email confirmation (27/03/2020)	N/A	N/A



RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	Harbour porpoise: Both the SCANS III and the JCP III density estimates should be used in the quantitative impact assessment (to inform the EIA).	N/A	N/A	Email confirmation (27/03/2020)	N/A	N/A
NRW	Bottlenose dolphin: The large scale density estimates are not appropriate for use given the very coastal distribution of the species.		Two options are currently under consideration – either to assume the density within the 20m depth contour can be assumed to be similar to that of the wider Cardigan Bay estimate from Lohrengel et al (2018); or the population should be assumed to be evenly distributed along the Welsh coastline within the 20m depth contour to provide a uniform density estimate. On discussion during the teleconference on 3 March 2020, it was suggested that SMRU would look at distribution of bottlenose dolphin sightings from a	Email confirmation (27/03/2020)	N/A	N/A
NRW	The data on Minke whale & Common dolphin show that there is likely to be a low density of these species within the Awel y Mor site, so these species will be considered qualitatively or scoped out of the impact assessment.			Email confirmation (27/03/2020)	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	N/A	Do not agree that Risso's dolphin can be scoped out of the EIA. NRW have highlighted that anecdotal reports of persistent sightings of Risso's dolphins around North Anglesey, and boat based surveys collecting sightings of bottlenose dolphins in Liverpool bay.	Seawatch Foundation are to be consulted to obtain these sightings data. Based on the quality of these data (if obtained), a consideration can be made as to whether it is possible to obtain Risso's dolphin density estimates.	N/A	N/A	N/A
NRW	If possible, NRW 6 agree with the proposal to use updated grey seal at sea usage data from SMRU tagging studies.	N/A	N/A	N/A	N/A	N/A
NRW	The approach to the bottlenose dolphin assessment was agreed for PEIR, including the assumption that bottlenose dolphins are restricted to within 6 nm of the coast in the vicinity of North Wales.	N/A	N/A	31/03/21 - Marine Ecology and Marine Mammal ETG Meeting	N/A	N/A
NRW	It was agreed that the locations chosen for underwater noise modelling appropriately represented the range of impacts across the AyM site	It was not agreed that the locations represented the worst-case for simultaneous piling at two foundation locations.	A design change was adopted, removing the possibility of simultaneous piling at two foundation locations.	11/10/2021 - NRW S42 response	14/01/2022	A design change was adopted, removing the possibility of simultaneous piling at two foundation locations.
NRW	N/A	NRW did not agree that common dolphin could be scoped out of the assessment.	Common dolphin were scoped into the assessment.	11/10/2021 - NRW S42 response	N/A	Common dolphin were scoped into the assessment.

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW and JNCC	NRW agreed with the revised definitions of marine mammal PTS sensitivity.	NRW disagreed with the PTS sensitivity scores for grey seal and bottlenose dolphin.	The sensitivity scores for grey seal and bottlenose dolphin were revised in line with NRW advice.	22/12/2021 - NRW response to ETG actions	14/01/2022	The sensitivity scores for grey seal and bottlenose dolphin were revised in line with NRW advice.
NRW	N/A	NRW did not agree with the use of EDRs for the purpose of assessing disturbance from UXO clearance.	A range of methods were presented alongside one another in the assessment of UXO disturbance.	22/12/2021 - NRW response to ETG actions	14/01/2022	A range of methods were presented alongside one another in the assessment of UXO disturbance.
JNCC	JNCC agreed with the use of EDRs to assess disturbance from UXO clearance.	N/A	A range of methods were presented alongside one another in the assessment of UXO disturbance.	22/12/2021 - JNCC response to ETG actions	N/A	A range of methods were presented alongside one another in the assessment of UXO disturbance.
JNCC	The density estimates provided in the revised marine mammal baseline report were agreed.	N/A	N/A	22/12/2021 - JNCC response to ETG actions	N/A	N/A
NRW	NRW were content with the provision of a draft outline MMMP at application, which could be finalised post-conset as a condition of the marine licences.	N/A	N/A	11/02/2022 - NRW comments on revised draft outline MMMP	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
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## 2.4 Appendix B4: Marine Ecology Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	It was agreed that agreement on the Zone of Influence (Zol) for physical processes should be sought via the Evidence Plan (EP).	N/A	N/A	21/11/19 - Marine Processes and Ecology Evidence Plan Meeting	N/A	N/A
NRW	It was agreed that a conceptual model / map to inform the Environmental Impact Assessment (EIA) in the physical processes chapter, combining outcomes together could be included in the Preliminary Environmental Information Report (PEIR) / Environmental statement (ES) chapter.	N/A	N/A	21/11/19 - Marine Processes and Ecology Evidence Plan Meeting	N/A	N/A
NRW	It was agreed that, in addition to the Clearing the Waters guidance, the principles in the Natural Resources Wales (NRW) guidance notes (OGN72 and OGN 77) should be followed within the WFD assessment.	N/A	N/A	21/11/19 - Marine Processes and Ecology Evidence Plan Meeting	N/A	N/A
NRW	Agreed to consider Zol during the scoping phase of the WFD assessment.	N/A	N/A	21/11/19 - Marine Processes and Ecology Evidence Plan Meeting	N/A	N/A
NRW	It was agreed by all that any relevant pipelines and cables should be considered cumulatively with the project in the EIA.	N/A	N/A	21/11/19 - Marine Processes and Ecology Evidence Plan Meeting	N/A	N/A
NRW	It was agreed that the scoping outcomes would be presented to the Expert Topic Groups (ETG) prior to publication of the PEIR.	N/A	N/A	21/11/19 - Marine Processes and Ecology Evidence Plan Meeting	N/A	N/A
All Parties	It was agreed that a full rationale for scoping out effects would be provided in the Scoping Report.	N/A	N/A	21/11/19 - Marine Processes and Ecology Evidence Plan Meeting	N/A	N/A
NRW	It was agreed to consider the extent of the tidal excursion in the Habitat Regulations Assessment (HRA) Screening Report.	N/A	N/A	21/11/19 - Marine Processes and Ecology Evidence Plan Meeting	N/A	N/A
NRW	It was agreed by GoBe to include accidental pollution in the HRA screening, as no effects would be screened out on the basis of mitigation.	N/A	N/A	21/11/19 - Marine Processes and Ecology Evidence Plan Meeting	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	The number and locations of benthic survey samples, including contaminants, were agreed.	N/A	N/A	August 2020 - NRW benthic survey consultation	N/A	N/A
NRW	Following provision of a detailed fish and shellfish baseline characterisation report, it was agreed that existing data sources were adequate to characterise the existing environment and as such, site-specific fish surveys were not necessary.	N/A	N/A	20/11/20 - NRW Fish and shellfish baseline response	N/A	N/A
NRW	The scope of the marine water and sediment quality PEIR assessment was agreed through provision of a scoping position paper.	N/A	N/A	21/12/20 - MWSQ scoping paper NRW comments	N/A	N/A
NRW	The approach to detailed physical processes modelling was agreed through provision of a physical processes modelling position paper.	N/A	N/A	21/12/20 - Physical processes modelling methods statement NRW comments	N/A	N/A
NRW	It was agreed that Constable Bank would not need to be considered in the context of the HRAI, and would therefore be considered in the context of the EIA only.	N/A	N/A	10/11/20 - Marine Ecology and Marine Mammal ETG meeting	N/A	N/A
NRW	The approach to the offshore cumulative effects assessment was agreed, as well as the long-list of projects, plans and activities that would be considered.	N/A	N/A	31/03/21 - Marine Ecology and Marine Mammal ETG Meeting	N/A	N/A
NRW	The scope of the Water Framework Directive assessment was agreed through provision of a scoping position paper.	N/A	N/A	15/04/21 - WFD scoping paper NRW comments	N/A	N/A
NRW	Subject to the NRW advice on the fish and shellfish clarification notes being taken, the conclusions of the assessment on fish VERs were agreed.	N/A	N/A	22/12/2021 - Marine Mammal and Ecology ETG NRW response to actions	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION



## 2.5 Appendix B5: Onshore Ecology Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	It was agreed that surveys would be designed to cover areas in which Annex I and Schedule I species, in addition to an assessment of functioning habitat, which have the potential to be significantly affected by the scheme.	N/A	N/A	ETG meeting - 10/12/19	N/A	N/A
All meeting participants	Where water crossings are proposed then otter and water vole surveys would be undertaken, between 250m up and downstream of the proposed crossing. This was agreed as appropriate by participants.	N/A	N/A	ETG meeting - 10/12/19	N/A	N/A
All meeting participants	It was agreed that hedgerows which are proposed to be crossed (if any) should be surveyed.	N/A	N/A	ETG meeting - 10/12/19	N/A	N/A
All meeting participants	Attendees agreed with the Important Ecological Features that had been identified and those features (designated sites) which had been scoped out	N/A	N/A	ETG meeting - 26/02/2021	N/A	N/A
All meeting participants	-Agreement that International/National designations can be scoped out from the Onshore Ecology assessment	N/A	N/A	ETG meeting - 26/02/2021	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
All meeting participants	<p>Agreement that the methodology and approach to the following surveys, as proposed in the PEA report provided to ETG members in advance of the meeting, is acceptable:</p> <ul style="list-style-type: none"> <li>- Habitat</li> <li>- Hedgerow</li> <li>- Plant Species</li> <li>- Invertebrates</li> <li>- Reptiles</li> <li>- GCN</li> <li>- Breeding Birds</li> <li>- Bats</li> <li>- Water Vole</li> <li>- Dormouse</li> <li>- Badger</li> </ul>	N/A	N/A	ETG meeting - 26/02/2021	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	NRW confirmed that they could be satisfied in principle that an EPSL could be granted in relation to bats and GCN (in the absence of draft EPSL MS's being submitted pre-consent), based upon the compensation and enhancement proposals agreed at the last ETG which we understand have been carried over into the ES and OLEMP. NRW would be content for the finer details to be conditioned/supplied later on in the planning decision-making process (i.e. post-consent), as you have proposed.	N/A	N/A	Email 20/01/2022	N/A	N/A
NRW	NRW confirm that the mitigation/compensation/biodiversity enhancement quantum for the application is agreed and therefore meets the relevant Policy requirements.	N/A	N/A	Email 20/12/2021	N/A	N/A
NRW	NRW confirmed the concur with the proposed bat survey tree scope.	N/A	N/A	Email 02/07/2021	N/A	N/A

## 2.6 Appendix B6.1: Onshore Hydrology Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	The applicant would request the data on the NRW operated pumping station to inform the EIA.	N/A	N/A	ETG meeting - 10/12/19	N/A	N/A
All meeting participants	It was agreed that the scope of the walkover surveys would be agreed by the ETG via the Evidence Plan process.	N/A	N/A	ETG meeting - 10/12/19	N/A	N/A
NRW	It was agreed that unless a high risk was identified that water quality analysis surveys would not be required.	N/A	N/A	ETG meeting - 10/12/19	N/A	N/A
NRW	It was agreed that migratory fish would be considered to ensure that no barriers are created as part of the WFD assessment.	N/A	N/A	ETG meeting - 10/12/19	N/A	N/A
NRW	It was agreed that the approach to WFD compliance assessment, with a separate WFD report that provides a signposting document, seems sensible and appropriate	N/A	N/A	ETG meeting - 01/10/20	N/A	N/A
Denbighshire	It was agreed that SuDS details will be a requirement within the DCO. Details will likely need to be approved by DCC before construction starts. Agreed that the intended approach is to set out in terms of what would normally be included within a SAB application	N/A	N/A	ETG meeting - 22/03/2021	N/A	N/A
Denbighshire and NRW	Although National Significant Infrastructure Projects are exempt from approval of SuDS by the SAB, SuDS detail will be provided to DCC for approval via DCO Requirement post consent	N/A	N/A	ETG meeting - 05/11/2021	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
Denbighshire	It was agreed that the intention is that relevant SuDS principles will be applied to the substation development and secured through a requirement of the DCO.	N/A	N/A	Document: RWE'S POSITION WITH REGARD TO THE APPROVAL OF SUSTAINABLE DRAINAGE SYSTEMS (SUDS) FOR SURFACE WATER BY DENBIGHSHIRE COUNTY COUNCIL (DCC) ACTING IN ITS SUDS APPROVING BODY (SAB) ROLE issued 22/11/2021	N/A	N/A

## 2.7 Appendix B6.2: Geology and Ground Conditions Agreements Log



RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
All meeting participants	It was agreed that the scope of the walkover surveys (if required) would be agreed by the ETG via the Evidence Plan process.	N/A	N/A	ETG meeting - 10/12/19	N/A	N/A
DCC	It was agreed that contacts in Denbighshire for discussion on mineral deposits at a later date.	N/A	N/A	ETG meeting - 01/10/20	N/A	N/A
All meeting participants	The approach to assessment was agreed	N/A	N/A	ETG meeting - 01/10/20	N/A	N/A
All meeting participants	It was agreed that data sources listed were satisfactory	N/A	N/A	ETG meeting - 01/10/20	N/A	N/A
All meeting participants	It was agreed that soils/materials management plan as highlighted by PINS will be provided	N/A	N/A	ETG meeting - 01/10/20	N/A	N/A

## 2.8 Appendix B7.1: SLVIA Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	Agreed that the proposed baseline information to inform the EIA was appropriate.	N/A	N/A	ETG - 10/12/19	ETG	ETG minutes
NRW	Agreed that the use of the GLVIA guidance was appropriate for the proposed assessment and creation of photomontages.	N/A	N/A	ETG - 10/12/19	ETG	ETG minutes
NRW		Request for further consideration of the site selection and alternatives process for the array area		ETG - 01/10/20		
NRW	Of the options proposed for boundary refinement, it was agreed that Option H represented the greatest reduction in effects compared to the base-case/ scoping phase for Snowdonia National Park, Clwydian Range and Dee Valley AONB, and Anglesey AONB.	N/A	N/A	ETG - 25/01/2021	ETG	ETG Minutes and submission of SLVIA MDS and ViewPoint feedback (Appendix F- ETG7a_Doc1_NRW_SLVIA_VPsandMDS)
NRA	The worst case design (MDS) is likely to be the 300mRD turbines However the differences in terms of the areas and layouts are marginal and the potential reduction in effects from a reduction in size of turbine is limited by their greater number.	N/A	N/A	ETG - 25/01/2022	ETG	ETG Minutes and submission of SLVIA MDS and ViewPoint feedback (Appendix F- ETG7a_Doc1_NRW_SLVIA_VPsandMDS)
IoACC	Of the options proposed for boundary refinement, it was agreed that Option C represented the greatest reduction in effects compared to the base-case/ scoping phase	N/A	N/A	ETG - 25/01/2023	ETG	ETG Minutes and submission of SLVIA MDS and ViewPoint feedback (Appendix E- ETG7a_email1_IoACC_SLVIA_VPs)
IoACC	The taller turbines (300 metre rotor diameter) in either of the layouts (regular/perimeter) also represent a worst case scenario for the purposes of the MDS.	N/A	N/A	ETG - 25/01/2024	ETG	ETG Minutes and submission of SLVIA MDS and ViewPoint feedback (Appendix E- ETG7a_email1_IoACC_SLVIA_VPs)

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	The approach to cumulative effects assessment is agreed	N/A	N/A	email 12/1/2021	ETG	Email Appendix E-ETG7a_email2_NRW_SLVIACumulati veandZTV
NRW	The maximum ZTV of 50km is agreed	N/A	N/A	email 12/1/2021	ETG	Email (Appendix E-ETG7a_email2_NRW_SLVIACumulati veandZTV)
Conwy	N/a	Of the options proposed for boundary refinement, Conwy do not wish to state a preference as they all represent similar impacts from viewpoints in Conwy	no resolution possible for PIER	email 09/02/2021	ETG	Email (Appendix E-ETG7a_email3_ConwySLVIA_MDSa ndVPs)
Gwynedd	N/a	Of the options proposed for boundary refinement, Gwynedd do not wish to state a preference as they all represent similar impacts from viewpoints in Gwynedd	no resolution possible for PIER	email 25/02/202	ETG	Email (Appendix E-ETG7a_email4_Gwynedd_SLVIA_M DSandVPs)
Snowdonia National Park	Of the options proposed for boundary refinement, it was agreed that Option H represented the greatest reduction in effects compared to the base-case/ scoping phase for Snowdonia National Park	N/A	N/a	email 24/02/2021	ETG	Appendix E-ETG7a_email5_SNP_SLVIA_MDSand VPs
Snowdonia National Park	The taller turbines (300 metre rotor diameter) in either of the layouts (regular/perimeter) also represent a worst case scenario for the purposes of the MDS.	N/A	N/A	email 24/02/2021	ETG	Appendix E-ETG7a_email5_SNP_SLVIA_MDSand VPs
ETG members	The conclusions of the assessment are agreed, however the assessment methodology should be changed to identify Negligible > Major rather than significant/not significant	N/A	The methodology has been changed to identify the ranges of significance	s42 feedback	ETG	feedback provided in Consultation Report (application ref: 5.2) Appendix H1
ETG members	N/A	Do not agree to continue discussion of enhancement measures until after the formal submission of the application	no resolution possible until application	email 2/3/2021	ETG	Email Appendix E-ETG7a_email6_NRW_Enhancement

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
ETG members	N/A	Do not agree to continue discussion of enhancement measures until after the formal submission of the application	no resolution possible until application	email 17/2/21	ETG	Appendix E-ETG7a_email7_NW LPAs_Enhancement
ETG members	The viewpoint are agreed as appropriate.	N/a	N/a	Minutes 4/11/21	ETG	Minutes 4/11/21
ETG members	The assessment approach to each of the viewpoints are agreed as appropriate.	N/a	N/a	Minutes 4/11/21	ETG	Minutes 4/11/21
CADW	The viewpoint are agreed as appropriate.	N/a	N/a	Minutes 29/1/21	ETG	Minutes 29/1/21
CADW	The assessment approach to each of the viewpoints are agreed as appropriate.	N/a	N/a	Minutes 29/1/21	ETG	Minutes 29/1/21
CADW	The approach to settings assessment	N/a	N/a	Minutes 29/1/21	ETG	Minutes 29/1/21
ETG members	The reduction in array area and turb	ETG members queried if the change	N/a	Minutes 27/1/2022	ETG	Minutes 27/1/2022
NRW	The Methodology set out is in accordance with GLVIA3	further clarification should be provided on susceptibility	Further clarification provided	Minutes 4/11/21	ETG	Minutes 4/11/21

Summary

Guidance/methodology of assessment	agreed
EIA methodology	not agreed (further detail requested)
Viewpoints	agreed
Policy	agreed
Conclusions	agreed, with caveats regarding detailed assessment methodology
Mitigation	agreed as appropriate for 'technical' mitigation - lighting
Enhancement/mitigation	not agreed (subject to final assessment)

## 2.9 Appendix B7.2: LVIA Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
NRW	Agreed that the proposed data to inform the Scoping Report were adequate.	N/A	N/A	ETG - 10/12/19	N/A	N/A
All parties in attendance	Onshore visualisations would also be provided in the EIA, similar to the SHN guidance, and would be consistent with the offshore ones (in terms of guidance/ methodology etc).	N/A	N/A	ETG - 10/12/19	N/A	N/A
ETG members via correspondence	It is agreed that the viewpoints are appropriate for the assessment	N/A	N/A	Correspondence 22/2/21 (Appendix E - ETG7EMail1)	N/A	Appendix E-ETG7b_email2_IoA_LVIA_VPs
NRW	It is agreed that the viewpoints are appropriate for the assessment, with the inclusion of the onshore VPs listed in the s42 feedback.	N/A	N/A	NRW s42 feedback (Consultation Report s42 log - Appendix H1)	N/A	email provided in Appendix E-ETG7b_email1_NRW_LVIA_VPs
NW LPAs - LUC	It is agreed that all relevant LVIA receptors have been identified	N/A	N/A	NW LPA - LUC s42 feedback (forms Consultation Report s42 log AppendixH1)	N/A	feedback provided in Consultation Report (application ref: 5.2) Appendix H1
Denbighshire County Council - LUC	Conclusions of the LVIA assessment are agreed, with the exception of effects to the Bodelwyddan RHPG due to uncertainty on extent of Order Limits	disagreement on single conclusion as a result of former PEIR Order Limits, which have since been reduced to avoid interaction	Order Limits have been refined	DCC-LUC ETG feedback	yes	feedback received Appendix F-ETG7b_Doc1_DCC_LUCfeedback
Denbighshire County Council - LUC	n/a	Suggested additional viewpoint in Bodelwyddan Park RHPG runs contrary to previous agreement on viewpoints	n/a	DCC-LUC ETG feedback	yes	feedback received Appendix F-ETG7b_Doc1_DCC_LUCfeedback
Denbighshire County Council - LUC	LVIA of the OnSS, and the associated mitigation design, have been prepared with reference to appropriate guidance, by suitably qualified consultants using a clear and robust methodology.	n/a	n/a	DCC-LUC ETG feedback	yes	feedback received Appendix F-ETG7b_Doc1_DCC_LUCfeedback

## 2.10 Appendix B8.1: Onshore Archaeology Agreements Log



RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
All parties in attendance	An ASIDOHL for HLW was not required for the project.	N//A	N/A	ETG meeting - 10/12/19	N/A	N/A
All parties in attendance	N/A	Scoping-out of Conservation Area.	To be considered further.	ETG meeting - 10/12/19	No	N/A
CADW	Photomontages will be produced for the EIA at significant views.	N//A	N/A	ETG meeting - 10/12/19	N/A	N/A

## 2.11 Appendix B8.2: Offshore Archaeology Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
N/A	No agreements have been identified.	N/A	N/A	ETG meeting - 09/12/19	N/A	N/A
N/A	N/A	No disagreements have been identified.	N/A	ETG meeting - 09/12/19	N/A	N/A

## 2.12 Appendix B9.1: Noise and Vibration Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
N/A	No agreements have been identified.	N/A	N/A	ETG meeting - 09/12/19	N/A	N/A
N/A	N/A	No disagreements have been identified	N/A	ETG meeting - 09/12/19	N/A	N/A
Conwy	It was agreed that the detail in the assessment methodology seemed sufficient	N/A	N/A	ETG meeting - 29/09/20	N/A	N/A
Denbighshire	It was agreed that monitoring location CR1 would be moved to near the residential buildings	N/A	N/A	ETG meeting - 31/03/21	N/A	N/A
Denbighshire	It was agreed the methodology on construction noise and vibration assessment - including construction traffic was ok	N/A	N/A	ETG meeting - 31/03/21	N/A	N/A
Denbighshire	It was agreed that the operational noise assessment methodology at the substation was ok	N/A	N/A	ETG meeting - 31/03/21	N/A	N/A
Denbighshire	It was agreed that 3rd Octave monitoring was being investigated	N/A	N/A	ETG meeting - 31/03/21	N/A	N/A
Denbighshire	It was agreed that the exclusions for noise and vibration monitoring and assessment were ok	N/A	N/A	ETG meeting - 31/03/21	N/A	N/A
Denbighshire	N/A	Denbighshire suggested routing through solar farm at gables farm be shared	N/A - programme and complexities rule this out as an option	ETG meeting - 31/03/21	N/A	N/A
Denbighshire	That Noise Abatement plans be provided (and are included in the outline Code of Construction Practise (CoCP))	N/A	N/A	ETG Meeting 02/11/2021	N/A	N/A
Denbighshire	That a community engagement plan be provided (included in the CoCP)	N/A	N/A	ETG Meeting 02/11/2021	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
Conwy	The proposal to undertake further monitoring at two locations within Conwy was welcomed. It was agreed that sites will be suggested and agreed with Huw Williams.	N/A	N/A	Email from Huw Williams (16/12/2021)	N/A	N/A

## 2.13 Appendix B9.2: Traffic and Transport Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
North & Mid Wales Trunk Road Association	The Active Travel Wales Act will be considered within the EIA assessment.	N/A	N/A	ETG Meeting - 09/12/19	N/A	N/A
Conwy	It was agreed that as much accident data as possible will be included. 2020 dat will be kept due to different uses (cyclists and pedestrians).	N/A	N/A	ETG Meeting - 29/09/20	N/A	N/A
Denbighshire	At this stage no significant concern from DCC regarding the construction and operational access proposals (assuming suitable management measures put in place)	N/A	N/A	ETG Meeting - 21/04/21	N/A	N/A
Denbighshire	A 10 to 15 % uplift be applied to new traffic counts to take account of the implications of Covid-19	N/A	N/A	ETG Meeting - 29/09/20	N/A	N/A



RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
Denbighshire	It was agreed that as long as any access meets the required design/visibility standards Denbighshire would have no objection to proposed access to the substation site from Glascoed Road	N/A	N/A	Email received 29/11/2021	N/A	N/A
Denbighshire	DCC confirmed direct access from the A525 to the substation was preferred and have no preference regarding TCCs on Sarn Lane.	N/A	N/A	Email dated 06/10/2021	N/A	N/A
Denbighshire	It was agreed that it will be confirmed when full details of accesses would be available. Denbighshire is comfortable with the possibility of this being post consent.	N/A	N/A	Email dated 06/10/2022	N/A	N/A

## 2.14 Appendix B9.3: Socioeconomics, Tourism and Recreation Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
Conwy Borough Council	N/A	The scoping out of the potential impact of construction on demand for community services such as housing, schools, healthcare due to influx of workers.	It was agreed that this	ETG Meeting - 09/12/19	No	No
PHW	It was agreed and confirmed that cumulative impacts are being considered	N/A	N/A	ETG Meeting - 20/09/20	N/A	N/A
Conwy Borough Council	It was agreed that the assessment will consider whether there will be increased demand for increased services such as GP surgeries as a result of AyM, so wasn't reliant on population growth	N/A	N/A	ETG Meeting - 05/05/21	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
Denbighshire	It was agreed that PRow would not be stopped up permanently	N/A	N/A	Email 16/11/2021	N/A	N/A
Denbighshire	It was agreed that temporary control measures to be put in place where the ATR or PRow within the onshore ECC interact with the construction of AyM on a temporary basis.	N/A	N/A	Email 16/11/2021	N/A	N/A

## 2.15 Appendix B9.4: Health Agreements Log

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
Conwy Borough Council and PHW	It was agreed that a sign-posting chapter, drawing on other technical assessments, would be appropriate.	N/A	N/A	ETG Meeting - 09/12/19	N/A	N/A
Conwy Borough Council	It was agreed that any potential positive effects should be considered with the Scoping Report and EIA.	N/A	N/A	ETG Meeting - 09/12/19	N/A	N/A
PHW	It was agreed that the Wellbeing assessments undertaken by Conwy and Denbighshire Councils should be considered to inform the assessment.	N/A	N/A	ETG Meeting - 09/12/19	N/A	N/A
Denbighshire	Denbighshire agrees that emissions from Non Road Mobile machinery could be screened out of the assessment	N/A	N/A	ETG Meeting 02/11/2021	N/A	N/A
PHW	EMF levels must be within government policy and guidance levels (compliance with ICNIRP thresholds)	N/A	N/A	ETG Meeting 02/11/2021	N/A	N/A

RELEVANT PARTY/ PARTIES	AGREEMENT	DISAGREEMENT	PROPOSED RESOLUTION (WHERE APPLICABLE)	RAISED IN:	RESOLVED	DETAILS OF RESOLUTION
Public Health Wales	<p>On the basis of the EMF public exposure voluntary code of practice, for 275 and 400 kV cables a calculation or measurement of the maximum fields directly above the cable is required to provide evidence of compliance with exposure guidelines.</p> <p>This has been achieved somewhat indirectly by referring to examples from the following National Grid - maintained industry website:  <a href="https://www.emfs.info/sources/overhead/specific/400-kv/">https://www.emfs.info/sources/overhead/specific/400-kv/</a></p> <p>The compliance conclusion, therefore, is wholly dependent on the windfarm cables being constructed and operating in the same way as the National Grid examples. Further assurance, in terms of detailed cable layout information, phase arrangement and operating loads etc, could be provided to confirm this is indeed the case.</p>	N/A	N/A	Email 08/06/2021	N/A	N/A

## 3 Appendix C: Meeting Minutes

### 3.1 Appendix C1: Shipping and Navigation Meeting Minutes



**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**INITIATIAL SHIPPING AND NAVIGATION MEETING– 19<sup>TH</sup> NOVEMBER 2019**

<b>MEETING ORGANISER:</b>	innogy
<b>LOCATION:</b>	Innogy's offices, Paddington, London
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm
<b>ATTENDEES:</b>	ALEX HERBERT (INNOGY) (AH) HELEN THOMAS (INNOGY) (HT) TREVOR HARRIS (TH) (THA) STEPHEN VANSTONE (TH) (SV) HELEN CROXSON (MCA) (HC) NICK SALTER (MCA) (NS) PETER LOWSON (MCA) (PL) ALI MACDONALD (ANATEC) (AMD) ADAM FOSTER (ANATEC) (AF) NICOLA SOLLY (GOBE) (NSO) SAMMY MULLAN (GOBE) (SM)
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	N/A

<b>Document provided:</b>	<b>Filename</b>
Consultation roadmap	AyM OWF ETG roadmap Shipping & Navigation.pdf
Initial review note – Shipping and Navigation	AyM_S&N_ShortNote_Final.pdf
Draft Terms of Reference	GyM_Ext_Evidence_Plan_ToR_v1_131119.pdf
Meeting agenda	S&N ETG Agenda final
Slides presented in the meeting	191119_ETG_PreScope_Mtg_Slides.pdf (provided with the final copy of the minutes)

<b>Agenda item</b>	<b>Minutes</b>
1	<b>Introductions and welcome</b>  Round the table Introductions were made.

	<p>AH noted that information had been provided in advance of the meeting (including the initial review note, draft terms of reference).</p> <p>AH noted that the projects (Awel y Môr and Five Estuaries) are being run by two different teams and will naturally diverge during the application processes but there may be overlap on occasion such as milestone meetings.</p> <p>AH provided an overview to innogy's renewable operations in Wales (see slides 2).</p>
2	<p><b>Project Overview</b></p> <p>AH presented an overview of Awel y Môr OWF (formerly known as Gwynt y Môr Extension). He explained that a range of wind turbine generators (WTGs) are being considered and that consent will be sought for a design envelope of WTG designs.</p> <p>The grid connection is expected to be at Bodelwyddan (same as GyM OWF).</p> <p>AH presented the work undertaken to date on the project including the commencement of the Scoping Report drafting, environmental surveys being scoped and initial site selection work.</p> <p>AH presented the timeline of the project, see slide 6.</p>
3	<p><b>Planning Act 2008</b></p> <p>AH provided a high level overview of the Act, see slides 9 – 12. AH noted that duplicates of the application documentation will be submitted to support the applications for the DCO and ML.</p>
4	<p><b>Scoping Report</b></p> <p>NSo presented the purpose of the EIA scoping report and the aims of the report, see slides 16. She noted that the Scoping Report (SR) is intended to be submitted in March 2020 and that initial consultation activities have commenced.</p> <p>NSo presented the structure of the Scoping Report and the level of information which will be provided, see slide 17. NSo noted that feedback will be requested on the questions which will be presented for each technical chapter within the SR.</p>
5	<p><b>Evidence Plan</b></p> <p>This was presented at a high level owing to more detailed discussion on the process held in the morning for the Five Estuaries project. It was agreed that an ETG should be formed to discuss (and seek to reach agreement on) the basis of the assessments including data, evidence, methodology and any other aspects relevant to the EIA process. It was noted that tri-lateral meetings between innogy, MCA and TH should be held in addition to the ETG meetings as required under MGN 543. Discussions concerning commercial matters will also be held outside of the ETGs.</p> <p>NSo presented the role of the Steering Group including seeking to resolve disagreements between parties as part of the Plan, see slide 21. NSo also presented the role of the ETGs as to agree the scopes of assessment, baseline data and methodology of the assessment to be included within the EIA. NSo noted that any key decisions made in the ETG meetings will be relayed to the steering group.</p> <p>The draft ToR have been provided which outline the process and the responsibilities of the parties. See table below for actions.</p>

6	<p><b>Navigational features and cumulative overview</b></p> <p>AMD presented an overview of the project and notable features such as the TSS, oil fields, OWFS and anchorage areas (see slide 24).</p> <p>AMD presented the summer vessel traffic (slide 25) and noted that the routing is typically to the north of the proposed development and moving from the anchorage area. It was agreed by all that based on the information provided by the project during the meeting, Awel y Môr area is currently considered relatively quiet for shipping, with similar levels of traffic during summer and winter (reduced recreational vessels in winter).</p> <p>It was agreed that access to Mostyn Port should be an important consideration within the S&amp;N assessments. AMD confirmed that the dark blue lines on the slides are the tankers and the darker green is cargo. Anchoring activity off Point Lynas is from tankers / cargo vessels awaiting pilots, and AMD noted that these vessels will sometimes subsequently intersect the proposed site when accessing the TSS.</p> <p>Anatec note that there is limited fishing activity in the area based on the AIS data collected for the scoping report. It was noted that this data is AIS only, and smaller vessels may therefore be underrepresented.</p> <p>THA noted that traffic into Raynes Jetty is in the majority small cargo coasters, and that generally there are more cargo vessels seeking coastal shelter in winter when compared to summer.</p> <p>THA asked if cable crossings will be avoided and noted that the bathymetry is quite shallow in the area. HT noted that the project will seek to avoid cable crossings but this may not be possible. A discussion was held which indicated that the sediment was more mobile towards Mostyn.</p>
8	<p><b>Initial review Note</b></p> <p>AMD presented the initial review note for the Awel y Môr project. He presented the proposed data sources to inform the Scoping Report – these were agreed as sufficient for scoping by all parties. AMD presented the proposed duration of AIS data for the Scoping Report (28 days including peaks of summer and winter traffic).</p> <p>AMD presented the key considerations for the EIA. He noted that one of the key issues will be the layout. It was agreed by all parties that no items will be scoped out from the EIA (or NRA).</p> <p>AMD presented the proposed consultees for the project for S&amp;N. HC suggested that the local District Marine Safety Committee (DMSC) should also be consulted in order to obtain local inputs on the proposed development.</p> <p>AH noted that the deadline for determination of the Wylfa Newydd DCO has been postponed and additional information has been requested from PINS. This development will require a development to the port (e.g., extension of jetty, addition of breakwaters) and therefore may be included in the cumulative assessment based on the outcome of the SoS's decision.</p>

	<p>THA noted that Conwy Borough Council and Isle of Anglesey Council are a stat authority, and that Caernarfon port provide the pilots for the Menai straits. Bangor University also have their research ship Port Madog based at Menai Bridge.</p> <p>It was agreed that any relevant pipelines and cables should be considered cumulatively with the project.</p> <p>THA confirmed that the Liverpool VTS in the area is an Information Service only as opposed to providing instructions/ directions as a Traffic Organisation Service or a Navigational Assistance Service<sup>1</sup>.</p>
9	<p><b>Stakeholder engagement roadmaps</b></p> <p>AH presented the Awel y Môr roadmap (as provided prior to the meeting). It was agreed by all parties that the next meeting with MCA and TH will be held on 26<sup>th</sup> February.</p>
10	<p><b>AOB</b></p> <p>AH presented the landfall, onshore substation area, GyM cables and potential area of search for cable routes for Awel y Môr.</p> <p>HC noted the key issue will be the proximity to the Liverpool Bay TSS. HC noted the process will be the same as Five Estuaries if any alterations to the TSS would be required as mitigation for the project (i.e., via UKSON, IMO, and MSC), but noted this should be through the DMSC. The proximity of the TSS will involve on-going discussion throughout the process.</p> <p>Cammel Laird are proposing a new terminal in Birkenhead as part of Peel Ports. It was agreed that this and Raynes Jetty should be considered for inclusion in the cumulative assessment.</p>

Agenda Item	Action	Who?	Due Date
1	No actions recorded.	N/A	N/A
2	No actions recorded.	N/A	N/A
3	No actions recorded.	N/A	N/A
4	No actions recorded.	N/A	N/A
5	No actions recorded.	N/A	N/A
6	To review the draft ToR and provide feedback/ amendments/thoughts on the document.	MCA & TH	20/12/19
7	No actions recorded.	N/A	N/A
8	No actions recorded.	N/A	N/A
9	No actions recorded.	N/A	N/A
10	No actions recorded.	N/A	N/A

<sup>1</sup> See MGN 401 (Amendment 2) for further information and definitions on VTS.

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**SHIPPING AND NAVIGATION EVIDENCE PLAN MEETING MINUTES– 26/02/20**

<b>MEETING ORGANISER:</b>	innogy
<b>LOCATION:</b>	Teleconference
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm
<b>ATTENDEES:</b>	<p>HELEN CROXSON (MCA) (HC)</p> <p>NICK SALTER (MCA) (NS)</p> <p>TREVOR HARRIS (TRINITY HOUSE) (TH)</p> <p>STEVEN VANSTONE (TH) (SV)</p> <p>ALEX HERBERT (INNOGY) (AH)</p> <p>NICOLA SOLLY (GOBE CONSULTANTS) (NSO)</p> <p>SAMMY MULLAN (GOBE CONSULTANTS) (SM)</p> <p>ALI MACDONALD (ANATEC) (AM)</p> <p>ADAM FOSTER (ANATEC) (AF)</p> <p>The following attendees were present in the meeting held prior to this one and the minutes have been replicated for completeness:</p> <p>ANNE WESTWOOD (INNOGY)</p> <p>CASSIE GREENHILL (INNOGY)</p>
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<p>PETER LOWSON (MCA)</p> <p>SAM WESTWOOD (ANATEC)</p>

Document provided:	Filename
1 Slides	Awel y Môr Offshore Wind Farm - MCA TH - 2020 02 26 FINAL.pdf

Agenda item	Minutes
<b>1</b>	<p><b>Project Update</b></p> <p>AH welcomed attendees and thanked them for their time.</p> <p>AH presented an overview of the proposed development – see slide 2.</p> <p>AH confirmed that project programme for Awel y Môr remains</p>

	<p>unchanged from the November meeting – see slide 3. AH explained that the AfL is anticipated to be signed in March 2020. Similarly, the EIA Scoping Report will be submitted to PINS in mid-March 2020 and a formal Scoping Opinion will be requested. AH provided an overview of the updates and work undertaken since the previous meeting including team member appointments, on-going surveys and drafting of the Scoping Report – see slide 4.</p> <p>AH explained that the geophysical surveys are anticipated in summer 2020 to inform the application. He noted that PINS and NRW have been officially informed of the project and the intention to submit the Scoping Report (and DCO and Marine Licence (ML) applications).</p> <p>TH asked how the ML process will be undertaken and how it varies from the DCO process. AH explained that the powers have been delegated from the Welsh Minister to NRW under the MCAA 2009. He noted that there are no statutory timelines for the ML process but that innogy will seek to agree common milestones between the two processes. The intention is that the ML will be determined soon after the DCO determination.</p> <p>AH noted that NRW does have the right to call an inquiry but previously they have used the DCO process as an inquiry. AH also highlighted that duplicate responses can be submitted to consultation on both applications by stakeholders.</p>
2	<p><b>Technical Assessment</b></p> <p>AM provided an update for the EIA Scoping Report shipping and navigation chapter. He noted that the chapter has been drafted and is in the final stages of completion. NSO highlighted that the Scoping Report will be published and available for consultation at the end of March 2020.</p> <p>AM proposed that a paper outlining the proposed survey methodology would be submitted to the MCA and TH for approval. The paper will outline the proposed timings<sup>1</sup> of the surveys and their durations. He explained that the surveys would be compliant with MGN 543.</p> <p>AM noted that the vessel surveys could “piggyback” on to geophysical survey vessels to reduce the requirement for additional vessel charter. AH agreed to consider this further and seek confirmation of the proposed geophysical survey programme.</p> <p>AM explained that a study area of 10 nm around the array was proposed to be used for shipping and navigation, which was considered as capturing all the key traffic in the area, including the TSS traffic and the commercial ferry routes associated with Liverpool.</p> <p>AM presented the proposed next steps for the topic including agreeing survey methodology and on-going consultation - see slide 10.</p>

<sup>1</sup> Note: It is intended that innogy (and their EIA consultants) will propose timings based on expert judgement and knowledge of the area. This methodology differs from that proposed for Five Estuaries OWF.

	<p>AM asked the MCA and TH for initial thoughts on whether there may be a requirement to extend the TSS within the area. It was stated that this is not anticipated to be required at this time, unless any new information came to light to support the need.</p> <p>The MCA expects at least two lines of orientation (grid layout) for surface navigation and SAR unless there is a clear safety justification demonstrating that fewer is acceptable – as per MGN 543.</p>
3	<p><b>Evidence Plan</b></p> <p><i>The following minutes have been provided for completeness as they are applicable to the Awel y Môr project. The following discussions were held in the proceeding meeting for Five Estuaries OWF. The slide numbers refer to the slides presented in the Five Estuaries meeting.</i></p> <p>SM provided a brief overview of the Evidence Plan (EP) process. She explained that the use of an Evidence Plan process is being proposed by innogy to formalise the consultation process (in line with various other technical topics). The proposal was presented to formalise an Expert Topic Group (ETG) under the Evidence Plan for S&amp;N. It was proposed that all standard consultation under Marine Guidance Note (MGN) 543 would be undertaken (e.g. Hazard Workshop, Regular Operator consultation), and the manner in which this could be incorporated into the EP process was discussed.</p> <p>SM explained that the EP is a formal tool to agree the information presented and approach undertaken in the EIA (and NRA) which will be provided in the DCO and ML applications. The process provides formal structure and general rules (as outlined in the ToR) under which agreement will be sought from each of the parties.</p> <p>The project will be seeking to gain consensus on the information (such as baseline data and study area etc) which informs the assessment which will help to reduce disagreements by the examination phase and the development of Statements of Common Ground (SoCG). It was noted, as per the Terms of Reference, records of discussions will be maintained via meeting minutes and an agreement/disagreement log. It is hoped that the process will reduce resource requirements for all in the examination.</p> <p>SM presented the potential benefits of holding the consultation under the EP for S&amp;N – see slide 8. SM presented the proposed structure of the EP and the various ETGs which span a wide range of topics – see slide 9. SM presented the roles and responsibilities of the steering group and the ETGs – see slide 10. SM highlighted that a key advantage of the EP is that it allows steering group members to speak to PINS directly regarding any issues arising from the ETGs and to advise on the key issues. SM invited the MCA to sit on the steering group.</p>

	<p>SM explained that commercial implications and the merit of the project would not be considered under the EP, but separate consultation meetings would be held (if required) for these topics – see slide 13.</p> <p>SM noted that a draft ToR seeks to set out the process for engagement with stakeholders under the EP. The document includes the proposed parties, roles, responsibilities and general rules of the EP.</p> <p>AM raised concerns over commercial issues being brought into safety discussions and the potential complexity of managing this during meetings. Additionally, standard methodologies used could be questioned by commercial stakeholders despite these largely being defined by the requirements of MGN 543. This concern was shared by MCA and TH and noted that it was outside of their statutory remits. SM noted these concerns and explained that the meetings should be undertaken as they traditionally would have but the outcomes of the meetings is more formally recorded. Therefore, this issue should be managed as it normally would be, and participants should be reminded of the rules of engagement outlined in the EP. SM also noted that specific commercial issues will be addressed with parties outside of the EP.</p> <p>TH and MCA expressed concerns over the additional resource commitments which would be required to engage with the process and noted their time constraints. AW explained that with the exception of the steering group meetings (anticipated at key project milestones) that the resource requirements should be similar to previous pre-application NSIP projects and that it could be reviewed throughout the process to ensure that the level of engagement is acceptable.</p> <p>HC requested to understand if the project had approached PINS regarding the EP and the feedback received. AW confirmed that the project has spoken to PINS and has requested its attendance on the steering group. In addition, SM explained the history of the EP and that it is considered best practice for pre-application engagement with statutory and non-statutory stakeholders. In addition, SM confirmed that a copy of the ToR has been provided to PINS.</p> <p>It was agreed to formalise an ETG under the EP for shipping and navigation aspects of the proposed development.</p>
<b>4</b>	<p><b>AOB</b></p> <p>No issues raised.</p>



Agenda Item	Action	Who?	Due Date
<b>1</b>	AH to provide diagram for the ML process and innogy's understanding of the process (annotated version).	innogy	Not defined
<b>2</b>	No actions recorded	N/A	N/A
<b>3</b>	No actions recorded	N/A	N/A
<b>4</b>	No actions recorded	N/A	N/A

# Awel y Môr Consultation Meeting: UK Chamber of Shipping – 29<sup>th</sup> Sep 2020



## 1 Meeting Overview

<b>Date</b>	28 <sup>th</sup> September 2020
<b>Time</b>	15:00
<b>Participants</b>	<ul style="list-style-type: none"><li>▪ Samantha Westwood (SW) – Anatec</li><li>▪ James Milne (JM) – Anatec</li><li>▪ Alexander Betts (AB) – Anatec</li><li>▪ Sean Leake (SL) – GoBe Consultants</li><li>▪ Robert McManus (RMc) – GoBe Consultants</li><li>▪ Alex Herbert (AH) – RWE</li><li>▪ Robert Merrylees (RM) – UK Chamber of Shipping</li></ul>
<b>Purpose</b>	Introduction to Awel y Môr and overview of the methodologies being used for the vessel traffic survey and Navigational Risk Assessment (NRA).

## 2 Agenda

- Introductions
- Project details
- Shipping and Navigation Scoping summary
- Data sources
- NRA methodology
- Next steps and AOB

## 3 Minutes

### 3.1 Introductions and Project Details

- SW led introductions to the project team, including RWE, GoBe Consultants and Anatec and outlined the agenda.
- AH detailed the surveys that are currently underway for ornithology, onshore and offshore. Onshore benthic surveys are complete, and geophysical surveys are nearly complete.
- AH noted that the EIA scoping is now complete with remote engagement days planned for November 2020 with the PEIR submission in August 2021.
- RM asked how it is being ensured that all the relevant parties are invited to participate in consultation; AH replied that a strategy is currently being put in place for the statutory consultation process stage that will ensure all parties are contacted.
- AH noted that Innogy is now a part of RWE thus email addresses have changed.

- AH noted that site selection/development is currently underway. The project plans to complete construction by 2030 to meet Welsh renewable targets which is a tight but manageable timeline.
- AH outlined three Export Cable Routes (ECRs) with fan options for meeting the array area as it is not yet known where the substation(s) will be located. The ECR is mostly of 1 kilometre (km) width with the width greater in some areas where required. Similar refinement is also underway onshore.

### 3.2 Shipping and Navigation Scoping Summary

- JM presented the planned study area for the array area. The study area for the array area does not fully encompass the ECR but a separate ECR study area will cover the entire ECR area within the Navigational Risk Assessment (NRA).
- JM confirmed that the hatched area within the ECR area is an existing offshore wind farm (Rhyl Flats).
- RM confirmed he is content with the study area shown.
- JM detailed the navigational features in the area noting that the most important are the Traffic Separation Scheme (TSS), other nearby wind farms, Oil and Gas platforms, and marine aggregate dredging areas. There is also a pilot boarding station (Point Lynas) just outside of the study area that will be considered within the analysis.
- RM agreed with the features shown and with the pilot area being included in the analysis, also highlighting the full extent of the anchorage area to the west

### 3.3 Data Sources

- JM detailed the AIS data set used for the Scoping Report including the traffic utilising the TSS consisting of approximately 27 vessels per day that were predominantly cargo vessels and tankers. Wind farm traffic will be excluded from the analysis as these are predominantly project vessels. A marine aggregate dredger route was also observed to the Menai Strait but this route was only present in the summer period.
- JM indicated that the winter period largely showed the same activity as summer, but with greater number of vessels observed within more sheltered regions. Also, fishing and recreational activity was limited with some recreational craft in the summer observed within the south west coastal regions.
- RM commented that there was not much interaction on the western extent of the wind farm.
- RM queried the cargo traffic shown near Colwyn Bay; JM explained that this was out of the Raynes Jetty operated by CEMEX but they are classed as cargo as they are picking up dredged material as opposed to undertaking dredging activities. BMAPA have been contacted regarding these vessels. RM suggested that he could send a contact for CEMEX.

**Action: RM to send contact details for CEMEX.**

### 3.4 NRA Methodology

- JM detailed the main data sources which will be used within the NRA including 28 days of seasonal data compliant with Marine Guidance Note (MGN) 543. The winter survey is planned for October/November and the summer survey will likely be undertaken in July/August 2021. Twelve months of 2019 AIS data will also be used to validate the on-site datasets. Other sources which will be considered include Vessel Monitoring System (VMS), Department for Transport (DfT) data, and Search and Rescue (SAR) datasets.
- RM asked if the survey data will be used for the PEIR submission; JM confirmed that the winter survey data will be used with AIS data used for summer but the Environmental Statement will contain both survey data sets. RM was satisfied with this approach.
- SW noted that the NRA will be compliant with the new MGN (replacing MGN 543) if it is published prior to submission.
- RM queried whether 20 years of Marine Accident Incident Branch (MAIB) data could be used; SW responded that this is not available as digitised records do not go back this far but the most extensive data available will be used.
- JM stated that the NRA shall follow the As Low a Reasonably Practicable (ALARP) Principle and use a risk matrix to determine impact significance. Traffic displacement and adverse weather routeing (particularly in relation to the Isle of Man Steam Packet based on Scoping responses) shall be considered.
- JM noted that collision and allision risk modelling shall also be undertaken. The impact to ports shall be considered. Anchor interaction, interference to Radar, and reduction in SAR capability shall all be considered.
- RM was content with the datasets and the planned approach and noted that there are a lot of containerships within the area; SW suggested that when undertaking regular operator analysis we may request contact details from RM. RM noted that Gary Doyle at Peel Ports would be useful to contact.

### 3.5 Next Steps and AOB

- JM noted that this is the first of several consultation meetings.
- RM queried whether Seatruck Ferries are on the list; JM responded that they were not at this time but would likely be identified as a regular operator from the traffic datasets and therefore contacted.
- RM commented that the site seems largely amenable to pre existing routes.
- RM queried the Hazard Workshop timeline; SW replied that no firm date has been set but this will take place pre PEIR.
- RM noted that the only consideration from the Chamber's perspective is the anchoring and sheltering to the west of the site; SW indicated that this may be added as a specific question in the regular operator consultation.

- SL queried when the regular operator analysis would be complete, so RM can provide contacts if required; SW replied that it will be later this year along with the winter survey data as this will ensure the most up to date regular operators.
- SW asked if routeing is back to normal levels in the area following COVID-19 effects; RM indicated that it was now close to normal but with limited passengers. Tankers are slightly reduced in numbers but the routeing is the same.

## 4 Actions

- **RM to send contact details for CEMEX.**

# Awel y Môr Consultation Meeting: Port of Mostyn – 29<sup>th</sup> Sep 2020

## 1 Meeting Overview

<b>Date</b>	29 <sup>th</sup> September 2020
<b>Time</b>	10:00
<b>Participants</b>	<ul style="list-style-type: none"><li>▪ Alex Herbert (AH) – RWE</li><li>▪ Sean Leake (SL) – GoBe Consultants</li><li>▪ Ryan McManus (RM) – GoBe Consultants</li><li>▪ Sam Westwood (SW) – Anatec</li><li>▪ James Milne (JM) – Anatec</li><li>▪ Rob Jackson (RJ) – Port of Mostyn</li></ul>
<b>Purpose</b>	Introduction to Awel y Môr and overview of the methodologies being used for the vessel traffic survey and Navigational Risk Assessment (NRA).

## 2 Agenda

- Introductions
- Project details
- Shipping and Navigation Scoping summary
- Data sources
- NRA methodology
- Next steps and AOB

## 3 Minutes

### 3.1 Introductions and Project Details

- SW led introductions to the project team, including RWE, GoBe Consultants and Anatec and outlined the agenda.
- AH provided an update on the project status including surveys, public engagement days and the programme. It is currently planned to have the project operational by 2030 to meet Welsh Government renewable energy targets.
- AH outlined the offshore export cable route search area noting that three routes and landfall locations are currently under consideration.
- JM explained that a project design envelope would be applied in the NRA and outlined some of the key specifications including the maximum number of turbines which may be installed (100) and the foundation types under consideration (monopile, jacket and suction bucket).
- SW introduced the main study area which will be used to characterise the baseline consisting of a 10 nautical mile (nm) buffer of the array area. An additional study area

will be utilised to account for the portion of the offshore export cable route search area which lies beyond the 10nm buffer. RJ was content with the planned the study area.

### 3.2 Shipping and Navigation Scoping Summary

- SW led a review of the navigational features identified during the Scoping followed by the vessel traffic data. It was emphasised that this Automatic Identification System (AIS) only dataset would not be used in the NRA itself but rather an on-site vessel traffic survey will be undertaken.
- Several features of the AIS data were noted including the cargo/tanker traffic through the Liverpool Bay Traffic Separation Scheme (TSS), wind farm traffic for existing developments in the region and anchoring vessels in the sheltered waters at the western extent of the study area.
- RJ was content with the data presented and noted that there is potential for P&O Ferries to start operating a ferry route out of Mostyn (headed for Dublin) next year. If this route does proceed it will consist of three ferries per day and will pass through the Outer Channel and between the Gwynt y Môr and North Hoyle Offshore Wind Farms.
- RJ also noted the tidal lagoon project being developed by the Port of Mostyn; although this project is in its infancy, it could be under construction within the next five years. RM added that reports suggest a possible 2022 Development Consent Order (DCO) application.

### 3.3 Data Sources

- SW outlined the data sources which will be used in the NRA including a 28-day vessel traffic survey undertaken by an on-site survey vessel and consisting of AIS, Radar and visual observations.
- A 12-month AIS dataset covering 2019 will be used to validate the findings of the on-site survey and for seasonality purposes. It is noted that the use of 2019 data ensures the effects on shipping from COVID-19 are not present in the baseline.

### 3.4 NRA Methodology

- SW outlined the Formal Safety Assessment (FSA) approach that would be used as required under the Maritime and Coastguard Agency's (MCA) methodology. The As Low as Reasonably Practicable (ALARP) Principle will be applied to ensure impacts significance is reduced to within 'broadly acceptable' or 'tolerable' parameters.
- SW listed the impacts identified during Scoping which it is proposed to assess in the NRA as well as the parties who are being engaged at this stage of the process.
- RJ was content that the impacts covered and consultee list was comprehensive.

### 3.5 Next Steps and AOB

- SW summarised the next steps, noting that only the winter vessel traffic survey will be included in the NRA for the Preliminary Environmental Information Report (PEIR); the summer vessel traffic survey (to be undertaken in July/August 2021) will be incorporated into the NRA for the Environmental Statement (ES).
- RJ confirmed that if available he would be interested in attending the Hazard Workshop to be undertaken at a later date.
- SW confirmed that the slides from the meeting would be sent alongside the minutes for review.
- **Action: SW/JM to provide copy of the slides to RJ.**
- SW urged RJ to get in touch if there are any issues/comments come to mind post meeting, including additional parties who should be consulted.

## 4 Actions

- **SW/JM to provide a copy of the slides to RJ.**



# Awel y Môr Consultation Meeting: Dee Conservancy – 1<sup>st</sup> October 2020

## 1 Meeting Overview

<b>Date</b>	1 <sup>st</sup> October 2020
<b>Time</b>	10:00
<b>Participants</b>	<ul style="list-style-type: none"><li>▪ Alex Herbert (AH) – RWE</li><li>▪ Ryan McManus (RM) – GoBe Consultants</li><li>▪ Sam Westwood (SW) – Anatec</li><li>▪ James Milne (JM) – Anatec</li><li>▪ Simon Capes (SC) – Dee Conservancy</li></ul>
<b>Purpose</b>	Introduction to Awel y Môr and overview of the methodologies being used for the vessel traffic survey and Navigational Risk Assessment (NRA).

## 2 Agenda

- Introductions
- Project details
- Shipping and Navigation Scoping summary
- Data sources
- NRA methodology
- Next steps and AOB

## 3 Minutes

### 3.1 Introductions and Project Details

- JM led introductions to the project team, including RWE, GoBe Consultants and Anatec and outlined the agenda. JM noted this meeting was to go over the scoping report and allow Dee Conservancy to provide any feedback.
- AH provided an update on the project status including surveys, public engagement days and the programme. It is currently planned to have the project operational by 2030 to meet Welsh Government renewable energy targets.
- AH outlined the offshore export cable route search area noting that three routes and landfall locations are currently under consideration.
- JM explained that a project design envelope would be applied in the NRA and outlined some of the key specifications including the maximum number of turbines which may be installed (100) and the foundation types under consideration (monopile, jacket and suction bucket).
- JM introduced the main study area which will be used to characterise the baseline consisting of a 10 nautical mile (nm) buffer of the array area. An additional study area

will be utilised to account for the portion of the offshore export cable route search area which lies beyond the 10nm buffer. RJ was content with the planned the study area. SC noted it may be worth ensuring the area around the Mostyn port access channel is covered.

### 3.2 Shipping and Navigation Scoping Summary

- JM led a review of the navigational features identified during the Scoping followed by the vessel traffic data. It was emphasised that this Automatic Identification System (AIS) only dataset would not be used in the NRA itself but rather an on-site vessel traffic survey will be undertaken. SC noted that Mostyn Port have authority for pilotage in the area but did note the outer pilotage area was rarely used.
- Several features of the AIS data were noted including the cargo/tanker traffic through the Liverpool Bay Traffic Separation Scheme (TSS), wind farm traffic for existing developments in the region and anchoring vessels in the sheltered waters at the western extent of the study area. SC noted the anchorage area is mostly used for sheltering in winter and often by vessel leaving Liverpool and awaiting orders.
- SC noted traffic within in the estuary is mostly non AIS. He was aware of 3-4 fishing vessels on AIS that were often out at the GYM site. In summer there are typical non AIS long liners in the area.

### 3.3 Data Sources

- JM outlined the data sources which will be used in the NRA including a 28-day vessel traffic survey undertaken by an on-site survey vessel and consisting of AIS, Radar and visual observations.
- A 12-month AIS dataset covering 2019 will be used to validate the findings of the on-site survey and for seasonality purposes. It is noted that the use of 2019 data ensures the effects on shipping from COVID-19 are not present in the baseline.
- SC recommended liaising closely with RYA and noted there were two or three local clubs within the estuary itself.
- SW queried any ongoing impacts from COVID. SC suggested that commercial traffic had appeared to be fairly steady but did note that the cessation of building A380 aircraft wings within the Dee (Broughton) meant that vessels carrying those wings would not longer be visiting the area and there was no expectation for them to return.
- SC also noted that the Mersey Guardian operated on the area (Dee) carrying out water quality testing.

### 3.4 NRA Methodology

- JM outlined the Formal Safety Assessment (FSA) approach that would be used as required under the Maritime and Coastguard Agency's (MCA) methodology. The As Low as Reasonably Practicable (ALARP) Principle will be applied to ensure impacts significance is reduced to within 'broadly acceptable' or 'tolerable' parameters.

- JM listed the impacts identified during Scoping which it is proposed to assess in the NRA as well as the parties who are being engaged at this stage of the process.
- SC was content that the impacts covered and as expected, noting impacts on the port were of most interest to them.

### 3.5 Next Steps and AOB

- JM summarised the next steps, noting that only the winter vessel traffic survey will be included in the NRA for the Preliminary Environmental Information Report (PEIR); the summer vessel traffic survey (to be undertaken in July/August 2021) will be incorporated into the NRA for the Environmental Statement (ES).
- SC confirmed that if available he would be interested in attending the Hazard Workshop to be undertaken at a later date.
- SW confirmed that the slides from the meeting would be sent alongside the minutes for review.
- **Action: SW/JM to provide copy of the slides to SC.**
- SW urged RJ to get in touch if there are any issues/comments come to mind post meeting, including additional parties who should be consulted.
- AH offered a meeting or guidance as to the PINS process if required.

# Awel y Môr Consultation Meeting: Cruising Association – 1<sup>st</sup> Oct 2020

## 1 Meeting Overview

<b>Date</b>	1 <sup>st</sup> October 2020
<b>Time</b>	15:30
<b>Participants</b>	<ul style="list-style-type: none"><li>▪ Alex Herbert (AH) – RWE</li><li>▪ Sean Leake (SL) – GoBe Consultants</li><li>▪ Ryan McManus (RM) – GoBe Consultants</li><li>▪ Sam Westwood (SW) – Anatec</li><li>▪ James Milne (JM) – Anatec</li><li>▪ Derek Lumb (DL) – Cruising Association</li></ul>
<b>Purpose</b>	Introduction to Awel y Môr and overview of the methodologies being used for the vessel traffic survey and Navigational Risk Assessment (NRA).

## 2 Agenda

- Introductions
- Project details
- Shipping and Navigation Scoping summary
- Data sources
- NRA methodology
- Next steps and AOB

## 3 Minutes

### 3.1 Introductions and Project Details

- SW led introductions to the project team, including RWE, GoBe Consultants and Anatec and outlined the agenda.
- AH provided an update on the project status including surveys, public engagement days and the programme, noting that geophysical surveys are now complete. It is currently planned to have the project operational by 2030 to meet Welsh Government renewable energy targets.
- AH outlined the offshore export cable route search area noting that three routes and landfall locations are currently under consideration.
- SW explained that a project design envelope would be applied and the NRA will consider the largest number of turbines on the largest foundation type across the widest possible area as a worst case. Up to 100 turbines may be installed.
- SW added that the minimum blade clearance will be considered noting its significance to recreational users.

- DL queried the minimum spacing between wind farm structures under consideration; AH confirmed that this information is not yet available but noted that the trend is towards fewer, larger turbines. SW added that as soon as details are available these will be passed on.
- Action: RWE/Anatec to provide minimum spacing details to DL once available.**
- SW introduced the main study area which will be used to characterise the baseline consisting of a 10 nautical mile (nm) buffer of the array area. An additional study area will be utilised to account for the portion of the offshore export cable route search area which lies beyond the 10nm buffer. DL was content with the planned the study area.

### 3.2 Shipping and Navigation Scoping Summary

- SW led a review of the navigational features identified during the Scoping primarily based on United Kingdom Hydrographic Office (UKHO) charts; DL was content that at this time there was nothing further should be added.
- SW provided an overview of the vessel traffic data analysed during the Scoping, noting that the dataset is AIS only. In line with European Union (EU) regulations, only vessel lengths between 2.5 and 24 metres (m) are considered for classification as recreational craft.
- Several features of the AIS data were noted including anchoring vessels in the sheltered waters at the western extent of the study area and some recreational activity in the bay area. SW noted that recreational levels were low even in the summer period.
- DL commented that the area off Point Lynas is primarily used for anchoring rather than as shelter.
- DL stated that the area is not heavily cruised with routes which are present such as between Fleetwood/Glasson and the Menai Strait used infrequently.

### 3.3 Data Sources

- SW outlined the data sources which will be used in the NRA including a 28-day vessel traffic survey undertaken by an on-site survey vessel and consisting of AIS, Radar and visual observations.
- DL noted that he would not expect much recreational activity in the winter period.
- A 12-month AIS dataset covering 2019 will be used to validate the findings of the on-site survey and for seasonality purposes. It is noted that the use of 2019 data ensures the effects on shipping from COVID-19 are not present in the baseline.

### 3.4 NRA Methodology

- SW outlined the Formal Safety Assessment (FSA) approach that would be used as required under the Maritime and Coastguard Agency's (MCA) methodology. The As Low as Reasonably Practicable (ALARP) Principle will be applied to ensure impacts significance is reduced to within 'broadly acceptable' or 'tolerable' parameters.

- SW listed the impacts identified during Scoping which it is proposed to assess in the NRA as well as the parties who are being engaged at this stage of the process.
- Regarding the under keel clearance impact, SW acknowledged the guidance provided in MGN 543 regarding reduction in navigable water depths and indicated that the project will be working with the MCA on the subject of layouts.
- DL was content that the impacts covered was comprehensive.
- DL suggested that there are several local cruising clubs which may be interested in the project and will send a list of these; SW agreed to provide information to these clubs and an invite to the Hazard Workshop.
- Post Meeting note: DL provided details (including contact information) for local clubs via email (01/10).
- **Action: Anatec to provide information to the local clubs indicated by DL.**

### 3.5 Next Steps and AOB

- SW summarised the next steps, noting that only the winter vessel traffic survey will be included in the NRA for the Preliminary Environmental Information Report (PEIR); the summer vessel traffic survey (to be undertaken in July/August 2021) will be incorporated into the NRA for the Environmental Statement (ES).
- DL confirmed that he would be interested in attending the Hazard Workshop to be undertaken at a later date.

## 4 Actions

- **Anatec to provide information to the local clubs indicated by DL.**

# Awel y Môr Consultation Meeting: MCA and Trinity House – 2<sup>nd</sup> October 2020



## 1 Meeting Overview

<b>Date</b>	2 <sup>nd</sup> October 2020
<b>Time</b>	10:00
<b>Participants</b>	<ul style="list-style-type: none"><li>▪ Alex Herbert (AH) – RWE</li><li>▪ Sean Leake (SL) – GoBe Consultants</li><li>▪ Ryan McManus (RM) – GoBe Consultants</li><li>▪ Sam Westwood (SW) – Anatec</li><li>▪ James Milne (JM) – Anatec</li><li>▪ Helen Croxson (HC) – MCA</li><li>▪ Nick Salter (NS) – MCA</li><li>▪ Trevor Harris (TH) – Trinity House</li><li>▪ Steve Vanstone (SV) – Trinity House</li></ul>
<b>Purpose</b>	Introduction to Awel y Môr and overview of the methodologies being used for the vessel traffic survey and Navigational Risk Assessment (NRA).

## 2 Agenda

- Introductions
- Project details
- Shipping and Navigation Scoping summary
- Data sources
- NRA methodology
- Next steps and AOB

## 3 Minutes

### 3.1 Introductions and Project Details

- SW led introductions to the project team, including RWE, GoBe Consultants and Anatec and outlined the agenda.
- AH provided an update on the project status including surveys, public engagement days and the programme. It is currently planned to have the project operational by 2030 to meet Welsh Government renewable energy targets.
- AH outlined the offshore export cable route search area noting that three routes and landfall locations are currently under consideration.
- JM explained that a project design envelope would be applied in the NRA and outlined some of the key specifications including the maximum number of turbines which may



be installed (100) and the foundation types under consideration (monopile, jacket and suction bucket).

- SV asked if the requirement not to exceed the existing capacity of Gwynt Y Mor had changed? AH confirmed that a change to 1 Gigawatt is not yet agreed but the process is ongoing to discuss this with The Crown Estate and National Grid.
- JM introduced the main study area which will be used to characterise the baseline consisting of a 10 nautical mile (nm) buffer of the array area. An additional study area will be utilised to account for the portion of the offshore export cable route search area which lies beyond the 10nm buffer. MCA and Trinity were content with the planned the study areas.
- TH asked how we account for temporary traffic is that working on pipeline going into the Dee Estuary. JM asked if this study area needed extending, TH confirmed this was not likely needed. SW note that as part of our data assessment we carefully go through data to identify any temporary traffic (using Notice to Mariners, Kingfisher) and exclude or include as necessary, making it clear in the NRA what we have excluded.
- SW queried whether the MCAs position had changed on the need to extend the existing TSS. HC confirmed that it hadn't, and it was still very much for the project to make a safety case if they felt it was required. There was no preference from either MCA or TH perspective (noting THs remit).
- *Post meeting note: HC resent an overview of the IMO application process via email on 4<sup>th</sup> Nov.*

### 3.2 Shipping and Navigation Scoping Summary

- JM led a review of the navigational features identified during the Scoping followed by the vessel traffic data. It was emphasised that this Automatic Identification System (AIS) only dataset would not be used in the NRA itself but rather an on-site vessel traffic survey will be undertaken.
- Several features of the AIS data were noted including the cargo/tanker traffic through the Liverpool Bay Traffic Separation Scheme (TSS), wind farm traffic for existing developments in the region and anchoring vessels in the sheltered waters at the western extent of the study area.

### 3.3 Data Sources

- JM outlined the data sources which will be used in the NRA including a 28-day vessel traffic survey undertaken by an on-site survey vessel and consisting of AIS, Radar and visual observations.
- A 12-month AIS dataset covering 2019 will be used to validate the findings of the on-site survey and for seasonality purposes. It is noted that the use of 2019 data ensures the effects on shipping from COVID-19 are not present in the baseline.
- No feedback on the proposed data sources.



### 3.4 NRA Methodology

- JM outlined the Formal Safety Assessment (FSA) approach that would be used as required under the Maritime and Coastguard Agency's (MCA) methodology. The As Low as Reasonably Practicable (ALARP) Principle will be applied to ensure impacts significance is reduced to within 'broadly acceptable' or 'tolerable' parameters.
- JM listed the impacts identified during Scoping which it is proposed to assess in the NRA as well as the parties who are being engaged at this stage of the process.
- TH asked that the NRA considers the obstruction of the Point Lynas Light (and any other AtoN) by the windfarm. He suggested considering first what the impact might be i.e. what angles might be obscured and if we feel there is a navigational safety concern to speak to Trinity House.
- Proposed consultees were discussed. TH asked if the operators of Raynes Jetty (Llanddulas) had been identified. JM confirmed they will be contacted (Cemex).

### 3.5 Next Steps and AOB

- JM summarised the next steps, noting that only the winter vessel traffic survey will be included in the NRA for the Preliminary Environmental Information Report (PEIR); the summer vessel traffic survey (to be undertaken in July/August 2021) will be incorporated into the NRA for the Environmental Statement (ES). SW noted that the project was conscious that any changes to traffic in the summer survey may require additional consultation.
- HC gave an update on the updates to MGN 543, 372 and the Methodology. A second round of consultation is due by the end of Nov.
- HC reminded everyone of the hydrographic survey requirements as per MGN 543 Guidelines.
- HC asked about the previous discussions regarding participation at the ETGs, statutory consultation meetings and the Steering Group meeting involving PINs.

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**KICK OFF MEETING MINUTES– 08/10/2020**

<b>MEETING ORGANISER:</b>	ANATEC		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Alex Herbert	RWE	AH
	Sean Leake	GoBe	SL
	Ryan McManus	GoBe	RM
	Sam Westwood	Anatec	SW
	Alex Betts	Anatec	AB
	Alan Herbert	P&O Maritime	AH
	Grainne O’Gara	P&O Maritime	GoG
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	James Milne	Anatec	

<b>Documents provided (Post Meeting):</b>	<b>Filename</b>
Scoping Report	003545813-01-Awel y Mor - EIA - Scoping Report

<b>Agenda item</b>	<b>Minutes</b>
<b>1 (Introductions)</b>	<p>Introductions were made between attendees.</p> <p>SW noted that the objective of the meeting is to get initial feedback and to provide an overview of the process. P&amp;O Maritime have been identified as a stakeholder to be consulted with as they operate the Prince Madog vessel for Bangor University.</p>
<b>2 (Project Details)</b>	<p>Anatec are undertaking the NRA which will include baseline data, consultation feedback, and modelling. These shall be used to assess the risk to maritime stakeholders.</p> <p>AH introduced the project boundary describing the location with regards to the north Wales coast, the planned capacity for the array area, the area of search for the cable route, and the three options for the cable routes currently under consideration. An overview of the offshore and onshore surveys that have been completed to date was given with the majority of these complete or nearing completion.</p> <p>Ah outlined the project programme. EIA stage currently underway with submission in 2022. Non statutory consultation is currently underway. A decision should be made by 2023/24 with the wind farm to be commissioned in 2030.</p>

<b>3 (Shipping and Navigation Scoping Summary)</b>	<p>SW confirmed the object of the NRA is to consider what part of the design envelope will impact on vessels.</p> <p>AR asked if the project was consulting with Bangor University? SL confirmed that the project was.</p> <p>SW noted that the overlap between the NRA and the commercial fisheries chapters and that all impacts will be covered between these two chapters. The slides presented the 10nm study area for the array area and asked if this was an acceptable area to study and if any additional features out of this area should be considered? AR – Confirmed the study area was acceptable.</p> <p>The slides detailed the navigational features that have been identified from several source materials within the area. These include Traffic Separation Schemes, other offshore wind farms, extraction areas, Oil &amp; Gas (O&amp;G) infrastructure, Aids to Navigation, and anchorages.</p> <p>Marine traffic data was presented from the scoping report. The summer Automatic Identification System (AIS) data set showed a number of commercial routes through the area, dredger routes, O&amp;G traffic near to the O&amp;G platforms, and wind farm traffic at the existing wind farms. Recreational traffic was also observed during summer. It was noted that this data set is AIS only however it does give a general overview of the traffic in the area and a dedicated summer survey is planned for summer 2021. The winter survey data (AIS, radar, and visual observations) showed similar routeing with more vessels observed to be sheltering in coastal regions near Point Lynas and less recreational traffic.</p>
<b>4 (Data Sources)</b>	<p>SW gave an overview of the data sources to be used which will comply with Marine Guidance Note (MGN) 543 including 28 days of seasonal marine traffic survey data. Project is also collecting an additional 12 months of AIS data to complement the other data sources, noting this will be from 2019 to avoid complications on traffic volumes and patterns due to COVID-19. A number of other data sources shall be used within the NRA.</p>
<b>5 (NRA Methodology)</b>	<p>SW introduced the NRA methodology to be adopted, qualitative and quantitative inputs, in line with the As Low As Reasonably Practicable (ALARP) principles and the International Maritime Organization (IMO) Formal Safety Assessment (FSA) methodology. The impacts to be assessed and where appropriate mitigations applied to reduce impacts to at least tolerable. Are the impacts presented sensible and is there any other impacts that we should be considering? And are there any interactions that are already known?</p> <p>AR noted some possible interaction with the Endeavour vessel and would feed back further information.</p> <p>SW introduced the proposed consultees (including port, recreational users, and regular operators) and summarised the approach to identify regular operators. The next steps were detailed including the hazard workshop that will be undertaken in Q1 next year. Official opportunity for comments will be the PEIR submission next year, before formal submission, however comments are welcomed at any stage.</p> <p>AR noted not major feedback at this stage.</p> <p>SW asked if their vessels navigate internally within existing wind farm arrays. AR confirmed they did not.</p>
<b>6 (Next Steps and AOB)</b>	<p>SL Noted that the project is keen to engage insofar as is helpful for stakeholders and SW reiterated this and highlighted that the Hazard Workshop is a good opportunity for stakeholders to engage</p> <p>AR confirmed that P&amp;O Maritime would be interested in attending a Hazard Workshop and would provide feedback prior to this after viewing the scoping report.</p>

Agenda Item	Action	Who?	Due Date
1	Minutes, scoping report, scoping questions, and A3 figures from presentation to be provided to P&O Maritime	Anatec	
2	Send feedback including lessons learnt from GyM	GoG	
3			

# Awel y Môr Consultation Meeting:

Peel Ports, Liverpool Pilots & Briggs Marine – 24<sup>th</sup> November 2020

## 1 Meeting Overview

<b>Date</b>	24 <sup>th</sup> November 2020
<b>Time</b>	15:30
<b>Participants</b>	<ul style="list-style-type: none"><li>▪ Ryan McManus (RM) – GoBe Consultants</li><li>▪ Sam Westwood (SW) – Anatec</li><li>▪ James Milne (JM) – Anatec</li><li>▪ Neill Sumner (NS) – Peel Ports</li><li>▪ David Roberts (DR) – Liverpool Pilots</li><li>▪ David Williamson (DW) – Liverpool Pilots</li><li>▪ Neil Reid (NR) – Briggs Marine</li></ul>
<b>Apologies</b>	<ul style="list-style-type: none"><li>▪ Alex Herbert (AH) – RWE</li><li>▪ Sean Leake (SL) – GoBe Consultants</li></ul>
<b>Purpose</b>	Introduction to Awel y Môr, overview of the methodologies being used for the vessel traffic survey and Navigational Risk Assessment (NRA), and opportunity to discuss early concerns relating to shipping and navigation.

## 2 Agenda

- Introductions
- Project details
- Shipping and Navigation Scoping summary
- Data sources
- NRA methodology
- Next steps and AOB

## 3 Minutes

### 3.1 Introductions and Project Details

- SW led introductions to the project team, including RWE (not present), GoBe Consultants and Anatec and outlined the agenda.
- RM provided an update on the project status including surveys, public engagement days and the programme. It is currently planned to have the project operational by 2030 to meet Welsh Government renewable energy targets.
- RM outlined the offshore export cable route search area noting that three routes and landfall locations are currently under consideration.
- DR queried how fixed the site selection is and specifically how far west may be developed; JM noted that the maximum extent will be considered and RM added that

a maximum design scenario would be applied. SW noted that consultation input will assist in determining any further site refinement.

- SW outlined some of the key specifications including the maximum number of turbines which may be installed (100) and the foundation types under consideration (monopile, jacket and suction bucket). For shipping and navigation the maximum number of turbines on the largest foundation will be considered the worst case.
- DW queried the likely size and position of the substations; SW noted that any structure must be placed within the array area and the Maritime and Coastguard Agency's (MCA) Marine Guidance Note (MGN) 543 details the placement of such structures for allowing safe navigation. JM added that the maximum topside dimensions under consideration are 80x50m.

### 3.2 Shipping and Navigation Scoping Summary

- SW introduced the main study area which will be used to characterise the baseline consisting of a 10 nautical mile (nm) buffer of the array area.
- SW led a review of the navigational features identified during the Scoping followed by the vessel traffic data.
- Several features of the AIS data were noted including the cargo/tanker traffic through the Liverpool Bay Traffic Separation Scheme (TSS), wind farm traffic for existing developments in the region and anchoring vessels in the sheltered waters at the western extent of the study area.
- DR stated that although the Port of Liverpool has Vessel Traffic Services (VTS) coverage, this will not be in use at the extent of the development; SW noted that this will be clarified in the NRA.
- DR clarified that anchoring/pilotage activity associated with Point Lynas occurs south east of the actual location of the pilot boarding station.
- NS
- DW queried the potential for the Liverpool Bay TSS to be extended noting the benefit this would have for pilotage and anchoring activities off Point Lynas. SW clarified that in order for the International Maritime Organization (IMO) to approve such an extension a traffic management issue in general would need to be demonstrated. At this time it is not the Project's expectation that an extension will be applied for but the concept is being monitored and discussions have been undertaken with the MCA and Trinity House.
- DW confirmed that a TSS extension to the edge of the western extent of the array area would be optimal in allowing eastbound and westbound traffic to and from the pilotage and anchorage area to keep a sufficient distance apart.
- DW queried whether it would be possible from the traffic data to differentiate between transits to and from the pilot area; SW confirmed that this would be possible and will be illustrated in the NRA.
- DR confirmed that the December AIS data shown indicates a greater impact for the pilotage and anchoring activities off Point Lynas. NS added that traffic does cut through the site meaning a change to Masters' planning would be required and

although there would unlikely be a time/distance issue there could be a manoeuvring issue with vessel interactions condensed into a smaller area, particularly if the TSS is extended. DW added that the displacement would result in increased encounters at the north western extent of the array area.

- SW asked whether any issue would be created for pilots boarding; NS did not envisage any issues.

### 3.3 Data Sources

- SW outlined the data sources which will be used in the NRA including a 28-day vessel traffic survey undertaken by an on-site survey vessel and consisting of AIS, Radar and visual observations.
- A 12-month AIS dataset covering 2019 will be used to validate the findings of the on-site survey and for seasonality purposes. It is noted that the use of 2019 data ensures the effects on shipping from COVID-19 are not present in the baseline.
- There were no specific comments on the proposed data sources.

### 3.4 NRA Methodology

- SW briefly outlined the Formal Safety Assessment (FSA) approach that would be used as required under the MCA's methodology. The As Low as Reasonably Practicable (ALARP) Principle will be applied to ensure impact significance is reduced to within 'broadly acceptable' or 'tolerable' parameters.
- SW listed the impacts identified during Scoping which it is proposed to assess in the NRA as well as the parties who are being engaged at this stage of the process.
- SW asked whether the standard 10% increase in vessel traffic for the future case was suitable; NS confirmed this can be discussed and feedback provided.
- **Action: NS to discuss internally a suitable future case traffic assumption.**

### 3.5 Next Steps and AOB

- DW raised that for Gwynt y Môr, wind farm construction traffic created its own hazard and queried where such traffic for Awel y Môr will be based out of. SW confirmed that the construction base is not yet known with a number of options under consideration and a worst case (such as traffic coming from the east) will need to be assumed. The NRA will commit to marine coordination and vessel management including use of entry/exit points to ensure that any route used to visit the site is safe.
- The potential for use of aids to navigation and in particular AIS on structures was raised. SW confirmed that it would be for Trinity House to determine requirements but AIS (most likely virtual) could feature.
- DW noted a concern raised for Gwynt y Môr regarding electromagnetic interference surrounding the use of AIS; SW confirmed that there was no issue and Northern Lighthouse Board (NLB) are increasingly receptive to this feature for wind farms in Scottish waters.

- In response to a comment raised prior to the meeting, SW confirmed that safety zones would be applied for with a 14-day notice required before their deployment. The larger 500m safety zones would apply only where structures are being worked on and therefore only a small number would likely be in place at any one time during construction. During the operational phase the array would be fully open to navigation (with the exception of temporary 500m safety zones where maintenance work is undertaken).
- A copy of the slide deck will be provided to allow further consideration.
- **Action: Anatec to provide copy of slide deck to attendees.**
- A Hazard Workshop will be held around March 2021 to discuss the level of risk; attendees are keen to remain involved.
- RM agreed to ensure the PEIR is provided to attendees following its publication for Section 42.
- **Action: RM to ensure PEIR is provided to attendees once published.**

## 4 Actions

- NS to discuss internally a suitable future case traffic assumption.
- Anatec to provide copy of slide deck to attendees.
- RM to ensure PEIR is provided to attendees once published.



# Meeting Minutes

## AyM Post-PEIR Catch Up with MCA and Trinity House – 06/12/2021

### 1 Overview

A meeting was held with the MCA and Trinity House on the 6<sup>th</sup> of December 2021 to discuss post-PEIR layout changes and general project updates for the Awel y Môr project. Participants are detailed in Table 1.1.

**Table 1.1: Call Participants**

Name	Organisation
Nick Salter (NS)	MCA
Pete Lowson (PL)	MCA
Vinu John (VJ)	MCA
Stephen Vanstone (SV)	Trinity House
Trevor Harris (TH)	Trinity House
Adrian Pattison (AP)	RWE
Alex Herbert (AH)	RWE
Giles Sims-Williams (GS)	RWE
Sean Leake (SL)	GoBe Consultants
Samantha Westwood (SW)	Anatec
Adam Foster (AF)	Anatec
Iain Kelly (IK)	Anatec

### 2 Minutes

#### 2.1.1 Project Updates

- Welcomes and introductions were made, and AH provided a brief project update.
- AH noted that changes discussed today are not yet in the public domain and have not been shared external to the project to date. The information presented is therefore confidential and should not be shared.
- The key change post PEIR is a reduction in array area, with the western extent of the site removed. AF noted this was of benefit to shipping and navigation given it increased space for vessels associated with Point Lynas.
- AF noted the “Other Infrastructure Zone” (i.e., the area where a met mast may be placed) has also been amended in response to shipping and navigation concerns.

### 2.1.2 AyM Layout

- AF explained that the reduction in array area means a new layout must be defined for the purposes of the NRA. AF presented the proposed layout, which contains the maximum possible number of structures and represents full site build out. A worst case met mast position has been selected within the new Other Infrastructure Zone.
- PL queried how many turbines were in the layout. AF stated it was 50.
- AF summarised SAR access available through the proposed NRA layout, which is broadly similar to the previous version shown to MCA. SW noted that the layout was a realistic “worst case” for NRA purposes.
- Spacing between the GyM array and the AyM array (NRA layout) is approximately 0.3-0.4nm as a minimum.
- There is a single line of orientation in a north-south bearing with minimum lane width of 1km. PL observed that the three easternmost lanes were not continuous through GyM but noted this was also the case in the previous layout.
- PL queried whether any secondary coverage had been identified and suggested a northeast / southwest bearing may provide some partial secondary coverage. SW noted that based on spacing there was also likely to be some benefit to considering an east / west secondary orientation.

**Action: Anatec to check and Provide secondary coverage option – Complete 14/12/2021.**

- AF presented the impact of the NRA layout on the existing GyM SAR lanes. The turbines have been positioned to ensure one line of orientation is maintained, however given the significant difference in rotor diameter, the tip-to-tip width of lanes interacting with AyM turbines is reduced from approx. 500m to approx. 350m. AF explained to ensure worst case NRA assessment, the AyM positions have been defined to only facilitate one GyM line of orientation i.e., continuous lanes into AyM are not available for the second GyM line.

### 2.1.3 Layout Commitments

- SW noted that clarifications have been made to the Layout Commitments (noting no comments were received in the Section 42 consultation) to ensure the content is clear.
- It was agreed that MCA and Trinity House would need to review the updates and then provide feedback, however the following key points were noted:
  - GyM lane width reduction to 300m is based on maximum possible AyM rotor diameter.
  - It may be necessary for the layout in the east and northeast corner of AyM to be “irregular” in nature to best accommodate the GyM SAR lane orientation.
- PL queried whether there was scope for minimising use of the northeast corner i.e., favouring turbine positions outside of the northeast corner. AP stated it was too early to be able to commit to that at this stage.
- PL stated that a key MCA consideration was the space available between AyM and GyM, and noted that this should be maximised. SW noted the NRA needed to assess

a realistic worst case, and also that the positions shown were chosen to maximise flexibility of use of the area in terms of interaction with GyM.

#### 2.1.4 Met Mast

- AF presented the proposed worst case met mast position to be included in the NRA modelling. It has been chosen on the basis that it is the most “isolated” position within the Other Infrastructure Zone and is also the position closest to the Point Lynas traffic.
- TH queried whether the southwestern-most corner may also pose a worst case. AF noted traffic volume in proximity to that corner was lower, and SW added the vessels of relevance to that corner were also typically smaller in size than the Point Lynas traffic. SW suggested that the southwestern-most corner could still be captured qualitatively within the NRA. Trinity House were content with this approach noting that there were potentially some larger aggregate dredgers leaving Mostyn.
- SW queried general view of the met mast noting it was intended to be sited outside of the array. TH noted the new Other Infrastructure Zone was an improvement on the version at PEIR stage, and as such was generally content for it to be assessed in the NRA on the basis that Trinity House will still need to approve a final position.
- NS stated the met mast would need to be sited with consideration for SAR access, and noted the current position would affect east / west and potentially additional secondary coverage. PL noted the OSPs already affected east / west coverage, however any additional secondary coverage should still be considered. NS stated the layout assessed in the NRA must be acceptable even though it was recognised that it was worst case.
- SW queried how Trinity House would require the met mast to be lit, noting it was outside the array. TH stated it would likely be required to be lit as an isolated structure (i.e., 10nm light) as opposed to as an SPS given it sat outside of the array and was also a different type of structure to the turbines / OSPs.

#### 2.1.5 NRA and ES approach

- In terms of general NRA approach, the following was agreed:
  - The proposed met mast position will be modelled noting qualitative consideration will also be given to a location on the southern periphery of the Other Infrastructure Zone.
  - The proposed NRA layout will be assessed for secondary coverage prior to confirmation of its inclusion in NRA.
  - No second hazard workshop will be held noting key stakeholders will still be consulted on an individual basis.
- SL summarised the approach to DCO and Marine Licensing for the AyM project. For English wind farms, the Marine License is deemed as part of the DCO, however it is not possible to deem the ML in the DCO for NSIPs in Welsh waters. Separate DCO and ML applications are required and parallel applications will be submitted to PINS for the DCO and to NRW for the ML.

- As NRW does not typically share a draft ML as part of the licensing process, AyM therefore expects to provide an annex / accompanying document suggesting “model” conditions to be included in the ML. AyM is currently seeking to agree these model conditions with NRW. This is considered an important process so that important information will be secured as part of the application.
- NS noted MCA liaise with NRW on other projects, and will look to liaise on the “model” condition approach. NS queried if the “model” condition approach is agreed upon by NRW, noting potential concern over whether any MCA comments on the model conditions would be captured and incorporated.
  - SL explained NRW have been provided with draft model conditions for comment and the project are awaiting general feedback on both the conditions and the process.
- NS asked if this will be the permanent process for future Welsh projects. AH stated best understanding is that this will be the case moving forward (noting it is fixed in law, and has also been the case for past projects), however there is optimism that the collaborative approach being proposed by AyM to NRW will streamline the process.

## 2.2 AOB

- PL queried if the presentation slides could be shared. It was agreed these could be shared on a confidential basis. **Action: slides to be shared with MCA and Trinity House on a confidential basis – Complete 14/12/2020**

## 3.2 Appendix C2: Offshore Ornithology Meeting Minutes

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**OFFSHORE ORNITHOLOGY AND MARINE MAMMALS EVIDENCE PLAN MEETING MINUTES–**  
**25/11/19**

<b>MEETING ORGANISER:</b>	<b>INNOGY</b>
<b>LOCATION:</b>	<b>THE MANAGEMENT CENTRE, COLLEGE RD, BANGOR LL57 2DG</b>
<b>PROJECT</b>	<b>AWEL Y MÔR OFFSHORE WIND FARM</b>
<b>ATTENDEES:</b>	PAUL CARTER (INNOGY) (PC) ALEX HERBERT (INNOGY) (AH) HELEN THOMAS (INNOGY) (HT) PETE GACHES (GOBE) (PG) JOEL WALLEY (DENBIGHSHIRE DISTRICT COUNCIL) (JW) GABRIELLE WYN (NRW) (GW) CERI MORRIS (NRW) (CM) RICHARD FACEY (NRW) (RF) CHRISTOPHER JONES (NRW) (CJ) ANDREW DODD (RSPB) (AD) RAFA DEWAR (MACATHUR GREEN) (RD) MARK TRINDER (MACATHUR GREEN) (MT) NIA JONES (WILDLIFE TRUST) (NJ) TANIA DAVEY (WILDLIFE TRUST) (TD) MICK GREEN (WHALE AND DOLPHIN CONSERVATION) (MG) FRASER CARTER (GOBE) (FC) NICOLA SOLLY (GOBE) (NS) SAMMY MULLAN (GOBE) (SM) RACHAEL SINCLAIR (SMRU) (RS) EMILY HAGUE (SMRU) (EH)
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	CAROL SPARLING (SMRU) KAREN ALGATE (INNOGY)

<b>Documents provided:</b>	<b>Filename</b>
Meeting agenda	Offshore Ornithology & MM ETG Agenda.pdf
Slides presented in the meeting	ETG Pre-Scope MarMams & Ornith 251119.pdf
Terms of Reference	GyM_Ext_Evidence_Plan_ToR_v1_131119.pdf
Initial Review Note – Ornithology	AyM_OffshoreOrnith_ShortNote_Final.pdf
Initial Review Note – Marine Mammals	AyM_MarineMammals_ShortNotes_Final.pdf
Proposed consultation roadmap - Ornithology	AyM OWF ETG roadmap Offshore & Intertidal Ornithology.pdf
Proposed consultation roadmap – Marine mammals	AyM OWF ETG roadmap Marine Mammals.pdf
Map of meeting location	North Wales Map.pdf

Agenda item	Minutes
1	<p><b>Introduction to innogy in Wales</b></p> <p>AH welcomed all participants to the meeting and outlined the agenda.</p> <p>AH presented the innogy projects within Wales and noted that Awel y Môr would add a notable contribution to the carbon targets for Wales.</p>
2	<p><b>Awel y Môr Offshore Wind Farm</b></p> <p>AH presented an overview of the project including that the area for lease (Afl) was granted by The Crown Estate (TCE) in October 2019. AH explained that innogy is leading the Awel y Môr project with numerous project owners.</p> <p>AH explained that innogy is seeking to begin consultation early to help identify issues early in the application process. The project (Awel y Môr) qualifies as a Nationally Significant Infrastructure Project (NSIP) requiring a Development Consent Order (DCO) and will also require a Marine Licence (ML) from Natural Resources Wales (NRW) on behalf of the Welsh Government.</p> <p>AH presented a plan of the proposed development location in relation to the existing offshore wind farm (OWF) projects. The Afl is 106 km<sup>2</sup>. The existing Gwynt y Môr (GyM) turbines are rated as 3.6 MW but Awel y Môr turbines are expected to be 12-22 MW, or above. The grid connection is proposed to be at Bodelwyddan.</p> <p>AH presented the work undertaken to date including commencement of scoping drafting, ecological surveys (offshore birds and marine mammals), conversations for grid connection are underway. AH noted that innogy is seeking to formally inform PINS and NRW of the project very soon.</p> <p>AH presented a high-level project timeline which is driven by the Agreement for Lease this year and by the CfD auction in 2023 (or 2025). The current programme for application submission is November 2022. AH noted that duplicate applications (one for the DCO and one for the ML) will be submitted as per previous offshore NSIPs in Wales.</p>
3	<p><b>Planning Act 2008 &amp; Expert Topic Groups</b></p> <p>AH provided an overview of the NSIP process including the key principles. It was brought in to simplify the consenting process for major infrastructure projects. The DCO process requires front loaded consultation and the application to be of sufficient quality, therefore innogy is beginning the Evidence Plan (EP) process to adhere to these principles.</p> <p>The ML process is less structured than the DCO and innogy hopes to agree milestones with NRW, with the aim to tie the two processes together.</p> <p>AH presented a list of the anticipated documents to be submitted for the DCO application (see slide 14). AH noted that a bespoke signposting document would be created for the ML application clearly indicating the parts of the application of relevance to the ML.</p>

	<p>AH provided an overview of the EIA and HRA Regulations and how they fit into the DCO process.</p> <p>AH provided an overview of the proposed content of the application to be submitted.</p>
4	<p><b>Scoping report and process</b></p> <p>NS presented a high-level overview of the scoping study being undertaken. The Scoping Report seeks to define the scope of the subsequent EIA process (i.e. what should be scoped in or out) and identify potential Likely Significant Effects (LSE) at an early stage. The Scoping Report will also propose further survey requirements and proposed methodology for the EIA.</p> <p>The Scoping Report is programmed to be submitted to PINS in March 2020 for consultation under the formal PINS process. NS explained that there will be 28 days for formal consultation with feedback to be provided to PINS directly.</p> <p>NS provided an overview of the structure of the Scoping Report including the general and technical chapters. She noted that a summary of impacts to be scoped in and out will be provided in the Scoping Report.</p> <p>NS provided an overview of what aspects will be covered within the technical chapters in the Scoping Report, including the baseline, methodology for EIA, items to be scoped in (and out) and proposed embedded mitigation. She also noted that specific questions will be included, which are directed to consultees, which innogy is seeking feedback on.</p> <p>A separate HRA Screening Study is also being undertaken alongside the EIA Scoping Study and the results of this will be presented in a HRA Screening Report that will be submitted to PINS with the Scoping Report.</p> <p>AD queried how embedded mitigation will be considered in the HRA given the new European Court rulings (e.g. Sweetman). NS confirmed that the HRA screening will be drafted in line with the current best practice and will adhere to the Sweetman rulings.</p>
5	<p><b>The Evidence Plan process</b></p> <p>NS provided a brief overview of the Evidence Plan (EP) process. She noted that it is a formal tool to agree the information presented and approach undertaken in the applications. The project will be seeking to gain consensus on the information which informs the assessment which will help to reduce disagreements by the examination phase and the development of Statements of Common Ground (SoCG). It was noted, as per the Terms of Reference, records of discussions will be maintained. It is hoped that the process will reduce resource requirements for all in the examination.</p> <p>NS presented the roles and responsibilities of the steering group and the proposed Expert Topic Groups (ETGs). NS noted that separate ETGs are proposed for offshore ornithology and marine mammals.</p> <p>NS highlighted that a ToR has been prepared to support innogy's Evidence Plan which presents the remit of the groups, participants and the aim of the plan. PC noted that the ToR were circulated prior to the meeting for review and would welcome feedback from organisations.</p>



	<p>NS clarified that the role of the ETG is to seek to review and agree the components of the technical assessments such as baseline characterisation, methods and scope of the assessments.</p> <p>PG sought confirmation as to whether NRW would engage in the EP. GW noted that NRW would consider its participation in the EP as it is not a statutory requirement in Wales.</p>
6	<p><b>Site Selection Study</b></p> <p>AH presented the areas of search (AOS) being considered in scoping for the export cabling (both on and offshore) and the array area for the proposed Awel y Môr OWF.</p> <p>AH noted a site selection study (SSS) is being undertaken to refine this boundary further, for the application. AH presented the process and aims of the SSS study being undertaken noting that it will be an iterative design process and based on best practice principles – see slide 28. AH presented the guidance which will be considered in the development of the boundary – see slide 30. AH noted that the SSS process will be transparent and will seek to obtain early feedback and stakeholder buy-in to refine cable routes with stakeholders.</p> <p>PG noted that scoping is a useful stage for stakeholders to provide feedback on the proposed boundary and/ or identify any additional constraints information.</p>
7	<p><b>Approach to scoping the topic – Ornithology</b></p> <p>This part of the meeting was presented by RD and the technical chapter of the Scoping Report will be drafted by MacArthur Green.</p> <p>RD presented the ornithology (and marine mammals) survey extents (see slide 33) and confirmed that there would be two years of data to inform the DCO and ML applications. RD also highlighted that the area has lots of baseline data available from existing projects, such as neighbouring offshore wind farms (OWFs).</p> <p>RD noted that the key species anticipated are those associated with the Liverpool Bay SPA (red throated diver, common scoter, little gull and breeding little terns, and breeding common terns). No comments on this were made. In addition, other key species anticipated to be within the study area are: Sandwich tern (Dee Estuary SPA and Anglesey Terns SPA), Manx shearwater, Lesser black-backed gull, Gannet, kittiwake, guillemot and razorbill.</p> <p>RD noted that the SPA species are most likely to be vulnerable to disturbance, though the abundance of these species in the array area is anticipated to be relatively low.</p> <p>RD presented that the key impacts to be considered are –</p> <ul style="list-style-type: none"> <li>• Construction disturbance – red-throated diver and common scoter;</li> <li>• Displacement – red-throated diver and common scoter; and</li> <li>• Collision Risk – terns, little gull, lesser black-backed gull, kittiwake.</li> </ul> <p>Cumulative and Transboundary effects will also be considered and assessed in the EIA in relation to other projects and plans – see slides 38 and 39. AD highlighted that there is a potential cumulative issue, in particular for Sandwich Terns in-combination with the Wylfa Nuclear Power Station. It was agreed that this would be considered within the cumulative assessment within the EIA.</p>

	<p>RD explained that the proposed approach to the project will be based on the methods of recent analogous projects, including applying a matrix approach to displacement.</p> <p>Collision risk modelling has been subject to discussion within the industry recently, including the parameters to be applied including flight heights, avoidance rates and nocturnal rates. The project will seek to agree the model and parameters through the EP.</p> <p>PG requested any initial thoughts on the information presented from the participants.</p> <p>AD requested if the survey scope (and justification) is available for RSPB to provide feedback on. PC noted that the survey scope has been consulted on by NRW and JNCC and innogy is seeking to resolve the outstanding items and acknowledged that RSPB would be keen to contribute to the scope. PC agreed to take this away for consideration.</p> <p>JW enquired as to how little terns and their migration routes will be considered. RD noted that they may be best considered as a migratory species for the CRM, to provide a precautionary assessment. JW noted that they are difficult to capture within surveys and there are no records of them travelling inland. RD agreed to look at the evidence as to how little tern use the site and the seasons in which they are present.</p> <p>JW asked how cormorants would be considered in the assessment. PG noted that the surveys will be undertaken for two years so will be included within the baseline. RD confirmed that cormorant would be included in the assessment if recorded.</p>
7	<p><b>Approach to scoping the topic – Marine Mammals (3pm onwards)</b></p> <p>This part of the meeting was presented by RS and the technical chapter of the Scoping Report will be drafted by SMRU Consulting.</p> <p>RS identified six species which are proposed to be scoped in –</p> <ul style="list-style-type: none"> <li>• Harbour porpoise</li> <li>• Grey seal</li> <li>• Bottlenose dolphin</li> <li>• Risso’s dolphin</li> <li>• Short-beaked common dolphin</li> <li>• Minke whale</li> </ul> <p>RS noted that it is proposed to scope out all other species, as they are rarely present in the study area. She noted that a detailed justification will be provided for this in the Scoping Report.</p> <p>RS provided an overview of the available data which are available to inform the baseline including larger strategic surveys and renewable project specific surveys in the area. She noted that there is a lot of data available in the area.</p> <p>RS presented the survey extents for the marine mammals (and ornithology) surveys for Awel y Môr. She noted that there is approximately 10% coverage. The surveys will be undertaken each month for two years. Correction factors will be applied to account for marine mammals below the surface. RS noted that if the data allow then density surface</p>

will be created. It is proposed that the density surfaces would be used in the quantitative assessment in the EIA.

TD requested confirmation that the surveys (and assessment) would account for the seasonal distribution of species, such as Risso dolphins. RS confirmed that the assessment would account for seasonal distribution by applying the highest density as observed with appropriate caveats, i.e. using a precautionary approach. PG noted this approach is similar to that adopted for birds and so has precaution built in.

RS provided a comprehensive overview of the available data sources - see slides 48 to 51.

CM noted that a survey was undertaken for grey seal pup sites, and report is in the process of being finalised. CM took an action to send a copy when published.

NJ confirmed that the Wildlife Trust held data on grey seal haul-outs at Angel Bay and agreed to provide the data to innogy (via HT).

RS presented the current marine mammal reference populations and the proposed abundance estimates for the EIA assessment (some of which is not yet available), see slide 52. RS requested an update on when the abundance estimates will be made available for the Celtic and Greater North Sea MU based on combined SCANS III and ObSERVE data (relevant for harbour porpoise, risso's dolphins, common dolphins and minke whales). CM agreed to follow up for when they will be published.

RS presented the impacts proposed to be scoped in (and out). Quantitative noise modelling will be undertaken to inform the assessment of PTS (injury) and disturbance (behavioural disturbance) from piling.

#### *PTS*

RS presented the proposed method for assessing PTS including the use of predictive noise modelling and the criteria presented in the guidance - Southall et al, 2019. Both instantaneous and cumulative PTS thresholds will be considered. RS suggested that a fleeing speed of 1.5 m/s (expect 3.25 m/s for minke whale) would be applied for cumulative PTS assessment. This speed is considered to be precautionary as various studies have suggested that animals can flee at much great speeds (and sustain them).

RS noted that the recent guidance (NOAA 2016, 20218 and Southall et al 2019) suggests that noise loses its characteristics with distance and becomes impulsive noise, and so the pulsed noise thresholds are not appropriate for when they become non-impulsive. Initial studies by Hastie et al 2019 have demonstrated this at two OWF sites in the UK. TD noted that this information should be used for illustrative purposes only, noting that the findings are limited (as based only on two sites). RS confirmed that it will be highlighted in the Scoping Report and a rationale as to how it could be used in the impact assessment will be included.

#### *Disturbance*

RS presented that the disturbance assessment should be informed by noise modelling and applying a dose response function to understand how many animals may be disturbed.

RS provided an overview of the impacts to be scoped in – see slides 53 and 54.

RS noted that UXO is proposed to be assessed but not licenced at this stage, both the potential for PTS and disturbance. The Scoping Report will note that the UXO assessment should be based on the latest data – work is on-going – will seek to refine how to assess UXO clearance. TD outlined that TWTs position on UXO clearance is that the licence and associated mitigation should be included at this stage to ensure Site Integrity. TD welcomed that UXO will be an open discussion throughout the development of methodology to assess, monitor and mitigate.

RS proposed to scope out (slide 55) –

- Accidental pollution;
- Temporary Threshold Shift (TTS);
- Operational noise; and
- Electro Magnetic Fields (EMF).

RS welcomed discussion with NRW on TTS and provided an overview of the recent discussions with Natural England, the MMO, Cefas and SNH, i.e. that the thresholds do not indicate a biological significant effect. RS explained that SMRU has prepared a non-project specific position paper on TTS which has been shared with Natural England, the MMO and Cefas. The approach of presenting TTS ranges and impact areas but not the significance of the impact has been agreed with Natural England on previous projects. CM and TD welcomed the opportunity to review the position paper.

MG requested clarification as to why other projects haven't scoped out operational noise. RS clarified this was due to the uncertainty regarding larger turbines but noted that noise is not anticipated to increase linearly with size and therefore estimates are likely to be overly precautionary

#### *Mitigation*

RS presented the likely mitigation measures which would be considered by the proposed development, see slide 56.

CM noted that the PTS and disturbance ranges would need to be considered to define the mitigation measures and innogy may consider noise abatement and reduction at source. MG supported NRW in this position. RS noted that noise modelling would be undertaken, without noise abatement, to determine if there were any LSE. The noise modelling could be revised to consider noise abatement in the Appropriate Assessment if LSE can't be ruled out without mitigation in place. CM agreed this was a sensible approach.

#### *Cumulative assessment*

RS presented the typical types of projects which would be considered cumulatively, see slide 57. RS noted that shipping and navigation and fishing are not included in the cumulative assessment as they are considered as the baseline. TD stated that WT position is that fishing should be considered cumulatively and this will likely be provided in their scoping response.

MG noted that the Welsh marine plan should be considered. AH agreed that the shipping and navigation chapter will consider the future trends in shipping and navigation in the study area.

	<p>RS confirmed that population modelling could be undertaken if significant effects are identified in the cumulative assessment. TD noted that the iPCoD model could provide illustrative information only and shouldn't be used in an assessment tool.</p> <p><i>Transboundary</i></p> <p>RS explained that the assessment will consider the size of the MU for the cetaceans, i.e. including across Irish and French boundaries - see slide 58. RS presented a map of SACS with relevance to marine mammals— see slide 59. CM explained that NRW's position is that all sites (SACs) within relevant MU should be assessed with respect to marine mammals.</p> <p>CM highlighted that the guidance on noise disturbance in harbour porpoise SACs had not been signed off, and nevertheless the guidance does not advise 26km as a screening distance with which to assess which sites should be screened in to HRA. The guidance suggests 26km as a recommended effective deterrent radius to be used in the absence of other information when assessing the area of a SAC that could be subject to disturbance from piling. NRW maintains the position that all SACs in the MU should be screened in.</p>
8	<p><b>HRA Screening Study – Ornithology</b></p> <p>This part of the meeting was presented by FC and the HRA Screening will be drafted by GoBe Consultants.</p> <p>FC presented the approach being undertaken for HRA screening, based on the best available information. He noted that birds are highly mobile species – slide 41. The HRA screening will follow the PINS advice note 10<sup>1</sup>. The HRA screening will use a tiered approach for in-combination and transboundary effects.</p> <p>FC presented that the focus for ornithology will be on SPA and Ramsar sites – see slide 42. The initial criteria will be overlap with functioning habitat. The secondary criteria will be on foraging ranges. He noted that work is ongoing with a new paper expected to be released by the end of the year. The assessment will also consider migratory species.</p> <p>The Area of Search with the local SPAs mapped were presented - see slide 43. This will be presented formally in the HRA screening.</p> <p>A formulaic and standard approach will be adopted to ensure that all sites which would be influenced by Awel y Môr are screened in. PG noted that we are conscious of the recent rulings for HRA in terms of embedded mitigation and these rulings will be applied in the HRA screening</p> <p>PG requested feedback to the paper on foraging ranges and/ or any preference to the ranges to be used. AD agreed to take the question away and would provide feedback on behalf of RSPB.</p> <p>PG requested whether there was anything the project should be aware of – key sites, colony counts etc. It was confirmed that the WT have undertaken a colour ring study on sandwich terns. JW also stated that they have undertaken colour tagging on little terns which provided evidence on the complexity of little tern movements between colonies in the Irish Sea and beyond. He noted that through their colour ring surveys they know that birds</p>

<sup>1</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/06/Advice-note-10v4.pdf>

	<p>frequently move between sites (particularly after storm and high tide events). He noted that this needs to be considered/discussed in any reporting/surveys. JW also highlighted the presence of a large cormorant colony on the Little Orme, which may require some research.</p> <p>PG noted that any available information/ data would be welcomed.</p>
9	<p><b>HRA Screening Study – Marine Mammals</b></p> <p>This part of the meeting was presented by FC and the HRA Screening will be drafted by GoBe Consultants.</p> <p>FC provided an overview of the HRA process to be undertaken – see above.</p> <p>FC outlined that the proposed methodology to screen in sites for seals would be based on foraging ranges (120 km for harbour seals and 145 km for grey seals. FC presented Screening for cetaceans (whales, dolphins &amp; porpoise) considers sites within the management unit (Irish Sea for dolphin, Celtic and Irish Sea for porpoise) together with the zone of influence of the project and relevant advice on activities for certain sites. This approach had been adopted for recent analogous projects in the UK.</p> <p>CM noted that NRW does not agree with screening for marine mammals based on ranges and re-iterated that all SACs within the MU should be screened-in. FC agreed to consider this further in the drafting of the HRA screening.</p>
10	<p><b>AOB</b></p> <p>AD and GW noted some changes to be made to the ToR including:</p> <ul style="list-style-type: none"> <li>• Ensuring that the terrestrial regulations are applied up to 12 nm</li> <li>• Paragraph 30 should include annex II (species list), the protected species annex and Section 7 of the Environment Act</li> <li>• Paragraph 32 needs to be updated to account for the EIA Regulations 2017</li> </ul> <p>It was agreed that these would be made.</p> <p>SM requested NRW's opinion on the approach to assess but not seek to licence UXO within the application (see actions). TD noted that it is the WT's position that it should be included in the DCO – due to potential for adverse effect and the associated mitigation needs to be secured. PG explained that you can have regard to UXO and secure mitigation matters such as a site integrity plan. It was agreed to keep the matter as an ongoing discussion.</p> <p>PC presented the roadmap for the ETG and suggested the next meeting is to be held in Feb/March 2020.</p> <p>PC requested feedback on the ToR, roadmap and the proposed level of engagement.</p>

Agenda Item	Action	Who?	Due Date
1	No actions recorded	N/A	N/A
2	No actions recorded	N/A	N/A
3	No actions recorded	N/A	N/A
4	No actions recorded	N/A	N/A
5	AH noted that if any participants of the meeting which would like to participate in any of the other groups to let innogy know.	All	Throughout the application
	PC requested feedback on the draft ToR.	All	Not agreed
	PC to contact GW to separately discuss NRW's involvement in the Evidence Plan process.	PC	Not agreed
6	No actions recorded	N/A	N/A
7	NRW to advise on when combined SCANS III and ObSERVE abundance estimates will be available	CM	Not defined
	SMRU to provide TTS position paper.	RS	Circulated with the updated minutes.
	NRW to provide new report on grey seal pupping estimates	CM	
	TWT to provide data on seal haul outs in the area	NJ/TD	Not defined
8	No actions recorded	N/A	N/A
9	No actions recorded	N/A	N/A
10	NRW to provide advice on the approach which the applicant should adopt to licence UXO clearance.	NRW	For the next ETG meeting

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**OFFSHORE ORNITHOLOGY ETG MEETING MINUTES– 18/9/20**

<b>MEETING ORGANISER:</b>	RWE		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Cooper, Adam	NRW	AC
	[REDACTED]	NRW	NS
	[REDACTED]	Conwy	RS
	[REDACTED]	Denbighshire	JW
	[REDACTED]	RSPB	AD
	Carter, Paul	RWE Renewables	PC
	Herbert, Alex	RWE Renewables	AH
	Sims-Williams, Giles	RWE Renewables	GSW
	Greenhill, Cassie	RWE Renewables	CG
	Sean Leake	GoBe	SL
	Ryan McManus	GoBe	RM
	Pete Gaches	GoBe	PG
	Fraser Carter	GoBe	FC
	Andrew Clark	Sefton	ACI
	[REDACTED]	NRW	MM
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Tania Davey	TWT	
	Kendall, Adam	RWE Renewables	
	[REDACTED]	TWT	

Documents provided:	Filename
Agenda and ppt provided before meeting	AyM ETG Agenda - Offshore Ornithology, 18 September 2020
	AYM Sept Oct ETG Presentation Offshore Ornithology

Agenda item	Minutes
1	<p>Introductions</p> <p>RM began by introducing the agenda, aims and objectives of the meeting. Members provided introductions, outlining affiliations and role. FC noted that the focus of this</p>



	meeting was EIA rather than HRA but noted there were several areas of crossover for this topic area in particular. RM introduced the evidence plan structure and future meetings. <i>No Actions arising.</i>
2	Aims and objectives of the meeting RM and FC noted that the initial meeting is to discuss the scoping responses and introduce the methods and scope of data collection/ surveys, scope of EIA including assessment methodology, and preliminary discussion of key issues or areas of concern. <i>No Actions arising.</i>
3	Project update AH gave an overview of the project, providing updates with regards site selection, and ongoing survey progress. Currently 3 offshore cable routes remain under consideration, with 3 landfalls and 3 onward routes towards 3 onshore substation locations. Offshore ornithological surveys are ongoing, with the first 12 months analysis complete. Public engagement dates were noted, with the overall project programme remaining for a 2022 formal application. <i>No actions arising.</i>
4	Overview of scoping responses FC thanked all parties for received scoping responses provided. FC noted the primary themes emerging from the scoping responses are: <ul style="list-style-type: none"> <li>- Digital aerial survey approach</li> <li>- Baseline data/ data sources</li> <li>- Impacts scoped in/ out</li> <li>- Approach to assessment</li> <li>- Cumulative</li> </ul> With regards approach to assessment FC noted that a position paper would be produced in due course to provide detailed consideration of the proposed technical approach to assessment, today should be taken as an opportunity to have open dialogue and plan the coming 6-9 months. <i>No Actions arising.</i>
5	Digital aerial survey update FC provided an overview of the ongoing surveys, and anticipated completion timescales. 24-month survey will be available for PEIR, with anticipated survey completion in April 2021. All surveys have been completed successfully to date, with no impact from Covid. FC noted the following headline findings from the survey: Auk and common scoter – Guillemot and razorbills most common; puffin recorded; highest general abundance Feb, lowest abundance August. Of note, common scoter recorded in very low densities on outer edge of array. This was based on modelling. Raw counts did not record CS within array, with all non-breeding counts to the south. Gannet – noted as present during spring migration. Red throated diver – recorded across the area, with highest densities in the S/SE pf the survey buffer. MM asked if any RTDs were noted within the existing GyM project. FC confirmed that RTD had been recorded within the operational array, with records noted in both the GyM specific monitoring and the AyM characterisation surveys. Kittiwake – most numerous of the birds identified, with the highest counts identified in winter. Herring gull – most numerous of the large gulls in all surveys.  FC went on to discuss some clarifications on Flight Heights.
6	Flight heights FC acknowledged that the scoping report stated uncertainties associated with estimating seabird flight heights using DAS. However, as pointed out by NRW in their response, APEM have provided confidence in their flight height estimates. The preferred position will be to use site-specific flight heights during collision risk modelling. FC noted that the main criteria

	<p>are that the bird needs to be flying level (not banking at an angle) and the body length and wings should all be fully visible and at full extension. The bird also needs to be identifiable to species level and generally the image of good quality (which is at the image analyst's discretion). Overall, this normally means 15 – 25% of flying birds can be used for analysis. MM responded noting that generic flight heights may be used, but the preference will be for site specific data, if we have confidence in them. MM went on to note that the ETG needs to be shown the site-specific information in order to have confidence in it. FC confirmed that the survey contractors (APEM) will be able to attend future ETGs and describe in further detail the confidence in flight heights, FC agreed that if not deemed sufficient then generic flight height data will be used. Using the Johnston et al 2014 database. This will be considered further in the position paper and the future ETG, and will depend on the requisite number of individuals (#100) being recorded appropriately. <i>No actions arising</i></p>
7	<p>Approach to EIA</p> <p>Baseline data</p> <p>FC welcomed the RSPB response to scoping that the data sources listed in the scoping report were comprehensive and sufficient to inform the baseline. FC noted that the availability of new data remains under review, and noted in particular that sources such as the North Wales breeding bird atlas which weren't referred to in the scoping report will be utilised. FC also noted that if the ETG were aware of any other data sources that should be used in order to characterise the receiving environment the project would be happy to consider them. MM noted that RSPB modelling of FAME/STAR data may be helpful for kittiwake, shag, razorbills and guillemots; JW noted that tern data could also be available through Denbighshire, also noting that COVID-19 had created challenges for data retrieval that may be resolved in time. MM also noted that tracking data from Puffin Island may also be informative. <i>No actions arising</i></p> <p>Assessment (Scope)</p> <p>FC provided an overview of the impacts scoped in to the assessment, noting in particular that impacts scoped in from table 47 of the scoping report are agreed, with the inclusion of temporary habitat loss and operational displacement. On the latter FC noted that caution would be required to avoid double counting between displacement associated with the array and cable route, but it would be considered. FC noted that aviation and navigation lighting would be considered in a proportionate basis. SL asked if this was a specific inclusion from NRW. MM noted that it wasn't but felt it could be considered proportionately. PG noted that whilst it may be relevant, we are duty bound to consider likely significant effects, rather than all potential effect receptor pathways, and caution was needed to ensure the EIA focussed on the matters of principle importance. PG noted that in this context we could seek to agree scoping this impact out of assessment if we consider it unlikely to develop into a significant impact. MM agreed that there was an opportunity there and took an action to discuss with RSPB. <i>ACTION (See below).</i></p> <p>Assessment (methods)</p> <p>CRM - FC noted that the scoping response from RSPB suggest their preference for stochastic CRM to be used, and also noted that the formal SoS scoping opinion identified that this should be discussed with SNCBs during ongoing discussions. MM confirmed SNCB note on CRM approaches still awaiting further input regarding stochastic avoidance rates. Current position is a default to option 2 due to the complexity and uncertainty. MM went on to note that the SNCBs are awaiting a review by Aonghaís Cooke@BTO but will issue a response to a project approach note. FC confirmed that an approach note will be provided detailing the projects preference to use the stochastic modelling approach <i>ACTION Position paper to be drafted detailing proposed approach to assessment.</i></p>

	<p>FC asked if MM was aware of the estimated time of arrival for the SNCB note on stochastic CRM. MM confirmed end of financial year for report but some input information may be available sooner. Discussion held between the members that this may align with the completion of the site specific surveys and in advance of the PEIR production.</p> <p>Displacement – FC requested confirmation on the preference for use of the seabord displacement assessment tool. MM confirmed it should only be used if relevant but acknowledged experience with it is limited and it may not be appropriate tool for this project. FC confirmed that the focus was likely to be central place foraging and as such the seabord estimated survival tool may not be appropriate. MM acknowledged. AD took an action to confirm with Ally@RSPB. <i>ACTION RSPB to provide response with regards use of seabord tool.</i></p> <p>FC went on to describe the approach for a barrier effect, noting that the literature suggests no significant effect, and indistinguishable from displacement of residents discussion held between MM and FC regarding a focus on common scoter. MM indicated that whilst primarily an HRA issue there is a need to consider the potential negative metabolic effect. FC confirmed this would be presented within the Assessment Approach position paper.</p> <p>FC went on to outline the approach to cumulative assessment, utilising existing operational phase monitoring. RM noted that a cumulative long list would be circulated for agreement in due course.</p> <p>MM and AD noted that Morlais would be a relevant consideration with RSPB currently working on responses to the public inquiry.</p>
	<p>SL and RM noted that the general approach for the ETGs is to provide a programme of engagement with the minutes, which would detail anticipated document production. Proposed review cycle for ETG members is 4 weeks from receipt of documentation. ETG members noted this to be acceptable with AD checking if achievable with current constraints. <i>ACTION AD to confirm review cycle as acceptable.</i></p>
8	Next steps
12	AOB

Agenda Item	Action	Who?	Due Date
1	MM to discuss with RSPB and consider the opportunity to scope out the need to assess impacts on offshore ornithology from aviation and navigation lighting on the operation project.	MM	25/10/20 (assumed 4 weeks from circulation of minutes)
2	ACTION Position paper to be drafted detailing proposed approach to assessment.	FC	2/11/20
3	<i>ACTION RSPB to provide response with regards use of seabord tool.</i>	AD	25/10/20 (assumed 4 weeks from circulation of minutes)
4	ACTION AD to confirm review cycle as acceptable.	AD	25/10/20 (assumed 4 weeks from circulation of minutes)
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**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION  
 HRA (ORNITHOLOGY) ETG MEETING MINUTES– 13/11/2020**

<b>MEETING ORGANISER:</b>	HELEN THOMAS (RWE)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Adam Cooper	NRW	AC
	Andrew Dodd	RSPB	AD
	Joel Walley	DCC	JW
	Julie Black	JNCC	JB
	Leonie Richardson	NRW	LR
	Matty Murphy	NRW	MM
	Nia Stephens	NRW	NS
	Aurelie Bohan	NE	AB
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Cassie Greenhill	RWE	CG
	Helen Thomas	RWE	HT
	Sean Leake	GoBe	SL
	Sally Kazer	GoBe	SK
	Ryan McManus	GoBe	RM
	Fraser Carter	GoBe	FC
	Tim Kasoar	APEM	TK
	Sean Sweeny	APEM	SS
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Pete Gaches	GoBe	
	Simon Roberts	RSPB	
	Jillian Whyte	JNCC	
	Robin Sandham	Conwy	

<b>Documents provided:</b>	<b>Filename</b>
PowerPoint Presentation	AYM Nov HRA Offshore Ornithology - Final

<b>Agenda item</b>	<b>Minutes</b>
1	<u>Agenda</u> SL thanked all for joining and did a quick technology check to make sure all attendees could see the presentation. He then outlined the agenda of the meeting: to discuss key points from the HRA Screening response, and to provide some insights on digital aerial survey data obtained to date, particularly with regard to red-throated diver (RTD).

	<p><u>Introduction and Aims</u></p> <p>Everyone gave introductions including their name, organisation and role on the project. SL made it clear that the meeting should be used as a planning session for future document reviews. The meeting will be used to discuss key points from screening, to give an overview of work undertaken to date, and to provide some insights on red-throated diver from survey data available to date.</p>
2	<p><u>Key Points from Screening</u></p> <p>FC outlined the thematic points for discussion and thanked all for their feedback. He said that everyone should ask questions as they arise. The key points for discussion from the HRA Screening response would be: the use of survey data, screening in relation to Woodward <i>et al.</i> (2019) and receptor/impact ranges, sources of information on designated sites, and the approach to migratory non-seabirds at sea.</p>
3	<p><u>Survey Data</u></p> <p>FC outlined that screening to date, due to the surveys being ongoing, have been based on 12 months of survey data. He said that stakeholders had raised concerns that sites and species were being screened on the basis of 12 months of survey data only, and therefore there was the potential for some to be prematurely screened out. FC clarified that the data is used to identify key migratory seabird species that may interact with the site at an early stage when not all survey data is available (with non-seabird migratory species considered elsewhere in the approach). When new data becomes available later, screening will be reviewed, and the outcomes will be updated wherever appropriate and necessary. He said that the key point for this would be when 24 months of data is available, which would feed into updating the RIAA, although on the basis of the existing site specific and regional data it was anticipated that no new receptors would be identified.</p> <p>FC stated that key species were identified where there were 10 or more sightings within the survey area. MM said that he had no issue with that principle but suggested that in future, it would be helpful to label interim conclusions as 'draft' or 'preliminary', and make it clear that outcomes would be re-visited on the acquisition or finalisation of new data, to provide some clear comfort for SNCBs.</p>
4	<p><u>Screening in Relation to Woodward <i>et al.</i> (2019)</u></p> <p>With no further questions on survey data, FC moved the discussion onto the use of mean-max foraging ranges. Mean-max ranges from the publication Woodward <i>et al.</i> (2019) were used in screening, and the screening response referred to interim SNCB guidance around the use of the mean-max plus 1 standard deviation (SD). When dealing with HRA screening, these new larger ranges result in a significant number of SPAs being screened in where LSE cannot be discounted, giving a longer list of key SPAs taken forward to the AA stage, despite it being unlikely that there is a risk of LSE in practice. FC noted that the proposed approach, if interpreted correctly, would be a 2-part screening whereby the mean-max +1SD would be used for the initial step (site consideration), before then using an evidence based/ impact pathway approach to further screen sites out from the LSE test. FC asked whether that is the correct interpretation. NS said that this was what was meant by NRW's response. In short, to screen in and then discount one by one based on potential for LSE. MM added that there should be a clear distinction between what work is done at screening, and what is done at AA, bringing in the appropriate level of evidence at each stage. FC said that information is brought into screening to justify the potential, or lack thereof, for LSE at the screening stage.</p>

Literature on site connectivity, foraging ranges etc. at the AA stage is the second part (yet to be undertaken) where more detailed information is brought in for the purposes of detailed assessment. MM said this concern may be more related to Scottish sites where species have very large foraging ranges, as most Welsh sites will already be screened in. FC highlighted that the aim of screening was to focus assessment on key sites there is a real potential for LSE, rather than bringing in all sites that could theoretically be affected in some way, in order to avoid diluting the assessment and its conclusions. MM replied that he was keen to avoid discounting sites too early where more detail and justification could be provided at AA stage. He added that some species (e.g. fulmar) are more complicated and would require further justification, but agreed that there is definitely some scope to screen out some species and sites, provided sufficient evidence to screen out can be provided. FC agreed and confirmed that where an LSE can be confidently discounted at the screening stage, without the need for large amounts of information to do so, then this will be done. AB re-iterated MM's comments, adding that screening is applied as a coarse filter, and most evidence should be applied at AA stage rather than at screening. If the line is fine, sites should be screened in and then further work done at the AA stage. JB stated that site-specific data is very important where available because of the variability between colonies for same species. For example, one colony can forage much further than at another colony and so coarse foraging ranges should not be applied as a 'one size fits all' for a particular species. She added that using mean-max eliminates some uncertainty, but some colonies may forage further. Therefore, site specific foraging ranges are really important. FC replied that using mean-max ensures that those maximum ranges are included. JB responded that the issue is not about individual birds being outliers, but colonies as a whole, and there is a need to ensure that colonies with larger foraging ranges are not screened out. FC acknowledged this point, but noted that the purpose of the screening stage was to determine LSE and not include every site within foraging range (i.e. for the birds nesting the other side of the UK). FC agreed with JB that some birds from some colonies may have larger foraging ranges, and said that the site consideration stage of the screening report ensured that every SPA for breeding seabirds had been considered so to ensure no SPAs were being missed.

SS said that the Woodward *et al.* (2019) paper was written as a desk-based review in order to undertake HRA, and was part funded by TCE with input from other organisations. He said that it was developed specifically as a tool for HRA screening, is the recommended tool for HRA and is therefore the appropriate tool to use. The assessment may become diluted if very distant sites are brought in. He highlighted that the key point for screening is to identify sites that could be subjected to potentially significant effects, not all sites where there is some or any interaction, which could bring in very distant sites unnecessarily. JB pointed out that the mean-max plus SD is an interim position. The SNCBs are developing a GIS tool for HRA screening purposes, which will be based on Woodward *et al.* (2019) and recommend foraging ranges for each colony/feature. MM agreed with Woodward *et al.* (2019) as a tool, but also highlighted the need to consider other data sources at the AA stage.

FC re-iterated that evidence should be used to show where there is not a likely *significant* effect, e.g. where sites are very distant. If screening requires deep interrogation of the data, then the site would be screened in, making a robust determination as to whether LSE can be discounted or concluded early on in the process. MM agreed and pointed towards needing to look at the conservation objectives of the site(s) in question. FC replied that if at the stage of looking at conservation objectives, then that is really in the realm of the AA at that point and the site would have been screened in already. JW said that the concern

	<p>was about knowing about site connectivity and the routes taken between colonies. FC clarified that this screening update is purely related to the foraging range criteria, and that connectivity is covered by other screening criteria. FC thanked JW for provision of local knowledge and data and re-iterated that local knowledge and awareness about things like connectivity is really appreciated and helps inform the HRA, adding that connectivity is difficult to capture in survey data and therefore local knowledge is vital.</p> <p>FC proposed submitting a revised screening document that would outline the sites screened in/ out together with justification. SL asked that in order to work towards an agreed position, whether a tabulation of sites with this information presented be appropriate, rather than a complete re-submission of the screening report. He added that he was keen to avoid submissions of large documents unnecessarily, as well as large documents that could dilute the key issues and therefore a tabulation would seem appropriate. JB agreed with this approach and was also keen to avoid large volumes of information. However, JB also added that this approach may risk detailed discussions and nuances being missed. FC and SL responded that where necessary, the summary table could cross reference or signpost to information contained in other documents or annexes. MM also agreed that a table or spreadsheet would be preferred, adding that if there was the capability to filter by country, it would be most useful to the SNCB of each UK constituent country, and allow them to comment more easily on the sites they are responsible for. FC noted the inclusion of non-UK Natura 2000 sites, in particular those of the Republic of Ireland, and therefore this approach would be sensible. AD added that he was happy with the tabulated approach as well but was due to leave the meeting shortly. FC took an action to contact AD with any key points missed in the remainder of the meeting, that might require further discussion beyond the meeting minutes.</p> <p>ACTION – submit refined screening tabulation document to seek agreement on the sites/receptors screened in for further analysis,</p>
5	<p><u>Screening in Relation to Receptor/Impact Ranges</u></p> <p>FC described that a 4 km impact range for displacement was proposed at screening and was based on the current SNCB displacement advice guidance (2017 document), and that the stakeholder screening response in relation to RTD indicated that a 10 km displacement range should be applied, increasing the range over which sites are screened in for displacement. FC noted that this had been reviewed but highlighted that for AyM increasing the range to 10 km will not bring in any additional RTD SPAs. He asked if there were any comments on this item, but no comments arose.</p> <p>FC then outlined APEM's role in the geographical area over recent years, and said that APEM have drafted a technical note on the RTD data to date. FC said that this report will be shared with the ETG in due course, but TK was able to give an overview of the key findings at this meeting. TK went through the key themes in the data so far, noting that RTD have shown sensitivity in terms of displacement from offshore wind farms. In some studies, there has been a greater than 90% reduction in RTD density within wind farm array areas, and there is evidence of some effect out to greater than 10 km. He said that there is interim data from AyM, as well as monitoring data from the adjacent GyM offshore wind farm. APEM undertook monitoring surveys at GyM from 2010 to 2019. AyM surveys started in 2019 and are currently ongoing, with only 12 months of data analysed so far. TK outlined the survey extents, including buffers from the proposed array and specific survey lines to investigate potential barrier effects. On barrier effects, TK noted that RTD are present in the nearshore area to the south of the GyM array, and presented density and abundance data on the pre-construction, construction, and post-construction GyM surveys. He noted</p>



	<p>that the numbers of birds within the array area was small, with most individual counts from the wider survey area, particularly to the south. TK stated that there is no evidence so far that RTD have been negatively impacted by GyM. He also noted that there had not been complete displacement from GyM since birds have been surveyed in within the array. SL asked if this was new evidence, or if NRW were aware of the monitoring data. MM said that he had not yet seen the RTD data from GyM but had seen reporting on common scoter. SS clarified that the final monitoring report has been signed off and included both RTD and common scoter data. PC took an action to see whether this report was available for re-distribution to ETG members. SL noted that the available evidence would suggest that GyM, and AyM were somewhat unique in RTD being recorded within the constructed array, within primary routes of approach to the array, and in close proximity to the array (certainly within the 4km buffer). FC noted that the surveys were designed to include a 8km buffer, which gave a good evidence base from which to consider the site specific displacement. Post meeting note – RWE can confirm that the GyM post-construction annual report has been signed off and includes reference to RTD as part of the monitoring objective to identify the risks to RTD with the wind farm. The conclusions drawn for RTD in particular (p277-279 of the report) note the following:</p> <p><i>Red-throated divers are notoriously shy and are considered highly sensitive to wind farm development (e.g. Garthe &amp; Hüppop 2004), but these data suggest that they have not been displaced entirely from the vicinity of the construction site with the number having increased slightly in the 2017/18 post-construction surveys and remained stable in the 2018/19 surveys.</i></p> <p>TK then presented the results of the AyM survey to date. He highlighted that a small number of RTD are present within the proposed array area, and in close proximity to the GyM project, with higher numbers in the surrounding wider survey extent. The highest abundance was recorded in March 2019 and spatially, the majority of RTD had been seen in the nearshore to the south of the proposed AyM array, as well as close to or within the GyM array.</p> <p>FC asked if there were any questions, with none arising, and noted that the RTD report with further detail would be circulated to ETG members in due course.</p>
6	<p><u>Sources of Information on Designated Sites</u></p> <p>FC turned the conversation towards data sources for designated sites, asking SNCB representatives to confirm that the most appropriate data sources had been used for the sites they are responsible for. AC confirmed that the correct data source had been cited for Welsh sites managed by NRW. AB confirmed that the source was correct for English (Natural England) sites. JB added that a list of sites and their jurisdiction is kept on the JNCC Natura 2000 spreadsheet for all UK sites. Once identified, users should refer to individual authorities for more detail. FC confirmed that that approach was being taken, adding that the JNCC is the foundation that sits behind the GIS and long list of sites, then SNCB sources are referred to for further detail. He also added that the same was true for Scottish and Northern Irish sites, and that non-UK data sources are used for non-UK Natura 2000 sites. For Ramsar sites, FC stated that the JNCC portal is the most up to date source, adding that where information sheets are missing, the Ramsar website sources had been referred to. This was agreed by the members on the call. MM noted that the Welsh designated sites portal does provide some information on Ramsars. FC noted that this will be the first port of call and will use the JNCC portal where information is missing for Welsh Ramsars and for other Ramsars in other countries.</p>

	<p>SL highlighted that the approach of not including noteworthy fauna as a criterion for screening, instead only focusing on the species for which the site is designated, was an approach previously agreed with Natural England on other recent projects. JB agreed that the HRA does not need to consider noteworthy fauna that could form the basis of designation at a later date but took an action to check this was the case with JNCC Colleagues.</p> <p>Action – JB to confirm ‘Noteworthy Fauna’ of Ramsar sites do not need to be considered within the HRA as they are not designated features of the site.</p>
7	<p><u>Migratory Non-Seabirds</u></p> <p>FC stated that there was a screening response questioning whether due consideration of Welsh wintering estuarine SPAs had been given. FC clarified that a brief update note will be circulated outlining the approach to migratory non-seabirds. He said that the impression may have been given that these receptors were not being considered but confirmed that due consideration will be given to migratory non-seabirds. No questions arising.</p>
8	<p><u>Next Steps and AoB</u></p> <p>MM added that he recently reviewed a Burbo Bank Ext. monitoring report which showed displacement to RTD from 4km buffer in all years, and in some years greater and up to 10 km, contradicting the GyM data analysed so to date. FC asked if the report was available yet. MM clarified that it was a Natural England report. AB added that she had chased up this report recently and took an action to confirm when the report is available. FC and SL flagged that information that SNCBs are aware of, but consultants are not is particularly important to be shared in the context of building a bigger picture of the region. SL noted this seemed to underline the uniqueness of the AyM project area, with RTD having been recorded within the array. MM noted that it may not be unique but reflected the location on the periphery of the SPA and high-density areas. MM noted that Burbo Bank Ext. is built in an area with higher RTD density than GyM or AyM, which was raised during the examination of the project. FC further noted that it was possible to see in the SPA density data charts (Lawson et al., 2016) that AyM was in an area of lower density when compared to the wider SPA.</p> <p>FC asked if there was any update on delivery date of SNCB CRM guidance note. NS said that this was still in progress, with no confirmed delivery date yet, but should be soon. MM added that even if final note is not available, information and context from internal drafts can be used and discussed. NS clarified that a draft will likely be completed before Christmas.</p> <p>FC then asked delivery date for the JNCC GIS tool mentioned by JB earlier. JB replied that GIS tool should be available to JNCC internally by March, may not be shared at that point, but likewise with the CRM guidance note, information can be shared.</p>

Agenda Item	Action	Who?	Due Date
1	Draft revised screening table/spreadsheet.	FC/ GoBe	TBC

2	Check what GyM monitoring data/reports were signed off and re-circulate as appropriate.	PC/ APEM	TBC
3	Note on migratory non-seabirds to be circulated to ETG members.	FC/ APEM	TBC
4	Follow up NE Burbo Bank Ext. reports and provide if available.	AB	TBC
5	JB to check Ramsar noteworthy fauna.	JB	TBC
6	RTD note to be provided.	FC/ GoBe	TBC

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**OFFSHORE ORNITHOLOGY ETG MEETING MINUTES– 25/03/2021**

<b>MEETING ORGANISER:</b>	RYAN MCMANUS (GOBE)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm (AyM)		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Leonie Richardson	NRW	LR
	Matthew Murphy	NRW	MM
	Karen Algate	RWE	KA
	Alex Herbert	RWE	AH
	Paul Carter	RWE	PC
	Andrew Clark	Sefton	AC
	Tim Kasoar	APEM	TK
	Emily Nelson	APEM	EN
	Fraser Carter	GoBe	FC
	Sally Kazer	GoBe	SK
	Pete Gaches	GoBe	PG
	Ryan McManus	GoBe	RM
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>  <i>[NOTE: FOLLOW UP MEETING WITH RSPB AND JNCC 29/03/21]</i>	<b>Attendee</b>	<b>Organisation</b>	
	Adam Cooper	NRW	
	Michael Bailey	NRW	
	Robin Sandham	Conwy	
	Joel Walley	Denbighshire	
	Andrew Dodd	RSPB	
	Simon Roberts	RSPB	
	Tania Davey	TWT	
	Christina Platt	TWT	
	Nia Jones	NWWT	
	Aurelie Bohan	NE	
	Jillian Whyte	JNCC	
	Helen Thomas	RWE	
	John Cooper	RWE	
	Sean Sweeny	APEM	
	James Spencer	APEM	
	Sean Leake	GoBe	
	Flik Clark	GoBe	

<b>Documents provided:</b>	<b>Filename</b>
PowerPoint presentation	AyM March 2021 Offshore ornithology ETG
Ornithological Approach to Assessment Position Paper	0141_AyM_ Ornithology Assessment Position Paper_GoBe_10.03.2021

Agenda item	Minutes
1	<p><b><u>Introductions and aims</u></b></p> <p>RM opened the meeting and outlined that the purpose of the meeting was to first provide a project update, and then discuss the updates to the Habitats Regulations Assessment (HRA) screening following Natural Resources Wales (NRW) and Joint Nature Conservation Committee (JNCC) comments, as well as to discuss the approach to ornithological assessment outlined in the position paper provided two weeks prior.</p>
2	<p><b><u>Project update</u></b></p> <p>RM handed over to KA to present the project update slides.</p> <p>KA outlined that the informal public consultation had completed, and a project newsletter issued to registered individuals on 19<sup>th</sup> March. The project has made decisions on refining the cable route selection, as well as refining the offshore array area boundary. Onshore, the Preliminary Ecological Appraisal (PEA) surveys and wintering bird surveys are being completed, as well as ongoing landowner engagement. Offshore, the geophysical, benthic, intertidal and winter navigation surveys are complete, as well as the full 24 months of offshore aerial bird surveys.</p> <p>KA then presented the revised project boundaries from the map issued in the newsletter on 19<sup>th</sup> March. KA explained that the array area (where the turbines will be constructed) has been reduced to a smaller area within the Agreement for Lease (AfL) area agreed with the Crown Estate, and that the eastern cable route and landfall had been selected for offshore export cables. MM asked for a copy of the most up to date array boundary to aid internal assessment at NRW. RM took an action to provide the refined array boundary as a shapefile [<i>Action 1</i>].</p> <p>KA then presented the current project programme, explaining that the project has recently gone through its design freeze for the Preliminary Environmental Information Report (PEIR) phase, and looks to publish the PEIR in draft Environmental Statement (ES) format in August 2021, then update and make final Development Consent Order (DCO) and Marine Licence applications in Q1 2022.</p>
3	<p><b><u>HRA screening</u></b></p> <p>There were no further questions on the project update, so RM handed over to FC to present the HRA screening update.</p> <p>FC outlined the key areas for discussion:</p> <ul style="list-style-type: none"> <li>- Evidence base for screening;</li> <li>- Incorporation of the mean maximum foraging range + 1 Standard Deviation (SD);</li> <li>- The precautionary approach in HRA screening; and</li> <li>- Next steps.</li> </ul> <p>FC confirmed that the species-specific mean maximum foraging ranges +1SD (as presented in Woodward <i>et al.</i> (2019)) have been applied to the HRA screening and produced a revised spreadsheet and report detailing that. FC presented the table of mean maximum foraging</p>

ranges +1SD to show the screening ranges applied. Also, a note on the approach to migratory non-seabirds had been produced and submitted to the ETG members previously.

FC stated that one of the key comments in the feedback on the revised screening from NRW was to link back screening outcomes to the evidence of sensitivities. FC outlined that the matrix approach (presented as screening matrices to accompany the Report to Inform Appropriate Assessment (RIAA)), allows for the presentation of that evidence on an impact-by-impact and site-by-site basis, but that these were not included in the updated screening spreadsheet.

FC asked MM if the concern over that lack of evidence presented was about the fact that the references were not provided, or more fundamentally with the evidence base itself. MM replied that the issue related to the evidence not being presented in the spreadsheet, but also that the evidence needed for screening would almost constitute an Appropriate Assessment (AA) in and of itself. Therefore, the key message from NRW was to take forward those sites and features to the AA stage and not screen them out. FC stated that the purpose of the HRA screening stage is to identify where there is a potential for Likely Significant Effect (LSE), and only take those sites forward to the AA stage [*i.e. screening allows sites/features where there is a potential effect to be screened out, if there is no potential or likelihood for the effect to be significant*]. Because the screening ranges applied by the mean maximum foraging range +1SD have substantial distance, many sites are now screened into the AA stage where effects are not likely to be significant, and there is a risk that the AA becomes saturated [*not proportionate*]. MM added that the screening may exclude sites that have connectivity, specifically in Wales. FC acknowledged that there is potential connectivity, but on the basis of distance, the numbers of individual birds making that journey are expected to be very low, such that there is no potential for LSE. MM made it clear that all sites with potential connectivity (in Wales) should be screened in. SK raised that in the RIAA process, the species counts at the AyM site must be apportioned to each of the sites assessed in order to determine effects on specific colony populations, and therefore there is a need to focus the assessment on sites where there is a potential for LSE so that effects do not become diluted.

MM also raised that the screening made no reference to the conservation objectives of the sites in question. FC clarified that conservation objectives form the basis of the AA stage. MM re-iterated NRW's position that all sites where there is a potential effect and potential connectivity should be carried through to the AA phase.

Before moving onto discussing specific sites, FC asked NRW to confirm the evidence suggesting increased Manx Shearwater flight height. MM said that the comment may have come from JNCC and FC said that he would ask JNCC regarding that point at the follow-up meeting on 29/03/21.

FC moved onto discussion on consideration of specific sites. For the Grassholm SPA (gannet), the standard Wakefield *et al.* (2013) reference has been applied, which used a small number of tags showing birds mainly utilising areas to the south west of the site. The Scales *et al.* (2014) study used additional tags and showed some birds moving north but did not show connectivity with the Liverpool Bay SPA, and also targeted the frontal systems which are away from the AyM site. Therefore, despite some birds flying as far as the AyM site, they are unlikely to frequent the AyM site from that colony. MM responded that because the explanation was needed, the site should be screened in on a precautionary basis and taken through to the AA stage. PG added that the screening stage has historically

and recently applied the principles presented here but highlighted that NRW are the Statutory Nature Conservation Body (SNCB) here and if it's requested that a site should be screened in for AA, then the AA will be carried out on the basis of that clear request. PG said that the site will be screened into the AA and it's reasonable to expect that the same conclusion [*of no LSE*] will be reached at that stage. MM stated that screening should be simple and if further evidence is brought in then effectively this should be part of an AA. A thorough assessment will also facilitate further consideration of potential cumulative effects. MM agreed that the assessment, once referencing the conservation objectives, may reach the conclusion of no LSE, but the thorough assessment needs to be made first. PG added that for Nationally Significant Infrastructure Projects (NSIPs), particularly offshore wind farms, the screening and integrity matrix approach lends itself well to the large number of sites considered, and the evidence presented for these sites in question (whether at screening or AA stage) would be the same. MM again made it clear that NRW's advice is to screen in sites to the AA stage. FC added that the preferred approach was understood.

For the Puffin Island SPA, FC explained that cormorant is not considered a species at risk of displacement or collision, due to their frequent use of wind farms and low flight height, and therefore proposed to screen out cormorant from the Puffin Island SPA. MM responded that he agreed cormorant are not a key risk species, as they are regularly seen perching on wind turbine foundations, noting the need for frequent removal of cormorant droppings from wind turbines. However, MM added that NRW would not agree to screen this out at this stage, without first seeing the evidence, as they could be affected by collision and there could be an effect on prey resource. FC said the same could be applied for storm petrel, and asked NRW if the referenced evidence was provided in an updated screening spreadsheet, whether that would be considered sufficient to screen these features out. MM replied that it would not be sufficient without seeing the evidence in a written format, and therefore FC agreed that these sites and features of concern would be taken forward to the AA stage.

With no further questions on specific sites and colonies, FC moved onto describe the overall precaution in the HRA screening process. FC noted that the HRA screening is a broad Geographic Information System (GIS) [*mapping*] exercise that measures the shortest distance between AyM and designated sites. Once the list of sites and distances is generated, it is sense-checked so that sites beyond the mean maximum foraging range +1SD (unless there are specific highlighted concerns), and sites where birds would need to fly over significant areas of land (e.g. from the east coast of the UK) can be screened out. The seaward or landward outer boundary is applied initially on a precautionary basis, rather than looking at distances from specific colonies and nesting sites within designated sites. FC noted that individual colonies within designated sites may be further away than the SPA boundary and screened out on that basis, but the initial approach adds a layer of precaution making sure no sites are missed. MM agreed that linking the screening range to sites adds overall precaution to the screening exercise, and explained that some sites that have been screened in can be screened out, but where there is connectivity, they need to be screened in to avoid over-simplification of the AA.

FC summarised the next steps:

- To remove breeding features further away than the mean maximum foraging range and making clear in future documentation that screening does consider migratory pathways; and

	<ul style="list-style-type: none"> <li>- Addition of the key evidence presented, noting internal discussion was required on the approach to progressing this, i.e. through a revised HRA screening or inclusion in the AA.</li> </ul> <p>RM asked if there were any further questions on HRA screening before moving onto the offshore ornithology Environmental Impact Assessment (EIA) aspects. RM added that the ornithology related documentation that would be published at the PEIR stage would consist of:</p> <ul style="list-style-type: none"> <li>- The RIAA (and its associated annexes, including the screening and integrity matrices);</li> <li>- The offshore ornithology PEIR and its associated annexes (displacement, Collision Risk Modelling (CRM) and displacement).</li> </ul>
4	<p><b><u>Ornithology assessment approach</u></b></p> <p>RM handed over to TK to present the ornithology assessment approach, noting that a position paper on the subject was submitted to ETG members on 10/03/21, with a written response expected, but the presentation of the approach here would be a useful opportunity to raise queries. MM said that he aimed to have a written response to the note complete w/c 12/04/21 [<i>Action 2</i>].</p> <p>TK stated that the 24 months of offshore aerial surveys were complete [<i>as of February 2021</i>], and detailed analysis of the image data was underway. For the PEIR, the first 18 months of data would be available for presentation, which will be supplemented with the full 24 months of data for the ES in the final application. MM said that he would seek an NRW position on this point. [post-meeting note: NRW position is that ideally, NRW would like the full dataset to be used in the analysis of the PEIR. However, if the PEIR is based on only 18 months of data and the additional 6 months of data will only be included in the final ES submission, NRW note that the figures presented in the PEIR for the assessments of displacement and collision risk are subject to change following the addition of this data. Therefore, we note that all assessments and conclusions will need to be revisited once the full data set is available. Thus, NRW reserves the right to revise the advice provided on the PEIR document based on the best available evidence presented].. RM suggested that the analysis of the full 24-month dataset would likely be complete around the same time as PEIR publication, but there would not be enough time to incorporate it in the PEIR. Therefore, the full 24-month baseline characterisation could be consulted on with ETG members closer to that time. RM also asked TK whether, from the data analysed since the first-year dataset reported at the last ETG, there had been any unexpected or interesting finds, or whether the second-year dataset was so far broadly similar to that of the first year. TK stated that so far there is little variation of note between the datasets, and they are showing broadly the same baseline picture.</p> <p>TK shared an update on the baseline data in terms of the maximum counts and the month that the maximum count occurred. He added that the species shown in the table are likely to form the most detailed elements of the assessment as they are the most abundant species. MM stated that it is important not to discount species from the collision and displacement assessments based on low numbers, particularly so that effects can be accounted for cumulatively with other projects. TK added that all species recorded will be presented in the baseline reporting.</p>



	<p>TK gave an overview of the approach to CRM, noting that it will follow the Marine Scotland stochastic CRM model, run deterministically. Three scenarios will be run (mean, minimum and maximum) to account for uncertainties. TK described that the assessment would be focused on key species of interest (gannet, kittiwake, herring gull and great black-backed gull), with other species screened out due to the low numbers observed, such as sandwich tern. TK asked NRW if there were any immediate questions or comments on the approach to CRM. MM replied that NRW would provide detailed comments in a written note.</p> <p>With no further questions, TK moved onto displacement. TK gave an overview of the proposed approach:</p> <ul style="list-style-type: none"> <li>- Use 2 km and 4 km displacement buffers (species dependent); and</li> <li>- Exclude the operational Gwynt y Môr offshore wind farm (GyM) area from the buffers, as any birds within GyM are unlikely to experience additive displacement as a result of AyM.</li> </ul> <p>TK highlighted the precaution inherent within the approach, as standard displacement rates will be applied, despite evidence of habituation from observed species counts within and around GyM in the survey data. MM asked whether displacement from GyM would also be analysed in parallel so that accurate displacement rates could be understood. TK highlighted that post-construction monitoring studies from GyM will be used to inform the assessment, but that the GyM monitoring programme was focused on common scoter and red-throated diver. If the data is available for other species, then in theory it could be analysed. The AyM survey data can also be applied, noting that the survey extent does not cover the area to the east of GyM so would not represent a full dataset for GyM specifically. RM added that this approach to displacement was analogous to other ongoing extension projects (e.g. Rampion 2). MM suggested that it would be helpful to know if the approach was endorsed by Natural England.</p> <p>There were no further questions on the displacement approach.</p>
5	<p><b><u>Next steps and AoB</u></b></p> <p>RM asked if there were any other points any attendees wished to raise before closing. PG asked to go back to the slide of key species identified from the baseline data, and asked attendees if there were any species that were not listed but would be expected in the data. MM replied that he would expect to see terns and lesser black-backed gull and asked where in the survey area common scoter were being recorded and suggested that density information would be useful in addition to the data behind the table. TK clarified that the species listed were the most abundant species recorded and all species encountered will be reported in the baseline report. TK also added that common scoter had mainly been found in the southern extent of the southern 8 km survey area towards the coast.</p> <p>With no further matters arising, RM listed the actions from the meeting [<i>see action table below</i>], thanked everyone for their time and closed the meeting.</p>

Agenda Item	Action	Who?	Due Date
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1	Provide ETG members with a shapefile of the array boundary	RWE/GoBe	01/04/21
2	Provide written response to offshore ornithology assessment approach position paper	NRW	w/c 12/04/21

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**OFFSHORE ORNITHOLOGY ETG MEETING MINUTES– 29/03/2021**

<b>MEETING ORGANISER:</b>	RYAN MCMANUS (GOBE)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm (AyM)		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Andrew Dodd	RSPB	AD
	Simon Roberts	RSPB	SR
	Jillian Whyte	JNCC	JR
	Julie Black	JNCC	JB
	Alex Herbert	RWE	AH
	Tim Kassoar	APEM	TK
	Emily Nelson	APEM	EN
	Fraser Carter	GoBe	FC
	Sean Leake	GoBe	SL
	Ryan McManus	GoBe	RM
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Helen Thomas	RWE	
	Paul Carter	RWE	
	John Cooper	RWE	
	Sean Sweeny	APEM	
	James Spencer	APEM	
	Pete Gaches	GoBe	
	Flik Clark	GoBe	

<b>Documents provided:</b>	<b>Filename</b>
PowerPoint presentation	AyM March 2021 Offshore ornithology ETG RSPB
Ornithological Approach to Assessment Position Paper	0141_AyM_ Ornithology Assessment Position Paper_GoBe_10.03.2021

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><u><b>Introductions and aims</b></u></p> <p>RM opened the meeting and outlined that the purpose of the meeting was to first provide a project update, and then discuss the updates to the Habitats Regulations Assessment (HRA) screening following Natural Resources Wales (NRW) and Joint Nature Conservation Committee (JNCC) comments, as well as discuss to the approach to ornithological assessment outlined in the position paper provided two weeks prior.</p>
<b>2</b>	<p><u><b>Project update</b></u></p>

	<p>RM handed over to AH to present the project update slides.</p> <p>AH outlined that the informal public consultation had completed, and a project newsletter issued to registered individuals on 19<sup>th</sup> March. The project has made decisions on refining the cable route selection, as well as refining the offshore array area boundary. Onshore, the Preliminary Ecological Appraisal (PEA) surveys and wintering bird surveys are being completed, as well as ongoing landowner engagement. Offshore, the geophysical, benthic, intertidal and winter navigation surveys are complete, as well as the full 24 months of offshore aerial bird surveys. AH then presented the revised project boundaries from the map issued in the newsletter on 19<sup>th</sup> March.</p> <p>AH then presented the current project programme, explaining that the project has recently gone through its design freeze for the Preliminary Environmental Information Report (PEIR) phase, and looks to publish the PEIR in draft Environmental Statement (ES) format in August 2021, then update and make final Development Consent Order (DCO) and Marine Licence applications in March 2022.</p>
3	<p><b><u>HRA screening</u></b></p> <p>There were no further questions on the project update, so RM handed over to FC to present the HRA screening update.</p> <p>FC outlined the key areas for discussion:</p> <ul style="list-style-type: none"> <li>- Evidence base for screening;</li> <li>- Incorporation of the mean maximum foraging range + 1 Standard Deviation (SD);</li> <li>- The precautionary approach in HRA screening; and</li> <li>- Next steps.</li> </ul> <p>FC confirmed that the species-specific mean maximum foraging ranges +1SD (as presented in Woodward <i>et al.</i> (2019)) have been applied to the HRA screening and produced a revised spreadsheet and report detailing that. FC presented the table of mean maximum foraging ranges +1SD to show the screening ranges applied. FC stated that all evidence would be referenced in the RIAA. Also, a note on the approach to migratory non-seabirds had been produced and submitted to the ETG members previously.</p> <p>FC stated that one of the key comments in the feedback on the revised screening from NRW was to link back screening outcomes to the evidence of sensitivities. FC outlined that the matrix approach (presented as screening matrices to accompany the Report to Inform Appropriate Assessment (RIAA)), allows for the presentation of that evidence on an impact-by-impact and site-by-site basis, but that these were not included in the updated screening spreadsheet.</p> <p>FC asked JNCC for clarification regarding their comment on evidence suggesting a change in flight height of Manx shearwater in certain locations. It was the suggestion that individuals of the species may fly higher which would put them at risk of collision in some areas. JB responded that the position is still developing at JNCC and a clearer understanding is expected when further analysis is undertaken. JB noted that generally, the assumption is that they fly low to the water, however some <i>[older]</i> digital aerial survey data <i>[from a past project that did not make it to the application stage]</i> showed a proportion of shearwaters were flying at collision height <i>[above 20m]</i>. However, JB noted that it was not yet understood whether this was a consistent trend at sea and could be supplemented with</p>

	<p>tracking data to determine altitude. JB added that JNCC are hoping to get a clearer picture of how consistent flight heights are once the data has been analysed in detail, which will either show that Manx shearwater consistently fly too low to be a collision risk or provide more information as to the behaviours and locations resulting in greater flight heights. FC asked for the location of project this data was from. JB took an action to review notes and provide an update [Action 1]. AD added that RSPB have been involved in other offshore wind farms where this point has also arisen and noted that the difference in flight height was thought to be down to a number of factors such as weather conditions and behavioural activity. AD asked JB to include Ali in communications on the matter and took an action to ask Aly McCluskie (RSPB) to feed back any additional information that may be of use [Action 2].</p> <p>FC noted that the HRA screening is a broad Geographic Information System (GIS) [mapping] exercise that measures the shortest distance between AyM and designated sites. Once the list of sites and distances is generated, it is sense-checked so that sites beyond the mean maximum foraging range +1SD (unless there are specific highlighted concerns), and sites where birds would need to fly over significant areas of land (e.g. from the east coast of the UK) can be screened out. The seaward or landward outer boundary is applied initially on a precautionary basis, rather than looking at distances from specific colonies and nesting sites within designated sites. FC noted that individual colonies within designated sites may be further away than the SPA boundary and screened out on that basis, but the initial approach adds a layer of precaution making sure no sites are missed.</p> <p>RM asked if there were any further questions on HRA screening before moving onto the offshore ornithology Environmental Impact Assessment (EIA) aspects. RM added that the ornithology related documentation that would be published at the PEIR stage would consist of:</p> <ul style="list-style-type: none"> <li>- The RIAA (and its associated annexes, including the screening and integrity matrices);</li> <li>- The offshore ornithology PEIR and its associated annexes (displacement, Collision Risk Modelling (CRM) and displacement).</li> </ul>
4	<p><b><u>Ornithology assessment approach</u></b></p> <p>RM handed over to TK to present the ornithology assessment approach, noting that a position paper on the subject was submitted to ETG members on 10/03/21, with a written response from ETG members if necessary, but the presentation of the approach here would be a useful opportunity to raise any pressing queries.</p> <p>TK stated that the 24 months of offshore aerial surveys were complete [as of February 2021], and detailed analysis of the image data was underway. For the PEIR, the first 18 months of data would be available for presentation, which will be supplemented with the full 24 months of data for the ES in the final application. RM suggested that the analysis of the full 24-month dataset would likely be complete around the same time as PEIR publication, but there would not be enough time to incorporate it in the PEIR. Therefore, the full 24-month baseline characterisation could be consulted on with ETG members closer to that time if that was requested by ETG members.</p> <p>TK shared an update on the baseline data in terms of the maximum counts and the month that the maximum count occurred. He added that the species shown in the table are likely to form the most detailed elements of the assessment as they are the most abundant</p>

species. TK added that all species recorded will be presented in the baseline reporting, but gave an overview of some of the key species:

- Common scoter – present in high abundance to the south closer to shore;
- Red-throated diver – low numbers, some present in and around GyM.
- Manx shearwater – generally low numbers, only recorded in 10 of the first 18 surveys. Higher counts in August/September (88 in August), again mostly in the south of the survey area closer to shore.

SR noted that common scoter had been found generally further inshore and asked if there was further information on bird numbers across the nearshore sections of the cable route further in shore, expecting that to be the area where the highest density of birds is. TK replied that the survey buffer covers the areas of the cable corridor closest to the array. SL touched on the site selection process, noting that part of the cable route selection was around the Constable Bank area where birds are present in highest densities.

TK gave an overview of the approach to CRM, noting that it will follow the Marine Scotland stochastic CRM model, run deterministically. Three scenarios will be run (mean, minimum and maximum) to account for uncertainties. TK described that the assessment would be focused on key species of interest (gannet, kittiwake, herring gull and great black-backed gull), with other species screened out due to the low numbers observed, such as sandwich tern. TK asked NRW if there were any immediate questions or comments on the approach to CRM. JB understood why the model is being run deterministically, however for some parameters, the data are present to enable it to be run stochastically as designed. TK agreed that running stochastically where the data exists makes sense, but so far, Statutory Nature Conservation Bodies (SNCBs), for example Natural England (NE), have pushed back. JB added that more detail on the stochastic parameters will be covered in the SNCB guidance note. TK highlighted that work on the CRM was starting imminently in order to be complete in time for PEIR publication, so depending on when the guidance is made available, the current approach will be progressed for now. SL stated that to manage expectations on how comments or guidance will be incorporated, minor modifications can be made for PEIR if feedback is received before the end of April, but later inputs will have to wait until final application. JB noted that the guidance is unlikely to be published by then, and took an action to contact NRW and agree any stochastic parameters that can be shared before publication of the SNCB guidance [Action 3].

With no further questions, TK moved onto displacement. TK gave an overview of the proposed approach:

- Use 2 km and 4 km displacement buffers (species dependent); and
- Exclude the operational Gwynt y Môr offshore wind farm (GyM) area from the buffers, as any birds within GyM are unlikely to experience additive displacement as a result of AyM.

TK highlighted the precaution inherent within the approach, as standard displacement rates will be applied, despite evidence of habituation from observed species counts within and around GyM in the survey data. TK highlighted that post-construction monitoring studies from GyM will be used to inform the assessment. TK added that this approach to displacement was analogous to other ongoing extension projects (e.g. Rampion 2). TK stated that in later analyses post-PEIR, it might be possible to apply differential displacement rates to different buffers around AyM and GyM. JB responded that it could be applied to constructed wind farms, but should not apply in the construction phase as the activity has a greater disturbance than presence of turbines alone.

	<p>RM noted that NRW had agreed to provide feedback on the position paper by w/c 12<sup>th</sup> April. SL asked everyone if they were happy in principle with that date. JB and AD both said they would check internally for resource to do so.</p> <p>There were no further questions on the displacement approach.</p>
5	<p><b><u>Next steps and AoB</u></b></p> <p>RM asked if there were any other points any attendees wished to raise before closing. With no further matters arising, RM thanked everyone for their time and closed the meeting.</p>

Agenda Item	Action	Who?	Due Date
1	Review notes and provide email update on Manx shearwater flight heights	JB	Complete
2	Ask Aly McCluskie to provide update on Manx Shearwater flight heights	AD	05/03/21
3	Contact NRW regarding any CRM stochastic parameters that can be agreed ahead of SNCB guidance publication	JB	05/03/21

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**OFFSHORE ORNITHOLOGY ETG MEETING MINUTES– 29/07/2021**

<b>MEETING ORGANISER:</b>	RYAN MCMANUS		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Adam Cooper	NRW	AC
	Rebecca Laidlaw	NRW	RL
	Tim Kosoar	APEM	TK
	Emily Nelson	APEM	EL
	Paul Carter	RWE	PC
	Poppy Tremayne	RWE	PT
	Pete Gaches	GoBe	PG
	Ryan McManus	GoBe	RM
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Matty Murphy	NRW	
	Michael Bailey	NRW	
	Jillian Whyte	JNCC	
	Aurelie Bohan	NE	
	Robin Sandham	Conwy Council	
	Joel Walley	Denbighshire Council	
	Andrew Clark	Sefton Council	
	Andrew Dodd	RSPB	
	Simon Roberts	RSPB	
	Tania Davey	TWT	
	Christina Platt	TWT	
	Nia Jones	NWWT	

Documents provided:	Filename

Agenda item	Minutes
1	<u>Introductions</u>  RM gave a brief overview of the meeting agenda: <ul style="list-style-type: none"> <li>- Introductions;</li> <li>- Project update;</li> <li>- Ornithological baseline data update; and</li> </ul>



Agenda item	Minutes
	<p>- Next steps and AoB.</p> <p>All attendees introduced themselves, their organisation and role on the project.</p>
2	<p><u>Project update</u></p> <p>RM handed over to PC who gave a brief project update, including that onshore and offshore surveys that are mostly completed. In terms of programme, PC noted that the PEIR will be published on the 31<sup>st</sup> August 2021, and that the statutory consultation period will run until the 11<sup>th</sup> October 2021.</p> <p>AC asked with which other stakeholders the ornithology information was being consulted upon. RM said that this meeting is intended for all members of the offshore ornithology ETG, and though many members were not in attendance today, the minutes from the meeting would be shared with all members. PC added that the purpose of the meeting today is to present specific points related to the baseline ornithological data that has been used for assessment, not presenting the findings of the PEIR itself, which would be available for all to review from 31<sup>st</sup> August. PG added that the aim of today's meeting is to provide confidence to reviewers of the PEIR that although the assessment at PEIR was based on the first 18 months of aerial survey data, the inclusion of the final 6 months will not materially alter the assessment conclusions once incorporated into the final Environmental Statement (ES).</p>
3	<p><u>Ornithology baseline update</u></p> <p>RM then handed over to TK to present the findings of the final 6 months of aerial survey data, as well as direct comparisons to the first 18 months. TK explained that although the assessment has been based on the first 18 months of data, qualitative comparison of that data with the final 6 months of data provides confidence that once the full 24 months of data are assessed, the assessment outcomes and conclusions at the ES stage will not materially change from those at the PEIR stage.</p> <p>TK stated that with the exception of passerine species, which were identified in very low abundances, no new species or species groups were identified from the final 6 months of data. Many other species and species groups which were recorded during the first 18 months of survey (Manx shearwater, cormorant, shag, lesser black-backed gull. Black guillemot, puffin, Sandwich tern, waders, 'commic' tern, other tern species and storm petrels) were not recorded in the final 6 months.</p> <p><i>Common scoter</i></p> <p>TK noted that no common scoter were recorded in the array or the survey area out to 4 km, the only individuals identified were in the 4-8 km buffer. The peak abundance in this wider area was less than during the first 18 months of data, and therefore the final data will not impact the peak abundances and subsequent assessment outcomes.</p> <p>Before moving onto the other species, RM noted that the subsequent slides will be in a similar format, presenting the comparative peak abundances for each species. RM asked RL if the level of information presented was helpful, and if it would be helpful to talk more around the data. RL responded that the level of information presented was helpful and</p>

Agenda item	Minutes
	<p>having the comparative data in an annex at PEIR would be helpful in providing formal consultation responses.</p> <p><i>Red-throated diver</i>          TK noted the peak abundances compared to the first 18 months, noting comparable but lower peak abundances within the array, 4 km buffer, and the 4-8 km buffer.</p> <p><i>Gannet</i>          For gannet the peak abundances in the final 6 months were lower compared to the first 18 months.</p> <p><i>Fulmar</i>          For fulmar the peak abundances in the final 6 months were lower compared to the first 18 months.</p> <p><i>Kittiwake</i>          For kittiwake the peak abundances in the final 6 months were lower compared to the first 18 months.</p> <p><i>Common gull</i>          For common gull the peak abundances in the final 6 months were lower compared to the first 18 months. Slightly higher numbers were found compared to the equivalent bio-seasons in 2020, though not different enough to materially change abundance assumptions of assessments.</p> <p><i>Great black-backed gull</i>          For great black-backed the peak abundances in the final 6 months were lower compared to the first 18 months. Slightly higher numbers were found compared to the equivalent bio-seasons in 2020, though not different enough to materially change abundance assumptions of assessments.</p> <p><i>Herring gull</i>          For herring gull the peak abundances in the final 6 months were lower compared to the first 18 months.</p> <p><i>Guillemot and razorbill</i>          TK noted that outside of the breeding season, it is hard to distinguish between guillemot and razorbill in digital aerial imagery due to similarities in plumage. No birds were recorded to species level as guillemot, and very few birds were recorded to species level as razorbill. Birds identified as 'guillemot or razorbill' will be apportioned to species level when integrated with the preceding 18 months of survey data for ES submission. The peak abundances of birds that were identified as 'guillemot or razorbill' was higher than in the first 18 months. However, the increase is not expected to change the assessment at ES because the number of birds impacted is still small compared to the overall biogeographic population. Therefore, the increased abundance is not expected to have a material effect on the scale of impact.</p> <p><i>Conclusions</i></p>

Agenda item	Minutes
	<p>TK summarised that as no new species or species groups were identified, and because the abundances in the final 6 months compared to the first 18 months were comparable, the conclusions at the ES stage once the full 24 months of data are assessed, are not expected to materially change from the conclusions at the PEIR stage. TK confirmed that for the PEIR, the raw abundances for the final 6 months will be presented in an annex, but apportionment to species level with corrections will not be presented until the ES stage.</p> <p>RL confirmed she was happy with the approach being taken and added that it will be useful to have the full 24 months of data presented in an annex at PEIR.</p>
4	<p><u>Next steps and AoB</u></p> <p>RM said that the final assessments on the full 24 month dataset will be consulted on post-section 42, which will run from 31<sup>st</sup> August until 11<sup>th</sup> October 2021. PG added that if it is beneficial for NRW to have clarification meetings during the statutory consultation period, then the project team would be happy to meet during that period for discussion.</p> <p>There were no further questions or points of business. RM thanked all for their attendance and continued engagement and closed the meeting.</p>

Agenda Item	Action	Who?	Due Date
1	Minutes and PowerPoint presentation to be circulated.	RM	1 week

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**OFFSHORE ORNITHOLOGY ETG MEETING MINUTES– 12/10/2021**

<b>MEETING ORGANISER:</b>	GOBE CONSULTANTS		
<b>LOCATION:</b>	Microsoft Teams meeting		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Ryan McManus	GoBe	RM
	Fraser Carter	GoBe	FC
	Laura Goodhead	GoBe	LG
	Adam Cooper	NRW	AC
	Matthew Murphy	NRW	MM
	Jillian Whyte	JNCC	JW
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Pete Gaches	GoBe	PG
	Tim Kosoar	APEM	TK
	Matthew Boa	APEM	MB
	Aurelie Bohan-Rayson	NE	AB
	Rebecca Laidlaw	NRW	RL
	Laurence Browning	NE	LB
	Julie Black	JNCC	JB
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Andrew Dodd	RSPB	
	Robin Sandham	Conwy	
	Glen Gillespie	GoBe	
	Sean Leake	GoBe	
	Emily Nelson	APEM	
	Andrew Clark	Sefton	
	Joel Walley	Denbighshire	
	Simon Roberts	RSPB	
	Tania Davey	TWT	
	Nia Jones	NWWT	
	Christina Platt	TWT	
	Michael Bailey	NRW	
	Karen Algate	RWE	
	Richard Berridge	NE	

<b>Documents provided:</b>	<b>Filename</b>
PowerPoint presentation	AyM November 2021 Offshore ornithology ETG
ETG Agenda	AyM ETG Agenda – Offshore Ornithology

Agenda item	Minutes
1	<p><b><u>Introduction and aims</u></b></p> <p>RM opened the meeting and outlined that the purpose of the meeting was to first provide a project update, and then discuss the updates to the offshore ornithology chapter in the Environmental Impact Assessment (EIA) following Natural Resources Wales (NRW) and Joint Nature Conservation Committee (JNCC) comments, as well as discuss next steps for the Habitat Regulations Assessment (HRA) ETG.</p> <p>LB stated that a formal response from NE will be sent soon and will incorporate responses from discussions from the ETG.</p>
2	<p><b><u>Project update</u></b></p> <p>RM handed over to PC to present the project update slides.</p> <p>PC gave a quick run-through of the project to date, a refresher following the statutory consultation.</p> <ul style="list-style-type: none"> <li>- AyM location: 11km north of Llandudno &amp; 10km off the Welsh coast in the Irish Sea. Total array area: 88km<sup>2</sup>. AyM is a Nationally Significant Infrastructure Project (NSIP) requiring a Development Consent Order (DCO) via UK Govt and a separate Marine Licence via Natural Resources Wales.</li> <li>- Submission date for the ML and DCO moved from end of February to early spring.</li> </ul> <p>MM asked whether we are more likely to be considering turbines that are bigger (closer to 45 WTGs)?</p> <p>PC responded that this is dependent on the development of turbines between now and procurement. PC indicated that the current turbines available on the market are unlikely to be available at that point, therefore presenting a range of potential options allows for what is currently available as well as the projected change to technology in the future. The envelope accounts for flexibility within the market in terms of what the final turbine parameters are likely to be and allows the project to be commercially competitive.</p>
3	<p><b><u>Update following Statutory Consultation</u></b></p> <p>PC re-iterated that the statutory consultation ran from 31<sup>st</sup> August to 11<sup>th</sup> October 2021. As well as Section 42 feedback via email and letter, there was also virtual consultation for members of the public on the dedicated exhibition website. This was run for 6 weeks on the PEIR. During the statutory consultation period, there were approximately 3,500 unique visitors to the online exhibition as well as face-to-face events attended by 900 members of the public. Approximately 300 formal written and survey consultation responses (S42, S47) were received.</p> <p><i>Next Steps</i></p> <ul style="list-style-type: none"> <li>- To have regard to representations through internal review and Expert Topic Group meetings;</li> <li>- To prepare DCO/ML application docs for submission;</li> <li>- Refine the project design – seek best balance of benefits/impacts, final design freeze Q4 2021 / Q1 2022;</li> </ul>

Agenda item	Minutes
	<ul style="list-style-type: none"> <li>- Consultation Report will show how we had regard to responses;</li> <li>- Ensure proposals are appropriately assessed in the ES that will accompany the final applications.</li> </ul>
4	<p><b><u>Screening of species for displacement and CRM</u></b></p> <p>MB discussed how species were screened in or out of CRM (collision risk model) and displacement analyses based on abundance and sensitivity. MB indicated how APEM will clarify the definition of “trivial numbers”. APEM have provided the following statement “<i>We will revisit our terminology and update in line with the outlined methodology for characterising potential impacts. CIEEM guidelines (CIEEM, 2019) state the emphasis in EclA should be on ‘significant effects rather than all ecological effects’</i>”. MB stated that the assessment will be focused on potentially significant effects, therefore low or negligible values will not be investigated further and the focus will be on those with potentially significant effects.</p> <p>APEM provided a table of all species found within the array and 4km buffer and their peak abundances. APEM proposed the following are screened in for CRM: gannet, kittiwake, herring gull and great black-backed gull, and the following are screened in for displacement: common scoter, red-throated diver, gannet, Manx shearwater, guillemot and razorbill.</p> <p>APEM do not think Great-crested grebe should be investigated further due to only being present in the non-breeding season, and the species is known to prefer foraging in estuarine and freshwater habitats. Therefore, unlikely to be using the array area regularly. Even if a 10% mortality were used, this would result in an increase in baseline mortality of less than 1 individual, representing a negligible impact.</p> <p>MB proposed that lesser black-backed gull or common gull should not be investigated further (as requested in the S42 comments). Lesser black-backed gulls were recorded in a single count and therefore the impact will highly likely result in less than 1 individual affected and will ultimately be indistinguishable from baseline mortality. MB presented very low recordings for common gull, all of which are in the non-breeding season during a period where they begin to migrate, therefore counts in the array are likely to be migratory birds migrating towards Scottish breeding grounds. APEM propose treating common gull as a migratory species [see agenda item 6].</p> <p>MB stated that common scoter, red-throated diver, gannet, Manx shearwater, guillemot and razorbill will be assessed for displacement. Manx shearwater was not considered for displacement within the PEIR, however will be included in the final ES.</p> <p>MM stated that numbers are needed for cumulative assessments. MB stated that the ES baseline annex will present the monthly abundance estimates (raw counts, central estimate, densities, CIs and precision) which will be for the full 24 months of data. Therefore, numbers for cumulative assessments will be available in the baseline annex.</p> <p>MM stated that it is important to have this in the report itself, rather than having to search for it in annexes. MB responded by saying that if this is done then it will begin to take away the focus from important species, as well as be time consuming and resulting in an overly lengthy report. MM disagreed with this, stating that providing a summary such as that given</p>

Agenda item	Minutes
	<p>by MB [during the meeting] would not detract from the important species in the assessment.</p> <p>LB stated that this point relates to EIA, not HRA. LB asked whether the screening decisions presented within the PowerPoint presentation, are these going to be redone for HRA (i.e. are you screening different species for EIA and HRA?). FC stated that this depends on whether it warrants assessment within the EIA, however for HRA it depends on whether the species and site it is designated to will be considered within the HRA assessment. HRA would focus on SPAs and the relevant features. LB stated that there is a risk in the mismatch between the two assessments. There are a number of named component species of the Liverpool Bay SPA assemblage which, according to the EIA assessment, do not warrant further analysis, whereas for HRA these would be screened in and assessed (either as designated features or as an assemblage). FC stated that for EIA purposes, species are not assessed further as the numbers are very low and based on this, even if sites were screened in, it doesn't necessarily mean that it would warrant an assessment. FC stated screening for HRA should not just be based on connectivity alone but based on survey data, e.g. red-breasted merganser where numbers are so low that there is no material contribution which could pose an in-combination effect. LB stated that there is a need to discuss this further at the HRA ETG, and a need to consider the risk of not assessing features within the HRA. FC stated that during HRA, all sites are considered, and a rationale will be provided with regard to the assessment.</p> <p><b>ACTION [point 1] – discuss screened in species at the HRA ETG. GoBe to ensure this is noted as an agenda point.</b></p> <p>LB stated that qualitative rationales for species screened out in the EIA should be provided within the text, not just within tables in the annexes. MB asked which species are the ones of concern (S42 comment listed red-breasted merganser, great-crested grebe and common gull). MB suggested that instead of this rationale being within the chapter, that this is put into the baseline annex (i.e. a mini species account including peak abundance, densities within array and the buffers and a rationale why this species is not taken further in the assessment based on species ecology). LB agreed with this approach. MM stated that the table provided within the PowerPoint slide could be used. MB stated that data provided in the Annex would be similar to this PowerPoint slide table. MM stated that this table should be presented in the main report with a short synopsis rather than having to find results in different reports. RM suggested this could be done with justification on what is carried through and what isn't and then cross referenced to where further information is presented in the baseline and other annexes. MB agreed that APEM could accommodate this.</p> <p>JB agreed with MM that further information is needed on why species are not taken through to assessment, however another approach could be to add this table with additional columns of collision risk and displacement risk also presented, and resultant mortality. This would then lead to the HRA and whether those numbers link back to SPA populations. Therefore, the same would be used in the EIA and HRA but HRA would take it the next step and compare to SPAs. MB stated that providing a summary table would be good in order to provide a rationale behind why each species are included or excluded and summary of data if cumulative assessment using these numbers are needed in the future (or point of direction of where this can be found in Annexes).</p>

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	<p>PG suggested that if there is collective agreement that there isn't a risk to species considered here, then the process could end here (and that this aligns with GN 13 – NRW guidance) i.e. retire issues that aren't going to cause debates. Including displacement and collision output tables may lead to unnecessary debate on assessment parameters that ultimately are not important in the EIA context, rather than keeping the focus on the key issues.</p> <p><b>ACTION [point 2] – APEM will create a short summary table which will include similar data to what was presented in the ETG PowerPoint slide presentation and a simple rationale as to why each species has been excluded or included for assessment. This will be included in the offshore ornithology chapter.</b></p> <p>MM agreed that this sounds like a good approach, however will need to see results to see if NRW agrees or not with the outcome.</p> <p>MB stated that terns should not have a conventional CRM, but are more suited to a migratory CRM model (as well as common gull).</p> <p>RM stated that the only change from PEIR to ES will be an additional species screened in for potential displacement. MB confirmed from S42 comments that Manx shearwater will be screened in.</p> <p><b>ACTION [point 3] – APEM to include Manx shearwater for displacement within the ES.</b></p> <p>MM and LB agreed with this.</p>
5	<p><b><u>Red-throated diver assessment</u></b></p> <p>MB agreed that red-throated diver should be assessed using an 8km buffer and will update this in the ES. However, MB also acknowledged that the data being used to determine this may not be applicable in the Liverpool Bay SPA. MB suggested the following approach based on advice from NE for EA ONE NORTH and EA TWO:</p> <ul style="list-style-type: none"> <li>- 100% displacement within array area;</li> <li>- 90% displacement within 4km buffer;</li> <li>- 50% 4-8km coastwards.</li> <li>- With 1% mortality rate of displaced individuals.</li> </ul> <p>The rationale for the proposed approach is from assessments within the Outer Thames Estuary SPA. MB acknowledged that there are a number of differences between the Outer Thames Estuary SPA and Liverpool Bay SPA (e.g. Outer Thames Estuary SPA has multiple wind farms within the SPA. <i>[Post-meeting note: Whilst the AyM export cable corridor does overlap with the Liverpool Bay SPA, the array area is entirely outside the Liverpool Bay SPA (see Figure 18, Annex 3 of the RIAA published for statutory consultation)]</i>). There are also differences in the red-throated diver numbers between the two SPAs (numbers are almost ten times greater in the Outer Thames Estuary compared to AyM). This difference in numbers is also apparent in studies used from the German North Sea.</p>



Agenda item	Minutes
	<p>The 1% mortality proposed is based on red-throated diver having two strategies for foraging:</p> <ul style="list-style-type: none"> <li>- Individuals that are foraging site faithful and concentrated in one area which creates hotspots e.g. the north-west of the AyM there are known large congregations of wintering red-throated divers;</li> <li>- Individuals which are highly mobile, that travel significant distances and utilise various foraging locations.</li> </ul> <p>MB said APEM have interrogated SeaMaST data which showed that hotspots were found not within AyM but were instead found further north-east (i.e. Liverpool Bay) and eastwards inshore. These hotspots are the areas considered to be optimal habitat. The numbers found in the array compared to the wider region are shown to be low to very low abundance. It is likely that the red-throated divers within AyM are those which are highly mobile based on the low abundance and therefore displacement effect will unlikely lead to high mortality (as suggested in the Dierschke et al 2017 - JNCC report). Additionally, evidence that the RTDs in the area might not be displaced to the extent which is being assessed, is backed up by post-consent monitoring data from GyM, which suggests correlation of attraction as numbers of red-throated divers within the array area increased in some surveys. However, due to the high number of zero counts in the data, this data has not been taken further for interpretation. There are a number of studies of displacement effects, however despite high displacement at some known offshore windfarms, there is no current quantified mortality (Burger et al., 2020; Irwin et al., 2019) – e.g. Outer Thames Estuary SPA and German North Sea, which have shown no decreases (either increased or stable) in red-throated diver populations despite displacement. <i>[Post-meeting note: Written responses on the assessment approach would be welcomed on this point.]</i></p> <p>MM agreed that NRW will look at the proposed approach and discuss mortality rates. MM stated that GyM data should be presented, even if in a qualitative way. MB acknowledged that all conservation objectives need to be considered – e.g. habitat needs to be maintained not just population, however this is related to HRA rather than EIA.</p> <p><b>ACTION [point 4] – SNCBs to provide written feedback on red-throated diver displacement approach presented by APEM.</b></p> <p>MB stated that if there is disagreement on mortality rates, then other rates can also be presented. JB stated worst case parameters will show if there are no issues and that full ranges need to be presented in order to make a decision on what stance SNCBs will take for mortality rates. MB confirmed that all matrices will be presented so that variability of mortality results can be viewed transparently.</p> <p>PG suggested that if the mortality rates discussed do not make changes to assessment results, then it would be good to secure agreement with stakeholders prior to submission that either scenario does not lead to significant effects.</p>
6	<p><b><u>Migratory CRM (e.g. Migropath)</u></b></p> <p>TK stated that APEM propose two approaches for migratory CRM depending on species – Migropath and broad front approach. The Migropath tool is based on the BTO assessment tool, used for waterbirds and waders. The rationale for using the APEM tool rather than the</p>

Agenda item	Minutes
	<p>BTO tool is that it uses bootstrapping to provide CIs. The broad-front approach is used for migratory seabirds, this uses a migratory corridor down the Irish Sea using distance bands of where you expect birds to be from the coast. This approach assumes birds are distributed equally across bands. This approach has been used on other windfarm projects.</p> <p>MM requested that a note is produced to give more detail on Migropath and questioned whether either of these methods can be used for terns. TK confirmed that the broad front approach would be used for terns. LB agreed that broad-front approach is most appropriate for terns.</p> <p><b>ACTION [point 5] – APEM to send note to SNCBs regarding details on Migropath.</b></p> <p><b>ACTION [point 6] – SNCBs to agree approaches.</b></p> <p>MB stated that there will be a screening approach to decide which species are taken through using variables such as array area abundances, availability of local breeding sites, and known migration flight path data using BTO SOSS data.</p> <p><b>ACTION [point 7] – APEM to produce list of screened in species for Migropath once they receive agreement on the approach.</b></p> <p><b>ACTION [point 8] – SNCBs to comment on screened in species once received.</b></p>
7	<p><b><u>Auk correction factors</u></b></p> <p>TK acknowledged that AyM numbers for availability bias are slightly different than EA ONE. APEM have checked the documentation provided within the EA ONE assessment and found that there was rounding within the EA ONE assessment. TK stated that the AyM and EA ONE assessments using auk correction factors are the same excepting the slight discrepancy as a result of rounding by EA ONE.</p> <p><b>ACTION [point 9] – SNCBS to check agreement regarding auk correction factors rounding error between AyM and EA ONE.</b></p>
8	<p><b><u>Avoidance rates</u></b></p> <p>APEM proposed using Cook et al. (2014) avoidance rates that were used in the draft PEIR due to errors in Cook (2021). Different nocturnal rates were suggested by SNCBs within S42 comments based on the Furness et al. (2018). APEM acknowledged that these nocturnal rates do not account for variability, therefore APEM proposed using range of nocturnal rates in the assessment to account for uncertainty.</p> <p>MB acknowledged that gannet is currently assessed for both displacement and collision, however combining the results of these assessments in a cumulative manner leads to double counting (e.g. a bird which is displaced cannot then collide with a turbine). APEM propose using advice within Cook (2021) in order to account for double counting using macro-avoidance rates. Do SNCBs agree with this, using Cook et al. 2014 rates and gannet macro-avoidance used in Cook (2021)?</p>

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	<p>JB stated that the SNCBs are discussing possible approaches for considering gannet macro-avoidance and that she would feedback once further SNCB discussions have occurred. MB agreed that this approach for gannet could work. RM added that NE current advice is to go back to using the 2014 data for avoidance rates. LB agreed with CRM being undertaken using the 2014 rates.</p> <p>MM agreed that NRW's stance is to use avoidance rates presented within the PEIR and that they will review approach suggested for gannet.</p> <p><b>ACTION [point 10] – JNCC to check that avoidance rates used in PEIR and approach suggested for using gannet macro-avoidance matches that which will be presented in updated advice note.</b></p> <p><b>ACTION [point 11] – SNCBs to check approach suggested for gannet macro-avoidance.</b></p>
9	<p><u><b>Use of 95% confidence intervals</b></u></p> <p>MB outlined that APEM do not agree that 95% CI should be used for AyM assessment. CIs were requested for HOW03 due to only having 20 months of survey data (rather than the complete 24 months, which will be used in the final assessment for AyM), therefore HOW03 had to account for the missing data by using upper confidence limits for months with only a single year's worth of data. Additionally, HOW03 survey data were done on transects rather than the grid-based survey design used for AyM. Transect surveys do not sample the area evenly, therefore, a proportion of the area and important underlying variables may be missed. Grid transects systemically survey the area, meaning they are less prone to missing significant areas. Individual nodes are classed as separate individual samples. The independence of the node can be formally tested to ensure no pseudo-replication and grids have greater sample size. Therefore, grid transects have greater precision. MB asked whether SNCBs agree that 95% CIs are not required due to the rationale provided by APEM.</p> <p>JB questioned whether APEM are proposing to show some form of variation, just not CI and if so, what variation will be presented? MB acknowledged that APEM will be using central estimates within the assessment and do not propose to use the CIs. The CIs are presented in the Baseline Annex for each month of survey data. Additionally, displacement assessment matrices will be available, therefore, if there is disagreement with the mortality and displacement rates provided in the main assessment, then SNCBs can use these matrices to provide a range or differing result. JB acknowledges how the AyM survey methods differ to HOW03 and that AyM results are more precise, therefore presumably the CIs are tighter around the mean estimate. JB questions whether the reasoning for not wanting to present CIs is due to more information being added into the report, rather than being uncomfortable with the CIs results? MB stated that the assessment is transparent with all results being presented and that there are no numbers being hidden. MB acknowledged that there is already a lot of precaution in the assessment (e.g. peak abundances (which for some species e.g. guillemot use of peak abundance over a seven month period, which causes over inflation to the numbers during the whole season)). MB suggested that adding more data may detract from the focus of the report.</p> <p>JB did not wish to comment until data has been seen on the CIs and what these mean, however acknowledged that the approach seems sensible if numbers are acceptable.</p>

Agenda item	Minutes
	<p>RM questioned whether data is already presented in the PEIR. MB confirmed that per species raw counts, abundance estimates calculated per month, upper and lower CIs per months, precision and density of corresponding central estimates are presented in the baseline annex. MB confirmed that SD is used within collision risk modelling.</p> <p>JB acknowledged that presenting the worst-case scenario that SNCBs want to see makes it easy to know which species we are not concerned about without further discussion. LB agree this is a useful point as CIs allow to see key issues.</p> <p><b>ACTION [point 12] – SNCBs to provide feedback on 95% CIs.</b></p>
10	<p><b><u>Use of regional BDMPS populations</u></b></p> <p>MB acknowledged that in the PEIR there were some errors in the regional breeding populations used due to formatting issues. APEM have updated these and request feedback on these numbers from SNCBs, as well as SNCBs providing rationale if they do not agree with the updated numbers provided.</p> <p>RL questioned whether the last two columns presented in the table provided in the PowerPoint presentation is given in the main text of the report. TK confirmed that the table presented in the PowerPoint slides is an update of the table provided in the main text of the report, therefore, the methods used are presented in the report.</p> <p>RL stated that the table multiplications will be checked by SCNBs. MM also requested that numbers are sent, along with their calculations in order to be checked by SNCBs. TK and MB agree to sending these calculations to SNCBs.</p> <p><b>ACTION [point 13] – APEM to provide how numbers are calculated for BDMPS table.</b></p> <p><b>ACTION [point 14] – SNCBs to check that updated BDMPS populations presented are correct and to provide rationale for any numbers they do not agree with.</b></p>
11	<p><b><u>HRA overview (separate HRA focused ETG to be arranged)</u></b></p> <p>FC stated that the HRA team will ensure a joined up and consistent approach between EIA and HRA (where appropriate) e.g.:</p> <ul style="list-style-type: none"> <li>- Update assessment accordingly in-line with updated CRM and Displacement analysis for example, the discussion surrounding RTD displacement assessment today – the same buffer zones for certain species; and</li> <li>- Ensuring updates to species inclusions within the assessment are carried over to RIAA and linked to CO.</li> </ul> <p>MM asked whether apportioning included larger colonies or just SPAs. FC stated that apportioning followed the SNH approach that all breeding colonies were considered within the apportioning. FC stated that an apportioning note would be created and provided before the HRA ETG.</p> <p><b>ACTION [point 15] – GoBe to provide apportioning note to SNCBs prior to HRA ETG.</b></p>

Agenda item	Minutes
	<p>FC stated that the HRA team will differentiate where different approaches are required between the two assessments:</p> <ul style="list-style-type: none"> <li>- For example, apportioning to SPAs – will provide an apportioning note;</li> <li>- Focus on impact to breeding adults at SPA population;</li> </ul> <p><i>Summary of S42 feedback:</i></p> <ul style="list-style-type: none"> <li>- Undertake assessment using 24 months of survey data               <ul style="list-style-type: none"> <li>o The results of updated modelling, as discussed by APEM, will be carried through to inform the HRA assessment;</li> </ul> </li> <li>- Conservation objectives;               <ul style="list-style-type: none"> <li>o Intending to update the source for the conservation objective to ensure use of the correct assessment criteria and will also be sure to link the assessment outcome to all of each site's COs.</li> </ul> </li> <li>- Update species analysis;               <ul style="list-style-type: none"> <li>o As discussed by APEM – species such as Manx shearwater to now be included in displacement analysis;</li> </ul> </li> <li>- Screening update; and               <ul style="list-style-type: none"> <li>o FC said he hoped to have a detailed discussion at the HRA ETG regarding the screening process after previously being under the impression that all requested sites had now been included however S42 comments suggest other sites are required.</li> </ul> </li> <li>- Update in-combination assessment.               <ul style="list-style-type: none"> <li>o To discuss in greater detail during the HRA specific meeting.</li> </ul> </li> </ul> <p><i>Next steps:</i></p> <ul style="list-style-type: none"> <li>- <b>HRA-focused ETG meeting – end of November to discuss ornithology HRA related comments [Action point 16].</b></li> <li>- Agenda to be provided in due course.</li> <li>- Update RIAA based on feedback and any updates to ornithology EIA documents.</li> </ul>
12	<p><b><u>Next Steps</u></b></p> <p>RM briefly stated that the applicant would continue to review feedback and update the assessments for the ES to accompany the final application.</p> <p>An ETG meeting specifically on HRA matters would be arranged for towards the end of November [Action point 16].</p>

Agenda Item	Action	Who?	Due Date
1	Discuss screened in species at the HRA ETG. GoBe to ensure this is a key agenda point.	GoBe	TBC
2	APEM will create a short summary table which will include similar data to what was presented in the ETG PowerPoint slide presentation and a simple rationale as to why each species has been	APEM	N/A

Agenda Item	Action	Who?	Due Date
	excluded or included for assessment. This will be included in the offshore ornithology chapter.		
3	APEM to include Manx shearwater for displacement within the ES.	APEM	N/A
4	SNCBs to provide written feedback on red-throated diver displacement approach presented by APEM in the presentation slides.	SNCBs	Within 2 weeks of receipt of minutes
5	APEM to send example to SNCBs regarding details on Migropath and broad-front approach.	APEM	TBC
6	SNCBs to provide written agreement on APEM use of Migropath and broad-front approach described in the example report in Action point 5.	SNCBs	Within 2 weeks of receipt of minutes
7	APEM to produce list of screened in species for Migropath once they receive agreement on the approach.	APEM	TBC
8	SNCBs to comment on screened in species to be used in Migropath once received from APEM.	SNCBs	TBC
9	SNCBs to check agreement regarding auk correction factors rounding error between AyM and EA ONE as described in the presentation slides.	SNCBs	Within 2 weeks of receipt of minutes
10	JNCC to check that avoidance rates used in PEIR and approach suggested for using gannet macro-avoidance matches that which will be presented in updated advice note.	JNCC	Within 2 weeks of receipt of minutes
11	SNCBs to check approach suggested for gannet macro-avoidance.	SNCBs	Within 2 weeks of receipt of minutes
12	SNCBs to provide feedback on 95% CIs.	SNCBs	Within 2 weeks of receipt of minutes
13	APEM to provide how numbers are calculated for BDMPS table.	APEM	TBC
14	SNCBs to check that updated BDMPS populations presented are correct and to provide rationale for any numbers they do not agree with once they receive note from Action point 13. [Calculations spreadsheet provided alongside draft minutes].	SNCBs	Within 2 weeks of receipt of minutes
15	GoBe to provide apportioning note to SNCBs prior to HRA ETG.	GoBe	TBC
16	HRA-focused ETG meeting – end of November to discuss ornithology HRA related comments.	GoBe	TBC

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**HRA ETG MEETING MINUTES– 17/12/2021**

<b>MEETING ORGANISER:</b>	SEAN LEAKE (GOBE)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Richard Berridge	NE	RB
	Aurelie Bohan	NE	AB
	Adam Cooper	NRW	AC
	Rebecca Laidlaw	NRW	RL
	Matty Murphy	NRW	MM
	Jillian Whyte	JNCC	JW
	Julie Black	JNCC	JB
	Sarah Canning	JNCC	SC
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Rachael Sinclair	SMRU Consulting	RS
	Fraser Carter	GoBe Consultants	FC
	Glenn Gillespie	GoBe Consultants	GG
	Sean Leake	GoBe Consultants	SL
	Pete Gaches	GoBe Consultants	PG
	Kimberly Lloyd	GoBe Consultants	KL
	Ryan McManus	GoBe Consultants	RM
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Holly Self	NRW	

<b>Documents provided:</b>	<b>Filename</b>
PowerPoint presentation	AYM ETG Presentation HRA 171221_v2
RIAA comments log	0141_AyM-RIAA Comments Log_V1
Apportionment note	0141_AyM_Apportioning Note V1

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><u>Introductions</u></p> <p>SL thanked all for attending and outlined the agenda of the meeting. Everyone gave brief introductions to themselves, their organisation and role on the AyM project.</p> <p>The agenda included the following items:</p>

Agenda item	Minutes
	<ul style="list-style-type: none"> <li>• Present the proposed final boundary for application with associated design context</li> <li>• Present the proposed final Rochdale envelope for application</li> <li>• Present, discuss, and invite feedback on recent submissions</li> <li>• Discuss and agree next steps</li> <li>• Next steps &amp; AOB</li> </ul>
2	<p><u>Project design update</u></p> <p>SL provided an overview of how the project boundaries had developed since scoping as the project defines its boundaries for final application in March 2022. Following consultation within the ETG forum as well as formal statutory consultation channels, further refinement of the offshore array had been made, forming the final application boundary. SL noted that the project had reduced significantly since scoping and PEIR, both in terms of area and number of turbines.</p> <p>SL presented the ES boundary, noting that the project had reduced in terms of:</p> <ul style="list-style-type: none"> <li>- Area: from 106 km<sup>2</sup> at scoping, to 88 km<sup>2</sup> at PEIR, to 78 km<sup>2</sup> at ES;</li> <li>- Number of turbines: from 107 at scoping, to 48 large/91 small at PEIR, to 34 large/50 small at ES.</li> </ul> <p>SL explained that these refinements have been made primarily in response to feedback on the SLVIA topic in particular in consultation with this ETGs and is the final design for application reflecting that feedback and the desire to minimise impacts, whilst maintaining an economically viable project.</p> <p>SL outlined reduced MDS in terms of gross numbers and percentage terms and noted the increase of the smaller end of the envelope (the large turbine scenario remains unchanged from PEIR, whilst the small turbine scenario has increased in terms of individual turbine size, with a corresponding lessening of the number of turbines). Overall:</p> <ul style="list-style-type: none"> <li>- The maximum number of turbines proposed has reduced by 53% since scoping;</li> <li>- The maximum blade tip height has remained the same, but has increased in the case of the minimum design;</li> <li>- There has been no change to the minimum lower blade tip height (clearance) above MHWS; and</li> <li>- The maximum project area has reduced by 26% since scoping.</li> </ul> <p>SL highlighted a difference between the slides presented and those circulated – the slides presented included the reduction in swept area at ES compared to that presented at previous stages. SL took an action to re-issue the slide pack after the meeting <b>[Action 1]</b>.</p>
3	<p><u>Discussion on recent ETG submissions</u></p> <p>SL handed over to GG to present this section.</p> <p>GG noted the stakeholders who provided comments on the RIAA (primarily NRW, JNCC and NE). GG explained that minimal comments were received on the topics of benthic ecology</p>



Agenda item	Minutes
	<p>and fish ecology in terms of the RIAA and therefore discussion would focus on marine mammals and offshore ornithology where comments were more substantive.</p> <p>GG asked SL to share on screen the RIAA comments log that was circulated to the ETG two weeks prior to this meeting so that key themes of feedback could be discussed.</p> <p><i>Species and sites screened in for LSE</i></p> <ul style="list-style-type: none"> <li>- Following the initial HRA Screening report feedback, all additional sites flagged as of concern by NRW were included within the updated Screening report. These sites were taken to Stage Two.</li> </ul> <p>Additional sites that Awel y Môr agree should be considered are:</p> <ul style="list-style-type: none"> <li>o Kittiwake at Skomer, Skokholm and Seas off Pembrokeshire SPA</li> <li>o Manx shearwater and Kittiwake at Skomer, Skokholm and Seas off Pembrokeshire SPA and Aberdaron Coast and Bardsey Island SPA.</li> <li>o Waterbird assemblage at Liverpool Bay SPA</li> </ul> <p>Where waterbird assemblages are screened in, these will be considered as an assemblage rather than individual features.</p> <ul style="list-style-type: none"> <li>- All screened in features will be considered, however where impact is low (i.e. below 1 bird resultant mortality), a less detailed assessment will be undertaken as this will not lead to AEoI but will allow future in-combination assessments to be performed.</li> <li>- GG noted that SNCBs are invited to provide written feedback but welcomed initial thoughts in the meeting. No comments arising.</li> </ul> <p><u><i>Offshore ornithology</i></u></p> <p><i>Red-throated diver assessment</i></p> <ul style="list-style-type: none"> <li>- The HRA will use a gradient approach for red-throated diver displacement analysis considering abundances in buffer zones out to 8 km to the south. This would enable for a more realistic graduated approach to displacement analysis, with different displacement rates applied to the array area and each subsequent buffer.</li> <li>- JB asked whether details of the displacement rates and buffers could be set out. FC noted that APEM are undertaking the technical aspects of the assessment (CRM and displacement) and the proposals put forward by APEM will be taken forward. Broadly the approaches are similar, rates and buffers are as presented by APEM. JB asked if the range of mortalities would be provided. FC clarified that the ES would present displacement matrices so a range of displacements and mortalities will be available.</li> </ul> <p><i>In-combination effects of aggregate dredging, disposal and cable laying on red-throated diver in the Liverpool SPA</i></p> <ul style="list-style-type: none"> <li>- To determine data availability for understanding impacts, a high-level review of other industries that may have an in-combination level impact on RTD and Common Scoter (CS) will be conducted. It is worth noting that a significant amount of non-WF impacts will be included in the baseline because these activities were ongoing or consented to prior to the designation of the Liverpool Bay SPA. Where activity does not fall within this baseline (i.e. was consented after the SPA was designated), it will be considered in the updated in-combination assessment.</li> <li>- JB asked when the point at which cumulative activity is considered would be and advised it should be at the point at which data was collected.</li> </ul>

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	<ul style="list-style-type: none"> <li>- FC asked JB to provide the dates that are being included regarding the extension of the Liverpool Bay SPA.</li> <li>- Data on disturbance from vessels from existing activities.</li> </ul> <p><i>Approach to apportioning should be included in the RIAA</i></p> <ul style="list-style-type: none"> <li>- GG noted the apportioning note circulated included an example.</li> <li>- RL noted NRW will provide written response to most topics discussed previously by the end of December and on the apportioning approach in the new year.</li> <li>- JB noted that the apportioning note appeared to show two different apportioning approaches and whether these would both be presented in the final RIAA. FC responded that a single approach would be used, and it needed to deviate slightly from the SNH guidance to ensure sites highlighted by SNCBs are included.</li> <li>- JB noted tracking data is available for some colonies and asked whether this is considered in apportioning. FC replied that the apportioning approach does not include that data as it is considered earlier on in the screening process to determine connectivity anyway. FC noted that the inclusion of all colonies, not just SPA colonies, has been incorporated in the process.</li> </ul> <p><i>Need to assess assemblage features of the Liverpool Bay SPA</i></p> <ul style="list-style-type: none"> <li>- The assemblage feature was assessed as an individual feature. The assemblage feature will be considered as an assemblage in the updates to the RIAA.</li> </ul> <p><i>Manx shearwater displacement</i></p> <ul style="list-style-type: none"> <li>- Need to assess displacement effects for Manx Shearwater features of Skomer, Skokholm and Seas of Pembrokeshire SPA and Aberdaron Coast and Bardsey Island SPA. This will be included in the updates to the RIAA.</li> </ul> <p><i>Guillemot and razorbill as assemblage features of Skomer, Skokholm and Seas of Pembrokeshire SPA</i></p> <ul style="list-style-type: none"> <li>- AyM is beyond the mean-maximum +1SD foraging range of guillemot and razorbill from Skomer, Skokholm and Seas off Pembrokeshire SPA. Therefore, these species will not be considered in AA.</li> <li>- In terms of Kittiwake at Skomer, Skokholm and Seas off Pembrokeshire SPA will be included in the updates to the RIAA. Despite some species being part of the site's assemblage feature, there is no connectivity for those specific species and therefore no chance of an AEol on their behalf. However, due consideration will be given to the assemblage feature of the site (in light of the above) within the RIAA.</li> <li>- RL advised that they should be assessed in the non-breeding season (and in terms of the lesser black backed gull in the section below). FC will check approach and review evidence <b>[ACTION 2]</b>.</li> </ul> <p><i>Lesser black-backed gull</i></p> <ul style="list-style-type: none"> <li>- Lesser black-backed gull is beyond the site-specific maximum foraging range (Woodward et al., 2019) from Skomer, Skokholm and Seas off Pembrokeshire SPA to AyM. Therefore, this species will not be considered in AA.</li> <li>- FC noted that no LBBG were recorded in the non-breeding season at AyM in the survey data. In the breeding season, the maximum foraging range is greater than distance from AyM but connectivity is considered in context of mean-max foraging range +1 SD but this would dilute the impact when it comes to apportioning. MM</li> </ul>

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	<p>said a qualitative assessment can be included to explain lack of connectivity and explain that LBBG are more likely to come from Puffin Island.</p> <p><i>Need to assess the Dee Estuary SPA and Ramsar for migratory CRM</i></p> <ul style="list-style-type: none"> <li>- As agreed at the ornithology EIA ETG, APEM sent a note to SNCBs regarding details of MigroPath. NRW and JNCC have confirmed their acceptance of this method for assessing migratory waterbirds.</li> <li>- GG noted SNCB acceptance of the MigroPath.</li> </ul> <p><i>Need to use MigroPath or SOSS for migratory CRM</i></p> <ul style="list-style-type: none"> <li>- GG noted acceptance for the method of assessing migratory seabirds.</li> </ul> <p><i>Combined impacts from construction, O&amp;M and decommissioning and across displacement and collision</i></p> <ul style="list-style-type: none"> <li>- Following discussion during the offshore ornithological EIA ETG on the best way to calculate gannet displacement and collision in order to avoid double counting, the approach decided from these discussions will also be used within the HRA. However, mortality for each species is calculated per year, and not as an overall impact number for the combined phases of the project. Therefore, it is not appropriate to combine impacts across construction, O&amp;M and decommissioning. Also, the impacts are different for each phase and therefore, need to be addressed in isolation.</li> <li>- RL clarified that NRW advise impacts of collision and displacement should be considered additive and that the written advice provided a reference to the SNCB advice to this effect. Second part, NRW will provide clarification in written response. SL requested NRW provide a date when feedback could be provided.</li> </ul> <p><i>Common and arctic tern</i></p> <ul style="list-style-type: none"> <li>- Mean-maximum +1SD foraging ranges suggest no connectivity for common tern. Arctic tern has low vulnerability to collision. There is therefore no effect-receptor pathway for common tern, and no meaningful collision or barrier impact for Arctic tern. If new tracking data suggests otherwise.</li> <li>- RL agreed that in terms of barrier effects for common tern would be outside the mean-max, but arctic tern would be within the foraging range and still looking for them to be assessed and requested a summary of different assessments in an easy-to-read table. MM added it could be brought into qualitative assessment and provide information regarding why they have been screened out.</li> </ul> <p><i>Sandwich tern</i></p> <ul style="list-style-type: none"> <li>- RB advised that the colony-specific data should be regarded as potentially erroneous and the mean-max +1SD should be used. MM shared data showing tracks of Sandwich tern. FC asked if it could be used to show terns are foraging inshore and therefore not within the array.</li> </ul> <p><i>10% mortality rates.</i></p> <ul style="list-style-type: none"> <li>- It was suggested in SNCB feedback that a 10% mortality rate be used for red-throated diver, scoter, puffin and gannet. Following the ETG, the same approach will be used in the HRA for all species.</li> </ul>

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	<p><i>Cable laying vessel speeds</i></p> <ul style="list-style-type: none"> <li>- Assessment for cable laying assumes that birds do not fly or swim away and are just placid with the movement of the tide. If the boat is effectively static, then this conflicts with the statement about birds being able to come back after it has moved.</li> <li>- FC noted that because the boat will be moving during cable laying activity so birds will be able to return to any specific area once the vessel has moved through. However, the speed of the boat is at a pace where it will look as if it is stationary for the majority of the time to birds due to tidal movements, minimising any flushing response.</li> </ul> <p><i>Vessel movements in operation disturbance</i></p> <ul style="list-style-type: none"> <li>- Assessment is needed for the impacts of vessel movement during operation and maintenance for red-throated diver and common scoter. FC vessel movements are not known in detail and a high-level qualitative assessment has been included. Project proposes to include a vessel management plan which will include measures identified in the plan level HRA. Not possible to provide a quantitative assessment based on lack of information, but hopefully measures proposed provide confidence.</li> <li>- RL clarified context of the comment, exploring whether there was information about other projects to be used in in-combination assessments and welcomed what had been said regarding the vessel management plan. RL stated she would expand on this in written comments.</li> </ul> <p><u><i>Marine mammals</i></u></p> <p><u><i>Concurrent piling</i></u></p> <ul style="list-style-type: none"> <li>- SL noted that at the time of writing, the project was undergoing a review of project design, and now the project has committed to no concurrent piling (except in the instance of piling two pin-piles on the same jacket foundation concurrently).</li> </ul> <p>SC noted that there was limited time remaining to discuss marine mammal issues. GG asked if SC would like to raise any particular points now in the interest of time. SC made reference to the UXO note that was submitted to the marine mammal and marine ecology ETG and requested it be sent to JNCC and NE in response to feedback from NRW. An action was taken to circulate the note to attendees <b>[Action 3]</b>.</p> <p>SC also noted the proposal to consider the dose-response and asked if this was to be used instead of the EDR approach. RS clarified that it was proposed to be used instead of the EDR. SC requested that both approaches be considered in the context of harbour porpoise given JNCC and NE's preference for the EDR approach.</p> <p>GG noted that a draft MMMP would be submitted to the ETG early in the new year <b>[ACTION 4]</b>. RS stated that it would be updated based on the revised project design, and that it would be focused on the instantaneous PTS onset rather than the cumulative PTS onset. RS said a clarification note had been provided on this matter, but it had not been provided to JNCC or NE. It was asked if this approach was in line with the approach taken in the Moray Firth, highlighting that JNCC did not agree with the approach. An action was taken to circulate the cumulative PTS onset note to attendees <b>[ACTION 5]</b>.</p>

Agenda item	Minutes
4	<u>Next steps and AoB</u>  SL summarised the next steps as follows: <ul style="list-style-type: none"> <li>- Clarification notes to be provided;</li> <li>- Further meeting to be set up on marine mammals in the New Year.</li> </ul>

Action Point	Action	Who?	Due Date
1	Re-issue the amended slide pack	SL	17/12/2021
2	Check approach and revise evidence relating to the breeding season for <i>Guillemot and razorbill</i>	FC	TBC
3	Circulate the UXO note to attendees	RM	Complete
4	Revised draft MMMP to be submitted to the ETG members	GoBe	Early January
5	Circulate the cumulative PTS note	RM	Complete

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**OFFSHORE ORNITHOLOGY ETG – RSPB MEETING MINUTES – 23/02/2022**

<b>MEETING ORGANISER:</b>	SEAN LEAKE (GOBE CONSULTANTS)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Matthew Boa	APEM	MB
	Simon Roberts	RSPB	SR
	Valerie Wheeler	RSPB	VW
	Aly McCluskie	RSPB	AM
	Alex Herbert	RWE	AH
	Sean Leake	GoBe Consultants	SL
	Pete Gaches	GoBe Consultants	PG
	Fraser Carter	GoBe Consultants	FC
	Kimberley Lloyd	GoBe Consultants	KL
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Paul Carter	RWE	
	Andrew Dodd	RSPB	

<b>Documents provided:</b>	<b>Filename</b>
PowerPoint presentation	AyM Offshore Ornithology ETG 23/02/22

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><b>Introductions</b></p> <p>SL thanked all for attending and outlined the agenda for the meeting. Everyone gave brief introductions to themselves, their organisation and their role on the AyM project.</p> <p>The agenda included the following items:</p> <ul style="list-style-type: none"> <li>- Project update</li> <li>- S42 feedback</li> <li>- Predicted impacts based on full 24 months survey work</li> <li>- Population viability analysis</li> <li>- Red-throated diver displacement</li> <li>- Cumulative/in-combination assessment</li> </ul>
<b>2</b>	<p><b>Project boundary and Rochdale Envelope update</b></p> <p>SL provided an overview of how the project boundaries had developed since scoping as the project defines its boundaries for the ES and DCO application in March 2022. SL noted that the project had reduced significantly since scoping and PEIR, both in terms of area and number of turbines.</p> <p>SL presented the ES boundary, noting that the project had reduced in terms of:</p>

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	<ul style="list-style-type: none"> <li>- Number of turbines: from 107 at scoping, to 48 large/91 small at PEIR, to 34 large/50 small at ES. 45% reduction (53% from scoping design).</li> <li>- Max blade tip height above MHWS: Smaller turbines have increased in size from 252 m tip height to 282 m. The larger turbines have remained the same with 332 m tip height.</li> <li>- Minimum lower blade tip above MHWS: Has had no change, 22 m.</li> <li>- Maximum project area (km<sup>2</sup>): from 106 km<sup>2</sup> at scoping, to 88 km<sup>2</sup> at PEIR, to 78 km<sup>2</sup> at ES; 11% reduction (26% from scoping design).</li> <li>- The final application will be 78 km<sup>2</sup> and between 34 and 50 turbines depending on whether they are the 282 m or 332 m tip heights.</li> </ul> <p>AM mentioned that there are proposals with a 37 m air gap and asked how much opportunity there has been to look into the lower tip gap and whether there are opportunities to maximise the gap, which would have significant reductions in ornithology impacts, but understands engineering limitations would need to be considered.</p> <p>SL explained that the project has reviewed the air gap aspect, but the reduction in boundary has limited the project's ability to do so at the moment, and while MB will go into greater detail on this, to summarise, it has been included in the design process, but no changes have been made to date.</p>
3	<p><b>Key comments for discussion</b></p> <p>MB outlined what will be discussed:</p> <ul style="list-style-type: none"> <li>- Evaluation of receptor and impacts;</li> <li>- Collision risk and displacement;</li> <li>- s42 feedback;</li> <li>- Red-throated diver assessment; and</li> <li>- Population Viability Analysis (PVA).</li> </ul> <p><b>Evaluation of receptors and impacts</b></p> <p>MB explained AyM follows the CIEEM guidelines (CIEEM, 2019), with regards to the emphasis being on “significant effects rather than all ecological effects”.</p> <p>MB stated that after discussion with Statutory Nature Conservation Bodies (SNCBs), the Applicant has included an evaluation of receptors and impacts table within the ES, similar to HRA screening process. MB added that the table includes every species found within the array and buffer area and details the rationale for receptors scoped in or out for specific impact assessments.</p> <p>MB stated receptors that were scoped in or out for Collision Risk Modelling (CRM) and Displacement are based on factors including:</p> <ul style="list-style-type: none"> <li>- Abundance;</li> <li>- Conservation status; and</li> <li>- Sensitivity</li> </ul> <p>MB summarised that the peak abundances for all species were updated for 24 months of data.</p> <ul style="list-style-type: none"> <li>- Full data were presented in Baseline Technical Report and Additional Data Annex</li> <li>- All 24 months of data is integrated into a single Baseline Technical Report for ES.</li> </ul> <p>MB emphasised that the ES table provides a clear and transparent justification for excluding certain species. MB presented the table of results of the evaluation of receptor and impacts and summarised the species that have been scoped in for displacement, the species that have been scoped in for CRM.</p> <p>MB indicated that the species, Red-breasted merganser and Cormorant, had not been scoped in for CRM, but that they had been screened in and assessed for migratory patterns.</p>

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	<p>MB added abundances for Common gulls indicated that they were only moving through during the migratory season, and after a discussion with SNCBs about how to approach this, it was determined that the most sensible approach would be to use a migratory assessment rather than a standard CRM assessment.</p> <p>Additionally, the terns have not been found within breeding season due to the foraging grounds being too far from breeding colonies and thus have only been screened in for migratory assessment. MB concluded the species that have been scoped out, as presented in the table, and emphasised the rationales are clearly justified in the ES.</p> <p>AM stated that the general consensus is that Manx shearwaters are not at risk as they fly so close to the surface of the water, but with the expansion of offshore wind farms on the West Coast, there is growing concern, and there is a lot of active research underway in the context of behavioural change due to the effects of light sources, particularly in young Manx's. AM confirmed there have been recent tagging studies, and the Erebus project's classified annex addresses such topics, such as flight height and collision risk. Marine Scotland Science has also researched on the impact of wind farms. There will be a handful of workshops to examine these concerns and engineering solutions.</p> <p>AM advised keeping mitigation options open while the outcomes of current research and workshops are being finalised.</p> <p>MB responded that this has been bought up with SNCBs with similar evidence offered, but it has not been screened in yet due to not all the material having been examined. For now, there is agreement with SNCBs to put them through the displacement process, and they will keep us updated on final CRM results as they examine preferred parameters to be employed in assessments. However, AyM is taking everything into consideration and waiting to see the results of the new research.</p> <p>AM stated some research expresses the need to look at local evidence over generic evidence as a further precaution. MB responded that the generic data shows results of minimal collisions however tagging data also contain inaccuracy which would need to be accounted for. AM acknowledged that GPS tags can be temperamental, which manufacturers recognise.</p> <p>PG clarified that the assessments will be made without the use of numerical modelling, but AyM are conscious that it is potentially an area of evolving science, and if new information or clear guidance for a change in approach for species is presented, the project will respond in due course or during the examination phase. AM recognised and accepted that this is a pragmatic and reasonable approach.</p>
	<p><b>S42 responses (EIA related)</b></p> <p>MB presented the s42 responses as follows:</p> <p><i>Conservation status of ornithology receptors</i></p> <p>MB updated that the conservation states now take into account species of Principal Importance listed under Section 7 of the Environment (Wales) Act 2016 and the most recent Birds of Conservation Concern 5 (Stanbury et al. 2021).</p> <p><i>Minimum air gap</i></p> <p>MB stated that the Minimum air gap has not been amended for the final ES.</p>



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	<p>Also there remains uncertainty on the final design, therefore in order for AyM to remain precautionary and to consider the worst-case scenario, it has been kept at 22 m but there has been the commitment to reduce the turbines from 91 to 50 which has significantly reduced the predicted CRM impacts for AyM.</p> <p><i>Cumulative assessments</i></p> <ul style="list-style-type: none"> <li>- Applicant has reviewed, monitored and included (where applicable) additional projects for the final cumulative assessments, including; Mona, Morgan, Rampion II, Morlais Demonstration &amp; Erebus.</li> </ul> <p><i>Red-throated diver displacement</i></p> <p>MB explained how the approach has been updated from the PEIR to the ES.</p> <p>The PEIR approach of 100% displacement out to 4km was a compromise.</p> <ul style="list-style-type: none"> <li>- We acknowledge evidence that a degree of displacement occurs &gt;4km from Offshore Wind Farms (OWFs)</li> <li>- However, evidence of RTD in and around existing GyM – supports displacement not 100%</li> <li>- Numbers of RTD from GyM post-consent monitoring are too low to use for quantitative analysis of displacement rates.</li> </ul> <p>Proposed final ES approach:</p> <ul style="list-style-type: none"> <li>- As agreed with SNCBs the following approach taken includes;</li> <li>- 100% displacement within array area;</li> <li>- 90% displacement within 0-5km buffer; and</li> <li>- 50% displacement in 5-8km zone (coastwards).</li> </ul> <p>MB emphasised that the evaluation is precautionary for the area and is supported by GyM post-construction data to provide more information on the applicability of these displacement rates.</p> <p>MB concluded that based on the Applicant's review of likely RTD mortality the ES considers a 1% mortality rate as the focus for assessment, whilst also presenting up to 10% as requested by SNCBs.</p> <p>AM asked what is the distance from the Liverpool Bay SPA? FC responded that with the 8 km buffer, the distance is 0.5 km.</p> <p>AM agreed with the approach to some of the displacement effects but highlighted that when thinking in terms of the HRA, and noted this has previously come up in East Anglia OWF, the conservation objectives of SPAs include ensuring that the distribution of the listed species is not influenced. Evidence suggests that displacement can occur over a distance of 10 km, meaning that not just mortality but also changes in distribution must be assessed.</p> <p>MB stated that the baseline report includes where the species have been recorded, and the results reveal that red-throated divers in the areas linked with the Liverpool SPA do not appear to be displaced. While data suggests that some species will avoid buffer zones, aerial digital surveys demonstrate that red-throated divers do appear to occur near active OWFs.</p> <p>FC further stated that substantial evidence-based work has occurred, allowing for a thorough understanding of the HRA objectives that are linked to SPA conservation objectives. As a result, there has been a focus not only on mortality rate and population size, but also on conservation objectives. This was highlighted early in the ETG process with SNCBs, therefore it has been acknowledged and updated subsequent to HRA process updates.</p>
	<b>Population Viability Analysis (PVA)</b>

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	<p>MB explained that no assessments for any bird species exceeded an increase of 1% relative to baseline mortality (therefore no PVA required / run for project alone). However, cumulatively impacts for great black-backed gull exceeded the 1% threshold (therefore PVA undertaken / run for project cumulatively).</p> <p>MB explained that they ran three different PVAs to ensure that they fully encapsulated all connectivity and impacts for AyM, one for Western and English Channel biologically defined minimum population scales (BDMPS) predicted impacts, one for West of Scotland BDMPS predicted impacts, and one for a combined BDMPS of the two regions (due to difficulties in quantifying the different connectivity between the two).</p> <p>MB stated that they utilised the Natural England seabird PVA tool, which includes a 'burn in' function. The guidance note states that 'burn in' is a future work item, however, it was been requested for other OWFs. The model has been run with and without the 'burn in' function over a 10-year period to ensure the model's stability when running.</p> <p>MB explained that according to Horswill and Robinson (2015), the data for the great black-backed gull comes from single research conducted in the 1980s. As a result, the accuracy and confidence in the survival rates are low, and the research suggests adopting a different gull species. Thus, for survival rates, the modelling included herring gulls as a proxy.</p> <p>MB summarised, for great black-backed gull the Applicant modelled using the following assumptions:</p> <ul style="list-style-type: none"> <li>- Density independent only;</li> <li>- Herring gull survival rates used as proxy aligning with recommendations in Horswill &amp; Robinson (2015);</li> <li>- Model ran including and excluding 'burn in' function;</li> <li>- Model ran for two different BDMPS regions and combined BDMPS; and</li> <li>- Both counterfactual of growth rate and population size presented.</li> </ul> <p>AM has indicated that they are satisfied with the presentation of the density-independent formulation. The use of survival rates as a proxy is acceptable; AM cannot recall any more recent studies of survival since Horswill and Robinson (2015).</p> <p>MB confirmed there has not been much advancement for the species since Horswill and Robinson, and even that is based on outdated data. AM agreed that the proxy is a reasonable method. One of the benefits of this technique to doing PVAs is that the factual outputs are less sensitive, so while this is a necessary compromise, using the factual Metrix will minimise any errors that arise. AM agreed sensible to run both including and excluding 'burn in' and asks if there was a big difference of outputs. MB confirmed there was no major impact and only a minimal % difference between two. AM approved of the 3x region model presentation and confirmed that the various scenario approach is the most realistic way to be transparent and reflect uncertainty.</p> <p>SR asked whether the desk study of scoter had included the recent aerial survey data commissioned by Orsted JNCC Report No. 576: An assessment of the numbers and distributions of wintering waterbirds and seabirds. MB and FC will make sure that it has been included. <b>ACTION</b> MB and FC to check if those results had been used.</p>

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	<p><b>Offshore Ornithology HRA</b></p> <p>SL asked AM if he knew what results might come out of the Erebus Report, in terms of flight height or any concerns associated with it. AM has not finished reviewing Erebus but does not think they have taken site-specific flight heights forward for the assessment. FC stated flight height was provided in the CRM report, but the collisions output was 0, as expected across all seasons, indicating generic flight height distributions in the modelling. MB stated he has evaluated the CRM report, and the band choice 1 value appears to be based on the flight height calculator number rather than GPS data, a method that experts have not yet agreed upon. MB added that SNCBs have not yet agreed on a method for computing flight height. AM stated the authors of the report will be participating in the Marine Scotland Science workshops and they may present some of the results.</p> <p>FC summarised the s42 feedback as:</p> <ul style="list-style-type: none"> <li>- Undertake assessment using 24 months of survey data (which has been undertaken and completed now by APEM)</li> <li>- Conservation objectives (A number of the conservation objectives included in the PEIR stage were not as expected for NRW, thus there has been an overhaul and modifications since then to ensure assessment outputs are linked to the relevant conservation objectives for those species).</li> <li>- Update species analysis (Included Manx Shearwater as an addition from first assessment and possible CRM additions).</li> <li>- Screening update (included 1SD Woodward et al., 2019, and considered many species that are not usually seen in OWFs projects but have been screened in initially to then provide a rational and brief qualitative assessment to present sensitivity and show precautionary methods).</li> <li>- Update in-combination Assessment (A number of new projects have surfaced, and more information is becoming available, therefore new information has been considered for AyM HRA).</li> </ul> <p><i>Cumulative/ In-combination assessment</i></p> <p>FC explained that the two ornithology teams have kept both assessment processes aligned as much as possible.</p> <p>FC presented the approach for in-combination assessment is to include all plans and projects with apportioned impacts for relevant designated sites:</p> <ul style="list-style-type: none"> <li>- Within mean-maximum foraging range + 1SD (Woodward et al., 2019) during the breeding bio-season (BDMPS region (Furness, 2015) and eastern Irish waters for Manx shearwater); and</li> <li>- Within the relevant BDMPS regions (Furness, 2015) for each species during the non-breeding bio-seasons.</li> </ul> <p>FC explained the cumulative and in-combination assessments have been updated to include all plans and projects with available data. FC claimed that many of the projects on the West Coast are out of date and have not considered CRM, which is now a requirement, therefore the team have done their best to gather information to utilise in assessments. The plans and projects that have additionally been considered, following consent/submission, include Morlais and Erebus.</p> <p>AM referred to the Woodward et al., 2019 and the recommendation to consider local colony specific tagging data and asked if that data has been looked at for local species.</p>

Agenda item	Minutes
	<p>FC stated that this has been included where applicable, which will be flagged in the assessment and stakeholders have also engaged and consulted on the use of local colony data.</p> <p>AM inquires whether the mortality was calculated using the whole consented capacity or the phase capacity. MB indicated that for the EIA process, they went by the consented capacity and then minimised the impact accordingly. FC stated that it is highly likely that the HRA has followed the same approach, but if not, he will clarify in a follow-up email. <b>ACTION</b> FC to provide follow up email if needed. SL verified that after Morlais the strategy that has been adopted across all relevant receptors is to analyse the cumulative impacts associated with the consented project, and then specific monitoring would define whether or not they can be expanded further.</p> <p>SR stated that it has been consented for 240 MW but there is this phase approach, but it is a matter of timing and dependant on which phase will be permitted.</p> <p>MB stated that it appears that modifications might be made based on site-specific avoidance rates but what they have presented so far is representative of what is currently available but noted that this project could be amended post consent.</p> <p>SL thanked all for attending and providing valuable input throughout the ETG process and closed the meeting.</p>

Action	Action	Who?	Due Date
1	MB and FC had confirmed before the end of the meeting that this data had been included in assessments.	MB and FC	23/02/2022
2	FC to check the approach used for mortality, whether it was based on full capacity or phase capacity and if different to EIA approach, then to follow up with an email.	FC	23/02/2022

### **3.3 Appendix C3: Marine Mammal Meeting Minutes**

**(Note: Marine mammal matters were usually considered within the ETG 4: Marine Mammals, see Appendix C4).**

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**MARINE MAMMALS EVIDENCE PLAN MEETING MINUTES– 3 MARCH 2020**

<b>MEETING ORGANISER:</b>	innogy
<b>LOCATION:</b>	Teleconference
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm
<b>ATTENDEES:</b>	CERI MORRIS (NRW) NIA PHILLIPS (NRW) ALEX HERBERT (INNOGY) NICOLA SOLLY (GOBE CONSULTANTS) SAMMY MULLAN (GOBE CONSULTANTS) RACHAEL SINCLAIR (SMRU CONSULTING) CAROL SPARLING (SMRU CONSULTING)
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	PAUL CARTER (INNOGY)

Document provided:	Filename
1 Density Estimate Review	AyM_Marine Mammal Density Estimate Review – final.pdf
2. Slides presented	AYM - Marine mammal density estimates (1).pdf

Agenda item	Minutes
<b>1</b>	<p><b>Introduction</b></p> <p>Introductions of the participants were made, and the aims of the meeting were outlined.</p> <p>NS acknowledged that low numbers of mammals have been observed in the surveys and there have been some issues in identifying the species. NS explained that a position paper has been produced describing the reasons for these issues and the proposed approach for determining density estimates for marine mammal species, issued to NRW (on 2<sup>nd</sup> March 2020).</p> <p>RS explained that the paper essentially provided the information to be included as the EIA baseline for the study area.</p>

	<p>CM agreed that the baseline data outlined in the report were comprehensive based on her initial review – see actions below.</p> <p>NS explained that during the production of the PEIR the project will be seeking formal comments on the position paper (and baseline data sources) from other members of the Evidence Plan Expert Topic Groups for marine mammals.</p>
2	<p><b>Survey</b></p> <p>RS presented slides which are a summary of the paper circulated prior to the meeting. She explained that the Awel y Môr site specific surveys began in March 2019 and are programmed to be undertaken for 24 months. The aim of the survey was to provide density estimates for each of the marine mammal species within the study area. However, she explained that unfortunately the sighting rates are low and the images aren't of sufficient quality to confidently identify species within the images. She explained that APEM has QA'd the images and where an identification cannot be made then the sighting is classified as dolphin/porpoise. SMRU has undertaken an independent review of these images but wasn't able to identify the majority. RS presented some examples of these images where identification could not be made – see slide 4.</p> <p>RS explained that the issue with the dolphin/ porpoise classification is that it encapsulates several species and an assumption cannot be made that it is a porpoise or dolphin. Therefore, the proposal is to use additional data sources to derive a density estimate for the site.</p> <p>RS provided an overview of the Gwynt y Môr surveys undertaken (EIA, pre-construction, construction and post-construction surveys) – see slide 7. Noting that, while these surveys confirmed the species most likely to be present in the area, they were unable to provide a density estimate.</p>
3	<p><b>Harbour porpoise</b></p> <p>RS noted that for harbour porpoise a larger scale was considered and presented the density estimates derived from the SCANS III and SCANS II and various other sources – see slide 8. She noted that there is seasonal and annual variability between the surveys.</p> <p>RS presented the local scale surveys (and the associated density estimates) which have been undertaken – see slides 9 and 10. She noted that higher sightings typically occur in the winter months relative to the summer months. RS explained that there is a range of estimates within the local scale surveys and that they do not cover the Awel y Môr scoping boundary. She also noted that surveys may not be applicable due to the calmer tidal conditions at the Awel y Môr site relative to Anglesey.</p> <p>She highlighted that all data have limitations and assumptions. She recommended that the SCANS III Block F and JCP Phase III data be used to inform the EIA baseline to derive a density estimate for harbour porpoise.</p>

	<p>CM noted that the proposed data were appropriate and agreed that higher sightings are likely around Anglesey compared to the Awel y Môr site. CM requested confirmation as to how the survey data will be used in the EIA. RS confirmed that the surveys will continue for 24 months but it is unlikely that they can be used to derive a density estimate given the issues explained previously.</p>
<b>4</b>	<p><b>Bottlenose dolphins</b></p> <p>RS presented the density estimates from the wider surveys in the region including SCANS and ObSERVE – see slide 12. She noted that there is a wider range in estimates for this species.</p> <p>CM asked whether Sea Watch Foundation data has been considered and if they have observed bottlenose dolphins in the Awel y Môr area. RS noted that the data which have been used are those in the published literature. CM requested that the project should contact Sea Watch to get more recent data that has been collected for North Wales and the Liverpool Bay area and not yet been made public – see actions.</p> <p>RS presented the two suggestions to derive the density estimates for bottlenose dolphins (see slide 13) –</p> <ol style="list-style-type: none"> <li>1. To apply the wider Cardigan Bay estimate within the 20 m depth contour; or</li> <li>2. Assume an even distribution of the total population within the observed range within the 20 m depth contour. This approach has been used in other OWF EIAs including Inch Cape and Seagreen on the east Scottish coast.</li> </ol> <p>CS highlighted that an additional step is proposed in order to assess the depth range of dolphins observed in Welsh coastal waters and to ensure that the 20 m contour is appropriate. CM agreed that option 1 would be precautionary and suggested that the Sea Watch Foundation data should be requested to inform this.</p>
<b>5</b>	<p><b>Risso's dolphin, common dolphin and minke whale</b></p> <p>RS presented the wider scale data and noted that targeted surveys and local surveys have not been undertaken for these species and sightings in wider surveys have been sufficiently low that a density estimate could not be derived.</p> <p>RS noted that there are hot spots for risso's dolphins around Anglesey but much lower sightings have been observed in the Awel y Môr site – see slide 14. RS noted that there is a lack of data for these species locally to the proposed development. She noted that the data suggested that these species are uncommon in North Wales (and at the Awel y Môr site). She does not anticipate that any survey method is likely to provide sufficient data to be able to derive a density for these species.</p>



	<p>CM noted that there may be an increase in risso's dolphins in North Wales (near Anglesey) and suggested analysis of the Sea Watch Foundation data – see actions.</p> <p>CM suggested that the passive acoustic monitoring data from the SEACAMS project at the Minesto site is requested – see actions. CS agreed to request the data, but the encounter rates are likely to be sufficiently low that a robust quantitative estimate is unlikely to be derived. Therefore, she suggested that either a qualitative assessment could be undertaken or to scope these species out from further assessment. She noted that the recommendation would be informed through additional analysis of Sea Watch Foundation and SEACAMS data.</p> <p>CM agreed that the approach seemed appropriate and would provide formal comments.</p>
6	<p><b>Grey seals</b></p> <p>RS presented the at-sea usage maps for grey seals and noted that the Awel y Môr site is covered - see slide 16. She noted that there is a hot spot in the Liverpool Bay area to the east of the development. She highlighted that these data don't include more recent tagging studies (2017 and 2018). Therefore, she recommended the potential to update the at-sea usage maps and haul out counts for the area could be investigated. CM agreed that updating the maps would be very useful to inform the EIA. CM agreed that using the telemetry for grey seals was a sensible approach.</p> <p>CS noted that the lead author of the at-sea usage maps (Dr Russell) is currently on maternity leave and therefore may not be able to input into this any time soon.</p> <p>RS presented the overview recommendations for the different species – see slide 17 – as presented previously in the teleconference.</p>
7	<p><b>AOB</b></p> <p>No issues were raised.</p>

Agenda Item	Action	Who?	Due Date
<b>1</b>	CM to provide formal comments on the position paper and also follow up to NRW's previous comments on the aerial survey methodology (made in letter on 20 <sup>th</sup> December 2019)	NRW	20/03/2020
<b>2</b>	No actions recorded	N/A	N/A
<b>3</b>	No actions recorded	N/A	N/A
<b>4</b>	To contact Sea Watch to request the recent (unpublished) data.	Innogy (SMRU)	To inform PEIR
	CM to provide written feedback on the two potential options for bottlenose dolphins.	NRW	20/03/2020
<b>5</b>	To contact SEACAMS to request the passive acoustic monitoring data.	Innogy (SMRU)	To inform PEIR

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**MARINE MAMMAL HRA ETG MEETING MINUTES– 01/02/2022**

<b>MEETING ORGANISER:</b>	RYAN MCMANUS (GOBE)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Adam Cooper	NRW	AC
	Nia Phillips	NRW	NP
	Martin F Nicholas	NRW	MN
	Holly Self	NRW	HS
	Jillian Whyte	JNCC	JW
	Sarah Canning	JNCC	SC
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Rachael Sinclair	SMRU Consulting	RS
	Ursula Verfuss	SMRU Consulting	UV
	Glen Gillespie	GoBe Consultants	GG
	Sean Leake	GoBe Consultants	SL
	Ryan McManus	GoBe Consultants	RM
	Kimberley Lloyd	GoBe Consultants	KL
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Pete Gaches	GoBe Consultants	
	Richard Berridge	NE	
	Aurelie Bohan	NE	
	Julie Black	JNCC	

<b>Documents provided:</b>	<b>Filename</b>
PowerPoint presentation	AYM ETG Presentation HRA 010222
PDF	AYM Environmental Statement Volume 4, Annex 7.2: Draft Outline Marine Mammal Mitigation Protocol

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><u>Introductions</u></p> <p>RM thanked all for attending and outlined the agenda of the meeting. Everyone gave brief introductions to themselves, their organisation and role on the AyM project.</p> <p>The agenda included the following items:</p> <ul style="list-style-type: none"> <li>• Reminder of the refined project design envelope for application</li> <li>• Marine mammal feedback on the RIAA</li> <li>• Cumulative PTS and the updates to the MMMP</li> </ul>

Agenda item	Minutes
	<ul style="list-style-type: none"> <li>• Further ETG comments on the MMMP</li> <li>• UXO disturbance assessment</li> </ul>
2	<p><u>Project design update</u></p> <p>RM provided an overview of how the project boundaries had developed since scoping as the project defines its boundaries for final application in March 2022.</p> <p>RM presented the initial scoping boundary, the PEIR layout and the final application boundary. nRM presented the final application boundary parameters, noting that the project had reduced in terms of:</p> <ul style="list-style-type: none"> <li>- Area: from 106 km<sup>2</sup> at scoping, to 88 km<sup>2</sup> at PEIR, to 78 km<sup>2</sup> at ES;</li> <li>- Number of turbines: from 107 at scoping, to 48 large/91 small at PEIR, to 34 large/50 small at ES.</li> </ul> <p>RM outlined reduced MDS in terms of gross numbers and percentage terms and noted the increase of the smaller end of the envelope (the large turbine scenario remains unchanged from PEIR, whilst the small turbine scenario has increased in terms of individual turbine size, with a corresponding lessening of the number of turbines). Overall:</p> <ul style="list-style-type: none"> <li>- The maximum number of turbines proposed has reduced by 53% since scoping;</li> <li>- The maximum blade tip height has remained the same, but has increased in the case of the minimum design;</li> <li>- There has been no change to the minimum lower blade tip height (clearance) above MHWS; and</li> <li>- The maximum project area has reduced by 26% since scoping.</li> </ul>
3	<p><u>Discussion on RIAA</u></p> <p>RM reports that a few actions have been taken as a result of the previous meeting, including the submission of clarification notes, one of which was an updated baseline report and a note on PTS sensitivity, one on the SCL on the accumulative, and one on the UXO disturbance. RM outlined that the amended MMMP was submitted, and feedback is to be discussed at this meeting. HS and SC confirmed that written feedback on the updated Outline MMMP would also be provided, and dates for provision of that feedback would be confirmed through the minutes <b>[Action 1]</b>.</p> <p>RM handed over to GG to present this section. GG noted the stakeholders who provided comments on the RIAA (primarily NRW, JNCC and NE) and has extracted headline areas to be discussed in the meeting.</p> <p>GG provided the responses and headlines for discussion as follows:</p> <ul style="list-style-type: none"> <li>- Reservations about the use of EDR's in assessments (UXO &amp; Piling).</li> <li>- Differing views on approach to assume that Annex IV European Protected Species are offered sufficient protections by this legislation such to conclude no impact on Annex II sites is possible from PTS onset.</li> <li>- Disagreement with the statement that "works outside that period would effectively be subject to EPS licensing requirements and not HRA." The works would still meet</li> </ul>

Agenda item	Minutes
	<p>the criteria such to be subject to HRA, but the content of the assessment will vary depending on the timing of the works.</p> <ul style="list-style-type: none"> <li>- Low cetacean sensitivity to PTS cannot currently be justified.</li> <li>- Insufficient detail in draft MMMP.</li> <li>- Uncertainty in cumulative PTS and requirement to mitigate.</li> <li>- Methods available to assess disturbance from UXO clearance.</li> </ul> <p><u>Updates to the Outline MMMP</u></p> <p>RS outlined the key changes to the MMMP:</p> <ul style="list-style-type: none"> <li>- Revised array area boundary.</li> <li>- Decreased # WTGs.</li> <li>- Re-modelled PTS impact ranges.</li> <li>- Additional info on the effectiveness of noise abatement methods.</li> </ul> <p>RS noted that currently the MMMP still aims to mitigate instantaneous PTS only. HS noted that the updated Outline MMMP was much closer to an 'options paper' that could be finalised post-consent and the approach taken in this iteration was a big improvement on the version submitted with PEIR.</p> <p>HS asked for clarification on the method for concurrent piling. RS noted that the method consists of two pin piles at the same time and in the same foundation location. RM added that since receipt of feedback on the PEIR, the project have discounted simultaneous piling altogether in the case of monopile foundations, and discounted simultaneous piling of pin piles on jackets at different foundation locations. The project however has retained the option to pile two pin piles simultaneously on adjacent legs of the same foundation. RM added that all three of these scenarios have been re-modelled for ES at two locations – one in the north-west corner and one in the south-east.</p> <p>HS stated that when modelling a PTS range greater than 500 m it is recommended to go with the maximum option and following the JNCC best practice guidance for the duration of ADDs. Unless there is a justification to take a different path it is recommended to follow advice to mitigate for cumulative as well as instantaneous PTS.</p> <p>HS noted remaining concerns around SEL regarding the impact pathway of cumulative exposure and the need to assess SEL or alternatives, and that cumulative impacts should be separated and investigated. Ruling out the need of mitigation seems premature and even if there is no adverse effect could still need to mitigate. While NRW understand it is over precautionary, the over precaution would be a factor in their response.</p> <p>SC agreed the MMMP would need to be finalised post consent and the key thing is not agreeing to only mitigate instantaneous PTS at this stage. SC did agree that instantaneous PTS could be adequately mitigated without noise abatement, however cumulative PTS could not.</p> <p>SL explained that GoBe are proposing to have a principles document that focuses the type of conditions that are anticipated for the project which will reflect concerns regarding MMMP.</p>

Agenda item	Minutes
	<p><u>Cumulative – PTS &amp; MMMP</u></p> <p>RS agreed that cumulative PTS is a valid impact pathway, but it is overly precautionary in how it is calculated since modelling does not account for recovery between repeat exposures. RS presented the clarification note submitted:</p> <ul style="list-style-type: none"> <li>- Calculated SELcum PTS-onset impact ranges are highly precautionary and that the true extent of effects are?.</li> <li>- Advised that the MMMP covers only instantaneous PTS-onset and not cumulative PTS-onset.</li> </ul> <p>RS noted the key issues with SELcum modelling include:</p> <p><i>Equal energy hypothesis</i></p> <ul style="list-style-type: none"> <li>- Intermittent noise allows for some recovery of the threshold shift in between exposures, and therefore recovery can occur in the gaps between individual pile strikes and in the breaks in piling activity, resulting in a lower overall threshold shift compared to continuous exposure at the same SEL.</li> <li>- Modelling doesn't take this into consideration.</li> </ul> <p><i>Impulsive characteristics</i></p> <ul style="list-style-type: none"> <li>- The changes in noise characteristics with distance generally result in exposures becoming less physiologically damaging with increasing distance as sharp transient peaks become less prominent.</li> </ul> <p>RS noted the responses to the Cumulative PTS &amp; MMMP.</p> <p><i>Response NRW:</i></p> <ul style="list-style-type: none"> <li>- <i>Without a suitable alternative, use of SELcumulative remains the appropriate means to assess this impact.</i></li> <li>- <i>NRW do not believe that the equal energy hypothesis which underpins SELcum is sufficiently inaccurate to make it "not valid".</i></li> <li>- <i>There are insufficient direct measures of injury-onset from different exposure intermittency patterns in marine mammals to define an explicit duration of intermittency between exposures, after which they should be considered discrete exposures.</i></li> <li>- <i>NRW advisory believes that there is still significant uncertainty over how precautionary the equal energy assumption is.</i></li> </ul> <p><i>Response JNCC:</i></p> <ul style="list-style-type: none"> <li>- <i>While we agree that SEL cumulative calculations provide likely over-precautionary injury ranges for the reasons provided, currently there is no agreed alternative method of considering these factors when predicting injury and no alternative is provided in this document.</i></li> <li>- <i>Therefore, using both the peak SPL and cumulative metrics is still the most precautionary approach in impact assessments. Subsequently, we do not agree with the suggestion to rule out using cumulative SEL when identifying mitigation requirements.</i></li> </ul> <p>RS handed over to UV to present this section. UV noted some key research in the area of the Equal Energy Hypothesis, which postulates that continuous and intermittent noise exposures produce different levels of threshold shift:</p> <ul style="list-style-type: none"> <li>- Ward (1997) notes that continuous and intermittent noise exposure of the same SEL will produce different levels of TTS, and the same is true for impulsive noise.</li> </ul>

Agenda item	Minutes
	<ul style="list-style-type: none"> <li>- Kastelein et al. (2014), harbour porpoise study showed decreasing duty cycle/ increasing silences in-between sound, decreases magnitude of TTS               <ul style="list-style-type: none"> <li>- Duty cycle of 25%, 3 sec silence: ~ 8 dB TTS reduction</li> <li>- Duty cycle of 40%, 1.5 sec silence: ~ 6 dB TTS reduction.</li> </ul> </li> <li>- Southall et al. (2007): growth rate of TTS:               <ul style="list-style-type: none"> <li>- 2.3 dB TTS per 1 dB impulsive sound</li> <li>- From this growth rate one can calculate the amount of exposure needed for different levels of TTS:                   <ul style="list-style-type: none"> <li>- 8 dB TTS per 3.5 dB impulsive sound</li> <li>- 6 dB TTS per 2.5 dB impulsive sound.</li> </ul> </li> </ul> </li> </ul> <p>UV explained that impact ranges for cumulative PTS (i.e. the “safe distance” at which an animal can start at pile start without the risk of experiencing PTS) is based on reaching the SELcum PTS-thresholds and is based on the cumulation of noise over the whole piling sequence, however because this does not account for recovery of the threshold shift in-between individual strikes, it presents overly precautionary impact ranges. This has been explained qualitatively but scientists are working to quantify the issue. Experiments in humans and marine mammals have shown that with a decreasing duty cycle (a measure of the proportion of time within a cycle that sound is actively emitted, for example if a sound pulse lasts for 0.5 seconds at a strike rate of one strike every 2 seconds, the duty cycle is 25%), the greater recovery time is available between repeated strikes, and the lower the magnitude of threshold shift. Therefore, the lower the duty cycle, the higher the onset threshold will become.</p> <p><i>Piling sequences Calculations for AyM</i></p> <ul style="list-style-type: none"> <li>- Pile strike pulse length: 0.5 sec (assumption)</li> <li>- 20 mins of 8% duty cycle &amp; 5.5 sec silent period</li> <li>- Thereafter 28% duty cycle &amp; 1.23 sec silent period</li> <li>- Given that a 25% to 40% duty cycle/ 1.5 sec to 3 sec silent periods, we assume that this would at least equate to 2 or 3 dB increase in threshold.</li> </ul> <p><i>What does that mean with regard to impact ranges?</i></p> <p>UV presented East Anglia as an example and showed that moving a threshold from 190 dB to 192 dB would reduce the impact range from 500 m to 270 m, or a reduction of 3 dB could halve the impact range 500 to 200 m, i.e the impact range decreases by around half, which is a great reduction when it comes to large impact ranges.</p> <p><i>Probability of impulsiveness</i></p> <p><i>Hastie et al. (2019):</i></p> <ul style="list-style-type: none"> <li>- 0 @ 4 km for Moray Firth when pin piling</li> <li>- Low @ 10 km in the Wash for monopiles</li> <li>- Probability of impulsiveness decreases with increasing distance</li> <li>- or in other words: sound becomes less impulsive with increasing distance.</li> </ul> <p><u>Martin et al: (2020)</u></p> <ul style="list-style-type: none"> <li>- Kurtosis decreases with increasing distance, and is below 40 at 5 km</li> <li>- They cite Hamemik et al. 2007) that PTS increases with increasing kurtosis up to 40 (I.e. PTS decreases with decreasing kurtosis below 40)</li> </ul>

Agenda item	Minutes
	<p><u>Take home message: Risk of PTS decreases already with sound becoming less impulsive, not only when it is fully non-impulsive.</u></p> <p>SL stated there are plans to update the MMMP but that this information goes further than the clarification note did, and so the ES will be updated to include this further information.</p> <p>SC stated that whilst as much information and detail is needed as possible, it is a complex topic that needs to be understood by non-experts and a range of different sectors reading these documents. SC also stated the need for clear evidence to justify any conclusions presented. SC asked how this topic will be presented in the ES, as the MMMP is informed by the ES impact assessment therefore anything to be considered in the MMMP must first be presented in the ES. RS stated this information will be presented in the ES as a way of illustrating the amount of over precaution when using standard thresholds.</p> <p>SC stated that this proposal hasn't been agreed by the scientific community or the wider industry and thus they need strong evidence to justify any advice provided to regulators. HS added that her understanding of the Scottish approach is that whilst mitigating cumulative impacts is not the default method, they assess on a case-by-case basis, and they don't rule it in but don't rule it out, and cumulative impacts has to be in the MMMP and assessed properly. RS explained that the goal is to include technical information to identify over precaution and provide an illustration of what impact ranges would look like in comparison to worst-case scenarios. RS confirms that the March deadline is still attainable.</p> <p>SC inquired if stakeholders will be required to examine any further information prior to submitting the application. SL clarified that this feedback will be incorporated, as well as any other written comments, for the final MMMP and application, and will not ask them to examine any additional information prior to submitting the application.</p> <p>NP noted that the agreed-upon method should be presented in assessments, and that any proof of that method being used on other offshore wind projects should be carefully presented. RM noted that this information will be provided in the clarification note appended to the MMMP which will be submitted in the final application. [<i>Post-meeting note: Correction, this will be presented in the Marine Mammal Quantitative Assumptions annex with the ES (application ref: 6.4.7.3)</i>].</p> <p>NM asked how it can be justified that using findings from an experiment that used sonar is transferable to pile driving. UV stated that sonar signals may also be considered impulsive, but this would need to be checked. [<i>Post-meeting note: Southall et al. 2007 mention that certain active sonars are considered as "multiple pulses" (i.e., impulsive) and others as "nonpulses". Kastelein et al. 2014 simulated LFA sonar which is categorised by Southall et al. 2007 as nonpulse</i>] UV stated the main focus is the time periods between pulses regardless of source type that are helpful to reduce the TTS.</p> <p><u>UXO disturbance</u></p> <p>RS presented the responses on UXO disturbance.</p> <p><i>NRW</i></p> <ul style="list-style-type: none"> <li>- <i>Other options for assessing disturbance should be considered and presented to complete the intended approach.</i></li> </ul>



Agenda item	Minutes
	<ul style="list-style-type: none"> <li>- such as the Lucke et al (2009) 145 SEL disturbance threshold, alongside the Soloway &amp; Dahl (2014) method.</li> <li>- The acoustics of underwater explosions are well-documented, with direct measurements and/or empirical equations having been made.</li> <li>- It may be possible to combine these disturbance assessment methods and the direct measurements, empirical equations, or applying models such as EDGAR part II (Brand 2021), to present a quantitative method for assessing disturbance, rather than relying on EDRs.</li> </ul> <p>JNCC</p> <ul style="list-style-type: none"> <li>- JNCC agree with the use of EDRs when assessing disturbance during UXO clearance.</li> <li>- JNCC highlight we currently advise the MMO that a 5 km EDR can be applied for UXOs cleared using the low-order deflagration method.</li> </ul> <p>RS stated the intention is to present 26 km EDR and compare to other thresholds.</p> <p><i>Dose-response</i></p> <ul style="list-style-type: none"> <li>- Derived from monopile: multiple pulses (1,000s), long exposure (hours).</li> </ul> <p><i>26 km EDR</i></p> <ul style="list-style-type: none"> <li>- Derived from monopile: multiple pulses (1,000s), long exposure (hours).</li> </ul> <p><i>TTS-onset as a proxy for disturbance</i></p> <ul style="list-style-type: none"> <li>- Indirect measure for behaviour, precautionary.</li> <li>- May not be valid for greater distances, as signal changes during propagation from short and sharp broad-band impulse to longer more tonal pulse.</li> </ul> <p><i>Aversive Response</i></p> <ul style="list-style-type: none"> <li>- Lucke et al (2009)</li> <li>- Reaction is based on sound levels associated with signal shapes received at closer distances (14 –150 m from source).</li> <li>- May not be valid for greater distances, as signal changes during propagation from short and sharp broad-band impulse to longer more tonal pulse.</li> <li>- Summarised captive porpoise exposed to sonar but single pulses and the distance from sound source to animal was short (between 14-150 m) for behavioural responses to sound source. And as noise propagates, the sound signal changes from a short sharp broad band pulse to a longer more tonal pulse, and thus responses may not be the same at greater distances, for that reason this threshold is not as appropriate to use.</li> </ul> <p><i>Level B harassment</i></p> <p>Based on multiple pulsed sounds (seismic surveys) – not comparable to a single one-off explosion</p> <p>RS presented findings from Southall et al (2019) that the probability of blue whales responding to military sonar reduced from 0.45 at 1 km from the sound source to 0.05 at 5 km distance for a cumulative SEL of 145 dB re 1 <math>\mu\text{Pa}^2\text{s}</math>. The probability of blue whales responding to military sonar reduced by 89%.</p> <p><u>UXO disturbance – propagation</u></p> <p>RS presented findings from Soloway &amp; Dahl (2014)</p> <ul style="list-style-type: none"> <li>- Only for max 6.1 kg</li> <li>- Only measured at &lt;1 km</li> <li>- Only in shallow water 15 m</li> </ul>

Agenda item	Minutes
	<ul style="list-style-type: none"> <li>- Not validated for different environments, longer distances and deeper waters</li> <li>- No absorption or depth as a covariate</li> </ul> <p>RS stated the EDGAR model was developed for small charge sizes associated with oil and gas and has not been validated for large ranges or charge sizes.</p> <p>RS concluded the difficulties in establishing UXO disturbance:</p> <ul style="list-style-type: none"> <li>- No thresholds specifically measured for UXO.</li> <li>- Lucke et al (2009) likely most comparable sound source (single pulse) but issues with distance.</li> <li>- TTS-onset as a proxy for disturbance is recommended for situations where no specific threshold is known.</li> <li>- No validated noise propagation model for large charge sizes, at large ranges, and/or in deeper waters.</li> </ul> <p>RS stated that even if TTS thresholds are applied using the model there is high level of precaution. HS appreciated the balance between validated models and certainty of precaution but asked if we knew whether they are over-predicting or under-predicting. SC stressed the importance of considering worst-case scenarios, but highlighted considering both scenarios, will put options into perspective.</p> <p>SC stated that there is going to be an update to the JNCC mitigation guidelines for explosive use soon and referred to an ongoing project looking at seabed damage from UXO clearance which could be informative for a later stage.</p> <p><u>Other</u></p> <p>GG addressed the comment from NRW:</p> <p>‘Disagreement with the statement that “works outside that period would effectively be subject to EPS licensing requirements and not HRA.”’</p> <p>HS stated that the approach they take is to use management units, and some information is transferable between EPS and HRA. For example, if following guidelines condition to species licence to mitigate impact, that thinking can apply to HRA, but they don't want to see decisions hinge on one another; separate assessments must stand on their own. GG agreed and confirmed understanding on the requirements for assessments and confirmed that there will be a check on the wording [Action 3].</p> <p>RS confirmed she was satisfied to increase bottlenose dolphin sensitivity to PTS from low to medium and seals from negligible to low.</p>
4	<p><u>Next steps</u></p> <p>RM summarised the actions from the meeting and stated that the draft minutes would be circulated to attendees within 7 days. RM thanked all for their time and closed the meeting.</p>

Action Point	Action	Who?	Due Date
1	Provide written feedback on the Outline MMMP submitted to ETG members on 18/01/22.	NRW and JNCC	TBC by NRW and JNCC
2	Ensure comment regarding Marine Licensing is included in the written feedback.	HS	As above.
3	Check wording in the RIAA regarding EPS licensing.	GG	N/A

### 3.4 Appendix C4: Marine Ecology Meeting Minutes

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**MARINE PROCESSES AND ECOLOGY EVIDENCE PLAN MEETING MINUTES– 21/11/19**

<b>MEETING ORGANISER:</b>	innogy
<b>LOCATION:</b>	Dinorwig room, Bangor University, Reichel Hall, LL57 2TR
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm
<b>ATTENDEES:</b>	PAUL CARTER (INNOGY) (PC) ALEX HERBERT (INNOGY) (AH) KAREN ALGATE (DIALLED- IN) (INNOGY) (KA) SAMMY MULLAN (GOBE CONSULTANTS) (SM) NICOLA SOLLY (GOBE CONSULTANTS) (DIALLED-IN) (NS) ANNA LUFF (GOBE CONSULTANTS) (DIALLED-IN) (AL) ANGIE DE BURGH (GOBE CONSULTANTS) (DIALLED-IN) (AL) ELEANOR HOWLETT (NRW) (EH) CHRISTOPHER JONES (NRW) (CJ) IWAN HUWS (NRW) (IH) JACK EGERTON (NRW) (JE) EMMER LITT (NRW) (EL) LUCIE HAINES (NRW) (DIALLED IN) (LH) TONY BROOKS (ABPMER) (DIALLED-IN) (TB) ANNA CHAFFEY (ABPMER) (DIALLED-IN) (AC) TANIA DAVEY (DIALLED-IN) (WILDLIFE TRUST) (TD) WAYNE HOPE (DENBIGHSHIRE DISTRICT COUNCIL) (WH) JOEL WALLEY (DENBIGHSHIRE DISTRICT COUNCIL) (JW)
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	GABRIELLE WYN (NRW) PAULA JONES (CONWY DISTRICT COUNCIL) BARBARA OWSIANKA (CONWY DISTRICT COUNCIL) DAVE WATSON (CONWY DISTRICT COUNCIL) CERI THOMAS (CONWY DISTRICT COUNCIL) NIA JONES (WILDLIFE TRUST) HELEN THOMAS (INNOGY) THOMAS CRAWFORD (INNOGY) NIA PHILLIPS (NRW)

Documents provided:	Filename
Proposed consultation roadmap	AyM OWF ETG roadmap Benthic Fish PP Flood WQ WFD etc.pdf
Initial Review Note – Benthic ecology	AyM_Benthic_ShortNote_Final.pdf
Initial Review Note – Fish ecology	AyM_Fish&SF_ShortNote_Final.pdf
Initial Review Note – Physical Processes	AyM_PhysicalProcesses_ShortNote_Final.pdf
Meeting agenda	ETG Agenda - 21 November 2019.pdf
Draft Terms of Reference	GyM_Ext_Evidence_Plan_ToR_v1_131119.pdf

Agenda item	Minutes
1	<p><b>Innogy in Wales</b></p> <p>AH welcomed all participants to the meeting and outlined the agenda.</p> <p>AH presented the innogy projects within Wales and noted that Awel y Môr would add a notable contribution to the carbon targets for Wales.</p>
2	<p><b>Project overview</b></p> <p>AH presented an overview of the project including that the area for lease (AfL) was granted by The Crown Estate (TCE) in October 2019. AH explained that innogy is leading the Awel y Môr project with numerous project owners.</p> <p>AH explained that innogy is seeking to begin consultation early to help identify issues early in the application process. The project (Awel y Môr) qualifies as a Nationally Significant Infrastructure Project (NSIP) requiring a Development Consent Order (DCO) and will also require a Marine Licence (ML) from Natural Resources Wales (NRW) on behalf of the Welsh Government.</p> <p>AH presented a plan of the proposed development location in relation to the existing offshore wind farm (OWF) projects. The AfL is 106 km<sup>2</sup>. The existing Gwynt y Môr (GyM) turbines are rated as 3.6 MW but Awel y Môr turbines are expected to be 12-22 MW, or above. The grid connection is proposed to be at Bodelwyddan.</p> <p>WH queried how many WTGs there will be. AH confirmed that this is unknown at this stage. EL queried if the capacity could exceed GyM. AH explained that innogy is working with TCE to see if the capacity could be increased beyond GyM capacity but this has not yet been confirmed.</p> <p>AH presented the work undertaken to date including commencement of scoping drafting, ecological surveys (offshore birds and marine mammals), conversations for grid connection are underway. AH noted that innogy is seeking to formally inform PINS and NRW of the project very soon.</p>

	<p>AH presented a high-level project timeline which is driven by the Agreement for Lease this year and by the CfD auction in 2023 (or 2025). The current programme for application submission is November 2022. AH noted that duplicate applications (one for the DCO and one for the ML) will be submitted as per previous offshore NSIPs in Wales.</p>
3	<p><b>Planning Act Overview</b></p> <p>AH provided an overview of the NSIP process including the key principles. It was brought in to simplify the consenting process for major infrastructure projects. The DCO process requires front loaded consultation and the application to be of sufficient quality, therefore innogy is beginning the Evidence Plan (EP) process to adhere to these principles.</p> <p>The ML process is less structured than the DCO and innogy hope to agree milestones with NRW, with the aim to tie the two processes together. EL agreed that approach would be best for both parties.</p> <p>AH presented a list of the anticipated documents to be submitted for the DCO application. AH noted that a bespoke signposting document would be to be created for the ML application clearly indicating the parts of the application of relevance to the ML.</p>
4	<p><b>Evidence Plan Process</b></p> <p>AH presented the topics being considered under the EP. AH requested feedback on the proposed structure of the panels. No comments were made.</p>
5	<p><b>The Scoping Report</b></p> <p>NS presented a high-level overview of the scoping study being undertaken. The Scoping Report seeks to define the scope of the subsequent EIA process (i.e. what should be scoped in or out) and identify potential Likely Significant Effects (LSE) at an early stage. The Scoping Report will also propose further survey requirements and proposed methodology for the EIA.</p> <p>The Scoping Report is programmed to be submitted to PINS in March 2020 for consultation under the formal PINS process.</p> <p>NS provided an overview of the structure of the Scoping Report including the general and technical chapters. She noted that a summary of impacts to be scoped in and out will be provided in the Scoping Report.</p> <p>NS provided an overview of what aspects will be covered within the technical chapters in the Scoping Report, including the baseline, methodology for EIA, items to be scoped in (and out) and proposed embedded mitigation. She also noted that specific questions will be included, which are directed to consultees, which innogy is seeking feedback on.</p> <p>A separate HRA Screening Study is also being undertaken alongside the EIA Scoping Study and the results of this will be presented in a HRA Screening Report that will be submitted to PINS with the Scoping Report.</p>
6	<p><b>Evidence Plan Terms of Reference</b></p>

	<p>NS provided a brief overview of the Evidence Plan (EP) process. She noted that it is a formal tool to agree the information presented and approach undertaken in the applications. The project will be seeking to gain consensus on the information which informs the assessment which will help to reduce disagreements by the examination phase and the development of Statements of Common Ground (SoCG). It was noted, as per the Terms of Reference, records of discussions will be maintained. It is hoped that the process will reduce resource requirements for all in the examination.</p> <p>NS presented the roles and responsibilities of the steering group and the Expert Topic Groups (ETGs).</p> <p>NS noted that a draft ToR (previously circulated) seeks to set out the process for engagement with stakeholders under the EP. The document includes the proposed parties, roles, responsibilities and general rules of the EP.</p>
7	<p><b>Marine Physical Processes</b></p> <p>SM introduced ABPmer, who is leading on the physical processes assessment for the Awel y Môr Scoping Report. TB explained that ABPmer undertook the physical processes assessment for the original GyM EIA.</p> <p>TB provided a brief overview of the physical characteristics of the study area including tidal currents, waves, the Liverpool Bay frontal system, seabed sediments and morphology; and coastal characteristics.</p> <p>TB set out the key baseline data sources that will be used to inform the assessment including the proposed geophysical survey to be undertaken for Awel y Môr in 2020. These will include –</p> <ul style="list-style-type: none"> <li>• The previous work undertaken for GyM (including the modelling work);</li> <li>• The post-consent monitoring for GyM; and</li> <li>• Publicly available data sources including that available through the NRW and Welsh Government data portal.</li> </ul> <p>TB set out the proposed assessment approach, noting that the physical processes topic differs slightly from other EIA topics, as much of the focus is on pathways (linking sources to receptors), with outputs typically used by other marine topics including water and sediment quality, benthic ecology and fish ecology. TB confirmed that the receptors for physical processes will include the coastline and seabed features (such as tidal banks in the vicinity of the site).</p> <p>TB provided an overview of impacts/ issues which will be considered in the assessment. He confirmed that potential changes to waves, tides and sediment transport arising from the presence of structures (WTGs) will be considered, as well as any associated impacts to identified receptors (e.g. the coast and banks). Cumulative effects (including those with other OWFs and aggregates) will be considered in the EIA (noting the ‘long list’ of projects will not be produced for the Scoping Report).</p> <p>TB presented the assessment methodology. The exact approach will be guided by the project design but will make use of the existing evidence base from consented and</p>



operational wind farms (such as monitoring data and numerical modelling undertaken to support physical processes EIA). This will be augmented by analytical assessments involving, for instance, empirical equations considering scour and spreadsheet-based modelling of sediment plumes and associated deposition).

A method statement will be submitted to the ETG, following the Scoping Report, and agreement will be sought through the EP process.

TB set out the proposed data sources in the initial review note (provided in advance of the meeting). TB requested feedback if there are any other data sources the project should consider.

EL suggested that SEACAMS should be consulted with as it has collected tidal levels and met data at Reines Jetty. ADCP data is also available in the vicinity of Constable Bank. PC confirmed that the project has been liaising with SEACAMS with regard to geophysical data. EL noted that SEACAMS is building a data portal – iMarDis (Integrated Marine Data and Information Systems).

EH suggested contacting DCWW (Nick Barcock) as it collected a large amount of data in 2015/2016 to support its coastal programme and validate water quality models – see actions.

EL noted that sedimentary processes and sediment budget analysis has previously been undertaken for Flintshire and Denbighshire County Councils within the study area – see Pye, K. & Blott, S.J. (2017) Barkby Beach to Point of Ayr: Geomorphology Review). This data should be considered – see actions.

EL requested that the scour monitoring data from Gwynt y Môr should also be considered.

IH suggested the project should utilise the updated EA coastal flood boundary dataset (published in Aug 2019).

TB asked if there were any known physical processes issues associated with the operational GyM –

- EL highlighted the issues with exposed cables and scour protection on GyM. A meeting was to be held on 2nd December to discuss these issues. PC highlighted that the conclusions of the previous assessment, regarding the scour around the project infrastructure, were that these patterns were within natural variation of the area.
- EL highlighted that an understanding of how the scour patterns at GyM may be affected by the construction of Awel y Môr is required.

EL noted that the existing modelling work undertaken for GyM was now over a decade old and that care should be taken if using this to inform the Awel y Môr assessment.

EL noted that NRW has advice and best practice notes which are intended to be turned into guidance notes. TB noted that he was aware of these documents and agreed to apply the principles to the assessment.

EL requested early agreement for the zone of influence (Zoi). It was agreed that agreement on the Zoi should be sought via the EP.

	<p>EL requested a conceptual model/ map to inform the EIA, as per Wylfa, to combine outcomes together. It was agreed that this could be included within the PEIR/ES chapter.</p>
8	<p><b>Water and Sediment Quality (and WFD)</b></p> <p>This part of the meeting was presented by SM and the technical chapter of the Scoping Report will be drafted by GoBe Consultants.</p> <p>SM presented the proposed data to characterise the baseline (including the proposed site specific surveys, data from GyM and publicly available data sources). SM asked if there were any local sources of contamination that the project should be aware of. EH commented that there were none.</p> <p>It was agreed that, in addition to the Clearing the Waters guidance, the principles in the NRW guidance notes (OGN72 and OGN 77) should be followed, following LH's suggestion that these would be useful to Innogy when considering WFD. Post meeting note: These guidance documents were kindly provided by NRW to innogy.</p> <p>EH confirmed that the key data sources will also include the Water Watch Wales website and the bathing waters explorer.</p> <p>SM explained that the Scoping Report will detail that a WFD compliance assessment will be undertaken at the PEIR/ ES stage.</p> <p>SM explained that the project intend to scope out the release of bentonite as a water quality issue owing to the fact that it is inert.</p> <p>SM explained that in line with recent OWF developments it is proposed that transboundary and cumulative effects with other projects and plans will be scoped out.</p> <p>SM explained that protected sites would be considered within 2km of the project boundary as per the Clearing the Waters guidance. LH noted that in order to scope water bodies the ZoI should be considered. SM agreed to consider this during the production of the WFD. It was agreed that migratory fish would be considered as part of the WFD scoping. It was agreed that the scoping outcomes would be presented to the ETG prior to publication of the PEIR.</p>
9	<p><b>Benthic Ecology and Intertidal</b></p> <p>This part of the meeting was present by AdB and the technical chapter of the Scoping Report will be drafted by GoBe Consultants.</p> <p>AdB highlighted that there is a lot of information in the area and that a collation exercise of the information is underway. AdB presented the available data sources proposed to inform the assessment including the characterisation and monitoring data for GyM, EUNIS level 4 model and data from other local developments such as Rhyl Flats and Burbo Bank OWFs.</p> <p>AdB asked whether there were any additional data sources which should be considered. JE suggested that the NBN data source atlas should be used and Cofnod (the local environmental record centre) should be contacted.</p>

TD noted that long term surveys have been undertaken in the intertidal area with a focus on *Sabellaria alveolata* – see actions.

LH suggested that the WFD benthic invert data could be used to inform the baseline, where available, and is available on request from NRW.

AdB presented the impacts to be scoped in for consideration in the PEIR/ ES:

- Habitat disturbance;
- Temporary increase in suspended sediment and sediment deposition;
- Direct and indirect seabed disturbances;
- Temporary direct seabed disturbance;
- Long-term habitat loss / alteration;
- Colonisation of hard substrates;
- Marine invasive non-native species (MINNS); and
- Changes in physical processes.

AdB presented the impacts to be scoped out from consideration in the PEIR/ ES –

- Noise pollution on benthic ecology during foundation installation;
  - This is due to literature suggesting that benthic ecology is not noise sensitive.
- Accidental pollution; and
  - This is proposed to be scoped out because a commitment will be made by the project to have appropriate plans in place, including a PEMP.
- Indirect disturbance of benthic species from EMF generated by inter-array and export cables.
  - This effect is proposed to be mitigated through burial and so behavioural responses would not be anticipated.

AdB noted that innogy is proposing to undertake a targeted site-specific benthic survey to verify the existing data. The survey design will be informed by current best practice. The survey will be targeted to key habitats and grab sample locations will be determined on the basis of the geophysics analysis. Drop down video will be undertaken in areas of coarse sediment/ *sabellaria*/ stony reef in the place of a grab. Intertidal surveys will also be undertaken. AdB proposed to circulate the final survey scope to the ETG to seek agreement through the EP. JE noted that there are NRW guidance notes for survey best practice. AdB agreed to look at the notes.

PC explained that the project is currently seeking a survey contractor. PC seeks to agree the methodology of the survey. JE requested confirmation if a clear water lens would be used for the drop down video. AdB confirmed that this is included in the scope of surveys.

PC presented the proposed area of search for export cables (which scoping will be undertaken on), noting that this is a broad area.

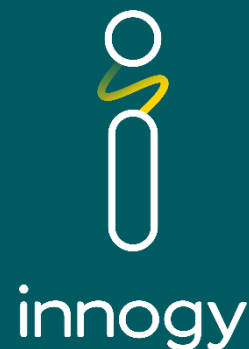
EL noted that reefs have been documented to the west of the AoS. JE noted blue mussel beds have been observed in proximity to the reef. Participants generally agreed that avoiding this area would be preferable.

	<p>TD asked if there are any lessons that can be learnt from GyM cable installation, including the difficulties with cable protection/ exposures. This was supported by EL and suggested that cable protection footprints should be minimised as far as possible. PC agreed to investigate the exposures further internally. TD requested feedback/ an update at the next EP meeting - this was agreed.</p> <p>EL noted that the latest scour monitoring hasn't been reported for GyM.</p> <p>PC noted that the project will adhere to the NE guidance notes for cable burial<sup>1</sup>.</p>
10	<p><b>Fish and shellfish ecology</b></p> <p>This part of the meeting was presented by AL and the technical chapter of the Scoping Report will be drafted by GoBe Consultants.</p> <p>AL provided an overview of the proposed impacts to be scoped in into the PEIR/ES assessment:</p> <ul style="list-style-type: none"> <li>• Disturbance from underwater noise and vibration;</li> <li>• Habitat loss;</li> <li>• Indirect effects from suspended sediments and the release of sediment contaminants;</li> <li>• Increased hard substrate and structural complexity; and</li> <li>• Impacts on fishing pressure.</li> </ul> <p>AL presented an overview of the impacts to be considered in the PEIR/ES. Noting that underwater modelling will be undertaken during the EIA assessment phase of the project.</p> <p>AL presented the items proposed to be scoped out in the Scoping Report, these include:</p> <ul style="list-style-type: none"> <li>• Direct damage (e.g. crushing) and disturbance to mobile demersal and pelagic fish and shellfish species;</li> <li>• Accidental pollution events resulting in potential effects on fish and shellfish receptors; and</li> <li>• EMF effects arising from cables.</li> </ul> <p>It was agreed that a full rationale for scoping these effects out would be provided in the Scoping Report.</p> <p>AL requested any feedback on the information presented. EL agreed to ask colleagues internally and feedback to the project.</p>
11	<p><b>Site selection</b></p> <p>WH requested confirmation whether another substation is required. PC confirmed that separate infrastructure (including a substation) will be required, as it is a new project, and the previous substation is built to the capacity of GyM. PC presented the proposed location of the substation being considered at this time. PC explained that a site selection process is being undertaken looking at constraints mapping, e.g. towns, forested areas etc. PC noted innogy will be consulting on the proposed locations as part of the site selection study.</p>

<sup>1</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010080/EN010080-001240-Natural%20England%20-%20Offshore%20Cabling%20paper%20July%202018.pdfv>

	<p>EL and WH raised the Welsh Government's Coastal Risk Management Programme (CRMP) for Welsh sea defences and that these should be considered in terms of landfall locations. WH noted that as built plans are not available for the existing defences. The Shoreline Management Plans (SMPs) should be considered, in particular the areas of managed realignment, including at landfall options 5 and 6. A new GIS shapefile should be available on CLAIR which combines the information from the SMPs.</p> <p>PC confirmed that the lifetime of the project is currently not defined but anticipated to be approximately 25 years and that decommissioning will be undertaken in line with best practice at that time.</p> <p>EH queried whether OWF foundations could be re-used rather than removed. PC explained that the turbines could potentially be repowered but the foundations would not be able to be re-used for new structures due to their relatively small size (as the trend is increasing sizes) and design life.</p> <p>TD noted the presence of <i>Sabellaria alveolata</i> in proximity of landfall 1. EL noted that the SEACAMS data may show changes in morphology of <i>Sabellaria</i> reefs.</p>
12	<p><b>AOB</b></p> <p>EL requested that the extent of the tidal excursion should be considered in the HRA screening report – this was agreed. SM confirmed that a separate HRA screening report will be provided alongside the Scoping Report.</p> <p>WH noted previous schemes have required watercourse consents and for surface water approval (such as at the substation). WH confirmed that a FRAP or ordinary watercourse consent would be required for works within 8 m of a main watercourse.</p> <p>WH confirmed that the local authority is the coastal protection authority.</p> <p>AH presented the roadmaps (previously provided) with the project's proposal of a consultation programme ahead of submission. TD welcomed engagement on both the site selection process and in-between key project milestones.</p> <p>JE requested whether accidental pollution would be considered in the HRA screening. SM explained that in light of the recent Sweetman rulings that no effects would be screened out on the basis of mitigation, and so they will be screened into the HRA.</p>

Agenda Item	Action	Who?	Due Date
1	No actions recorded	N/A	N/A
2	No actions recorded	N/A	N/A
3	No actions recorded	N/A	N/A
4	No actions recorded	N/A	N/A
5	No actions recorded	N/A	N/A
6	All parties to review the draft ToR and provide feedback or requested amendments.	All	13/12/19
7	Innogy to consult with SEACAMS and DCWW with regard to data.	InnogyWH	On-going
8	SM to review Water Watch Wales website and the bathing waters explorer for data to inform the assessment.	SM	To inform the Scoping Report.
9	TD agreed to provide innogy with the intertidal survey data.	TD	Completed via email
10	NRW feedback on the information presented within the fish and shellfish ecology part of the meeting.	NP/CJ	January 2020
11	Project to review Shoreline Management Plans and associated GIS.	Innogy/GoBe	To inform the Scoping Report/ SSA study.
12	No actions recorded	N/A	N/A



# Awel y Môr Offshore Wind Farm

## Offshore Expert Topic Group Final Minutes

Meeting date: Tuesday 10 March 2020



## Offshore Expert Topic Group Minutes

**Venue: St David's Room, Venue Cymru, The Promenade, Penrhyn Cres, Llandudno LL30 1BB, United Kingdom**

**Date / Time: 10 March 2020 10:00 – 13:00**

### 1. Attendees

ATTENDEE	ORGANISATION	JOINED VIA:
Adam Cooper (AC)	Natural Resource Wales (NRW)	Dialed in
Alex Herbert (AH)	innogy	In person
Babs Hume (BH)	Royal HaskoningDHV (RHDHV)	In person
Cara Owen	Gwynedd Council	In person
Eleanor Howlett (EH)	Natural Resources Wales	Dialed in
Emmer Litt (EL)	Natural Resources Wales	Dialed in
Giles Sims-Williams (GSW)	innogy	In person
Gordon Campbell (GC)	Royal HaskoningDHV (RHDHV)	In person
Helen Thomas (HT)	innogy	In person
Jack Egerton (JE)	Natural Resources Wales	Dialed in
James Harland (JH)	Conwy Council	In person
Jenny Emmett (JE)	Gwynedd Archaeological Trust (GAT)	In person
Joel Walley (JW)	Denbighshire County Council	In person
Karen Algate (KA)	innogy	In person
Kathryn Laws (KL)	National Trust	In person
Lucie Haines (LH)	Natural Resources Wales	Dialed in
Lynda Thomson (LT)	Op-En	In person
Neil Maylan (NM)	Cadw	In person
Nia Phillips (NP)	Natural Resources Wales	Dialed in
Nicola Solly (NS)	GoBe Consultants	In person
Paul Carter (PC)	innogy	In person
Peter MacFarlane (PMF)	Wardell Armstrong	In person
Rafe Dewar (RD)	MacArthur Green	Dialed in
Richard Facey	Natural Resources Wales	In person
Richard Sumner (RS) (NRW)	Natural Resources Wales	In person



ATTENDEE	ORGANISATION	JOINED VIA:
Tania Davey (TD)	The Wildlife Trusts (TWT)	Dialed in

## 2. Apologies

INVITEE	ORGANISATION
Andrea O'Connor	Sefton Council
Andrew Dodd	Royal Society for the Protection of Birds (RSPB)
Andrew Farrow	Flintshire County Council
Angharad Crump	Ynys Môn County Council
Ashley Batten	Gwynedd Archaeological Trust (HENEb)
Barbara Owsianka	Conwy County Council
Ceri Morris	Natural Resources Wales
Dafydd Wyn Williams	Gwynedd Council
Dave Watson	Conwy County Council
Deanna Groom	Royal Commission on the Ancient & Historical Monuments of Wales (RCAHMW)
Dylan Llewelyn Jones	Ynys Môn County Council
Gareth Edwards	Royal Commission on the Ancient & Historical Monuments of Wales (RCAHMW)
Helen Croxson	Maritime and Coastguard Agency
Huw Davies	Conwy County Council
Iwan Huws	NRW
John Pearson	National Trust
Lianne Martin	Conwy County Council
Mark Walters	Clwyd-Powys Archaeological Trust (CPAT)
Mick Green	Whale & Dolphin Conservation
Neil Williams	Wirral County Council
Nia Jones	The Wildlife Trust
Nick Salter	Maritime and Coastguard Agency
Paul Mead	Denbighshire Council
Paul Wisse	Sefton Council
Paula Jones	Conwy County Council
Peter Lowson	Maritime and Coastguard Agency

INVITEE	ORGANISATION
Sheila Day	Wirral County Council
Simon Roberts	Royal Society for the Protection of Birds (RSPB)
Sion Roberts	Snowdonia National Park
Stephen Vanstone	Trinity House
Trevor Harris	Trinity House
Wayne Hope	Denbighshire County Council

**[Post meeting note: An ETG actions and comments tracker has been produced to cover all key points to be considered by the project team. The status of each is being carefully reviewed and will be shared with ETG members in due course.]**

### 3. Introductions

Introduction (including housekeeping), agenda and aim of meeting (KA/GC).

### 4. Meeting Aim (GC):

1. Provide information on the site selection process, guidance and data sources for the Awel y Môr (AyM) project.
2. Discuss and seek feedback on the process and the initial outcomes of the process.

Specifically, innogy is seeking feedback on the following four questions:

- Are we missing environmental data sources?
- Are we missing any key issues or opportunities?
- Do you have a preferred location for the infrastructure?
- Do you agree with the approach, any else to include with the approach?

Meeting slides were circulated ahead of the meeting.

Site selection study focused on the electrical transmission infrastructure: Offshore export cable route, cable landfall, onshore cable corridor and onshore substation.

### 5. Project Details (PC/NS)

Summary of project details (PC):

- Awel y Môr: an extension to existing operational Gwynt y Môr (GyM) Offshore Wind Farm.
- Existing operational projects were able to apply for extension projects in 2017.

#### Project timeline:

- The Crown Estate (TCE) concluded its Habitat Regulations Assessment (HRA) for potential extension projects in Summer 2019, allowing AyM to progress to the award of an Agreement for Lease (AfL).
- AyM is currently in the process of site selection and Environmental Impact Assessment (EIA) Scoping. Scoping Report will be submitted in the near future (due mid-March).
- EIA process 2019 to 2022.
- DCO/Marine Licence (ML) submissions to Planning Inspectorate (PINS) and National Resources Wales (NRW) in 2022.
- DCO/ML decision 2023-2024.
- Aim of obtaining Contract for Difference (CfD) and being operational by 2030.

#### Scoping Report update (NS):

- Refresher on what Scoping is – a process to refine the scope of the Environmental Impact Assessment (EIA), identifying likely significant effects, agreeing what can be scoped out and what methods and assessments will be used during EIA.

#### Scoping Report process:

- Define 'Scoping Area' – defined as the 'Areas of Search' identified through the Site Selection process.
- Collate baseline information.
- Identify the potential impacts upon sensitive receptors.
- Scoping report due to be published in a few weeks (mid-March 2020).
- Issued to the Planning Inspectorate (PINS) and NRW for formal consultation – 28 day consultation period.
- EIA will commence in April/May onwards.
- Once site selection has been refined, then scope of the EIA will be defined.

NP (NRW) – final capacity of the wind turbine generators (WTG) confirmed? PC noted that the Scoping Report defines physical dimensions and number of WTGs. Description of 12-22 Megawatt (MW) WTGs included; total wind farm capacity has not been defined. Developers are moving away from defining the capacity, as it is the physical footprints that have impacts. Capacity is not a metric assessed within the EIA.

RS (NRW) – 12MW are 200m height to tip. Need to understand what 22MW turbines would mean in terms of dimensions. PC noted that EIA includes envelope for maximum turbine size whatever the rating. LT noted that post Scoping Report, further discussions will be held on the maximum turbine size.

EL (NRW) – are designated sites being scoped out now or later (in relation to the transmission infrastructure)? Area of Search document sent out prior to meeting indicates that select sites (e.g. Menai Strait and Conwy Bay Special Area of Conservation (SAC)) are being scoped out. NS noted that these sites have not been scoped out at this stage - Scoping Report and Habitats Regulations Assessment Screening due to be submitted in mid-March will make reference to these sites and will take into account both direct and indirect effects on European sites. The Area of Search note circulated before the meeting was part of the site selection process only, not EIA Scoping, and refers to avoiding the boundary of designations as part of an initial high-level constraints mapping exercise to inform site selection.

***[Post meeting note: NRW have reiterated the need to further consider indirect effects, with the comment captured within the ETG action tracker.]***

NS noted that the Scoping Report is still on schedule for submission on 16 March. ***[Post-meeting note: due to the COVID-19 situation potentially affecting the ability of interested parties to adequately comment on the Scoping Report at this time, in discussions with the Planning Inspectorate, innogy decided not to submit the Scoping Report on 16 March as originally intended. Submission has now been postponed until May. Correspondence in relation to this altered process will be circulated in due course.]***

## 6. Site Selection Process (GC)

Site selection process overview:

- Aim of the process is to produce a 'design' which can be taken forward to the next stage of Environmental Impact Assessment (EIA).
- Process is multi-disciplinary (considers engineering, environmental, legal, cost, social factors), iterative (broad area gradually narrowed down to design as assessment / studies completed) and consultative (series of consultation exercises which steer the development of the design (including this meeting)).
- Consultation is critical to process.
- Legislation and guidance – suite of relevant legislation, policy and guidance adhered to during the process. Key documents include, but are not limited to: The Crown Estate's Cable Route Protocol (2019) in relation to transmission infrastructure, National Grid's Horlock Rules relating to onshore substation siting, and the 2017 EIA Regulations which contain a mandatory requirement for considerations of alternatives as part of EIA.
- A set of design principles and engineering assumptions are used to underpin the site selection process.

RS (NRW) – in relation to legislation and guidance framework, NRW have produced three documents on offshore wind farms on Seascape, Landscape and Visual Impact issues (relevant to Scoping and EIA). This should be included

in the site selection process to avoid impacts. These documents had previously been provided to innogy. GC noted that this was relevant to the array, which was not part of the site selection study but was an important factor to note more broadly. The current session was focused on transmission infrastructure only. **[Post meeting note: Potential Seascape, Landscape and Visual Impact impacts are an important factor that the project is giving due consideration to as part of the ongoing development of the project. Stakeholder input here is key. Further consultation on the seascape implications of the array will be undertaken as part of the EIA pre-application consultation stage and via ongoing Evidence Plan Process / ETG meeting discussions in the coming months.]**

A diagram showing the stages of the site selection process was presented. Key stages were:

- Identify location of array area.
- Identify grid connection point (National Grid Connection and Infrastructure Options Note (CION) process).
- Identify 'Area of Search' for each element of transmission infrastructure using high level constraints.
- Use desk-based data to undertake constraints mapping exercise; use gaps in the constraints mapping to identify locations for long list of options.
- A Black-Red-Amber-Green (BRAG) Assessment of each of the options, across different disciplines (environmental, engineering, land, social, cost). This involves technical specialists identifying criteria for different constraints, and scoring each as black, red, amber or green, e.g. loss of ancient woodland (black – not viable), within 15m of ancient woodland (red – significant constraint), within 250m (amber – constraint), >250m away (green – no impact or beneficial).
- Further studies undertaken to refine route, including landscape site walkovers, internal workshops, Horizontal Directional Drilling (HDD) feasibility studies, consultation.
- A short list of options identified using the BRAG Assessment and data from the studies.
- Further, focussed studies (e.g. landfall feasibility and landscape modelling) undertaken to refine further.
- Identify 'design freeze' for Preliminary Environmental Information (PEI) stage to inform EIA. GC reiterated that this is not the end of the design process, as ongoing environmental data collection and engineering studies undertaken during the EIA which will lead to further refinement, as will feedback from stakeholders. **[Post meeting note: innogy would like to provide clarification that further stakeholder feedback will be possible via**

***the Evidence Plan Process / further ETG meetings during the development of the EIA leading up to DCO submission.]***

RS (NRW) raised that visual aspects and issues of settings for the proposed wind farm array appears not to be considered in desk-based analysis. Innogy's consultation process must allow for adequate discussion to take place on the siting and layout options of the array. GC reiterated that site selection work being discussed at this particular session related to the transmission infrastructure only, with potential impacts arising from the array considered within the Scoping Report. The project intends to give potential Seascape, Landscape and Visual Impact impacts due consideration with key input from stakeholders. Further discussions regarding the array will take place as part of the project Evidence Plan Process in the coming months.

Where we are to date:

- Array area identified (lease still to be agreed with TCE).
- Grid connection point assumed likely to be Bodelwyddan substation (NB: location of grid connection not confirmed until conclusion of National Grid Connection Infrastructure Options Note (CION) process). **[Post meeting note: this is likely to be Q2 2020].**
- Identified the Area of Search using high level constraints (this is then being used in Scoping).
- Constraints mapping exercise undertaken and design principles applied to identify 'zones' where long list of options could be located.

## **7. Onshore site selection – a brief overview (GC)**

Given the focus of the meeting on offshore aspects, a brief onshore site selection overview was provided:

- Area of Search for onshore substation and onshore cable route have been identified using high level constraints.
- For substation Area of Search, constraints include: ecological / landscape designations, geological sites, water resource constraints, location of settlements, existing infrastructure.
- Substation Area of Search defined as 3km from anticipated grid connection point, further refined with constraints noted above.

## **8. Offshore site selection – Landfall (GC)**

Landfall design parameters:

- Minimise cable crossings with existing cables;
- Maintain required separation distance between cables and sufficient space for cable insulation;

- Ensure HDD is achievable;
- Sufficient space inland to accommodate set back from the coast to reduce risk of coastal erosion over 100 year + climate change;
- Parameters: 300m x 150m temporary construction compound; 50m x 30m permanent below ground transition joint bays.

TD (TWT) – will Horizontal Directional Drilling (HDD) be used at landfall area?  
GC confirmed that it would.

EL (NRW) – Cable Route Protocol (CRP) includes reference to seabed mobility assessment. Is this considered when identifying the offshore cable corridors?  
GC noted that at this stage high level constraints only have been considered. An assessment of seabed mobility will be included in the EIA. **[Post meeting note: additional comments from NRW on seabed mobility have been received.]**

**ACTION 10 – RHDHV to include consideration of seabed mobility TCE mobility assessment within BRAGs.**

LH (NRW) – Water Framework Directive (WFD) and bathing waters were not included in the site selection process. GC noted that high level constraints mapping only has been undertaken at this stage, including identifying the locations of rivers. WFD assessment will not be undertaken as part of the site selection but this will be undertaken further down the line in the EIA both on and offshore. Bathing waters will be considered within constraints mapping if datasets are available. LH noted that NRW can provide internal WFD guidance notes.

**ACTION 11 – LH (NRW) to provide internal guidance notes on WFD. [Post meeting note: now complete]**

**ACTION 12 – RHDHV to Include bathing water dataset on mapping if available. [Post meeting note: additional comments provided by NRW]**

JW (Denbighshire Council queried the Liverpool Bay Special Protection Area (SPA) and how consideration of feeding areas of the qualifying features of the SPA will be considered within site selection process? GC noted that this level of detail is not being considered within the site selection process, as the foraging areas covering the potential options are broad scale and unlikely to be avoided solely through selection of particular cable routing option. RHDHV took an action to review the little tern /common scoter mapping and to consider this during BRAG assessment to provide further consideration of this question.



**ACTION 13 - RHDHV to review the little tern / common scoter mapping and to consider during BRAG assessment.**

Defining the Area of Search:

Menai Strait and Conwy Bay SAC to the west, Dee Estuary SAC, SPA and Ramsar to east; leaves a c. 30km length of coastline for landfall.

Following identification of the Area of Search, constraints mapping has then been undertaken to identify suitable locations for infrastructure. This includes the following offshore datasets:

- Existing infrastructure – oil & gas storage, wells and pipelines, offshore wind farm arrays and export cables;
- Cultural heritage – protected wrecks (250m buffer);
- Ecological designations – SPA, SAC, Ramsar, Marine Conservation Zones (MCZ), Annex 1 habitats and shellfish waters;
- Other marine users – marine disposal sites, aggregate sites, UK military Practice and Exercise Areas and shipping routes.

This also includes the following onshore datasets:

- Existing infrastructure – overhead lines, offshore wind farm export cables (GyM and Burbo Bank);
- Ecological/landscape designations – SPAs, SACs, Area of Outstanding Natural Beauty (AONB), National Nature Reserves (NNR), Local Nature Reserves (LNR), Royal Society for the Protection of Birds (RSPB) Reserves, ancient woodlands.
- Cultural heritage – conservation areas, scheduled monuments, listed buildings;
- Water resources and land quality – historic landfill areas, main rivers;
- Land use – properties, planning applications / allocations.

Comments on datasets used:

GC noted the aquaculture area (Marine Farm) [diamond shape north of Belgrano] was from a review of existing datasets, but TCE have no record of a lease for the site. NP (NRW) – NRW will look into this in more detail, not initially aware of a planned / active facility in this area either.

**ACTION 14 - NP (NRW) to review data relating to aquaculture site (diamond shape north of Belgrano). [Post meeting note: additional comments provided by NRW].**

TD (TWT) – at the last Expert Topic Group (ETG) meeting, TWT sent reports through regarding Sabellaria reefs, has this been taken into consideration? GC and HT noted that the Awel y Môr team had received these but this information



hadn't been included at this early stage. It would be considered within the BRAG assessment.

**ACTION 15 - RHDHV to review Sabellaria maps and consider within BRAG Assessment if appropriate.**

JE (NRW) – there are planned blue mussel beds near Zone 2 landfall, to the west of the SSSI (see below). Locations available on Welsh Marine Plan portal. Noted that Horizontal Directional Drilling (HDD) means these sites may not be an issue.

**ACTION 16 - RHDHV to consider proposed blue mussel beds within BRAGs. [Post meeting note: additional comments provided by NRW].**

NP (NRW) – NRW has produced documents for Round 4 which are relevant to the Awel y Mor project and should be reviewed to inform the EIA. innogy confirmed that a copy of the report has been received and would be reviewed. **[Post meeting note: NRW have also highlighted “EOR0744: Review of Cable Installation, Protection, Mitigation and Habitat Recoverability” which is of relevance to project considerations].**

**ACTION 17 – NP (NRW) to circulate documents for Round 4.**

GSW – HDD will be used to install cables at landfall. At this stage and has not been confirmed whether the HDD will exit on the beach or outside the intertidal.

EL (NRW) would prefer an exit at Lowest Astronomical Tide (LAT).

TD (TWT) – raised that in a number of cases it seems information raised as available at the previous meetings has not yet been considered in the site selection process - when will it be considered? GC noted that the Areas of Search has been determined based on high level constraints. These additional datasets noted will then be fed into the BRAG Assessments to form the shortlist of options. Shortlist options will be reported on during the planned Public Consultation (April/May) to get feedback from stakeholders. Documents adhered to, datasets used and design assumptions will be listed at this stage. This will be circulated to stakeholders and available on the innogy website. This will also be included in the EIA site selection and site selection alternatives chapter. **[Post-meeting note: following the ongoing developments regarding the coronavirus outbreak, a more online ‘virtual’ approach for public consultation is being considered.]**

It was explained to stakeholders that six 'zones' had been identified outside of the constraints considered for landfall options at a high-level so far. Expert Topic Group members views were sought on each:

Zone 1 – located west of Llanddulas. Need space for transmission joint bays inland. Key constraints include existing linear infrastructure, quarry, local topography.

Zone 2 – located east of Llanddulas. Similar key constraints as Zone 1: topography is steep, coastal protection present, A55 and A547, historic landfill, proximity of Zone 2 to Traeth Pensarn SSSI, shellfish waters.

Zone 3 – located along Pensarn coast, to the west of the existing GyM cables. Key constraints include existing GyM cables, existing linear infrastructure. Construction compound likely located south of Towyn Road.

Zone 4 – located along Pensarn coast, between GyM and Rhyl Flats Offshore Wind Farm cables. Key constraints include existing Rhyl Flats cables, existing linear infrastructure, and crossing of caravan park required. Construction compound likely located south of Towyn Road.

Zone 5 – located east of Rhyl. Key constraints include existing linear infrastructure, Maes Gwilym County Wildlife Site, crossing of caravan park required.

- EL (NRW) – regarding Zone 5, look at the Shoreline Management Plan (SMP) to include with policy predictions for the future. GC noted that this will be included in the BRAG assessment.

Zone 6 – located east of Rhyl. Key constraints include existing linear infrastructure, holiday camp, and residential properties which would need to be crossed.

It was noted that the historic environment, in particular submerged woodland, had been highlighted at the onshore ETG and will be included in the BRAG assessment.

TD (TWT) noted that TWT would look at the zones, discuss internally and come back with an email with any comments.

NP (NRW) advised, due to the poor quality of the telecon line, that NRW would provide some additional comment on email. Comments would focus on the 4 questions asked by Innogy.

**ACTION: NP (NRW) to provide additional comment [Post meeting note: NRW have now provided].**

## 9. Offshore site selection – Offshore cable route (GC)

Offshore cable route design parameters were noted:

- Routing options need to connect to viable landfall locations;
- Routing options are short as possible;
- Minimise cable crossings;
- Maintain required separation of distance from other offshore cables and pipelines;
- Offshore cable route within 2km swathe.

TD (TWT) – raised that the last ETG meeting, potential lessons learnt from the existing Gwynt y Môr Wind Farm project were discussed. Had this work been incorporated into the site selection process? GSW confirmed that innogy was already using some of the expertise from the Gwynt y Môr project and were aware of previous issues and of wanting to avoid these in future. Other lessons had also been learnt from innogy's east coast projects: e.g. HDD distances that can now be longer plus the latest technologies to be used. EL (NRW), AC (NRW), and TD (TWT) emphasised that site specific conditions should continue to be taken into account even at this early stage of the project and that lessons learnt from Gwynt y Môr would be important considerations. An action was agreed for innogy to consider this further.

### **ACTION 18 – innogy to further consider lessons learnt from previous projects with a focus on Gwynt y Môr.**

EL (NRW) – a review from the Gwynt y Môr project had uncovered scour reports regarding cable exposure which showed the importance of ensuring site specific information was included in physical processes assessments.

Defining the Area of Search:

- A broad Area of Search connects the anticipated array area to the landfall Area of Search, avoiding international designations including the Menai Strait and Conwy Bay SAC and Dee Estuary SAC and existing offshore wind farm arrays, i.e. Rhyl Flats / GyM.

Constraints mapping used the same offshore datasets as had been used for landfall considerations.

The Site Selection team were looking at the following broad areas to avoid the identified constraints:

- Routes from the west of Rhyl Flats offshore wind farm, that could connect to landfall zones 1 to 3.

- Routes from the east of Rhyl Flats offshore wind farm, that could connect to landfall zones 4 to 6.
- Routes from the southern part of array, west and south Rhyl Flats to connect to landfall zones 4 to 6.

TD (TWT) raised issues with cables requiring rock protection and regarding cables that go through the Constable Sandbank area. GC noted the point and assured that this would be considered within the BRAG Assessment. Options being considered would seek to minimise the footprint of cables going through the sandbank.

NM (Cadw) – a large part of the Areas of Search contains identified palaeolandscapes. It is difficult to work out exactly what was present in the landscapes but looking at the identified historic rivers it is likely there were communities present. GC noted that this would be considered in EIA and may create significant considerations for engineering. Crossings will be included in the BRAG assessment. It was noted that there are detailed reports available, which NM will circulate.

#### **ACTION 19 - NM to circulate palaeolandscapes report.**

Further comments on the offshore cable route were:

EL (NRW) – in the Scoping ETGs, NRW mentioned SEACAMs work and Constable Bank ADCP data, does innogy have this data? PC confirmed that a meeting is being set up with SEACAMs to discuss and obtain data. GSW noted that innogy is also sponsoring a PhD at Bangor University on a related topic. EL noted that to understand the impacts, the sandbank needs to be understood. Cable protection would not be acceptable in Constable Bank as it is an important feature in sediment dynamics. Information on installation techniques should be presented. GSW noted that innogy is looking into varying techniques to install cable at 1.5m.

TD (TWT) – it is not just the cable protection to be considered but also the installation techniques e.g. ploughing and how it affects the sandbank. PC noted this as a valid point and reassured that a full assessment would be taken into account as part of the EIA. From a site selection point of view, RHDHV's coastal processes specialists will highlight potential issues regarding working within the sandbank which need to be considered at this stage. TD asked to ensure that this is considered at an early stage in the site selection process with the sandbank.

JW (Denbighshire Council) – regarding the Liverpool Bay SPA - when will the details of the impacts on qualifying features be considered? GC noted that

distribution of bird species will be taken into consideration within the EIA. This had not been looked into detail at the site selection stage but would be considered within the BRAG assessment (as above).

TD (TWT) – have the sandbank features been mapped? NS noted that the scoping exercise has looked at the readily available data. Geophysical surveys will be undertaken during the EIA process to get a better understanding of the preferred cable route. These are due to be undertaken in 2020.

## 10. Next steps (GC)

Attendees were thanked for their inputs and next steps were outlined:

- Identify long list and go from a long list to a short list of options;
- Further ongoing studies; BRAG assessments, Horizontal Directional Drilling (HDD) feasibility and Seascape and Landscape Visual Impact Assessment (SLVIA) VIA modelling would then form a short list of options;
- Public Consultations were planned the w/c 27th April when long/short list options will be shared [NB: *due to the current Coronavirus situation, these are under review as above*]; and
- Following public consultation, a final design for feeding into the EIA process will be determined.

NP (NRW) – NRW will provide comments on the Area of Search presentation and will provide the previously noted Crown Estate reports. GC welcomed comments from NRW and all.

NP (NRW) also asked whether Cable Route Protocol could be contextualised within forthcoming documentation to provide background and whether it could be included as an appendix? PC noted that the Protocol is considered within the Scoping Report and that as there are many pieces of guidance and legislation relevant to the project, including all of them as appendices would make the document cumbersome.

## **ACTION 20 – RHDHV to obtain TCE Cable Protection Report from TCE's Marine Data Exchange**

HT noted that innogy is keen to understand any preferences from ETG members regarding how to engage on the next steps on the site selection process. EL (NRW) & TD (TWT) noted that once further information had been considered, it would be useful to have a short call prior to decisions on a preferred option. NP (NRW) agreed that this would be useful. PC noted that

once the Scoping Opinion was returned at the end of April, information on shortlisting would become available.

HT took an action to schedule an ETG group call a week after consultation information was issued, to go through the short list.

**ACTION 21 - HT to schedule an ETG Group meeting call a week after consultation information issued, to go through the short list.**

JE (NRW) reminded that anything intertidal was considered as “offshore” by NRW, so this would go to NRW’s marine team.

AC (NRW) – queried whether there had been any navigational interest? NS noted that GoBe had been consulting with these consultees separately. HT confirmed that these parties had been invited to the meeting but chose not to attend due to being engaged with separately already.

**ACTION 22 - NP (NRW) to provide comments on Area of Search questions and presentation within two weeks.**

NP (NRW) – focus comments on the slides presented, is that ok? The team confirmed this would be useful and NP confirmed feedback would be provided within two weeks.

ETG members were thanked for their inputs. innogy would be in touch with the draft minutes and actions for review in due course and welcomed all further comments that ETG members wished to submit.

**END**

## 11. Summary of actions

NUMBER	ACTION	RESPONSIBLE PERSON
10	Include consideration of seabed mobility TCE mobility assessment within BRAGs.	Gordon Campbell (RHDHV)
11	Provide internal NRW guidance notes on WFD	Lucie Haines (NRW)
12	Include bathing water dataset on mapping if available.	Gordon Campbell (RHDHV)
13	Include consideration of Liverpool Bay SPA foraging areas (little tern / common scoter) in BRAGs	Gordon Campbell (RHDHV)

NUMBER	ACTION	RESPONSIBLE PERSON
14	Review NRW data relating to aquaculture site (diamond shape north of Belgrano)	Nia Phillips (NRW)
15	Include Sabellaria maps within the BRAGs if appropriate.	Gordon Campbell (RHDHV)
16	Include blue mussel beds (landfall zone 2) within BRAGs	Gordon Campbell (RHDHV)
17	Circulate documents produced for Round 4	Nia Phillips (NRW)
18	Further consider lessons learnt from previous projects with a focus on Gwynt y Môr.	Tania Davey (TWT) Emmer Litt (NRW) Adam Cooper (NRW)
19	Circulate offshore palaeolandscapes reports and include in BRAGs	Neil Maylan (Cadw) Gordon Campbell (RHDHV)
20	Obtain TCE Cable Protection Report from TCE's Marine Data Exchange	Gordon Campbell (RHDHV)
21	Organise a call to discuss findings of shortlisting process	Helen Thomas (Innogy)
22	NRW to provide comments on Area of Search note within two weeks of meeting (subsequent updated deadline of 01 April)	Nia Phillips (NRW)

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**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**MARINE MAMMALS & MARINE ECOLOGY EXPERT TOPIC GROUP**  
**– 21 SEPTEMBER 2020, 12:30 – 15:30**

<b>MEETING ORGANISER:</b>	HELEN THOMAS (RWE)		
<b>LOCATION:</b>	Teleconference (Microsoft Teams)		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>ATTENDEE</b>	<b>ORGANISATION</b>	<b>ABBREVIATION</b>
	ADAM COOPER	NATURAL RESOURCES WALES (NRW)	AC
	BEN WRAY	NRW	BW
	CERI MORRIS	NRW	CM
	JOANNA IBRAHIM	NRW	JI
	LEYRE NIEVA	NRW	LN
	LUCIE HAINES	NRW	LH
	NIA PHILLIPS	NRW	NP
	HOLLY SELF	NRW	HS
	CHRISTINA PLATT	THE WILDLIFE TRUSTS (TWT)	CP
	NIA JONES	NORTH WALES WILDLIFE TRUST (NWWT),	NJ
	JOEL WALLEY	DENBIGHSHIRE COUNCIL	JW
	HELEN THOMAS	RWE RENEWABLES (RWE)	HT
	PAUL CARTER	RWE	PC
	ALEX HERBERT	RWE	AH
	GILES SIMS-WILLIAMS	RWE	GSW
	PETE GACHES	GoBe CONSULTANTS (GoBe)	PG
	ANGIE DE BURGH	GoBe	AdB
	SEAN LEAKE	GoBe	SL
	ANNA LUFF	GoBe	AL
	RYAN MCMANUS	GoBe	RM
	SAMMY MULLAN	GoBe	SM
	DAVID LAMBKIN	ABPMER	DL
	CORMAC BOOTH	SEA MAMMAL RESEARCH UNIT (SMRU)	CB
	TIM MASON	SUBACOUSTECH	TM
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	IDA TAVNER	NRW	IT
	ANTHONY BROOKS	ABPmer	AB
	MICK GREEN	WHALE AND DOLPHIN CONSERVATION	MG
	JOHN COOPER	RWE	JC
	TAMSYN ROWE	RWE	TR
	FFION DAVIS	RWE	FD
	KAREN ALGATE	RWE	KA

Documents provided:	Filename
Meeting Agenda	AyM ETG Agenda - Marine Ecology Marine Mammals 21 September 2020
Virtual Consultation Poster	AyM Virtual Consultation Poster - November 2020
ETG PowerPoint Presentation	AYM Sept Oct ETG Presentation Marine Ecology 21 September 2020

Agenda item	Minutes
1	<p><b>Introductions and aims of meeting</b></p> <p>RM thanked everyone for joining the meeting and ran through the agenda, made sure that everyone could see the screen and hear clearly. Made it clear that the idea for this meeting is for an open discussion and that follow-up meetings could be arranged on a topic by topic basis as required. As well as a project and site selection update, the agenda for each topic is broadly to:</p> <ul style="list-style-type: none"> <li>- Discuss the thematic outcomes of scoping;</li> <li>- Discuss data sources/modelling to inform the baseline characterisation;</li> <li>- Outline key areas for assessment;</li> <li>- Discuss and agree next steps.</li> </ul> <p>SL added that as much as anything, the idea for the meeting is to be a planning session for future meetings, submissions and review schedules.</p> <p>HT went through the attendance register, and everyone introduced themselves by organisation and role on the project.</p> <p>RM talked through the Evidence Plan process, outlining the structure of the Expert Topic Groups (ETGs) and the consultation strategy over the coming months.</p>
2	<p><b>Project details update</b></p> <p>AH gave an update on the project status, offshore and onshore survey progress, and plan for public engagement.</p> <p>AH and HT introduced the plan for Public Engagement Days (PEDs) and brought to attention the virtual consultation poster circulated ahead of the meeting.</p> <p>AH outlined the planned project timeline, from award of Agreement for Lease (AfL) for the project, the application programme, with the wind farm becoming operational by 2030.</p>
3	<p><b>Site selection update</b></p> <p>AH outlined the wind farm array area and the three preferred offshore cable route options. He made it clear that these routes are being retained for optionality at this stage, awaiting further site selection investigations.</p> <p>AH then briefly summarised the shortlist refinement process for the onshore cable routes and onshore substation.</p> <p>The next steps are to hold virtual public consultation on the project in November 2020, with the aim of refining the routes down to a single offshore route, landfall, onshore cable route and substation location in Q1 2021. Temporary construction compounds and access points would then be consulted on with the Evidence Plan in Q1 2021.</p>
4	<p><b>Approach to physical processes modelling</b></p> <p>DL noted that the scoping report had committed to an evidence-based approach rather than new numerical modelling, and noted that the scoping opinion had called for agreement to be reached on the approach. DL went on to note that the project proposed to undertake new numerical modelling for waves and hydrodynamic modelling, but to take an evidence based, Excel based, approach for understanding the potential extent of sediment plumes and subsequent deposition. JI noted the proposed approach and asked for confirmation as to whether cable protection measures would be included in the</p>

	<p>modelling. DL responded to confirm that a desk-based approach would be the most appropriate form of understanding the implications of cable protection measures on physical processes, as the detailed numerical modelling was unlikely to be sensitive to such relatively small (&lt;1m) features. DL went on to confirm that a position paper would be submitted detailing the proposed approaches. SL requested confirmation if there were any relevant positive or negative 'lessons learnt' that NRW would appreciate the project applying to the assessment. JI confirmed that no specific lessons learnt at this stage but recommended using an appropriate regional baseline be developed. DL confirmed this would be undertaken.</p> <p>No further matters arising.</p> <p><b>ACTION – Physical Process Modelling Position Paper to be drafted.</b></p>
5	<p><b>Approach to underwater noise modelling</b></p> <p>TM noted that one area of scoping feedback focussed on the need for appropriate baseline UWN monitoring data. TM confirmed that data for the existing regional OWFs is held and forms part of the empirical basis for the INSPIRE model and as such the assessment team are well placed to provide an informed baseline.</p> <p>TM noted mitigation measures such as noise abatement will be considered, in the iterative EIA process. TM requested confirmation that a 10dB reduction at source was a reasonable precautionary basis on which to undertake assessment of the benefit of noise abatement, noting that some studies indicate it can be in the region of 15/16dB reduction at source.</p> <p>TM noted that the proposal for UXO clearance is to assess in but not seek a licence due to the uncertainty associated with it. NRW noted this may be fine, with no immediate 'red flags' for the approach but that it was necessary to confirm with Pete Morrison, the licencing lead for the project in addition to the scientific advisory team.</p> <p><b>ACTION – project to contact NRW licencing.</b></p> <p>CP asked how uncertainty would be addressed and assessed. PG noted that the project will adopt an assessment that uses a contextual approach, drawing on recent and regional experience to consider the risk of UXO encounter. <i>POST MEETING NOTE – the existing GyM project required clearance of 3 UXO devices.</i></p> <p>TM went on to note that the range of effects will depend on the modelling outputs and will consider designated sites that fall within the modelled zone of influence.</p> <p>TM also noted that a request had been made to include an assessment of particle motion effects and provided an overview of the process that will be used to ensure the best available evidence would be used for assessment purposes, but this evidence is literature based and therefore lends itself to a qualitative assessment rather than numerical modelling. AC noted that this had been discussed internally and would formally defer to the fish ecology specific meeting, although noted that the principle was agreed.</p> <p>TM described the proposed model to be used, INSPIRE, and the proposed metrics/thresholds to be utilised. The thresholds were presented on the slide and are not repeated here but taken as read. AC and CM both noted agreement with the thresholds for mammals but would defer to the fish ecology specialist for final agreement on the fish specific thresholds.</p> <p>TM noted the proposed piling locations to be modelled, with general agreement reached</p> <p><b>ACTION – circulate a figure with the proposed piling locations identified.</b></p> <p>CM asked if any consideration was being given to alternative piling techniques. TM noted that worst case would need to be assumed for assessment. PC noted that whilst a worst case would need to be the case for assessment other techniques and technologies would be considered in the envelope and all options retained that could reduce noise.</p> <p>CM suggested a nuanced assessment approach would be helpful to see realistic mitigation applied within the assessment for reference. SL responded to note that mitigation would</p>

	be applied, but would welcome any specific suggestions. CM noted that NRW are not recommending any particular mitigation methods or technologies at this stage.
6	<p><b>Physical processes technical topic</b></p> <p>RM called for a 5-minute break in the meeting.</p> <p>DL described the general themes emerging from the scoping process, including the proposed methods of assessment. JI requested clarification regarding projects to be included in-combination. DL noted that consideration of all impacts cumulatively will be provided, including a clear definition of where OWFs are included or excluded from the baseline.</p> <p>DL went on to note that sediment disturbance will be assessed through spreadsheet modelling, alongside taking a desk-based approach to consideration of scour and scour protection.</p> <p>JI requested clarification with regards the possibility of sandwave clearance if the export cable routes through the Constable Bank. DL responded to note that the immediate effects will be considered, on hydrodynamic processes and the stability of the Constable Bank. JI asked if recovery would also be considered. DL confirmed recovery would be considered and is the subject of a desk-based study detailing the likely recovery. JI went on to request clarification with regards a robust baseline being created that will show the mobility of the sandbank and if it will be supported by the site-specific geophysical survey data. DL confirmed that the site-specific data would underpin the desk-based studies. JI noted that a robust conceptual approach would be critical, to which DL confirmed this was the approach being adopted. JI asked if the input parameters and empirical evidence would be provided. DL confirmed that the models would be fine-tuned with site specific conditions, and that the technical position paper would outline key elements and assumptions. <b>ACTION – Physical Processes Technical; Position Paper.</b></p> <p>BW asked a benthic clarification point regarding effects on sensitive receptors, in particular Marine SACs and the need to consider potential effects. BW noted in particular that it was important to understand how all the various interactions will be considered, and that the ecological specialists would take the lead from the physical processes specialists to ensure a process is identified for the flow of dependent assessments. AdB noted that all assessments and modelling would feed through to ensure a thorough and robust assessment was presented.</p> <p>DL went on to describe the baseline datasets that would inform the assessment, including the 202 surveys which are underway (post meeting note – all surveys have successfully completed).</p> <p>DL went on to note that the scope of the assessment is agreed, with no matters arising for clarification. JI requested clarification regarding the consideration of disturbance during construction including SSC and morphology. DL confirmed this to be the case, and confirmed that it would include cable burial and protection. BW iterated that there are a number of linkages between other receptors and noted it is important to ensure all links are clear. PG confirmed that there would be consideration of inter-related effects to ensure the ES is not a number of discrete or disparate documents. Some discussion was held regarding the placement of certain impacts, originally proposed to be within the O&amp;M phase but requested to be in the construction phase. Agreement was reached to generally apply the requests and ensure links are transparently presented and assessed.</p> <p>With regards the assessment approach DL noted that in the absence of recognised thresholds, significance will be on expert judgement with magnitude being based on the degree of change.</p> <p><i>No further matters arising.</i></p>
7	<b>Marine water and sediment quality technical topic</b>

	<p>SM noted that the meeting was primarily scene setting, recognising that further meetings would be required to ensure cross over with WFD specialists and the onshore/offshore interface. SM noted that the contaminant sampling offshore had progressed as agreed; LH requested confirmation of the 'offset' of one unsuccessful sample; RM confirmed the sample was not possible due to very coarse substrate (and therefore at low risk of contamination) and was relocated approximately 1-2km to the west. LH confirmed this to be acceptable. ADB took an action to confirm the suite of analytes for the contaminant analysis. <i>POST MEETING NOTE – RM confirmed via email the analytes to be considered as follows:</i></p> <ul style="list-style-type: none"> <li>- <b>Metals (Aluminium (Al); Arsenic (As); Barium (Ba); Cadmium (Cd); Chromium (Cr); Copper (Cu); Lead (Pb); Mercury (Hg); Nickel (Ni); Tin (Sn); Zinc (Zn).)</b></li> <li>- <b>PAHs (US EPA 16 priority pollutants);</b></li> </ul> <p>With the following screened out from further consideration on the basis of location and historic data:</p> <ul style="list-style-type: none"> <li>- <b>Organotins (TBT (and DBT and MBT));</b></li> <li>- <b>PCBs; and</b></li> <li>- <b>Persistent organic pollutants (e.g. DDT and Dieldrin).</b></li> </ul> <p><b>LH confirmed this was appropriate in response to email from RM.</b></p> <p>SM went on to note that a position paper would be drafted to provide the necessary evidence to scope further impacts out from assessment. The report will present an evidence-based approach to confirming the scope of the assessment. Anticipated date of submission 16 November 2020. SL requested confirmation that this would be acceptable to NRW. LH confirmed the new specialist would be in post and this would be a good opportunity to be introduced to the project. <b>ACTION MWSQ position paper – 16/11/20.</b> SM confirmed with LH that the OGN 72 and 77 guidance would be followed for the purposes of assessment and noted that if internal WFD templates are available the project would be happy to use them. LH took an action to provide the templates if possible, and noted that the assessment was anticipated to be straightforward <b>ACTION LH to provide NRW WFD assessment templates if possible.</b></p>
8	<p><b>Marine mammals</b></p> <p>CB noted that the primary matters for consideration were temporary threshold shift (TTS), cumulative impact assessment of fisheries, and baseline datasets.</p> <p>CB noted that the TTS ranges will be submitted for information, but not assessed for significance. CM noted this was agreed and acceptable, but NRW keen to understand disturbance. CB confirmed this would be presented.</p> <p>CB went on to note that it had been proposed to scope fishing out of the cumulative impact assessment and that it needed further consideration. Propose to issue a cumulative effects project 'long list' for review.</p> <p>CB went on to describe the data sources to be used for the assessment, noting that the Seawatch data in particular were not available, and asked if NRW would be able to provide it. CM took an <b>Action to look into availability of datasets held by NRW.</b></p> <p>CB noted that all impacts were agreed as scoped in/out with no matters arising.</p> <p>CB noted that approach to assessment was to consider SPLpeak and SELcum, as described within the underwater noise slides. CB went on to note that disturbance will utilise the dose response curve for harbour porpoise and bottlenosed dolphins; noting that whilst no threshold is available the dose response function is considered appropriate. The assessment will utilise Whyte 2020 as best available evidence. CM noted the approach seemed reasonable but can confirm as an <b>ACTION – CM to confirm approach to assessment of disturbance is acceptable.</b></p>

	<p>CB noted that for the assessment of UXO the assessment will use basic impact ranges derived from JNCC guidance. CM was cautious about using predetermined ranges rather than using modelling, which would be the preference. CB agreed and confirmed the project would seek to use the best available evidence.</p>
9	<p><b>Fish and shellfish ecology</b></p> <p>RM noted that the fish and shellfish ecology advisor (IT) was not in attendance and that a follow up meeting would be arranged in due course.</p> <p>AL presented in/out impacts and confirmed that all impacts would be scoped in for assessment.</p> <p>AL noted that all available data would be used to characterise the receiving environment, with the preference for not undertaking surveys. AL confirmed that focus would be placed on Section 7 species.</p> <p>AL went on to describe the approach to assessment which would be underpinned by three physical processes and underwater noise modelling.</p> <p>AL confirmed that further discussion would take place with the NRW fish ecologist as a matter of priority (see accompanying minutes for reference).</p>
10	<p><b>Benthic ecology</b></p> <p>AdB noted a number of areas for discussion and noted that the surveys agreed with NRW were now complete with samples and data entering the analysis phase.</p> <p>AdB requested clarification with regards temporary habitat disturbance, and accidental pollution, both impact pathways are to be assessed.</p> <p>AdB went on to note that underwater noise was not generally considered to be an impact that lead to a potentially significant impact, due to the dissipation of noise very close to the source. As such AdB proposed that the impact be scoped out. This was agreed.</p> <p>AdB noted also that EMF as an impact pathway was generally considered to be unlikely to result in a significant effect as a result of the very discrete magnitude. PG requested confirmation from BW if this was receptor specific. BW confirmed that there are some documented impacts on some invertebrates, some of which may be Section 7 (Environment (Wales) Act) species, but suggested that the ES could focus on Section 7 species. AdB noted and agreed this would be undertaken.</p> <p>AdB noted that the baseline datasets and survey data would be collated and presented. No matters arising. It was agreed that where possible a baseline characterisation report would be submitted to the evidence plan for approval in advance of PEIR.</p> <p>AdB and BW discussed the need to consider INNS within a biosecurity plan for the project.</p>
11	<p><b>Next steps</b></p> <p>RM outlined the next steps in addition to those already agreed on a topic by topic basis. Namely to circulate minutes to the ETG within 7 days, and produce an ETG engagement programme outlining the plan for engagement over the next few months. The next set of formal ETG meetings are set for January/February 2021.</p> <p>RM then thanked all for their time and closed the meeting.</p>
12	<p><b>AOB</b></p> <p>N/A.</p>

Agenda Item	Action	Who?	Due Date
1	Physical Process Modelling Position Paper to be drafted.	ABPmer	16/11/20
2	Project to contact NRW licencing.	GoBe/RWE	TBC

3	Circulate a figure with the proposed piling locations identified.	GoBe – RM	22/10/20
4	Physical Processes Technical; Position Paper.	ABPmer	16/11/20
5	MWSQ position paper	GoBe - SM	16/11/20
6	LH to provide NRW WFD assessment templates if possible.	LH@NRW	16/11/20
7	CM to look into availability of datasets held by NRW	CM@NRW	16/11/20
8	CM to confirm approach to assessment of disturbance for marine mammals is acceptable.	CM@NRW	16/11/20
9			
10			
11			
12			

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**FISH AND SHELLFISH ECOLOGY ETG MEETING MINUTES– 25/09/2020**

<b>MEETING ORGANISER:</b>	GOBE CONSULTANTS		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Ida Tavner	NRW	IT
	Alex Herbert	RWE	AH
	Helen Thomas	RWE	HT
	Anna Luff	GoBe	AL
	Pete Gaches	GoBe	PG
	Ryan McManus	GoBe	RM
	Sean Leake	GoBe	SL
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Adam Cooper	NRW	

<b>Documents provided:</b>	<b>Filename</b>
Fish and shellfish focused Powerpoint presentation	AYM Sept Oct ETG Presentation Marine Ecology MASTER FINAL_Fish
Meeting Agenda for main ETG (21/09/20)	AyM ETG Agenda - Marine Ecology Marine Mammals 21 September 2020
Virtual Consultation Poster	AyM Virtual Consultation Poster - November 2020
Main ETG PowerPoint Presentation (21/09/20)	AYM Sept Oct ETG Presentation Marine Ecology 21 September 2020

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><u>Introduction and Aims</u></p> <p>RM introduced the meeting and thanked IT for taking the time to have a follow up call to the main ETG, specifically to discuss fish and shellfish ecology. All attendees gave brief introductions as to their organisation and role on the project.</p> <p>RM and SL outlined that the purpose of the meeting was to discuss the key thematic outcomes of scoping, to describe the approach to characterising the baseline environment, and to discuss next steps in terms of submitting a technical baseline report. The meeting is therefore intended as a planning session to map out proposed timescales and resourcing over the next few months.</p> <p>RM then introduced the Evidence Plan process, IT stated familiarity with the process, noting limited involvement on the project to date, but eagerness for future engagement.</p>
<b>2</b>	<u>Project and Site Selection Updates</u>



	<p>AH then provided the project update, focusing on surveys underway and/or complete. RM highlighted that consultation on the benthic survey strategy and contaminants sampling/analysis had been undertaken with NRW and the parameters agreed in terms of locations, numbers and types of sample stations and drop-down video surveys. SL elaborated further on the details of that survey.</p> <p>AH introduced the public engagement days (PEDs) poster, with PEDs scheduled for November 2020. AH outlined the headline project programme, namely PEIR publication in August 2021, DCO and marine licence application in Summer 2022, consent by 2023/24, with the wind farm planned to be operational by 2030.</p> <p>AH introduced the project options for offshore cable routing, onshore cable routing, and onshore substation locations. IT asked whether cables would be directed under all watercourses, specifically in relation to cable route option 5a, by Horizontal Directional Drilling (HDD). AH confirmed that HDD would be used at all watercourses.</p>
3	<p><u>Physical Processes and Underwater Noise Modelling</u></p> <p>RM summarised the approach to underwater noise modelling, noting that the technical leads (Subacoustech) had experience in the geographical area from GyM. IT said that it would be useful to see the underwater construction noise monitoring report from GyM and asked whether that could be provided with the assessment package. SL responded that the monitoring data can be shared as they were used to underpin the relaxation of a seasonal restriction applied to GyM. Whilst not directly comparable to AyM, the data are robust and will provide context.</p> <p>RM then outlined the noise effect threshold metrics, potential mitigation measures and assumptions. IT agreed with the noise metrics as the most recent assessment thresholds. SL added that these criteria are the current best practice guidelines.</p> <p>RM then summarised the approach to UXO assessment, noting that a qualitative risk-based approach will be taken. PG noted that the risk from UXO in the area was likely to be low, and not comparable to somewhere like the southern North Sea, where UXO are present in greater quantities. UXO will be assessed in the ES but will be licensed separately post-consent once better data are available on the types and locations of any UXO requiring clearance.</p> <p>On particle motion effects, SL noted that this is a constantly evolving area of research, and throughout the assessment process we will keep progress on this under review. Based on the current best available data, the assessment will be undertaken qualitatively.</p> <p>IT asked whether the assessment will be based on a worst-case scenario, or a mixture of different options. RM confirmed that the underwater noise assessment in terms of piling will be based on a worst-case/maximum design scenario in terms of the scenarios with the greatest spatial impact, as well as the scenario with the greatest temporal impact.</p> <p>RM also noted that fish receptors will be considered as both fleeing and static receptors. IT asked whether this would be applied to all species, to which RM confirmed that groups 1, 3 and 4 fish would be modelled as both fleeing and static receptors as outlined on the noise metrics slide. Eggs and larvae would only be modelled as static receptors for obvious reasons.</p>

	<p>On modelling locations, SL explained that the locations have been chosen to represent the areas of largest expected propagation, based on depth and bathymetry, and the locations closest to the most sensitive receptors.</p>
4	<p><u>Fish and Shellfish Ecology</u></p> <p>AL presented the series of fish and shellfish ecology slides. AL described all impacts scoped into assessment, including cumulative effects. RM noted that cumulative projects considered will be subject to a screening process, and that information will also be shared with the ETG.</p> <p>AL then presented the data sources used to form the baseline characterisation, noting that there is a comprehensive set of data including site-specific data, as well as spatially and temporally broad regional datasets. Related datasets from site-specific benthic surveys will also be used to characterise the seabed habitats present, such as PSA data and data from benthic grabs and DDV.</p> <p>AL asked whether IT had any specific concerns relating to the data sources, and whether other data should be considered. IT noted that the commentary can make interpretation of spawning and nursery grounds challenging and requested that the baseline characterisation report be clear in relating to the impacts assessed, and where any quantitative changes are expected. IT also stated that the SeaMap data needs to show a site-specific interpretation, for example in terms of sandeel data. IT was keen to see whether regional datasets can be validated with the site-specific studies such as GyM monitoring surveys, rather than be taken purely at face value. SL was also keen to see the baseline characterisation as a process of validation, to which IT noted this reflects NRW's position as well.</p> <p>IT highlighted that cod spawning and nursery areas are sensitive to underwater noise during the spawning period. AL clarified that in addition to broad spawning and nursery area data e.g. from Coull. <i>et al.</i> (1998), more contemporary cod larval data would be used to characterise areas with high spawning intensity. AL also noted that this would be validated using Ground Fish data as well as site-specific PSA data. AL asked if there were any other data sources that would be helpful to consider. IT suggested that the Bangor University data would be useful for characterisation. In response, AL noted that a request for that data had been made and we are awaiting response. SL summarised that it is important to contextualise the narrative for spawning biomass and use broad datasets, in order to capture as big a picture as possible in the first instance, that can then be validated on a more local, site-specific level.</p>
5	<p><u>Next Steps</u></p> <p>AL stated that the next step would be to produce a desk-based baseline characterisation document using all the data sources identified to date. The plan is to issue that report around the 5<sup>th</sup> October for a 4-week review cycle by the relevant ETG members. There would then be a follow-up meeting to discuss any comments arising, and the report would then be updated to form the baseline technical report as part of the PEIR documentation.</p> <p>The next formal ETG meetings are currently scheduled for January and February 2021, but we hope to be flexible on a topic-specific basis, and there is no reason why a fish and shellfish ecology-specific meeting cannot be arranged outside that timeframe, if the need arises.</p>
6	<p><u>AoB</u></p> <p>IT said that this meeting has provided useful clarifications. On the cable corridors, it was noted that EMF effects were originally proposed to be scoped out, but based on the scoping</p>

	<p>opinion were now scoped in. On a practical level, IT was keen to understand industry best practice on cable burial, cable protection, and in particular the specific areas where full cable burial might not be achieved. IT stated that in general, EMFs are not anticipated to be a major issue, but wanted confidence that industry best practice would be applied. RM noted that the preference is for cables to be buried, and for cable protection to be applied where that is not possible. IT welcomed this and noted comfort with a high-level qualitative assessment as opposed to an in-depth, detailed assessment of EMF effects.</p> <p>RM closed the meeting by thanking all for their time, noting that the meeting had been a really useful exercise. Minutes would be circulated within 7 days of the meeting.</p>
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Agenda Item	Action	Who?	Due Date
1	GyM underwater noise results/interpretations to be shared with ETG.	GoBe	TBC
2	Desk-based fish and shellfish ecology baseline characterisation report to be circulated to ETG members.	AL/GoBe	05/10/20
3	Minutes to be circulated within 7 days of meeting.	GoBe/RWE	02/10/20

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**HRA (NON-ORNITHOLOGY) ETG MEETING MINUTES– 10/11/2020**

<b>MEETING ORGANISER:</b>	HELEN THOMAS (RWE)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Adam Cooper	NRW	AC
	Leyre Nieva	NRW	LN
	Jillian Whyte	JNCC	JW
	Sarah Canning	JNCC	SC
	Leonie Richardson	NRW	LR
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Cassie Greenhill	RWE	CG
	Karen Algate	RWE	KA
	Sean Leake	GoBe	SL
	Sally Kazer	GoBe	SK
	Ryan McManus	GoBe	RM
	Pete Gaches	GoBe	PG
	<i>Additional attendees for second half of the meeting</i>		
	Christina Platt	TWT	CP
	Holly Self	NRW	HS
	Joanna Ibrahim	NRW	JI
	Ceri Morris	NRW	CM
	Ida Tavner	NRW	IT
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Tania Davey	TWT	
	Nia Jones	NWWT	
	Julie Black	JNCC	

<b>Documents provided:</b>	<b>Filename</b>
PowerPoint Presentation	AYM HRA Presentation Nov 2020.pdf

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><u>Introduction and Aims</u></p> <p>SL opened the meeting and checked that all attendees could see the presentation and could hear clearly. He stated that the first half of the meeting would focus on Constable Bank and Annex I features in relation to HRA. The second half would focus on the non-ornithology technical topics individually. The agenda for the meeting was to discuss key points from screening and to agree on changes to screening conclusions where appropriate. SL made it</p>

	<p>clear that the session should be used as much as possible to plan ahead over the coming months.</p> <p>Everyone then introduced themselves by stating their name, organisation and their role on the project.</p>
2	<p><u>Approach to HRA</u></p> <p>SK reiterated that the first half of the meeting was to focus on the Constable Bank agenda item in relation to benthic ecology and Annex I features. She noted that Constable Bank itself falls outside of an SAC but falls partially within the Liverpool Bay SPA. Therefore, the feature would be investigated in the context of a potential supporting habitat for the SPA, and potential supporting habitat for <i>Sabellaria</i> reefs, but not as a feature in its own right. SK clarified that impacts to Constable Bank would be assessed in the context of the EIA, but is not a matter for the HRA. LN agreed with the outlined approach to the habitats identified and agreed that the processes of HRA and derogations do not need to be followed in relation to Constable Bank and biogenic reefs, but those features do need to be considered in the EIA.</p> <p><u>HRA Next Steps</u></p> <p>SK said that she aimed to reach agreement on the conclusions of screening and to agree on the sites and features being assessed. The intention is not to overhaul and re-issue the entire HRA Screening Report, with the preference to submit a table of conclusions with notes on what had been updated, together with revised screening matrices (the latter in due course). AC agreed that this would be a sensible approach, also giving a preference towards a summary table for agreement. He said that this would be the most concise way forward and would be the easiest format on which to provide comment in terms of the sites and features screened in. SL added that the table would be submitted to ETG members more broadly, including other ETGs such as the marine ecology, marine mammals and ornithology ETGs.</p> <p>SL then asked JNCC if they would like to be included on this circulation. SC said that it would be helpful for context but did not have any immediate concerns.</p> <p>SL asked LN to clarify NRW's position regarding the approach to consider Constable Bank and biogenic reef features in the EIA only. LN clarified that those features would not need to be considered in HRA terms and would therefore not be subject to any form of derogation discussion.</p> <p>SL said that the updated screening conclusions document would be submitted for review in mid-December, with a deadline for comment in January, allowing for points of clarification to be discussed in time for preparation of the draft RIAA. <i>[post-meeting note: dates will be confirmed to all attendees in the engagement plan]</i>. SK asked whether the internal NRW HRA guidance could be provided. AC took an action to see if that internal guidance was available to be shared with external parties.</p> <p>There were no further questions and SL called an end to the first half of the meeting and asked that attendees reconvene for the second part of the meeting at 1600.</p>
3	<p><u>Second Half Introductions</u></p>

	<p>Everyone gave introductions for the benefit of those who did not attend the first half. SL and SK gave an overview of the points discussed and outcomes of the first half of the meeting, noting that minutes would be circulated to all after the meeting.</p> <p>SL re-iterated that a HRA screening summary document would be submitted in approximately four weeks' time, capturing updated conclusions of screening, rather than re-submitting an updated HRA screening report.</p> <p>In relation to Constable Bank and biogenic reef features, SL re-iterated that in line with PINS advice note 10 and the TAN-5, those features would not be considered as Annex I in HRA terms as they do not form part of designated sites. However, Constable Bank will be considered in the context of being a supporting habitat for the Liverpool Bay SPA, and features such as biogenic reefs would be considered in the context of the benthic ecology EIA assessment. He noted that NRW were in agreement with this approach and asked if other attendees were also in agreement. LN again clarified that since the Constable Bank and biogenic reef features do not form part of any site designations, they do not need to be considered in the context of HRA or derogations, but do need to be considered as features in the EIA. AC highlighted that since the features are not designated, they are not afforded protection under Article 6 of the Habitats Directive but should be a consideration under Article 2. Therefore, they do not need to be considered in the HRA or any derogations that follow. SL outlined the position of these features falling to the next level of legal protection, being Section 7 of the Environment Act (Wales), and therefore will be considered as sensitive features in the EIA. SL said that biogenic reefs and sandbanks can be Annex I features, and in the past such habitats have been described as 'potential Annex I'. AC and SK suggested that this item be taken away for further reading and discussion ACTION. PG stated that this point may be a matter of semantics, and that in any case, features will be attributed the highest status, and where the EIA is concerned, the way in which these features are treated in terms of their environmental value and/or sensitivity will be appropriate. LN reiterated the central point that these features outside of designated sites do not need to be considered in the HRA.</p>
4	<p><u>Marine Mammals</u></p> <p>SK said that the next part of the meeting is broken down by HRA receptor group, starting with marine mammals.</p> <p>She highlighted that the Pembrokeshire Marine SAC and grey seal have now been included for relevant effects, as well as the Cardigan Bay SAC and Bottlenose Dolphin. SK noted that underwater noise would be a key issue in relation to marine mammals and asked for attendees' thoughts on ADDs in relation to their disturbance effects and how these are assessed. ADDs are used to avoid auditory injury by knowingly causing disturbance. CM said that for ADDs generally, if information available on source noise levels, likely disturbance ranges, potential for PTS/TTS, as well as how many would be used and when, then these details could form the basis of an assessment. SC said that if they are to be used as mitigation, there is a need to demonstrate their effectiveness and also to demonstrate that ADDs will not cause PTS/TTS. She added that there was no expectation that ADDs would cause PTS/TTS, but confidence is needed.</p> <p>SK outlined the threshold approach to disturbance from piling with respect to harbour porpoise. CM agreed that the HRA assessment should be based on the disturbance footprint that overlaps with an SAC. PG clarified that the approach to HRA (disturbance threshold EDSs) can be quite different to the EIA approach (e.g. dose response). CM said</p>

	that she would like to see more case-specific information, favouring the approach in the EIA, would prefer not to use fixed 26 km range if there is better site-specific information available. She clarified that the 26 km EDR approach may end up being the most appropriate method but would like to see more case-specific information. PG noted that there are difficulties in not taking the EDR approach regarding individual SAC populations as well as other issues such as seasonality etc. CM said that the conservation objectives specify the 10 and 20% thresholds so these would be appropriate.
5	<u>Fish</u> SK outlined the approach to the fish HRA. SK said that she was pleased to see agreement on the screening conclusions and confirmed that in-combination effects would be revisited in terms of the plans/projects considered. She said that screening limited to annex II species and their supporting habitats that form the basis of a designated site. For EMF, she also confirmed that the updated screening will include this in line with the evidence base. SK asked attendees if there were any questions. IT said that she did not have any questions and that it looks like comments have been taken on board.
6	<u>Benthic Ecology</u> For benthic ecology, SK noted agreement on overall conclusions, and outlined the proposed approach. She asked if there were any questions. LN said that she had nothing to add, and that it looked like comments have been taken on board.
7	<u>Coastal Processes</u> SK outlined the approach to the coastal processes HRA. She noted that contaminated sediments are not expected to be an issue but the HRA will take account of survey data when this is reported. SK also noted that the 11 km screening distance would be re-visited once site-specific physical processes modelling had been completed. In relation to the 11 km screening range, JI said that it was important to look at how range varies from inshore to offshore. There were no further comments on coastal processes.
8	<u>Onshore Ecology</u> SK noted agreement on overall conclusions and outlined the approach to the onshore ecology HRA. She highlighted that the cable route selection process is ongoing, and that HRA as a process feeds into that route selection. AC noted that no onshore ecologist from NRW present and therefore NRW would not be able to provide comment at this meeting. JI asked about how the onshore/offshore split was being dealt with in the HRA, in relation to coastal habitats. SL clarified that onshore/offshore split is different depending on topic, but that generally, the offshore assessment considers areas seaward of MHWS, and the onshore assessment landward of MHWS. Where this differs on a topic by topic basis it will be made clear in the relevant documentation.
9	<u>Next Steps and AoB</u> SL said that a summary table of updated HRA screening conclusions would be provided by mid-December. Offshore ornithology is being discussed in a separate meeting (Friday 13 Nov). CP asked whether TWT will be receiving a copy of the table, or whether it was intended for NRW only. SL replied that all documents will be submitted to the whole ETG, even where there is a particular focus for one organisation or individual.

Agenda Item	Action	Who?	Due Date
1	Updated screening conclusions note to be submitted.	GoBe	Mid-December
2	Organise meeting to clarify Article 2 Annex 1 stuff or email discussion if meeting not required.	GoBe/AC	N/A
3	Share internal NRW HRA guidance, if available	AC	N/A



**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**MARINE ECOLOGY (FISH AND SHELLFISH ECOLOGY) ETG MEETING MINUTES– 30/11/2020**

<b>MEETING ORGANISER:</b>	RYAN MCMANUS		
<b>LOCATION:</b>	Microsoft Teams		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm (AyM)		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Adam Cooper	NRW	AC
	Ida Tavner	NRW	IT
	Alex Herbert	RWE	AH
	Phil New	GoBe	PN
	Ryan McManus	GoBe	RM
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Sean Leake	GoBe	
	Pete Gaches	GoBe	

<b>Documents provided:</b>	<b>Filename</b>
NRW comments on fish and shellfish baseline characterisation report	Fish and Shellfish Baseline NRW response

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><u>Introductions</u></p> <p>RM thanked all for taking the time to join the meeting, and for Natural Resource Wales' (NRW's) response to the fish and shellfish baseline characterisation report. He outlined that the aim of the meeting was to outline how NRW's minor comments would be addressed in the Preliminary Environmental Information Report (PEIR). He also introduced PN as the new GoBe fish and shellfish ecology technical lead on the project.</p>
<b>2</b>	<p><u>Discussion of NRW comments and plan for addressing them</u></p> <p>RM proposed that the comments be included within the consultation table of the fish and shellfish ecology PEIR chapter and addressed therein, rather than providing an updated version of the baseline report. He asked whether NRW were satisfied with that approach. AC said that it is up to the applicant to decide what information to present and when, but that the proposed approach seemed appropriate given the low level of comments on the document. RM then passed over the PN to run through the comments received one by one and outline the proposed approach.</p> <p>PN thanked NRW for the helpful feedback received. He said it was good to know that there was a high enough level of confidence in the available data to preclude further survey work.</p> <p>In response to the NRW advice on species of conservation importance, PN said that the 100 km screening buffer would be used for Habitats Regulations Assessment (HRA) purposes. This was welcomed by IT who said that this was an important point when considering</p>

	<p>mobile species with unknown migration routes in particular. PN also acknowledged that the salmon fishery statistics would be contextualised regionally as well as nationally.</p> <p>PN thanked NRW for their feedback on the rivers of primary importance, with Special Areas of Conservation (SACs) designated for shad and lamprey species being considered in the HRA.</p> <p>On NRW's comments on conservation fish Valued Ecological Receptors (VERs), PN acknowledged that Atlantic salmon and both lamprey species will be considered of international importance. Responding to NRW's comment on anecdotal evidence of salmon and sea trout migration patterns, PN said that this drew on information available for Gwynt y Môr (GyM), but would be elaborated upon in the AyM PEIR, drawing on further evidence from commercial fisheries consultation. He clarified that neither species would be scoped out of the assessment. RM added that consultation with commercial fishermen and anglers was ongoing and would be a valuable source of local knowledge, even if only anecdotal. RM also added that the assumption that salmon migrate east-west in and out of the Dee would form the worst-case assumption for that species, considering that individuals would need to cross the cable route and pass in close proximity south of the array. IT elaborated that she had read a [<i>unpublished</i>] report regarding drift net bycatch in the Republic of Ireland and its implications for salmon migration. Her concern was that some salmon may migrate north-south between the Dee and the area around the Isle of Man, potentially having greater interaction with the array. IT said that she could try and provide the report, although as it was never published it could not be used as substantive evidence in the assessment [<i>action item 1</i>]. PN replied that it would be helpful to see for context.</p> <p>PN acknowledged NRW's comment that the base of information available is sufficient to define the baseline, their distribution and use of habitat within the study area, and thanked NRW for their valuable local knowledge and input.</p>
3	<p><u>Next steps and AoB</u></p> <p>With no other business arising, RM thanked all for their engagement, outlining that there was no immediate need for a fish ecology meeting unless any matters arose from the next marine ecology Expert Topic Group (ETG) wide meeting in the new year. The next steps for fish ecology are to begin drafting the PEIR, where the feedback received from NRW will be incorporated.</p>

Action Item	Action	Who?	Due Date
1	Source (unpublished) report in drift netting bycatch as relates to salmon migration for information.	IT	By next ETG (TBC in new year)

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**MARINE ECOLOGY AND MARINE MAMMAL ETG MEETING MINUTES – 31 MARCH 2021, 1300 - 1500**

<b>MEETING ORGANISER:</b>	RWE		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Cristina Platt	Wildlife Trusts	CP
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Tim Mason	Subacoustech	TM
	David Lambkin	ABPmer	DL
	Adam Cooper	NRW	SC
	Katherine Borrowdale	NRW	KB
	Joanna Ibrahim	NRW	JI
	Ida Nielsen	NRW	IN
	Leyre V Nieva	NRW	NVL
	Ceri Morris	NRW	CM
	Emily Groves	NRW	EG
	Rachael Sinclair	SMRU	RS
	Sean Leake	GoBe	SL
	Ryan McManus	GoBe	RM
	Pete Gaches	GoBe	PG
	Flik Clark	GoBe	FC
	Lisa Curtis	GoBe	LC
	Phil New	GoBe	PN
	Claire Hinton	GoBe	CH
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Sammy Mullen	GoBe	
	Cormac Booth	SMRU	
	Anthony Brooks	ABPmer	
	John Cooper	RWE	
	Karen Algate	RWE	
	Helen Thomas	RWE	
	Mick Green	Whales	
	Joel Walley	Denbighshire	
	T Davey	Wildlife Trusts	
	Nia Jones	North Wales Wildlife Trusts	

<b>Documents provided:</b>	<b>Filename</b>
Presentation	AyM March 2021 Marine Ecology and Marine Mammals ETG.pdf
Water Framework Directive Assessment – Scoping Paper	0141_WFD_ScopingPaper_vFINAL

Agenda item	Minutes
1	<p><b><u>Introductions and aim of the meeting:</u></b></p> <p>RM opened the meeting and thanked everyone for their attendance, he then checked that all attendees had received the information packs prior to the meeting.</p> <p>RM informed everyone that the aims of the meeting were to: provide a general project update; update everyone on the baseline data collection; and inform everyone on the Maximum Design Scenario (MDS) principles for each technical topic. RM handed over to AH to give the project update.</p>
2	<p><b><u>Project Update:</u></b></p> <p>AH presented the project update slides. He noted that the onshore UK habitat surveys and landowner engagement are ongoing, the wintering bird surveys are coming to an end, and all offshore surveys are completed (benthic surveys, beach drone survey, geophysical surveys, aerial bird and marine mammal surveys and winter vessel traffic surveys).</p> <p>AH explained that the public consultation went well, given that it was the first entirely virtual consultation. RWE were pleased with the feedback about both the event and the AyM proposals.</p> <p>AH presented a figure showing the project, and gave a site selection update explaining:</p> <ul style="list-style-type: none"> <li>• The offshore export cable route has now been chosen, which includes a ‘donut’ in the cable corridor to retain some flexibility on crossing the Gwynt y Môr export cables (GyM); and</li> <li>• The site boundary had been reduced from the Area for Lease (AFL), this refined array area and WTG boundary was a reduction in the western extent of the array and was in response to feedback and consultation (mainly to reduce impacts on shipping and navigation (S&amp;N) and Seascape and Landscape and Visual impacts (SLVIA).</li> </ul> <p>AH asked if there were any questions so far? There were none.</p> <p>AH gave an update on the project programme noting that the Development Consent Order (DCO) and Marine Licence applications are now expected to be submitted in March 2022, and a decision is expected in 2023/2024, this would mean the Offshore Wind Farm (OWF) would be operational by 2030.</p> <p>AH asked if there were any questions? There were none. AH handed over to RM.</p>
3	<p><b><u>Design envelope approach</u></b></p> <p>RM explained the approach to the design envelope and that a ‘Rochdale envelope’ had been used. This was designed to ensure that flexibility was kept in the project to account for ‘known unknowns’ and uncertainties (such as changes in technology). This is an established approach in a number of National Policy Statements (NPS) and Planning Inspectorate (PINS) guidance (PINS advice Note 9).</p> <p>A Maximum Design Scenario (MDS) includes a range of technologies, tools and parameters and enables the assessment to be undertaken based on the worst-case impact.</p>

	<p>This allows conclusions to be applicable to any eventual built design and ensures that the worst-case impact of this design has been assessed. These designs and scenarios will be secured within the Conditions and Parameters within the DCO and Marine Licence.</p> <p>RM summarised that the MDS is recognised as an appropriate approach in planning, gives transparency in the consultation and assessment, and allows flexibility to be retained in the early stage of development. This allows the project to respond to unknown market factors and any environmental constraints.</p> <p>RM asked if there were any questions. There were none.</p>
4	<p><b><u>Cumulative effects approach</u></b></p> <p>RM noted that a Cumulative Effect Assessment (CEA) methodology and 'long-list' had been previously circulated in November 2020 to the Expert Topic Group (ETG) members and was currently being updated following the feedback received. RM explained that the CEA considers environmental effects resulting from Awel y Môr (AyM) additively with forthcoming plans, projects and activities. The CEA involves screening a 'long-list' of projects and plans based on a topic-by-topic basis. This is done by collating the most up to date publicly available information and updated at each stage of the assessment. This list is then used for each topic area in order to do the CEA.</p> <p>RM explained that the feedback on the CEA included the inclusion of:</p> <ul style="list-style-type: none"> <li>• Flagstaff (Mostyn tidal lagoon);</li> <li>• Greenlink interconnector;</li> <li>• Morlais tidal development;</li> <li>• Military of Defence (MoD) firing ranges; and</li> <li>• Round 4 and Valorous projects.</li> </ul> <p>RM noted that some of these projects have very limited data available as these are recent, however updates will be made as necessary throughout the assessment and another review of the long list and project information will be done before the final application/ Environmental Impact Assessment (EIA) which will be submitted around December 2021.</p> <p>RM explained that other comments on the CEA were based on the screening criteria, these comments have been taken on board. The long-list is very broad, but each individual topic will apply its own screening criteria based on the Zone of Influence (ZoI). This methodology will be explained in the PEIR chapter assessment methodology.</p> <p>RM asked if there were any questions? There were none. RM handed over to DL.</p>
5	<p><b><u>Physical Processes</u></b></p> <p>1. <b><u>Baseline update</u></b></p> <p>DL gave a summary of the baseline updates for physical processes. He explained that the geophysical surveys had been completed which informed the bathymetry, bedforms, seabed type and thickness of surficial sediments and geology. He explained that the metocean observations were also compiled which included 3 Acoustic Doppler Current Profiler (ADCPs) from GyM, 3 ADCPs from DC Welsh Water (DL identified these on a map to show there is a good spread of devices) and turbidity observations – these informed current speeds, water levels and wave action. Regional models have also been used to help inform the baseline (such as National Tidal and Sea Level Facility (NTLSF), British Oceanographic Data Centre</p>

(BODC), Wavenet, CCO etc...) and grab samples. DL explained that ABPmer were undertaking new empirical monitoring, including hydrodynamic models, sediment plume models and a wave model. Together these will provide a good understanding of baseline levels within the Red Line Boundary (RLB) and inform any changes over time.

JI asked if sheer stress at the bed level will be looked at? DL confirmed that this will be looked at through long-term current speeds and the effects on waves and noted that the tidal currents are very strong in the area. JI asked if this included looking at the wave heights. DL confirmed that wave heights were being looked at up to 1 in 50. JI asked if 1 in 100 would also be looked at? DL replied that there is very little difference between the 1 in 50 and the 1 in 100, but this would be checked.

DL ran through the extent of the models and explained that all models will be between 100 – 200 m resolution for the study area, include new and historical bathymetry data, validated regionally against locally measured data, and have a realistic description of local environment and design parameters.

## 2. Principles of the MDS

DL explained each potential impact that was to be assessed, and the relevant MDS principles that would inform the assessment.

DL summarised that:

- Sediment disturbance (from various activities including dredging, trenching and drilling) would be based on the highest rate of release for Suspended Sediment Concentrations (SSC) and the greatest total volume for deposition.

JI asked if sediment disturbance looked at sandwave clearance – DL confirmed that this was presented in another slide, but was included. JI asked for confirmation that sandwave clearance was being included in this assessment – DL confirmed this. JI asked if deposition would be within the same sediment cell – DL said this will be within the assessment. RM added that at the final application stage, a disposal site characterisation document would be produced, outlining the approach to licensing disposal sites, characterising the baseline and providing detail on the types and volumes of materials to be disposed of.

- Blockage to waves and currents (from the presence of foundations) would be based on the type, number and dimensions of foundations which presented the greatest total blockage and would include other OWFs in the area (as built);
- Landfall impacts would consider the type which caused the greatest direct and indirect change magnitude, extent and duration to the nearshore subtidal, intertidal and coastline (for example Horizontal Directional Drilling (HDD) or trenching etc)
- Scour, the greatest total scour would be based on the presence of foundations, the type, dimensions and number of foundations.

JI asked if the scour impact only included the Wind Turbine Generators (WTGs) or does it include cables too - DL confirmed that cables scour was being included and assessed. JI asked if there would be scour around the scour protection as well and would an empirical model be used to look at this - DL noted that a model would not be used but observations would be used to inform this. RM added that there were observations from the adjacent GyM OWF and these would be used to inform this.

DL presented sandwave clearance figures based on the use of a Controlled Flow Excavator (CFE) for 12 hours on a spring tide and explained them. He noted that the disturbance was very narrow and dissipated rapidly due to the small percentage of fines, percentage of gravel and the strong tides in the area. He noted that the figures show the SSC would settle 1 day

	<p>later. DL also presented the worst-case scenario of SSC at any time, which was narrow and limited spatially.</p> <p>DL presented another figure which showed the same SSC (from a CFE over 12 hours on a spring tide) in the middle of the Export Cable Corridor (ECC) and another in the nearshore area. He identified that they look bigger than the previous location due to the shallower waters at these locations.</p> <p>JI said that it was very interesting and looked forward to seeing it in detail. She asked if sandwave recovery had been looked at and asked how mobile sediment was in this area. DL said that they have all the necessary information to quantify sediment mobility and look at how bedforms move naturally, however these models do not look at the recoverability. JI asked how the recoverability of the actual bed would be assessed and noted that other sites have done lots of important assessments on this (such as Hornsea Project Three (HOW03) and Race Bank). DL acknowledged these assessments and noted that these assessments would be used to inform the assessment at AyM. PG confirmed that any available evidence would be used for this assessment, however the OWFs identified (HOW03 and Race Bank) undertook detailed assessments due to their habitat designations, and there were not these same habitat designations at AyM and therefore the same level of detail would not necessarily be used for the AyM assessment. DL thanked PG.</p> <p>3. <u>Next steps</u></p> <p>DL explained that the assessment is ongoing, and more technical annexes will be written which include the baseline, results and the model calibration (and validation).</p> <p>RM asked if there were any questions? There were none. RM handed over to CH.</p>
6	<p><b><u>Marine Water Sediment Quality Section</u></b></p> <p>1. <u>Baseline update</u></p> <p>CH explained that surveys have been completed and 10 samples were collected in the array. All were below Cefas Action Level 1, and one station (out in the western top of the array which is no longer being considered) was above the Threshold Effect Level (TEL) but below Probable Effect Level (PEL) for Polycyclic Aromatic Hydrocarbons (PAH). Eight samples were collected in the ECC, all samples were below Cefas Action Level 1 and all PAHs were below TEL level.</p> <p>2. <u>Principles of the MDS</u></p> <p>CH explained that the MDS principles have been considered in the assessment, for example the activities which have the greatest potential to disturb the greatest volume of sediment and/or displace most energetically into the water column are the Trailing Suction Hopper Dredger (TSHD).</p> <p>3. <u>Next steps</u></p> <p>CH noted the feedback which had been received from NRW and that the PEIR assessment had been aligned to incorporate the feedback.</p> <p>RM added that there was a Marine Water and Sediment Quality chapter and also a Water Framework Directive (WFD) assessment being undertaken separately (onshore and offshore).</p> <p>KB asked if the survey results would be available – RM confirmed that all of the data would be appended to the PEIR and asked if KB would like to see this before the submission? KB</p>

	<p>confirmed that she would like to see these results before responding to the WFD paper. RM noted that this would be actioned.</p> <p>CH explained that the WFD assessment will accompany the Marine Water and Sediment Quality chapter and will be submitted at PEIR.</p> <p>RM asked KB and EG if there were any further questions? There were none. RM handed over to LC.</p>
7	<p><b><u>Benthic Ecology</u></b></p> <p>1. <u>Baseline update</u></p> <p>LC explained that the baseline surveys are now completed and that the survey area had been broken down into three sections: Array, ECC and Landfall. LC presented each section of the survey and identified each of the biotopes which had been found during the surveys.</p> <p>LC explained that the western extent of the array was dominated by SS.SCS.CCS.PKef (<i>Protodorvillea kefersteini</i> and other polychaetes in impoverished circalittoral mixed gravelly sand). The east of the array has a higher sand content, mostly SS.SCS.CCS.Blan (<i>Branchiostoma lanceolatum</i> in circalittoral coarse sand with shell gravel) and the south of the array was classified as SS.SSa.IFiSa.NcirBat (<i>Nephtys cirrosa</i> and <i>Bathyporeia</i> spp. in infralittoral sand).</p> <p>LC explained that in the ECC, the habitats were more patchy (probably due to sediment mobility) and the majority were sandy sediments (SS.SCS.ICS, SS.SMx.IMx, SS.SSa.IFiSa.NcirBat and SS.SSa.IMuSa.FfabMag). The drop-down video (DDV) also found isolated patches of pebbles and boulders. No grab samples were done in the ECC, but some discrete patches of stony reef were identified. These were classified using the Irving (2009) classification for stony reefs. No other species or habitats of conservation importance were identified.</p> <p>LC explained that the intertidal section was characterised as muddy sands with small areas of coarser sediments (that had been exposed by wave action) and that communities were typical of those in a high to moderate energy environment but were colonised on man-made structures. There were no other species or habitats of conservation importance.</p> <p>2. <u>Principles of the MDS</u></p> <p>LC gave an overview of the MDS used in the benthic and intertidal impact assessments, in summary, temporary habitat loss is based on the scenario with the greatest disturbance (using the largest installation tools and Jack Up Vessel (JUV) footprints), the worst case increase in SSC is based on the use of CFE and the worst case for the spread of Marine Invasive Non-Native species (MINNS) is based on foundations with the largest surface area (gravity foundations), the largest quantities of scour protection and cable armouring and the most vessel movements.</p> <p>LC summarised that during the O&amp;M phase, MDS impacts were based on the largest amount of scour and cable protection, the greatest number of maintenance activities and the minimum separation distance between cables and receptors (on the assumption that cables will be buried to a maximum depth).</p>



	<p>LC asked if there were any questions. NL asked if impacts from accidental pollution were being considered. LC said that this was scoped out in the previous ETG meeting, but this will be checked. DM noted that this was being assessed in the marine water quality and sediment chapter. PN also noted that the fish and shellfish chapter had also scoped this out on the understanding that this was being mitigated with the use of the Project Environmental Management Plan (PEMP). SL confirmed that this was the case, and that the PEMP would include a Marine Pollution Contingency Plan (MPCP). SL noted that this approach had been confirmed and agreed during scoping. NL thanked everyone.</p> <p>3. <u>Next steps</u></p> <p>LC explained that the PEIR assessment is currently being undertaken, and that a technical baseline report will be appended to the PEIR chapter.</p> <p>RM asked if there were any questions? NL thanked LC for the thorough presentation for the baseline and explanation. RM handed over to TM.</p>
8	<p><b><u>Underwater noise</u></b></p> <p>1. <u>Baseline update</u></p> <p>TM gave an overview and explained that the baseline ambient noise was taken from Burbo Bank Extension (as this is close) and that underwater noise (UWN) was being modelled and will be included in the PEIR. If this assessment highlights that mitigation (for example bubble curtains) is required, this will also be modelled and included. TM noted that the standard metrics were to be used and were Southall <i>et al.</i> (2019) for marine mammals (including fleeing) and Popper <i>et al.</i> (2014) for fish (including stationary).</p> <p>2. <u>Principles of the MDS</u></p> <p>TM identified that the modelling was being done in the North West (close to the North Anglesey Marine SAC) and the South East (close to the Dee Estuary SAC) and the worst-case was based on monopiles and multi-leg piles at maximum hammer energy using potentially two installation vessels driving simultaneously (two monopiles and four pin piles in a day at each).</p> <p>3. <u>Next steps</u></p> <p>TM explained that the modelling of the worst-case scenarios has been undertaken for multi-leg and monopiles and that these were now with the marine mammal and fish specialists to inform their assessments. Low level continuous noise sources were also being included in the modelling (such as operational noise and vessel traffic). TM explained that UXO will be looked at using the same methods, however this is dependent on what (if any) is found in the area.</p> <p>CM asked if the use of bubble curtains will be made following the modelling and if there was anything else to note on this? RM noted that this was the worst-case assessment, and that mitigation will be considered following this worst-case assessment noting that RS will discuss this further in the marine mammal section.</p> <p>RM handed over to RS.</p>
9	<p><b><u>Marine Mammals</u></b></p>

## 1. Baseline update

RS explained that all the aerial surveys have been completed and were undertaken over 24 months (from March 2019 – February 2021). These identified harbour porpoise, unidentified dolphins, dolphins/porpoise and unidentified seals. RS noted that there were no sightings of minke whales identified. RS noted that grey seal habitat preference maps were now also available and would be used in the baseline and impact assessment, this showed that there were several seals in the area (RS also noted that more grey seals have been tagged in recent years). These maps will be used for the quantitative data assessment.

RS asked if there were any questions? There were none.

RS identified that there was a lack of dolphin data from Seawatch foundation, and it is known that bottlenose and Risso's dolphins use the area (and have appeared in other surveys). In order to approach this lack in data, other Seawatch data from the 'wider Cardigan Bay' will be used to inform this, on the assumptions that bottlenose dolphins are restricted to 6 km from the coast. If more data becomes available before the EIA stage, this will be used.

CM noted that the Seawatch data has been chased up and some photo ID has been requested, however there isn't a significant amount of data and any data may not necessarily relate to AyM. CM asked if RS has contacted Seawatch to get this data? RS noted that she hasn't, however Seawatch has previously stated that they will not share data due to SMRU being a competitor. CM understood and agreed with the proposed approach. CM also noted that she will chase up Seawatch data, however, if nothing came of this, she was happy with the approach.

RS stated that the species distribution reports still weren't available from the JNCC (with the exception of harbour porpoise) but once reports were available, they will be used to inform the assessment. CM asked if RS was chasing this with JNCC? RS noted that weekly emails were being sent to JNCC.

## 2. Principles of the MDS

RS thanked everyone for their feedback on the ADD mitigation note adding that NRW were happy with the approach. RS noted that a draft Marine Mammal Mitigation Protocol (MMMP) outline would be submitted at PEIR. Other comments asked if ADD noise would be looked at in the disturbance assessment. RS explained that the approach for the assessment looked at piling, and in comparison, ADD noise was small and lower and therefore was captured within the piling worst-case scenario.

RS noted that ADD would also be used for mitigation during UXO clearance, however currently there was an estimate of <10 UXO (based on GyM which only detonated three), however this was being licenced separately and therefore would be given full consideration under that licence.

RS asked if there were any questions on ADD usage? CM said she was happy with the ADD note and the inclusion of ADD at this stage. RM asked CP had any questions? CP noted that she was happy with this.

RS noted that the MDS for marine mammals for piling PTS disturbance is based on the worst-case hammer energy and the noise modelling is being used to inform this. RS added that other construction activities will use a semi quantitative assessment and will be informed by existing literature for the species.

	<p>RS noted that UXO PTS ranges will also use a semi-quantitative assessment and will be based on a range of UXO charge sizes using semi-empirical models to predict the PTS impact range and 26 km for disturbance ranges.</p> <p>RS identified that other construction impacts such as vessel collision, water quality and prey abundance would use a simple assessment and would be based on other assessments (such as physical processes, marine water and sediment quality and fish and shellfish).</p> <p>CM asked if the disturbance range for UXO would be based on charge sizes and subsequent monitoring and if the assessment would be based on updated information? RM noted that there was a study commissioned based on the type and number of UXO in the area. The conservative estimate of ten is to ensure that the worst-case is covered, however the UXO detonation will be licenced separately post-consent. PC confirmed this and noted that the licence assessment will use details based on specific devices and clearance methodologies. PG added that this would be undertaken prior to any construction activities and will include a MMMP and European Protected Species (EPS) licence, all of which will include a high-level specific assessment. CM confirmed she understood this approach and that the assumptions would be based on the GyM UXO. PG noted that this was conservative in preparation for a worst-case being undertaken, this ensures that the assessment is realistic and covers the worst-case even if it is extremely unlikely that this was the case. CM confirmed she was happy with this approach.</p> <p>3. <u>Next steps</u></p> <p>RS discussed the next steps and that the final baseline characterisation and assessment was ongoing. This assessment will trigger mitigation discussions such as bubble curtains and at source mitigation, but mitigation would only be used if the assessment identified that significant impacts would occur. The MMMP will be drafted and include different mitigation measures. RS added that a Report to Inform Appropriate Assessment (RIAA) would also be drafted by GoBe. RM confirmed this.</p> <p>RS asked if there were any questions? There were none.</p> <p>RS handed over to PN.</p>
10	<p><b><u>Fish and shellfish ecology update</u></b></p> <p>1. <u>Baseline update</u></p> <p>PN explained that the baseline characterisation was agreed last year in previous ETG meetings with NRW and was discussed in detail.</p> <p>2. <u>Principles of the MDS</u></p> <p>PN noted that Electromagnetic Fields (EMF) impacts and direct damage to disturbance has been scoped into the assessment now following the scoping opinions received from PINS and NRW. PN explained that MDS principles follow those used for benthic and mammals and use the maximum parameters for UWN.</p> <p>3. <u>Next steps</u></p> <p>PN explained that the PEIR chapter was being drafted, and the baseline characterisation report (as agreed) would be appended to the chapter. RM asked IN if she had any questions</p>

	on fish and shellfish at this stage, noting that although the update on fish and shellfish ecology was brief, hopefully the sections on physical processes and underwater noise provided helpful context. IN had no questions.
6	<p><b>AOB:</b></p> <p>SL asked attendees if it would be helpful to have another ETG meeting pre-PEIR publication in order to present the assessment outcomes ahead of publishing the PEIR documentation, or whether it would be best to wait until detailed review of the PEIR was complete in order to discuss feedback. AC said that he would take this away and confirm the most appropriate approach to the next ETG meeting.</p> <p>RM thanked everyone for attending and closed the meeting.</p>

Agenda Item	Action	Who?	Due Date
1	Minutes to be circulated.	GoBe	1 week (7 <sup>th</sup> April)
2	Marine water and sediment quality data to be shared with KB and EG.	GoBe	1 week (7 <sup>th</sup> April)
3	NRW water quality and WFD teams to provide feedback on WFD Scoping.	NRW	2 weeks (14 <sup>th</sup> April)
4	CM has an action to chase up data from Seawatch.	CM	2 weeks (14 <sup>th</sup> April)
5	AC to decide whether a pre-PEIR publication ETG meeting would be wanted to go over the assessment conclusions before NRW provide feedback on the statutory consultation, or if they would prefer to provide feedback first, and then have a follow up meeting in October to discuss the feedback.	AC	2 weeks (14 <sup>th</sup> April)

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**MARINE ECOLOGY AND MARINE MAMMAL ETG MEETING MINUTES– 02/11/2021**

<b>MEETING ORGANISER:</b>	GOBE CONSULTANTS		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	David Lambkin	ABPmer	DL
	Anna Luff	GoBe Consultants	AL
	David Honey	GoBe Consultants	DH
	Glenn Gillespie	GoBe Consultants	GG
	Pete Gaches	GoBe Consultants	PG
	Ryan McManus	GoBe Consultants	RM
	Sean Leake	GoBe Consultants	SL
	William Vasishta	GoBe Consultants	WV
	Adam Cooper	NRW	AC
	Eleanor Howlett	NRW	EH
	Holly Self	NRW	HS
	Ida Nielsen	NRW	IN
	Joanna Ibrahim	NRW	JI
	Leyre V. Nieva	NRW	LN
	Nicholas F. Martin	NRW	NM
	Alex Herbert	RWE	AH
	Rachael Sinclair	SMRU Consulting	RS
	Tim Manson	Subacoustech	TM
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Anthony Brooks	ABPmer	
	Joel Walley	DCC	
	Claire Hinton	GoBe Consultants	
	Sammy Mullan	GoBe Consultants	
	Kathryn Borrowdale	NRW	
	Lucie Haines	NRW	
	Nia Phillips	NRW	
	Paul Carter	NRW	
	Mick Green	WDC	
	Nia Jones	Wildlife Trust Wales	
	Christina Platt	The Wildlife Trusts	
	Tania Davey	The Wildlife Trusts	
<b>Documents provided:</b>	<b>Filename</b>		
Marine Ecology and Marine Mammals ETG	AYM November 2021 Marine Ecology and Marine Mammals ETG.pdf		

Agenda item	Minutes
1	<p><u>Introduction</u></p> <p>RM welcomed attendees and outlined the agenda of the meeting. RM noted the purpose of the meeting was to acknowledge and discuss the feedback received during statutory consultation on marine ecological matters (excluding HRA, noting a separate meeting is to be arranged towards the end of November in anticipation of receiving outstanding feedback from other stakeholders on the matter). RM highlighted that comments received had been very helpful, informative and clear, and the purpose of the meeting was to check our understanding and outline the proposed way forward in addressing those comments.</p> <p>Introductions of the participants were made, and the aims of the meeting were outlined. The Purpose of the meeting was to present the way forward and see if additional information is necessary</p>
2	<p><u>Project Update</u></p> <p>AH gave a quick run-through of the project to date, a refresher following the statutory consultation.</p> <p>AyM location: 11km north of Llandudno &amp; 10km off the Welsh coast in the Irish Sea. Total array area: 88km<sup>2</sup>. AyM is a Nationally Significant Infrastructure Project (NSIP) requiring a Development Consent Order (DCO) via UK Govt and a separate Marine Licence via Natural Resources Wales.</p> <p>Submission date for the ML and DCO moved from end of February to early spring.</p>
3	<p><u>Update following Statutory Consultation</u></p> <p>AH re-iterated that the statutory consultation ran from 31<sup>st</sup> August to 11<sup>th</sup> October 2021. As well as Section 42 feedback via email and letter, there was also virtual consultation for members of the public on the dedicated exhibition website. This was run for 6 weeks on the PEIR. During the statutory consultation period, there were approximately 3,500 unique visitors to the online exhibition as well as face to face with 900 members of public. Approximately 300 formal written and survey consultation responses (S42, S47) were received.</p> <p><i>Next Steps</i></p> <ul style="list-style-type: none"> <li>- To have regard to representations through internal review and Expert Topic Group meetings;</li> <li>- To prepare DCO/ML application docs for submission;</li> <li>- Refine the project design – seek best balance of benefits/impacts, final design freeze Q4 2021 / Q1 2022;</li> <li>- Consultation Report will show how we had regard to responses;</li> <li>- Ensure proposals are appropriately assessed in the ES that will accompany the final applications.</li> </ul>
4	<p><u>Programme to Submission</u></p>

Agenda item	Minutes
	<p>AH illustrated the project programme and where things stand. The indicative timeline can be found in the presentation document. AH noted the submission date for the ML and DCO moved from end of February to early spring.</p>
<b>EIA Technical Topics</b>	
5	<p><u>Physical Processes</u></p> <p>DL stated that the comments were large in number and majority taken away to update the document accordingly. JI agreed that the PEIR presented a thorough baseline.</p> <p><i>Long-term reduction in wave height</i></p> <p>In relation to potential changes to Constable Bank, Rhyl Flats and the adjacent coast, DL summarised that the model predicted small reductions in wave height at Constable Bank and Rhyl Flats that were directionally dependent, adding that the model predicted no measurable regional change to the current regime. Seabed sediment may be locally displaced but will not be removed from the local system. The baseline understanding is that net sediment transport to the coastline is driven by tidal currents, consistent with the numerical modelling. JI said it was important to note the heavily modified coastline, and therefore widespread effects were not likely, however there could be localised impacts at the coast. DL clarified that changes to the coast would be covered in the next slide. Further offshore, JI said that the scale of effect is largely dependent on water depths, and in shallow areas, there could be the potential for long term effects with implications for sandbank features. JI asked whether the model shows a net westward direction of sediment transport at the coast. JI noted that the mode was very detailed and it would be worth illustrating zoomed-in outputs on areas of the coast to show this. DL agreed that this would be presented in the ES. DL also suggested that a better description of currents and links of Constable Bank and Rhyl Flats in the baseline report could be added to provide context about how sediment transport pathways could affect the features and the coastline over the lifetime of the project. JI agreed that would be appropriate, adding that it is not expected that a long-term model should be developed.</p> <p><i>Nearshore cable protection</i></p> <p>DL stated that in the ES, it would be made more clear what cable protection options are being proposed for the nearshore area. DL started by clarifying the cable protection options:</p> <ul style="list-style-type: none"> <li>- Any above ground cable protection will be limited to below LAT;</li> <li>- Any cable protection required below LAT within 1,600m of high water will not consist of rock berms.</li> </ul> <p>DL asked if provision of that information in the ES would address NRW's concern. JI responded that low profile cable protection in the nearshore (e.g. mattressing) would be unlikely to have a morphological effect, and around the landfall within 1,600m this would be expected to be negligible. However, if larger rock berms were used in shallow areas inside the depth of closure, waves could still be affected. It was agreed that in the very nearshore, low profile cable protection would only have localised effects and it was appropriate to use expert judgement.</p>

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	<p>JI asked if the assumption was to leave any cable protection <i>in situ</i> after decommissioning or whether it would be removed. SL replied that the assumption is everything will be removed but a detailed decommissioning plan would be produced closer to the time.</p> <p><i>Dredging and disposal</i></p> <p>In relation to disposal of dredged material offshore, JI noted from the PEIR that approximately 10% of the passive spoil plume would be dispersed but asked about the 90% of dynamic plume that stays on the seabed. JI said that if deposited in a single location this could create a spoil mound, especially if the sediment had a high gravel content and asked about how persistent these would be. DL re-iterated that the dredging spoil would be consistent with the seabed type, but there is uncertainty about precise locations of deposition and agreed to provide more detail in a post-meeting note in the minutes.</p> <p>Post-meeting note: The PEIR considered (and the ES will consider) the effect of dredge spoil disposal on suspended sediment concentration and the resulting deposition thickness. It is noted that the potential dimensions of deposited spoil mounds (shape, height, extent) are variable (within an envelope of realistic combinations based on the total volume) and cannot be predicted with certainty in advance. To address the question raised by JI in this meeting, the potential effect of persistent mounds on local patterns of currents, waves and sediment transport will be considered in the ES. It is noted that the disposal of dredged material from seabed preparation and sandwave clearance is likely to be a rolling activity across the order limits rather than a series of discrete disposal events, and therefore is not likely to result in a series of mounds. A dredging and disposal site characterisation document will also accompany the final application.</p>
6	<p><u>Marine Water and Sediment Quality/WFD</u></p> <p>DH summarised the key comments on the marine water and sediment quality PEIR and the WFD assessment. He noted that works may need signposting to manage concerns with WFD issues regarding bathing waters.</p> <p><i>Project Environmental Management Plan (PEMP)</i></p> <p>DH stated that the project plans to provide a final PEMP post-consent but do not see it as advantageous to create an outline PEMP at the point of application as it would be based on outline information. For the final PEMP, NRW would have the opportunity to review the detailed design proposals and give sign off prior to construction. AC clarified that NRW agree with this approach in principle as they would need to see a full PEMP post-consent, but the detail would not be necessary in order to reach agreement on assessment conclusions.</p> <p><i>Marine Lake Bathing Water (BW)</i></p> <p>DH described the background of the Marine Lake BW, its position and relation to the marine environment. EH stated that Marine Lake is connected by tidal gates and therefore it would be best to include the timescales of operation for the tidal gates in the ES so that any potential interaction with the AyM works would be better understood. However, EH agreed that it is not expected to be a high risk. DH suggested adding wording to highlight the short term (transient) increase of bacterial concentrations will have a low risk to Bathing Waters. Meeting to be set up between DH and the water policy group for Bathing Waters. EH agreed that after the onshore hydrology ETG (scheduled for 05/11/21) it would be a good idea to</p>



Agenda item	Minutes
	<p>set up a meeting with the onshore and offshore advisors specifically on WFD matters [Action point 2].</p> <p><i>Bentonite</i></p> <p>DH stated that further information on the release of bentonite would be given in the ES, and asked NRW to confirm if the concern was related to short term increases in bacteria. EH confirmed this to be the case.</p> <p>DH asked if NRW could provide the revised OGN-72 and confirm when the revised River Basin Management Plan (RBMP) would be published. NRW could not confirm exactly when the updated RBMP would be published but it is expected in early 2022. NRW took an action to provide the revised OGN-72 to GoBe [Action Point 3].</p>
	<p><u>Benthic Ecology</u></p> <p>SL summarised the comments on the benthic ecology assessment as being positive overall, noting NRW were broadly happy with the assessment.</p> <p>LN stated that overall she was happy with the level of detail provided in the assessment and its conclusions. No major comments were raised in review but it was suggested that linkages, particularly between the physical processes and WFD assessments and the benthic chapter could be made more clear in terms of the datasets referred to, and illustrations of interactions with designated habitats should be included where relevant. SL agreed and added that a full map of the collated data sources will be included in the ES.</p>
	<p><u>Underwater Noise</u></p> <p>TM summarised the feedback received on the underwater noise report in the PEIR.</p> <p><i>Swim speeds</i></p> <p>Concerns were raised over the accuracy of the swim speed for fish and marine mammals and whether these speeds were accurate in terms of being sustained over long distances. TM clarified that for fish, receptors have been modelled as both fleeing and static receptors to give a range of outcomes in which the actual scenario may occur. NRW requested clarification is needed as to how the fleeing receptor is considered and in which situations it should be used. TM said that this would be contextualised on the underwater noise report in the ES.</p> <p><i>Fish</i></p> <p>TM explained that the 1.5m/s speed is mostly important at the beginning of piling before fish have the opportunity to flee in any direction, the further the animal flees the less critical the flee speed becomes as the sound is quieter. Therefore, the subsequent piles have lessening effect as they are already far enough away so exposure is minimal. IN agreed that somewhere in between the static and fleeing scenarios is where the realistic scenario is likely to fall. IN requested that in the ES chapter it should be made clear where receptors are treated as stationary vs. fleeing, particularly for some spawning receptors, as they are better treated as mostly static.</p> <p><i>Marine Mammals</i></p>

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	<p>TM stated that the assumption for marine mammals is similar to fish but the speed is assumed to be faster. NRW had suggested in their response that 3.25m/s for LF cetaceans and 1.5 m/s for others is too fast. The speeds are still plausible or lower than would be expected under stress and other studies show that cetaceans can move much faster, and using cruising or ambient speeds would lead to an overestimate of the exposure. HS: agreed that receptors will start faster and slow over time and it would be helpful to have all the details laid out (such as peak flee speed etc.) and suggested it should be very clear in evidence how clear the estimate is over such long periods of time. RS agreed that there is not much evidence on sustained fleeing speeds over longer duration and more context can definitely be added to provide information on why these are considered conservative. HS said that additional context would help and with that data there is a possibility that it could potentially be agreed but this is dependent on the content of the revised documents.</p> <p><i>Simultaneous piling</i></p> <p>NRW expressed concerns about simultaneous piling, considering that the NW/NE corners could be worst case for simultaneous piling since the NE location is in deeper water than the SE location modelled. NRW agreed that the NW and SE locations modelled are representative of the range of site conditions in terms of the single location piling model. NRW requested further justification on the likely concurrent piling scenarios should be added through agreement with the engineers if NW and NE piling is an unrealistic worst case. If sufficient evidence to support the position that the NW and SE locations are in fact the worst case scenario for concurrent piling can be provided then the NRW's position on the matter can be reassessed. HS added that NRW need to be sure of worst case and the need for it to be conditioned or secured in some way and clarifications should be added into revisions in the underwater noise report for clarity.</p>
	<p><u>Fish and Shellfish Ecology</u></p> <p>AL summarised the feedback received on the fish and shellfish assessment in the PEIR, stating that the feedback will be taken on board as the ES chapter and baseline report are updated for the final applications.</p> <p><i>VER approach</i></p> <p>AL acknowledged that the VERs described in the baseline report could be made more clear in the chapter assessment, and confirmed that for the ES, the chapter would be re-structured to make the assessment conclusions for each identified VER clearer.</p> <p><i>Sensitivity weightings</i></p> <p>AL noted NRW's comment requesting further reasoning on how the sensitivity weighting for receptors had been done and said that a clarification note would be provided in due course containing those justifications [Action point 4]. IN replied that using a sensitivity weightings approach seems a pragmatic solution, but more clarity on how it had been done was needed.</p> <p><i>Spawning potential</i></p> <p>NRW expressed concerns about the qualitative impact assessment on spawning grounds. To address this comment, NRW will need to see the context of what is considered to be the total spawning areas, making specific reference to the spawning areas information provided in the baseline report and how this relates to the calculated spawning loss</p>

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	<p>potential to ensure that the effect will be negligible. GoBe took an action to provide clarification note on fish spawning potential calculations [Action point 5].</p> <p><i>HDD impacts on migratory salmon</i></p> <p>AL noted NRW's comment on HDD vibration impacts under the River Clwyd and the potential for effects on migratory salmon. IN confirmed that this issue was raised by the onshore ecology team and added that she did not consider HDD was likely to be an issue for migratory salmon.</p> <p>IN asked if the intention was for the project to provide a point-by-point response to the comments raised and issue this at some point prior to or at application. RM responded that all queries that affect chapters will be included in the relevant consultation section, and an annex to the consultation report will be provided with all comments and applicant responses at the point of application. If requested, a separate note addressing the comments specific to fish could be provided sooner.</p>
	<p><u>Marine Mammals</u></p> <p><i>Baseline</i></p> <p>Since the PEIR was published, data obtained from Sea Watch has been received and can now be added into the baseline. In light of that data, RS confirmed that the bottlenose dolphin densities would be revised and common dolphin would now be screened into the assessment. However, RS noted that the Sea Watch data do not present density estimates and Lohrengel et al (2018) and SCANS III remains the best available source to be used for bottlenose dolphins, and that SCANS II is the only estimate for common dolphins. HS agreed that if density estimates were not provided then using the SCANS III estimates for common dolphin seems pragmatic, but sight of a full common dolphin baseline chapter, in line with the approach for other species, would be required before this can be agreed. SMRU took an action to provide an updated marine mammal baseline report ahead of application [Action point 6].</p> <p><i>PTS sensitivity</i></p> <p>RS noted NRW's concerns on the assessment of PTS and confirmed more detail will be provided in a clarification note [Action point 7], specifically providing results from the expert elicitation. Greater reference will be provided in the clarification note, and subsequently the assessment chapter, to aid in translation of the elicitation through to sensitivity in the context of the EIA.</p> <p><i>UXO assessment</i></p> <p>RS stated that NRW's query on the use of the 26 km Effective Deterrent Radius (EDR) of disturbance from UXO is understandable as not much is known. NRW suggested a method similar to a dose response method could be applied but SMRU do not agree this to be appropriate. RS suggested that instead, three different approaches will be presented (EDR, TTS as a proxy for disturbance and the Lucke et al 2009 thresholds). HS replied that the approach of presenting the options in context and then choosing the most appropriate one to take forward seems pragmatic. NM asked if using a method based on Soloway &amp; Dahl (2014) could be considered. RS replied that this has been used for PTS but not disturbance. RM highlighted that UXO risk for this area in general is low, and though the assessment clearly needs to be based on a worst-case, it is not anticipated that a large number of</p>

Agenda item	Minutes
	<p>detonations will be required. HS said that receiving information on the intended approach to assessments prior to application is easier to feedback on than receiving it all at the application stage. In response, SMRU took an action to provide a clarification note on approach to UXO assessment [Action point 8].</p> <p><i>MMMP</i></p> <p>In response to NRW comments on the outline MMMP, RS stated that it is difficult to provide tailored measures at this stage as the final design details are not yet known, and will not be known until post-consent. However, RS said that the outline MMMP will be updated for the ES and asked what should be included. HS replied that one of the main concerns is lack of certainty over the use of ADDs if there are potentially unmitigated zones, and the lack of noise abatement or Passive Acoustic Monitoring from the list of options. AC and HS agreed that there are many unknowns at this stage and an outline of options is appropriate, however the outline MMMP should be fleshed out to include ADD effective ranges, alongside other detail in line with the JNCC piling guidance to aid in the suitability of the MMMP to be considered mitigation for the purposes of assessment.</p> <p>HS added that it is appropriate to have a list of options that can then be narrowed down and detailed post-consent. HS said it would be useful for the applicant to circulate another outline MMMP draft before application so that NRW can be comfortable in its approach. SMRU took an action to provide an updated outline MMMP prior to application [Action point 9].</p> <p>RS stated that the outline MMMP would be revised such that it considers instantaneous PTS-onset only, and not cumulative PTS-onset due to the over-precautions in the modelling. Details on the over-precaution and the reasoning for not mitigating predicted cumulative PTS will be included in the revised outline MMMP [within Action point 9].</p> <p><i>Vessel codes</i></p> <p>Finally, RS touched on the NRW feedback on marine mammal vessel codes, asking what codes would be acceptable and how would these vessel codes be secured. HS replied that no specific list of codes is suggested as there are many that could apply, such as those from dolphin watching vessels and other best practice guidance, with an emphasis on low, standard speeds and direction. HS said it would be appropriate for these to be secured within the Schedule of Mitigation. AC agreed and RS clarified that these would be included in the ES.</p>
	<p><u>Next Steps</u></p> <p>RM briefly stated that the applicant would continue to review feedback and updated the assessments for the ES to accompany the final application.</p> <p>An ETG meeting specifically on HRA matters would be arranged for towards the End of November [Action point 10].</p>

Agenda Item	Action	Who?	Due Date
1	Minutes to be circulated for agreement within 1 week.	GoBe (RM)	08/11/21
2	Arrange meeting on WFD matters separately, bringing in all NRW advisors. To be discussed at the onshore hydrology ETG meeting 05/11.	GoBe (RM)	TBC
3	Forward revised OGN-72 to RWE/GoBe.	NRW	TBC
4	Clarification note to be provided containing group 3 fish sensitivity approach.	GoBe (AL)	TBC
5	Clarification note to be provided on fish spawning potential calculations.	GoBe (AL)	TBC
6	Provide updated marine mammal baseline report prior to application.	SMRU	TBC
7	Provide clarification note on marine mammal PTS sensitivity.	SMRU	TBC
8	Provide clarification note on approach to UXO assessment.	SMRU	TBC
9	Provide updated MMMP prior to application – with justification for not mitigating cumulative PTS-onset.	SMRU	TBC
10	HRA-specific ETG meeting to be arranged.	GoBe (SL)	TBC

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**WATER FRAMEWORK DIRECTIVE ETG MEETING MINUTES – 01/12/2021**

<b>MEETING ORGANISER:</b>	GOBE CONSULTANTS		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Adam Cooper	NRW	AC
	Christopher Jones	NRW	CJ
	Eleanor Howlett (marine water quality specialist)	NRW	EH
	Lucie Haines (WFD technical specialist (marine))	NRW	LH
	Helen Millband (WFD technical specialist Freshwater)	NRW	HM
	Tom Lewis (WFD Water Quality and Bathing Water lead)	NRW	TL
	Alex Herbert	RWE	AH
	David Honey	GoBe Consultants	DH
	Sean Leake	GoBe Consultants	SL
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Ryan McManus	GoBe Consultants	

<b>Documents provided:</b>	<b>Filename</b>
presentation	AYM Dec 2021 WFD ETG.pdf

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><u>Introduction</u></p> <p>SL provided an introduction to the ETG session, noting the focus to be specifically on the Water Framework Directive (WFD) compliance assessment, feedback received, and next steps. SL invited all attendees to provide a brief introduction including role and affiliation.</p>
<b>2</b>	<p>AH provided a project update, noting that most attendees had seen the update previously and as such the update would be brief, but any questions welcome.</p> <p>AH noted that as a NSIP project, the project design/envelope included flexibility for the array design, with a range of turbine options possible. AH noted the project had reduced in scale between the scoping phase and PEIR design phase, removing a section of the westerly extremity of the proposed boundary area.</p> <p>AH went on to note that extensive consultation had taken place, using a hybrid approach of online and face-to-face opportunities, the result of which was a successful consultation phase, with positive public feedback overall.</p>

	<p>AH provided an overview of the next steps, which are focusing on incorporation of the received feedback into the final application, including introducing design changes where feasible, and having regard to all feedback.</p> <p>SL went on to note that agreement logs would be circulated in due course, seeking to capture agreement on the key building blocks of the assessment, including policy, methodology, baseline environmental description, and where feasible agree the conclusions. In summary SL noted that the agreement log would form the precis for the Statement of Common Ground process.</p>
3	<p>DH provided an introductory summary of progress to date, noting that:</p> <ul style="list-style-type: none"> <li>- The WFD compliance assessment combines standalone information with signposting to information in the environmental statement chapters.</li> <li>- The WFD compliance assessment identifies clear effect-receptor pathways according to WFD parameters.</li> <li>- The WFD compliance assessment considers appropriate WFD scales, with water bodies identified, through reference to River Basin Management Plans and both designated and non-designated river bodies.</li> <li>- DH noted that we consider all sources to be appropriate and agreed with ETG members.</li> </ul> <p>DH then went on to note that the s42/PEIR feedback focussed on a few key areas:</p> <ul style="list-style-type: none"> <li>- Bathing waters assessment and inclusion of Marine Lake, Rhyl;</li> <li>- Low contaminant concentrations in sediments and disturbance unlikely to present an issue;</li> <li>- Predicted suspended sediment concentrations (SSCs) require clarification;</li> <li>- Inclusion of The Dee Estuary SAC and higher sensitivity habitats into WFD compliance assessment;</li> <li>- Cumulative and in-combination effects assessment to focus on WFD water bodies; and</li> <li>- Input of sediment from freshwater sources, non-reportable water bodies or marine project activities.</li> </ul> <p>DH noted that Marine Lake Rhyl would be scoped in to the next iteration of the assessment, and asked for clarification with regards the reference to abnormal situations, suggesting specifically that greater referencing between the physical process chapter and the WFD compliance assessment would identify the potential increases in SSC.</p> <p>EH noted that the time of year for works will be a concern, with increased SSC possibly impeding the destruction of bacteria by sunlight. EH went on to note that further signposting and contextualisation of the plume extent and longevity would aid in addressing the concern. DH confirmed that the temporal and spatial extent of the nearshore plumes will be addressed.</p> <p>EH requested that the frequency of increased SSC would also aid in contextualising the impact. DH confirmed that plume modelling outputs would be included in the WFD compliance assessment, for the BWs in particular <b>ACTION</b>.</p> <p>HM asked if there would be parallel works onshore and at landfall. SL confirmed that, whilst the work would be generally sequential, some parallel working would occur.</p>

	<p>TL noted that the beaches at landfall could be quite muddy, which would need to be considered in the context of the bathing waters, if released. TL also noted that understanding bacterial levels in advance of construction would help manage the risk, in particular the risk for Prestatyn beach which is a Blue Flag beach. SL responded to suggest that bacterial levels could be captured post-consent/pre-construction to help inform the final design. TL confirmed that this would need to be considered alongside the other permits and processes.</p> <p>DH asked for confirmation and clarification with regards the risks at Marine Lake Rhyl, as whilst a potential interaction could be included in the assessment, the likelihood of meaningful interaction would be very limited. EH responded to note that the request to include it in the assessment was on the basis of the early draft assessment scoping it out as 'no connectivity', which is not correct. TL responded, confirming that interaction would be possible, if sediment enters the river, which could be considered simply; TL also noted that both Marine Lake and Rhyl BWs are 'sufficient' and as such could be considered sensitive. DH noted the limited connectivity could be managed and will be included in the assessment. SL also noted that interaction could be managed through appropriate communications, which were secured in the outline Code of Construction Practice. DH went on to note that suspended sediment modelling would be signposted and presented with greater clarity. DH also noted that the following would be considered in greater detail:</p> <ul style="list-style-type: none"> <li>• Risk of contaminated sediment from freshwater</li> <li>• Cumulative assessment phraseology to be more focussed on WFD rather than EIA</li> </ul> <p>LH asked for:</p> <ul style="list-style-type: none"> <li>• modelling outputs during the construction and O&amp;M phases to be presented as overlays on the WFD water body data <b>ACTION send example output</b></li> <li>• Highlight main sensitive receptors in the context of the plume overlays</li> </ul>
4	<p><u>Next Steps</u></p> <p>DH asked for OGN72 updates to be provided – <b>ACTION with AC</b> DH asked if there were any updated timescales for the RBMP</p>

Agenda Item	Action	Who?	Due Date
1	Plume modelling outputs would be included in the WFD compliance assessment, for the BWs in particular <b>ACTION</b>	DH	21/12/21
2	Send example output of plume model and BWs/Water Bodies	DH/GoBe	21/12/21
3	OGN72 updates to be provided	AC	21/12/21



**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**HRA ETG – MEETING MINUTES – 09/03/2022 – DRAFT**

<b>MEETING ORGANISER:</b>	SEAN LEAKE (GOBE CONSULTANTS)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Adam Cooper	NRW	AC
	Nicholas F Martin	NRW	NM
	Matthew Murphy	NRW	MM
	Nia Phillips	NRW	NP
	Holly Self	NRW	HS
	Richard Facey	NRW	RF
	Alex Herbert	RWE	AH
	Pete Gaches	GoBe Consultants	PG
	Sean Leake	GoBe Consultants	SL
	Glen Gillespie	GoBe Consultants	GG
	Laura Goodhead	GoBe Consultants	LG
	Kimberley Lloyd	GoBe Consultants	KL
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Fraser Carter	GoBe Consultants	
	Ryan M	GoBe Consultants	
	Rachael Sinclair	SMRU Consulting	

<b>Documents provided:</b>	<b>Filename</b>
PowerPoint presentation	AyM ETG Presentation HRA 29/03/22

<b>Agenda item</b>	<b>Minutes</b>
1	<p><b>Introductions</b></p> <p>SL thanked all for attending and outlined the agenda for the meeting. Everyone gave brief introductions to themselves, their organisation and their role on the AyM project.</p> <p>The agenda included the following items:</p> <ul style="list-style-type: none"> <li>- Reminder of the refined project design envelope for application</li> <li>- Summary of conclusions of the RIAA</li> <li>- Ornithology in-combination assessment – Erebus</li> <li>- Marine mammal assessment – Mitigation</li> </ul>
2	<p><b>Project boundary and Rochdale Envelope update</b></p> <p>SL provided an overview of how the project boundaries had developed since scoping as the project defines its boundaries for the ES and DCO application in March 2022. SL noted that the project had reduced significantly since scoping and PEIR, both in terms of area and number of turbines.</p> <p>SL presented the ES boundary, noting that the project had reduced in terms of:</p>

Agenda item	Minutes
	<ul style="list-style-type: none"> <li>- Number of turbines: from 107 at scoping, to 48 large/91 small at PEIR, to 34 large/50 small at ES - a 45% reduction from PEIR (53% from scoping design).</li> <li>- Max blade tip height above MHWS: Smaller turbines have increased in size from 252 m tip height to 282 m. The larger turbines have remained the same, with a 332 m tip height.</li> <li>- Minimum lower blade tip above MHWS: Has had no change, 22 m.</li> <li>- Maximum project area (km<sup>2</sup>): from 106 km<sup>2</sup> at scoping, to 88 km<sup>2</sup> at PEIR, to 78 km<sup>2</sup> at ES; 11% reduction from PEIR (26% from scoping design).</li> <li>- The final application will have an area of 78 km<sup>2</sup> and between 34 and 50 turbines depending on whether they have tip heights of 282 m or 332 m.</li> </ul>
3	<p><b>Summary of Report to Inform the Appropriate Assessment (RIAA) Conclusions</b></p> <p>GG presented conclusions for the RIAA for the following topics:</p> <p><i>Benthic Ecology</i></p> <ul style="list-style-type: none"> <li>- Assessment considered the Menai Strait &amp; Conwy Bay SAC, as well as supporting habitats of the Liverpool Bay SPA &amp; Dee Estuary SAC, SPA and Ramsar.</li> <li>- The Assessment concluded that there would be no Adverse Effect on Integrity (AEol), alone or in-combination on any of these sites or supporting habitats.</li> </ul> <p><i>Migratory fish</i></p> <ul style="list-style-type: none"> <li>- Assessment considered the Dee Estuary SAC and the River Dee &amp; Bala Lake SAC.</li> <li>- The assessment concluded that there would be no AEol, alone or in-combination.</li> </ul> <p><i>Onshore Ecology</i></p> <ul style="list-style-type: none"> <li>- No sites were screened in for assessment. Therefore, on the basis of no LSE, the assessment did not consider the potential for AEol, alone or in-combination.</li> </ul> <p>SL stated that NRW has yet to see the revised RIAA that supports the final application but inquired as to whether these conclusions are consistent with their project understanding. AC has no concerns or did not raise any questions about the summaries presented, but did note that in the absence of seeing the revised RIAA and in the absence of some technical specialist attendance, that NRW could not confirm the conclusions as presented.</p> <p><b>Offshore ornithology</b></p> <p>GG reported that there have been numerous updates and exchanges regarding offshore ornithology since the last 42 consultation. GG stated that all suggested sites have been screened into the final RIAA, including assemblage features and all assessments have been updated and based on the full 24 months of aerial survey data.</p> <p>GG stated there has been an addition of mitigation for vessel disturbance to the red-throated diver species, which could be secured via a vessel traffic management plan (or similar), including:</p> <ul style="list-style-type: none"> <li>- Restriction of vessel movements to particular routes;</li> <li>- Selection of routes that avoid known aggregations of birds;</li> <li>- Maintaining direct transit routes;</li> <li>- Avoidance of over-revving of engines;</li> <li>- Crew briefings on vessel management practices (such as toolbox talks).</li> </ul> <p>SL added that the vessel traffic management plan commitment will be captured in three places: first, it will be referred to in the specific technical chapter, second, in the schedule of mitigation, which is a stand-alone document, and finally, within a document called other licences and requirements, which has a standalone annex to it that has the principle marine</p>

Agenda item	Minutes
	<p>licence conditions; thus providing confidence that it is secured in the application but additionally means the information can be put forward to the NRW marine licencing team without compromising a potential marine licence in the future, as with the Marine Mammal Mitigation Protocol (MMMP).</p> <p>GG noted that the alone and in-combination assessments have been updated to include all species with an impact contribution of &gt;0 individuals. GG explained the red-throated diver disturbance/displacement assessment has been updated to incorporate the gradient approach out to 8 km. Additionally, the in-combination assessment has been updated to include the Morlais tidal energy scheme (as consented).</p> <p><i>ES considerations</i></p> <p>GG stated the Migratory Collision Risk Modelling (CRM) has been undertaken and will be presented as an annex to the ES. The population viability assessment has been undertaken for Greater Black-backed Gull and will be presented as an annex to the ES. Additionally, displacement analysis has been undertaken for Manx shearwater.</p> <p><i>Erebus in-combination</i></p> <p>GG noted the Erebus application was submitted in December 2021 and has been included in the in-combination assessment. GG stated that anomalies have been identified in the Erebus CRM, including issues with site-specific flight height estimates and the use of Band Option 1. Both of these factors introduce a high level of uncertainty with respect to the output values provided in the Erebus ES. Therefore, the AyM cumulative and in-combination assessment has considered the Band Option 2 values that were presented, but not assessed, in the Erebus ES. Because AyM has apportioned to sites close to Erebus (e.g. Skomer, Skokholm and Seas Off Pembrokeshire), there are potential in-combination issues, though AyM's contribution to those impacts overall is small in comparison to impacts from Erebus.</p> <p>LG concluded that Erebus used Band Option 1 for the assessment, which relied on an unpublished paper for how flight height data is calculated and is not an agreed upon method for Offshore Windfarm (OWF) projects. Thus, the AyM assessment took the approach of using Band Option 2 values that were presented in the Erebus CRM report, then calculate using the apportioning weighting that is also presented in the Erebus ES to apportion the Band Option 2 impacts to, for example, Skomer SPA and other SPAs that are within the range of Erebus.</p> <p>MM confirmed that this technique has not been proved accurate and therefore option 2 should be used for the assessment.</p> <p>PG asked, while acknowledging that NRW had not yet seen the final application or completed the Erebus process, if there were any Erebus outcomes that we should be aware of, regarding HRA stages 3 and 4.</p> <p>MM responded that NRW has not yet responded to Erebus and is unable to give a definite answer to this question; however, AyM has used option 2 which is the most appropriate way to look at the data.</p> <p>GG stated the RIAA concludes that there will be no AEoI for any of the sites and features screened in, either alone or in-combination.</p>

Agenda item	Minutes
	<p>GG asked if there were any remaining questions on the topic of ornithology.</p> <p>MM highlighted that the remaining consideration of the Liverpool Bay SPA and displacement of red throated divers; whilst the displacement assessment has been updated to incorporate the gradient approach out to 8 km, there needs to be strong evidence to show there is no loss of habitat, further evidence to prove the species are still within the GyM and its buffer areas (pre and post construction) would provide a stronger case, as there has been evidence of displacement in other OWF projects with more densely populated areas of the species.</p> <p>SL responded that APEM has included as much information as possible in the HRA, and while it is difficult to provide statistical strength due to the species' low abundance, they have presented the data in survey output format to show the species are present in the GyM area and immediate environment. SL appreciated the feedback and will take this into consideration and make the narrative for this as strong as possible; as long as the data is highlighted as a qualitative analysis, we will maximise the information, as it is very much site specific, and while other OWF in the NW have shown displacement, there has been limited displacement in GyM and similarly the Thanet extension, so we will emphasise the importance of site specific data.</p> <p>MM agreed that further evidence even figures/qualitative analysis could be presented alongside other evidence to support the approach.</p> <p>SL agreed and confirmed that they will include this in the final RIAA and ensure that this narrative and survey data is included as much as possible throughout.</p>
	<p><b>Marine mammals – updates</b></p> <p>GG summarised the marine mammal updates as below:</p> <ul style="list-style-type: none"> <li>- Post-PEIR engagement has been undertaken on the Outline MMMP, which now includes specific reference to noise abatement measures as part of the suite of options available.</li> <li>- It was noted that NRW disagreed with the EDR approach, but JNCC are content. Therefore, a range of disturbance assessment methods have been included</li> <li>- Specific reference has been made to vessel management protocols to minimise the risk of vessel disturbance.</li> <li>- Further information has been provided on cumulative PTS-onset, with alternative approaches presented for context in the quantitative assumptions annex, the marine mammals ES chapter, the RIAA and Outline MMMP.</li> </ul> <p><i>Outline MMMP</i></p> <p>GG updated in terms of the MMMP; detail on the precaution in the assessment of cumulative PTS-onset has been provided in the quantitative assumptions annex that will be submitted with the application. Based on that information, AyM do not consider it necessary to commit to mitigating cumulative PTS. However, it is acknowledged that the Outline MMMP is in draft form and understanding of this topic will continue to evolve prior to the finalisation of the MMMP post-consent. GG concluded that the final MMMP will be aligned with the evidence available at the time of finalisation regarding cumulative PTS-onset.</p> <p>HS asked if the PTS assumptions annex has been updated in consideration of the general and technical comments NRW have provided on the method for assessing cumulative PTS. SL confirmed the qualitative assumptions annex, the marine mammals ES chapter, the RIAA and the Outline MMMP have all been updated in response to NRW feedback.</p>

Agenda item	Minutes
	<p>HS stated that, while NRW is still hesitant to use the EDR approach due to uncertainties, they have no objection to including a variety of disturbance assessment methods to cover all bases, as long as there is additional information to supplement the assessment. HS inquired if there would be any additional meetings with JNCC.</p> <p>SL responded that the purpose of today's meeting was to discuss matters with NRW as lead SNCB and there would be no further discussions with JNCC; however, their feedback and actions from recent meetings have been taken forward and incorporated into the MMMP and cumulative PTS aspects.</p> <p>GG concluded that the RIAA concluded that there would be no AEoI in terms of marine mammals, either alone or in-combination.</p> <p>HS asked what final approach has been taken in assessing cumulative noise impacts.</p> <p>SL responded that the approach taken has been to demonstrate how effective further mitigation measures would be in the context of PTS injury thresholds for <math>SPL_{peak}</math> and <math>SEL_{cum}</math>. Throughout the ES, information is provided to demonstrate that if cumulative SEL is at the threshold to cause PTS then that needs to be managed at the time of construction, and mechanisms are in place to manage that. No specific noise abatement method has been established; however, the worst-case scenario has been evaluated, and noise abatement can correct this. The reason AyM have not provided a specific form of noise abatement is due to the fact that there is still opportunity to apply good design and further mitigation dependant on the final designs and technology.</p> <p>HS inquired whether it is correct that the option to mitigate cumulative noise remains open in the event of a worst-case scenario, but that the realistic case does not require mitigation.</p> <p>PG stated that all scenarios will have mitigations; the project will not proceed without an MMMP in place, and there will be mitigation applied. However, the scale of mitigation that will be used is still unspecified. Whilst construction would not begin until relevant commitments are specified with NRW agreement in writing, and licences in place, the exact nature of those commitments would be determined post-consent once the installation methodology is confirmed.</p> <p>HS commented that this approach seemed promising in principle and added that as long as there is thorough information to conclude cumulative PTS mitigation is possible, the detail can follow after consent, however, it does depend on the scale of the predicted impacts and how effective noise abatement methods are. The approach of having options to utilise is fine in principle but this cannot be confirmed without seeing the revised assessments.</p> <p>SL confirmed that information has been provided to demonstrate the effectiveness of various types of noise abatement in mitigating cumulative PTS in a transparent manner, and the possibility of further improvement and application of good design remains open.</p>
	<p><b>Next steps and AOB</b></p> <p>SL presented the next steps:</p> <ul style="list-style-type: none"> <li>- Application to be submitted, including the final RIAA and final ES, together with all associated annexes.</li> <li>- Further consideration of stakeholder comments throughout the examination phase.</li> <li>- Consultation via the Evidence Plan (ETGs) will be captured in an Evidence Plan report submitted with the application.</li> </ul>

Agenda item	Minutes
	<p>HS inquired if there would be any discussions or questions directed toward NRW.</p> <p>SL responded that this would be the final meeting and set of minutes.</p> <p>AH added that the previous target of submitting DCO and marine licence applications in parallel on the 28th of March has been postponed. DCO submission will now be in mid-April in order to respond to a targeted onshore consultation, the planning inspectorate has a 28-day acceptance process from submission, and it appears sensible to submit the marine licence application after the DCO process is completed, in mid-May.</p> <p>NP inquired whether the change in dates had been communicated with the NRW licencing team. AH confirmed this has been communicated with NRW licence colleagues, but no confirmed dates have been set yet; however, NRW will be kept informed.</p> <p>AH stated NRW has yet to update on the decision of whether the application will be transferred via USB or collected digitally as of yet.</p> <p>NP asked if NRW were provided with a USB for the PEIR.</p> <p>SL responded that the PEIR was all submitted digitally, but that some topic areas, such as SLVIA visualisations, had hard copies.</p> <p>NP will communicate with both onshore and offshore teams to determine what hard copies will be required. <b>[ACTION 1]</b>.</p>

Action	Action	Who?	Due Date
1	Confirmation on what format NRW will receive the application, via USB or digitally and which documents will be needed as hard copies.	NP	TBC

### 3.5 Appendix C5: Onshore Ecology Meeting Minutes

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**ONSHORE BIODIVERSITY AND HYDROLOGY EVIDENCE PLAN MEETING MINUTES– 10<sup>TH</sup>**  
**DECEMBER 2019**

<b>MEETING ORGANISER:</b>	innogy
<b>LOCATION:</b>	Dinorwig Room, Bangor University, Reichel Hall, LL57 2TR
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm
<b>ATTENDEES:</b>	<p>HELEN THOMAS (INNOGY) (HT)</p> <p>KAREN ALGATE (INNOGY) (KA)</p> <p>ALEX HERBERT (INNOGY) (AH)</p> <p>PAUL CARTER (INNOGY) (PC)</p> <p>THOMAS CRAWFORD (INNOGY) (TC)</p> <p>CHRIS JONES (NRW) (CJ)</p> <p>CHARLOTTE WILLIAMS (NRW) (CW)</p> <p>ROBERT BISSELL (NRW) (DIALLED IN) (RB)</p> <p>MATTHEW ELLIS (NRW) (DIALLED IN) (ME)</p> <p>RYAN KNOWLES (NRW) (DIALLED IN) (RK)</p> <p>ADRIAN JONES (NORTH WALES WILDLIFE TRUST) (AJ)</p> <p>JOEL WALLEY (DENBIGHSHIRE COUNTY COUNCIL) (JW)</p> <p>SIMON ROBERTS (RSPB) (SR)</p> <p>NICOLA SOLLY (GOBE CONSULTANTS) (NS)</p> <p>SAMMY MULLAN (GOBE CONSULTANTS) (SM)</p> <p>ALAN MITCHELL (SLR CONSULTING) (AM)</p> <p>DUNCAN WATSON (SLR CONSULTING) (DW)</p> <p>JESS COLEBROOK (SLR CONSULTING) (JC)</p> <p>MARTIN BAINES (SLR CONSULTING) (MB)</p> <p>RUTH HENDERSON (ROYAL HASKONING DHV) (DIALLED-IN) (RH)</p>
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<p>PAUL MEAD (DENBIGHSHIRE COUNTY COUNCIL)</p> <p>PAULA JONES (CONWY BOROUGH COUNCIL)</p> <p>NICHOLAS VAUGHAN (NRW)</p> <p>GABRIELLE WYNN (NRW)</p> <p>ARFON HUGHES (NRW)</p> <p>WAYNE HOPE (DENBIGHSHIRE COUNCIL)</p>



BARBARA OWSIANKA (CONWY COUNCIL)

Document provided:	Filename
Consultation roadmap	AyM OWF ETG roadmap Onshore Ecology.pdf
Initial review note – Onshore Ecology and Intertidal Ornithology	AyM OWF ETG roadmap Onshore Ecology.pdf
Initial review note – Hydrology and hydrogeology	AyM OWF ETG roadmap Onshore Hydrology.pdf
Draft Terms of Reference	GyM_Ext_Evidence_Plan_ToR_v1_131119.pdf
Meeting agenda	Onshore Hydrology & Ecology ETG Agenda.pdf
Slides presented in the meeting	ETG Pre-Scope Ecology and Hydrology.pdf

Agenda item	Minutes
<b>1</b>	<p><b>Innogy in Wales</b></p> <p>KA welcomed all participants to the meeting and outlined the agenda.</p> <p>KA noted that innogy provide approximately one third of Wales' renewable energy. KA presented the innogy projects within Wales (see slide 3) and noted that Awel y Môr would add a notable contribution to the carbon targets for Wales. The Awel y Môr project is anticipated to be operational by 2030.</p>
<b>2</b>	<p><b>Project overview</b></p> <p>KA presented an overview of the project including that the area for lease (AfL) for the application was accepted by The Crown Estate (TCE) in October 2019. KA explained that innogy is leading the Awel y Môr project with numerous project owners.</p> <p>KA noted that innogy are at the very early stages of the project development but is seeking to undertake early stakeholder engagement to inform decisions.</p> <p>KA explained that innogy is seeking to begin consultation early to help identify issues early in the application process. The project (Awel y Môr) qualifies as a Nationally Significant Infrastructure Project (NSIP) requiring a Development Consent Order (DCO) and will also require a Marine Licence (ML) from Natural Resources Wales (NRW) on behalf of the Welsh Government.</p> <p>KA presented a plan of the proposed development location in relation to the existing offshore wind farm (OWF) projects (see slide 6). The AfL is 106 km<sup>2</sup> however the array area may be only a portion of this area. The existing Gwynt y Môr (GyM) turbines are rated as 3.6 MW but Awel y Môr turbines are expected to be 12-22 MW, or above (this is to future proof the</p>

	<p>project). The grid connection is proposed to be at Bodelwyddan (which is the same as GyM).</p> <p>KA presented the work undertaken to date including commencement of EIA Scoping Report drafting, ecological surveys (aerial offshore birds and marine mammals), site selection and alternatives study and conversations for grid connection are underway. KA noted that innogy has formally informed PINS and NRW of the project.</p> <p>KA presented a high-level project timeline which is driven by the Agreement for Lease this year and by the CfD auction in 2023 (or 2025). The current programme for application submission is November 2022. KA noted that duplicate applications (one for the DCO and one for the ML) will be submitted as per previous offshore NSIPs in Wales. The aim is to be operational by 2030 to contribute to meeting the targets the Welsh Government has set.</p>
3	<p><b>Planning Act Overview</b></p> <p>AH provided an overview of the Nationally Significant Infrastructure Project (NSIP) process (under the Planning Act 2008) including the key principles. It was brought in to simplify the consenting process for major infrastructure projects. The DCO process requires front loaded consultation and the application to be of sufficient quality, therefore innogy is beginning the Evidence Plan (EP) process to adhere to these principles. AH noted that PINS has an outreach programme where they will send case officers to explain the process.</p> <p>AH noted that it is unusual in that it is primarily a written process as opposed to an enquiry. The application will be made against the relevant NPS (energy and renewable are in place and the most relevant to Awel y Môr) statements.</p> <p>The DCO provides a single consent/ statutory instrument with numerous powers, including compulsory acquisition of land and/ or rights over land. The DCO process is front loaded and the aim of the consultation is to resolve issues prior to examination. The timeframes are fixed following acceptance – six months of examination, three months for panel to make recommendation and three months for the Secretary of State (SoS) to make a decision.</p> <p>The EIA and HRA regulations will be critical to the DCO process with the mitigation to be secured within the DCO (and ML). A Rochdale envelope approach will be utilised in the EIA (and assessments) to ensure that the potential worst case scenarios have been assessed whilst enabling flexibility within the consent (to future proof the technology) to be built in.</p> <p>AH presented a list of the anticipated documents to be submitted for the DCO application. AH noted that a bespoke signposting document would be created for the ML application clearly indicating the parts of the application of relevance to the ML. Duplicates of all documents will be submitted for the DCO and ML applications.</p>

	<p>AH noted that they will seek to align the processes in terms of DCO and ML programmes (and key milestones) with NRW.</p>
<b>4</b>	<p><b>Evidence Plan (EP) Process</b></p> <p>AH presented the topics being considered under the EP. AH requested feedback on the proposed structure of the panels and invited stakeholders to attend any other ETG groups should they wish. No comments were made.</p>
<b>5</b>	<p><b>The Scoping Report</b></p> <p>NS presented a high-level overview of the scoping study being undertaken. The Scoping Report seeks to define the scope of the subsequent EIA process (i.e. what should be scoped in or out) and identify potential Likely Significant Effects (LSE) at an early stage and ensure that the EIA assessment is proportionate. The Scoping Report will also propose further survey requirements and proposed methodology for the EIA.</p> <p>The Scoping Report is programmed to be submitted to PINS in March 2020 for consultation under the formal PINS process which includes 28 days for stakeholders to provide their consultation responses to PINS which will be fed into the Scoping Opinion.</p> <p>NS provided an overview of the structure of the Scoping Report including the general introductory and technical chapters (separated by onshore and offshore elements). She noted that a summary of impacts to be scoped in and out will be provided in the Scoping Report.</p> <p>NS provided an overview of what aspects will be covered within the technical chapters in the Scoping Report, including the baseline, methodology for EIA, items to be scoped in (and out) and proposed embedded mitigation. She also noted that project specific questions will be included, which are directed to consultees, which innogy is seeking feedback on.</p>
<b>6</b>	<p><b>Evidence Plan Terms of Reference</b></p> <p>NS provided a brief overview of the Evidence Plan (EP) process. She explained that it is a formal tool to agree the information presented and approach undertaken in the EIA which will be provided in the DCO and ML applications. The process provides formal structure and general rules under which agreement will be sought from each of the parties.</p> <p>The project will be seeking to gain consensus on the information which informs the assessment which will help to reduce disagreements in the examination phase and the development of Statements of Common Ground (SoCG). It was noted, as per the Terms of Reference, records of discussions will be maintained. It is hoped that the process will reduce resource requirements for all during examination.</p> <p>NS presented the roles and responsibilities of the steering group and the Expert Topic Groups (ETGs) – see slides 23 and 24.</p>

	<p>NS noted that a draft ToR (previously circulated) seeks to set out the process for engagement with stakeholders under the EP. The document includes the proposed parties, roles, responsibilities and general rules of the EP.</p>
<b>7</b>	<p><b>Site Selection and Alternatives</b></p> <p>This part of the meeting was presented by RH and the site selection (SS) study will be undertaken by Royal Haskoning DHV.</p> <p>RH highlighted that the project must demonstrate that reasonable alternatives (technology, location, infrastructure, techniques etc) have been considered. The selection must also be environmentally acceptable whilst ensuring that the lowest costs of energy to be passed to consumers.</p> <p>The SS will be an iterative process, undertaken by a multi-discipline team (technical specialists, land agents and legal), to identify the most suitable design and locations for infrastructure. RH presented that the process will seek to avoid direct impacts on designated sites, road crossings, rail crossings, shortest and feasible cable route, seeking to utilise screening from existing features and using design/ construction techniques. The process will also seek to avoid or reduce potential impacts through sensitive siting, i.e. avoidance of designated sites and features.</p> <p>RH presented the AfL, the proposed grid connection at Bodelwyddan and noted that the area of search has been defined by these two infrastructure requirements. The project is seeking to refine the proposed onshore and offshore cable route. The routes will link the landfall location and a project specific substation (prior to being connected to the grid).</p> <p>RH presented the key requirements (including EIA, National Planning Policy Framework, National Policy Statements, The Horlock Rules, The Holford Rules etc.) which the project will seek to adhere to – see slide 29 for full details. Topic specific guidance and best practice will also be considered.</p> <p>RH noted that under the Evidence Plan the project will be seeking to discuss the site selection and alternatives process and ensuring that stakeholders are consulted at key milestones and the project can receive early feedback and stakeholder buy-in (locations, data, considerations etc.). RH noted that as well as avoiding negative impacts it's about harnessing opportunities and enhancement.</p> <p>KA noted that a roadmap for each of the ETGs has been designed, which sets out the proposed dates for the ETG meetings and the anticipated engagement.</p>
<b>8</b>	<p><b>Ecology and Intertidal Birds</b></p> <p>The onshore ecology (including intertidal birds) for the EIA scoping will be undertaken by SLR Consulting; this part of the meeting was presented by JC and DW.</p>

DW noted that the approach to consider the intertidal birds within the onshore ecology chapter has been undertaken on other similar schemes as the receptors are primarily affected by onshore activities. NS noted that the offshore ornithology receptors will be considered in a separate offshore chapter (and ETG).

JC presented the proposed baseline characterisation sources and data which are proposed to inform the baseline characterisation in the PEIR – see slide 32. JC highlighted that the Scoping Report will provide a summary of the baseline information.

JW noted that roadside nature reserves have been designated for certain plant species and that details are not likely to be available from Cofnod – see actions.

ME noted modelling has been undertaken for great crested newts (GCN) but noted that Conwy Borough was not included within the modelling. He suggested that modelling should be included within the EIA for the project but that it could not replace survey data. ME confirmed he would expect ponds within 250m to be subject to presence/absence survey and population size class assessment. ME suggested liaising with ARC who have undertaken modelling for a range of species – see actions.

ME also mentioned St Asaph Business Park liaison meetings, which convene to discuss conservation monitoring and biosecurity at the business park (primarily GCN). ME suggested attendance may be useful.

JW confirmed little terns regularly nest at Gronant/Talacre, just east of the onshore Area of Search and have previously also attempted nesting at Rhyl Harbour, within the Area of Search. It is thought that they generally forage close to the site. JW highlighted the colour ring studies, have provided information suggesting there is some interchange with other little tern colonies in the Irish Sea. DW asked if the information is available. JW confirmed that annual reports are produced by the little tern group – see actions.

ME noted Annex I bird species should also be considered outside of designated sites within the EIA. Specifically, consideration of Annex I birds required in EIA in accordance with Article 4.4 of Birds Directive (Outside these protection areas, Member States shall also strive to avoid pollution or deterioration of habitats.) and article 3 (b) upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones.

ME recommended demonstrating how the scheme will be compliant with all relevant legislation.

NS confirmed that this suggestion would be considered.

NS highlighted that a HRA Screening Report is being undertaken alongside the EIA Scoping Report and will be submitted for formal consultation.

JC presented the impacts proposed to be scoped into the EIA:

- Direct and indirect impacts to designated sites and the species populations which are designated features;
- Direct and indirect impacts to other non-statutory designated sites;
- Habitat loss / alteration, in particular that affecting Annex 1 or Section 7 Habitat types;
- Fragmentation and barriers to movement;
- Direct and indirect disturbance to populations of protected or notable species; and
- Biosecurity/Invasive non-native species (INNS).

ME welcomed the inclusion of INNS but noted that British and European INNS should be differentiated. This was noted.

JC presented the impacts and surveys proposed to be included within the EIA:

- Reptile survey – scoped out for areas subject to temporary impacts on the basis that presence will be assumed in areas of suitable habitat and reasonable avoidance/mitigation measures implemented;
- Wintering bird survey (away from inter-tidal habitats, although JW noted the possible presence of important numbers of curlew and lapwing in coastal fields) – scoped out on basis that significant effects are unlikely;
- Operational effects (including maintenance) of proposed underground cables on onshore ecology (except where located in close proximity to sensitive ecological features); and
- Operational effects of proposed substation on onshore ecology (unless located in close proximity to sensitive sites and species).

No comments were made on the proposed impacts to be scoped out.

JC presented the proposed surveys to be undertaken to inform the EIA:

- Review of desk study data for key sites, species and habitats (i.e. of conservation importance or legally protected); and
- Survey to include habitat survey with more detailed botanical recording of Annex 1 or Section 7 habitats and/or veteran trees, hedgerow assessment, breeding bird survey, non-breeding bird survey (inter-tidal habitats), otter and water vole survey, dormouse survey, bat survey, badger survey and great crested newt survey.

JC noted that the final methodologies and survey scope will depend on route(s) assessed and will be consulted on with the ETG. DW noted that previous criticism exists of OWF Scoping Reports being high level. He noted that it is impossible to seek agreement on the final survey specification at

this stage; however, the principles of the surveys could be agreed. DW noted that feedback would be welcomed.

DW noted that Burbo Bank OWF bird surveys were limited to only areas of permanent habitat loss for breeding birds and non-breeding birds at the Afon Clwyd crossing. Burbo also undertook a barn owl survey.

AJ sought to confirm that migratory osprey would be covered. DW confirmed there would be no impacts from the onshore element on this species. If necessary, it would be considered within the offshore ornithology chapter.

ME requested that consideration needs to be provided for Annex I and Schedule I species in addition to an assessment of functioning habitat. It was agreed that surveys would therefore be designed to cover areas in which such species could be present and have the potential to be significantly affected by the scheme.

ME also added that assessments should consider Habitats Directive Annex 1 habitats.

Post Meeting note: It is suggested by NRW that a nature conservation legislation and policy compliance document is prepared to help evidence that the submission is compliant with the provision of GB, Welsh and local policies and legislation.

DW requested whether stakeholders are aware of particular bird species of concern within the study area. SR noted that British Trust for Ornithology (BTO) data (WeBS plus non-estuarine bird survey and breeding ringed plover survey) should be useful. Also noted that the area between the A55 and the coast supports good numbers of priority farmland birds. Further info should be in North Wales Bird Atlas and should also be held by Cofnod. JW noted that the fields between the coast and the A55 are likely to be important for gulls as well as waders. Post-meeting minutes: JW provided anecdotal information Marsh Tracks in Rhyl and recorded a flock of over 1,000 lapwing flying to the fields upstream to the fields on the opposite side of river.

JC presented a consideration of the principles of the proposed surveys for other species – see minutes below.

JC requested whether presence/ absence would be sufficient for GCN surveys (within 250 m of the proposed development). ME confirmed abundance would be required within 250m. JC asked whether modelling work would be acceptable without survey. ME confirmed that surveys would be required regardless of modelling. JW noted that the populations are well surveyed in the area and data are available to be purchased through Cofnod.



JC highlighted that where water crossings are proposed then otter and water vole surveys would be undertaken, between 250m up and downstream of the proposed crossing. This was agreed as appropriate by participants.

JC noted that they are aware dormice are present within the study area and associated with hedgerows. ME confirmed that an EPS licence was required for Burbo but the project did not undertake any long-term monitoring. JW stated that there are also dormouse records close to Abergele. It was agreed that hedgerows which are proposed to be crossed (if any) should be surveyed.

ME confirmed that the Clwyd bat group survey Coed y Gopa SSSI each year for bats. JC suggested trees and hedgerows which could be directly affected should be surveyed (for roosts and activity) and that they would seek to survey one full season. JW suggested that innogy should consider the lighting of the substation in the O&M phase and reduce this as far as practical.

DW asked whether there is any local knowledge with regard to the presence of natterjack toads as they were surveyed for Burbo Bank Extension. JW confirmed that there was a reintroduced population in the SSSI at Talacre, to the east of the Area of Search. The Natterjack Toad reintroduction was successful (we estimate a population of around 350 toads), but this lies to the east of the site, within the SSSI site itself so is unlikely to be impacted by the proposals. They are unlikely to appear away from this site due to the limited suitable habitat available..

ME highlighted that a proposal exists for reintroduction of the species at Clwyd estuary saltmarsh, if the flood defences were put back but nothing is likely to happen on this in immediate future. This was the last recorded stronghold for the species in N Wales before it went extinct in the region/prior to reintroductions at Talacre.

JC noted that peregrines are known at Llanddulas and the Ormes. JW confirmed peregrine regularly seen at Gronant. Nest site likely to be inland of there.

JW highlighted that Cetti's warblers have been recorded in the county close to Gronant, singing but breeding not confirmed.

AD highlighted that sandhill rustic moths may be a consideration depending on the landfall methodology and location.

ME suggested that the project may wish to produce a biosecurity plan, to include SI works, if carried out prior to consent. ME noted the presence of mitten crabs in the Dee and therefore they could be present in the Clwyd. AD noted that the WT provide relevant training.



	<p>SR noted that there was a programme to reintroduce belted beauty moths between Abergele to Kinmel Bay. However, they are not thought to have re-established.</p> <p>ME highlighted that invertebrate surveys may need to be considered for the substation location where permanent habitat loss is likely.</p> <p>JW highlighted grant aided woodland planting is to occur in corridor near to coast, between Abergele and Prestatyn as part of Habitat Improvement Project. JW can provide further details and map – see actions.</p> <p>AM provided an explanation as to how the methodologies for construction could be refined as the route and substation location is refined.</p> <p>JW noted that the local adder population was low, and the project should consider surveys to identify key areas for reptiles. JW was not aware of any adder populations within the Area of Search. DW explained that the surveys may identify low numbers of reptiles and therefore wouldn't change the assessment which utilises a habitat based approach to assume presence. Therefore, reptile surveys are not currently proposed in areas affected by temporary habitat loss only. JC noted that cumulative effects should be considered for populations which have been subject to numerous disturbances.</p> <p>AD added that sea holly is vulnerable along the north Wales coast.</p>
9	<p><b>Hydrology and hydrogeology</b></p> <p>This part of the meeting was presented by MB and the hydrology assessment for the EIA scoping will be undertaken by SLR Consulting.</p> <p>MB described the onshore area with relevance to the flood zones 2 and 3 – see slide 37 – and NRW Development Advice Maps. MB noted that the baseline assessment will be drawing on information in a desktop review and was keen to discuss the key data sources with stakeholders. MB noted that the Scoping Report chapter will be high level owing to the broad area being considered at scoping. MB noted that areas of designation which have dependency on water environment will be undertaken in a collaborative way with the ecology team.</p> <p>MB requested an understanding on who runs the pumping stations in relation to Afon Gele. RK explained that NRW operate the pumping stations by the Clwyd. MB agreed to request data for these pumping stations from NRW.</p> <p>RK noted that data from the flood models are available and can be interrogated to separate out risks from both coastal and fluvial flooding. RK suggested that MB should refer to the Denbighshire strategic flood consequences assessment. RK also suggested looking at the fluvial flood</p>

risk assessment for which the technical reports are available which provide information of how assets are operated.

MB asked if there are any proposed works on the flood defences. RK suggested reviewing the draft Tidal Clwyd Flood Risk Management Strategy, which includes consideration of a managed realignment. RK noted that the outlined measures are not statutory requirements and don't have an associated programme of works.

RK highlighted that NRW monitor the embankment levels on the Clwyd. RK suggested consulting with Conwy Borough Council in relation to their coastal defences as works were undertaken following a breach in the 1990s at Towyn. Therefore, they may hold as built drawings or designs.

MB highlighted the impacts to be scoped into the EIA assessment:

- WFD surface water bodies;
- WFD groundwater bodies;
- Flood risk;
- Activity in proximity to flood defences and watercourses;
- Impact to qualifying status of designated areas;
- Sustainable drainage including surface water run-off; and
- Water resources (SPZs and PWS).

MB highlighted that climate change (and projected change) will be considered in the assessment. MB noted that innogy would consult with the local council with regard to Sustainable Drainage Systems (SuDS) when more design information is available.

MB noted that a limited number of private water supplies are anticipated to be within the area, but he will consult with the council to obtain the relevant records. If sensitive users are identified, then further assessment would be undertaken if appropriate.

RK noted that the Shore Line Management Plan should be considered for coastal scour and erosion. SMu confirmed that the physical processes chapter will consider this and be provided in the Scoping Report.

RK highlighted that TAN 15: Development and Flood Risk is under consultation for proposed changes. This should be considered and adhered to.

CW highlighted that beach feeding is being undertaken at Traeth Pensarn (near Abergele). The project is being undertaken by Conwy Council in consultation with NRW.

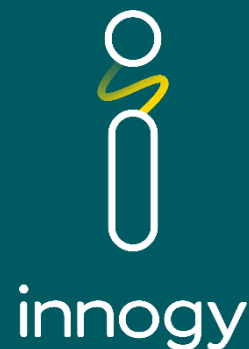
MB outlined the proposed effects to be scoped out from the EIA:

- Operational impacts upon the WFD status of surface water and groundwater;
- Risks to any identified PWS and licensed abstractions would be scoped out through design (avoidance);

	<ul style="list-style-type: none"> <li>• Detail design and permitting of any watercourse or flood defence crossing would be agreed by licence, separate to planning; and</li> <li>• Cumulative impacts.</li> </ul> <p>MB requested comments on whether a CoCP would be sufficient to secure the mitigation for the onshore water environment. RK noted that works affecting main rivers may require a permit from NRW and the usual environmental reporting. RK noted that there is a suite of guidance notes to aid this process and development of the plan – see actions.</p> <p>MB presented that walkover surveys would be undertaken of the landfall, any potential HDD locations; flood defence crossing points; and any identified public water supply source or abstraction points. MB noted that it is proposed that the scope of the surveys would be agreed through the Evidence Plan.</p> <p>MB asked whether water quality analysis is required and proposed that NRW data should be utilised unless a high risk is identified. CW agreed that was a sensible approach.</p> <p>RB asked how flood risk will be considered within the EIA. NS explained that coastal flood risk is captured in the physical processes chapter and riverine flood risk is captured in the hydrology chapter.</p> <p>SMu confirmed that a WFD assessment is proposed to be provided separately for transitional and coastal water bodies.</p>
10	<p><b>Ground Conditions and contamination</b></p> <p>This part of the meeting was presented by MB and the ground conditions assessment for the EIA scoping will be undertaken by SLR Consulting.</p> <p>MB outlined the data sources proposed to inform the Scoping Report including relevant local ES and publicly available data. MB outlined that locations (historic landuse/ landfill sites/ UXO) could result in adverse impacts and noted that these will be identified. Additionally, there is the potential for sensitive environmental receptors (surface waters, ground waters and designated sites) to be adversely affected.</p> <p>MB proposed that the following activities be considered for the EIA assessment:</p> <ul style="list-style-type: none"> <li>• Commercial/industrial land uses;</li> <li>• Landfill sites and other waste management facilities;</li> <li>• Coal mining areas;</li> <li>• Areas that may be impacted by Unexploded Ordnance (UXO) due to wartime bombing.</li> </ul> <p>MB proposed that the following effects are intended to be scoped out from the EIA assessment:</p> <ul style="list-style-type: none"> <li>• Operation impacts upon ground conditions;</li> <li>• Risks posed to site workers during construction phase;</li> </ul>

	<ul style="list-style-type: none"> <li>• Long term risks to human and environmental receptors subsequent to completion of construction phase;</li> <li>• Loss of agricultural land due to operation of underground cables;</li> <li>• Sterilisation of mineral deposits</li> </ul> <p>No comments were made on this proposal. However, CJ offered to ask NRW's geoscience specialists about this and provide feedback accordingly (see Post Meeting Notes below). Innogy to advise if their input is required in any further ETG's.</p> <p>MB noted that significant land contamination is not anticipated but targeted surveys could be undertaken if identified. MB highlighted that the scope of methodology of any surveys would be sought to agree with the ETG. AM highlighted that the site selection and alternatives study would seek to avoid these areas.</p>
11	<b>AOB</b> CW noted that migratory fish should be considered and ensure that barriers are not created. MB noted this.
N/A	<b>Post Meeting Notes</b> <p>CJ provided the following comments from NRW's geoscience team in response to the questions presented on slides 43 – 46:</p> <p>Slide 43 question: Would it be beneficial to carry out more detailed assessments targeted at potentially significant sources of contamination identified by the initial surveys? <i>Answer: Yes, as only parts of the onshore cable route are likely to have historical contamination.</i></p> <p>Slide 44 question: Are there any other key issues that the project team should be aware of? <i>Answer: Based on the current information presented those listed on the slide appear suitable for the site and type of development.</i></p> <p>Slide 45 comments: Further detail would be required to justify why these should be scoped out e.g. whether the cables would be fluid-filled or not and hence whether controlled waters could be affected. Therefore we cannot confirm that we are satisfied with scoping them out at this stage. <i>Answer: This is noted and full justification will be provided in the Scoping Report.</i></p> <p>Slide 46 question: Any comments on proposed survey or assessment method? <i>The surveys and assessments appear acceptable but should be reviewed as the work progresses. The conceptual model should be reviewed as new data are collected.</i></p>

Agenda Item	Action	Who?	Due Date
<b>1</b>	No actions recorded	N/A	N/A
<b>2</b>	No actions recorded	N/A	N/A
<b>3</b>	No actions recorded	N/A	N/A
<b>4</b>	No actions recorded	N/A	N/A
<b>5</b>	No actions recorded	N/A	N/A
<b>6</b>	All parties to review the draft ToR and provide feedback or requested amendments.	All	23/12/19
<b>7</b>	All parties to review and provide feedback on the stakeholder roadmaps.	All	23/12/19
<b>8</b>	To provide further information on roadside nature reserves and species records that are not held by Cofnod.	JW	On-going
	To liaise with ARC with regard to modelling of species.	Innogy/ SLR	Prior to publication of the Scoping Report
	To contact the little tern group to confirm permission and provide the relevant reports.	JW	Not agreed
	To provide details including an indicative map or proposed project extents for the Habitat Improvement Project referred to.	JW	Not agreed
<b>9</b>	To provide links to guidance notes to be used for licensing/permit applications.	RK	On-going
<b>10</b>	To provide slides to geoscience group.	CJ	Completed - please see post meeting minutes
<b>11</b>	No actions recorded	N/A	N/A
<b>N/A</b>	No actions recorded	N/A	N/A



# Awel y Môr Offshore Wind Farm

## Onshore Expert Topic Group Final Minutes

Meeting date: Monday 9 March 2020



## Onshore Site Selection Expert Topic Group Minutes

**Venue: St David's Room, Venue Cymru, The Promenade, Penrhyn Cres, Llandudno LL30 1BB, United Kingdom**

**Date / Time: 09 March 2020 13:00 – 16:00**

### 1. Attendees

ATTENDEE	ORGANISATION	JOINED VIA:
Alan Mitchell (AM)	SLR Consulting	In person
Alex Herbert (AH)	innogy	In person
Babs Hume (BH)	Royal HaskoningDHV (RHDHV)	In person
Barbara Owsianka	Conwy County Borough Council (CCBC)	In person
Chris Jones (CJ)	Natural Resources Wales	In person
David Peel (DP)	Welsh Government	In person
Giles Sims-Williams (GSW)	Innogy	In person
Gordon Campbell (GC)	RHDHV	In person
Helen Millband (HM)	Natural Resources Wales	In person
Helen Thomas (HT)	Innogy	In person
Iwan Huws (IH)	Natural Resources Wales	In person
Joel Walley (JW)	Denbighshire County Council	In person
Karen Algate (KA)	Innogy	In person
Lynda Thomson (LT)	Op-En	In person
Mark Walters (MW)	Clwyd-Powys Archaeological Trust (CPAT)	In person
Mike Parker (MP)	Denbighshire County Council	In person
Nathan Owen (NO)	Natural Resources Wales	In person
Neil Maylan (NM)	Cadw	In person
Nicola Solly (NS)	GoBe Consultants	In person
Paul Carter (PC)	Innogy	In person
Peter MacFarlane (PMF)	Wardell Armstrong	In person
Richard Evans-Snarr (RES)	Conwy County Borough Council (CCBC)	In person
Simon Cottrill (SC)	Conwy County Borough Council (CCBC)	In person
Sophie Lucas (SL)	Natural Resources Wales	In person

## 2. Apologies

INVITEE	ORGANISATION
Adrian Jones	North Wales Wildlife Trust
Andrea O'Connor	Sefton County Council
Andrew Farrow	Flintshire County Council
Angharad Crump	Ynys Môn County Council
Bethan Lloyd	Conwy County Borough Council (CCBC)
Cara Owen	Gwynedd Council
Dave Evans	North and Mid Wales Trunk Road Agent (NMWTRA)
Dave Watson	Conwy County Borough Council (CCBC)
Deanna Groom	RCAHMW
Denise Shaw	Denbighshire County Council
Gabrielle Wyn	Natural Resources Wales
Gareth Edwards	Royal Commission on the Ancient & Historical Monuments of Wales (RCAHMW)
Huw Davies	Conwy County Borough Council (CCBC)
Huw Williams	Conwy County Borough Council (CCBC)
Jenny Emmett	Gwynedd Archaeological Trust (HENEb)
John Pearson	National Trust
Kristian James	Public Health Wales
Lianne Martin	Conwy County Borough Council (CCBC)
Mike Jones	Denbighshire County Council
Nia Jones	The Wildlife Trusts
Nia Phillips	Natural Resources Wales
Paul Mead	Denbighshire County Council
Paul Wisse	Sefton County Council
Paula Jones	Conwy County Borough Council (CCBC)
Rhian Davies	Conwy County Borough Council (CCBC)
Rhiannon Hayes	Conwy County Borough Council (CCBC)
Robert Bissell	Natural Resources Wales
Simon Roberts	Royal Society for the Protection of Birds (RSPB)
Sion Roberts	Snowdonia National Park



INVITEE	ORGANISATION
Tania Davey	The Wildlife Trusts
Wayne Hope	Denbighshire County Council

**[Post meeting note: An ETG actions and comments tracker has been produced to cover all key points to be considered by the project team. The status of each is being carefully reviewed and will be shared with ETG members in due course.]**

### 3. Introductions

Introduction (including housekeeping), agenda and aim of meeting (KA/GC)

### 4. Meeting Aim (GC):

1. Provide information on the site selection process, guidance and data sources for the Awel y Môr (AyM) project.
2. Discuss and seek feedback on the process and the initial outcomes of the process.

Specifically, innogy is seeking feedback on the following four questions:

- Are we missing environmental data sources?
- Are we missing any key issues or opportunities?
- Do you have a preferred location for the infrastructure?
- Do you agree with the approach, anything else to include with the approach?

Site selection study focused on the electrical transmission infrastructure: Offshore export cable route, cable landfall, onshore cable corridor and onshore substation.

Slides were circulated in advance of the meeting.

### 5. Project Details (PC/NS)

Summary of project details (PC):

- Awel y Môr: an extension to existing operational Gwynt y Môr (GyM) Offshore Wind Farm.
- Existing operational projects were able to apply for extension projects in 2017.

Project timeline:

- The Crown Estate (TCE) concluded its Habitat Regulations Assessment (HRA) for potential extension projects in Summer 2019, allowing AyM to progress to the award of an Agreement for Lease (AfL).

- AyM currently in the process of site selection and Environmental Impact Assessment (EIA) Scoping. Scoping Report will be submitted in the near future (mid-March). **[Post-meeting note: due to the COVID-19 situation potentially affecting the ability of interested parties to adequately comment on the Scoping Report at this time, in discussions with the Planning Inspectorate, innogy decided not to submit the Scoping Report on 16 March as originally intended. Submission has now been postponed until May. Correspondence in relation to this altered process will be circulated in due course.]**
- EIA process 2019 to 2022.
- DCO/Marine Licence (ML) submissions to Planning Inspectorate (PINS) and National Resources Wales (NRW) in 2022.
- DCO/ML decision 2023-2024.
- Aim of obtaining Contract for Difference (CfD) and being operational by 2030.

#### Scoping Report update (NS):

- Refresher on what Scoping is – a process to refine the scope of the Environmental Impact Assessment, identifying likely significant effects, agreeing what can be scoped out and what methods and assessments will be used during EIA.

#### Scoping Report process:

- Define 'Scoping Area' – defined as the 'Areas of Search' identified through the Site Selection process.
- Collate baseline information.
- Identify the potential impacts upon sensitive receptors.
- Scoping report due to be published in a few weeks (mid-March 2020).
- Issued to the Planning Inspectorate (PINS) and NRW for formal consultation – 28 day consultation period.
- EIA will commence in April/May 2020 onwards.
- Once site selection has been refined, then scope of the EIA will be defined.

## 6. Site Selection Process (GC)

#### Site selection process overview:

- Aim of the process is to produce a 'design' which can be taken forward to the next stage of EIA.
- Process is multi-disciplinary (considers engineering, environmental, legal, cost, social factors), iterative (broad area gradually narrowed down to design as assessment / studies completed) and consultative (series of consultation exercises which steer the development of the design (including this meeting)).

- Consultation is critical to process;
- Legislation and guidance – suite of relevant legislation, policy and guidance adhered to during the process. Key documents include TCE's Cable Route Protocol (2019) in relation to transmission infrastructure, National Grid's Horlock Rules relating to onshore substation siting, and the 2017 EIA Regulations which contain a mandatory requirement for considerations of alternatives as part of EIA.
- A set of design principles and engineering assumptions are used to underpin the site selection process.

A diagram showing the stages of the site selection process was presented. Key stages were:

- Identify location of array area
- Identify grid connection point (National Grid Connection and Infrastructure Options Note (CION) process)
- Identify 'Area of Search' for each element of transmission infrastructure using high level constraints
- Use desk-based data to undertake constraints mapping exercise; use gaps in the constraints mapping to identify locations for long list of options.
- Black-Red-Amber-Green (BRAG) Assessment of each of the options, across different disciplines (environmental, engineering, land, social, cost). Involves technical specialists identifying criteria for different constraints and scoring each as black, red, amber or green e.g. loss of ancient woodland (black – not viable), within 15m of ancient woodland (red – significant constraint), within 250m (amber – constraint), >250m away (green – no impact or beneficial).
- Further studies to be undertaken to refine route, including landscape site walkovers, internal workshops, Horizontal Directional Drilling (HDD) feasibility studies, consultation.
- A short list of options is identified using the BRAG Assessment and data from the studies.
- Further, focussed studies (e.g. landfall feasibility and landscape modelling) undertaken to refine things further
- Identify 'design freeze' for Preliminary Environmental information (PEI) to inform EIA. GC highlighted that this was not the end of the design process, as ongoing environmental data collection and engineering studies undertaken during the EIA process will lead to further refinement, in addition to feedback from stakeholders.

Where we are to date:

- Array area identified (Agreements for Lease (AfL) still to be agreed with The Crown Estate).
- Grid connection point assumed likely to be Bodelwyddan substation (location of grid connection not confirmed until conclusion of National Grid CION process).
- Identified the Area of Search using high level constraints (this is now being used for scoping).
- Constraints mapping exercise undertaken and design principles applied to identify 'zones' where long list of options could be located.

## 7. Offshore site selection – a brief overview (GC)

Given the focus of the meeting on onshore aspects, a brief offshore site selection overview was provided:

- Area of Search for offshore cable route identified using high level constraints – avoids Menai Strait and Conwy Bay Special Area of Conservation (SAC), Rhyl Flats Offshore Wind Farm and Dee Estuary SAC.

## 8. Onshore site selection – a brief overview (GC)

Onshore substation design parameters:

- These are the key engineering principles which we are working within to ensure we produce a viable 'design' as the output of the site selection process.
- Horlock Rules – locate as close as possible to grid connection point whilst taking into consideration the environmental constraints.
- Design principles include: connection to existing road network, use existing natural screening where possible, minimise footprint to space required for development only. Footprint of 250 x 150m (temporary construction compound) and 250 x 200m (operational footprint).
- Area of Search for offshore cable route identified using high level constraints – avoids Menai Strait and Conwy Bay Special Area of Conservation (SAC), Rhyl Flats Offshore Wind Farm and Dee Estuary SAC.

Area of Search:

- 3km area initial Area of Search around existing grid connection at Bodelwyddan (black dot on figure).
- Key high-level environmental constraints then applied to refine the 3km buffer, including St Asaph / Bodelwyddan settlements and conservation areas, River Elwy main river and associated floodplain, Elwy Valley Woods SAC and Site of Special Scientific Interest (SSSI) and Lower Elwy Valley historic landscape. Yellow area on Area of

Search figure in slides circulated shows the refined Area of Search taken forward.

Following identification of the Area of Search, constraints mapping has then been undertaken to identify suitable locations for infrastructure. This includes the following datasets:

- Existing infrastructure – overhead lines, offshore wind farm export cables (Gwnt y Môr and Burbo Bank);
- Ecological/landscape designations – SPAs, SACs, Area of Outstanding Natural Beauty (AONB), National Nature Reserves (NNR), Local Nature Reserves (LNR), Royal Society for the Protection of Birds (RSPB) Reserves, ancient woodlands.
- Cultural heritage – conservation areas, scheduled monuments, listed buildings;
- Water resources and land quality – historic landfill areas, main rivers;
- Land use – properties, planning applications / allocations.

NM (Cadw) queried why historic parks have not been included? GC noted that RHDHV have included it in the constraints analysis but have not yet added a GIS layer. NM noted that datasets for this are currently being modified; a scheduled area will expand to incorporate a WWI training ground. MW (CPAT) noted that this was brought up during the scoping work previously. NW to circulate historic parks dataset for inclusion in the constraints mapping.

#### **ACTION 01 - NM to circulate historic park datasets**

GC showed constraints mapping figures showing the overlay of the constraints. Once the constraints are overlaid, it is possible to identify broad 'zones' which are potentially suitable for locating the onshore substation.

Additional constraints – a recent 1700 dwelling planning application has been identified in the north of the Area of Search, which will be included within the constraints.

Zones within the substation Area of Search were presented with feedback welcomed from those in the room:

Zone 1 – western edge of the Area of Search, approx. 3km from the National Grid connection. Key constraints are overhead lines and ancient woodlands, lack of connectivity to transport links.

SC (Conwy Council) – this zone is close to Welsh Water reservoir (storage of treated water) at Glascoed Treatment works.

#### **ACTION 02 - RHDHV to add reservoir to constraints mapping, if available.**

Zone 2 – located within the south-west of Area of Search. Key constraints include within 250m of existing properties and ancient woodland, closer to River Elwy valley and topography changes.

MW (CPAT) noted early cave dwelling site within River Elwy Valley.

NO (NRW) – although not located in SSSI, located close to boundary of SSSI and indirect impacts on the SSSI may arise from development in Zones 1, 2 and 4 e.g. bats using the river corridor, and species of lichens that are high priority. Also, River Elwy is a salmonid spawning river, run-off could impact fisheries. This can be mitigated but mitigation may be onerous.

Zone 3 – located in the south east of the Area of Search. Key constraints include overhead lines, ancient woodland and properties.

MW (CPAT) – has there been consideration of noise impacts in relation to residential properties? GC confirmed that the BRAG would consider this at a high level.

Zone 4 – located in the centre of the Area of Search. Key constraints include proximity to properties.

JW (Denbighshire Council) noted that Great Crested Newt (GCN) mitigation area is present within Zone 4, west of St Asaph Business Park. Locations are shown on local biological records. This is the key compensation area for GCNs in North Wales. A lot of ponds exist throughout the business park with the potential to create these into a SSSI in the future. A lot of mitigation has been put in place for other nearby substations.

NM (Cadw) noted that northern part of the zone is just out of the boundary of historic park.

IH (NRW) noted that flood risk within smaller (ordinary) water courses needs to be considered, and that an additional surface water flooding dataset for flooding from minor watercourses (in addition to National Flood dataset) is available for this. IH to provide this.

### **ACTION 03 - IH to circulate surface water flooding from smaller watercourses datasets.**

Zone 5 (northern) – located within the southern part of the Area of Search. Key constraints include main rivers, Public Rights of Way (PRoW), planning application.

NM (Cadw) noted that screening has been submitted for a solar farm to the east of the zone. MW (CPAT) noted that there have been some geophysical surveys of the site, with a dense scatter of Roman artefacts. Busy area with multiple additional constraints.

Attendees were asked at this stage to consider whether they had views regarding a preference of location?

- IH (NRW) 8-16m away from main rivers from a flood risk perspective.
- No other comments were raised at this stage.

No comments were raised in relation to approach taken.

## 9. Onshore site selection – Landfall

Landfall design parameters:

- Minimise cable crossings with existing cables;
- Maintain required separation distance between cables and sufficient space for cable insulation;
- Ensure HDD is achievable;
- Sufficient space inland to accommodate set back from the coast to reduce risk of coastal erosion over 100 year + climate change; and
- Parameters: 300m x 150m temporary construction compound; 50m x 30m permanent below ground transition joint bays.

IH (NRW) queried whether coastal erosion assessment had been based on Shoreline Management Plans (SMP)? There were a lot of coastal defences within the Area of Search. GC noted that it had not been looked into yet. SMP will need to be incorporated into a shortlist.

### **ACTION 04 - RHDHV to consider SMP within the BRAG assessment**

MW (CPAT) – will the cable be laid with Horizontal Directional Drilling (HDD) or trenching? Buried prehistoric coastline (bronze age) located along coast. Trenching may expose this, specialists (sedimentologists) will be able to contribute further. When options are narrowed down, worth doing walk-over surveys to check if any tree stumps would lead to micro-siting. Could be specific points rather than whole lengths. GC confirmed trenching would be undertaken using HDD.

### **ACTION 05 - MW to share details of submerged forest with RHDHV.**

HM (NRW) – bathing water beaches should be considered. GC noted that this will be considered in more detail in the environmental assessment.

### **ACTION 06 - RHDHV to add bathing water dataset to constraints mapping if available**

Defining the Area of Search:

Menai Strait and Conwy Bay SAC to the west, Dee Estuary SAC, SPA and Ramsar to east; leaves a circa 30km length of coastline for landfall.



Constraints mapping use the same datasets as the onshore substation, plus a series of offshore datasets, including shellfish waters, protected wrecks, etc.

SC (Conwy Council) – Welsh Water's rising sewer needs to be included. GC noted that this dataset is already being included within scoping and within site selection.

Six 'zones' have been identified outside of the identified constraints for the landfall location from an onshore perspective:

Zone 1 – located west of Llanddulas. Need space for transmission joint bay inland. Key constraints include existing linear infrastructure, quarry, local topography.

- MW (CPAT) – potential for coastal historic deposits (submerged woodland), preferably after a storm event (applies across all landfall zones). Heavy concentration Conwy Bay, Kinmel Bay is less known.
- SC (Conwy Council) – access through Raynes Quarry? PMF noted that access from there is challenging with steep inclines. Emergency access from quarry may be possible.
- IH (NRW) – a lot of coastal protection measures in place to protect the A55.

Zone 2 – located east of Llanddulas. Similar key constraints as Zone 1: topography is steep, coastal protection present, A55 and A547, historic landfill, proximity of Zone 2 to Traeth Pensarn SSSI.

- NM (Cadw) – close to potential historic garden.
- NO (NRW) – not in SSSI but may still impact the SSSI; e.g. nesting birds and feeding grounds.
- HM (NRW) – migratory fishery route located to the west.

Zone 3 – located along Pensarn coast, to the west of the existing GyM cables. Key constraints include existing GyM cables, existing linear infrastructure.

- MW (CPAT) – thin lenses of peat present in the area, though this shouldn't cause an issue; historic settlement south of Towyn Road.

Zone 4 – located along Pensarn coast, between Gwynt y Môr and Rhyl Flats Offshore Wind Farm cables. Key constraints include existing Rhyl Flats cables, existing linear infrastructure, and crossing of caravan park required. Construction compound likely located south of Towyn Road.

Zone 5 – located east of Rhyl. Key constraints include existing linear infrastructure, crossing of caravan park required.

- MW (CPAT) – prehistoric forest at extreme low water (as noted previously). Land under the golf course poorly understood – may contain buried heritage.



- JW (Denbighshire Council) – Maes Gwilym Nature Reserve: community project planting of trees along the line of the Rhyl Cut parallel to the coast connecting to Maes Gwilym. JW to provide map/layer.
- IH (NRW) – need detail of all flood defences, also include outfalls from the pumping stations. GC noted that outfalls are included on the infrastructure mapping detail.
- Others raised a potential large solar farm project application in the area that the Awel y Môr team should try to find out more about.

#### **ACTION 07 - JW to provide mapping for tree nursery project**

#### **ACTION 08 - Innogy / RHDHV to look into any information regarding location of the potential solar farm planning application**

Zone 6 – located east of Rhyl. Key constraints include existing linear infrastructure, holiday camp, and residential properties which would need to be crossed.

- JW noted that the area between road and landfall is part of the development allocation.
- NO (NRW) – Sand dunes here are habitats for protected species. Wetlands and feeding for curlews. Also a county wildlife site (dune slacks).

BRAG considerations:

- Proximity from built up areas;
- Existing infrastructure (A55, north wales coast rail line);
- Engineering constraints (topography, extent of beach, existing services);
- Ecological designations (Traeth Pensarn SSSI).

DP (Welsh Government) – A55 is a protected road and will require permits. GC noted that this will be undertaken post-consent and is not part of the site selection study.

MW (CPAT) – raised that he could share contact details of marine sedimentologists with RHDHV.

#### **ACTION 09 - MW to share contact details of details of marine sedimentologist with RHDHV. HT to add sedimentologists to ETG.**

### **10. Onshore site selection: onshore cable route**

Potential onshore cable routes will be determined by the viable landfalls and onshore substation area of search. No specific zones have been identified at this time, but constraints mapping has been applied to identified concentrations of constraints.

## Onshore Cable Route design parameters:

- 40m cable swathe (35m at trenchless crossings; 30m at pinch points).
- Cable routes search area in the west have been narrowed so it can come through Colwyn Bay.

## Defining the Area of Search:

GC explained that this simply connects the substation Area of Search to the landfall Area of Search. The only exception is around Colwyn Bay, where the Area of Search has been extended southward to allow for connection south around Colwyn Bay, if required.

It was noted that the constraints mapping uses the same datasets listed for the onshore substation, plus a series of offshore datasets, including shellfish waters, protected wrecks, etc.

500m cable corridors will be identified for the long list options, avoiding the key constraints, minimise crossings. Those shown to date are indicative only.

SL (NRW) noted that interestingly the existing Gwynt y Môr Wind Farm already goes through Food risk zone 3. GC noted that this is the least constrained route (when flood zone considerations were removed) and this was therefore likely to be why the route was chosen.

MP (Denbighshire Council) – how close can it go to existing cables? GC noted that it can go 40m (from centre to centre of cable trench).

RES (Conwy Council) – is there an easement? GC noted that the easement would be less than the 40m construction corridor width required.

RES (Conwy Council) – is there a lasting legacy works? Are there any options for that? Needing access etc., is it temporary or fixed? GC noted that this is outside the scope of the site selection study. AM (SLR) noted that it will be considered as part of the EIA process.

MP (Denbighshire Council) – Burbo Bank cable route can be viewed from google maps which is helpful.

IH (NRW) – what is the depth of cable? GC noted that it has not yet been determined. Likely to be approximately 1-1.5m.

MW (CPAT) – shortest route better for archaeology; in general drained marshland with less heritage value closer to the coast. i.e. the two shortest routes likely will have less archaeology. Records are with Historic Environment Record from previous offshore wind farms.

Expert Topic Group members were asked to consider whether they had any further thoughts on preferred options at this stage and any comments

regarding the site selection process / approach undertaken. No comments were made.

## 11. Next steps

In summary: It is useful having these discussions to get feedback and knowledge from stakeholders (datasets and potential issues we were unaware of). Next steps from this point forward:

- Additional datasets will feed into the BRAG assessment;
- Identify long list and go from long list to a short list of options;
- Next consultation will be public consultation w/c 27th April 2020. This will entail circulation of outputs from the short-listing process for further input and review ***[Post-meeting note: following the ongoing developments regarding the coronavirus outbreak, public events in April/May have been cancelled. Instead, online and more virtual ways of engaging are being considered. The team will keep ETG members up to date].*** Following public consultation, final design for feeding into EIA will be determined.

Attendees were thanked for their time and inputs and it was noted that minutes and actions would be circulated in due course. Comments on these, the locations presented, the material in the slides and any other thoughts were welcomed. ***[Post-meeting note: some comments on site selection from ETG members received via email following the meeting and taken into account].***

END

## 12. Summary of actions

NUMBER	ACTION	RESPONSIBLE PERSON
01	Circulate Historic Park and Gardens dataset and add on constraints mapping	Neil Maylan (Cadw) Gordon Campbell (RHDHV)
02	Add Glascoed reservoir to constraints mapping, if possible	Gordon Campbell (RHDHV)
03	Circulate Surface Water Flooding dataset to add on to constraints mapping	Iwan Huws (NRW)
04	Review SMP during shortlisting	Gordon Campbell (RHDHV)
05	Share details of submerged woodland and include in BRAGs for landfall	Mark Walters (CPAT) Gordon Campbell (RHDHV)
06	RHDHV to add bathing water dataset to constraints mapping if available	Gordon Campbell (RHDHV)
07	Share details Tree planting route along Rhyl Cut	Joel Walley (Denbighshire)
08	Look for further details regarding Elwy Solar Farm Planning applications and add to constraints mapping	Gordon Campbell (RHDHV) / Innogy

NUMBER	ACTION	RESPONSIBLE PERSON
09	Share contact details for marine sedimentologists at UoW. Add UoW marine sedimentologists to ETG correspondance	Mark Walters (CPAT) Helen Thomas (Innogy)

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**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**ONSHORE ECOLOGY ETG MEETING MINUTES – MONDAY 21 SEPTEMBER 2020, 9:30-11:30AM**

<b>MEETING ORGANISER:</b>	RWE		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	ROBIN SANDHAM	CONWY COUNTY BOROUGH COUNCIL	RS
	BARBARA OWSIANKA	CONWY COUNTY BOROUGH COUNCIL	BO
	JOEL WALLEY	DENBIGHSHIRE COUNTY COUNCIL	JW
	SIMON HUGHESTON-ROBERTS	RSPB CYMRU	SHR
	CHRIS JONES	NRW	CJ
	NATHAN OWEN	NRW	NO
	RICHARD PIERCE	NRW	RP
	MATT ELLIS	NRW	ME
	PAUL CARTER	RWE RENEWABLES	PC
	KAREN ALGATE	RWE RENEWABLES	KA
	JOHN COOPER	RWE RENEWABLES	JCoop
	ALEX HERBERT	RWE RENEWABLES	AH
	GILES SIMS-WILLIAMS	RWE RENEWABLES	GSW
	CASSIE GREENHILL	RWE RENEWABLES	CG
	SEAN LEAKE	GOBE	SL
	PETE GACHES	GOBE	PG
	JESS COLEBROOK	SLR	JC
	DUNCAN WATSON	SLR	DW
	ELIZABETH HOLMES	SLR	EH
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	ADRIAN JONES	NORTH WALES WILDLIFE TRUST	

<b>Documents provided:</b>	<b>Filename</b>
Agenda and ppt provided before meeting	AyM ETG Agenda – Onshore Ecology, 21 September 2020
	AYM Sept Oct ETG Presentation Onshore Ecology

Agenda item	Minutes
1	Project Update – RWE provided update on offshore and onshore elements of the project
2	<p>Outcome of scoping – thematic areas of focus</p> <ul style="list-style-type: none"> <li>JC (SLR) confirmed how air quality impacts on designated sites, impacts to LWS and SSSI, potential impacts on fish and WFD compliance assessment would be included in the onshore ecology assessment and where these would be presented.</li> <li>ME (NRW) suggested the project also needs to consider Article 4.4 of the Birds Directive and whether air quality impacts could affect habitat for Annex 1 bird species outside designated areas (to be informed by the results of the bird surveys)</li> </ul>
3	<p>Routes and Constraints</p> <p>JC(SLR) gave an update on the constraints around the 3 shortlisted routes and the likely species that could be affected</p>
4	<p>Preliminary Ecological Appraisal Update</p> <ul style="list-style-type: none"> <li>JC(SLR) provided an update on ongoing PEA survey and issues relating to land access</li> <li>ME(NRW) suggested using GCN habitat suitability models to inform the decision making process. SLR confirmed that data held by ARC would be taken into consideration and that this would be subject to follow up as part of the PEA. JC noted that a high density of GCN was anticipated in the substation area.</li> <li>JC(SLR) outlined desk based study and data sources and asked if the 2 planning authorities had further information on LWS selection</li> <li>JW(Denbighshire) confirmed information had been sent to the project previously and offered to re-issue. Selection criteria for LWS was likely to have been done with NWWT but took place some time ago and he is not aware of the selection criteria used.</li> <li>BO(Conwy) suggested there would not be a set of selection criteria for sites in Conwy as the sites still only have candidate status. The selection criteria were fluid and likely to have been developed on a North Wales (or even national) basis. Criteria (if any) could also be over 30yrs old</li> <li>SR suggested there was a variety of BTO survey information available (from BTO), albeit some of it may be dated, e.g. non-estuarine water bird survey data and breeding ringed plover survey data. RSPB do not hold any relevant data.</li> <li>JW (Denbighshire) confirmed that, given the area of the shortlisted routes, little tern and Cetti's warbler data may not be relevant (the Cetti's warbler record is close to the little tern colony at Gronant) but will send recent little tern reports anyway.</li> <li>DW (SLR) suggested information on little tern breeding at Rhyl harbours could be useful. JW confirmed that nesting attempts at Rhyl Harbour are all historic and there are no known attempts since the new bridge went in and the area is subject to a lot of disturbance from dog walkers.</li> </ul>
5	<p>Wintering Bird Survey</p> <ul style="list-style-type: none"> <li>DW (SLR), gave an overview of the proposed approach to survey and the proposed survey area itself and confirmed that a briefing note would be provided containing further details.</li> </ul>

	<ul style="list-style-type: none"> <li>• SL(GoBe) said that an engagement programme would be provided after the meeting setting out future engagement activities and timescales (including agreement of the wintering bird survey area and methodology).</li> <li>• SR(RSPB) asked how lands access issues were being approached, whether access permissions were still being sought and whether access limitations had influenced the proposed survey area</li> <li>• DW(SLR) confirmed the proposed study area had been determined independently of any access considerations and that given most fields were viewable from roads and public rights of way with a scope SLR is confident that adequate coverage can be gained</li> <li>• PC (RWE) confirmed lands access agreement is still being pursued with negotiations ongoing. It was also confirmed that RWE would seek access for surveys in spring/summer 2021 by statutory routes if necessary.</li> </ul>
6	<p>Next Steps &amp; Timescales</p> <ul style="list-style-type: none"> <li>• JC(SLR) set out next steps with next ETG proposed for shortly after corridor selection (Jan 21). SLR will provide key PEA/wintering bird findings in advance for discussion at the ETG. The Terms of Reference were discussed with information to be provided 2 weeks in advance of ETG meetings.</li> <li>• BO(Conwy) asked if a set of constraints maps could be provided (see Action below)</li> <li>• ME (NRW) – Suggested it would be helpful to provide a report, as part of the application, on how proposals comply with relevant nature conservation legislation and policy (both national and local). This should clearly differentiate between the EIA perspective (significance) and other legal requirements (e.g. maintenance of Favourable Conservation Status). Likely to be best presented as a separate report and ‘Anglesey Land and Lakes’ application is a good example</li> </ul>
7	<p>AOB</p> <ul style="list-style-type: none"> <li>• KA(RWE) asked if attendees could circulate the poster that had been provided before the meeting.</li> <li>• JW (Denbighshire) asked if a Welsh translation version could be provided; KA confirmed one was available that could be provided.</li> </ul>
	<p><b>POST MEETING NOTE</b></p> <p>RS contacted Fraser Carter (GoBe Offshore Ornithology lead) noting that the offshore cable route zone didn’t appear to be mapped or in the zone surveyed? RS requested confirmation as to how this will be done. FC responded to note the project has adopted the industry standard approach. Owing to the short-term nature and small spatial scale of potential impacts on IOFs from installation of the export cable, no specific surveys along the offshore cable corridor will be conducted (outside of the aerial survey area defined in the scoping report, which does extend 8km south from the array). As a result, we will utilise existing data sources to inform the baseline characterisation and impact assessment for cable installation.</p>

Agenda Item	Action	Who?	Due Date
1	SLR to provide briefing note on approach to wintering bird survey	SLR	5/10/20 (assumed 2 weeks from circulation of minutes)
2	RWE to discuss constraints plans with Barbara Owsianka to see how these could be used and at which stage they can be provided	RWE	25/10/20 (assumed 4 weeks from circulation of minutes)
3	Joel Walley (Denbighshire) to provide datasets provided earlier along with information on little tern	Denbighshire	25/10/20 (assumed 4 weeks from circulation of minutes)
4	SLR/GoBe to consider provision of a policy compliance report	SLR/GoBe	25/10/20 (assumed 4 weeks from circulation of minutes)
5	Welsh translation of poster to be provided	RWE	<b>Complete as of 29/09/20</b>
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**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**ONSHORE ECOLOGY EXPERT TOPIC GROUP MEETING MINUTES**  
**FRIDAY 26 FEBRUARY 2021, 1000-1200**

MEETING ORGANISER:	RWE																																																								
LOCATION:	Teams dial in/Teleconference																																																								
PROJECT	Awel y Môr Offshore Wind Farm																																																								
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Documents provided:	Filename
Preliminary Ecological Appraisal	
NRW Advice Note dated 24/2/2021	

Agenda item	Description
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1	Introductions and aim of the meeting
2	<p>PC Provided an update on the project, confirming choice of Route and Substation.</p> <p>AJ asked why the preferred route had been chosen as this appeared to be the least preferable from an ecology perspective.</p> <p>PC explained the decision had been made considering a number of factors and feedback received from consultees, notably the request for the offshore route to avoid Constable Bank alongside engineering considerations at landfall locations. It was confirmed that the site/route selection process will be explained within the Preliminary Environmental Information Report (PEIR) and Environmental Statement (ES)</p>
3	<p><b><u>PEA Update</u></b></p> <p>JC provided a summary of the Preliminary Ecological Appraisal (PEA) explaining the baseline covered 3 shortlisted routes drawing on fieldwork from 2020. Important ecological features are identified for the preferred route and listed in the PEA.</p> <p>JC asked whether attendees agreed with the Important Ecological Features that had been identified and those features (designated sites) which had been scoped out?</p> <p>CJ referred to Advice Note provided by NRW on the 24<sup>th</sup> Feb 2021</p> <p>JW confirmed the list seemed fine but noted he had not had access to the PEA Figures</p> <p>SL asked whether attendees had been able to access the SharePoint system. Not all attendees have been able to access SharePoint and asked that an alternative be made available.</p> <p>AJ agreed the list captured Important Ecological Features and asked if the project could avoid damaging them</p> <p>SR agreed it was OK to scope out International/National designations from the Onshore Ecology assessment</p>
4	<p><b><u>Proposed Survey Scope</u></b></p> <p>JC presented the proposed survey Scope:</p> <p><b><i>Habitats</i></b></p> <p>JC survey of areas within 100m of the cable corridor that were not accessible in 2020, once access is obtained.</p> <p><b><i>Hedgerows</i></b></p> <p>JC assessment at all breaches to determine "Important" hedgerows.</p> <p><b><i>Plant species</i></b></p> <p>JC Survey of areas that are known or suspected to support protected or notable plant species, and that may be significantly impacted.</p> <p>JC asked whether there were any additional locations to Rhyl Golf Course / Y Ffrith LWS and habitats immediately adjacent to the River Clwyd that might support notable plant species?</p> <p>JW confirmed the Golf course and highlighted a lot of work been/being done in this area with Flood defence proposals, including allowing areas to be inundated. A number of</p>

surveys have been carried out recently and noted potential for water vole in the reed bed areas. JW offered to help arrange access and arrange discussion with golf course and Balfour Beatty regarding possible data sharing and possible complementary mitigation/enhancement proposals. Further surveys are planned, including at Y Ffrith LWS where there are mitigation proposals proposed (adjacent to the east).

JC will e-mail JW to seek further information on existing/future work in golf course area

JW to speak with Denbighshire CC contracts manager to gain further information in respect of completed/planned surveys.

### ***Fish***

JC highlighted the project would like to obtain existing fish data and asked if consultees can provide additional data or confirm what data is available to use?

RP suggested not much data available for the particular tidal section where the route crosses the River Clwyd. Electrofishing data is available for further upstream mainly for salmonid species but probably not very relevant. Regarding species - Salmonid species, Lamprey and Eel. RP didn't think Bullhead were likely to be present. Key consideration is timing of works to avoid peak times for migratory fish, both smolt heading downriver and adults heading upriver, most of which takes place at night. Contact for electrofishing data is Rob Evans, based in Bangor.

SL noted that that the Project has agreed a desk based approach for the offshore fish and shellfish characterization, including migratory fish, and can provide to RP to confirm.

### ***Invertebrates***

JC Habitat-based assessment, focusing on a) areas where permanent habitat loss is likely and b) areas that are known or suspected to support potentially important populations of rare/notable species.

### ***Reptiles***

JC Presence/absence survey at areas of moderate or highly suitable habitat that could be permanently affected (substation area only).

DW asked if attendees were comfortable with the assessment of receptors [listed above]? No objections were raised.

DW highlighted Advice note from NRW included invasive non-native species and proposed picking these up in the habitat survey work

ME asked that biosecurity issues be considered during survey/construction works. Mentioned that *Azolla* present at Glascoed Nature Reserve and Chitrid at Gronant and Talacre.

ME suggested preliminary biosecurity risk assessment be developed now that could be used for SI works and included in the application and then developed further for construction phase (CEMP)

### ***Great Crested Newt (GCN)***

JC All ponds within 250m will be subject to HSI survey and presence/absence survey, unless existing desk study data confirms presence in one of the last five breeding seasons. Presence will be assumed if GCN have been recorded within the last five years, or if the pond occurs within 250m of another with a positive record in the last five years.

ME Need to consider modelling and suggested the Online Welsh GCN Database is used as data source

AJ suggested Cofnod could provide access to the database (database is not publicly accessible)

JW Highlighted a mitigation area to the south east of Rhyl where there were 4-5 ponds and existing data should be available. This is area also has records of water vole and otters.

ME suggested all data be reviewed and not just within 5 yrs.

JC clarified that the project would survey using eDNA if no records for last 5 yrs available (even if there are older records).

ME suggested that even if eDNA results were negative then traditional survey means still be used

JC asked whether that meant we could not rely on eDNA survey?

ME suggested could use eDNA but not rely on results completely and use traditional survey to confirm negative result

JC asked whether egg searching could be used to confirm negative eDNA result?

ME The majority of impact is temporary so eDNA, backed up by data review, egg search and modelling data could be used.

JC All ponds within 250m of permanent or 100m of temporary habitat loss will be subject to population size class assessment unless desk study data confirms population size within the last three breeding seasons.

ME agreed this makes sense and that Glascoed Nature Reserve, St Asaph Business Park and Rhyl SE should have up to date data. Suggested going to Colin Williams at Welsh Government for information about Glascoed (Middlemarch as contractors) and Wild Ground (Paul Furnborough) for SABP. JW can send a link to data for Rhyl SE or speak to Richard Gallon at Cofnod.

Also mentioned that GCN survey has happened/is happening in relation to Elwy Solar Energy Farm.

DW any other sites for GCN?

JW Ponds at Bruton park and Rhuddlan golf course. No GCN records at Bruton park ponds, but are within nearby residential gardens

ME suggested speak to Rob Ward at ARC for modelling information. 2014 modelling information on linear infrastructure.

DW queried subterranean assessment in NRW advice note.

ME Given potential for GCN to be below ground don't discount improved pasture as a habitat that can support GCN.

### ***Birds***

DW Focus of proposed breeding bird surveys is on area where significant effect on Annex 1/Schedule 1 species is possible. Surveys proposed at Ffrith Beach / Rhyl Golf Course, Clwyd Estuary and Adjacent Fields LWS / Coastal Floodplain Grazing Marsh, Substation Area, barn owl survey at all potentially suitable trees and structures within corridor and 100m buffer, kingfisher habitat assessment undertaken in conjunction with otter and water vole surveys. No comments/objections raised to survey proposals.

Non-Breeding Birds: surveys continue as agreed at the previous ETG meeting but now only taking place for preferred route.

SR When will non-breeding bird information available?

DW Will be included as part of PEIR but will see if can be provided in advance of PEIR (unlikely to be before end May/June 21)

### **Bats**

JC Activity survey: At three areas. transect routes will cover all habitat breaches, static detectors will be deployed at one third of them.

Roost Assessment - Undertaken at all trees within 100m; at-height PRF inspection at moderate or high potential trees subject to impacts, with additional presence/absence survey as necessary. No survey proposed at buildings or structures proposed, all are at least 35m from construction work.

All No comments/objections raised to approach

AC Will veteran trees be included in overall assessment?

JC Yes, will be noted and details taken

### **Water Vole**

JC all potentially suitable watercourses crossing the preferred cable corridor, substation and other associated construction areas, plus 200m up and downstream. Other than the golf course and waterbodies north of A525, any other areas?

All No other areas highlighted. JW thinks that water vole have not been recorded at the golf course in recent surveys

ME – water vole can use ponds.

DW – we avoid ponds through routing to date so survey of ponds not required.

### **Dormouse**

JC Hazelnut searches undertaken at woodland within the preferred cable route corridor, and substation boundary plus surrounding 100m. Nest tube survey undertaken at all hedgerows that may be breached south of the A525 and which are potentially suitable for use by dormice.

JW queried use of nut searches rather than tubes in woodland?

JC generally woodland is avoided by the route. Every woodland that would be impacted will have tubes placed. JW happy with that.

ME please map tubes/boxes using GIS to ensure all can be relocated and removed at end of survey

AC Suggest use nest boxes rather than tubes as tubes less successful in North Wales. Prefer boxes where possible

ME Agreed with use of boxes and could boxes be left in place after survey?

DW Route is on third party land so would need landowner consent to leave boxes and reservations about placing boxes and then taking them away if occupied by dormice.

ME Boxes give better material results so advise boxes in preference to tubes as tubes have limited success

	<p><b>Badger</b></p> <p>JC - survey of all areas within 100m.</p> <p>JW Y Ffrith has highest density of badgers in North Wales, particularly in the east of the site. Suggested approaching Clywd Badger Group as it may have additional records to those held by Cofnod.</p> <p>JC asked whether anybody had any further questions or comments on the PEA. No further questions or comments were raised.</p>
5	<p><b>Next steps</b></p> <p>Next ETG meeting proposed post-PEIR when survey results will be available (likely to be end October 2021). May not have full reporting at this stage, however, summary results can be provided for discussion. Discussion can also include initial proposals for enhancement (informed by ongoing fieldwork and evolving design). JW noted that proposals for enhancement should include proposals for securing long term management.</p> <p>SL offered another meeting prior to the PEIR if people thought it would be useful. All agreed to wait until post-PEIR.</p>
6	<p><b>AOB</b></p> <p>JW highlighted the recent publication of Future Wales and an updated Planning Policy Wales (11) and recommended we look at this as it refers specifically to net benefits and an innovative nature-based approach.</p>

Agenda Item	Action	Who?	Due Date
1	Provide Alternative method of accessing PEA Figures for ETG members	SLR	5/3/2021
2	JC to e-mail JW to request information on existing/future work in golf course area and contacts for further discussions	SLR	12/3/2021
3	SL/JC to provide migratory fish characterisation if necessary, noting this has been approved by NRW already	GoBe	12/3/2021
4	JC to speak to JW regarding available information on ponds to SE of Rhyl		12/3/2021
5	Provision of non-breeding bird survey results in advance of PEIR	SLR	End May 2021
6	JC to request relevant fisheries data from NRW	SLR	12/3/2021
7	JC to contact various individuals and organisations regarding recent GCN monitoring data	SLR	12/3/2021
8	JC to request badger data from Clwyd Badger Group	SLR	12/03/2021

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**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**ONSHORE ECOLOGY EXPERT TOPIC GROUP MEETING MINUTES**  
**WEDNESDAY 24<sup>TH</sup> NOVEMBER 2021, 1000-1200**

MEETING ORGANISER:	RWE																																									
LOCATION:	Teams dial in/Teleconference																																									
PROJECT	Awel y Môr Offshore Wind Farm																																									
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Documents provided:	Filename

Agenda item	Description
1	Introductions and aims of the meeting
2	<u><b>Project Update</b></u> Awel y Môr Offshore Wind Farm (OWF) forms an extension to Gwynt y Môr OWF and is a Nationally Significant Infrastructure Project (NSIP) requiring a Development Consent



Order (DCO) via UK Govt and a separate Marine Licence via Natural Resources Wales. The current lease area presented for PEIR is reduced in size compared to the original lease area.

### ***Statutory consultation***

Statutory consultation took place between 31<sup>st</sup> August and 11<sup>th</sup> October.

Statement of Community Consultation (SoCC)

- Set out who AyM will consult, how and when – this was agreed in advance with Denbighshire and other LPAs
- Consultation was programmed for covid-flexibility – online consultation with outdoor physical events along North Wales coast (6 weeks)

Almost **3,500** unique visitors to the AyM online exhibition.

Face-to-face consultation with around **900** members of the public across nine days of mobile consultation in north Wales.

Around **300** formal written and survey consultation responses from statutory stakeholders and members of the public (s42 and s47 consultees).

### ***Next Steps***

Consultation responses are being collated, distributed and reviewed by the AyM team.

Expert Topic Group meetings on detailed matters are taking place.

Preparation for the DCO and Marine Licence application documents is underway:

- Changes to the scheme are being made where possible to seek the best balance between benefits and impacts.
- The Consultation Report will provide answers to all consultee responses.
- The design freeze process is ongoing and is likely to conclude between Q4 of 2021 and Q1 of 2022.

### ***DCO Programme to Submission***

At the current stage of the programme, post-statutory consultation is ongoing (engagement with ETGs, land-owners, stakeholder etc), consultation responses are being collated and considered alongside the ongoing design review process.

Spring of 2022: The DCO and Marine Licence applications will be submitted to PINS/NRW respectively

2022/2023: DCO Examination

2023: Decision on the DCO

2023/2024: Decision on the Marine Licence

2030: AyM OWF operational by 2030.

### ***Statements of Common Ground***

	<p>The Agreements Log will be shared with consultees during 2021. This will help to develop the Statements of Common Ground.</p> <p>Discussions on Statements of Common Ground will take place in Q1 of 2022.</p> <p>Most Statements of Common Ground are to be agreed post submission.</p>
3	<p><b><u>Summary of Consultation Feedback</u></b></p> <p>A consultation summary of feedback from Denbighshire County Council, RSPB, NWWT and NRW was presented.</p> <p>It was raised that the AyM Team would like some clarification from NRW on a query relating to noise and vibration. Specifically, effects from horizontal directional drilling under the River Clwyd not resulting in a barrier to fish migration. It was questioned if this triggers seasonal restrictions.</p> <p>GN noted that avoiding the full migration period was not necessary, but that the disturbance from the HDD activities may slow migration as fish start to school. It is the noise and the physical vibrations that would cause fish to school up before passing the area and would move more freely under quieter conditions.</p> <p>SL: for HDD, what would be the pathway that would cause schooling?</p> <p>GN: Would be hesitation from physical activity and noise, but acknowledge that can't back this up with identified evidence, is more from experience in fisheries. If movements are stalled, fish become an easier target for predatory species and therefore fish migration would benefit from periods of no drilling during the day. Times of drilling during the day and tides should be considered.</p> <p>SL noted that there is the assumption that HDD for the River Clwyd will require 24 hour working (so including overnight) which is a complex process to stop and poses a number of risks. There will be a natural break between drill runs however halting drilling periodically would present a risk of refusal. Therefore, RWE need to look at what the risk of causing a significant impact is. The AyM team are not aware of any evidence that suggests noise and vibration would have a significant impact on fish migration. Evidence on understanding the sensitivity of salmon when drilling several metres under the ground is limited. Method statements on the HDD activities could be produced pre-construction once the detailed design is available and then consider (at that stage), whether a break in drilling is required.</p> <p>GN noted the importance of weighing up practicality against likely significant effect. Can't back up with reference to evidence. Post-meeting note: Having spoken to various fisheries colleagues there is conflicting information of the impacts of vibration on fish migration – particularly important for the outward migrating smolts. I would still ask to consider avoiding drilling through April and Early May (if practicable) to try to minimise any possible effects on fish at this stage of life. Returning adult fish are more resilient and I believe the effects will be negligible to adult fish.</p> <p>JC queried if NRW hold any data on the population of Great Crested Newts being at Favourable Conservation Status. The assessment would normally be set out on the current conservation status.</p>

	<p>JW confirmed that there is data on the GCN population around St. Asaph Business Park.</p> <p>ACLJ noted that there are long term plans to move the wall on the Clwyd Estuary backwards (relating to long term flooding issues). It was suggested that the AyM Team contact the Flood Team to discuss further.</p> <p>CRJ noted that this point hasn't been raised in the current flood response and would need more investigation before providing information to the Ecology Team.</p>
4	<p><b><u>Summary of survey findings not reported in PEIR</u></b></p> <p>JC and DW presented a summary of survey findings not reported in PEIR.</p> <p>The Wintering Birds Report was included at PEIR and is not covered in this section.</p> <p><b><i>Breeding Birds</i></b></p> <ul style="list-style-type: none"> <li>• The scope of the Breeding Birds surveys is set out in the PEIR report.</li> <li>• Surveys focused on the coasts, adjacent zones to fields, substation and River Clwyd</li> <li>• A range of Section 7 Species were recorded at the sites. Species are relatively widespread and unlikely to be significantly affected by the project. Standard mitigation measures will be employed.</li> <li>• Species at the River Clwyd, adjacent fields and the coast were primarily breeding waders and breeding fowl. There is no evidence they are breeding here and are thought to be passing through.</li> <li>• A 100m buffer has been added to the cable route in relation to Barn Owl surveys. Two Barn Owl nests were found – one active and one recently inactive. Six other structures and trees were found to have suitability for nests although there is no evidence of nests in these structures.</li> <li>• One Kingfisher was seen during the survey however there was no evidence of nesting and little suitable habitat.</li> </ul> <p><b><i>Dormice</i></b></p> <ul style="list-style-type: none"> <li>• There has been no evidence found of Dormice during the surveys.</li> </ul> <p><b><i>Reptiles</i></b></p> <ul style="list-style-type: none"> <li>• There was no evidence found of reptiles at the substation site.</li> <li>• Suitable habitat has been found along the cable route corridor, with some reptiles being present, particularly towards the coast.</li> </ul> <p><b><i>Otter and Water Vole</i></b></p> <ul style="list-style-type: none"> <li>• Limited evidence of Otter and Water Vole has been found during the 2021 surveys, just two spraints were found. No latrines or prints were found.</li> <li>• JW queried if the location of any mink can be shared.</li> <li>• JC confirmed locations can be shared.</li> </ul> <p><b><i>Bats</i></b></p> <ul style="list-style-type: none"> <li>• Bat surveys involved the installation of 22 static detectors from April through to October.</li> <li>• Analysis of bat activity data is still ongoing.</li> </ul>

	<ul style="list-style-type: none"> <li>• One Greater Horseshoe bat and one Lesser Horseshoe Bat have been found to the south of the project.</li> <li>• Tree surveys have identified the presence of five roost trees.</li> <li>• A large proportion of trees were also found to have moderate or high potential to support bats.</li> <li>• JW noted that Greater Horseshoe bats are rare in this area and that it would be useful to know more about this.</li> </ul> <p><b>Badgers</b></p> <ul style="list-style-type: none"> <li>• Badger surveys have been undertaken up to 30m around the cable route. The habitat survey extended to 100m where any activity was noted, but the focus of the surveys remained at a 30m buffer.</li> <li>• Setts were recorded at seven broad locations. None of these setts will be directly affected by the project.</li> <li>• JC queried if badger activity and setts at the coast can be plotted on a map by JW.</li> <li>• JW noted that badger locations at the coast can be shared with JC.</li> <li>• JW also suggested that Clwyd Badger Group could hold useful data on badgers.</li> <li>• CRJ queried if the ecology team are aware of the proposed sea defence works at the coast.</li> <li>• JC confirmed they are aware of these works and that they will be considered in the assessment.</li> </ul> <p><b>Great Crested Newts</b></p> <ul style="list-style-type: none"> <li>• The presence of GCN is widespread across the project area.</li> <li>• The A55 is considered to represent a barrier to most, but not all GCN movement and so is a distinct population from that south of the A55.</li> <li>• SL queried if JW can share geolocations of photographs of land south of the railway.</li> <li>• JW confirmed these can be shared.</li> </ul> <p>JW noted there is further information that can be shared with the ecology team, and it was agreed that JC will set up a call.</p> <p>CRJ noted that he will contact Matt Ellis to query if there is any further data that can be provided.</p>
5	<p><b><u>Proposed Mitigation</u></b></p> <p>As the design is not fixed, any mitigation proposed at this stage is preliminary.</p> <p><b><u>Cable Corridor</u></b></p> <p>Temporary mitigation along the route corridor will primarily comprise habitat management for the benefit of GCN that could be impacted via terrestrial habitat loss or fragmentation, in addition to measures to ensure safe passage of badgers.</p> <p>The majority of the wetland area north of the A55 will remain undisturbed. HDD will be used under the area of ancient woodland.</p> <p>South of the wetland area will be the GCN mitigation scheme. Any hedgerows that are crossed by the projects will be replaced by species rich hedgerows and agricultural fields returned to agricultural use. It was noted that any reinstated habitats would be subject to a management plan being in place.</p>

JW noted the presence of a wildflower site and will send details to the ecology team.

#### Substation

JW queried if pond creation at the substation would be possible. In addition, there is a location to the south (Green Gates Farm) that is being used as a tree nursery.

DW noted that while pond creation would not be needed for additional GCN mitigation, additional ponds could present enhancement to the substation site.

ACL noted that the connectivity of hedgerows is important to connect habitats.

JC highlighted that woodland planting would consist of species that present a benefit to biodiversity.

JC queried the progress on plans at Bodelwyddan.

JW noted that plans are progressing (not in public domain) and plans for Denbighshire County Council to manage some areas of the castle estate are in early discussion.

MF noted that a meeting with Hannah Arndt is scheduled to discuss the castle estate.

CRJ noted that mitigation and compensation should be like for like compared to what habitat will be lost and that evidence would be needed to support this. Looking at the provided plans this appears to be the case and so looks to be acceptable. An approach similar to GyM would be acceptable.

DS queried if temporarily disturbed areas at the substation will be handed back to the landowner once reinstated or to a local body to manage.

PC highlighted that this is one area where RWE are looking to purchase or lease land. Mitigation isn't finalised and through discussions with landowners there is an opportunity to work on future plans.

JW noted that Denbighshire County Council may be interested in these areas as they have been involved with similar schemes.

PC queried when Denbighshire County Council would step in to take over the management of mitigation areas.

JW noted that this would occur as soon as mitigation is finalized by the developer and would be part of a S106 agreement.

CRJ highlighted that long term management needs to be considered.

JC confirmed that long term management will be in place.

ACLJ noted that North Wales Wildlife Trust can also manage land.

JC noted that there will be structurally diverse grassland and diverse hedgerows. There are mature trees that will be retained and are possible locations for bat boxes.

JW highlighted that managing soils is an important part of diverse grassland.

ACLJ also noted that soil management is important for agricultural fields.

JW queried the programme of surveys prior to construction.

JC highlighted that details of preconstruction surveys will be included as part of the CoCP and LEMP within the ES. There will be follow up surveys and mitigation commitments made in the ES.

JW noted that there is evidence of polecats in the area.

	<p>DW noted that standard mitigation employed e.g. speed limits and ECoW to protect polecats.</p> <p>JW raised that there may be the highest concentration of lizards at the landfall area.</p> <p>MF noted that reptiles are considered.</p>
6	<p><b><u>AOB</u></b></p> <p>Any feedback on summary notes on survey findings and proposed mitigation would be welcomed by 9th December,</p>

Agenda Item	Action	Who?	Due Date
1	Share locations of mink with JW	JC	
2	JW to send details to the ecology team on the wildflower site	JW	
3	CJ to contact Iwan regarding the proposal for river walls at the River Clwyd	CJ	Complete
4	JC to share information of Greater Horseshoe Bats to JW	JC	
5	JW to share geolocations of GCN south of the railway	JW	
6	Discussion on latest information to be set up between Denbighshire and the ecology team	JC	
7	JW to provide further information on the wildflower site	JW	
8	CJ to ask Matt Ellis regarding the GCN favourable conservation status	CJ	Complete
9	CJ to provide link to new guidance on Article 12 and 16	CJ	Complete
10			
11			
12			

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**NRW/SLR/GOBE DISCUSSION ON ECOLOGY MITIGATION 26<sup>TH</sup> NOVEMBER 2021**

<b>MEETING ORGANISER:</b>	SLR		
<b>LOCATION:</b>	MS Teams Video Call		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	CHRIS JONES	NRW	CJ
	MATT ELLIS	NRW	ME
	SEAN LEAKE	GOBE	SL
	JESS COLEBROOK	SLR	JC
	MATT FAULKNER	SLR	DW

<b>Agenda item</b>	<b>Minutes</b>
	<p><b><u>Information provided by NRW beforehand was discussed during the meeting</u></b></p> <p>1) The Current Conservation Status of the local GCN population at St. Asaph.</p> <p>1. Although not defined, from the current data (see attachment) NRW consider the current conservation status (CCS) to be 'unfavourable'. NRW have not defined favourable conservation status but based on attributes such as population size and habitat quality we consider these attributes' possible targets are population size: 500 and no. of ponds: 60-70. <b>Note new EC Guidance re FCS and CCS</b>  <a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=PL_COM:C(2021)7301">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=PL_COM:C(2021)7301</a></p> <p>2) Are there any specific GCN mitigation examples that we are aware of from other projects that have worked well in the past?</p> <p>St. Asaph where there has been a significant increase and Lane End, Buckley.</p> <p>3) NRW comments on the Mitigation, Compensation and Enhancement Area Plan (18/11/21) and Onshore Biodiversity and Nature Conservation November 2021 ETG: 2020/2021 Proposed Mitigation Update.</p> <p>NRW consider the extent of the proposed ecology area to be satisfactory in principle.</p> <p>NRW's detailed comments on the documents are as follows:</p> <p>(a) Will areas be required for other purposes such as surface water attenuation (i.e. detention/ retention water features)? If so, we would expect these sites to be included in the GCN monitoring proposals.</p>

	<p>(b) In terms of the plan, we advise the approach follows the previous Gwynt y Môr and Burbo Bank Sub-station proposals.</p> <p>(c) We advise the submission of details and associated plans concerning GCN avoidance and mitigation measures including, but not limited to: fence design, specifications and proposed locations; consideration of access issues across fence lines (including PROW if applicable); fence monitoring and maintenance requirements; and supervised removal of barrier fences. The submission should include proposed timescales and reporting requirements.</p> <p>(d) We advise that pond creation is also considered as one of the underpinning mechanisms for evidencing no detriment to maintenance of the FCS of the local population of GCN. This is consistent with restoration under Article 2(2) of the Habitats Directive and the previous substation mitigation schemes (3 ponds were created in respect of both previous sub-station mitigation schemes).</p> <p>(e) No consideration appears to have been given to incidental capture/killing of amphibians during the operational phase of the scheme. E.g. the installation and maintenance of an amphibian friendly surface water management system that does not include gully pots (or other similar features).</p> <p>(f) Previous infrastructure proposals (where impacts on GCN included temporary habitat loss/severance) have included commuted sums to Building Wildlife (see <a href="http://www.buildingwildlife.org.uk">www.buildingwildlife.org.uk</a>, we therefore suggest that this is considered as part of the suite of proposals.</p> <p>(g) We advise the submission of a long-term site management plan (for the operational phase of the proposal) that includes the following:</p> <ul style="list-style-type: none"> <li>• defined aims and objectives;</li> <li>• habitat management prescriptions;</li> <li>• contingency measures if fish or invasive non-native species (INNS) are detected;</li> <li>• proposals that are capable of being implemented in the event of failure to undertake or to appropriately implement identified or contingency actions;</li> <li>• site liaison and wardening;</li> <li>• licensing requirements for undertaking habitat management and surveillance;</li> <li>• current and any proposed changes to tenure of the compensation area;</li> <li>• tenure of the compensation to be approved by the decision-making body;</li> <li>• persons or bodies responsible for undertaking management and surveillance together with required skills and competencies;</li> <li>• reporting requirements; and</li> <li>• proposed dates for updating or revising the management plan</li> </ul> <p>(h) In terms of tenure we suggest consideration be given to the selection being informed by the definition of 'responsible' bodies under Section 119 (9) of the Environment Act 2021 (Environment Act 2021 (<a href="http://legislation.gov.uk">legislation.gov.uk</a>)). We advise that material questions include:</p> <ol style="list-style-type: none"> <li>a. Specialist knowledge, skills and competencies in-house and any implications following changes to personnel</li> <li>b. Specialism at local and national spatial scales</li> <li>c. Demonstration of experience</li> </ol>
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	<p>d. Knowledge/experience of managing adverse factors e.g. fish or invasive non-native species</p> <p>(i) We advise that post construction monitoring and record dissemination lasts for a period of not less than 25 years. All ponds to be added to the Wales Great Crested Newt Monitoring Scheme, (see <a href="https://www.cofnod.org.uk/LinkInfo?ID=7">https://www.cofnod.org.uk/LinkInfo?ID=7</a>) with individuals/bodies identified as being responsible for monitoring and reporting works. The methodology should include annual [or biennial] abundance counts and Habitat Suitability Index (HSI) assessments. Each water body should be individually numbered on site.</p> <p>(j) We also advise that you consider the submission of a biosecurity risk assessment and external ecological compliance audit.</p>
	<p><b><u>Additional notes from discussion</u></b></p> <p>4 NRW's re-confirmed position is that pond creation is required in order to move towards favourable conservation status (noting Gwynt y Mor and Burbo Bank Extension both included creation of 3 ponds)</p> <p>5 NRW asked that RWE provide consideration of the conservation status of species alongside consideration of EIA significance</p> <p>6 During discussion, the area to the south east of the substation site, that is adjacent to the SABP nature reserve and to the north of the crematorium, was a sensible location for pond creation.</p> <p>7 Feedback from DCC suggests ponds would be enhancement, NRW would like RWE to provide a more nuanced description of enhancement at the project level but contributing to 'restoration' at a more strategic level.</p> <p>8 It was confirmed that NRW feedback on incidental capture/killing of amphibians during the operational phase of the scheme has been fed to RWE design team to consider in ongoing design process</p> <p>9 NRW has suggested further detail on biosecurity relating to planting be included within the application</p> <p>10 NRW has asked that data be passed to Cofnod on the mitigation proposals once detailed design has been undertaken (can provide a commitment to do this in the outline management plans RWE will provide with the DCO application)</p> <p>11. In terms of tenure of the ecology area, NRW advocated freehold ownership by a 'responsible' body</p> <p>12. NRW raised the matter of SUDS ponds. These areas do not form part of the ecology area. However, as with Burbo Bank and Gwynt y Mor sub stations, these water bodies are to be monitored for GCN</p>

## 3.6 Appendix C6: Onshore Hydrology and Flood Risk Meeting Minutes

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**HYDROLOGY, GROUND CONDITIONS AND FLOOD RISK EXPERT TOPIC GROUP MEETING MINUTES –  
1<sup>ST</sup> OCTOBER 2020**

<b>MEETING ORGANISER:</b>	RWE		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	WAYNE HOPE	DENBIGHSHIRE COUNTY COUNCIL	WH
	HELEN MILLBAND	NRW	HM
	SOPHIE LUCAS	NRW	SLuc
	KAY ROBERTS	NRW	KR
	IWAN HUWS	NRW	IH
	CHRISTOPHER ROBERT JONES	NRW	CRJ
	PAUL CARTER	RWE RENEWABLES	PC
	HELEN THOMAS	RWE RENEWABLES	HT
	KAREN ALGATE	RWE RENEWABLES	KA
	ALEX HERBERT	RWE RENEWABLES	AH
	GILES SIMS-WILLIAMS	RWE RENEWABLES	GSW
	SEAN LEAKE	GOBE	SLea
	SAMMY MULLAN	GOBE	SM
	MARTIN BAINES	SLR	MB
	JAMES APPLEBY	SLR	JA
	MATT FAULKNER	SLR	MF
	ELIZABETH HOLMES	SLR	EH
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	ADAM COOPER	NRW	
	PETE GACHES	GOBE	
	ROBIN SANDHAM	CONWY CBC	

<b>Documents provided:</b>	<b>Filename</b>
Agenda and ppt provided before meeting	AyM ETG Agenda – Onshore Hydrology – 1 October
	AYM Sept Oct ETG Presentation Onshore Hydrology

Agenda item	Minutes
1	<b>Introductions</b> <ul style="list-style-type: none"> <li>MF (SLR) introduced the purpose and aims of the meeting as an opportunity to review and discuss scoping outcomes and agree next steps.</li> </ul>
2	<b>Project Update</b> <ul style="list-style-type: none"> <li>KA (RWE) provided update on offshore and onshore elements of the project including general engagement.</li> </ul>
3	<b>Water Framework Directive (WFD)</b> <i>Approach to WFD</i> <ul style="list-style-type: none"> <li>SM (GOBE) outlined that there will be a standalone WFD report covering both offshore and onshore to accompany PEIR and application. This will be based on the NRW OGN72 guidance. Clearing the waters guidance will supplement the guidance for offshore elements of the WFD.</li> <li>SM (GOBE) highlighted the WFD assessment will primarily be a signposting chapter however will cover aspects relating to the WFD and that a Habitats Regulations Assessment (HRA) will inform the protected areas assessment.</li> <li>HM (NRW) agreed the approach to WFD compliance assessment seems sensible and appropriate.</li> </ul> <i>WFD Next Steps</i> <ul style="list-style-type: none"> <li>SM (GOBE) noted that a scoping and screening document for the WFD compliance assessment will confirm the details to be scoped into a full assessment (during Q1 2021). This will be reviewed and discussed with stakeholders for agreement.</li> <li>HM (NRW) agreed this sounds appropriate. It was highlighted that NRW is in the process of reviewing WFD classifications. Publication is possibly late 2021. More details of classifications and data can be requested if needed.</li> <li>SM (GOBE) will request classification details at a later date if needed.</li> <li>MB (SLR) asked when new data would be released and what data would NRW like to be seen for the assessment.</li> <li>HM (NRW) noted that an updated River Basin Management Plan (RBMP) is likely to be published in December 2021. HM to provide up to date information on when we're likely to see the most recent data.</li> <li>MB (SLR) confirmed that we will need to agree what data will be included in reports depending on the publication of the updated data and the RBMP document.</li> <li>SM (GOBE) highlighted that we will continue to engage with stakeholders throughout.</li> </ul>
4	<b>Hydrology, Hydrogeology and Flood Risk</b> <i>Scoping</i> <ul style="list-style-type: none"> <li>MB (SLR) outlined the outcomes of scoping. Noted that the scoping opinion disagreed on scoping of WFD compliance assessment and accidental spillages and leakages of polluting substances. MB highlights that this would be included in a management plan however PINS wanted this as part of the WFD compliance assessment. MB confirmed that this will also be included in the Environmental Impact Assessment (EIA).</li> </ul>

*Technical Discussion – Proposed Data Sources*

- MB (SLR) noted that NRW signposted to areas for further data sources. Shoreline Management Plans will highlight areas that will need engagement.
- IH (NRW) highlighted that some pumping stations aren't on the plan.
- MB (SLR) confirmed that once a preferred corridor is known, there will be engagement to request information on pumping stations.

*Technical Discussion – Proposed Study Area*

- MB (SLR) highlighted that the study area will include floodplain mapping, main river crossings and other watercourse crossings.

*Technical Discussion – Other Considerations*

- MB (SLR) Substation drainage – would like to discuss the approach to the SAB application depending on corridor and substation location. Proposed that for the substation, a standalone surface water drainage plan will be done and will feed into a SAB application for this aspect of the development.
- IH (NRW) queried how we manage the temporary areas e.g. construction compounds, HDD drill pads and would this require SAB application?
- WH (DCC) suggested that temporary works areas could be treated as a permanent area with measures being relaxed if needed, particularly around amenity benefit and biodiversity.
- MB (SLR) agreed that from previous experience SAB applications rely on input from areas other than drainage which may not be appropriate for temporary areas however we are confident that we can meet requirements for hydrology and drainage.
- WH (DCC) agrees on this approach but highlights a permanent approach to the substation site (covering all SAB application standards). Would like to discuss this in more detail to agree formal approach to the hierarchy.
- MB (SLR) asked if the SAB would accept the drainage application following consent (for the substation) or would this like to be seen to run in parallel?
- WH (DCC) would like to see this run in parallel with the application and suggests holding discussions before SAB submission.
- MB (SLR) agreed that there would be discussion on SAB application and will follow up with another call.
- MF (SLR) suggested early 2021.
- MB (SLR) highlighted that once locations are known some parameters can be confirmed e.g. geology under the substation and this would help to refine the strategy for management of surface water runoff. Suggested discussing principles for project of this scale end of 2020.
- MF (SLR) highlighted that a programme of documents and engagement timescales will be issued after the ETG meeting.
- MB (SLR) noted that drainage principles will feed into the CEMP.
- MB (SLR) noted that dewatering may need a permit if used in trenching. This is to be confirmed following site selection. This is similar for watercourse crossings – noted that any crossings of small watercourses won't be drilled but pumped and trenched with principles being covered in the FCA.
- IH (NRW) noted experience of an issue with HDD in the past where equipment had to be excavated out and asked if this can be considered in the FCA.
- MB (SLR) took note of this request.

	<ul style="list-style-type: none"> <li>• MB (SLR) noted that effects on fish (vibration and noise effects during trenching) will be included in the WFD compliance assessment.</li> </ul> <p><i>Next Steps</i></p> <ul style="list-style-type: none"> <li>• MB (SLR) stated that surveys are likely to follow site selection.</li> <li>• SLuc (NRW) asked if Welsh Water has been contacted for comment on assets in the area.</li> <li>• MB (SLR) confirmed that contact with Welsh Water will form part of the data information request following site selection.</li> <li>• MF (SLR) confirmed Welsh Water wasn't included in the scoping opinion however utilities have been reviewed in the site selection process</li> <li>• KA (RWE) confirmed that the project team has been in contact with Welsh Water regarding assets in the area. A teleconference will be held on how to progress.</li> <li>• MB (SLR) data collection requests will be done following site selection and are to include Water Watch Wales. Go to councils for information from respective PWS registers.</li> <li>• MB (SLR) PEIR content will be detailed report on the current baseline and include the draft FCA and WFD.</li> <li>• WH (DCC) stated that watercourse crossings will require consents.</li> <li>• MB (SLR) expects main rivers to be HDD.</li> <li>• WH (DCC) noted that NRW flood mapping highlights ditches and smaller watercourses which may be defined as main rivers in the area.</li> <li>•</li> </ul>
5	<p><b>Geology and Ground Conditions</b></p> <p><i>Scoping</i></p> <ul style="list-style-type: none"> <li>• JA (SLR) showed the outcomes of the scoping opinion and highlighted general agreement.</li> <li>• JA (SLR) provided an overview of the agreed impacts to be scoped in.</li> <li>• JA (SLR) highlighted that an SMP will be included and commented on by PINS.</li> <li>• JA (SLR) provided an overview of the agreed impacts to be scoped out.</li> <li>• JA (SLR) highlighted that Conwy CBC requested to scope in operational effects on mineral deposits – this will align with the selection of the cable corridor. E.g. sensitive limestone deposits.</li> <li>• MF (SLR) asked if WH has any suggested contacts in Denbighshire for discussion on mineral deposits at a later date.</li> <li>• WH (DCC) confirmed that he can provide contacts.</li> </ul> <p><i>Proposed approach to assessment</i></p> <ul style="list-style-type: none"> <li>• JA (SLR) outlined the approach to assessment including general desk study and general mapping; review of available records for permitted sites and LADP safeguarding plans following site selection.</li> <li>• JA (SLR) noted that planning portals and planning proposals will be reviewed and important sites to be discussed and agreed with consultees – likely to be early 2021 following site selection. JA also confirmed that planning portals will identify other projects for cumulative impact.</li> <li>• MF (SLR) confirmed a list of projects to be considered for cumulative impact is being compiled and will be shared with local authorities to gain comments.</li> </ul> <p><i>Additional comments from Consultees</i></p>

	<ul style="list-style-type: none"> <li>• JA (SLR) outlined additional comments from consultees.</li> <li>• JA (SLR) noted that NRW highlighted that piling might be an issue at the substation location. A design information request has made in relation to this.</li> <li>• JA (SLR) noted that alongside coal mining, there will be consideration of other mining activities (particularly metal mines). This will overlap with mineral extraction sites.</li> <li>• JA (SLR) highlighted that National Rail infrastructure will be considered, and once cable route known control measures will be outlined as appropriate to demonstrate that it will not be compromised.</li> <li>• MF (SLR) noted that the HDD is proposed under the railway infrastructure and there will be evidence that this will not affect railway operation. Contact with Conwy and Denbighshire will be made to see if they have any previous data for the area following site selection.</li> </ul> <p><i>Technical Discussion – Data Sources</i></p> <ul style="list-style-type: none"> <li>• JA (SLR) gave an overview of the Data Sources and queried if there are any other sources that consultees would like to be considered [no response].</li> </ul> <p><i>Technical Discussion – Refinement of study area</i></p> <ul style="list-style-type: none"> <li>• JA (SLR) noted that there will be a call to discuss the zone of influence on the final cable corridor and scope will be agreed.</li> </ul> <p><i>Technical Discussion – Cumulative Impacts</i></p> <ul style="list-style-type: none"> <li>• JA (SLR) confirmed that cumulative impacts will be considered</li> </ul> <p><i>Technical Discussions – Soils/Materials Management Plan</i></p> <ul style="list-style-type: none"> <li>• JA (SLR) noted that a need for a soils/materials management plan was brought up by PINS.</li> <li>• JA (SLR) noted that these will be considered but are not likely to progress prior to consent being granted. The selected contractor will provide input into specific management and mitigation measures.</li> <li>• JA (SLR) highlighted that a CEMP will include high level overview of the SMP with method statements being added.</li> <li>• MF (SLR) highlighted that this would be good to discuss with consultees and welcomes any feedback on what could be included in the CEMP including details once the selected contractor is known.</li> <li>• JA (SLR) noted that appropriate guidance will be followed.</li> </ul> <p><i>Next Steps</i></p> <ul style="list-style-type: none"> <li>• JA (SLR) outlined next steps including review of available records and desk study information; walkover surveys and how intrusive ground investigation is a last resort if significant impacts are identified. (this will be taken into account during site selection to negate risk).</li> </ul>
6	<p><b>ETG Next Steps and AOB</b></p> <ul style="list-style-type: none"> <li>• MF (SLR) outlined next steps following the ETG including issue of minutes.</li> </ul>
	<p><b>POST MEETING NOTES</b></p> <p>Post meeting note. Iwan Huws noted that it is also worth requesting (via <a href="mailto:datadistribution@cyfoethnaturiolcymru.gov.uk">datadistribution@cyfoethnaturiolcymru.gov.uk</a>) will be the Point of Ayr to Pensarn Tidal</p>

	Flood Risk Analysis 2017 report. Conwy CBC should also be able to advise on any updates to the Conwy Tidal Flood Risk Assessment.
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Agenda Item	Action	Who?	Due Date
1	WFD briefing note to be produced outlining scope for assessment	SM	Q1 2021
2	Discussion on approach to SAB	MB/WH	Q4 2020
3	Request (via <a href="mailto:datadistribution@cyfoethnaturiolcymru.gov.uk">datadistribution@cyfoethnaturiolcymru.gov.uk</a> ) Ayr to Pensarn Tidal Flood Risk Analysis 2017 report. Conwy CBC should also be able to advise on any updates to the Conwy Tidal Flood Risk Assessment.	MF	Q4 2020
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**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**ONSHORE ECOLOGY EXPERT TOPIC GROUP MEETING MINUTES**  
**MONDAY 22 MARCH 2021, 1100-1230**

MEETING ORGANISER:	RWE																																								
LOCATION:	Teams dial in/Teleconference																																								
PROJECT	Awel y Môr Offshore Wind Farm																																								
ATTENDEES:	<div>ETG MEMBERS:</div> <table><thead><tr><th>Attendee</th><th>Organisation</th><th>Abbreviation</th></tr></thead><tbody><tr><td>CHRIS JONES</td><td>NRW</td><td>CJ</td></tr><tr><td>IWAN HUWS</td><td>NRW</td><td>IH</td></tr><tr><td>SOPHIE LUCAS</td><td>NRW</td><td>SLU</td></tr><tr><td>HELEN MILLBAND</td><td>NRW</td><td>HM</td></tr><tr><td>KAY ROBERTS</td><td>NRW</td><td>KR</td></tr><tr><td>WAYNE HOPE</td><td>DENBIGHSHIRE COUNTY COUNCIL</td><td>WH</td></tr><tr><td>SEAN LEAKE</td><td>GOBE</td><td>SLE</td></tr><tr><td>KAREN ALGATE</td><td>RWE RENEWABLES</td><td>KA</td></tr><tr><td>MATT FAULKNER</td><td>SLR</td><td>MF</td></tr><tr><td>MARTIN BAINES</td><td>SLR</td><td>MB</td></tr><tr><td>ELIZABETH HOLMES</td><td>SLR</td><td>EH</td></tr></tbody></table> <div>APOLOGIES</div> <table><tbody><tr><td>PAUL CARTER</td><td>RWE RENEWABLES</td></tr></tbody></table>			Attendee	Organisation	Abbreviation	CHRIS JONES	NRW	CJ	IWAN HUWS	NRW	IH	SOPHIE LUCAS	NRW	SLU	HELEN MILLBAND	NRW	HM	KAY ROBERTS	NRW	KR	WAYNE HOPE	DENBIGHSHIRE COUNTY COUNCIL	WH	SEAN LEAKE	GOBE	SLE	KAREN ALGATE	RWE RENEWABLES	KA	MATT FAULKNER	SLR	MF	MARTIN BAINES	SLR	MB	ELIZABETH HOLMES	SLR	EH	PAUL CARTER	RWE RENEWABLES
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Documents provided:	Filename

Agenda item	Description
1	<p>Introductions and aims of the meeting.</p> <p>Note that a WFD scoping report that has been submitted will be discussed as part of the Marine Ecology ETG.</p>
2	<p>KA Provided an update on the project. An informal 6-week consultation ran last year in 2020. There were around 120 responses providing useful feedback to the project team. It is hoped that a second virtual consultation will also be held.</p>

	<p>Feedback on site selection has been incorporated into the transmission asset and site selection work - this work is now complete. PEA surveys are complete and spring surveys are due to commence.</p> <p>KA highlighted that there is a single offshore cable corridor with some optionality remaining for technical decisions. Landfall is located to the east of Rhyl with some optionality on crossing the River Clwyd and the A55 as it is quite constrained in this area. Work is underway to identify the preferred substation site location - this will be announced at PEIR.</p> <p>KA outlined next steps.</p> <p>KA provided a summary of the project programme. Currently preparing for PEIR publication in August of 2021. DCO and Marine License applications are to be submitted to PINS in Q1 2022 and are hoping for a decision 2023 to 2024 with the wind farm being operational by 2030.</p> <p>CJ What meetings will NRW need to be present in to discuss the WFD reports.</p> <p>SL The WFD scoping report was issued alongside an offshore email but felt it is too soon to ask for detailed feedback from consultees. This will be covered in the marine ecology ETG (invite sent to Adam Cooper at NRW).</p>
3	<p><b><u>Onshore water resources and flood risk</u></b></p> <p>MB provided an update on assessment.</p> <p>MB There is still some optionality work progressing, however sufficient detail about cable routing is in place for data requests to be made. MB has issued data requests to NRW and Denbighshire to seek out information and clarify data sets with respect to the cable corridor.</p> <p>MB discussion from the last ETG included pumping stations. Confirmed AyM won't be crossing through the main Afon Gele catchment now although there is one pumping station noted in close proximity to the cable route, close to the Clwyd crossing. Discussed that we might not have captured all pumping station and has asked for clarification on this from NRW.</p> <p>MB has requested flood data. There will be a flood consequence assessment (FCA) undertaken for the cable corridor and a separate FCA for the substation zone. Flood defence asset data and flood event history information has been requested.</p> <p>MB Currently progressing PEIR chapter. The substation FCA will include the surface water drainage strategy.</p> <p>There is the issue of dealing with water on a working construction site and how surface water is managed in this process.</p> <p><b><u>Onshore transmission</u></b></p> <p>MB presented the NRW development advice map showing areas of flood risk.</p> <p>MB asked if there are any other data sets or information held by NRW or DCC not mentioned by MB as being requested formally?</p> <p>IH suggested looking at tidal flood risk and Rhyl pumping station. There has been some modelling done for this pumping station. There is a scheme by DCC involving set back of the coastal defence which may impact on the Rhyl pumping station location.</p>

	<p>WH noted additional datasets with a review of strategic FCA underway. Would be useful to set up a call to discuss with JBA. Design of the scheme is a set back defence embankment running along the coast road forming a flood storage lagoon (registered as a reservoir). Culverts or pumping to sea may occur but not confirmed.</p> <p>MB There may be some more detail on the engineering side. MB to contact WH.</p> <p>KA The project has met with representatives from JBA and have put forward technical requests. Information here will help with cable route location in this area. KA will get in touch with the property team for an update.</p> <p>IH Asked what the programme is for the coastal defence works and if this will clash with AyM?</p> <p>WH The programme will start in March 2022 lasting a couple of years - there is not likely to be a clash of construction programmes.</p>
4	<p><b><u>Substation Drainage</u></b></p> <p>MB Noted a high level substation drainage strategy has been drafted. Discharge to ground is unlikely due to local conditions and superficial geology. There is a need to understand regulatory ownership of local water features.</p> <p>MB Asked how we seek approval for the final drainage design, understanding that this will be sought through the DCO and is exempt to SAB approval.</p> <p>WH Highlighted that it would be useful to set out the approach to SAB and DCO approval for review with legal team. What safeguards are there to make sure everything is captured?</p> <p>MF Noted that SuDS details will be a requirement within the DCO. Details will likely need to be approved by DCC before construction starts.</p> <p>WH Noted that if this can be set out in terms of what would normally be included within a SAB application that would be helpful.</p> <p>MB Confirmed this is the intended approach.</p> <p>MF Asked if this detail would be available at PEIR?</p> <p>MB This may hinge around infiltration testing. Would WH expect to see this carried out? If infiltration is required, then this timescale would need to mesh with reporting.</p> <p>WH An area of the site might be suitable so there could be a hybrid approach, this would need more detailed discussion in the future.</p>
5	<p><b><u>Cable route drainage</u></b></p> <p>MB Provided summary of where temporary control of surface water will be required. These mostly focus on temporary construction compounds.</p> <p>MB This would be secured through the Code of Construction Practice (CoCP). Some area of the cable corridor and TCC areas may require control of water remote from surface watercourses.</p> <p>MB mentioned the potential for trench dewatering being required.</p> <p>IW Noted there would be a permit required for trench dewatering and this would focus on water quality. IW will provide further details on how this will be applied for.</p> <p>MB We would need a process to deal with dewatering if this was to take place.</p>

	<p>KR There will be a water resource license if this is to last more than 6 months and up to 20m<sup>3</sup> a day.</p> <p>CJ Noted that MB would need to talk to their licensing team.</p> <p>MF Noted that we would take a precautionary approach and assume licenses are required.</p> <p>WH Asked if there is risk of a backfilled trench changing the existing the water regime?</p> <p>MB Confirmed there is not likely to be a risk and we would not want to alter existing surface water hydrology.</p> <p>WH Noted that through previous experience some residents have experienced flooding.</p> <p>MB Noted this is not likely to be linked.</p> <p>HB Noted that pressure in the River Clywd relates to nutrients. Pollution prevention measures are needed for sediment disturbance.</p> <p>MB Confirmed we will take note of this information.</p>
5	<p><b><u>Next steps</u></b></p> <p>Next ETG meeting proposed post-PEIR when survey results will be available (likely to be end October 2021).</p>
6	<p><b><u>AOB</u></b></p> <p>No further AOB.</p>

Agenda Item	Action	Who?	Due Date
1	MB to contact WH regarding the coastal defence at Rhyl	SLR	30/4/2021
2	KA to contact the property team within RWE – relating to a discussion with JBA on the coastal defence at Rhyl	RWE	30/4/2021
3	MB to discuss infiltration testing approach with WH	SLR	31/5/2021
4	IW to provide details to MB on the process for applying for a trench dewatering permit	IW	31/5/2021
5	MB to discuss with licensing team at NRW regarding dewatering	SLR	31/5/2021
6	MB to provide note to ETG members regarding the SAB legislation and approach.	SLR	30/4/2021

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**ONSHORE HYDROLOGY AND FLOOD RISK ETG 6 MEETING MINUTES– 05/11/2021**

<b>MEETING ORGANISER:</b>	GOBE CONSULTANTS		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Wayne Hope	Denbighshire CC	WH
	David Honey	GoBe Consultants	DH
	Sean Leake	GoBe Consultants	SL
	William Vasishta	GoBe Consultants	WV
	Chris Jones	NRW	CJ
	Sophie Lucas	NRW	SL
	Iwan Huws	NRW	IH
	Paul Carter	RWE	PC
	Poppy Tremayne	RWE	PT
	Matt Faulkner	SLR	MF
	Martin Baines	SLR	MB
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Simon Cottrill	Conwy CBC	
	Gary Nancarrow	Flintshire CC	
	Claire Hinton	GoBe Consultants	
	Pete Gaches	GoBe Consultants	
	Ryan McManus	GoBe Consultants	
	Sammy Mullan	GoBe Consultants	
	Adam Cooper	NRW	
	Helen Milband	NRW	
	Kay Roberts	NRW	
	Alex Herbert	RWE	
	Helen Thomas	RWE	
	John Cooper	RWE	
	Karen Algate	RWE	
	Elizabeth Homes	SLR	
	J Appleby	SLR	

<b>Documents provided:</b>	<b>Filename</b>
Presentation	Hydrology and WFD 5th Nov 21 RevC.ppt

Agenda item	Minutes
1	<p>Introductions MF</p>
2	<p>Project Update PC</p> <ol style="list-style-type: none"> <li>1. Statutory consultation: participation &amp; AyM next steps           <ul style="list-style-type: none"> <li>▪ Consultation ran from 31<sup>st</sup> August to 11<sup>th</sup> October 2021</li> <li>▪ As well as Section 42 consultation, virtual consultation was held for members of the public</li> <li>▪ This ran for 6 weeks rather than the minimum of 4 and PEIR formed the basis for consultation</li> <li>▪ 3,500 unique visitors to online exhibition</li> <li>▪ Face to face with 900 members of public</li> <li>▪ 300 formal written and survey consultation responses (S42, S47)</li> </ul> </li> <li>2. DCO programme to submission MF</li> <li>3. Statements of Common Ground Topics Raised by Consultees            Agreements log is to be shared with consultees later this later year and discussion on the log to take place Q1 2022. The purpose of the log will be to capture agreement and disagreement on key parameters of the assessment, such as characterisation of the receiving environment, policy referred to, and assessment methodologies. The agreements log will then be used to inform the Statements of Common Ground that will be developed during the post-application stage.         </li> <li>4. Design            MF introduced a design option for consideration by WH. MF recognised that this was new information, and respected that the preference may be to take the information away for further consideration, but feedback would be welcome. MF went on to note that there is a need for a storage compound to be used during construction that would be located towards the east of the landfall area. MF confirmed that this location was not a part of the PEIR materials but as WH is on the call it would be useful for any initial thoughts to be given. WH confirmed that he can provide some initial thoughts but the land ownership matters would be better referred to Denbighshire CC's property team. WH continued by stating his understanding is that the DCC lease the area, and that the current tenant has invested recently in improving the area, as such any activity there or any occupation of that land would have to be done in a very sensitive way. WH reflected that the Central Prestatyn Coastal Defence Scheme had approached the tenant regarding land access and the response was not positive. MF asked if that was from DCC as the landowners, or the tenant specifically? WH confirmed that it was the tenant. WH went on to reiterate that this is better raised with the property team but in his view it is a matter of scale. DCC were looking at significant vehicle movement to build an embankment in support of the coastal defence scheme, whereas the proposal associated with Awel y Môr appears to be on a smaller scale.         </li> </ol>

	<p>MF confirmed that any interaction would be small scale, limited to works associated with supporting works on the beach, and of a general low number of vehicle movements, over what is likely to be a shorter duration.</p> <p>WH states in that case from the perspective of the AyM development it may not be a definite no.</p> <p><b>Action to take up potential storage facility location with DCC's property team.</b></p> <p>IH points out that this falls within the TAN15 defended zone for the new flood map for planning and that this is a consideration as well as a suitable FCA would have to be produced</p> <p>MF responds that this is part of the emerging design review that is taking place so is quite recent but will take that on board.</p>
3	<p><b><u>Hydrology, Hydrogeology and Flood Risk</u></b></p> <p>MB summarised that the feedback was generally positive with no significant issues highlighted. Of the points raised the following themes were observed:</p> <ul style="list-style-type: none"> <li>• Design Requirements</li> <li>• Further information required</li> <li>• Emerging legislation and permitting requirements</li> </ul> <p>MB continued by going through the responses in more detail as follows:</p> <p><u>Denbighshire CC (Rhyl Town Council comments were very similar):</u></p> <ul style="list-style-type: none"> <li>• The installation of cable must not compromise sea flood defences</li> <li>• Works at landfall are incompatible with the proposed coastal embankment</li> </ul> <p><u>NRW</u></p> <ul style="list-style-type: none"> <li>• References to Legislation</li> <li>• Groundwater (GW) Abstractions and Private Water Supplies (PWS)</li> <li>• GW Risk Assessment</li> <li>• Piling at Substation</li> <li>• Revised TAN15<sup>1</sup></li> <li>• Sea flood defences</li> <li>• Pumping Station</li> <li>• Flood Risk Activity Permit (FRAP)</li> <li>• Consider breaches of defence in FCA</li> </ul> <p>MB went on to note by listing the considerations made and changes to design as a result of consultee comments which are as follows:</p> <ul style="list-style-type: none"> <li>• Comment on safeguarding Network Rail land and infrastructure noted - No drainage will be directed onto Network Rail land and no drainage works will be designed within 5m of the Network Rail boundary.</li> <li>• Engineering design and geotechnical reporting will be required in order to confirm with Rhyl Town Council and DCC that the integrity of sea defences will not be compromised at landfall/Rhyl Golf Club.</li> <li>• Preference for the landfall and subsequent cable routing to be as far east as possible within the draft order limits to keep works away from the Rhyl pumping station.</li> </ul> <p>MB asks MF if he can add any more to the point regarding sea defence works as this is a matter that has had some discussion already.</p>

<sup>1</sup> Post-meeting note: WG have recently advised that the publication date for the new TAN15 has been moved back to 1st June 2023.



MF confirmed that a strong view had come from the DCC planning committee and that DCC had been a part of that but invites WH to add more context to this.

WH responded that the council had set out its position, however in a general sense it would be best to not overstate concern as they have been through this before with the previous windfarm landfall works which were very subtle due to the methodology adopted. One of WH concerns was that due to the suggestion of two different options for the landfall and cabling routes there would be some uncertainty in the expected final design. WH stated that they previously expected the same approach as the last developer. WH raised concerns with the timescale of digesting responses and choosing a final route as if there are doubts this raises concern with not just the council but also their tenant (Rhyl Golf Club)

PC responded by stating RWE do understand that and as stated on a previous call held towards the end of the consultation period there have been a large number of responses to work through and it must be ensured that there is a coherent design from the array to the substation connections. There is a lot of working through and it is a long process that sometimes cannot end in a satisfying result for everyone, this is not necessarily the case, RWE understand they have been asked to make a quick decision and are not being idle. Moving forward it would be best to give WH a clearer picture (i.e. by giving early insight into plans). There is currently a lot of work being conducted with engineers and RWE's EIA team so at this time it would be difficult to confirm where the work is in relation to this but it is RWE's hope to make clearer in the near future.

WH responded that the impression gathered so far is that information gathered by DCC and any respective consultants or subcontractors has been useful for making these decisions particularly around DCC's coast protection plans for the setback embankment and how if that is built before the work conducted on AyM this may have a knock on consequence.

PC confirmed that information has been helpful and refers back to the earlier design slide showing the potential location of beach works stating that part of RWE's thinking around looking for an alternative location for the TCC for beach works and access to the beach is about trying to reduce the conflict with DCC defence works. As discussed on previous calls one of the access routes proposed would go through an area that DCC already own a compound in and there is uncertainty on how that would be taken forward through the flood defence scheme and what the access arrangements would be to ensure the works can continue without interrupting defence schemes.

PC suggested a secondary conversation around some alternative sites that DCC would be happy with so that both works can be carried out without interfering with each other.

WH confirmed that the council broadly welcomes the project and therefore as a matter of course are inclined to work with the development rather than against it. WH continued by adding that his response to the TCC for beach works was not intended to be a negative one but was to highlight there may be some issues as it is not entirely with the council's control, and it will come down to the strength and the terms of the tenancy agreement.

PC stated that it is great to hear and that it would be worth catching up to talk further about access arrangements and temporary construction and adds that KA will also be in contact regarding this. **Action – Meeting to be organised with DCC**

MB continued by stating the further information that will be added to address concerns, these are as follows:

- HDD method statement to be produced as part of CoCP.
- Include reference to Clwyd transitional waters and Prestatyn Bathing Water in the ES chapter.
- Data on private water supplies has now been received and reviewed. This detail will be commented on in the ES chapter. No significant risk identified at this point.

- Separate Groundwater Risk Assessment reports requested in support of each HDD activity.

MB illustrated the three private water supply locations for which data was provided by DCC and confirmed that the project is confident that none of these will be affected. Assuming this to be the case, the assessment will provide information and then scope them out if appropriate. MB invited ETG members to comment on this and stated they are also welcome to contact him personally with questions after the session.

SL confirmed that this question will also be put to the ETG members within the minutes to give them a chance to provide more detailed feedback. **Action**

MB inquired what were NRW's main concerns regarding the separate Groundwater Risk Assessment around HDD activity as the normal way would be to capture a methodology within the CoCP for which a draft is available. It is assumed that the main concern is regarding breakout drilling fluid and pollution to groundwater. Processes and procedures are already in place with respect to this within the CoCP and the Pollution Prevention and Emergency Incident Response Plan that was submitted as part of PEIR. Reference for these documents can be provided if necessary. MB's thoughts are that as long as a robust methodology for the HDD works was outlined along with the safeguards in place then there would be no need for a separate Groundwater Risk Assessment at each location, would this be the case?

CJ would have to check with the author of the comment and come back now that more information is known around the proposed works.

MF to provide the reference of where the CoCP and Pollution Prevention and Emergency Instant Response Plan can be found within PEIR. **Action**

SL provided further context for the project, by noting numerous locations are being looked at for HDD/alternatives. If all of these are subject to Groundwater Risk Assessment then there will be a large number of outline risk assessments that may end up being shelved in the future. It may be more efficient to identify the locations NRW are most concerned about and conduct assessments on these locations along with an assessment of an outlying location to view against the main concerns. Alternatively, as MB has stated provide a clear methodology and safeguarding plan and then provide assessments on those final design HDD sites pre construction.

NRW to respond to this after consideration. **Action**

MB continued by stating the emerging legislation and permitting requirements which are as follows:

- NRW have requested separate Flood Risk Activity Permits (FRAP) reporting to support each application point (main river and/or flood defence crossing).
- Reference to the emerging revision of TAN15 guidance is noted and reference to this documentation will be included in the ES submission.
- Comment on potential impact due to flooding from small watercourses noted and ensure it will be addressed within the final substation FCA.

MB invited stakeholders to comment.

IH stated there is no comment other than the DCO will have mention of crossing river and/or flood defences but there must be a bespoke application for each one in the form of a FRAP.

IH stated that he cannot comment on the TAN15 zone issues as NRW advise on the technicality of flood risk, the justification is down to the decision maker. What NRW can take from the update of TAN15 is that it is clearer in its justification, it is very clear that highly vulnerable development in flood risk 3 areas is not supported by the TAN.

	<p>MF sought clarification on the interpretation and how it is defined, especially around renewable energy generation and more specifically the cable. MF noted that what is currently proposed are the cables (infrastructure) and it would be helpful to understand the interpretation of cable infrastructure, rather than the more evidently vulnerable substation infrastructure. MF thanked NRW for feedback, and the confirmation that it is down to the decision maker.</p> <p>MB sought to clarify that the built development (substation) on the surface was in line with TAN15, but recognised it may not be NRW's remit.</p> <p>IH asks if the substation is at risk from small watercourses?</p> <p>MB responded to confirm that there are some elements of surface water that are being dealt with and captured within the drainage design process and management of surface water runoff.</p> <p>MF also noted that a note was provided to DCC regarding the council and their SuDS Approving Body role (SAB) and just to ask if DCC had any feedback on this.</p> <p>WH had previously confirmed that the size of the site is equivalent to that of a medium sized housing development in terms of its overall area so this is important. The key with any SuDS application is the pre application consultation so for WH to discuss with designer to establish the principles and really walk you through the process and the objectives of sustainable drainage but WH doesn't perceive any particular problems.</p> <p>MF thinks the note was around how this sits with the DCO and whether this is something that is needed to be done in parallel or separate or could be done after.</p> <p>From WH's perspective this is about managing risk and as part of that if there is a risk that in the DCO essential processes or procedures are skipped then that has a detrimental effect on you but also the surrounding area and that must be avoided.</p> <p>WH continued to note that as a SAB he very much takes a common-sense approach to any development, the main interest is really a pragmatic solution so something that takes the sustainable drainage legislation and the objectives behind that seriously. Early communication of the design is key, not just the principles but also some of the details.</p> <p>SL adds that this is being taken on board regarding communication being key and will provide everything possible.</p> <p>MF continued to note that on the same slide is an example of what sort of table would be included within the agreements log to share initial thoughts on that at this stage in terms of where the development sits are the moment. Nothing has been currently put in for the assessment and conclusion as these are still being considered but also as part of today's session, we have looked at the feedback that was provided and the ways in which the development is addressing these responses, and these will be further addressed in later sessions.</p> <p>WH stated that overall, he feels comfortable about the approach taken so far, it's a process and it will unfold in due course when more is known about what the development intends to do and further details of the design become available.</p> <p>MF concludes stating that if any of the ETG members wish to come back to this topic</p>
4	<p>Water Framework Directive</p> <p>DH gave a summary of the consultation feedback received which is as follows:</p> <ul style="list-style-type: none"> <li>• Bathing waters assessment and inclusion of Marine Lake Rhyll</li> <li>• Input of sediment from freshwater sources, non-reportable water bodies or marine project activities</li> <li>• Cumulative and in-combination effects assessment to focus on WFD water bodies</li> </ul> <p>DH asked CJ if these comments will have been made by HM in regard to NRW.</p> <p>CJ confirmed that this is correct.</p>

DH added that he would be happy to have a chat with HM separately if that would help as he appreciates that WFD is a separate topic area.

DH continued that there was a large amount of overlap between the offshore and onshore comments. These slides are a mix of the two but with the main focus being onshore.

DH listed the key comments for discussion in more detail these are as follows:

#### Bathing waters

- Spatial/temporal extent of SSC plume relative to bathing waters
- Consideration of Abnormal Situations (i.e. not just bacterial standards)

#### Marine Lake, Rhyl

- Inclusion of bathing water as part of the assessment has been requested. Not raised previously during Scoping or in response to WFD Position Paper
- Discussion on scoping out of feature. Whilst connected to the marine environment during flow reversal, there is little potential for elevated SSC levels to reach Marine Lake at this time
- There is a low likelihood of reversal occurring at the same time as any nearshore activities
- Ongoing investigation of site regarding increased bacteria. Availability of salinity readings to project?

DH asked WH if he has any of the details from the investigation being undertaken at the Marine Lake in terms of frequency of flushing or salinity information as NRW have said it is with the local council.

WH confirmed that it is not something he has had any involvement with but if an email is sent with the query he would ensure it was addressed.

DH to email this to WH **Action**

DH noted that he is keen to understand the frequency of the potential connectivity to help inform the potential risk from any onshore/offshore activities.

DH provided further comments for discussion which are as follows:

#### Sediment (contaminant) inputs

- Clarification on input of sediment from freshwater sources upstream via Clwyd transitional water body or non-reportable water bodies (land between Afon Gele and Glanfyddion cut), or if it refers only to the marine project activities?

#### Cumulative and in-combination effects

- Amend discussion to reflect WFD/water body scale effects rather than EIA terminology

DH sought clarification as to the concerns regarding the first point and how they would look to include this as part of the assessment. There are a number of outlined measures that have been noted as part of the onshore CoCP and as part of the pollution prevention measures earlier, is there anything in addition to consider if this was not to sufficient in terms of potential input of sediment or contaminants from the works. From a WFD perspective is it more generally in terms water quality for the nearby waterbodies and also linking that bathing water query as well.

CJ states that this would be best suited in a conversation with HM but asks for all these questions to be written up and submitted along with the minutes **Action**

SL adds that this is an opportunity for this information to be shared in the round but a separate meeting will be set up with HM for detailed discussion.

DH continues by listing the WFD next steps which are as follows:

	<ul style="list-style-type: none"> <li>ES chapters and WFD compliance assessment to be updated accordingly <ul style="list-style-type: none"> <li>Further detail to be transferred from other chapters, for example numerical modelling information</li> </ul> </li> <li>Updated version of Operational Guidance Note 72 (OGN72)- complying with the WFD Regulations 2017 <ul style="list-style-type: none"> <li>Summary of amendments to guidance in 2021 update?</li> </ul> </li> <li>Publication of Cycle 3 RBMPs and 2021 water body classifications</li> </ul> <p>CJ asked who should the OGN72 documentation be sent to?</p> <p>SL confirmed that he is happy for revised OGN to be sent through to him to be circulated around the whole team.</p> <p>DH states the final slide is another example of the agreement log for WFD.</p>
5	<p>Next Steps/AOB</p> <p>MF returned to the note regarding SuDS as there is not a need for NSIPs to gain SAB approval but the current plan is to cover it with a DCO requirement so it would be very similar to a planning condition meaning all the procedures and DCC involvement would remain the same simply under a different process and this would be completed after the DCO has been consented. The DCO application will still leave some flexibility in terms of the layout of the substation. MF suggests that having this at the detailed design stage would be more beneficial than at application.</p> <p>WH noted it is interesting, as whilst the DCO legislation gives you the option of an exemption it doesn't really make a difference as from the council's perspective as the SAB they wouldn't act any differently. The only issue would come if DCO superseded the SuDS legislation completely.</p> <p>MB this isn't the case it is simply how the decision is made we would still have to jump through the same hoops. There would still be the same discussions and agreements around drainage.</p> <p>There is regional guidance available, but it hasn't been formalised and published yet but will give an indication of what they are looking for</p> <p>WH to send this over <b>Action</b></p>
6	

	Action	Who?	Due Date
1	RWE to discuss potential storage facility location with DCC's property team.	MF	
2	RWE catch up offline to talk about access arrangements and temporary construction	PC/KA	
3	NRW/DCC to provide comment on the initial review that the three PWS locations provided by DCC will not be affected by any proposed works and any potential imp See Plan in Appendix Act on these receptors can be scoped out.	NRW/DCC	
4	SLR to provide the reference of where the CoCP and Pollution Prevention and Emergency Incident Response Plan can be found within PEIR	MB	

5	NRW to respond to HDD groundwater assessment discussion after consideration of Action 3	NRW	Provided 22/11/21
6	GoBe to Email WH with questions regarding bathing water	DH	
7	DCC to forward bathing waters queries to relevant team and report back detail.	WH	
8	WFD questions to be written up and provided to NRW	GoBe	
9	DCC to send through regional guidance to help with SuDS issues and questions	WH	



**Appendix A – Private Water Supplies**



### 3.7 Appendix C7: SLVIA Meeting Minutes



**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**SLVIA AND LVIA EVIDENCE PLAN MEETING MINUTES– 10<sup>TH</sup> DECEMBER 2019**

<b>MEETING ORGANISER:</b>	innogy
<b>LOCATION:</b>	Dinorwig Room, Bangor University, Reichel Hall, LL57 2TR
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm
<b>ATTENDEES:</b>	<p>HELEN THOMAS (INNOGY) (HT)</p> <p>KAREN ALGATE (INNOGY) (KA)</p> <p>ALEX HERBERT (INNOGY) (AH)</p> <p>PAUL CARTER (INNOGY) (PC)</p> <p>THOMAS CRAWFORD (INNOGY) (TC)</p> <p>NICOLA SOLLY (GOBE CONSULTANTS) (NS)</p> <p>SAMMY MULLAN (GOBE CONSULTANTS) (SMU)</p> <p>ALAN MITCHELL (SLR CONSULTING) (AM)</p> <p>SIMON MYERS (SLR CONSULTING) (SM)</p> <p>JOHN PEARSON (NATIONAL TRUST) (JP)</p> <p>RUTH HENDERSON (ROYAL HASKONING DHV) (DIALLED-IN)</p> <p>CARA OWEN (GWYNEDD COUNCIL) (CO)</p> <p>CHRIS JONES (NRW) (CJ)</p> <p>NIA PHILLIPS (NRW) (DIALLED-IN) (NP)</p> <p>KATHY LAWS (NATIONAL TRUST) (KL)</p> <p>LYNDA THOMPSON (OP-EN) (LT)</p> <p>JENNY EMMETT (GWYNEDD ARCHAEOLOGICAL PLANNING SERVICE) (JE)</p> <p>CHRISTIN HEAMAGI (MARITIME ARCHAEOLOGY) (CH)</p> <p>REBECCA FERREIRA (MARITIME ARCHAEOLOGY) (RF)</p> <p>NEIL MAYLAN (CADW) (NM)</p> <p>RICHARD SUMNER (NRW) (RS)</p>
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<p>RHIANNON HAYES (CONWY COUNCIL)</p> <p>JULIA ANNE JONES (OPTIONAL ATTENDEE)</p> <p>LIANNE MARTIN (CONWY COUNCIL)</p> <p>DYLAN LLYWELYN JONES (ANGLESEY COUNCIL)</p> <p>PAUL MEAD (DENBIGHSHIRE COUNCIL)</p>

	DAFYDD WYN WILLIAMS (GWYNEDD COUNCIL)
	ANDREW FARROW (FLINTSHIRE COUNCIL)
	SION ROBERTS (GWYNEDD COUNCIL)
	MARK WALTERS (CLWYD-POWYS ARCHAEOLOGICAL TRUST - DEVELOPMENT CONTROL ARCHAEOLOGIST)
	PAUL WISSE (SEFTON COUNCIL)
	HUW DAVIES (CONWY COUNCIL - CONWY CONSERVATION OFFICER)

Document provided:	Filename
Consultation roadmap	AyM OWF ETG roadmap Seascape & Landscape.pdf
Initial review note – SLVIA	AyM_SLVIA_ShortNote_Final.pdf
Initial review note – LVIA	AyM_LVIA_ShortNote_Final.pdf
Draft Terms of Reference	GyM_Ext_Evidence_Plan_ToR_v1_131119
Meeting agenda	Seascape & Landscape ETG Agenda.pdf
Slides presented in the meeting	ETG Pre-Scope Seascape and Landscape.ppt

Agenda item	Minutes
1	<p><b>Innogy in Wales</b></p> <p>KA welcomed all participants to the meeting and outlined the agenda.</p> <p>KA noted that innogy provides approximately one third of Wales' renewable energy. KA presented the innogy projects within Wales (see slide 3) and noted that Awel y Môr would add a significant contribution to the carbon targets for Wales. The project is anticipated to be operational by 2030.</p>
2	<p><b>Project overview</b></p> <p>KA presented an overview of the project including that the area for lease (Afl) for the application was accepted by The Crown Estate (TCE) in October 2019. KA explained that innogy is leading the Awel y Môr project with numerous project owners.</p> <p>KA noted that innogy is at the very early stages of the project development but is seeking to undertake early stakeholder engagement to inform decisions.</p> <p>KA explained that innogy is seeking to begin consultation early to help identify issues early in the application process. The project (Awel y Môr) qualifies as a Nationally Significant Infrastructure Project (NSIP) requiring a Development Consent Order (DCO) and will also require a Marine Licence (ML) from Natural Resources Wales (NRW) on behalf of the Welsh Government.</p> <p>KA presented a plan of the proposed development location in relation to the existing offshore wind farm (OWF) projects (see slide 6). The Afl is 106 km<sup>2</sup> however the array area may be only a portion of this area. The existing Gwynt y Môr (GyM) turbines are rated as 3.6 MW but Awel y Môr turbines are expected to be 12-22 MW, or above (this is to future proof the project). The grid connection is proposed to be at Bodelwyddan (which is the same as GyM).</p> <p>KA presented the work undertaken to date including commencement of Environmental Impact Assessment (EIA) Scoping Report drafting, ecological surveys (offshore birds and marine mammals), Site selection and alternatives study and conversations for grid connection are underway. KA noted that innogy has formally informed PINS and NRW of the project.</p> <p>KA presented a high-level project timeline which is driven by the Agreement for Lease this year and by the CfD auction in 2023 (or 2025). The current programme for application submission is November 2022. KA noted that duplicate applications (one for the DCO and one for the ML) will be submitted as per previous offshore NSIPs in Wales. The aim is to be</p>

	operational by 2030 to contribute to meeting the targets the Welsh Government has set.
<b>3</b>	<p><b>Planning Act Overview</b></p> <p>AH provided an overview of the NSIP process (under the Planning Act 2008) including the key principles. It was brought in to simplify the consenting process for major infrastructure projects. The DCO process requires front loaded consultation and the application to be of sufficient quality, therefore innogy is beginning the Evidence Plan (EP) process to adhere to these principles. AH noted that PINS has an outreach programme where it will send case officers to explain the process.</p> <p>AH noted that it is unusual in that it is primarily a written process as opposed to an inquiry. The application will be made against the relevant National Policy Statements (NPS) (energy and renewable NPSs are in place and the most relevant to Awel y Môr).</p> <p>The DCO provides a single consent/ statutory instrument with numerous powers, including compulsory acquisition of land and/ or rights over land. The DCO process is front loaded and the aim of the consultation is to resolve issues prior to examination. The timeframes are fixed following acceptance (if of sufficient quality) – six months of examination, three months for panel to make recommendation and three months for the relevant Secretary of State (SoS) to make a decision.</p> <p>The EIA and Habitats Regulation Assessment (HRA) regulations will be critical to the DCO process with the mitigation to be secured within the DCO (and ML). A Rochdale envelope approach will be utilised in the EIA (and assessments) to ensure that the potential worst case scenarios have been assessed whilst enabling flexibility within the consent (to future proof the technology) to be built in.</p> <p>AH presented a list of the anticipated documents to be submitted for the DCO application. Duplicates of all documents will be submitted for the DCO and ML applications. AH noted that a bespoke signposting document would also be created for the ML application clearly indicating the parts of the application are of relevance to the ML.</p>
<b>4</b>	<p><b>Evidence Plan (EP) Process</b></p> <p>AH presented the topics being considered under the EP. AH requested feedback on the proposed structure of the panels and invited stakeholders to attend any other ETG groups should they wish. No comments were made.</p>
<b>5</b>	<p><b>The Scoping Report</b></p> <p>NS presented a high-level overview of the scoping study being undertaken. The Scoping Report seeks to define the scope of the subsequent EIA process (i.e. what should be scoped in or out) and identify potential Likely Significant Effects (LSE) at an early stage and ensure that</p>

	<p>the EIA assessment is proportionate. The Scoping Report will also propose further survey requirements and proposed methodology for the EIA.</p> <p>The Scoping Report is programmed to be submitted to PINS in March 2020 for consultation under the formal PINS process which includes 28 days for stakeholders to provide their consultation responses to PINS which will be fed into the Scoping Opinion.</p> <p>NS provided an overview of the structure of the Scoping Report including the general introductory and technical chapters (separated by onshore and offshore elements). She noted that a summary of impacts to be scoped in and out will be provided in the Scoping Report.</p> <p>NS noted that separate SLVIA and LVIA chapters will be included within the Scoping Report – please see below.</p> <p>NS provided an overview of what aspects will be covered within the technical chapters in the Scoping Report, including the baseline, methodology for EIA, items to be scoped in (and out) and proposed embedded mitigation. She also noted that project specific questions will be included, which are directed to consultees, which innogy is seeking feedback on.</p>
6	<p><b>Evidence Plan Terms of Reference</b></p> <p>NS provided a brief overview of the Evidence Plan (EP) process. She explained that it is a formal tool to agree the information presented and approach undertaken in the EIA which will be provided in the DCO and ML applications. The process provides formal structure and general rules under which agreement will be sought from each of the parties.</p> <p>The project will be seeking to gain consensus on the information which informs the assessment which will help to reduce disagreements by the examination phase and the development of Statements of Common Ground (SoCG). It was noted, as per the Terms of Reference, records of discussions will be maintained. It is hoped that the process will reduce resource requirements for all in the examination.</p> <p>NS presented the roles and responsibilities of the steering group and the Expert Topic Groups (ETGs) – see slides 23 and 24.</p> <p>NS noted that a draft ToR (previously circulated) seeks to set out the process for engagement with stakeholders under the EP. The document includes the proposed parties, roles, responsibilities and general rules of the EP.</p>
7	<p><b>Site Selection and Alternatives</b></p> <p>This part of the meeting was presented by RH and the site selection study will be undertaken by Royal Haskoning DHV.</p>

RH highlighted that the project must demonstrate that reasonable alternatives (technology, location, infrastructure, techniques etc) have been considered. The selection must also be environmentally acceptable whilst ensuring that the lowest costs of energy are passed to consumers.

The SS will be an iterative process, undertaken by a multi-discipline team (technical specialists, land agents and legal), to identify the most suitable design and locations for infrastructure. RH presented that the process will seek to avoid direct impacts on designated sites<sup>1</sup>, road crossings, rail crossings, shortest and feasible cable route, seeking to utilise screening from existing features and using design/ construction techniques. The process will also seek to avoid or reduce potential impacts through sensitive siting, i.e. avoidance of designated sites and features.

RH presented the AfL, the proposed grid connection at Bodelwyddan and noted that the area of search has been defined by these two infrastructure requirements. The project is seeking to refine the proposed onshore and offshore cable route. The routes will link the landfall location and a project specific substation (prior to being connected to the grid).

NP asked why the existing GyM infrastructure (cables and substations) cannot be used for Awel y Môr. PC confirmed that the existing GyM infrastructure was designed for the capacity of the project, the off- and onshore substations and are not sufficiently rated to include Awel y Môr on top. NJ asked if there were any way to 'upgrade' the existing infrastructure. PC advised that upgrading the infrastructure can only be done by adding to it, which is effectively what Awel y Môr is proposing, albeit as separate projects. PC further noted that the operational OWF would have to be turned off for a significant period if the systems were not separated in this way. Finally, PC advised that differing decommissioning demands across schemes installed at different times would further complicate efforts to simply upgrade an existing OWF, necessitating the proposed approach for Awel y Mor. Therefore, the two projects will have to be considered separately.

NP requested confirmation that Awel y Môr cannot exceed the capacity of GyM. PC noted that the project is looking at the most economic capacity for the site (which may exceed GyM). Innogy intends to discuss the potential to increase the capacity of the site with TCE. The final EIA will

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<sup>1</sup> Post-meeting note: NRW consider indirect visual effects are of no lesser impact than direct effects and need to be given equally high consideration at the site selection, alternatives, layout and quantum of development appraisal stage.

This includes indirect visual effects upon Snowdonia National Park (wild, tranquil, remote qualities that come from open seascape setting and unaffected horizons), Great Orme Heritage Coast (wild, tranquil remote qualities that come from open seascape setting and unaffected horizons and views to the Isle of Man), Isle of Anglesey AONB (wild, tranquil remote qualities that come from open seascape setting and unaffected horizons), community outlook of many coastal tourist towns (the availability of open views that an undeveloped seascape provides) and the character of the north Wales coastline (the sense of a developed and industrialized NE coastline and a wilder, remoter and quieter NW coastline).

	<p>be based on a fixed capacity however the Scoping Report will not be. PC hoped that a capacity may be known in late 2020 and could be presented to the ETG at that time.</p> <p>NP asked where a separate grid connection ETG would be held and noted the consultation requirements under the cable route protocol (as issued by the TCE). PC agreed that the project is required to consult early on the cable routes with key consultees. Following the ETGs, innogy is intending to submit a paper to stakeholders outlining how the area of search was defined. PC agreed to consider the suggestion of a grid connection ETG.</p> <p>RS requested more detailed information and requested an overview of the scheme across each of the disciplines. Details would need to be provided on how embedded mitigation would be included and how this may affect different topic receptors. RH thanked RS for his comments. She noted that the Site Selection study is at a very early stage and the ETGs are being held to ensure that the key considerations for each topic areas are being considered – noting it is a critical stage. RH confirmed that reporting of the process to date would be provided to detail the considerations (including data) have been considered in producing the initial area of search. RH noted that the site selection study would be evidence based (both publicly available and project specific (early surveys)). These data will inform potential micro-siting and techniques (such as the use of short HDDs). NJ requested a gantt chart of the proposed programme and to see where stakeholder input/ resource is provided – see actions. KA noted that a roadmap for each of the ETGs has been designed and includes the proposed dates for the ETGs and the anticipated levels of engagement throughout the process.</p> <p>RS noted that it is key for the stakeholders to be involved in the early stages to inform the avoidance of impacts on key visual receptors. It was agreed by all parties.</p> <p>RH presented the key requirements (including EIA Regulations, National Planning Policy Framework, National Policy Statements, The Horlock Rules, The Holford Rules etc.) which the project will seek to adhere to in the site selection study – see slide 29 for full details. Topic specific guidance and best practice will also be considered.</p> <p>RH noted that under the Evidence Plan, innogy is seeking to discuss the site selection and alternatives process, to ensure that stakeholders are consulted at key milestones, provide early feedback and ultimately stakeholder buy-in (locations, data, considerations etc.). RH noted that as well as avoiding negative impacts it's about harnessing opportunities and enhancement.</p>
<b>8</b>	<p><b>Seascape, Landscape and Visual – Offshore</b></p> <p>This part of the meeting was presented by LT and the offshore SLVIA for the EIA scoping will be undertaken by Optimised Environments (OPEN).</p>



This topic will also cross-over with LVIA and cultural setting (both on- and offshore).

LT presented the study area for the project of 50km, this has been used recently in the SLVIAs for tall offshore turbines – see slide 33. LT requested feedback on the proposed baseline characterisation data/ documents – see slide 34. NP noted that NRW commissioned a strategic assessment and guidance for OWF – Seascape and sensitivity to offshore wind farms in Wales: Strategic Assessment and Guidance (2019) which is presented in three stages of documents. LT agreed to consider those documents during the development of the assessment.

RS agreed that the baseline data sources were appropriate for the Scoping Report. RS agreed that LANDMAP should also be used to inform the assessments.

LT asked whether there were any additional landscape character references. It was suggested that the Isle of Anglesey AONB Management Plan and the Special Landscape Area assessments and studies associated with the Conwy Local Development Plan and Isle of Anglesey and Gwynedd Joint Local Development Plan should be considered in the EIA.

It was raised that a revised Snowdonia National Park Management Plan is being drafted and agreed to provide the anticipated date for publication. He also noted that work has been undertaken recently for the registered historic landscapes and the detailed archaeological work. LT noted that the Cadw website advises that a Register of Historic Parks and Gardens in Wales is to be available by the end of 2019 and would be used to inform the SLVIA. NM advised that this is likely to be delayed slightly. It was discussed that it should be available for the PEIR. LT advised that these aspects would be covered in the PEIR/ES but that this may be in the cultural heritage assessment rather than the SLVIA.

NM highlighted the nomination for world heritage status of 'The Slate Landscape of Northwest Wales' which extends into the study area. It should be known if the nomination has been successful in January 2020. LT agreed that this site would be assessed in the most relevant section of the EIA (either in SLVIA, Archaeology or both) as well as the other relevant World Heritage Sites.

LT presented the ZTV, based on a bare ground digital terrain map (i.e. there is no screening from vegetation or structures). Therefore, field work would be undertaken to ground truth the ZTV.

LT presented the key areas to be considered and assessed in detail – see slide 37. LT presented the sensitive visual receptors that would be considered and would be a key consideration in determination of viewpoints. LT noted that it is intended to agree the viewpoints with the ETG at future meetings and through the scoping process.



LT suggested that the assessment for Awel y Môr should have fewer viewpoints in the eastern side of the study area and more in the western side (such as Anglesey and visitor attractions and assets) than for the GyM EIA.

LT presented the key area for the assessment where the effects of the new OWF will be more prevalent, i.e. to the west of the study area where the current OWFs aren't as visible.

LT presented the proposed methodology based on "The Landscape Institute with the Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment. Third Edition." LT also presented the other key guidance papers to be adhered to – see slide 41.

RS stated that he agreed with the proposed methodology and guidance to be adopted.

LT presented the effects to be scoped in for assessment in the EIA:

- Seascape;
- Landscape;
- Views from visual receptors with reference to representative viewpoints;
- Night-time; and
- Cumulative.

LT presented the effects proposed to be scoped out:

- Impacts relating to the offshore cable route construction, operation and decommissioning;
- Seascape impacts within English Marine Plan Areas;
- Landscape character impacts:
  - East of Abergele; and
  - Beyond coastal character types/areas except where they are also covered by the AONB or National Park designations.
- Visual impact at night from locations east of Abergele.
- Cumulative impacts with:
  - Onshore wind farms; and
  - Other offshore development.

RS advised that he would wish to see a visualisation from east of Abergele in order to understand whether or not the landscape character impacts could be scoped out beyond there.

LT advised that it is intended to present some wirelines in the scoping report.

	<p>RS noted that the WG National Development Framework is promoting renewable energy within the Conwy area. LT agreed to consider this based on the available information.</p> <p>JP asked whether the selection of viewpoints was to be determined in the meeting and noted that Penrhyn Castle should be included. It was agreed that final proposed viewpoints would be provided to the ETG prior to the publication of the Scoping Report for agreement.</p> <p>LT presented a former visualisation of GyM and explained that best practice is to look at scaled images (hard copies). LT presented paper copies of the Awel y Môr cumulative wirelines from five representative locations. This included one from Prestatyn, which lies to the east of Abergele. LT noted that they don't take into account changes in visibility with distance. A cumulative wireline and photograph would be considered for each of the viewpoints along with photomontages from key locations to be agreed. The field of view for the photomontages will be narrower (53.5 degrees) which is more representative and is as per SNH guidance. Night time visualisations may be required to illustrate lighting and, if this is the case, the guidance from SNH is that baseline photographs are taken at dusk.</p> <p>The meeting briefly broke into two groups to review the wirelines that had been presented. NM noted that there would be a significant impact on the setting of Beaumaris Castle, part of the Castles and Town Walls of King Edward in Gwynedd World Heritage Site, and NM, and RS, alongside others in the room, agreed that this impact should be taken forward for further discussion.</p> <p>RS agreed that best practice methodology has been applied and welcomed the early consultation.</p> <p>RS queried how LAs without landscape officers or capacity would be able to engage in the process. RS indicated that this was the case for Conwy, Gwynedd and Isle of Anglesey County Councils<sup>2</sup>. PC noted that the LAs were invited to attend the ETG and agreed to continue to consult with them.</p> <p>A discussion was held about specialist consultants being employed to advise the LAs. CO noted that previously arrangements were made (for non-OWF projects) and would welcome further discussions on this.</p>
<b>9</b>	<b>Landscape and Visual – Onshore<sup>3</sup></b>

<sup>2</sup> Post-meeting note: Subject to what the viewpoints and wireline images from Denbighshire CC indicate, Denbighshire CC may also need to be consulted and provided with LVIA support.

<sup>3</sup> Post meeting note: The effects of the onshore development components have a bearing on local landscapes and visual amenity. This lies outside of NRW's statutory landscape designations planning remit. NRW therefore advise that innogy discuss the project scope with the relevant LPA landscape advisor/representative.

This part of the meeting was presented by SM and the onshore LVIA EIA scoping will be undertaken by SLR Consulting. This topic will also cross-over with SLVIA and cultural setting (both on and offshore).

SM presented that the study area has been defined for effects from the onshore cables and the substation. He noted that a more detailed context would be provided in the Scoping Report, including the aspect areas.

SM presented the sensitivities (including heritage considerations) which may be associated with the search area – see slides 46 to 51.

SM presented the proposed baseline data to inform the Scoping Report and PEIR, including national level character assessments for Wales, Local Landscape character assessments (where available). He noted that the context and a high level baseline will be provided in the Scoping Report chapter.

SM queried whether there were any other information sources that should be considered in the scoping or EIA. RS suggested looking at the Conwy and Denbighshire Landscape Sensitivity and Capacity Assessment for Wind Energy Development in relation to baseline landscape character.

SM presented the proposed items to be scoped into the EIA-

- Disturbance to/removal of landscape fabric/elements, including hedgerows, trees and woodland along the cable route;
- Temporary effects on landscape elements resulting from the construction phase e.g. compounds, laydown areas and working areas;
- Effects on landscape character resulting from changes associated with construction and new structures, particularly the substation;
- Effects on landscape designations; and
- Effects on visual amenity for receptors along the cable route and around the substation.

SM anticipates the study areas for EIA assessment would be:

- 1km buffer from the centre of the cable route; and
- 5km buffer from the substation site boundary.

SM asked if there were any other issues which the project should be aware of. No items were raised.

SM confirmed that the onshore cables would be buried. AM noted that the NGET substation may require an extension and changes to the overhead lines, however, no further information has been provided to innogy at this stage. KA highlighted that the design is still very early and innogy is in open discussions with NGET.

SM presented the items which are proposed to be scoped out of the EIA assessment:

	<ul style="list-style-type: none"> <li>• Construction traffic effects;</li> <li>• Effects on landscape and visual receptors resulting from underground cables during the operational phase;</li> <li>• Effects on landscape and visual receptors resulting from maintenance activities at the substation;</li> <li>• Night time landscape and visual effects; and</li> <li>• Decommissioning effects on landscape and visual receptors (as these will be comparable with construction).</li> </ul> <p>SM highlighted that the project does not intend to undertake a residential visual amenity assessment but this could be discussed when the project details are refined.</p> <p>SM noted that a site specific survey/ walkover would be undertaken to inform the EIA.</p> <p>Onshore visualisations would also be provided in the ES, similar to the SNH guidance, and would be consistent with the offshore ones (in terms of guidance/ methodology etc). This was welcomed by the parties.</p>
10	<p><b>AOB</b></p> <p>JP requested an overview of the wider implications of the NGET work. PC confirmed that the Scoping Report will present the known project details. However, the connection agreement is not yet confirmed and so sufficient design information for detailed assessment will not be made available prior to the publication of the Scoping Report. PC noted that more detail will be available prior to the application (but may be applied for directly by NGET).</p> <p>AH highlighted that innogy will seek to have common milestones for the ML and DCO in order to reduce duplication and in pursuit of parallel determination timetables. NP welcomed this proposal.</p>

Agenda Item	Action	Who?	Due Date
1	No actions recorded	N/A	N/A
2	No actions recorded	N/A	N/A
3	No actions recorded	N/A	N/A
4	No actions recorded	N/A	N/A
5	No actions recorded	N/A	N/A
6	All parties to review the draft ToR and provide feedback or requested amendments.	All	31/01/20
7	All parties to review and provide feedback on the stakeholder roadmaps.	All	31/01/20
	Innogy to provide a gantt chart of key milestones, ETG meetings and requirements of the ETGs	innogy	23/12/19

<b>8</b>	innogy to ensure that dialogue regarding significant impacts on setting (including at Beaumaris Castle) is continued during the process.	All	on-going
	Innogy to discuss LPA landscape planning advice resourcing with all local authorities within the study area, to ensure timely advice to the planning process.	Innogy	on-going
<b>9</b>	No actions recorded	N/A	N/A
<b>10</b>	No actions recorded	N/A	N/A

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**ARCHAEOLOGY, CULTURAL HERITAGE, SEASCAPE, LANDSCAPE & VISUAL IMPACT ASSESSMENT  
(SLVIA) EXPERT TOPIC GROUP –01 OCTOBER 2020, 11 AM - 1PM**

<b>MEETING ORGANISER:</b>	RWE		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Ceri Thomas	Conwy Council	CT
	Adam Cooper	NRW	AC
	Christopher Jones	NRW	CJ
	Richard Sumner	NRW	RS
	Angharad Crump	Ynys Mon	AH
	Ed Henderson	Ynys Mon	EH
	Jenny Emmett	Gwynedd Archaeological Planning Service (GAPS)	JE
	Sion Roberts	Snowdonia National Park	SR
	Neil Maylan	Cadw	NM
	Gareth Edwards	RCAHMMW	GE
	Mark Walters	CPAT	MW
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Karen Algate	RWE	KA
	Helen Thomas	RWE	HT
	Giles Simms-Williams	RWE	GSW
	Lynda Thomson	OPEN	LT
	Abigail Bryant	Wessex Archaeology	AB
	Sean Leake	GoBe	SL
	Ryan Mc Manus	GoBe	RM
	Pete Gaches	GoBe	PG
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Robin Sandham	Conwy Council	
	Lindsay Mercer	Conwy Council	
	Huw Davis	Conwy Council	
	Lianne Martin	Conwy Council	
	Cara Owen	Snowdonia National Park	
	John Pearson	National Trust	
	Kathryn Laws	National Trust	
	Cassie Greenhill	RWE	

<b>Documents provided:</b>	<b>Filename</b>
Cumulative Wirelines	201464_AWE_Cum_Wires_LowRes.pdf
Viewpoint Locations Maps	2014.64_AWE_VP_Locations_200910_Low_rES.pdf
Spreadsheet of Viewpoints	201464_Potential_VPs_MT_OPEN.xls
ZTV Figure from Scoping	AyM_Chapter9.4_Figure3_ZTV_BT_VPs.pdf

PowerPoint Presentation	AYM Sept Oct ETG Presentation SLVIA-ACH_V1.pdf
Meeting Agenda	AyM ETG Agenda-SLVIA-ACH, 1 October 2020.pdf
Virtual Consultation Poster (English Language Version)	AyM Virtual Consultation Poster - November 2020.pdf
Virtual Consultation Poster (Welsh Language Version)	Awel y Môr Dweud eich dweud - Tachwedd 2020.pdf

Agenda item	Minutes
1	<p><u>Introductions and aims</u></p> <p>SL opened the meeting and thanked all for their attendance, then checked that all attendees have received the information pack provided prior to the meeting. The aims of meeting are to give a project and <b>site selection update</b>, and to have an open discussion on the outcomes of scoping. SL reminded attendees to interject with questions wherever arising.</p> <p>NM asked about SLR archaeology role and whether that had changed since scoping. SL confirmed that Wessex Archaeology were now the archaeology and cultural heritage lead for both onshore and offshore aspects of the EIA to ensure a cohesive assessment across onshore/offshore.</p> <p>PC said that he would keep an eye on the Skype call chat. HT reminded everyone to mute if not speaking.</p> <p>SL said that minutes would be circulated within a week of the meeting, along with an engagement programme of future meetings and an outline of planned document submissions to the ETG.</p>
2	<p><u>Project and site selection update</u></p> <p>AH presented the project update slides, focusing on surveys underway and/or complete. AH introduced the public engagement days (PEDs) poster, with PEDs scheduled for November 2020. AH outlined the headline project programme, namely PEIR publication in August 2021, DCO and marine licence application in Summer 2022, consent by 2023/24, with the wind farm planned to be operational by 2030. AH introduced the project options for offshore cable routing, onshore cable routing, and onshore substation locations.</p>
3	<p><u>SLVIA</u></p> <p>SL handed over to LT to talk through SLVIA.</p> <p>LT thanked all attendees for their contributions in terms scoping responses, agreement to scope out effects over 50km and effects of subsea cable routeing offshore, and lighting impacts during operation at night where receptors are located east of Conwy or in England due to the perceived overlap of lit operational offshore wind farms and AyM in those areas.</p> <p>LT then ran through other aspects suggested to be scoped out in the scoping report, but now scoped in based on the scoping opinion:</p> <ul style="list-style-type: none"> <li>- Cumulative effects assessment. LT stated that a cumulative effects assessment would be undertaken as part of the EIA for SLVIA.</li> </ul>

- Impacts on landscape character within Denbighshire and Flintshire. LT hoped to get agreement from stakeholders on areas of particular concern and ran through the wirelines and viewpoints already influenced by offshore wind in Denbighshire. LT clarified that the proposed scoping out of these effects was purely related to the assessment of effects on landscape character, and that an assessment on viewpoints, defined separately, would be considered in the assessment. RS wanted to understand the influences on visual experience from those areas within the Clwydian Range and Dee Valley AONB where the Special Qualities may be affected, rather than impacts to the landscape character itself. RS said that he would have a closer look at the wirelines and provide more detailed feedback in a week or so. LT presented the viewpoints from Flintshire but noted that no representative from Flintshire was on the call. LT not expecting significant landscape character effects on Flintshire but visual effects would be assessed. LT asked whether it would be possible to refine the scope of impacts in these areas to special qualities of landscape designations, but RS was not able to comment on Denbighshire overall.
- Impacts on more inland landscape character beyond coastal character types, except where they also form part of a landscape designation such as an AONB or the Snowdonia National Park.

LT noted that PINS advised on need to assess Maximum Design Scenarios (MDSs) both in terms of the maximum number, and the maximum size of turbines. This would be considered further and agreed with consultees when further project design information was available.

LT noted that the scoping opinion suggested that the ES should contain an assessment of sequential visual effects on all users of roads and Public Rights of Way (PRoWs) within the study area. LT presented the long-distance routes (roads and PRoWs), namely the A55, the Wales Coast Path, Offa's Dyke and National Cycle Route (NCR) 5. LT wanted to seek agreement that these are the key routes that the assessment would focus on, and therefore that all other routes could be scoped out of the sequential effects assessment. CT stated that Marine Drive around Great Orme and Llandudno should also be considered. LT suggested that this route may already be covered by the Wales Coast Path but would investigate further. For sequential effects, EH stated that there are key areas of interest on the Wales Coast Path (between viewpoints 17/18-25/30), and the assessment could focus on those areas of the path in the study area, which was welcomed by LT. Proposed approach was agreed by CT and EH.

NM asked whether this ETG forum was the place to agree these aspects of the assessment, or whether a formal request would be made. LT offered her preference to agree key aspects in this meeting, wherever possible. SL elaborated that the ETG calls are the opportunity to define the assessment together as an ETG. Many questions or uncertainties coming from PINS in the scoping opinion made it clear that further discussion agreement with stakeholders should be made, rather than as blanket statements coming from PINS. SL noted that agreements don't necessarily have to be made on the call itself, but through further document submissions and subsequent follow-up meetings. He also stated that the ETG agreement logs would be circulated at regular intervals and these would ultimately form the Statements of Common Ground going forward into examination. This process would make agreements auditable, and ensures that they have been recorded accurately.



LT elaborated on the seascape character areas in Anglesey and North Wales. For areas west of Great Orme's Head, the Anglesey Seascape Character Assessment would be the primary source of data for mapping of seascape character. East of Great Orme, these would be defined by the Wales National Seascape Assessment, with further information at Llandudno and Colwyn Bay as Regional Seascape Units. SL asked attendees if they agreed with the scope of the seascape character assessment. No one raised any comment.

LT then came onto the approach of scoping out landscape character, other than in landscape designations (AONBs and National Parks) and in coastal areas. LT asked attendees for any comments relating to the Anglesey Landscape Character Assessment. EH said that North Anglesey is a challenging area for cumulative assessment, as it has an evolving baseline of wind farms and other NSIP developments. He then asked whether these would be taken account of in the cumulative effects assessment. LT confirmed that a cumulative effects assessment would be undertaken, including those kinds of existing and forthcoming developments. SL added that the approach to the cumulative effects assessment would be outlined in a document to be submitted to the ETGs, along with a long-list of projects screened-in for cumulative effects. LT proposed that LCAs 5, 6, 7, and 8 may be affected. EH stated that the status of LCA 7 was now a sensitive historic landscape area. LT said that she would look in more detail at this and took an action to develop a list of LCAs in non-coastal areas considered, along with justification for those areas scoped-in/out.

LT talked through the guidance and landscape strategy documents for Gwynedd. As with Anglesey, the proposed approach is to scope-out LCAs distant from the coast. As with Anglesey, LT said she would develop a precise list of LCAs to be scoped-in/out.

LT discussed the landscape assessment approach to Conwy, using the Conwy Council landscape units and strategy area maps. She then asked if there were any comments from attendees on the proposal. CT said that he would ask Robin Sandham (Conwy Council), who was not present, to respond after the meeting. LT said again that she would produce a table of LCAs scoped-in/out to be provided to local councils. CT also said that he would find out if shapefiles of the LCAs can be provided by councils. RS stated that LCAs should be scoped-in/out on the basis of the Zones of Theoretical Visibility (ZTVs) and viewpoint analysis. LT agreed that this analysis would be done and re-iterated the action to provide LCA scope tables with justification to local councils in due course.

LT then described the approach to Snowdonia National Park and said that tables of the LCAs within these would be provided in-line with the action on local council LCAs. LT said that the assessment on the National Park and AONBs would focus on the effects on their identified 'special qualities', such as visual perceptions from the Isle of Anglesey AONB and the Clwydian Range and Dee Valley AONB, noting that the Snowdonia National Park management plan is currently under consultation. She asked if there was any update on the plan or whether there are particular areas of concern within the National Park. SR agreed to check the status of the plan and return with an update. RS made it clear that the management plans are useful when considering land uses, physical character and habitats, but sometimes overlook perceptual special qualities in a general way. In that regard, LANDMAP visual and sensory data should be used as an additional source that might pick up those perceptual special qualities in more detail. LT confirmed that LANDMAP would be investigated and considered within the assessment.

LT then went on to discuss the outcomes of scoping as related to the representative viewpoints for the visual effects assessment. She said that 35 viewpoints were proposed at scoping, noting that this is considered a large number compared to what might normally be expected. Therefore, LT hoped to agree with attendees some areas where viewpoints could be consolidated, with the focus of photomontages in key areas, and wireline images to show alternative views at others. She also noted that it is in-line with best practice guidance to seek to limit the number of viewpoints to avoid dilution of the assessment. Based on scoping responses, 50 viewpoints had now been mapped, but LT hoped to be able to reduce that number with agreement from attendees either today, or by further consultation post-meeting. LT noted that micro-siting of some viewpoint locations had already been suggested by Anglesey and that this was accepted and a welcomed approach. LT noted that all viewpoints would still be subject to micro-siting during viewpoint photography fieldwork. EH raised that it would have been useful to reference the previous SLVIA to review viewpoints, as they were not able to get out to physically view the locations, however this had not been available. LT said that the final set of assessment viewpoints would be agreed with the relevant ETG members. LT stated that the plan was now to go through each of the key areas in turn, describe the proposed approach and seek agreement on viewpoints where possible. *The following table is a summary of each of the viewpoints discussed and agreed (where appropriate) in the meeting. Within a post meeting note RS noted the following "Due to the difficulties in viewing and discussing the wire frame images on our screens, it was agreed that a pack of wire frame images would be sent out to consultees. To assist in agreeing viewpoints to be used in the EIA. The contents of this table are therefore provisional and may change. NRW, GAT and IACC will need to undertake site visits to confirm final viewpoints and which require photomontages".*

Slide	Viewpoint(s)	Proposed approach	Agreement/outcome of meeting (agreements in bold)
Slide 30	2, 3, 14	Move to 2b, 3b respectively and no move for 14.	Agreed
	41	Wireline only.	EH agreed in-principle but could leave until end of review and outcome of other discussions. RS said that NRW would defer comment to Anglesey Council on this location. <b>No further discussion was had due to time restriction. VP41 – awaiting agreement, post meeting note suggested wireline</b>
31	42 and 46	Wireline only at VP46. Location was suggested by CADW. Photomontage for VP42 at nearby trig point.	JE agreed that wireline only would be sufficient for VP46. NM agreed. <b>VP46 – wireline.</b>
32	16 and 5	Photomontage at VP16. Wireline at VP5.	EH stated that VP5 was considered more tranquil than VP16. LT outlined the approach justification

				being that both locations are within the Anglesey AONB, but that VP16 was within the settlement of Benllech. EH regards VP5 as more sensitive. EH agreed to feed back after the meeting as to the approach to these two VPs. LT agreed that VP5 would feature a photomontage. <b>VP16 – awaiting agreement, but agreed post meeting as representative.</b> <b>VP5 – photomontage.</b>
33	28	Agreed	n/a	
	8b and 8c	Agreed photomontage for either 8b, 8c, or 8.,	Agreed (although EH suggested that this may not be required if VP44 from Beaumaris Castle was suitably representative of Wales Coast Path) LT to review after field work/photography undertaken).	
	44	Wireline proposed from Beaumaris Castle parapet/ battlement height.	NM strongly disagreed with this approach, citing the potential World Heritage Site issue associated with the castle, and would therefore require a photomontage from the castle itself in same location as view contained in WHS management plan. <b>VP 44 – photomontage based on view from castle parapet.</b>	
34	48 and 9	Photomontage at VP9 on pier closer to shore. Wireline at VP48 further out on pier.	JE and NM agreed. <b>VP48 – wireline.</b> <b>VP9 – photomontage.</b>	
	49	For discussion. Proposed wireline from bridge with height of viewer raised approximate height of bridge (+30 m).	<b>VP49 – wireline at first stage, photomontage to be considered after seeing site images.</b>	
35	11, 47, 39, 37 and 36.	Photomontages at VP11 and VP 37. Wireline VP 47. VP 36 for discussion.	RS agreed on photomontage from VP37, and wanted VP36 to be a photomontage as well, due to its elevation and views over bay. JE originally suggested VP47 due to the nearby scheduled monuments, but that VP37 nearby may be sufficient for this issue. RS, EH and	

			<p>JE agreed to have a discussion after the meeting to agree on consolidating and micro-siting locations in this area, potentially finding a common location that represented all interests in the area and feed back to the group.</p> <p><b>VP36 – photomontage.</b></p> <p><b>VP39 – wireline.</b></p> <p><b>VP37 and VP47 – awaiting agreement on location for viewpoint with photomontage.</b></p>
36	15, 13, 18	Wireline at 15, photomontage at 13, 18	<b>Agreed</b>
	52	Wireline at VP52	NM agreed. <b>VP52 – wireline.</b>
37	19, 20 and 29	Photomontage at VP29, VP 20 for discussion, may micro-site to high point and consider is wireline is sufficient due to proximity of VP19 (photomontage).	<p>CT was happy with a wireline at VP29, suggesting that VP20 is a more significant concern and would be better with a photomontage. AB agreed with this approach. LT asked if both VP19 and VP29 need to be photomontages, or could one be sufficient as a wireline. CT had no strong views on this. LT suggested that VP 20 and VP29 be made photomontages, and VP19 be made a wireline. CT agreed.</p> <p><b>VP19 – wireline.</b></p> <p><b>VP20 – photomontage.</b></p> <p><b>VP29 – photomontage.</b></p>
38	21, 22, 56	Photomontage for 21, 22, wire for 56	<b>Agreed</b>
	50 and 51	Photomontage from VP50, wireline from VP51.	<p>LT suggested that the two viewpoints could be combined into one. NM agreed that views from the park and Castle could be represented by one viewpoint on the Castle Terrace.</p> <p><b>VP50 and VP51 – combined into one VP location with a photomontage.</b></p>
39	24, 25, 54	Photomontage for 24, 25, wireline for 54	<b>Agreed</b>
	26	Wireline from VP26.	<p>RS agreed that a wireline from this location would capture the key concern. LT noted that in the PEIR, the edge of the coastline would be included in the wireline as suggested by RS.</p> <p><b>VP26 – wireline.</b></p>

	<p>LT then discussed the approach to the night-time lighting assessment, proposing that this would be undertaken with reference to VPs 4, 13 and 22. She outlined that photographs would be taken in semi-dark conditions to enable lighting to be visible, and to enable the coastline to be visible for context. RS asked how far the three viewpoints were from the array. SL showed the mapped locations of those viewpoints to show their distance from the array. RS and EH agreed with VP4. EH noted that although VP7 was closer to the array, it is less accessible. CT agreed with VP13 at Great Orme Summit. LT said that VP22 was chosen to represent the settled coast. CT agreed with this location. LT asked for clarification that all night-time viewpoints were agreed. CT stated that the approach was satisfactory and had no further locations to suggest. RS agreed, noting that the viewpoint from Anglesey will give comparable views to those from Snowdonia.</p> <p>In summary viewpoint 44 and 16 require further discussion with stakeholders.</p>
4	<p><u>Archaeology and Cultural Heritage</u></p> <p>SL noted that since time was short, the final 5 minutes or so would be spent on a quick run-through of the slides on archaeology and cultural heritage. AB noted the continued overlap with the SLVIA topic, but that a specific archaeology and cultural heritage meeting would be arranged in due course.</p> <p>AB outlined the impacts scoped-in and out and agreed on the data sources identified at scoping. She discussed the initial data gathering underway, including two site visits. One had been undertaken to inform the setting, and another cable corridor walkover to confirm the known assets, topography and landform, as well as access routes for future survey. AB stated that the route walkover would be underpinned by LiDAR data and aerial imagery.</p> <p>AB then briefly described the PEIR process and key baseline assets for consideration post-scoping, the main points summarised on the slides being:</p> <ul style="list-style-type: none"> <li>- Stakeholder identified additional baseline assets for consideration in SLVIA/archaeological settings assessment. AB noted the cultural heritage input into viewpoint locations, now complete, the site visits that are underway, and the plan to issue a concordance table after initial surveys.</li> <li>- Stakeholders highlighted the need for identification and assessment of paleoenvironmental potential within the intertidal. AB noted that since Wessex Archaeology is undertaking both the onshore and offshore aspects of the archaeology and cultural heritage assessment, a more joined-up approach can be taken. Similarly, Wessex Archaeology would hope to submit combined onshore and offshore Written Schemes of Investigation (WSIs) so that the intertidal area is not lost in the PEIR. SL asked if AB had a proposed timetable for the next meeting to cover the onshore/offshore crossover. AB said that she would take this away and feedback when a firmer firm timetable could be given.</li> <li>- Archaeological surveys should include access routes and compounds, hedges, walls etc. AB highlighted that walkover surveys are underway that will identify access, and that this survey information would feed back into the route selection process.</li> </ul> <p>AB outlined the next steps, namely, to complete the site walkover surveys, agree on additional documentation to be submitted to the ETG. AB agreed to take away as an action to plan a follow-up meeting, the documents and timescales of submission, but that it would likely include two documents to be submitted to the ETG ahead of the PEIR process for agreement. SL added that a method statement would be produced for any intrusive surveys</p>

	post-PEIR, and that this was an area for future discussion. MW was comfortable with everything discussed and asked when the geophysical data would be available for the final corridor. He also said that he assumed intrusive pre-emptive trial trenching would take place. AB clarified that the geophysical data would be used to focus down on a refined route corridor, and that trial trenching would take place after, and that this would be consulted upon.
5	<p><u>Next steps and AoB</u></p> <p>SL briefly described the next steps, including circulation of meeting minutes and an engagement plan in order to programme document submissions for the ETG. Any submissions would be made in-line with that engagement plan and would factor in a 4-week stakeholder review after which feedback would be requested. The next main ETG meeting is planned for February 2021, but there could also be focused discussions over the next 4-8 weeks on finer detailed points.</p> <p>EH re-iterated that he would feed back on GIS data requests and other actions within a week if possible.</p> <p>SL thanked all for their time and continued support and closed the meeting.</p>

#### Post Meeting Notes:

Richard Sumner, in a marked-up version of the minutes, noted that the site selection agenda item had not considered the refinement of the array area, focussing instead on the offshore cable area, onshore cable, and substation. RS noted in particular that there was no discussion about the siting of the Array, or whether INNOGY [RWE] anticipated there being any flexibility in its location, or extent. RS requested that RWE confirm how it intends to develop the offshore options and alternatives.

The project team note that time ran short towards the end of the meeting and that a few attendees either had to leave the call early, or experienced technical difficulties at times during the call. The project team are more than happy to offer individual calls to anyone who would like to discuss matters further.

A table is attached to these minutes setting out further details on the proposed approach for the SLVIA/CHIA assessment viewpoints as well as providing notes on whether the locations are in the nationally designated landscapes and the approximate distances to the Array Area Boundary FYI.

Agenda Item	Action	Who?	Due Date
1	Consult specifically with Denbighshire and Flintshire on scope of SLVIA in relation to landscape character effects.	LT/GoBe	1 month
2	Look at wirelines in more detail and visit locations in Clwydian Range and Dee Valley AONB before providing feedback on scoping out of effects on landscape character east of Conwy..	RS	1-2 weeks
3	Print wirelines and send to stakeholders	LT/GoBe GoBe to confirm addresses with attendees	

	All consultees to review wirelines and confirm viewpoints and photomontage images for the EIA		It would be helpful if INNOGY were able to specify dates
4	Develop a tabulated list of LCAs to be scoped-in/out in each local authority, and Snowdonia National Park, with justification	LT	
5	CT to ask Robin Sandham to respond regarding landscape assessment of Conwy.	CT	
6	CT to find out about issuing shapefiles of LCAs to RWE/consultants.	CT	
7	LT to check which LCA shapefiles OPEN has received and request any still required.	LT	
8	EH to feed back on GIS data requests.	EH	1 week
9	Check status of Snowdonia National Park management plan and follow-up.	SR	
10	Follow-up on viewpoints 41, 5, 16,	EH	1 week
11	Check whether a wireline is sufficient to inform assessment at VP8 with VP44 as alternative.	LT	
12	Follow-up on VP49 once site images are available.	NM	
13	Have discussion on consolidating VP37 & 47 and feed back.	RS, EH, JE, NM	
14	Provide timetable of follow-up meetings and a planned list of document submissions for archaeology and cultural heritage.	AB/GoBe GoBe to incorporate within engagement plan	
15	Review attached table and provide agreement/comments.	All	
16	Post meeting request – OP-EN have checked what shapefiles we have received for the LCAs we discussed for each of the LPAs and Snowdonia National Park and Seascape Area boundaries for Anglesey as we do not have any of them. We would be grateful if the LPSs and NRW could arrange for us to receive these, where available	LPSs/NRW	
17	Provide timetable of follow-up meetings and a planned list of document submissions and site selection engagement for SLVIA	OP-EN /RWE/GoBe	26/11/20

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**SLVIA AND CULTURAL HERITAGE ETG MEETING MINUTES – 25 JANUARY 2021, 1400 – 1600**

<b>MEETING ORGANISER:</b>	RWE		
<b>LOCATION:</b>	Teams dial in/Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Robin Sandham	Conwy Council	RS
	Angharad Crump	Ynys Mon	AH
	Ed Henderson	Ynys Mon	EH
	Keith Williams	Ynys Mon	KW
	Jenny Emmet	Gwynedd Council	JE
	Sion Roberts	Snowdonia National Park	SR
	John Pearson	National Trust	JP
	Olwin Maidment	NRW	OM
	Adam Cooper	NRW	AC
	Christopher Jones	NRW	CJ
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Helen Thomas	RWE	HT
	Karen Algate	RWE	KA
	Giles Simms-Williams	RWE	GSW
	Sean Leake	GoBe	SL
	Ryan McManus	GoBe	RM
	Pete Gaches	GoBe	PG
	Flik Clark	GoBe	FC
	Lynda Thompson	SLR	LT
	Matt Faulkner	SLR	MF
	Mark Turner	Wessex	MT
	Ceri Thomas	Conwy Council	CT
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Cara Owen	Snowdonia National Park	
	Kathryn Laws	National Trust	
	Huw Davis	Conwy Council	
	Lindsay Mercer	Conwy Council	
	Lianne Martin	Conwy Council	
	Christopher Jones	NRW	
	Gareth Edwards	RCAHMW	
	Cassie Greenhill	RWE	
	Richard Sumner	NRW	
	Paul Wisse	Sefton Council	
	Andrea O'Connor	Sefton Council	
	Denise Shaw	Denbighshire Council	
	Lara Griffiths	Denbighshire Council	



	Hannah Parish	Flintshire Council
	Dylan Llewlyn Jones	Ynys Mon
	Neil Maylan	Cadw

Documents provided:	Filename
Meeting Agenda	00141-AyM WTG Agenda – SLVIA_250121.docx
PowerPoint Presentation	AyM ETG Presentation SLVIA – CH 250121.pdf
Comparative Wirelines	AyM_Comparative_Wires_250121.pdf
Viewpoint Point Plan	AyM_VP_Plan_250121.pdf

Agenda item	Minutes
1	<p><u>Introductions and aim of the meeting:</u></p> <p>SL opened the meeting and thanked all for their attendance, then checked that all attendees had received the information packs provided prior to the meeting.</p> <p>SL informed everyone that the aims of meeting were to: provide project update on site selection and alternatives with particular focus on array and gaining feedback from Expert Topic Groups (ETG) members on the refinement options.</p> <p>SL said that minutes would be circulated within a week of the meeting and requested feedback from the ETG members within 10 days if possible.</p>
2	<p><u>Project details and site selection update:</u></p> <p>SL handed over to KA who presented the project update slides, with a focus on public consultation and how it went well given that it was a virtual consultation, RWE were pleased with the feedback. KA went on to inform everyone on the offshore and onshore surveys which have recently been completed, and those which are still underway. KA mentioned that exact routing for the onshore cable corridor isn't frozen yet and they are currently in discussion with landowners.</p> <p>KA illustrated the preferred route and explained:</p> <ul style="list-style-type: none"> <li>- Site selection has been undertaken over 1 year and the offshore cable corridor, landfall, onshore cable corridor and substation zone has now been selected.</li> <li>- KA described this route in full and informed everyone that they have kept options open for crossing options over the Gwynt y Môr cables (as this needs some more technical work and consultation).</li> <li>- Similarly, KA noted that the onshore cable route crossing of the River Clwyd needs some more environmental and technical work to establish the best crossing location and it is likely that optionality will be retained through the Preliminary Environmental Impact Report (PEIR).</li> <li>- The exact substation footprint is still being considered within the selected zone (Zone 5).</li> </ul> <p>KA asked if there were any questions so far? RS asked if all onshore cabling would be underground. KA confirmed that all of the RWE project cables will be buried.</p> <p>KA confirmed that there will be a public announcement towards the end of the week regarding the transmission site selection outcomes and Public Engagement Days (PEDs)</p>

	<p>details. She explained that refinement is ongoing while outcomes of studies, surveys and stakeholder consultation are received, as well as input from any technical work (this will continue through the year until the PEIR).</p> <p>KA noted that there will be a design freeze in February and the emerging preferred corridor was shared today.</p> <p>KA gave a brief update on the project programme and handed over to PC.</p>
3	<p><u>Site selection update - visual receptors (SLVIA and Cultural Heritage):</u></p> <p>PC gave an update on the array boundary site selection noting that there is now a defined onshore and offshore area, refined from the Areas of Search (AoS) used at previous stages and Scoping. PC explained that in order to meet The Crown Estate's criteria in the extensions leasing round, an extension project needed to share a boundary with the existing operational project (Gwynt y Môr) and went on to describe the main hard constraints that were used to determine the location for the array. PC presented the Automatic Identification System (AIS) shipping data and discussed how that was a hard constraint as there were large volumes of cargo ships going in and out of Liverpool Bay following the Traffic Separation Scheme (TSS) [shipping lane], and therefore the development would not be possible to the north of the Gwynt y Môr array. Going south or south-east would have put the project in proximity to existing infrastructure and closer to shore, and to the east would conflict with dredging areas and other constraints, therefore the only viable option for the extension was to the west of Gwynt y Môr. PC noted that the process with Crown Estates took place in advance of the publication of the White Consultant's sensitivity report for NRW.</p> <p>PC asked if there were any questions. OM asked if the areas to the south (between North Hoyle and Rhyl Flats OWF) have been considered. PC explained that these areas were looked at, however due to it being a congested area (interconnector cables, other OWFs and their relevant cables), combined with bringing turbines closer to shore, it wouldn't work for an extension this size.</p> <p>PC handed over to SL.</p>
4	<p><u>Scoping stage layout and development of mitigated layout for assessment in the PEIR:</u></p> <p>SL described the options for reduction of the western extent of the array, noting that analysis had identified 5 viable area options. He explained that a number of influencing factors have been considered which include environmental factors such as underwater noise, shipping and navigation, commercial fisheries and seascape, landscape and visual impacts, as well as technical considerations such as wind resource, bathymetry and ground conditions.</p> <p>SL explained that the options available at this stage were a balance between reducing environmental impacts on sensitive receptors with the need to achieve a low Levelised Cost of Energy (LCoE) to ensure maximum efficiency and contribute to UK and Welsh government renewable energy targets.</p> <p>SL explained that in order to mitigate SLVIA effects, the options available currently are: a reduction in array area, and/or a reduction in WTG size. SL further explained that there were</p>

	<p>challenges in reducing the WTG size in that it's difficult to look ahead 5 – 6 years to the technology that will be available at the time of construction.</p> <p>SL passed over to LT to discuss site selection.</p>
5	<p><u>Layout development and alternative turbine arrangements within array areas for SLVIA consideration:</u></p> <p>LT acknowledged that the project would likely result in significant effects from the perspective of SLVIA and explained the key considerations for designing the array to reduce the significance of those effects.</p> <ul style="list-style-type: none"> <li>- LT explained that the array area has already been defined (with an Area for Lease (AfL) from the Crown Estate (TCE)) and therefore it isn't possible to avoid all Likely Significant Effects (LSE) by re-siting to areas identified as less sensitive in the White Consultant's report.</li> <li>- The next option for reducing effects is to locate the array away from local seascape areas that have been identified as being of higher sensitivity. LT described the different sensitivity areas from the White Consultants guidance for SLVIA receptors and that the array is mainly in a medium sensitivity area with the western edge within a high sensitivity area and the north-eastern extent in a medium-low sensitivity area. LT also presented a map that showed that the greatest concentration of the outstanding category in the Landmap visual and sensory evaluation is in Snowdonia and the Clwydian Range and Dee Valley AONB.</li> <li>- The next step is to locate developments off already developed coasts, away from less settled coasts. LT explained that built up areas around the coastline had been investigated and that the coastline east of Great Orme had more developed and settled character than in comparison to the west. Views from these locations would be cumulatively affected by an increase in field of view including other existing offshore wind farms, but areas to the west would result in a greater change from the baseline.</li> </ul> <p>LT explained the different coastal viewpoints (VPs) and their visual context, presenting the factors that influence SLVIA and added that today's discussion was around reducing the array boundary from its western extent in order to reduce horizontal views (individually and cumulatively), to increase the distance of the OWF from the coast of Anglesey, and contain the majority of the array to the seascape east of the Great Orme, where the baseline character of the seascape is more settled and has existing OWF influences.</p> <p>LT presented the 5 viable options for reduction from the Base Business Case (BBC) (Areas A, C, H, J and M). OM asked it was possible to zoom in, AH mentioned that it would be easier to refer to colours and LT zoomed into the figure.</p> <p>LT explained that the BBC is used to represent the full extent of the AfL and has been a starting point for all environmental and technical analysis. SL explained that area M represents the minimum area that is necessary to retain maximum output capacity. Moving the boundary further east would reduce potential energy outputs and therefore area M reflects the point at which project benefits in terms of delivering renewable electricity and contributing to climate change targets would start to diminish more definitively.</p>

	<p>LT went on to explain that area A sits entirely beyond the high sensitivity area (with reference to the White Consultants guidance) and includes some deeper waters in the north-westerly area.</p> <p>Area H is the first alternative configuration of the western extent but with the same overall area (in terms of square km) as represented in Area A. Area H also results in reducing interaction with SLVIA, shipping and underwater noise receptors.</p> <p>Area C re-ordinates the alignment of the western edge with shallower water and reflects a reduction in potential interaction with vessels and also reduces the extent of underwater noise propagation.</p> <p>Area J follows closely the alignment of the western edge of Area H then moves to a diagonal alignment between A and M to represent similar reductions to A, while avoiding a sharp corner with an apex WTG, considered to be a risk to shipping</p> <p>LT presented a table that showed the relative areas and lengths of each area and the resultant differences in the distances to key coastal locations. Noted was the increase in distance from Point Lynas Lighthouse in north-east Anglesey but that whilst the distances from Penmon Lighthouse and Great Orme Lighthouse had not markedly altered the key change at these locations would be to the horizontal field of view of the wind farm.</p> <p>LT noted that indicative WTG layouts have been prepared to fit each of the Area boundaries for the purposes of SLVIA, so that turbines are arranged around the furthest west and southern extents of the possible areas noting that these indicative layouts are not the result of engineering/technical layout work.</p>
6	<p><u>Presentation of comparative wirelines from selected viewpoints:</u></p> <p>LT then presented the .pdf document with the different wirelines that was circulated to attendees ahead of the meeting. LT explained that there are 9 viewpoints with wirelines, presented from west to east (considering some of the most critical) and each set of comparative wirelines run across two pages. SL reminded everyone that the Base Business Case wirelines were sent as hard copies to everyone previously and advised everyone to open the VP_Plan.pdf alongside when looking at the wirelines for ease of reference. SL also asked if everyone was following and if there were any questions regarding the rationale for the options provided. OM asked if more than one option was being considered for WTG sizes. SL explained that an envelope of models was being considered ranging from small to large, depending on what is expected to be available at the time of construction. SL also explained that defining the Maximum Design Scenario is the topic of discussion at the next meeting in two weeks' time. PC and GSW added that a lot of work has been done in terms of defining the WTG envelope, which included industry consultation to help define market and viability for future turbine. SL then asked if there were any more questions? None arose so SL passed back to LT.</p> <p>CJ joined the meeting and SL explained to him the progress of the meeting so far. LT then presented the wirelines for each of the VPs and the different area options:</p> <ul style="list-style-type: none"> <li>• <u>VP 7 – Penmon Point</u>: LT explained that from this viewpoint, it was just possible to see GyM to the west of Great Orme Head. Part of the AyM array is behind Puffin Island, and regarding the western extent, Area C results in the greatest reduction in</li> </ul>

horizontal field of view, although there is not a substantial difference compared to the other areas.

- VP 8 – Beaumaris – Wales Coast Path: LT explained that from this viewpoint, the majority of the array is visible using any area reduction options, since the western extent is already hidden behind the landscape. None of the reduction options result in a substantial reduction in horizontal field of view because of this, except for blade tips visible above the landscape, where Area C results in the greatest reduction. Area A is slightly more distant at 25km.
- VP 9 – Bangor Pier: Similar to Viewpoint 8, the majority of the western extent of the BBC is obscured by the landmass, and therefore none of the area reduction options result in a meaningful difference. Although Area C results in the greatest theoretical reduction, in practice this is not seen from this viewpoint. Area A is slightly more distant at almost 29km.
- VP 17 – Penrhyn Castle: The western extent of the BBC is partially obscured by landmass, though not to the same vertical extent as from Viewpoints 8 and 9. Area C results in the greatest reduction in horizontal field of view, and is broadly comparable to the reductions seen from Areas H and J. None of the options result in a significant reduction in visibility of any turbines not already partially obscured. However, it was noted that Areas H & C avoid turbines being seen behind Puffin Island which is beneficial.
- VP 10 – Carnedd Llewelyn: From this location, all area reduction options result in an array that is clearly less extensive than the BBC, with Area H resulting in the largest reduction in horizontal field of view.
- VP 36 – Tal y Fan: LT explained that from this viewpoint, all reduction options result in a marked reduction in horizontal field of view, with Areas H and J giving the greatest, comparable reductions.
- VP 12 – Conwy Mountain: From this location, the majority of the array is partially obscured by Great Orme, and therefore options that result in a reduction in western extent from this provide the greatest benefit. All proposed options achieve this, with Areas J and H having the greatest, similar reductions in horizontal field of view.
- VP 18 – Llandudno, Paddling Pool: LT noted that this location has a less obstructed view than from the western end of the town around the War Memorial. All options markedly reduce the horizontal field of view, with Area J giving the greatest benefit.

VP 29 – Colwyn Bay Promenade: The western extent of the full BBC and all reduction options are partially obscured by landmass to the west where there are buildings on the headland at Rhos on Sea, which would partially obscure visibility. LT noted that Area A has the largest reduction in the cumulative wind farm views from the wider Colwyn Bay due to the alignment of the western edge.

LT explained that once the photomontages have been produced these will give a more realistic picture but due to Covid these weren't currently available. She reminded everyone that these options are only for the purpose of discussion for the options to reduce the western extent of the array.

LT asked if there were any questions. EH asked if it was possible to include the lighthouse in the wirelines from Penmon Point. LT explained that in the PEIR, these visuals will have baseline photos in as well but currently don't have all although it was noted that the Penmon Point location is one where OPEN has the photograph. EH thanked LT.

SL asked if there were any more questions. OM asked if options to move the turbines further from the coast had been considered? LT explained that limiting proximity to shore on the southern edge had been considered however a reduction in horizontal extent would reduce

impacts by a greater magnitude and re-iterated points discussed before that moving the WTGs further north wasn't possible without reducing the size of the array further. OM said that was now clear.

SL reminded everyone that RWE is seeking feedback by 9<sup>th</sup> February regarding the following key questions:

Please identify your preferred option from those presented on the 25th January; please also identify your primary considerations when reaching that conclusion?

What, if any, other Cultural Heritage/SLVIA considerations should also inform the array boundary refinement process?

SL asked if there were any questions. EH asked how many WTGs were being removed from the BBC because of the reduction? SL referred to LT who explained that RWE provided LT with shapefiles for the different areas and the maximum number of WTGs in each area was dependent on the shape and spacing. LT explained that the maximum number of the largest WTGs is 51 (as defined in scoping) and explained that each wireline noted how many WTGs have been presented (top left).

PC explained that the design freeze would include maximum number of WTGs. PC explained that these wirelines would help with the design freeze envelope process. EH asked if in real terms the layout would be denser or if there would be fewer turbines? PC explained that either scenario could be possible, there would be different scenarios. PC asked GSW if he could explain further. GSW explained that the calculations haven't been done yet to determine the maximum number of WTGs, the calculations have a lot of variables and currently can't say for certain the maximum number. EH noted that the different areas have different variables and therefore it is hard to say which is best and therefore it is difficult to provide an informed opinion at this stage as a greater density may mean a more cluttered array even if extent is reduced. PC added that the Development Consent Order (DCO) and Marine Licence do not fix a WTG layout and do not fix locations of individual turbines, only the number and dimensions of turbines. Locations are not fixed until post-consent/pre-construction following detailed site investigation and engineering work, as well as consultation with key stakeholders such as the Maritime and Coastguard Agency. Therefore, any layouts presented for the purposes of assessment should be treated as a realistic maximum design scenario and not a fixed layout.

LT explained that the next meeting for the Maximum Design Scenario (MDS) would make that clearer and went on to explain that the number of rows would also influence how dense the OWF looked. LT re-iterated that the precise layout won't be known until post-consent and the wireline WTG layouts are just an example to help visualise the areas. EH thanked those that explained and said that the sooner they can see the lighthouse in the view for the Pennon Point VP, the easier it would be to come to a preferred option.

KW asked where at Beaumaris the VP was from. LT explained that the council gave them the grid location used in the wirelines which is on an elevated section of the coastal path but that in reality this view is influenced by foreground buildings and vegetation so it may be preferable to move it, (lower down where there was less obstruction).

SL asked if there were any other questions. MT chipped in to say that they'll come back to final VP locations following the meeting with Neil [Friday 27/01/2020]. LT explained that there will need to be two VPs at Beaumaris, one from coastal path and one from the castle.

	<p>JE explained that there is a significant view from the castle as well as the coastal path so both should be considered.</p> <p>SL asked if there were any further questions on the VPs? None arose, so the presentation was presented again.</p>
7	<p><u>Next steps:</u></p> <p>SL noted that minutes will be issued within 7 days, following collation and will be distributed for agreement.</p> <p>JP asked if any other photographs are going to be produced and if so, could they be provided. SL explained that, at this stage, RWE is looking to refine the boundary in the west, which the wirelines help to inform, and that a full set of photography hasn't yet been done. However, this will be included later in the PEIR and ES following the MDS discussion. SL explained that there were a few photos currently available but not all. JP asked if the Penrhyn Castle photos were available yet. LT explained that these were not yet available as she hadn't been able to get there due to Covid restrictions. SL explained that photomontages will be included in assessment but not at this stage.</p> <p>SL mentioned that documents had been distributed after the previous ETG meeting for which feedback on VPs to be used in the SLVIA is still awaited from some parties. Therefore, the viewpoint list for photography is not yet certain and until feedback on viewpoints is received and the final list agreed OPEN cannot take the viewpoint photographs, Covid restrictions permitting. The assessment will be based on the MDS – however before that, the maximum western extent of the array needed to be defined. SL explained that MDS would be circulated for discussion at the next meeting and would take account of the comments made.</p> <p>SL also mentioned that in the Scoping Opinion, the Secretary of State (SoS) asked that a dual assessment should be undertaken (one with smallest WTG sizes but greatest number of WTGs, the other being the biggest WTGs with fewer) unless agreement was made with stakeholders on the MDS.</p> <p>OM reiterated what EH said in terms of the area and the MDS, and explained that since one informed the other, it was difficult to comment on which area was preferred without these variables in place. SL noted that this was difficult but there is a need to decide what the MDS is for the purposes of undertaking an assessment, and that this would be the focus of the next meeting.</p> <p>RS asked how much they could share the wireline documents? SL noted that these were being shared with ETGs and could be circulated to people beyond this meeting if relevant and within the same organisation. RS added that this would be internal in Conwy Council. SL said this was fine.</p> <p>SL added that the project team will be in contact soon with regard to onshore aspects of the EIA, but at this stage email correspondence would cover that unless members felt the need for a teleconference to follow up.</p>
8	<p><u>AOB:</u></p> <p>SL confirmed the actions from the meeting [table below] and asked if there was any other business for discussion. None arose, so SL welcomed any feedback and thanked everyone for their attendance and contributions.</p>

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Agenda Item	Action	Who?	Due Date
1	Photograph including Penmon Point lighthouse to be included and distributed to EH (and everyone).	LT/GoBe	TBC
2	Feedback on wirelines and the preferred array area boundary	ETG members	2 weeks (9 <sup>th</sup> Feb)
3	Minutes to be circulated	GoBe	1 week (2 <sup>nd</sup> Feb)



**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**CULTURE AND HERITAGE VPS AND SETTINGS ETG MEETING MINUTES– 29 JANUARY 2021, 1000 - 1200**

<b>MEETING ORGANISER:</b>	RWE		
<b>LOCATION:</b>	Teams dial in/Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Neil Maylan	CADW	NM
	Mark Turner	Wessex	MT
	Sean Leake	GoBe	SL
	Ryan McManus	GoBe	RM
	Flik Clark	GoBe	FC
	Lynda Thompson	SLR	LT
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	

<b>Documents provided:</b>	<b>Filename</b>
Meeting Agenda	00141-AyM WTG Agenda – SLVIA_250121.docx
PowerPoint Presentation	AyM ETG Presentation SLVIA – CH 250121.pdf
Comparative Wirelines	AyM_Comparative_Wires_250121.pdf
Viewpoint Point Plan	AyM_VP_Plan_250121.pdf

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><u>Introductions and aim of the meeting:</u></p> <p>MT opened the meeting and thanked LT for joining at such short notice.</p> <p>SL thanked everyone for their attendance, then checked that NM had received the information pack provided prior to the meeting and explained that he will run over the initial slides (Project updates etc) briefly as they were the same as the slides presented on Wednesday for the AyM Seascape, Landscape and Visual Impact Assessment (SLVIA) Expert Topic Group (ETG) on archaeology, as NM attended that meeting. SL asked NM to jump in with any questions.</p> <p>SL explained that MT and LT will present the wireline images from the different Viewpoints (VPs) and NM should have received an email with the lighthouse in, which was requested by Ed and the Anglesey team.</p> <p>SL informed everyone that the aims of the meeting is to discuss the alternative boundary areas and to gain feedback on the most beneficial array area alternative layout for culture and heritage. SL reminded everyone that the feedback would be needed by the 9<sup>th</sup> of</p>

	February in order to feed into the next ETG meeting on the 10 <sup>th</sup> of February (where the two most likely array area alternatives will be discussed alongside the Maximum Design Scenario (MDS)).
2	<p><u>Project details and site selection update:</u></p> <p>SL explained that the feedback from the (virtual) public consultation had been good and RWE were pleased with the feedback.</p> <p>SL explained that a huge volume of survey work had already been completed to inform the Preliminary Environmental Impact Report (PEIR). SL gave a brief update on the offshore and onshore surveys which have recently been completed and those which are still underway.</p> <p>SL explained that the eastern offshore cable route has been chosen following the consultation and engineering studies. SL noted that similarly the eastern onshore cable corridor (Cable route 5a) has been selected, as this scored most favourable following feedback and technical information, but the exact routing isn't frozen yet and the Project are in discussions with landowners. SL explained that substation Zone 5 had been chosen, and currently they are looking at the exact footprint for the substation which will feed into PEIR. SL mentioned that onshore VPs would be issued soon.</p> <p>SL explained that the next steps include more ETG meetings, wider stakeholder engagement, survey refinement and stakeholder input.</p> <p>SL briefly outlined the programme, explaining that the expected PEIR submission will be late summer 2021, and the DCO submission was now expected to be in March (rather than May) of 2022.</p>
3	<p><u>Site selection update - visual receptors (SLVIA and Cultural Heritage):</u></p> <p>SL explained that in order to meet The Crown Estate (TCE) criteria in the extensions leasing round, an extension project needs to a shared boundary with the existing operational Offshore Wind Farm (OWF) (Gwynt y Môr) and therefore this had been taken into account when looking to define the array boundary. SL explained that the Project couldn't extend to the North, as there is a large shipping lane and traffic separation scheme (TSS) going in and out of Liverpool and this was a hard constraint. The Project couldn't extend to the East due to the aggregate development areas, and further shipping constraints. The Project could not extend to the south of Gwynt y Môr due to the challenging ground conditions, proximity to the coast and existing OWF infrastructure (cables and therefore the only viable option is an extension to the west of the Gwynt y Môr OWF array. SL also noted the timing of the boundary selection process, and that the process with TCE took place in advance of the publication of the White Consultant's sensitivity report for Natural Resources Wales (NRW).</p>
4	<p><u>Scoping stage layout and development of mitigated layout for assessment in the PEIR:</u></p> <p>SL explained that the scoping boundary was the Area for Lease (AfL) which had previously been selected, and for the purposes of this exercise had been called the Base Business Case (BBC), noting that LT circulated hard copies of these wirelines for the VPs just before Christmas.</p>

	<p>SL explained that analysis by the Project has identified five viable boundary area options. SL informed every one of the different considerations that had been used to identify these areas, these were: Underwater Noise (UWN), mammals, Shipping and Navigation (S&amp;N), SLVIA, wind resource, bathymetry and third parties (inc. recreational sailing, commercial and recreational fishing etc).</p> <p>SL explained that the current options were balanced between reducing environmental impacts on sensitive receptors with the need to achieve a low Levelised Cost of energy (LCoE) to ensure that there is maximum efficiency and contribution to UK and Welsh Government renewable targets.</p> <p>SL explained that in order to mitigate the potential impacts of the Project on SLVIA receptors, the Project need to reduce the array area and/or reduce the Wind Turbine Generator (WTG) size. He further explained that there are challenges to mitigating with WTG size as it is unknown what technology will be available in the future given that the Project will be constructed in 5 – 6 years' time.</p> <p>SL handed over to LT to discuss the site selection array areas.</p>
5	<p><u>Layout development and alternative turbine arrangements within array areas for SLVIA consideration:</u></p> <p>NM informed everyone that he has been in extensive webinars regarding the White Consultant's sensitivity report discuss the outcomes and therefore has a good understanding of this report.</p> <p>LT explained that the AfL had already been defined by TCE and was called BBC for the purposes of this exercise noting that it is not possible to avoid all Likely Significant Effects (LSE). LT presented the White Consultant's sensitivity report figure with the BBC boundary, showing that there is a higher sensitivity SLVIA area in the west of the BBC towards the coast of Anglesey, while the majority of the BBC sits within a medium – low sensitivity area.</p> <p>LT explained the different coastal VPs and their visual context, presenting the factors that influence SLVIA and added that today's discussion was around reducing the array boundary from its western extent in order to reduce horizontal views (individually and cumulatively), to increase the distance of the OWF from the coast of Anglesey, and contain the majority of the array to the seascape east of the Great Orme, where the baseline character of the seascape is more settled and has existing OWF influences.</p> <p>LT presented the different array area options and explained how they relate back to reducing the different impacts:</p> <ul style="list-style-type: none"> <li>• Area A – coincides with the high sensitivity buffer as identified in the White Consultant's sensitivity report and includes some deeper water in the north-westerly section.</li> <li>• Area M – represents the minimum area necessary to retain the Projects maximum output capacity. By moving the boundary further east, the energy outputs of the Projects are reduced, and therefore this area reflects the point at which the Project benefits (in terms of delivering renewable electricity/meeting renewable targets) start to be reduced.</li> </ul>

	<p>LT noted that the three remaining boundary areas are the same area (km<sup>2</sup>) as Area A, just slightly different boundaries.</p> <ul style="list-style-type: none"> <li>• Area C – alters the alignment of the western edge and removes the deeper water in the north west, which in turn would reduce UWN propagation and reduce interaction with Shipping and Navigation (S&amp;N).</li> <li>• Area H – is the same overall area but with a slightly different configuration in the western edge, also reducing S&amp;N interactions and UWN propagation.</li> <li>• Area J – follows the alignment of the western edge of H then moves diagonally between area A and M, avoiding a sharp corner (which would have an apex WTG) which may be considered a S&amp;N risk.</li> </ul> <p>LT presented the table that showed the relative areas and lengths of each array area options. LT noted that the indicative WTG layouts were prepared to present the furthest west and southern extents of each of the possible areas and these layouts are not the final layout and have not been informed by technical and/or engineering work.</p> <p>LT asked if NM had any questions? NM didn't have any questions and explained that he had understood this well from the ETG meeting on Wednesday too.</p>
6	<p><u>Presentation of comparative wirelines from selected viewpoints:</u></p> <p>LT presented the .pdf document, showing the different wirelines which was circulated prior to the meeting. LT explained that the different wirelines are only for the purpose of presenting the horizontal view at the western extent of the array boundary, and therefore these are not final or exact WTG layouts. LT presented the different array areas and a brief analysis of the different areas and explained that these VPs have been selected based on their importance (in terms of their relationship to the landscape i.e. coasts and headlands). LT explained that each VP extended across two pages and showed that the top wireline of each page presents and compares the extent of each of the array area options with the BBC.</p> <ul style="list-style-type: none"> <li>• <u>VP 7 – Penmon Point:</u>              LT explained that she had quickly pulled together a photomontage to show the lighthouse and asked if NM had received the wirelines with the inclusion of the Penmon lighthouse? NM confirmed this. LT pointed out that Area C has the biggest horizontal reduction from this VP.</li> <li>• <u>VP 8 – Beaumaris – Wales Coast Path:</u>              LT explained that this VP is from the coastal path co-ordinates that EH gave her, but following a trip to the site, she thought the VP should maybe be moved as there are locations with a wider view, but also confirmed that another VP will be done from Beaumaris castle (located just behind the coastal path). LT identified that Area C has the biggest reduction, but there isn't a considerable difference in the extent of the field of views.              LT also pointed out that each page identified the distance from the VP to the nearest (indicative) WTG. SL asked what the distance was? LT noted that for this VP it was around 25 km. NM said he was happy with that viewpoint and understood the distance.</li> <li>• <u>VP 9 – Bangor Pier:</u>              LT explained that this is quite similar to the previous, with Area C having the biggest reduction, however some of the views of the OWF are hidden by Anglesey. LT also</li> </ul>

	<p>noted that there is a slight increase in distance to the OWF, and it's around 29 km for this VP.</p> <ul style="list-style-type: none"> <li>• <u>VP 10 – Carnedd Llewelyn:</u> LT identified the different extents for each of the areas, noting that Area H and J have the biggest reduction in horizontal view and that on balance, the Project think that Area H and J have the most difference from all of the different VPs.</li> <li>• <u>VP 12 – Conwy Mountain:</u> From this location, the majority of the array is partially obscured by Great Orme. LT identified that from this VP, Area J (closely followed by Area H) have the most reduction.</li> <li>• <u>VP 17 – Penrhyn Castle:</u> LT noted that the distance to the OWF is similar for each layout but there is a slight difference depending on the area. LT noted that Area C was the biggest reduction.</li> <li>• <u>VP 18 – Llandudno, Paddling Pool:</u> LT presents that explained that this VP has been chosen as it presents the biggest views. She notes that Area J has the most reduction here in the horizontal field of view.</li> <li>• <u>VP 29 – Colwyn Bay Promenade:</u> LT noted that the array areas here extend behind some landfall and can be seen, however after going on site she noted that they wouldn't be as notable as shown in these wirelines because the coast is very developed. LT identified that Area A has the largest reduction, closely followed by Area J. And these represented a good reduction. SL asked if this was the only VP where Area A had the largest reduction in horizontal views. LT confirmed this, and explained that this was due to the angles and alignment of Area A.</li> <li>• <u>VP 36 – Tal y Fan:</u> LT identified that the largest reduction could be seen from Area H, closely followed by J.</li> </ul> <p>LT asked NM if there was anything he wanted to view again or needed further explanation. NM noted that he wasn't sure how much the reduction in western extent of the array (and different array areas) might affect the impacts on cultural and heritage receptors as these are based more on the presence of the OWF in view, rather than the extent of it. MT confirmed that this would form part of the assessment.</p>
7	<p><u>Next steps:</u></p> <p>SL explained the next steps, nothing that the minutes from Mondays SLVIA ETG meeting will be circulated soon following internal review and that NM will receive these minutes.</p> <p>SL said that there were a few other actions that will be circulated, and noted that if NM has anything to add, he could do so shortly, SL also noted that due to Covid photographs (similar to the lighthouse photomontage circulated previously) were limited and aren't all available. SL reminded NM that the Project are keen to receive feedback from the ETGs and which array Area options are preferred, noting that this doesn't mean that's final, however it would help the Project progress further, while feedback will be considered and caveated while trying to find an optimal solution.</p> <p>SL explained that he had found the wirelines helpful to understand the different array areas while noting that it's not as easy (or most beneficial) to reduce the array boundary to the White Consultant's sensitivity report high sensitivity boundary, with other options providing a more distinct reduction in the horizontal spread.</p>

	<p>SL noted that there will be another meeting on the 10<sup>th</sup> February that will discuss the MDS, however feedback from the array Areas will not have been considered in this MDS meeting. Therefore, the Project would be looking at Areas A and H within this MDS meeting unless further feedback is presented that shows that an alternative array area boundary is more beneficial. In this meeting different WTGs will be looked at to find the most appropriate. If a final array option isn't found, the Project will take two through to PEIR for a dual assessment.</p> <p>SL asked if NM had any questions? NM confirmed that he was happy to move forward with the information presented by SL and LT.</p>
8	<p><b><u>AOB:</u></b></p> <p><b><u>Beaumaris Castle VP:</u></b></p> <p>SL reminded NM that they are seeking confirmation of the VPs if possible. NM noted that it is difficult for him to say without going to site, and explained that Beaumaris Castle will not be open until at the earliest Easter. NM said that he had a book that he can look over to check the VPs. MT asked which book. NM said that it was the <i>World Heritage Site Management Plan</i>, 2018. He was specifically looking at page 35, which showed a good VP photo from the castle that he could send over if LT couldn't get onto site. LT asked if it would be possible to get access just to take the VP photo. NM explained it may be possible, however it might take a while. LT mentioned that she has been granted particular permissions by the Gov as this is an energy project, so she could have an exemption letter if necessary. NM noted that this was an internal problem at CADW – but he will aim to get LT the required permission from the civil service. ACTION – NM to provide initial contacts for access to the castle.</p> <p>MT asked to share his screen, and shared a photo of Beaumaris castle – asking if everyone could see this? Everyone confirmed. MT asked if a view from the north eastern turret would be a good VP as this has good 270° views. NM noted that this was a similar view to what he was previously talking about (which he was looking at in <i>the</i> book) and agreed that this might be the best VP from Beaumaris Castle. LT asked to share her screen and shared an aerial photo of Beaumaris castle. LT asked if one of the turrets would be a good VP. NM mentioned that the photo he was referring to was taken from the harbour. LT asked for confirmation of this position. NM said that it was near the southern gate of the castle and explained that this used to be the harbour where ships could be brought directly in. NM confirmed that it was where LT's cursor was showing (Figure 1, mouse cursor). NM confirmed that this would be a good VP, or the south east tower (as identified in Figure 1, circled in red) which is currently accessible to the public.</p>



*Figure 1. Screenshot of LT's aerial photo of Beaumaris Castle*

SL noted that there was therefore a benefit to taking the VP from the south east tower as this is more publicly accessible. NM agreed. LT noted that she was happy with these locations, if she was getting permission to take one photo, would it be beneficial to take two, one from each position discuss and then a decision can be made on which VP to use. MT agreed that this would be a good idea. LT asked MT if the photos he has previously provided to LT were from either of these locations. MT explained they were not however these VPs would be better.

SL asked if there were any other VPs that need to be discussed?

Conway Castle VP:

MT noted that the point from the Conway castle might need to be amended. NM identified a location from the top of one of the towers where there might be a wider view.

LT noted that she has an ariel view that she shared on screen. NM mentioned that the Stockhouse tower might be better (second from the right on the norther side, shown with the cursor in Figure 2). MT mentioned that the Stockhouse tower had a watchtower on top which would provide an extra few metres and therefore a wider view even still. LT asked the height of this point. MT mentioned that off the top of his head he thought this was about 90ish feet from the hill/ground. NM explained that someone should get a photo from there. LT noted that to complete the wirelines she would need a photo but also the height from sea level (which she could work out if she knew the height from the tower to the hill, and then could add on the topography from maps). NM said that he will try and get the specific height data from a colleague and confirmed that he will ask to get LT access to both the tower and the watchtower.





Figure 2. Screenshot of LTs aerial photo of Conway Castle

LT asked NM if CADW had Conway Castle as well as Beaumaris. NM confirmed this was CADW.

LT asked if Penryn Castle was the National Trust (NT)? NM confirmed that this was NT.

MT added that he's found something that says the tower was 25 m above ground level but doesn't have the height of the watchtower. LT confirmed that she will look into it to confirm.

#### Gwrych Castle VP:

MT referred to Gwrych Castle.

NM noted that this wasn't a scheduled building but the view from the terrace would be a good one to get (see cursor location in Figure 3).

LT asked if ITV had paid for some big changes to the castle following their use of it in *I'm a celebrity get me out of here* – NM confirmed that this was correct.



Figure 3. Screenshot of LTs aerial photo of Gwrych Castle

LT asked for confirmation on Gwrych Castle VPs, noting that she will need a different VP rather than the terrace (as previously discussed) as there are obstacles in view from that VP. NM confirmed this and noted that there may be a better VP from the main castle which might be easier (see location circled in red on Figure 3), noting that it will be easy to identify the best VPs on site rather than online.



#### Other Offshore VPs

MT said there were two more VPs, he knows LT will have a VP from north wales near Snowdonia. LT explained that she has merged a few VPs together as they were similar. NM said the Jenny Emmet (JE) will know about this. NM asked LT or MT to liaise with JE to confirm this. NM mentioned that this might be VP 37. MT confirmed he will speak to JE.

#### Onshore VPs

MT then asked about issuing a list of VPs for the onshore substation location. He mentioned that they are going to try and get into Bodelwyddan Castle to get these photos. MT asked if NM had a contact there. NM confirmed that Mark Walters (MW) would be good to ask as they did a recent project there (referenced to the recent water pipe project) and will therefore have contacts. MT confirmed that MW was going to send him this as this is not currently in public domain and he'll see where it sits. NM mentioned that the report is really interesting. MT confirmed that he's following up with MW.

NM noted that the hotel at Bodelwyddan will be easy to get access to but other areas might be more difficult, for example the museum as some of the leases have ceased on the museum which may cause further access problems. NM confirmed that they'll need to contact someone at the hotel who should be able to let someone in.

SL confirmed that the VP list is currently under review.

#### Penmon Castle VP

MT mentioned that the current VP looked to be a good representation and asked if any other VPs were required (note that other VPs will be assessed and discussed however VP photos will not be provided for all). NM confirmed that this approach would be acceptable as the scheduled remains are covered and therefore sufficient.

#### Scoping responses

MT noted that the scoping response specifically suggested an ASIDOHL (Assessment of the Significance of the Impact of the Development on the Historic Landscape) assessment may be needed. NM noted that this might not be much use for this particular project assessment. MT agreed that it might not be the most appropriate here. MT said they can make an assessment without this and ASIDOHL would only be useful to show that there was no impact. This was agreed.

#### Slate Industry of North Wales

NM added that the *Slate industry of North Wales* may soon be given World Heritage status and therefore should be considered. MT agreed, and noted that he has seen that it is currently on the tentative list. MT asked if these documents were available? NM confirmed that these documents might be available. LT confirmed that they were and she had seen them.

NM noted that it might be a difficult assessment as the Project c will have a potential impact on two World Heritage sites, making comparisons with Navitus Bay OWF and Stone Henge road development, before noting the government will need to balance these impacts against the necessity to meet carbon change targets and the 2030 Welsh energy target.

SL mentioned that he was not involved in Navitus bay OWF but explained that there was a lot of other matters of relevance, including public opinion, in addition to the SLVIA impacts, however AyM had received positive feedback so far, and a planning balance would need to be defined.

	<p><u>New planning policy</u></p> <p>NM noted that edition 11 of the planning policy for Wales due to come out in February and asked if everyone was aware of this. MT confirmed he was aware and asked if there were any changes in setting. NM confirmed that there was not.</p> <p>SL asked if there were any further points to raise? None.</p> <p>SL confirmed the actions from the meeting (as presented in the Action table below) and asked if there was any other areas of business for discussion. None arose, so SL welcomed any feedback and thanked everyone for their attendance and contributions.</p>
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Agenda Item	Action	Who?	Due Date
1	Minutes to be circulated	GoBe	1 week (5 <sup>th</sup> Feb)
2	NM to look into access to Beaumaris and Conwy Castle	NM	ASAP
3	MT to check version of World Heritage Site Management Plan	MT	2 weeks – Note that NM provided a pdf copy following the meeting (29 <sup>th</sup> Jan) via email
4	GoBe to seek clarification from JE	GoBe	2 weeks (12 <sup>th</sup> Feb)
5	GoBe to contact MW to agree access to Bodelwyddan castle	GoBe	2 weeks (12 <sup>th</sup> Feb)
6	NM to find height information on the castles and viewpoints	NM	2 weeks (12 <sup>th</sup> Feb)

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**SLVIA AND CULTURAL HERITAGE ETG MEETING MINUTES – 10 FEBRUARY 2021, 1000 - 1230**

<b>MEETING ORGANISER:</b>	RWE		
<b>LOCATION:</b>	Teams dial in/Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Neil Maylan	Cadw	NM
	Robin Sandham	Conwy Council	RS
	Ceri Thomas	Conwy Council	CT
	Angharad Crump	Ynys Mon	AH
	Ed Henderson	Ynys Mon	EH
	Jenny Emmet	Wessex	JE
	Mark Turner	Wessex	MT
	Sion Roberts	Snowdonia National Park	SR
	Cara Owen	Snowdonia National Park	CO
	John Pearson	National Trust	JP
	Christopher Jones	NRW	CJ
	Olwen Maidment	NRW	OM
	Adam Cooper	NRW	AC
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AHe
	Karen Algate	RWE	KA
	Giles Sims	RWE	GS
	Sean Leake	GoBe	SL
	Ryan McManus	GoBe	RM
	Pete Gaches	GoBe	PG
	Flik Clark	GoBe	FC
	Lynda Thomson	Optimised Environments Ltd (OPEN)	LT
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Kathryn Laws	National Trust	
	Peter Wood	Conwy Council	
	Lindsay Mercer	Conwy Council	
	Lianne Martin	Conwy Council	
	Gareth Edwards	RCAHWW	
	Richard Sumner	NRW	
	Paul Wisse	Sefton Council	
	Andrea OConnor	Sefton Council	
	Denise Shaw	Denbighshire Council	
	Lara Griffiths	Denbighshire Council	
	Paul Mead	Denbighshire Council	
	Andrew Farrow	Denbighshire Council	
	Hannah Parish	Flintshire Council	

	Dylan Llewlyn Jones	Ynys Mon
	Keith Williams	Ynys Mon
	Helen Thomas	RWE
	Cassie Greenhill	RWE

Documents provided:	Filename
Meeting Agenda	0141-AyM ETG Agenda – SLVIA_100221.docx
Presentation	AYM ETG Presentation SLVIA-CH100221.pdf
Comparative Wirelines	<a href="https://op-en.box.com/s/9bybexl7x10nfw75605kmvry3okbpwp9">https://op-en.box.com/s/9bybexl7x10nfw75605kmvry3okbpwp9</a>
Southwold VP4 (East Anglia Two)	

Agenda item	Minutes
1	<p><u>Introductions and aim of the meeting:</u></p> <p>SL opened the meeting and thanked all for their attendance, then checked that all attendees had received the information packs provided prior to the meeting. SL asked everyone to check they were able to access the link to OPEN's drop box. Those that were having trouble opening this link were supplied with an alternative link by RM.</p> <p>MT checked that there were 3 documents in the link:</p> <ol style="list-style-type: none"> <li>1. Presentation;</li> <li>2. Wirelines; and</li> <li>3. Southwold Viewpoints.</li> </ol> <p>LT confirmed this was correct and confirmed that she would be sharing all of these documents at some point throughout the presentation.</p> <p>SL informed everyone that the aims of the meeting were to:</p> <ul style="list-style-type: none"> <li>• Present and discuss a number of alternative Maximum Design Scenarios (MDS);</li> <li>• Discuss initial thoughts; and</li> <li>• Agree next steps for information provision.</li> </ul> <p>The objectives of the meeting were to:</p> <ul style="list-style-type: none"> <li>• Gain feedback on the primary question – Which of the variants presented represents the design that will result in the greatest potential effect?</li> </ul> <p>SL said that minutes would be circulated within a week and requested feedback. He reminded everyone that feedback is greatly appreciated and that attendees could email feedback after the meeting.</p> <p>SL asked if there were any questions – None.</p>
2	<p><u>Maximum Design Scenario (MDS):</u></p> <p>SL explained the <i>Rochdale envelope</i>, it is a series of maximum extents for which the significant effects are established, the detailed design of the project can then vary within this 'envelope', which allows the project to retain some flexibility in design. He explained that there was a need to retain some flexibility (as per a number of National Policy Statements (NPS)) which address uncertainties. He noted that Planning Inspectorate (PINS) Guidance Note 9<sup>1</sup> indicates that it's not possible to specify every detail of the</p>

<sup>1</sup><https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/05/Advice-note-9.-Rochdale-envelope-web.pdf>

	<p>proposed development (i.e. exact type and/or number of Wind Turbine Generators (WTGs)) and notes that the ES needs to establish the relevant parameters for assessment.</p> <p>SL noted that NPS EN-3<sup>2</sup> notes the difficulties and complexities of developing an infrastructure project, and that a maximum adverse case scenario should be assessed which allows for this uncertainty. SL notes that there is also a need to keep the MDS consistent across all the application documents (ES, HRA, WFD...). SL confirmed that the parameters of the MDS, will be secured through the DCO and will therefore represent the worst-case scenario. This will mean that the as-built design will not result in any significant effects beyond those which were assessed within the ES.</p> <p>SL explained that RWE are currently looking at two ways to reduce the SLVIA impacts – a reduction in array area, and fewer turbines. Both of these scenarios were presented today.</p> <p>SL asked if there were any questions - None. SL explained that the purpose of the Rochdale envelope is to develop the MDS – for this industry in particular, flexibility needs to be retained, for example to allow WTGs to be micro sited around archaeology.</p>
3	<p><u>Summary of previous meeting:</u></p> <p>SL presented the array boundary site selection slide and thanked everyone for their feedback to date. He noted that feedback was useful and had helped the discussion around which of the array boundaries is most optimal (noting that none of these boundaries remove all the likely significant effects). SL said that so far, the feedback had noted that Area A and Area H/J are the better of the options for the majority, although there was still a necessity to look at other WTG parameters (such as turbine height).</p> <p>SL asked if anyone had any questions or feedback to add on this? EH asked if the White Consultants report for NRW would be sent out. LT said that she will send EH a copy. SL reiterated that Array Area A is clipped to the White Consultants high sensitivity area. EH asked if consideration had been given to the option of merging some of the scenarios previously presented? SL said that RWE were open to feedback of all forms and noted that other members of the ETG had also asked this. He noted that there is potential for a reduced impact to be reached by merging some of these array area boundaries. EH thanked SL.</p> <p>RS said that it was difficult to substantiate any impacts on tourism based on the horizontal extent of the OWF – maybe if the extent were to be moved eastwards, or if the WTGs could be smaller in the western side of the array? SL thanked RS and noted that to date, it had been challenging for projects to use different size WTGs in a single project and mentioned that it would be challenging to define a MDS for this situation, but this would be discussed with RWE. SL asked RS for clarity on reducing the western extent, does he mean reducing the western extent more than the areas that have previously been presented? RS said that it was hard to state a preference, but to keep the turbines as easterly as possible. SL thanked RS and confirmed that tourism is being assessed (alongside key areas of interest) in the relevant assessment chapter (Socio-economics and tourism).</p>

<sup>2</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/47856/1940-nps-renewable-energy-en3.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47856/1940-nps-renewable-energy-en3.pdf)

	<p>SL explained that LT will present Areas A and H, alongside the other components that may result in a reduced impact to SLVIA receptors such as defining the MDS. He explained that the project parameters have been amended where the maximum number of smaller (12 MW) WTGs had been reduced from 107 to 92 (representing a 14% reduction), and the maximum number of larger turbines (20 MW) had been reduced from 52 to 49. SL said that all other WTG parameters remain the same as assessed in the scoping (i.e. blade tip and rotor diameter).</p> <p>SL clarified once more that the array areas in discussion in this meeting were Area A and Area H. SL passed over to LT</p>
4	<p><u>Key topics for discussion:</u></p> <p>LT noted that another Viewpoint (VP) had been added which is VP 2 – Point Lynas. This had been prepared for EH’s team and had been added into this presentation. LT also noted that, where available, some of the baseline photography had been added to the wirelines, and that some of the pictures would be retaken when it is safe to go to site. LT confirmed that all VPs had been previously presented, with the exception of VP 2 – Point Lynas.</p> <p>LT said that the information presented used Area A, and Area H (which was a combination of Area A and Area C). Each of the areas has been presented with the different MDS options of a perimeter layout and a regular layout:</p> <ul style="list-style-type: none"> <li>• Regular WTG layout with 91 x 12 MW WTGs (with 220m rotor diameter)</li> <li>• Regular WTG layout with 49 x 20 MW WTGs (with 300m rotor diameter)</li> <li>• Perimeter WTG layout with 91 x 12 MW WTGs (with 220m rotor diameter)</li> <li>• Perimeter WTG layout with 49 x 20 MW WTGs (with 300m rotor diameter)</li> </ul> <p>LT noted that these were preliminary layouts for SLVIA purposes of illustrating the likely differences and to help define the MDS, and were not the defined WTG locations for the purposes of the PEIR assessments.</p>
5	<p><u>Detailed consideration:</u></p> <p><u>Likely MDS for AyM:</u></p> <p>LT explained that RWE were looking for feedback (to feed in to the PEIR assessment) and were discussing the MDS with consultees in order to ensure that the maximum number and range of likely significant effects is assessed. LT noted the PINS comments from scoping which asked that RWE define worst case scenarios which would be sufficient to capture the full range of potential effects subject to consultation and agreement with other consultees.</p> <p>SL asked if there were any questions – None.        LT presented the wirelines pdf (which can be viewed by consultees via the link provided prior to the meeting) and checked that everyone could see the wirelines.</p> <p><u>Presentation of comparative wirelines from selected viewpoints:</u></p> <p>LT presented the different VP locations, noting that more would be used in the PEIR assessment, however there were too many to present every one of them today for the</p>

purposes of this exercise. LT explained how each of the VPs was presented, noting that some were not the same positions as previously presented, and that some now have baseline photographs.

The VPs without photographs are presented across two pages:

- Page 1:
  - Area A, Regular layout, 49 x 300 m RD WTGs
  - Area H, Regular layout, 49 x 300 m RD WTGs
  - Area A, Perimeter layout, 49 x 300 m RD WTGs
  - Area H, Perimeter layout, 49 x 300 m RD WTGs
- Page 2:
  - Area A, Regular layout, 91 x 220 m RD WTGs
  - Area H, Regular layout, 91 x 220 m RD WTGs
  - Area A, Perimeter layout, 91 x 220 m RD WTGs
  - Area H, Perimeter layout, 91 x 220 m RD WTGs

The VPs with photographs are presented across four pages:

- Page 1:
  - Baseline photo
  - Area A, Regular layout, 49 x 300 m RD WTGs
  - Area H, Regular layout, 49 x 300 m RD WTGs
- Page 2:
  - Baseline photo
  - Area A, Perimeter layout, 49 x 300 m RD WTGs
  - Area H, Perimeter layout, 49 x 300 m RD WTGs
- Page 3:
  - Baseline photo
  - Area A, Regular layout, 91 x 220 m RD WTGs
  - Area H, Regular layout, 91 x 220 m RD WTGs
- Page 4:
  - Baseline photo
  - Area A, Perimeter layout, 91 x 220 m RD WTGs
  - Area H, Perimeter layout, 91 x 220 m RD WTGs

LT said that she could zoom into wirelines if needed and ran over the different VPs:

Viewpoint	Comments
Overview	Prior to and during discussion of the VPs and MDSs, SL noted that the project would encourage all feedback, recognising that any feedback received would be preliminary, the ETG members having just seen the information being presented. The following record therefore provides a record of the preliminary feedback received, without prejudice to any further feedback that will be received on further review of the information presented.
VP 2 – Point Lynas	LT showed that Area H has a lesser horizontal field of view than Area A.  LT noted that from this VP there was not a considerable difference between the layouts (regular Vs perimeter), but the regular layout was slightly worse in the eastern end due to the greater variation across the array.

		<p>LT noted that the larger, 300 m RD WTG option was the worst case as this looked larger although this is less apparent in this open seascape. SL asked if there was an emerging pattern to which was worst case – regular or perimeter. LT noted that she would come back at the end after presenting all the VPs but it was regular mostly.</p> <p>SL asked EH if he had any questions/comments based on this VP as this was one that he had requested. EH noted that the regular layout was the worst case from this VP. LT asked EH if he thought the 300 m RD was also the worst case? EH noted that in Area A in regular for both the 300 m and 220 m RD WTGs, there was a wide gap in the eastern extent and asked for clarification on why LT believed that the 300 m rotor diameter was the worst case? LT explained that in this VP their larger scale is less evident but when presented in other VPs, next to landforms, it was more obvious. She also noted that the higher density of the smaller WTGs looks marked as viewed along the length of the array, usually, not all the WTGs can be seen to this extent due to varied distance, and therefore the denser layout wasn't necessarily the worst.</p>
	<b>VP 7 – Penmon point</b>	<p>LT explained that Area H had a narrower horizontal field of view, (especially in a regular layout). She noted that there was a bit of stacking in Area A for the 300 m RD WTG scenario, however there wasn't too much difference. Similarly, she noted that there wasn't too much difference between the regular and the perimeter layout, but based on the western extent, the perimeter layout is slightly worse as there is less consistency across the array.</p> <p>LT asked if there were any questions?</p> <p>EH agreed with LT on the worst case and noted that there was nothing too markable between them.</p> <p>LT pointed out the difference between height/scale of the WTGs in this VP in relation to landforms.</p> <p>EH asked what the difference was between the number of days each of the WTGs sizes would be visible for? LT explained that it was hard to say at this point as there are a number of parameters that feed into the assessment, the main thing that affected this was the distance from the coast, weather, humidity over the sea and sun direction (and how it hits the WTGs). LT confirmed that this will however be in the PEIR assessment and that they are currently seeking information from the met office to inform this visibility assessment, noting again that the size of WTGs and their component parts is part of this overall assessment.</p>
	<b>VP 8 – Beaumaris - Welsh coastal path</b>	<p>LT explained that the position of the VP had changed slightly, the current view was a clearer view, but LT would likely be going back to retake this view (when Covid-19 restrictions were lifted).</p> <p>LT explained that Area A and Area H are somewhat similar due to the existing landform screening (Penmon Point and Puffin Island). LT explained that the main difference here was between the perimeter and regular layouts. She noted that the regular layout was less consistent for 300 m RD WTGs. LT explained that the 220 m RD WTGs</p>



		<p>appear smaller compared to Puffin Island and the Great Orme, and therefore she believed that the larger, 300 m WTGs were the worst case.</p> <p>LT asked if MT had any questions/comments? MT agreed with LT and confirmed that the larger (300 m) WTGs are the worst-case.</p> <p>SL asked if the regular layout was the worst case because it was less consistent than the perimeter layout. LT agreed it was in her opinion.</p> <p>SL asked if NM had any observations as of yet? NM noted that with the smaller (more) WTGs looked more like a wall across the sea, although they both have impacts as the bigger (fewer) WTGs are more noticeable. SL thanked NM.</p> <p>LT added that the distance from the OWF in this VP was around 25 km, and therefore they would appear less wall-like due to their reducing visibility with distance and apparent density. NM confirmed that he understood.</p>
	<b>VP 9 – Bangor Pier</b>	<p>LT noted that there's no difference between Area A and H from this VP due to the landforms in the view.</p> <p>LT said that there was not much difference between regular and perimeter layouts either, except in the eastern end, due to the stacking in regular layout. LT therefore thinks that regular is worst case (for both size WTGs). LT asked if anyone thought differently? SL asked if it was the larger turbines that are the worst case for size? LT noted that this was correct. SL asked if it was NM who noted interest in Bangor Pier previously. JE noted that it was herself. SL apologised and asked if she had any feedback/comment? JE said that currently it was hard to see the difference between all the options without having a more detailed look on a larger screen, however she will study each of the options in detail and feedback, she thanked LT for her comments as these were useful.</p>
	<b>VP 17 Penrhyn Castle</b>	<p>LT added that she hadn't been able to get photos from this VP yet.</p> <p>LT pointed out that Area H has a narrower field of view and doesn't meet Puffin Island meanwhile Area A can be seen on both sides of Puffin Island.</p> <p>When comparing the 300 m WTGs, there isn't too much difference between layouts. The OWF is 28 km away, and therefore turbine density would be less apparent.</p> <p>LT noted that due to the larger turbines being more visible around Puffin Island and the Great Orme, the larger 300 m WTGs are the worst case.</p> <p>LT asked if there were any questions or comments? SL asked if JP had any initial thoughts? JP noted that he needs to view the wirelines on a larger screen to get a better idea, but he agrees with the previous comments made by NM, in that some layouts look 'fence like' and he thinks that this may be worst-case here. JP asked for clarification of the previous minutes when discussing the potential for two VPs from here, one from the coastal path, one from the castle. LT noted that there had been some confusion in the minutes as she recalled that discussion was in relation to Beaumaris Castle, but this would be investigated and confirmed in final minutes.</p>

	<p><b>VP 10 Carnedd Llewelyn</b></p>	<p>LT pointed out the Gwynt y Môr (GyM) OWF in this VP and that Area H has a smaller horizontal extent than Area A.</p> <p>LT believes that in this instance, the perimeter layout with the larger (300 m RD) turbines is the worst case as it appears more random and there is more of a difference in appearance compared to GyM, however there isn't too much difference between layouts. She believes that the smaller WTGs (220 m RD) in the regular layout match the appearance of GyM and therefore not as bad. LT believes that the larger WTGs are the worst-case as these WTGs are far more obvious than the GyM and welcomes all feedback.</p> <p>LT asked if there were any comments? SR thanked LT and noted that he agrees. He believes that the smaller WTGs don't stick out as much in comparison to the GyM OWF and therefore the larger, 300 m RD WTGs are the worst-case however he will provide further feedback via email once he can view the wirelines in close detail.</p> <p>SL thanked SR and asked if JE had any comments. JE agreed that the larger, 300 m RD WTGs are worst-case.</p> <p>SL thanked JE and asked OM if she had any questions. OM agreed that from this VP the scales of the WTGs were more noticeable, and that the regular layout looked better against the GyM layout, however there are a lot of factors that came into play here.</p> <p>SL thanked OM and noted that this was an interesting one when comparing Area A and H, given that Area H has that slightly reduced horizontal extent. OM agreed but suggested that a combination of A and H may be better. SR noted that Area H had a reduced extent.</p>
	<p><b>VP 36 – Taly Fan</b></p>	<p>LT explained that Area H was a reduction in the horizontal field of view.</p> <p>LT pointed out that there wasn't too much difference between the different layouts, however when in comparison with GyM, the regular layout looks the most similar.</p> <p>The biggest reduction in impacts is from Area H, and the smaller WTGs, as the larger WTGs really stand out in this context.</p> <p>LT therefore thinks that the worst-case would be the larger (300 m RD) WTGs in the perimeter layout.</p> <p>LT asked if anyone had any comments or observations? SR, JE and OM all agreed with LT.</p>
	<p><b>VP 12 – Conwy Mountain</b></p>	<p>LT pointed out that the Great Orme headland (a key landmark) was visible in this VP.</p> <p>LT noted that Area H has a marginally lesser field of view compared to Area A. The difference in layout wasn't too noticeable for similar reasons to the Anglesey views, however there is a greater inconsistency in image with the regular layout and therefore this is viewed to be the worst case.</p> <p>LT compared the 200 m RD and 300 m RD WTGs and noted that in comparison against the landform and GyM, the larger, 300 m WTGs are the worst-case.</p> <p>LT asked if there were any questions or comments? RS agreed that Area H with the perimeter layout and the 220 m WTGs would be the best-case scenario. RS requested if a VP from the Great Orme itself could be produced for this comparison as this is a major feature, tourism point and has key views to the Isle of Man and Cumbria. LT confirmed that this would be produced and will be sent out.</p>

		SL asked RS for confirmation that he thinks the larger, 300 m WTGs in the regular layout would be the worst case. RS confirmed this.
	<b>VP 18</b> <b>Llandudno</b> <b>Paddling</b> <b>Pool</b>	<p>LT noted that the photo was taken on a very clear day and pointed out that the GyM OWF is just visible. She identified that Area H has the lesser field of view and that in the regular layout there was a lot of irregularity across the array and WTG stacking whereas the perimeter layout had a more even appearance.</p> <p>She identified that the larger, 300 m WTGs are a clear worst-case (particularly in comparison to the GyM OWF) and that the regular layout would also be a worst-case based on the irregularity and WTG stacking.</p> <p>LT asked if there were any comments or questions? CT noted that there was a real distinction in WTG size, but doesn't however see too much difference between Area A and H – and therefore either of these could be worst-case. SL thanked CT.</p> <p>RS added that this was a key VP from Llandudno with the main features framed by the Great Orme and the Little Orme and asked if it was possible to add these into view to help understand scale and relationship. LT confirmed that these will be in view for the PEIR presentation, however if this was important to help at this stage a wireline could be produced. RS thanked LT and requested that these wirelines are produced and circulated as they would be useful to see before the PEIR assessment. LT confirmed that this can be done and noted that the images would be smaller as they would have a bigger field of view. CT and MT also confirmed that they would be happy with this approach.</p>
	<b>VP 29</b> <b>Colwyn Bay</b>	<p>LT explained that this is a 90° field of view, and that some part of the GyM OWF was in view.</p> <p>LT said that there isn't much difference between Area A and H. Area A is marginally narrower.</p> <p>She said that there is strong alignment and stacking in the regular layout, and the perimeter layout had interspersing and therefore a greater consistency of image across the whole OWF.</p> <p>LT said that she believes that the 300 m RD WTGs are the worst-case as they are a lot bigger in comparison to the GyM WTGs.</p> <p>LT asked if there were any questions or comments? CT said that the regular layout was the worst-case scenario with the larger WTGs. LT thanked CT.</p>
	<p>SL asked if CO had anything to add. CO noted that she wasn't an expert and is grateful for the support from the parties with this expertise. Council doesn't have the relevant experience for this, however in principle CO agreed with the comments from JE. PC thanked everyone for their feedback and comments, explaining that RWE are looking to make a design freeze for the PEIR assessment. PC said that there will be further consultation on this in the future and that there would be more assistance to support the council too. CO thanked PC and agreed that this would be helpful for the PEIR submission.</p>	

	<p>LT concluded that there isn't a huge difference in terms of the impacts of the layouts (regular Vs perimeter) from some VPs. It is the turbine scale and horizontal extent of the wind farm in the views that are the most notable influences when considering the impacts. LT further noted that the regular layout had less consistency across the views, and therefore this was considered the worst-case with 300 m RD WTGs and that all feedback was welcomed.</p> <p>LT presented some figures from East Anglia Two (the Southwold.pdf). LT noted that the preference would be to keep the number of VPs to 35, but at present there are currently more so she would like to try and reduce them in agreement with the stakeholders.</p> <p>She explained the different fields of view (using the EA Two figures as an example). LT also presented the night-time figure showing how the WTGs were likely to be lit, explaining that AyM would be producing these figures at 3 VPs (which are identified in column N of the VP spreadsheet that was previously sent out but also on slide). LT explained that this was a large document for one VP, so need to avoid an overload of information if more than 35 VPs are used.</p> <p>SL asked what the distance to the OWF was in the night-scape view. LT said it was 36 km.</p> <p>RS asked what mitigation could be included for the lighting of the OWF and how to limit these parameters? SL said that this would be considered during PEIR and Section 42 feedback and that other regulatory requirements controlled this such as the civil aviation authority and shipping and navigation requirements.</p> <p>OM asked which (if any) VPs have been selected for the night-scape wirelines/photos? LT confirmed that these have been agreed and are identified as:</p> <ol style="list-style-type: none"> <li>1. VP 4 – Moelfre Headland;</li> <li>2. VP 13 – Great Orme – Summit; and</li> <li>3. VP 22 – Abergele Station.</li> </ol> <p>LT said that these had been identified in discussion with Richard Sumner (NRW) based on the range of VPs and VPs from Snowdonia. OM thanked LT and said NRW would consider further need for illustration of night time views from Snowdonia National Park.</p> <p>OM said that this was something that NRW need to consider when looking at the photomontages. LT noted that some views already have GyM in view and industrial lights. OM said that there is some NatureScot guidance for OWF lighting which maybe should be considered. LT confirmed they are familiar with this, largely related to onshore wind and considering this. Not every WTG would be lit, generally only the perimeter WTGs.</p>
6	<p><u>Next steps – Feedback from stakeholders (24<sup>th</sup> February):</u></p> <p>SL confirmed that LT will circulate the VP spreadsheet which identifies the night-scape views and the proposed list of viewpoints and what would be included for each viewpoint (Columns L &amp; M).</p> <p>OM asked about additional cumulative wirelines – noting that there isn't a VP from the Clwydian Range and Dee Valley Area of Outstanding Natural Beauty (AONB), and this would be helpful to compare the scale of WTGs against those that currently exist. LT asked if these should be produced for the purpose of the MDS or to feed into PEIR? OM said that it would be beneficial for the MDS review.</p>

	<p>LT explained the approach that had been used elsewhere (and that she presented for East Anglia Two). In this case, the MDS is considered to be the tallest turbines due to the higher levels of magnitude of change, the wider zone of theoretical visibility, and their scale and density in comparison to the current operational WTGs. LT said that likely significant effects would be lesser if more numerous (smaller) turbines were built within the same area, when in comparison to the MDS.</p> <p>With such a clear MDS LT suggests preparation of further cumulative wirelines for a selected 12 key VPs, illustrating the alternative most numerous, smallest turbines scenario as presented in the East Anglia Two example and listed in the slide shown (also included in VP spreadsheet to be circulated). The other viewpoints will only include the MDS and not the alternative scenario, in order to reduce the amount of information provided to the stakeholders. It is proposed that the MDS (likely to be 300m RD turbines in regular layout) would be the focus of the assessment for SLVIA/CH. Feedback is requested from everyone on this proposed approach for PEIR.</p> <p>MT agreed that the approach was suitable to address the point that NM raised previously about 'fencing' or 'walling effect' of the more numerous, smaller turbine alternative scenario and would help address key comments.</p> <p>EH added that Array Area C was the preferred option for Anglesey, however he understands this wouldn't be the case for everyone. EH asked how this would be addressed? PC noted that there are a number of other environmental inputs that feed into the array area boundary selection, such as underwater noise, shipping and navigation, levelized cost of energy and marine mammals etc, and that all the receptors would inform the decision. The input from the feedback of the SLVIA stakeholders was part of the larger consultation regarding the multiple receptors.</p>
7	<p><b><u>AOB:</u></b></p> <p>SL asked if there was any other business or queries to raise. None.</p> <p>SL noted that feedback will be requested on confirmation of MDS or alternatives for MDS, and then follow up meetings would be arranged to inform everyone before the PEIR.</p> <p>SL asked if there were any more questions? None. SL thanked everyone for their patience, contributions and time.</p>

Agenda Item	Action	Who?	Due Date
1	Minutes to be circulated within 7 days	GoBe	1 week (17 <sup>th</sup> Feb)
2	LT to provide an additional wireline for MDS (Graig Fawr View Point) which will display an elevated viewpoint in Clwydian Range and Dee Valley AONB	LT	1 week (17 <sup>th</sup> Feb)
3	LT to generate a broader scale wireline from VP 18 (possibly 270° cylindrical view, to view Great Orme and Little Orme as part of context)	LT	1 week (17 <sup>th</sup> Feb)

4	LT to produce a wireline from the summit of the Great Orme	LT	1 week (17 <sup>th</sup> Feb)
5	Re-circulate all VP spreadsheet list for confirmation of proposed viewpoint selection and what is to be presented in relation to each viewpoint.	GoBe/LT	1 week (17 <sup>th</sup> Feb)
6	NRW to confirm requirement for additional night-time view/s to illustrate views from SNP.	NRW/OM	
7	Clarification point on JP on minutes from last meeting on Penrhyn castle (25 <sup>th</sup> ) – minutes are still in review and this point will be clarified in the final minutes for agreement. This point will be investigated in the meantime	GoBe/LT	1 week (17 <sup>th</sup> Feb)
8	Re-circulate the White Consultants Report <sup>3</sup> to all	NRW/LT	1 week (17 <sup>th</sup> Feb) – Confirmed.
9	Stakeholders to confirm their opinion on MDS turbine height and layout for SLVIA/CH assessment purposes.	ETG members	
10	Stakeholders to provide feedback on proposed approach to presentation of alternative scenarios and assessment.	ETG members	

<sup>3</sup><https://naturalresourceswales.gov.uk/guidance-and-advice/business-sectors/marine/offshore-wind-developments/?lang=en>

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**SLVIA AND CULTURAL HERITAGE ETG 7 MEETING MINUTES– 04/11/2021**

<b>MEETING ORGANISER:</b>	GOBE CONSULTANTS		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Ryan McManus	GoBe Consultants	RM
	Sean Leake	GoBe Consultants	SL
	William Vasishta	GoBe Consultants	WV
		Gwynedd	JE
	Jenny Emmett	Archaeological Trust	
		Isle of Anglesey	AC
		County Council (IoA	
	Angharad Crump	CC)	
	Ed Henderson	IOA CC	EH
		Natural Resources	AC
	Adam Cooper	Wales (NRW)	
	Christopher Jones	NRW	CJ
	Olwen Maidment	NRW	OM
		Optimised-	LT
		Environments (OP-	
	Lynda Thomson	EN)	
	Paul Carter	RWE	PC
	Karen Algate	RWE	KA
	Alex Herbert	RWE	AH
	Poppy Tremayne	RWE	RT
	Matt Faulkner	SLR	MF
		Snowdonia National	
	Sion Roberts	Park	SR
	Mark Turner	Wessex Archaeology	MT
		Conwy County	LM
	Lindsay Mercer	Borough Council	
	Pete Gaches	GoBe Consultants	PG
		Gwynedd County	CO
		Council	
	Cara Owen		
	Neil Maylan	CADW	NM
	Mike Furness	Hatch	MF
	Keith Williams	IOA CC	KW
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Ceri Thomas	Conwy CBC	
	Lianne Martin	Conwy CBC	

	Mark Walter	CPAT
	Denise Shaw	Denbighshire CC
	Lara Griffiths	Denbighshire CC
	Paul Mead	Denbighshire CC
	Andrew Farrow	Flintshire CC
	Hannah Parish	Flintshire CC
	Planning Admin	Flintshire CC
	John Pearson	National Trust
	Kathryn Laws	National Trust
	Robin Sandham	Conwy CBC
	Paul Wisse	Sefton
	Andrea O'Connor	Sefton
	Gareth Edwards	RCAHMMW
	John Cooper	RWE

Documents provided:	Filename
Slide pack provided at the meeting	

Agenda item	Minutes
1	<u>Introductions</u> Aim: 'to provide a summary of PEIR feedback received, and proposals on next steps for incorporation in the ES'
2	Project Update PC <ol style="list-style-type: none"> <li>Statutory consultation: participation &amp; AyM next steps               <ul style="list-style-type: none"> <li>Consultation ran from 31<sup>st</sup> August to 11 October 2021</li> <li>As well as Section 42 virtual consultation was held for members of the public</li> <li>This ran for 6 weeks rather than the minimum of 4 and PEIR formed the basis for consultation</li> <li>3,500 unique visitors to online exhibition</li> <li>Face to face with 900 members of public</li> <li>300 formal written and survey consultation responses (S42, S47)</li> </ul> </li> <li>DCO programme to submission</li> <li>Statements of Common Ground Topics Raised by Consultees</li> </ol> SL <p>Agreements log is to be shared with consultees later this year and discussion on the log to take place Q1 2022. The purpose of the log will be to capture agreement and disagreement on key parameters of the assessment, such as characterisation of the receiving environment, policy referred to, and assessment methodologies. The agreements log will then be used to inform the Statements of Common Ground that will be developed during the post-application stage.</p>



3	<p><u>SLVIA</u></p> <p>LT provided a summary of responses received on SLVIA matters, and the proposed approach that will be taken in the ES, in relation to:</p> <ul style="list-style-type: none"> <li>• Methodology</li> <li>• Viewpoints and their representation in assessment</li> <li>• Assessment of Maximum Design Scenarios</li> <li>• Suitability of visualisations</li> <li>• Assessment of viewpoints and visual receptors</li> <li>• Seascape character</li> <li>• Landscape character</li> <li>• Landscape Planning Designations</li> <li>• Special Qualities</li> <li>• Cumulative assessment</li> <li>• Mitigation</li> </ul> <p>LT requested confirmation if ETG members are satisfied with approach to definition of significant or non-significant?</p> <p>NM noted that it may be helpful to define level of significance (moderate/major) to help the planning inspectors.</p> <p>LT noted that the (EIA) Regulations require assessments to conclude significant or non-significant but takes the point into consideration that some are more significant than others.</p> <p>OM confirmed that NRW's view is also that it would be useful to indicate a range of significance. OM had assumed that whilst at this (PEIR) stage impacts may be identified as sig/non sig more granular detail would be provided in the ES.</p> <p>EH confirmed the preference was for greater detail within significance, noting that, for areas on IoA where there may be marginal differences it was decided that it was a technicality for PEIR, so no comment was made on it in formal feedback, preferring to focus on the key significant effects. More detail is expected in the ES stage.</p> <p>PG suggested LT give a brief overview of why that approach was adopted.</p> <p>LT noted the approach adopted has been utilised over a number of years, through processes such as public enquiry, during which there can be a lot of discussion over marginal conclusions. As such it has been deemed more helpful to adopt a sig/non-sig approach and allow discussion of that rather than between more granular conclusions. This was discussed during the assessment process and it was decided it was appropriate in the PEIR. In summation, this approach was taken for simplicity and to avoid unnecessary disagreement, but the project is happy to consider this further and respond to the ETG members.</p> <p><i>Post meeting comment on minutes from Conwy CBC – Definition of significance should be amended to distinguish between major and moderate.</i></p> <p><b>Action - to be considered and applied to ES.</b></p> <p>OM noted how 'sensitivity' classifications, combine to give overall sensitivity. OM went on to note that whilst the Methodology set out is in accordance with GLVIA3, when it comes to the assessment, there seems to be a muddling between susceptibility and factors she considered should sit under magnitude (such as incorporating distance from development). LT noted that distance had been one of the considerations but was not given great weight. This relates to the fact that, as set out in GLVIA3, it is 'susceptibility to the proposed development' which is dependent on location/distance from development.</p>

Notwithstanding this, LT confirmed that this will be reviewed in the ES and, if necessary, a clarification note will be prepared.

**Action to consider clarification note on susceptibility.**

#### Viewpoints

A summary was provided with regard to viewpoints, noting that the process pre-PEIR was to rationalise viewpoints and this was set out in a spreadsheet, which was circulated for agreement in September 2020 and January 2021. The spreadsheet identified the approach to be taken for each viewpoint, in terms of what outputs would be produced, the level of assessment detail that would be provided for each viewpoint, and whether the viewpoint was to be assessed in the SLVIA or Cultural Heritage chapter.

LT noted that the project had considered that the approach to viewpoints was agreed. Agreement can be explained further in ES if necessary.

OM stated that the clarification is appropriate on which viewpoints are representative but this wasn't explicit in the PEIR.

**Action – to set out in table in the ES noting which are representative.**

LT asks if the ETG members are satisfied with the approach taken to viewpoints?

EH agrees with LUC response and agreed that the approach is acceptable.

**Action to re-circulate spreadsheet of viewpoints approach with anything additional forthcoming from the meeting.**

LT confirmed that LUC, on behalf of LPAs, did not suggest any re-photographing for viewpoints. Does everyone agree?

OM stands by NRW's position with regards the need for a viewpoint that gave consideration to recreational users at sea.

LT noted this was considered further in the presentation.

CJ noted that it would have been helpful to receive presentation with more time before the meeting.

LT understands and states that there will be an opportunity to provide more detailed responses to topics discussed separately following the meeting, and through agreements log.

LT continued to outline the reviews of selected viewpoints and some additional viewpoints that are to be screened into the assessment, each of which will be circulated with the minutes for agreement and approval.

VP58 – may need to be moved higher up to the trig point

LT suggesting, we do move it and added there will be more detail in the spreadsheet.

VP from café on Great Orme–viewpoint will be assessed in full in the ES as it feeds into the assessment of the coast path.

Additional viewpoint to be added at Marine Drive by the toll booth.

Additional viewpoint also being considered along the coast at Llandudno promenade near the conference centre and theatre. This provides an opportunity to see AyM turbines in context of the pier but not obstructed by the pier. There will be another viewpoint along promenade (day and night) to this effect.

LT asks if there are any questions on viewpoints? Any additional information will also be included in the spreadsheet circulated.

OM reiterated the request for an at-sea viewpoint to be considered.

PG asked if it was possible to be clear on who the receptor is and if/why they are sensitive.

LT confirmed that recreational users, as represented by the RYA and the cruising association, had confirmed that they had no objection to the windfarm.

OM suggested a ferry route could be used, and suggested photographs from a ferry.

LT suggested that cumulative wirelines are included from locations to be agreed and advised that photography from vessels was challenging, particularly due to the time of year,

but would be given further consideration to understand possible suitable viewpoint locations.

**Action to arrange bilateral meetings with NRW to agree way forward.**

SL returned to CJ's observation with regards material provided in advance of the meeting to confirm that the intention, as laid out in the invitation, was to clarify any areas of uncertainty in the received feedback and to agree next steps, rather than consider any new material.

LT asked if ETG members were satisfied with the MDS approach?

EH enquired further if an unrealistic worst case is being presented in terms of turbines that do not currently exist.

PC responded that the WTG envelope has been developed with likely or possible future technology in mind. Lots of work is done to ensure the consent envelope allows the build out of the project and therefore needs to look at what future technology may be at the time of procurement in future. There is uncertainty on that, but WTGs are getting larger at a fast rate. The whole market is moving in favour of bigger turbines. This is fundamental to the delivery of the project, requiring CfD, and therefore needs to be commercially competitive with other projects going through the same financial support schemes. The range put forward in the envelope is based on what size turbines the project engineers think will come forward. 332m tip height is at the larger end of the envelope, but already turbines are available above the lower end of the envelope and smaller turbines are no longer available.

EH has recently seen info on a 16MW turbine. Would be useful to consider this further.

LT stated that the key viewpoints where both scenarios A and B are shown provide a range and doesn't consider it necessary to assess both scenarios for all VPs. Are there particular viewpoints where MDS B needs to be looked at?

SL stated that the spreadsheet picks up the point, so in review indicate whether key viewpoints should be added to the list for MDS B.

Visualisations

LT asked did the consultees visit viewpoints?

EH's understanding is that LUC did visit some locations and this was set out in their report.

LT responded that it was not clear at the time whether LUC had done site visits, but EH thinks they did.

**Action to follow up with LUC and understand if site visits were undertaken.**

OM has not done any site visits yet, but suggested that NRW may visit some locations at ES stage

Assessments

LT provided a summary, thanking parties for their comments, noting that most comments will be reviewed and addressed in the ES. A limited number of queries remain, notably some commentary around VP44 (Beaumaris Castle) which is not accessible to the public so visual receptors would not be able to access it. LT invited comments.

NM responded to note that it is a cultural heritage viewpoint, but on setting, the fact that the public can't access it does not mean it is not an issue for cultural heritage. NM went on to note that public access may change, and it is therefore important to understand the effect that may be had at that location.

LT agreed, noting it is therefore the job of the cultural heritage assessment, not SLVIA, but that she would give this matter some further consideration.

LT set out the approach to settlements where, to avoid duplication of effects, the SLVIA considered the areas as settlement where there were residential properties/receptors and

that the open public areas along the seafront were assessed in relation to the viewpoints and the Wales Coastal Path. LT asked if the ETG members agree with the approach on settlements? The settlement assessments are to be reviewed in the ES. Immediate comments are welcome, but it may need further discussion.

EH noted that the approach to the assessment of settlements set out by LT made sense.

EH stated Beaumaris is also a conservation area.

LT will check aspects as a conservation area and residential area.

CJ referred to NRW's comments being focussed on NPs and AoNBs as per their development consenting advice remit, and therefore has no comments on this particular point.

#### Seascape character

Any comments on approach? None arising, beyond those raised during consultation on the PEIR.

#### Landscape character

Any comments on approach? None arising, beyond those raised during consultation on the PEIR.

#### Landscape Planning designations

LT invited comment on the approach taken to the Heritage Coast and Special Landscape Areas whereby their value is considered in relation to the landscape character areas/ types they cover?

EH noted that that the IoACC Special Landscape Areas (SLAs) are inland of the AoNB and there would be some duplication of qualities. Where there is duplication, they are already covered so their assessment individually would provide no further identification of effects on Anglesey.

LT asked if OM was happy with how the LANDMAP has been used?

OM noted that this is not within NRW's remit for development consenting advice.

LT continued by stating no one here has raised it, so it was just a matter of checking it wasn't an issue.

OM had no comments on LANDMAP in the context of SLAs.

LM will clarify whether or not CCBC is satisfied with the approach in relation to Great Orme.

LT stated that the value attached to those areas has been assessed, heightened sensitivities of landscape areas has been covered where they overlap with the designated sites, but some other stakeholders have suggested they should be assessed separately.

*Post meeting comment on minutes from Conwy CBC - consider that a specific assessment should be made of the impact on the Great Orme Heritage Coast.*

**LM to take away and feedback ACTION.**

#### Special qualities

Any comments on approach? None arising, beyond those raised during consultation on the PEIR.

#### Cumulative assessment

LT continued by noting that disagreement was identified in the s42 feedback with regards other projects included in the cumulative effects assessment (projects including Morlais, Round 4 and Future Wales onshore wind farms). LT confirmed that the 'long list of projects' in the study area will remain under review to ensure publicly available information will be included in the assessment.

LT asked if there are any comments on the proposed approach?

	<p>OM agreed that if it's going to be looked at again, this addresses the concern.</p> <p><i>Post meeting comment on minutes from Conwy CBC - Cumulative effects with Pre-Assessed Area should be based on the extent of the projects that could be included within PAA (rather than specifically project which have been submitted for scoping) in accordance with the approach in PINS Advice Note 17.</i></p> <p><i>Post meeting response from Awel y Môr – the approach detailed in PINS Advice Note 17, and presented in PEIR annex Volume 1, Annex 3.1 Cumulative Effects Assessment will continue to be applied during the ES drafting process.</i></p>
4	<p><u>Cultural Heritage</u></p> <p>MT</p> <p>JE agreed further engagement on specific cultural heritage points would be useful but will pick up separately.</p>
5	<p><u>Next steps &amp; AOB</u></p> <p>EH asked what information the ETG members are going to see on the revised design in advance of the application being made? This is to allow them to reflect on this and advise whether or not they consider it goes far enough. It is requested that future meetings need to be focused and information provided in advance to ensure they are an efficient use of time. OM also queried whether there will be the opportunity to comment on a revised scheme and the need to know how concerns are being raised.</p> <p>SL: this meeting provided more of an opportunity to digest S42 feedback and check it has been correctly interpreted, propose ways forward to address feedback and agree they are appropriate, and set out requirements for future distribution of information and meetings. SL went on to confirm that information for discussion at meetings will be submitted in advance of the meeting, as per the Terms of Reference and previous meetings. This approach has been adopted for previous discussions where design and or assessment options are available for consultation and will be maintained.</p>

Agenda Item	Action	Who?	Due Date
1	Consider the sig/non-sig approach and clarify the use of the approach in ES	OP-EN	
2	Consider if a clarification note on susceptibility is necessary	OP-EN	
3	Include explanation notes introducing the viewpoint table included in the ES relating to representative, illustrative, key viewpoints and CH viewpoints.	OP-EN	
4	Re-circulate spreadsheet of viewpoints approach with anything additional forthcoming today.	OP-EN	
5	Agree a way forward with NRW regarding the review and addition of viewpoints out at sea to illustrate how the Project would relate to the AONB and SNP designated landscapes and form basis of assessment.	OP-EN	

6	Follow up on whether or not site visits have taken place	OP-EN	LUC advise at section 1.5 of their report that 'no field work was undertaken'.
7	To take away and feedback on comments regarding assessment of effects on Special Landscape Area and Heritage Coast at Great Orme	LM	
8	Think about the level of engagement, frequency of meetings wanted and the topics for discussion in these meetings	All ETG members	

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**SLVIA ETG MEETING MINUTES – 14/12/2021**

<b>MEETING ORGANISER:</b>	SEAN LEAKE (GOBE)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Adam Cooper	Natural Resource Wales	AC
	Christopher Jones	Natural Resource Wales	CJ
	Olwen Maidment	Natural Resource Wales	OM
	Ceri Thomas	Conwy County Borough Council	CT
	Denise Shaw	Denbighshire County Council	DS
	Ed Henderson	Isle of Anglesey County Council	EH
	Angharad Crump	Isle of Anglesey County Council	AH
	Sion Roberts	Snowdonia National Park	SR
	Kiera Sweeney	Gwynedd Council	KS
	Jenny Emmet	Gwynedd Archaeological Trust	JE
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AHe
	Poppy Tremayne	RWE	PT
	Lynda Thompson	OP-EN	LT
	Sean Leake	GoBe Consultants	SL
	Matt Faulkner	SLR Consulting	MF
	Ryan McManus	GoBe Consultants	RM
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Neil Maylan	Cadw	
	John Pearson	National Trust	
	Pete Gaches	GoBe Consultants	
	Mark Turner	Wessex Archaeology	
	Paul Mead	Denbighshire County Council	
	Gareth Edwards	Royal Commission on the Ancient and Historical Monuments of Wales	

<b>Documents provided:</b>	<b>Filename</b>
Viewpoint list	211464_AyM_Proposed_VP_ES_29.11.21
PowerPoint presentation	AYM ETG Presentation SLVIA-CH 141221_vfin

<b>Agenda item</b>	<b>Minutes</b>
<b>1</b>	<p><u>Introductions</u></p> <p>SL opened the meeting and thanked everyone for their time and engagement. SL re-iterated that the final proposed viewpoints list had been circulated prior to the meeting for review.</p>

Agenda item	Minutes
	<p>Attendees gave a brief introduction to themselves, their organisation and role on the AyM project.</p> <p>SL outlined the agenda as follows:</p> <ul style="list-style-type: none"> <li>- Agree the viewpoint list;</li> <li>- Present the final proposed boundary for application;</li> <li>- Present the final design envelope;</li> <li>- Present, discuss and invite feedback on mitigation measures; and</li> <li>- Next steps.</li> </ul>
2	<p><u>Viewpoints</u></p> <p>SL shared map [created by LT] of further proposed viewpoints that had been suggested by CT for the assessment of impacts to views from the A55. These were proposed:</p> <ul style="list-style-type: none"> <li>- <b>1:</b> Near the tunnel entrance on the A55 west of Penmaenmawr;</li> <li>- <b>2:</b> On the A55 between Penmaenmawr and Dwygyfylchi; and</li> <li>- <b>3:</b> On the A55 just west of Llanddulas.</li> </ul> <p>LT explained that regarding suggested viewpoint 3, there is no suitable place to stop on the A55 to take site photography, and that the nearby cycle path would provide a different perspective due to its different elevation, and therefore would not be representative of views from the A55. LT suggested that VP 21 (~ 1 km to the east) could already provide a useful indication of how AyM would appear at close proximity, and therefore proposed to exclude the suggested third additional viewpoint, however the first two would be investigated as they are easily accessible and representative of views from the A55.</p> <p>CT agreed that regarding the third proposed additional viewpoint, the cycle path is at a lower altitude and is therefore not representative of the A55. CT suggested that as an alternative, a view could be taken from the A547. Immediately behind the A55 at the suggested location the road is at a higher elevation, but further east it is at approximately the same elevation. CT explained that the rationale behind the suggested additional viewpoints was for the increasing significance of AyM along to be conveyed as receptors move west, and the increasing cumulative influence of the existing wind farms further east. Alternatively, CT suggested a location on the cycle path further west, near where the cycle path crosses the A55, at a location where the two are at approximately the same elevation. CT added that if LT feels VP21 is representative, then it would be appropriate for the third additional viewpoint to be omitted.</p> <p>LT took an action [Action Point 1] to review the suggested locations to determine if a more suitable viewpoint can be included in addition to VP21. CT took an action [Action Point 2] to review VP21 to determine whether it is appropriate as a representative viewpoint from the A55.</p> <p>SL asked if there were any further comments on the viewpoints and proposed to ask representatives from the remaining organisations [following on from discussion with CT from Conwy CBC] for confirmation of agreement (or areas of outstanding disagreement) on the final set of viewpoints. SL added that organisations could provide responses in the forum of this meeting or submit written responses afterwards.</p>



Agenda item	Minutes
	<ul style="list-style-type: none"> <li>- <b>IoACC:</b> EH stated that based on previous discussion, he was content that the viewpoints are representative and agreed from the perspective of IoACC.</li> <li>- <b>NRW:</b> OM responded that in line with the previous agreed response dates [16<sup>th</sup> December], NRW would provide feedback on the two proposed offshore viewpoints [Action Point 3]. OM also asked whether feedback should be provided separately on VP54 regarding views of the onshore substation. SL took an action to confirm the approach for VP54 in liaison with the onshore LVIA team [Action Point 4]. LT asked whether OM was suggesting VP54 should be included for offshore visualisations. OM confirmed that only the onshore elements [the substation] needed to be considered for this location. OM highlighted apparent errors in the viewpoint spreadsheet circulated and SL took an action to re-circulate the final list of viewpoints in the spreadsheet [Action Point 5]. Regarding VP44 from Beaumaris Castle, OM asked if it was being included for cultural heritage or SLVIA. LT confirmed that it was being included for both purposes;</li> <li>- <b>DCC:</b> DS confirmed DCC were content regarding the offshore viewpoints list;</li> <li>- <b>Gwynedd Archaeological Trust:</b> JE confirmed being happy with the final viewpoints list;</li> <li>- <b>Snowdonia:</b> SR noted that due to time off due to illness, he would confirm later [Action Point 6] but agreed in principle and had no comments to make; and</li> <li>- <b>Gwynedd:</b> KS confirmed she had no comments to make and was satisfied with the final viewpoints list.</li> </ul>
3	<p><u>Boundary refinement</u></p> <p>SL provided an overview of how the project boundaries had developed since scoping as the project defines its boundaries for final application in March 2022. Following consultation within the ETG forum as well as formal statutory consultation channels, further refinement of the offshore array had been made, forming the final application boundary. SL noted that the project had reduced significantly since scoping and PEIR, both in terms of area and number of turbines.</p> <p>SL presented the ES boundary, noting that the project had reduced in terms of:</p> <ul style="list-style-type: none"> <li>- Area: from 106 km<sup>2</sup> at scoping, to 88 km<sup>2</sup> at PEIR, to 78 km<sup>2</sup> at ES;</li> <li>- Number of turbines: from 107 at scoping, to 48 large/91 small at PEIR, to 34 large/50 small at ES.</li> </ul> <p>SL explained that these refinements have been made primarily in response to feedback on the SLVIA topic in consultation with this ETG, and is the final design for application reflecting that feedback and the desire to minimise impacts, whilst maintaining an economically viable project.</p> <p>SL then passed over to LT to explain what the change means in terms of the SLVIA assessment:</p> <ul style="list-style-type: none"> <li>- In terms of the NRW Seascape Sensitivity Zones, LT illustrated how the final boundary falls outside the high sensitivity area.</li> <li>- The refinement has also reduced the west-east extent of the boundaries from 25.8 km at scoping, to 20.2 km at PEIR, to 16.4 km at ES (representing a total reduction of 36% since scoping);</li> <li>- This has in turn reduced the horizontal field of view affected by the presence of</li> </ul>

Agenda item	Minutes
	<p>AyM in most viewpoint cases;</p> <ul style="list-style-type: none"> <li>- The distance from the Isle of Anglesey has increased. Using VP 2 (Point Lynas) as an example, the distance has increased from 20.2 km at scoping, to 25.6 km at PEIR, to 28.7 km at ES. LT noted that the increased distance reduces the scale of wind turbines in views from Anglesey, with the most marked difference occurring in the north; and</li> <li>- The reduced number of turbines together with the increase in the small turbine Maximum Design Scenario (MDS) has led to a less dense array in views overall.</li> </ul>
4	<p><u>Design envelope</u></p> <p>SL outlined reduced MDS in terms of gross numbers and percentage terms and noted the increase of the smaller end of the envelope (the large turbine scenario (MDS A) remains unchanged from PEIR, whilst the small turbine scenario (MDS B) has increased in terms of individual turbine size, with a corresponding lessening of the number of turbines). Overall:</p> <ul style="list-style-type: none"> <li>- The maximum number of turbines proposed has reduced by 53% since scoping;</li> <li>- The maximum blade tip height has remained the same, but has increased in the case of the minimum design;</li> <li>- There has been no change to the minimum lower blade tip height (clearance) above MHWS; and</li> <li>- The maximum project area has reduced by 26% since scoping.</li> </ul> <p>SL then handed over to PC to discuss the project economics and market trends in terms of WTG scale. PC noted that there has been feedback received to date on reducing the scale of individual turbines, but that the project had not reduced its maximum height MDS and had even increased the scale of turbine at the lower end of the envelope. PC explained that RWE had undertaken an internal review based on engineering and market research:</p> <ul style="list-style-type: none"> <li>- Turbines with a rotor diameter of 220 m are already being deployed at North Sea sites (e.g. Sofia) and manufacturers are already developing turbines much larger than this;</li> <li>- PC highlighted expert predictions of linear growth in turbine scale for the foreseeable future, and do not yet see an upper limit;</li> <li>- It is not possible for developers to buy older (smaller) models of turbine that manufacturers no longer produce retrospectively since once newer models are designed, factories are upgraded to manufacture the larger models;</li> <li>- In order for the project to be economically competitive in the Contracts for Difference (CfD) process, developers are required to maximise their economic viability and use the most efficient (largest) turbine models available; and</li> <li>- Because of the lengthy development process for offshore wind farms, and the rapid development of the market, the scale of turbines available now (at inception) are expected to be very different to those available in future (at the time of procurement). It is therefore necessary to consider a large envelope to account for uncertainty over these long development periods.</li> </ul> <p>PC also explained that there are numerous benefits to using larger turbine models, both economic and environmental:</p>

Agenda item	Minutes
	<ul style="list-style-type: none"> <li>- <b>Economic:</b> larger turbines have a lower Levelised Cost of Energy (LCoE) due to greater power output, more reliable and stronger winds at greater heights, increased construction and operational efficiencies from fewer turbines. All of these factors support a more competitive Contracts for Difference (CfD) bid, which the project requires in order to be built; and</li> <li>- <b>Environmental:</b> SLVIA has been the key consideration in the review of turbine scale, but there are benefits to other environmental topics as well. For example, larger turbines means greater separation and therefore increased sea room for vessels (including fishing vessels), reduced bird strike rates at higher heights where fewer birds fly, and fewer foundations to install means reduced underwater noise impacts.</li> </ul>
5	<p><u>Mitigation</u></p> <p>SL explained that the assessment will still predict multiple significant effects in terms of SLVIA and it is therefore necessary to consider mitigation. SL suggested an action [Action Point 7] for ETG members to provide their thoughts on the suggested mitigation presented at this meeting, and to propose other mitigation measures that could be applied or considered.</p> <p>SL stated that elements of mitigation are ‘embedded’ in the project design, including the reduction in the array boundary and the reduction in the number of turbines proposed as far as practicable as already presented.</p> <p>LT highlighted that in terms of night-time effects, the project has committed to dimmable aviation lighting that reduces in intensity under good visibility conditions. The MDS now allows for aviation lights of up to 2,000 candela (cd) on perimeter turbines, but where visibility is greater than 5 km, these would be dimmable to 200 cd (10% intensity). EH asked at what distance it is required that turbines be visible at night. LT explained that the lighting requirements are dictated by Civil Aviation Authority (CAA) guidelines, that allow for lights to be dimmed to 200 cd (in agreement with CAA) automatically when visibility is confirmed to be greater than 5 km.</p> <p>EH noted that this mitigation is not apparent on the existing wind farm projects off North Wales, and asked if it was possible that it could also be applied to those existing projects. PC explained that other wind farms in the region are separate projects with different operators and shareholders and therefore retrofitting existing projects would not be easy. However, it would be good to understand if that were possible and took an action to confirm (with other developers and the CAA) if retrofitting of mitigation lighting on existing projects was possible [Action Point 8].</p> <p>OM asked if it were possible to have an illustrative visualisation showing the difference in intensity between the 2,000 and 200 cd lighting. LT clarified that the visualisations in the ES will show the 200 cd lighting, and therefore comparison with the visualisations at PEIR which show the 2,000 cd lighting would facilitate this. Comparison would also be possible in the night-time photomontages with the adjacent GyM turbines (which have 2,000 cd lights fitted). OM suggested it would be worth considering further lighting commitments but would put thoughts in writing [captured in Action Point 7]. LT added that the ES will include a diagram showing which turbines (assuming the MDS layout) would be required to be lit under CAA guidelines. SL noted that discussions with aviation stakeholders (CAA and MoD)</p>

Agenda item	Minutes
	<p>are ongoing and lighting mitigation will continue to be explored in that context.</p> <p>EH asked if it were possible for the ES to present a ‘most likely’ scenario in terms of turbine size. SL explained that the ES considers the ‘worst-case’ scenario from an EIA perspective, and consideration of a further ‘most likely’ scenario has a tendency to confuse the EIA. PC added that there is no current preferred design scenario and the project requires flexibility in choosing a turbine model post-consent at the procurement stage.</p> <p>EH also asked whether a scenario could occur where turbines of different heights could be deployed within AyM. PC confirmed that there is no possibility of having different turbine heights within the same site due to the inefficient economics that would come with procuring different sizes of turbine and associated infrastructure (foundations etc.).</p>
6	<p><u>Next steps</u></p> <p>SL suggested receiving any further suggestions for mitigation [with regard to Action Point 7] by 11th January. At that point, the project will take a view as to whether a further ETG meeting is necessary to discuss mitigation towards the end of January [Action Point 9]. At that point, the project will be looking to finalise the application(s) which are due to be submitted at the end of March 2022.</p> <p>SL stated that the finalised design for application will be communicated in a newsletter to all stakeholders and apologised in advance if anyone in this ETG meeting receives duplicated communications on the matter.</p>
7	<p><u>AoB</u></p> <p>With no other matters arising, SL thanked attendees for their continued engagement and closed the meeting.</p>

Action Point	Action	Who?	Due Date
1	Review the additional viewpoint locations suggested by CT on the A55 west of Llanddulas for suitability.	LT	14/1/22
2	Review VP21 for suitability as a representative viewpoint from the A55.	CT	14/1/22
3	Re-iteration of a previous action to provide feedback on the two proposed offshore viewpoints.	OM	16 <sup>th</sup> December 2021
4	Confirm the approach to VP54 in liaison with the onshore LVIA team.	SL	14/1/22
5	Re-circulate the final viewpoint list spreadsheet.	SL	14/1/22
6	Provide confirmation that the final viewpoints are appropriate from the perspective of the Snowdonia National Park.	SR	w/c 10 <sup>th</sup> January 2022

Action Point	Action	Who?	Due Date
7	Provide feedback on the mitigation measures presented and to propose further mitigation measures for consideration.	All ETG stakeholder members	11 <sup>th</sup> January 2022
8	Investigate the possibility of retrofitting dimmable aviation lighting to existing offshore wind farm projects.	PC	TBC
9	Arrange a further ETG meeting to discuss mitigation options.	SL	TBC (suggested w/c 24 <sup>th</sup> January 2022)

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**SLVIA ETG MEETING MINUTES – 27/01/2022**

<b>MEETING ORGANISER:</b>	SEAN LEAKE (GOBE CONSULTANTS)		
<b>LOCATION:</b>	Microsoft Teams meeting with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	John Pearson	National Trust	JP
	Adam Cooper	NRW	AC
	Christopher R Jones	NRW	CRJ
	Olwen Maidment	NRW	OM
	Robin Sandham	Conwy	RS
	Ceri Thomas	Conwy	CT
	Lynda Thomson	OP-EN	LT
	Sion R Roberts	SNP	SR
	Keira Ann Sweeney	SNP	KS
	Matt Faulkner	SLR	MF
	Ed Henderson	Isle of Anglesey County Council	EH
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Sean Leake	GoBe Consultants	SL
	Pete Gaches	GoBe Consultants	PG
	Ryan McManus	GoBe Consultants	RM
	Kimberly Lloyd	GoBe Consultants	KL
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Kathryn Laws	National Trust	
	Rebekah Newstead	NRW	
	Nia Phillips	NRW	
	Poppy Tremayne	RWE	
	Karen Algate	RWE	
	Lianne Martin	Conwy	
	Lindsay Mercer	Conwy	
	Angharad Crump	Isle of Anglesey County Council	
	Keith Williams	Isle of Anglesey County Council	
	Jenny Emmett	Gwynedd Archaeological Trust	
	Mark Walters	Clwyd-Powys Archaeological Trust	
	Neil Maylan	Welsh Government	
	Gareth Edwards	Royal Commission on the Ancient and Historical Monuments of Wales	
	Lara Griffiths	Denbighshire County Council	
	Paul Mead	Denbighshire County Council	
	Denise Shaw	Denbighshire County Council	
	Paul Wisse	Sefton Council	

	Andrea O'Connor	Sefton Council
	Andrew Farrow	Flintshire County Council
	Hannah Parish	Flintshire County Council
	Mark Turner	Wessex Archaeology

Documents provided:	Filename
PowerPoint presentation	AyM ETG Presentation SLVIA_270122.pdf

Agenda item	Minutes
1	<p><u>Introductions</u></p> <p>SL thanked all for attending and outlined the agenda for the meeting. Everyone gave brief introductions to themselves, their organisation and their role on the AyM project.</p> <p>The agenda included the following items:</p> <ul style="list-style-type: none"> <li>• Summary of the design rationale for the application</li> <li>• Present, discuss, and invite feedback on proposed mitigation measures</li> <li>• Discuss and agree to next steps</li> </ul>
2	<p><u>Project design update</u></p> <p>SL provided an overview of how the project boundaries had developed since scoping as the project defines its boundaries for the ES and DCO application in March 2022. SL noted that the project had reduced significantly since scoping and PEIR, both in terms of area and number of turbines.</p> <p>SL presented the ES boundary, noting that the project had reduced in terms of:</p> <ul style="list-style-type: none"> <li>- Number of turbines: from 107 at scoping, to 48 large/91 small at PEIR, to 34 large/50 small at ES.</li> <li>- Smaller turbines have increased in size from 252 m tip height to 282 m tip height.</li> <li>- Area: from 106 km<sup>2</sup> at scoping, to 88 km<sup>2</sup> at PEIR, to 78 km<sup>2</sup> at ES;</li> <li>- Final application will be 78 km<sup>2</sup> and between 34 and 50 turbines depending on whether they are the 282 m or 332 m tip heights.</li> </ul> <p>EH asked why the reduction in turbines does not correlate with reduction in area. PC explained the importance of balancing the reduction in impact caused by the project's scale with the necessity to be economically viable. The larger area with a larger number of turbines had more optionality, but as RWE has moved towards a minimum area and the maximum, they can do in terms of reductions to support the project, any further reductions would reduce the project's economics and competitiveness. Therefore, there is no linear relationship between array area and size or number of turbines when related to economic viability. The reduction in energy outputs due to wake loss is also a consideration when WTGs are set out in close proximity. The AyM layout now pushes this to the limit as can be seen by comparing other offshore wind farm layouts.</p> <p>SL highlighted the change in turbine size and explained how the trend in turbine size has been increasing over time, as well as the benefits of larger turbines.</p>
3	<p><u>Feedback</u></p>

Agenda item	Minutes
	<p>SL outlined the feedback received including two aspects for further layout design footprint-based mitigation and suggestions for design and lighting-based mitigation.</p> <p>SL presented the feedback received which included two aspects:</p> <ul style="list-style-type: none"> <li>- Suggested further reduction in the northwest aspect of the array; and</li> <li>- Design and lighting-based mitigation.</li> </ul> <p>NRW feedback noted the risk of effects conflict with the purpose of these landscapes to conserve and enhance natural beauty, as set out in PPW11.</p> <p>EH of IoA confirmed that the latest feedback related to how (compared to the PEIR visuals, which were the only ones available to date) a further reduction to the western extents of the array could have the most change to the nature of effect experienced from visual receptors on the IoA to the NW. EH reiterated the comments made previously (in relation to the PEIR layout) regarding the apparently outlying WTGs and closest rows of WTGs.</p> <p>SL emphasised the need to maintain economic viability (as above) and align with national policy for delivery of renewable energy.</p> <p>SL presented a snippet from the extant National Policy Statement (NPS) EN-3, 2.6.208 'Where a proposed offshore wind farm is within sight of the coast, there may be adverse effects. The PINS should not refuse to grant consent for development solely on the ground of an adverse effect on the seascape or visual amenity unless:</p> <ul style="list-style-type: none"> <li>- It considers that an alternative layout within the identified site could be reasonably proposed which would minimise any harm, taking into account other constraints that the applicant has faced such as ecological effects, while maintaining safety or economic viability of the application; or</li> <li>- Taking account of the sensitivity of receptors as set out in EN-1 paragraph 5.9.18, the harmful effects are considered to outweigh the benefits of the proposed scheme.</li> </ul> <p>SL also explained that the draft NPS specifically recognises that for extension projects applicants are bound by constraints not within their control, those constraints being requirements that the Crown Estate placed on projects, such as sharing a boundary/ are in close proximity to the existing project rather than separate projects.</p> <p>SL concluded the project is at the point where a further reduction would put the project viability at risk due to constraints and so the next steps are beginning to look at further measures such as those set out in Welsh National Marine Plan policies.</p>
4	<p><u>Mitigation</u></p> <p>SL presented the design aspects considered in minimising impacts:</p> <ul style="list-style-type: none"> <li>- Reduction in array boundary</li> <li>- Reduction in WTGs</li> <li>- Restriction of WTGs as far east as possible</li> <li>- Adaptive lighting – a sensor is installed that measures visibility at night and reduces the light intensity when visibility is greater than 5 km. (Civil Aviation perimeter lighting at hub height, red, up to 2,000 Cd light reduced to 200 Cd. Synchronised flashing Morse “W”.)</li> </ul>



Agenda item	Minutes
	<p>It had previously been asked if there are any further mitigation measures that stakeholders feel should be considered?</p> <p>NRW Feedback included:</p> <ul style="list-style-type: none"> <li>- Minimising the number of visible lights in agreement with the CAA.</li> <li>- Limiting the highest intensity of visible light to the horizontal plane and restricting it above and below the horizontal.</li> <li>- Using 'smart' transponder-based demand-controlled aviation lights that only switch on when aircraft are detected within a particular airspace around the wind farm (Aircraft Detection Lighting System – ADLS).</li> <li>- Reducing lighting effects from existing wind farm projects, e.g., GyM, by retrofitting of mitigation, to reduce the combined cumulative effects of lighting.</li> </ul> <p>In response, those measures are being considered by the project; consultation is underway to ensure lighting mitigation measures put forward will be acceptable to the Civil Aviation Authority and the Ministry of Defence. SL noted that in the final design the number of lights will be minimised.</p> <p>PC updated that RWE are looking into these avenues from a commercial, technical and consenting standpoint, understanding that there could be difficulties with AyM undertaking work on GyM (a separate project and commercial entity). So, RWE has no definitive answers but are still exploring options at this time.</p>
5	<p><u>Mitigation options? Policy focus</u></p> <p>SL stated mitigation options that have yet to be discussed include the opportunity to offset and consider enhancement of designated landscapes.</p> <p>Welsh National Marine Plan November 2019        SOC_06: Designated landscapes</p> <ul style="list-style-type: none"> <li>- <i>avoid adverse impacts on designated landscapes; and/or</i></li> <li>- <i>minimise impacts where they cannot be avoided; and/or</i></li> <li>- <i>mitigate impacts where they cannot be minimised</i></li> </ul> <p>The policy notes that '<i>Opportunities to enhance designated landscapes are encouraged</i>'.</p> <p>SL noted that it is hoped that these opportunities may be considered as offset mitigation to address/ mitigate impacts where they cannot be minimised.</p> <p>SL invited everyone to share their thoughts on this aspect.</p> <p>CRJ noted that he had some prior experience with compensation techniques and funding. Of note is the Morlais Tidal project where enhancement due has been included and would be secured via a Section 106 Agreement. NRW would take the question away and discuss ideas for AyM before providing definitive answers.</p> <p>LT asked if the information on the mentioned project is in the public domain to which CRJ replied they are on the PINS portal under the works order for Morlais.</p>

Agenda item	Minutes
	<p>CT asked for clarification on designated landscapes, if that addresses other designations such as Heritage Coast, LT responded that this specific policy relates to National Parks and Areas of Outstanding Natural Beauty.</p> <p>EH stated that if enhancement measures are to be proposed IoA would wish to know how this would be organised/ implemented. Would the method include a sum of money to be used within the area affected? Who would be in charge of how the money is spent? Would parties be able to apply to a fund for monies? More information is needed regarding scope of the compensation strategy.</p> <p>PC stated that the purpose of the meeting is to determine what would be of interest to other parties, and that the question is being asked to determine where preferences could lie.</p> <p>PG mentioned Richard Sumner's (NRW) comment at the outset of the ETG process which may be worth revisiting. Whilst that was prior to assessments there had been some early thinking within NRW.</p> <p>SL enquired whether there were any lessons learned from the Morlais Tidal project compensation strategy.</p> <p>EH stated that it is still in its early phases and that he has limited experience with it. It is EH understanding that the Morlais Tidal project will support landscape enhancements and access improvements. However, items to consider are when schemes will begin, for how long they will run, and what types of projects will be eligible.</p> <p>JP highlighted the National Grid Landscape Fund as a suitable scheme to explore as a framework because its effects cover a similar geographical area of North Wales. It has funded landscape character assessment work, and there could be potential lessons from the scheme.</p> <p>CRJ noted that his interpretation of the type of mitigation measure being described would be compensation, rather than offset mitigation. SL confirmed that in the context of the EIA mitigation hierarchy he would agree. The policy suggests consideration of further mitigation measures when the impacts cannot be minimised. The policy suggests that opportunities to enhance designed landscapes are encouraged. SL went on to ask if there are any compensation measures that may be explored in that context.</p> <p>SR stated he had nothing more to add other than remaining concern as to the size and cumulative impact but appreciates the area has been reduced.</p> <p>SL recognised the difficulty in balancing the drive towards renewable energy, and turbines increasing in size due to efficiency reasons, but the project is looking to mitigate any significant effects as far as possible.</p> <p>SL summarised the meeting so far, noting that it has covered the design rationale, the final design boundary, and that the project is considering mitigation strategies such as adaptive lighting management, which is being considered by other stakeholders, as well as</p>

Agenda item	Minutes
	<p>considerations for GyM. SL asked if there are any other forms of mitigation/compensation/ or good practice from other projects that can be brought forward for consideration.</p> <p>KS mentioned that any mitigation or compensation should be directly linked to the areas affected by the impacts.</p> <p>PG recognised the advantages of a collaborative approach and the opportunity for all perspectives to be discussed. He considered that this process would benefit from having all parties provide input in order to reach a mutually acceptable agreement and thus encouraged further discussion.</p> <p>EH stated that there has yet to be visualisations on how the new layout will look and asked how comments made on the width and shape of the turbine area and outlying WTGs will be responded to.</p> <p>SL explained all feedback provided will be addressed in the ES with a clear reference to how it is considered in technical chapters as well as in the evidence plan report and annexes.</p> <p>ED stated previous visualisations showed the array had been organised with outlying turbines increasing the width of the array and asked if the reduced layout addresses the outlying turbines.</p> <p>LT responded that the revised maximum design scenario layout does not have those outlying turbines; the turbines have been arranged cohesively and is more consistent rather than having outliers but noted that the layout is not fixed at this stage, so the assessment is based on the maximum design scenarios.</p> <p>SL summarised the next steps as follows:</p> <ul style="list-style-type: none"> <li>- Feedback to be given on the 10<sup>th</sup> of February <b>[Action 1]</b>.</li> <li>- Another meeting in the week commencing the 14<sup>th</sup> of February to discuss ideas on mitigation/ compensation <b>[Action 2]</b>.</li> </ul>

Action	Action	Who?	Due Date
1	Provide feedback on further mitigation/ enhancement/ compensation measures.	ETG members	10/02/2022
2	Organise a further meeting to discuss that feedback from Action 1	SL	14/02/2022

## 3.8 Appendix C8: LVIA Meeting Minutes

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**ARCHAEOLOGY EVIDENCE PLAN MEETING MINUTES– 10<sup>TH</sup> DECEMBER 2019**

<b>MEETING ORGANISER:</b>	innogy
<b>LOCATION:</b>	Dinorwig Room, Bangor University, Reichel Hall, LL57 2TR
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm
<b>ATTENDEES:</b>	<p>HELEN THOMAS (INNOGY) (HT)</p> <p>KAREN ALGATE (INNOGY) (KA)</p> <p>ALEX HERBERT (INNOGY) (AH)</p> <p>PAUL CARTER (INNOGY) (PC)</p> <p>THOMAS CRAWFORD (INNOGY) (TC)</p> <p>NICOLA SOLLY (GOBE CONSULTANTS) (NS)</p> <p>SAMMY MULLAN (GOBE CONSULTANTS) (SMU)</p> <p>ALAN MITCHELL (SLR CONSULTING) (AM)</p> <p>SIMON MYERS (SLR CONSULTING) (SM)</p> <p>TIM MALIM (SLR CONSULTING) (TM)</p> <p>CHRISTIN HEAMAGI (MARITIME ARCHAEOLOGY) (CH)</p> <p>REBECCA FERREIRA (MARITIME ARCHAEOLOGY) (RF)</p> <p>RUTH HENDERSON (ROYAL HASKONING DHV) (DIALLED-IN) (RH)</p> <p>CARA OWEN (GWYNEDD COUNCIL) (CO)</p> <p>JOHN PEARSON (NATIONAL TRUST) (JP)</p> <p>KATHY LAWS ((NATIONAL TRUST) (KL)</p> <p>NEIL MAYLAN (CADW) (NM)</p> <p>GARETH EDWARDS (RCAHMW) (GE)</p> <p>LYNDA THOMPSON (OP-EN) (LT)</p> <p>JENNY EMMETT (GWYNEDD ARCHAEOLOGICAL PLANNING SERVICE) (JE)</p> <p>RICHARD SUMNER (NRW) (RS)</p>
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<p>DYLAN LLEWELYN JONES (ANGLESEY COUNCIL)</p> <p>DEANNA GROOM (RCAHMW)</p> <p>ANGHARAD CRUMP (ANGLESEY COUNCIL)</p> <p>HUW DAVIES (CONWY COUNCIL - CONWY CONSERVATION OFFICER)</p> <p>ASHLEY BATTEN (CADW)</p>

Documents provided:	Filename
Consultation roadmap	AyM OWF ETG roadmap Archaeology & CH.pdf
Initial review note – Marine Archaeology	AyM_MarineArch_ShortNote_Final.pdf
Initial review note – Onshore Archaeology and Cultural Heritage	AyM_OnshoreArch_ShortNote_Final.pdf
Draft Terms of Reference	GyM_Ext_Evidence_Plan_ToR_v1_131119
Meeting agenda	Archaeology & Cultural Heritage ETG Agenda.pdf
Slides presented in the meeting	ETG Pre-Scope Archaeology and Cultural heritage.pdf

Agenda item	Minutes
1	<p><b>Innogy in Wales</b></p> <p>KA welcomed all participants to the meeting and outlined the agenda.</p> <p>It was agreed that a detailed introduction to the project and the planning process would not be provided as most of the participants had attended the Seascope and Landscape prior to the meeting.</p> <p>KA provided a high level overview to the project included providing an overview of the current areas of search and area for lease. KA noted that she would be happy to provide further details outside of the meeting.</p>
2	<p><b>Marine Archaeology</b></p> <p>This part of the meeting was presented by CH (and RF) and the offshore archaeology EIA scoping will be undertaken by Maritime Archaeology (MA).</p> <p>CH outlined the proposed baseline information sources, including baseline data from OWFs in the area (including GyM). NM confirmed that CADW doesn't hold any marine data.</p> <p>CH outlined that site specific geophysical surveys are planned to be undertaken in 2020 but the data will not be available to inform the Scoping Report. NS highlighted that MA have reviewed the survey specification to ensure that it is sufficient from an archaeological perspective. PC outlined that the array and export cable route (when determined) will be surveyed with a 500 m buffer. The survey will collect hydrographic, shallow seismic, magnetometer data and sidescan sonar data. GE enquired whether innogy would provide the data into a public record. PC agreed to take this away to confirm noting that there was likely to be a requirement to provide the data to TCE and the MMO.</p> <p>CH presented the impacts proposed to be scoped into the EIA:</p> <ul style="list-style-type: none"> <li>• direct/indirect impacts on archaeological receptors from construction activities e.g. piling foundations for the wind turbines and substations, Jack-up vessels, anchoring and cable laying activities;</li> <li>• indirect impacts on archaeological receptors during operation and maintenance e.g. secondary impacts from scour; and</li> <li>• indirect impacts on archaeological receptors during decommissioning phase e.g. changes to sediment dynamics and subsequent disturbance of archaeology after removal of installations.</li> </ul> <p>CH outlined that the archaeological receptors will be protected, through embedded mitigation measures and project design, to avoid direct impacts on the receptors. The receptors will be identified in the Scoping Report. CH presented an example of a wreck with an Archaeological</p>

	<p>Exclusion Zone (AEZ) and that the developer committed to adhere to the AEZ and therefore no direct impacts would occur. On this basis, CH proposed to scope out the following effects from further consideration in the EIA:</p> <ul style="list-style-type: none"> <li>• Impacts will be scoped out where comprehensive primary mitigation has been embedded in the project design to avoid archaeological receptors and sufficiently mitigate potential impacts.</li> <li>• Impacts on archaeological receptors identified within the scoping phase are recommended to be scoped out of the subsequent EIA where appropriate by demonstrating that the magnitude of effect is being reduced to the level of negligible or none.</li> </ul> <p>No comments were made on the proposed impacts to be scoped in/out of the EIA.</p> <p>CH confirmed that a written scheme of investigation will be produced for the project prior to construction. The document will outline the responsibilities which the developer will adhere to.</p> <p>CH outlined the additional commitments which innogy will make – see slide 37.</p> <p>NM highlighted that there may be incidents where the project is not able to micro-site around archaeological features. CH agreed and these scenarios should be discussed with stakeholders following refinement of the project design. For example, submerged landscapes should be preserved through record.</p> <p>CH provided an overview of the next steps for the assessments – see slide 38.</p> <p>CH noted that a site specific training programme could be undertaken for construction workers to ensure that data and information is collected sensitively to the archaeology, whilst preventing downtime.</p> <p>JP flagged the potential for positive engagement and opportunities, such as the cherish project. CH and NS agreed to consider this. JP noted that when the Welsh Government undertook the Welsh Marine Plan there was lots of interest in public in the area and so he would expect interest in this topic to be high.</p>
3	<p><b>Onshore Archaeology and Cultural Heritage</b></p> <p>This part of the meeting was presented by TM and the onshore archaeology and cultural heritage EIA scoping will be undertaken by SLR Consulting.</p> <p>TM presented the search area relative to world heritage sites, listed buildings, parks, scheduled monument and historic landscapes within proximity of the onshore search area – see slides 40 and 41.</p>



TM noted that they would welcome further stakeholder consultation following the compilation of the baseline information. TM noted that the proposed approach would be a proportionate response to identifying specific assets (which could potentially be significantly affected in EIA terms) as opposed to all receptors in the study area.

TM noted that policy and guidance has moved on since the GyM EIA and that the assessment would apply the latest and most relevant guidance (e.g. Managing: The Setting of Historic Assets in Wales).

NM highlighted the potential sensitivity of the tentative world heritage site for the Slate Industry of North Wales.

TM provided an overview of the impacts proposed to be scoped in for assessment in the EIA:

- Direct physical impacts from groundworks;
- Indirect impacts to heritage significance from substation; and
- Indirect visual impacts to heritage significance from off-shore turbines.

When assessing the impacts, the following should be considered:

- Permanence or temporary nature of impact;
- Reversibility of impact; and
- Residual impacts following mitigation.

A discussion was held with regard to erosion issues in the intertidal zone which could affect historical assets. NS highlighted that a physical processes chapter will be included in the Scoping Report and EIA which will consider the likelihood and magnitude of coastal erosion. This could be used to inform the archaeological assessment if considered relevant.

TM noted that assets with maritime significance such as ports, lighthouses, castles etc should be assessed. NM agreed with the approach and that a protocol could be developed in a future workshop.

TM suggested that night-time assessment should be undertaken also.

TM presented the proposed impacts to be scoped out from further assessment in the EIA including indirect visual impacts on non-designated historical assets and Conservation Areas (CA). It was agreed if they were of equal importance (such as national) then these could be considered through discussion.

TM requested agreement that an ASIDOHL for HLW was not required. This was agreed – see agreement log.

JE noted that she suspected that the LA would not agree with CAs being screened out. A discussion was held about including visual impacts on coastal CAs as the views out to sea from these assets would have

	<p>significance, and the CAs (including the listed buildings within them) would be appropriate to be assessed as a single asset group, enabling a more proportionate approach to the EIA. TM agreed to consider this further as a useful suggestion – see agreement log.</p> <p>JP noted that cumulative impacts, including onshore wind, should be considered and asked how they would be included in the assessment. SMu outlined process of creating a cumulative long and short list of proposed plans and projects and noted that they would seek to agree this with the ETG during the development of the PEIR.</p> <p>TM noted that a site walkover is proposed for areas of groundworks and to assess indirect visual impacts on designated assets. TM requested confirmation whether wirelines would be sufficient or if photomontages were required. NM requested montages for significant views – see agreement log.</p> <p>JE highlighted that geophysical evaluation and trial trenching should be included prior to DCO application. NM confirmed that Welsh policy required it to be undertaken prior to application. TM suggested that this be targeted for those areas which are sensitive. JE stated that standard geophysical surveys should be undertaken.</p> <p>NM highlighted that appropriate types of survey could also be extensive in the intertidal area and could reveal assets of national importance. CH and RF suggested the use of drone and other methods, and that there would be overlap between the off-shore and on-shore heritage assessments, rather than a gap between them in the inter-tidal zone. PC confirmed that geotechnical works will not be undertaken for the site selection process, so these cannot be used to help inform the deposit sequence or potential for buried landscapes or archaeological remains.</p> <p>JP noted that Penryn Castle should be fully assessed due to the number of tourist visits it receives.</p> <p>It was noted that there would be a significant impact on the setting of Beaumaris Castle and NM, RS and TM alongside others in the room agreed that this impact could potentially be acknowledged in a Statement of Common Ground between the Parties. This issue was noted as one to be taken forward and further discussed.</p> <p>PC offered a separate call to Royal Commission to discuss any additional items.</p>
<b>4</b>	<p>AOB</p> <p>No minutes recorded.</p>

Agenda Item	Action	Who?	Due Date
<b>1</b>	All parties to review the draft ToR and provide feedback or requested amendments.	All	31/01/20
	All parties to review and provide feedback on the stakeholder roadmaps.	All	31/01/20
<b>2</b>	No actions recorded	N/A	N/A
<b>3</b>	No actions recorded	N/A	N/A
<b>4</b>	No actions recorded	N/A	N/A

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**CULTURAL HERITAGE AND ARCHAEOLOGY ETG MEETING MINUTES – 27 JANUARY 2021, 1000 - 1200**

<b>MEETING ORGANISER:</b>	RWE		
<b>LOCATION:</b>	Teams dial in/Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Angharad Crump	Ynys Mon	AH
	Jenny Emmet	Gwynedd	JE
	Cara Owen	Snowdonia National Park	CO
	Paul Carter	RWE	PC
	Alex Herbert	RWE	AH
	Karen Algate	RWE	KA
	Sean Leake	GoBe	SL
	Ryan McManus	GoBe	RM
	Flik Clark	GoBe	FC
	Matt Faulkner	SLR	MF
	Mark Turner	Wessex	MT
	Mark Walters	CPAT	MW
	Euan McNeill	Wessex Archaeology	EN
	Andrea Hamel	Wessex Archaeology	AnH
	Nail Maylan	Cadw	NM
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Sion Roberts	Snowdonia National Park	
	Ceri Thomas	Conwy Council	
	Pete Gaches	GoBe	
	Ed Henderson	Ynys Mon	
	Helen Thomas	RWE	

<b>Documents provided:</b>	<b>Filename</b>
Meeting Agenda	00141-AyM ETG Agenda – ACH_270121.docx
Onshore Survey Discussion	231901_AyM_Onshore_Discussion_Paper_200121.pdf
Preferred Cable Route	AyM Preferred Cable Route Archaeology Survey Zone.pdf

<b>Agenda item</b>	<b>Minutes</b>
1	<p><u>Introductions and aim of the meeting:</u></p> <p>SL opened the meeting and thanked everyone for their attendance, then checked that all attendees had received the information packs provided prior to the meeting. Confirmed. SL introduced himself and went through the attendees alphabetically with each attendee introducing themselves.</p>

	<p>SL informed everyone that the aims of the meeting were: to give a project update, present and discuss the approach to baseline characterisation and to discuss the initial thoughts. SL noted that minutes of the meeting will be circulated and sent out to ETG members within 7 days and requested feedback from these minutes within 10 days.</p> <p>SL reminded everyone to raise their 'hand' or speak up if they have any questions during the meeting.</p> <p>SL then handed over to KA.</p>
2	<p><u>Project details and site selection update:</u></p> <p>KA ran over the project updates slides and provided a brief project update. KA noted that the virtual public consultation has now finished (which ran for 6 weeks), RWE were pleased with the feedback received (with 1,100+ visitors to the website, and 65 feedback forms received) – this feedback will be used to help with the site selection process.</p> <p>KA said that there will be a public announcement soon on site selection and that some of the transmission asset site selection will be shown today.</p> <p><u>Offshore project status:</u></p> <p>KA explained geophysical, benthic and intertidal surveys are complete and ornithological bird surveys are almost complete.</p> <p>KA explained that RWE has undertaken lots of technical and environmental work alongside the consultations (including Public Engagement Days (PEDs)) which have all fed into the offshore cable route selection process. The offshore cable corridor and landfall locations have now been selected and KA explained the exact route for crossing the Gwynt y Môr cables has not yet been decided as RWE is currently looking to find the best approach (needs some more technical work and consultation). Therefore the 'doughnut' in the offshore export cable corridor had been retained for optionality.</p> <p><u>Onshore project status:</u></p> <p>KA explained that the Preliminary Ecological Appraisal (PEA) surveys have been completed and the wintering bird surveys are underway. Meanwhile RWE is currently talking to landowners on the selected route.</p> <p>KA explained that the onshore cable route has been chosen (Cable route 5a) and explained the route briefly from landfall through to the National Grid connection at Bodelwyddan. KA noted that some optionality has been retained for crossing the River Clwyd as this requires some more technical and environmental work and it is likely that a wider corridor will be taken through to the Preliminary Environmental Impact Report (PEIR) at this location. The onshore substation zone has also been decided but the exact footprint is yet to be determined through consultation and further technical work.</p> <p>KA asked if anyone had any questions on the transmission asset site selection. None arose. KA added that questions can be raised later in the meeting or can be sent through via email. KA handed over to SL to explain the array area site boundary areas.</p> <p><u>Offshore array status:</u></p>

	<p>SL presented the different array area boundaries noting that it was useful for everyone to know. SL explained that the Area for Lease (Afl) represents the Base Business Case (BBC) and there are currently 5 viable options for reducing this boundary which take into account different factors.</p> <p>SL presented each of the 5 viable options:</p> <ul style="list-style-type: none"> <li>- Area C – takes into account Shipping and Navigation (S&amp;N) and the Traffic Separation Scheme (TSS) running east to west in/out of Liverpool.</li> <li>- Area J and H – reduce the horizontal spread of the OWF.</li> <li>- Area M – represents the maximum spatial extent reduction before the overall capacity and benefit of the project is reduced.</li> <li>- Area A – represents a reduction in SLVIA impacts and is clipped to fit fully within medium–low sensitivity (based on White Consultancy Associates Report on seascape and landscape that was previously circulated).</li> </ul> <p>SL explained that feedback has been requested from Monday’s SLVIA ETG meeting – asking what the preferred area boundary option is and what other factors should be considered. The feedback will then seek to define an optimal solution. SL noted that other parameters that have influenced the area boundary include SLVIA, Under Water Noise (UWN), S&amp;N and bathymetry. SL asked if there were any questions so far or anything that needed clarifying? None arose. SL handed back to KA.</p> <p>KA thanked SL and went onto the next steps. KA mentioned that environmental and technical studies will be started this year and progressing into spring on the selected cable route, landfall and substation zone. Engagement will continue throughout the year through to the submission of PEIR (currently August 2021). As more is learned about the land and area, refinements will be made. KA asked if there were any questions? None arose.</p> <p>KA presented and explained the programme and where the project is currently up to (briefly describing that the Development Consent Order (DCO) and Marine Licence (ML) applications will be submitted in May 2022 with an aim for a decision at the end of 2023/start of 2024 and operation by 2030 to help meet Welsh renewable energy targets). PC noted that there is a slight change to programme, and the project is now aiming for DCO/ML submission in Feb/March 2022. SL noted that and thanked KA. SL asked if there were any questions? None arose.</p> <p>SL noted that if CO wanted to leave the meeting now – before heading onto archaeology-specific topics she was welcome to do so. CO thanked SL and left the meeting. KA said that refinement will continue as more is learned about the land and area. KA asked if there were any questions? None arose. She then went onto explain the programme and where the project is currently up to. KA explained that the next design freeze will be in February 2021, and the project is currently on programme to submit PEIR in August with DCO and ML applications going to PINS and NRW in Feb/March 2022, in view of determination in late 2023/ early2024, with operation by 2030 in order to meet Welsh renewable energy targets.</p>
3	<p><u>Approach to investigation – Overview of offshore data gathered to date:</u></p> <p>AnH explained that the baseline characterisation methods will include an archaeological desk-based assessment which will look at data gathered to date including paleogeography, features, intertidal heritage assets and historical seascape character. This will include</p>

	<p>sources such as UKHO, Cadw, Coflein, LLE, Receiver of Wrecks, HER, admiralty charts and baseline data taken from Gwynt y Môr. AnH pointed out that there are a few wrecks in the vicinity, and one important wreck (shown by an orange dot) which is outside of the proposed cable route corridor but within the survey area. AnH also showed that two cables routes were looked at, however the eastern cable route has been chosen to progress through to PEIR.</p> <p><u>Baseline characterisation methodologies and approach for interrogation of the offshore geophysical survey data</u></p> <p>AnH explained that offshore data has been gathered, and assessment of this data will start soon which includes Multibeam data (MBES), Side Scan Sonar (SSS), Magnetometer data (MAG) and Sub bottom profiler (SBP). AnH also noted that a walkover study of the intertidal area also needs to be done but, due to Covid, it had been postponed. This will however still be done with the onshore team and will highlight anything that hasn't yet been identified.</p> <p>AnH asked if there were any questions or if EM wanted to add anything. EM confirmed that the intertidal walkover will be done with the terrestrial archaeological team in due time and will ensure that the overlap between onshore and offshore is covered. EM ensured that there will be good communication and co-ordination between teams and a more detailed discussion will take place in terms of the approach for this survey. EM noted that the geophysical survey data assessment will be underway as soon as possible, and this will inform the PEIR chapter deadline. EM also noted that the baseline data has covered a wide range of topics including pre-history, maritime traffic and activity, and potential wrecks and will be looked at alongside the geophysical survey data and this will identify any anomalies.</p> <p>NM asked if the geophysical survey data that had been gathered for the engineering works was a high enough resolution for use in an archaeological setting. EM assured NM that the survey specification had been reviewed by Wessex Archaeology and a good contractor and kit was being used for these and they are well trusted. NM thanked EM and asked to be included in any discussions following the interpretation – pointing out that the Welsh guidelines on setting are different and should be followed. EM confirmed that he was aware of these and these will be used.</p> <p>SL asked EM if an approach to the method could be shared. EM noted that the method has previously been used but he can send it out for approval to everyone and a meeting can be set up to discuss this if necessary. SL asked if this could be done and actioned this point that the method statement documents are sent out for review by everyone. SL asked if there were any further questions before passing onto MT.</p>
4	<p><u>Approach to investigation – onshore</u></p> <p><u>Overview of Onshore data gathered to date:</u></p> <p>SL presented the onshore routes and handed over to MT. MT introduced himself again and re-iterated that he was the lead onshore archaeologist working with AnH and EM. MT noted that he has divided the onshore cable route into five zones for ease of presenting. It should however be noted that there are some gaps in the desk-based data, and he mentioned that he wanted more data for PEIR.</p> <p><u>Zone 1</u> – starts at the landfall location, MT explained that Zone 1 crosses a golf course and a caravan park, of which there is little data so this needs to be explored more. MT</p>

mentioned that some minor intrusive work could be undertaken in these areas to understand them more which might include test pitting. MT mentioned that the PEIR will look at LiDAR (Light Detection And Radar) data and aerial photos and will also include a walkover survey but, due to Covid restrictions, this has not yet been completed.

MW asked if MT wanted him to comment on the zones as they were presented. MT said that an overview would be useful as well as a detailed discussion later. MW said he was pleased to hear there is an onshore/offshore link in the intertidal and mentioned that thin lenses of peat found were in the Gwynt y Môr surveys, but not many artefacts. MW mentioned that more artefacts might be found during these surveys as the peat tends to thicken to the east (where the AyM cable corridor runs) and there are deep deposits dating back to the Mesolithic. MW noted that he is happy with the use of trial trenches, however it should be noted that there may be issues with test pits as they will hit incoming water at sea level, as was the case for Gwynt y Môr. He suggested that auger or core surveys may be useful in the intertidal zone. MW also noted that to the south (where AyM are planning to use Horizontal Directional Drilling (HDD)), Gwynt y Môr switched to geophysical surveys and they found that this was previously marshland that was reclaimed (maybe from the Roman period). Geophysical surveys also showed prehistoric areas, and there was good potential for geophysical surveys to reveal more. MW asked why only 25% of the cable corridor was being surveyed geophysically (for Gwynt y Môr this was 45 m wide) and whether this was due to landowner positions. MT thanked MW for the information he shared and mentioned that the 25% was just an estimate at this time rather than the final working width but they will consider his position and come back to him. SL asked for clarification and explained that there will be a 40 m corridor in the PEIR assessment, to which MW asked if by full coverage he meant at this stage (PEIR) or in advance of construction. MW said that it would be preferable at this stage as this would also inform trial trenching. SL thanked MW.

Zone 2 – MT explained that they are now on the settled edge of farmland on the edge of Rhyl and there are likely to be traces of Roman and/or prehistoric material. There are already records of Roman cropmarks in the corridor and a Roman stray farm just east of the A525. MT noted that they were currently considering a phased approach with geophysical surveys informing the trial trenching – this is to be discussed in detail with MW to agree an appropriate approach and inform the final design to avoid constraints. MT also noted that some of the information within the red hatched line (onshore cable corridor) is still under internal technical review and therefore might look slightly different when consulting.

Zone 3 – MT explained there will be an HDD crossing under River Clwyd, which is one of three route options (all of which are included in the figure) as there are a number of sensitivities based on flood regime (and other ecological receptors). MW explained that there is an interesting Mesolithic record, which is outside of the corridor (between the route options crossing the Clwyd) but may be of interest. Around this area, there are quite a few records of Mesolithic camp sites (which confirms what they have seen in the north, where there used to be a dune system overlooking the River Clwyd). MW confirmed that they will do geophysical surveys around this whole area and would also do test pits. He asked MW if sieving the topsoil would be of value. MW confirmed that a 1m<sup>2</sup> system transect and sieving everything that came out would be valuable as this area is heavy in lithics and would be a key indicator. MT agreed, and noted that more detailed proposals will be sent over (as they want to know more).

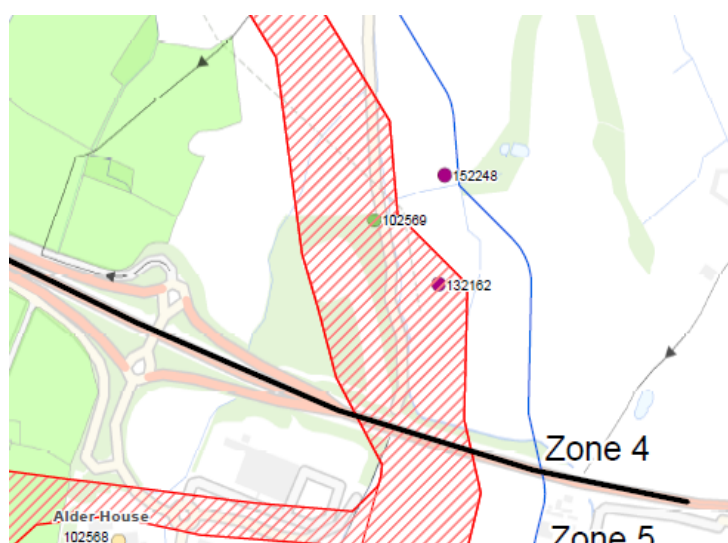


MW informed MT that they had some geo-archaeologists with them during Gwynt y Môr surveys and they took cores on the edge of the River Clwyd which uncovered some interesting information on how the river had changed over time. If AyM were able to core the HDD pit locations beforehand it would be useful. MT noted that AyM will also involve the geoarchaeology team in the investigations and thanked MW.

Zone 4 – MT explained that Zone 4 runs adjacent to the west of the A525 which have lots of records. MW added that the previous scheme at Pengwern Farm (east of the corridor) geophysical surveys picked up lots of ditched anomalies – these turned out to be of pre-medieval potential. They also identified lots of hedgerows that had archaeological importance (when assessed against the hedgerow regulations). MT confirmed that they will be doing the same, and with help from ecologists. MT noted that there is an attenuation pond being built on the approach to the A55 (there are some land issues still, but they hope this will be possible).

MW added that in the south of Zone 4 (on the approach to Zone 5) there was extensive geophysical surveys undertaken for the large development to the west and this showed that there were extensive iron age and medieval field systems.

SL asked if there was a preference for 100% geophysical in this area in order to pick up any anomalies. MW noted that some of the areas have already been surveyed, however the area to the west hasn't been done (between Zone 4 and 5). MT asked if it was to the west of the business park. MW confirmed the Gwernigron solar farm covered a small area to the east of but not the west just before the A55 (see screenshot below).



Zone 5 – MT explained that there is a change in the character, and this is where the substation and connection to the national grid will be. This area has lots of medieval and post-medieval activity and therefore a more comprehensive geophysical survey will be required. MW added that the area both north and south of the B5381 will require 100% geophysical coverage as there is an area of WWI era trenches, now understood to be part of an extensive WWI battle simulator, noting that there is a Welsh Water pipeline which runs up the east of the look and there has been some work here already. This included a report there which looked at Cadw potential enhancement – MW asked if this can be sent over. SL confirmed that this would be actioned. MT noted that the sooner they can see that report, the better.

	<p>MT noted that more detail was needed to take into PEIR, and there will be methodologies coming through soon that will need agreeing. MT noted that programme permitting (Covid, weather and landowner dependant) the geophysical surveys will feed into PEIR as far as possible, and MW's input would also be useful. MW agreed that this would be useful and noted that for Gwynt y Môr they had to do more evaluations following consent which thankfully worked out alright but was less than ideal and would advise that they don't want to still be evaluating data post-consent if it can be avoided.</p> <p>MT asked MW if a report on Gwynt y Môr cabling was available. MW said that it should be but it might not be in the public domain – which is likely as some of the data from them was missing from the current route presentation/slides. MW confirmed he would search and circulate this if available. MT agreed this would be useful and will be in touch directly to get this information. MT thanked MW and said he was looking forward to informing his team about the feedback.</p> <p>MT further confirmed that all onshore cabling will be underground and therefore all impacts will be temporary, however all these details will be further discussed in the future. MT thanked MW again for his input and noted that he was looking forward to working with him in the future. MT asked if there were any questions. There were none and MT handed back to SL.</p> <p>SL noted again that an updated programme will be sent to MW as soon as possible, detailing when method statements are likely to come to him and when feedback is due (this will include as much time as possible as everyone understand it's a difficult time right now).</p>
5	<p><u>Key areas of arch interest (as suspected so far)</u></p> <p>*discussed above*</p>
6	<p><u>Overview of proposed investigations – indicative techniques/location</u></p> <p>*discussed above*</p>
7	<p><u>Next steps (submit/agree WSI and carry out works, to report with PEIR)</u></p> <p>SL noted that minutes will be coming out within 7 days, and feedback is due for these within 10 days. SL ran over the actions taken from the meeting which include:</p> <ul style="list-style-type: none"> <li>- MT to refine proposals and method statements and keep ETG members informed.</li> <li>- MW to provide report on WWI trenching in and around Zone 5 area (and to present a refined approach for consideration of the river Clwyd to align with site investigation works).</li> </ul> <p>SL asked if there were any other actions that have been missed that anyone would like noted down. None arose. SL reminded everyone that the target for the actions noted are within 14 days and will keep everyone up to date where possible (or if sooner), adding that feedback on the method statements is requested within 10 days of receipt. SL noted that other next steps include a meeting on Friday with NM and another meeting in 2 weeks with everyone on SLVIA to discuss the MDS that will be carried forward into assessment. SL added that it is appreciated that it's a difficult time and thanked for everyone baring with. SL asked if NM had anything to add – NM mentioned that he was looking forward to the meeting on Friday.</p>

	<p>SL noted that there were no other questions or queries.</p> <p>SL asked each organisation in turn if there were any queries or clarifications they would like to make. None arose. SL noted that the schedule will be coming through to discuss next steps and thanked everyone for joining.</p>
8	<p><u>AOB</u></p> <p>N/A</p>

Agenda Item	Action	Who?	Due Date
1	Minutes and presentation submitted within 7 days	GoBe/RWE	7 days
2	MW to send through Cadw report on trenching near the substation area (based on WWI trenching)	MW	7 days
3	MT to define proposals and method statement and circulate	MT	7 days

### 3.9 Appendix C9: Human Environment Meeting Minutes

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**HUMAN ENVIRONMENT EXPERT TOPIC GROUP (ONSHORE NOISE SUB-GROUP) MEETING MINUTES**  
**WEDNESDAY 31 MARCH 2021, 1100-1230**

MEETING ORGANISER:	RWE																												
LOCATION:	Teams dial in/Teleconference																												
PROJECT	Awel y Môr Offshore Wind Farm																												
ATTENDEES:	<div>ETG MEMBERS:</div> <table><thead><tr><th>Attendee</th><th>Organisation</th><th>Abbreviation</th></tr></thead><tbody><tr><td>PHILIP CALDWELL</td><td>DENBIGHSHIRE COUNTY COUNCIL</td><td>PC</td></tr><tr><td>LIANNA MARTIN</td><td>CONWY COUNTY BOROUGH COUNCIL</td><td>LM</td></tr><tr><td>SEAN LEAKE</td><td>GOBE</td><td>SLE</td></tr><tr><td>KAREN ALGATE</td><td>RWE RENEWABLES</td><td>KA</td></tr><tr><td>MATT FAULKNER</td><td>SLR</td><td>MF</td></tr><tr><td>BENEDICT SARTON</td><td>SLR</td><td>BS</td></tr><tr><td>ELIZABETH HOLMES</td><td>SLR</td><td>EH</td></tr></tbody></table> <div>APOLOGIES</div> <table><tbody><tr><td>ANDREW LORD</td><td>DENBIGHSHIRE COUNTY COUNCIL</td></tr></tbody></table>			Attendee	Organisation	Abbreviation	PHILIP CALDWELL	DENBIGHSHIRE COUNTY COUNCIL	PC	LIANNA MARTIN	CONWY COUNTY BOROUGH COUNCIL	LM	SEAN LEAKE	GOBE	SLE	KAREN ALGATE	RWE RENEWABLES	KA	MATT FAULKNER	SLR	MF	BENEDICT SARTON	SLR	BS	ELIZABETH HOLMES	SLR	EH	ANDREW LORD	DENBIGHSHIRE COUNTY COUNCIL
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Documents provided:	Filename
Proposed Scoping Text for Noise and Vibration Assessments	Provided via e-mail on 15 <sup>th</sup> and 18 <sup>th</sup> March 2021

Agenda item	Description
1	Introductions and aims of the meeting.
2	<p>KA Provided an update on the project. An informal 6-week virtual consultation ran at the end of last year in 2020. There were around 120 responses providing useful feedback to the project team. It is hoped that a second virtual consultation will also be held.</p> <p>Feedback on site selection has been incorporated into the transmission asset and site selection work - this work is now complete. PEA surveys are complete and spring surveys</p>

	<p>are due to commence. Wintering Bird Surveys have been undertaken. Offshore surveys are complete, and reporting has started.</p> <p>KA highlighted that there is an offshore cable corridor selected with some optionality remaining for technical decisions around crossing the Gwynt y Mor (GyM) cables. Landfall is located to the east of Rhyl with some optionality on crossing the River Clwyd and the A55 as it is quite constrained in this area. Work is underway to identify the preferred substation site location - this will be announced within the Preliminary Environmental Information Report (PEIR).</p> <p>KA outlined next steps.</p> <p>KA provided a summary of the project programme. Currently preparing for PEIR publication in August of 2021. DCO and Marine License applications are to be submitted to PINS in Q1 2022 and are hoping for a decision 2023 to 2024 with the wind farm being operational by 2030.</p>
3	<p><b><u>Onshore Noise</u></b></p> <p>BS summarised the scoping text for the noise and vibration assessment.</p> <p>BS outlined the details of the noise monitoring locations at Landfall presented on a map. Monitoring equipment will be left on site for 5 day covering a weekend.</p> <p>MF highlighted that there is HDD at landfall to punch out in the green area south of the caravan park. The alternative option is a proposed two stage process where HDD emerges within the gold course and back under the caravan park before punching out south of the railway line.</p> <p>BS noted that monitoring will be subject to weather conditions being appropriate.</p> <p>BS outlined the noise monitoring locations at the substation zone. Surveys here will also last for 5 days.</p> <p>BS noted that for the cable route there will be attended measurements taking place in the day for a duration of at least one hour. Locations were presented on a set of figures.</p> <p>PC asked to see the CR1 site at the edge of the caravan site. Noted that the rectangular buildings are residential buildings.</p> <p>BS confirmed that we will move the existing location to near these buildings.</p> <p>BS outlined how the noise levels will be monitored. A weather station will be installed at the landfall and the substation.</p> <p>BS outlined the methodology on the construction noise and vibration assessment. Construction traffic will be taken into account.</p> <p>BC agreed this was OK</p> <p>BS outlined the operational noise methodology at the substation.</p> <p>BC agreed with this</p> <p>PC asked if it would be 3<sup>rd</sup> octave monitoring.</p> <p>BS confirmed this was being investigated</p> <p>PC residential property to the north of the substation site – it could be worth including in the noise assessment</p>

	<p>BS outlined the ecological receptors. There is an SPA north of the beach area at landfall where construction noise will be considered.</p> <p>BS summarised the exclusions for noise and vibration monitoring and assessment.</p> <p>BC agreed this was fine</p> <p>BS summarised that cumulative impacts will consider construction and operation in conjunction with a solar farm (north of the A55) and a flexible gas plant (located on the north eastern side of the business park).</p> <p>PC noted that the cable run from the solar farm will run through gables farm. Could the routes be shared here?</p> <p>KA noted that we have been discussion regarding this however the programme and complexities unfortunately rule this out as a possibility.</p>
4	<p><b><u>Next steps</u></b></p> <p>Minutes will be circulated.</p> <p>Baseline noise survey and modeling to be carried out alongside a full assessment.</p> <p>Next ETG meeting proposed post-PEIR 2021.</p> <p>Noise from offshore sources – we are proposing a technical note to be prepared on this to scope out of further assessment.</p>
5	<p><b><u>AOB</u></b></p> <p>No further AOB.</p>

Agenda Item	Action	Who?	Due Date
1	BS to prepare technical note on offshore noise sources.	SLR	16.04.2021
2			
3			
4			
5			

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**HUMAN ENVIRONMENT ETG 9 MEETING MINUTES– 02/11/2021**

<b>MEETING ORGANISER:</b>	GOBE CONSULTANTS		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Shane Wetton	Conwy CC	SW
	Philip Caldwell	Denbighshire CC	PhC
	Nicola Caie	Denbighshire CC	NC
	Niall Waller	Flintshire CC	NW
	Mike Furness	Hatch	MFu
	Neil Evans	Hatch	NE
	Sean Leach	Hatch	SL (Hatch)
	Angharad Crump	Isle of Anglesey	AC
	Kristian James	NHS Wales	KJ
	Pete Gaches	GoBe Consultants	PG
	Sean Leake	GoBe Consulting	SL (GoBe)
	William Vasishta	GoBe Consulting	WV
	Paul Carter	RWE	PaC
	Poppy Tremayne	RWE	PT
	Benedict Sarton	SLR Consulting	BS
	Dan Moran	SLR Consulting	DM
	Karen Algate	SLR Consulting	KA
	Matt Faulkner	SLR Consulting	MFa
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Bethan Lloyd	Conwy CBC	
	Bryn Kyffin	Conwy CBC	
	Huw Williams	Conwy CBC	
	Iwan Ellis	Conwy CBC	
	John Rowlands	Conwy CBC	
	Jon Merrick	Conwy CBC	
	Lindsay Mercer	Conwy CBC	
	Rhiannon Hayes	Conwy CBC	
	Rhian S. Davies	Conwy CBC	
	Richard Evans-Snarr	Conwy CBC	



	Stephen Daly	Conwy CBC
	Andrew Lord	Denbighshire CC
	Iwan Davies	Denbighshire CC
	Jamie Groves	Denbighshire CC
	Mike Horrocks	Denbighshire CC
	Mike Parker	Denbighshire CC
	M. Jones	Denbighshire CC
	Nicola Caie	Denbighshire CC
	Sion Roberts	Snowdonia National Park
	Andrew Farrow	Flintshire CC
	Sioned E Williams	Gwynedd Council
	Dylan Williams	Isle of Anglesey CC
	Adam Cooper	NRW
	Christopher R. Jones	NRW
	Alan Owen	North and Mid Wales Trunk Road Agency
	Dave Evans	North and Mid Wales Trunk Road Agency
	Mike Jones	North and Mid Wales Trunk Road Agency
	Henry Aron	North Wales EAB
	G Blacklock	SLR Consulting
	Alun W. Jones	Welsh Government
	Steve Bayley	Wrexham CBC
	Elizabeth Holmes	SLR Consulting
	Carol Evans	Conwy CC
	Lianne Martin	Conwy CC
	Paul Smith	Conwy CC
	Robin Sandham	Conwy CC
	Rachael Byrne	Flintshire CC

RB

Documents provided:	Filename
Presentation	Human Environment 2nd Nov 21 Final.ppt

Agenda item	Minutes
1	<p>Introductions</p> <p>MFa</p> <p>SL(GoBe) noted that the NMWTRA had not been able to join the meeting and that a number of consultees that had accepted the meeting invitation were not on the MS Teams call</p>
2	<p>Project Update</p> <p>PaC</p> <ol style="list-style-type: none"> <li>Statutory consultation: participation &amp; AyM next steps <ul style="list-style-type: none"> <li>Consultation Ran from 31<sup>st</sup> August to 11 October 2021</li> <li>As well as section 42 virtual consultation was held for members of the public</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>▪ This run for 6 weeks rather than the minimum of 4 and PEIR formed the basis for consultation</li> <li>▪ 3,500 unique visitors to online exhibition</li> <li>▪ Face to face with 900 members of public</li> <li>▪ 300 formal written and survey consultation responses (S42, S47)</li> </ul> <p>2. DCO programme to submission          Agreements log is to be shared with consultees this later year          And discussion on the log to take place Q1 2022</p> <p>MFa</p> <p>3. Statements of Common Ground Topics Raised by Consultees</p>
3	<p>Tourism and Recreation</p> <p>SL (Hatch) began by noting the key concerns raised by stakeholders are as follows:</p> <ul style="list-style-type: none"> <li>• The impact on the tourism economy as a result of the height of the proposed turbines</li> <li>• Demographic of visitors is important and is recognised in the assessment</li> <li>• Adequacy of existing research and data</li> <li>• Impact on Public Rights of Way (PROW) that will be covered in the traffic and transport section</li> <li>• The feedback from the National Trust was positive with regards the contribution of the project towards reaching Net Zero and impacts on National Trust owned land</li> </ul> <p>No members of the meeting had any questions about the key issues raised</p> <p>SL (Hatch) went on to note that in order to address some of the concerns the body of research would be revisited to consider if there are any additional sources of information that were not already used. SL (Hatch) went on to note that the feedback received through the statutory consultation did not provide any suggestions, and iterated the conclusion of the existing body of research suggests no impact.</p> <p>SL (Hatch) confirmed that the proposed approach to updating the draft ES for application is to: review the presence of any additional policy of relevance, and to consider additional research into the relationship of windfarms and the tourist economy there are 8 windfarms. To inform the research SL (Hatch) asked if Conwy CBC could provide more tourism data and possibly data on Llandudno tourism.</p> <p>NE: whilst they have info on tourism and visitor in Conwy they doubt that there is any more granular information available especially in relation to visiting numbers at Llandudno.</p> <p>SL (Hatch) went on to note that further context would also be provided with regards IOA, noting in particular that the greater distance from the IOA will reduce visibility and reduces the potential negative impacts on visitors and tourism economy. SL (Hatch) then went on to ask the ETG members for any suggestions for measures to alleviate and/or better understand tourism impacts. There were no suggestions made by attendees on the call</p> <p>NW: in terms of research the suggestion is to commission further research that demonstrates what level of impact has occurred previously from coastal windfarms, through reference to suitable and comparable schemes.</p> <p>SL (GoBe) suggested Gwynt y Mor could also be referred to as it is a similar project, the sister project to the proposed scheme, and directly applicable in its coastal context. SL asked the ETG members present what their experience has been and whether or not the existing windfarms have had a negative impact on the tourism economy.</p>

	<p>NW: confirmed that overall the tourism economy has grown over time, including the period since Gwynt y Môr was constructed. NW went on to note that there are many other factors than just the presence of a OWF which are influencing the growth of the tourism economy. NE confirmed one of the things we will look at will be trends in available tourism data such as data where there is a consistent time series but also tourism employment which will give us consistency in terms of methodology we can look at a time series for before after and during planning and operation which will give us some insight</p> <p>Recreation: Rhyl Golf Club these are being looked at closely and carefully considered</p> <p>MFa: separate right of way meeting to be held later.</p>
4	<p>Socio Economics</p> <p>NE noted the Key concerns and points raised by stakeholders are as follows:</p> <ul style="list-style-type: none"> <li>• Many of the Responses acknowledge the benefits of the project</li> <li>• Local benefits should be maximised, and further detail should be provided on how this will be achieved;</li> <li>• Issues surrounding compensation of affected parties was raised by a number of communities;</li> <li>• Concerns were had regarding the spatial scale of the assessment.</li> <li>• The impact upon a strategic development site was raised by one business</li> </ul> <p>How are they being dealt with:</p> <p>Local benefits will be maximised with the scope of the assessment to be adjusted accordingly. In addition to this consideration is being given to the inclusion of a draft employment plan in the final application.</p> <p>Due to the conclusion of limited impact RWE does not see the need for specific compensation, however this will be continually reviewed by RWE NW raised concerns about special scale of the assessment. It was suggested it hasn't been taken to a fine enough level of detail spatially.</p> <p>NE: This was something tested by the scoping exercise with PINS and it was agreed that the spatial extent of the assessment was suitable due to the receptors present but the scope could be narrowed to focus on smaller areas if deemed necessary for specific receptors.</p> <p>NW raised concerns about the uncertainty of supply chains and maintenance and asked if it had been taken into account that a large amount of activity may take place outside of Wales</p> <p>PC: RWE are doing a lot of work to understand supply chain and opportunities as part of the CFA process. We must provide a supply plan which dictates that 60% of the content must be UK sourced. If these bases are not in North Wales it wouldn't be right to assess these positive benefits but rather the worst case</p> <p>NE: There are plans in place to support skill development and the possibility of a local skills and employment plan</p> <p>MFa: asked whether consultees had anything further to add to the Tourism and Socio Economics presentation?</p> <p>SW: confirmed that there is nothing that has taken them by surprise in the feedback, but is reassuring to read points raised and to see the next steps provide what they expect to be covered.</p> <p>SW was overall happy with the responses and was reassured to see the points raised and stated that it covers the expected topics of concern</p>

	<p>AC: welcome intention to create employment and skills plan look at plan prepared by horizon as some key connections were made using north Wales ambition board and north Wales skill partnership should engage with these bodies</p> <p>AC welcomes the intention to create an employment and skills plan. Suggests RWE look at a similar plan undertaken by Horizon (Wylfa Newydd) as there were some key connects made with the North Wales Ambition Board and the North Wales Skills Partnership, These would be good bodies to engage with moving forward</p> <p>PC: The employment and skills plan is more a consideration at this point rather than a certainty. This is something that must be understood in more detail to see how these opportunities can be delivered through such a plan and to ensure nothing is unnecessarily duplicated.</p> <p>AC: There needs to be clear guidance on where the plan is included within application</p> <p>PC the contract comes after DCO and is parallel but gives us food for thought on how we approach it.</p>
5	<p><b>Traffic and Transport</b></p> <p>DM noted the key concerns raised by stakeholders were as follows:</p> <ul style="list-style-type: none"> <li>• There was some confusion surrounding the speed limit that was reported in the PEIR along Glascoed Rd B5381, this will be further explained in a clarification note</li> <li>• Disruption concerns relating to the A55 that had been raised will be addressed in a clarification note</li> <li>• Concerns were raised by the Welsh Government and Denbighshire County Council over impacts/closures affecting public right of way</li> <li>• Flintshire County Council questioned why traffic and transport effects associated with future use of the Port of Mostyn had not been covered</li> </ul> <p>To address the Public right of way issues Public Access Management Plan (PAMP) was provided within PEIR documentation which is an outline document and sets out proposals for temporary diversion rather than a permanent stopping up of works. There are some areas in use but disruption will be minimal with the appropriate management and the PAMP will be updated throughout the project</p> <p>PhC: The speed limit on Glascoed Rd B5381 is 30mph as you come out it then changes to 40mph till Dong Energy entrance and then drops back to 30mph</p> <p>Not port confirmed for activities so no assessment necessary</p> <p>DM: Further options and other routes available with more detail will be added into the PAMP as it goes on. The PAMP will need to be signed off before works take place so the detail will be included before works begin</p>
6	<p><b>Noise</b></p> <p>The key concerns surrounding noise by the stakeholder are as follows:</p> <ul style="list-style-type: none"> <li>• Denbighshire County Council (DCC) raised concerns about the HDD noise at the landfall location</li> <li>• DCC had requested noise abatement plans</li> </ul>

	<ul style="list-style-type: none"> <li>Conwy County Borough Council raised concerns about the background noise surveys and ask for more NSRs to be assessed for consideration of offshore noise arising from turbine construction</li> <li>Glyndwr University raised concerns about the ground vibration on the existing facility</li> </ul> <p>Denbighshire as part of their concern asked for working hours restricted from 7-7 to 8-6 which can now be confirmed, Abatement plans were also requested by DCC which had been included in the outline Code of Construction Practise (CoCP) provided at PEIR.</p> <p>A community engagement proposal will also be included in the CoCP this will be an outline plan for agreement post consent to assess what the measure for community engagement will be.</p> <p>Conwy CBC are concerned background noise and had requested further survey. It was noted tat during the previous survey the weather conditions were exceptionally calm with no wind and bright sunshine so the level of background was low. It was suggested that further assessment should be undertaken for background noise levels</p> <p>SW had no further comment but noted this should be picked up with specific technical groups.</p> <p>Glyndwr University will be consulted about their concerns on ground vibration.</p> <p>SL (GoBe) the additional location for baseline monitoring in the feedback received are the proposed locations identified. They based their assessment on very low background values measured further along coast of Rhyl</p> <p>BS stated it may be better to assess closer to array</p> <p>SLR took an action to provide the link for code of construction practise to PhC and DCC [Action point 3]</p> <p>SLR also took an action to discuss background noise levels with Conwy CBC EHO directly</p>
7	<p>Air Quality, EMF and Waste</p> <p>MF began by noting the key concerns raised by Stakeholders were as follows:</p> <ul style="list-style-type: none"> <li>DCC agreed there were no significant effects on air quality</li> <li>DCC have requested Dust management and measures</li> <li>NRW sought clarification on the time period used in the assessment</li> <li>NRW sought clarification on the methodology for defining effectiveness of mitigation</li> <li>NRW stated In combination assessment should also be applied to the national sites</li> <li>NRW sought clarification on whether emissions from possible Non-Road Mobile Machinery (NRMM) are included</li> </ul> <p>A Dust assessment was provided as part of the CoCP and further signposting can be provided if it has slipped through the radar, is there anything else that DCC needed to be provided with?</p> <p>PhC replied What has been supplied will be sufficient but not sure that it was seen MF to send link to documents (dust management plans)</p> <p>NRW had points to make but these related to ecological rather tha human receptors and so these points have been noted and acknowledged and picked up by ES</p> <p>PhC agrees that the NRMM can be screened out of the EMF</p> <p>PHW request further info on how maximum EMF fields have been estimated</p> <p>Number will be below government guidelines as the corridor has been reduced in width and therefore the distance to residential projects has been increased</p>

	<p>MF gave confirmation that EMF will be below government guideline</p> <p>KJ stated as long as it follows the guidance and policy then it is okay, but PHW want specific numbers that demonstrate this will be achieved</p> <p>PHW want to see compliance well within ICNIRP thresholds</p> <p>WASTE</p> <p>NRW comments have been reviewed will be incorporated in waste management plan final</p>
8	<p>Next steps &amp; AOB</p> <p>KJ stated that one of the COP26 lectures featured a company researching sustainable blades from fabric which is only early stages. KJ also highlighted the point that renewable generation and the contribution AyM would make to the achievement of net zero carbon emissions should be included in the health chapter (or if covered elsewhere then a cross reference added in)</p> <p>MF suggested that the planning statement may be the best place to place it if it not contained within it already</p> <p>KJ: not asking to repeat details but just to put in a line of reference</p> <p>SLR took and action to add reference in public health chapter contribution to net zero, is in site selection but will pick up again in planning statement [Action point 1]</p>

Agenda Item	Action	Who?	Due Date
1	Add reference in public health chapter the contribution to net zero that the project will make.	SLR	Application
2	Organise public right of way discussion agenda for November	SLR/GoBe	11/11/21
3	MFa to provide the link for code of construction practise to Phillip and DCC	SLR	12/11/21
4	Arrange discussion with Conwy EHO to ensure baseline noise is considered at appropriate locations (for the purposes of understanding offshore construction noise)	SLR	12/11/21

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**TRAFFIC & TRANSPORT, AIR QUALITY, NOISE, HEALTH AND SOCIO ECONOMICS**  
**EVIDENCE PLAN MEETING MINUTES– 9<sup>TH</sup> DECEMBER 2019**

<b>MEETING ORGANISER:</b>	innogy
<b>LOCATION:</b>	Upper Boardroom, The Management Centre, College Rd, Bangor LL57 2DG
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm
<b>ATTENDEES:</b>	<p>HELEN THOMAS (INNOGY) (HT)</p> <p>KAREN ALGATE (INNOGY) (KA)</p> <p>ALEX HERBERT (INNOGY) (AH)</p> <p>PAUL CARTER (INNOGY)(PC)</p> <p>THOMAS CRAWFORD (INNOGY)(TC)</p> <p>DAVID EVANS (NORTH &amp; MID WALES TRUNK ROAD ASSOCIATION) (DE)</p> <p>HUGH WILLIAMS (CONWY BOROUGH COUNCIL) (HW)</p> <p>DYLAN LLEWELYN JONES (ANGLESEY COUNCIL) (DIALLED-IN) (DLJ)</p> <p>ALED HUGHES (PUBLIC HEALTH WALES) (AHUGHES)</p> <p>KRISTIAN JAMES (PUBLIC HEALTH WALES) (DIALLED-IN) (KJ)</p> <p>NICOLA SOLLY (GOBE CONSULTANTS) (NS)</p> <p>SAMMY MULLAN (GOBE CONSULTANTS) (SM)</p> <p>BEN SARTON (SLR CONSULTING) (BS)</p> <p>ANNE DUGDALE (SLR CONSULTING) (AD)</p> <p>DANIEL MORAN (SLR CONSULTING) (DM)</p> <p>RUTH HENDERSON (RHDHV) (DIALLED-IN) (RH)</p>
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<p>PAUL MEAD (DENBIGHSHIRE BOROUGH COUNCIL)</p> <p>PAULA JONES (CONWY BOROUGH COUNCIL)</p> <p>BETHAN LLOYD (CONWY BOROUGH COUNCIL)</p> <p>ANGHARAD CRUMP (ANGLESEY BOROUGH COUNCIL)</p> <p>MIKE JONES (DENBIGHSHIRE COUNCIL)</p> <p>SIMON COTTRILL (CONWY BOROUGH COUNCIL)</p> <p>RHIANNON HAYES (CONWY BOROUGH COUNCIL) (DIALLED-IN)</p> <p>RHIAN DAVIES (CONWY BOROUGH COUNCIL) (DIALLED-IN)</p> <p>LIANNE MARTIN (CONWY BOROUGH COUNCIL) (DIALLED-IN)</p>

Documents provided:	Filename
Consultation roadmap	AyM OWF ETG roadmap T&T, AQ, Noise, Health, SocEc.pdf
Initial review note – Air quality	AyM_AirQuality_ShortNote_Final.pdf
Initial review note – Highways and traffic	AyM_Highways&Traffic_ShortNote_Final.pdf
Initial review note – Noise and vibration	AyM_Noise_ShortNote_Final.pdf
Initial review note – Socio-economics	AyM_Socio-economics_ShortNote_Final.pdf
Draft Terms of Reference	GyM_Ext_Evidence_Plan_ToR_v1_131119.pdf
Meeting agenda	Traffic, Noise, Air Quality, Health, Socio-Economics ETG Agenda.pdf
Slides presented in the meeting	ETG Pre-Scope Traffic Transport Noise ETC.pdf



Agenda item	Minutes
1	<p><b>Innogy in Wales</b></p> <p>KA welcomed all participants to the meeting and outlined the agenda.</p> <p>KA noted that innogy provide approximately one third of Welsh's renewable energy. KA presented the innogy projects within Wales and noted that Awel y Môr would add a notable contribution to the carbon targets for Wales. The project is anticipated to be operational by 2030.</p>
2	<p><b>Project overview</b></p> <p>KA presented an overview of the project including that the area for lease (Afl) was granted by The Crown Estate (TCE) in October 2019. KA explained that innogy is leading the Awel y Môr project with numerous project owners.</p> <p>KA noted that innogy are at the very early stages of the project development but seeking to undertake early stakeholder engagement to inform decisions.</p> <p>KA explained that innogy is seeking to begin consultation early to help identify issues early in the application process. The project (Awel y Môr) qualifies as a Nationally Significant Infrastructure Project (NSIP) requiring a Development Consent Order (DCO) and will also require a Marine Licence (ML) from Natural Resources Wales (NRW) on behalf of the Welsh Government.</p> <p>KA presented a plan of the proposed development location in relation to the existing offshore wind farm (OWF) projects. The Afl is 106 km<sup>2</sup> however the array area may be only a portion of this area. The existing Gwynt y Môr (GyM) turbines are rated as 3.6 MW but Awel y Môr turbines are expected to be 12-22 MW, or above (this is to future proof the project). The grid connection is proposed to be at Bodelwyddan.</p> <p>KA presented the work undertaken to date including commencement of scoping drafting, ecological surveys (offshore birds and marine mammals), conversations for grid connection are underway. KA noted that innogy has formally informed PINS and NRW of the project.</p> <p>KA presented a high-level project timeline which is driven by the Agreement for Lease this year and by the CfD auction in 2023 (or 2025). The current programme for application submission is November 2022. KA noted that duplicate applications (one for the DCO and one for the ML) will be submitted as per previous offshore NSIPs in Wales. The aim is to be operational by 2030 to contribute to meeting the targets the Welsh Government has set.</p>
3	<p><b>Planning Act Overview</b></p>

	<p>AH provided an overview of the NSIP process (under the Planning Act 2008) including the key principles. It was brought in to simplify the consenting process for major infrastructure projects. The DCO process requires front loaded consultation and the application to be of sufficient quality, therefore innogy is beginning the Evidence Plan (EP) process to adhere to these principles. AH noted that PINS has an outreach programme where they will send case officers to explain the process.</p> <p>AH noted that the examination process is unusual in that it is primarily a written process (with some issue specific hearings) as opposed to an enquiry format. The application be will made against the relevant NPS statements (energy and renewable are in place and the most relevant to Awel y Môr).</p> <p>The DCO provides a single consent/ statutory instrument with numerous powers, including compulsory acquisition of land and/ or rights over land. The DCO process is front loaded and the aim of the consultation is to resolve issues prior to examination. The timeframes are fixed following acceptance (if of sufficient quality) – six months of examination, three months for panel to make recommendation and three months for the Secretary of State (SoS) to make a decision.</p> <p>The EIA and Habitats Regulation Assessment (HRA) regulations will be critical to the DCO process with the mitigation to be secured within the DCO (and ML). A Rochdale envelope approach will be utilised in the EIA (and assessments) to ensure that the potential worst case scenarios have been assessed whilst enabling flexibility within the consent (to future proof the technology) to be built in.</p> <p>AH presented a list of the anticipated documents to be submitted for the DCO application. AH noted that a bespoke signposting document would be to be created for the ML application clearly indicating the parts of the application of relevance to the ML. Duplicates of all documents will be submitted for the DCO and ML applications.</p>
<b>4</b>	<p><b>Evidence Plan (EP) Process</b></p> <p>AH presented the topics being considered under the EP. AH requested feedback on the proposed structure of the panels and invited stakeholders to attend any other ETG groups should they wish. No comments were made.</p>
<b>5</b>	<p><b>The Scoping Report</b></p> <p>NS presented a high-level overview of the scoping study being undertaken. The Scoping Report seeks to define the scope of the subsequent EIA process (i.e. what should be scoped in or out) and identify potential Likely Significant Effects (LSE) at an early stage and ensure that the assessment is proportionate. The Scoping Report will also propose further survey requirements and proposed methodology for the EIA.</p>

	<p>The Scoping Report is programmed to be submitted to PINS in March 2020 for consultation under the formal PINS process which includes 28 days for stakeholders to provide their consultation responses to PINS which will be fed into the Scoping Opinion.</p> <p>NS provided an overview of the structure of the Scoping Report including the general and technical chapters. She noted that a summary of impacts to be scoped in and out will be provided in the Scoping Report.</p> <p>NS provided an overview of what aspects will be covered within the technical chapters in the Scoping Report, including the baseline, methodology for EIA, items to be scoped in (and out) and proposed embedded mitigation. She also noted that project specific questions will be included, which are directed to consultees, which innogy is seeking feedback on.</p>
<b>6</b>	<p><b>Evidence Plan Terms of Reference</b></p> <p>NS provided a brief overview of the Evidence Plan (EP) process. She explained that it is a formal tool to agree the information presented and approach undertaken in the DCO and ML applications. The process provides formal structure and general rules under which agreement will be sought.</p> <p>The project will be seeking to gain consensus on the information which informs the assessment which will help to reduce disagreements in the examination phase and the development of Statements of Common Ground (SoCG).</p> <p>NS presented the roles and responsibilities of the steering group and the Expert Topic Groups (ETGs).</p> <p>NS noted that a draft ToR (previously circulated) seeks to set out the process for engagement with stakeholders under the EP. The document includes the proposed parties, roles, responsibilities and general rules of the EP.</p>
<b>7</b>	<p><b>Site Selection and Alternatives</b></p> <p>This part of the meeting was presented by RH and the site selection study will be undertaken by Royal Haskoning DHV.</p> <p>RH highlighted that the project must demonstrate that reasonable alternatives (technology, location, infrastructure, techniques etc) have been considered. The selection must also be environmentally acceptable whilst ensuring that the lowest costs of energy to be passed to consumers.</p> <p>The site selection will be an iterative process, undertaken by a multi-discipline team (technical specialists, land agents and legal), to identify the most suitable design and locations for infrastructure. RH presented that the process will seek to avoid directly impacting designated sites,</p>

	<p>road crossings, rail crossings, shortest and feasible cable route, seeking to utilised screening from existing features and using design/ construction techniques. The process also seeks to avoid or reduce potential impacts through sensitive siting, i.e. avoidance of designated sites and features.</p> <p>RH presented the AfL, the proposed grid connection at Bodelwyddan and noted that the area of search has been defined by these two infrastructure requirements. The project is seeking to refine the proposed onshore and offshore cable route. The routes will link the landfall location and a project specific substation (prior to being connected to the grid).</p> <p>RH presented the key requirements (including EIA Regulations, National Planning Policy Framework, National Policy Statements, The Horlock Rules, The Holford Rules etc.) which the project will seek to adhere to in the site selection study – see slide 29 for full details. Topic specific guidance and best practice will also be considered.</p> <p>RH noted that under the Evidence Plan, innogy is seeking to discuss the site selection and alternative process, to ensure that stakeholders are consulted at key milestones, provide early feedback and ultimately stakeholder buy-in (locations, data, considerations etc.). RH noted that as well as avoiding negative impacts it's about harnessing opportunities and enhancement.</p>
8	<p><b>Noise and Vibration</b></p> <p>This part of the meeting was presented by BS and the noise and vibration scoping study will be undertaken by SLR Consulting.</p> <p>BS presented that noise (and vibration (if required based on local receptors) surveys will be undertaken to quantify the baseline. Night time surveys may also be undertaken if required. BS proposed to agree the scope and methodology of these surveys with the ETG (and specifically the environment health officers (EHOs) for the Local Authorities (LAs) later in the EIA.</p> <p>BS presented the proposed impacts to be scoped into the EIA assessment:</p> <ul style="list-style-type: none"> <li>• Construction vibration effects arising from the installation of the underground cable trenching and substation construction (potential piling activities);</li> <li>• Potential effects of construction and operational noise on wildlife depending on the site selection; and</li> <li>• Potential impact due to the operational phase of the substation due to generated noise from the associated power transformers.</li> </ul> <p>BS presented that the following impacts are proposed to be scoped out from further assessment within the EIA:</p> <ul style="list-style-type: none"> <li>• noise effects associated with the operation of the underground cable; and</li> </ul>

	<ul style="list-style-type: none"> <li>operational vibration effects arising from the operation of the substation and underground cables.</li> </ul> <p>BS noted that the mitigation measures will be designed during the EIA process and will ensure that the noise effects are reduced to acceptable levels (especially at night). NS requested any feedback from the parties present on the proposed scope, no comments were made.</p> <p>HW queried why the existing cable and substation infrastructure for GyM couldn't be used for Awel y Môr. PC explained that the existing infrastructure (cables and substations) would not have sufficient capacity.</p> <p>HW noted that two out of six of the landfalls and the substation location are in Denbighshire Councils' jurisdiction. PC assured that Denbighshire Council are aware of the proposed project and have attended previous ETGS.</p> <p>AHughes clarified that they would consider the information and provide formal feedback.</p> <p>AHughes noted that PWH would be interested in the potential for cumulative noise effects.</p>
9	<p><b>Traffic and Transport</b></p> <p>This part of the meeting was presented by DM and the traffic and transport scoping study will be undertaken by SLR Consulting.</p> <p>DM provided an overview of the data being proposed to inform the baseline of the EIA – see slide 38. No comments were made regarding the sufficiency of the data sources.</p> <p>DM noted that more detail on the Public Rights of Way (PRoW) and the potential for diversions and closures will be considered and presented in the EIA as this will be dependent on the refinement of the project design.</p> <p>DM asked DE whether accident data are held for the A55. DE confirmed that the Welsh Government hold the information and that access to the data would need to be granted.</p> <p>DE to e-mail HT with Welsh Government contact details.</p> <p>DM asked if any areas of the network are especially sensitive. DE outlined that any works relating to the A55 will require the consideration of the New Roads and Street Works Act 1991 (a Section 51 licence to permit boring under the A55 would be required).</p> <p>DM outlined the proposed impacts to be scoped into the EIA assessment – see slide 39. These included –</p> <ul style="list-style-type: none"> <li>Driver severance and delay, including any AIL vehicle movements;</li> </ul>

	<ul style="list-style-type: none"> <li>• Community severance and delay;</li> <li>• Road Safety;</li> <li>• Vulnerable road users; and</li> <li>• Dust and dirt.</li> </ul> <p>DM also provided the effects which are proposed to be scoped out from assessment within the EIA:</p> <ul style="list-style-type: none"> <li>• Noise as this will be considered in Noise chapter; and</li> <li>• Any impact during the operational phase.</li> </ul> <p>DM requested feedback on the proposed scope of the EIA.</p> <p>DE recommended that the Active Travel Wales Act is considered. This was agreed.</p> <p>DM presented the additional data requirements to inform EIA once cabling sites and substation location have been identified and scope of assessment agreed (see slide 40). This would also include potential traffic surveys on roads / junctions that require assessing and where there is a gap in baseline data. DM noted that they would be seeking to adhere to best practice.</p> <p>DM presented potential best practice mitigation options which could be considered if significant effects (in EIA terms) are identified – see slide 41.</p> <p>It was recommended that Sustrans should also be consulted. – see actions.</p> <p>It was confirmed that it was too early to specify how materials would be delivered to site (i.e. by sea / by road)</p> <p>DE asked which would be the key/ primary port for the development. PC explained that the EIA would outline key assumptions for this but it is not known at this time.</p>
10	<p><b>Socio-economics</b></p> <p>This part of the meeting was presented by AD and the socio-economics (and the onshore tourism and recreation) scoping study will be undertaken by SLR Consulting.</p> <p>AD presented that the wider study would be considered, which includes both Conwy and Denbighshire Council jurisdictions. The local area of influence being considered within the Scoping Report will be 5km. This area represents that which could be affected by construction works.</p> <p>AD explained that the assessment will consider the seasonality of the receptors. The assessment will also consider how the offshore infrastructure may affect onshore tourism receptors based on the ZTV.</p>

AD requested early feedback on the information presented. AD confirmed that Snowdonia and Anglesey would be considered.

DLJ noted that Penmon point should be considered as a key viewpoint which could be impacted. AD noted that they are seeking to understand the impact of the changes in the seascape and how this could affect tourists perception and numbers. [Post meeting note: the viewpoints for the seascape visual assessment will be agreed in with the SLVIA ETG group and all stakeholder feedback would be welcomed]

KJ enquired as to the number of construction workers and whether a working village would be required. PC noted that Awel y Môr would be orders of magnitude lower than Wylfa and as such no construction workers village would be required. HT noted that whilst it was too early to confirm these sorts of details for the AyM project, the onshore requirements for GyM where the workers were housed in local accommodation could be considered. AD noted that there may be local socio-economic benefits to accommodation providers and HT reminded of the wide range of businesses involved in a wind farm project.

AD outlined the potential effects which are proposed to be scoped in for assessment in the EIA:

- Economy (labour market and GVA) including local supply chain;
- Disruption to tourism and recreational receptors due to construction of the onshore infrastructure;
- Displacement of tourism visitors due to competition for accommodation; and
- Long term impact on tourism receptors and tourism economy due to presence of wind farm.

AD noted that the assessment will also seek to understand the potential benefits (and opportunities) for the local economy. AD noted that the occupancy rates would be considered to understand seasonality and pinch-points and would be assessed against the construction programme. The wider tourism economy would be considered in the short and longer terms.

AD presented effects proposed to be scoped out of the EIA:

- Impact of construction on demand for community services such as housing, schools, healthcare due to influx of workers;
- Impact on recreational facilities that principally serve local users, e.g. football pitches or are indoor, e.g. bowling alley; and
- Impact on local area of influence due to presence of onshore infrastructure during operational phase.

HW requested that further consideration is given to whether workers could affect the local health services and community services (health and schools). AD agreed to consider this further and to provide a justification if this or any other potential impact is proposed to be scoped out.



	<p>DLJ highlighted the potential displacement of tourists from accommodation, this should be considered and not scoped out. AD agreed to consider this further.</p> <p>AD noted that the project will have much lower numbers of workers than many other NSIP projects. JW highlighted that a full justification would be required if effects are proposed to be scoped out of the EIA.</p> <p>AD noted that the assessment would be informed by noise, traffic and landscape assessments. AD highlighted that the project would undertake a desk-based assessment but no site-specific surveys are proposed at this time. Socio-economic modelling would be undertaken to inform the EIA. She noted that there is a wealth of information on the effects of the presence of OWF on tourism from other projects.</p> <p>Following a suggestion by DLJ it was agreed that the North Wales Economic Ambition Board should be invited to attend the Evidence Plan – see actions. HT confirmed that innogy have made them aware of the project and could invite someone along.</p>
11	<p><b>Air Quality</b></p> <p>This part of the meeting was presented by AD and air quality scoping study will be undertaken by SLR Consulting.</p> <p>AD outlined that a standard approach to collecting data, from both local and national datasets, is proposed to inform the baseline. AD explained that no project specific surveys are proposed to be undertaken.</p> <p>AD presented the potential effects proposed to be scoped into the EIA:</p> <ul style="list-style-type: none"> <li>• Construction phase air quality impacts (dust) associated with landfall works, underground cable installation and sub-station construction; and</li> <li>• Possible impacts associated with construction phase traffic, although this would be reviewed when more data is known regarding likely traffic generation.</li> </ul> <p>AD presented the potential effects proposed to be scoped into the EIA:</p> <ul style="list-style-type: none"> <li>• Operational effects associated with cable route, sub-station and landfall as no air quality effects would arise during this phase.</li> <li>• Construction phase traffic effects due to the volume of traffic generated at this stage. This would be confirmed once more is known regarding the likely volume of construction phase traffic.</li> </ul> <p>KJ suggested that innogy should consult with the LAs. PHW view is that where background concentrations for relevant pollutants are below air quality standards (AQS), project activities must seek to prevent or minimise any increase above those background concentrations. The difference between low background concentrations and the AQS, sometimes referred to as 'headroom', must not be seen as an option / opportunity to pollute up to. This was noted.</p>



12	<p><b>Health</b></p> <p>This part of the meeting was presented by SM and the health scoping study will be undertaken by GoBe Consultants.</p> <p>SM explained that it was the intention to provide a separate chapter on health in both the Scoping Report and in the PEIR/ES. This was welcomed by the parties present. SM highlighted that these would essentially be sign-posting chapters which draw on the technical assessments (including air quality and noise). This was agreed to be appropriate.</p> <p>KJ confirmed that the PHW would provide formal consultation through the public health board. KJ suggested that the wellbeing assessments undertaken by Conwy and Denbighshire Councils should be drawn upon – this was agreed.</p> <p>HW highlighted that any potential positive health impacts should be included within the chapter. SM agreed to consider these potential impacts.</p>
13	<p><b>AOB</b></p> <p>KA confirmed that minutes will be issued along with the roadmap. She confirmed the next meeting is proposed to be February/March 2020.</p> <p>KA noted that innogy's contact details have been provided.</p>

Agenda Item	Action	Who?	Due Date
<b>1</b>	No actions recorded	N/A	N/A
<b>2</b>	No actions recorded	N/A	N/A
<b>3</b>	No actions recorded	N/A	N/A
<b>4</b>	No actions recorded	N/A	N/A
<b>5</b>	No actions recorded	N/A	N/A
<b>6</b>	All parties to review the draft ToR and provide feedback or requested amendments.	All	31/01/19
<b>7</b>	All parties to review and provide feedback on the stakeholder roadmaps.	All	31/01/19
<b>8</b>	No actions recorded	N/A	N/A
<b>9</b>	To provide appropriate WG contacts.  To provide an appropriate Sustrans contact.	DE  WH	Provided - 09/12/19  23/12/19
<b>10</b>	To invite the North Wales Economic Ambition Board and Local Service Boards to the Evidence Plan.	innogy	Prior to the next meeting
<b>11</b>	No actions recorded	N/A	N/A
<b>12</b>	No actions recorded	N/A	N/A
<b>13</b>	No actions recorded	N/A	N/A

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**TRAFFIC & TRANSPORT CONSULTATION TELEPHONE CALL MINUTES – 14<sup>TH</sup> JANUARY 2020**

<b>MEETING ORGANISER:</b>	innogy
<b>LOCATION:</b>	Tele con
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm
<b>ATTENDEES:</b>	DANIEL MORAN (SLR CONSULTING) (DM) HELEN THOMAS (INNOGY) (HT) KAREN ALGATE (INNOGY) (KA) NICOLA SOLLY (GOBE CONSULTANTS)(NS) RICHARD EVANS (CONWY BOROUGH COUNCIL) (RE)
<b>APOLOGIES/ MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	-

Documents provided:	Filename
Slides presented in the meeting	ETG Pre-Scope Traffic Transport Noise ETC.pdf

Agenda item	Minutes
<b>1</b>	<b>Innogy in Wales</b> KA introduced the project and explained that innogy provide approximately one third of Welsh's renewable energy. KA presented the innogy projects within Wales and noted that Awel y Môr would add a notable contribution to the carbon targets for Wales. The project is anticipated to be operational by 2030.
<b>2</b>	<b>Project overview</b>  KA presented an overview of the project including that the area for lease (Afl) was granted by The Crown Estate (TCE) in October 2019. KA explained that innogy is leading the Awel y Môr project with numerous project owners.

	<p>KA noted that innogy are at the very early stages of the project development but seeking to undertake early stakeholder engagement to inform decisions.</p> <p>KA explained that innogy is seeking to begin consultation early to help identify issues early in the application process. The project (Awel y Môr) qualifies as a Nationally Significant Infrastructure Project (NSIP) requiring a Development Consent Order (DCO) and will also require a Marine Licence (ML) from Natural Resources Wales (NRW) on behalf of the Welsh Government.</p> <p>KA presented a plan of the proposed development location in relation to the existing offshore wind farm (OWF) projects. The AfL is 106 km<sup>2</sup> however the array area may be only a portion of this area. The existing Gwynt y Môr (GyM) turbines are rated as 3.6 MW but Awel y Môr turbines are expected to be 12-22 MW, or above (this is to future proof the project). The grid connection is proposed to be at Bodelwyddan.</p> <p>KA presented the work undertaken to date including commencement of scoping drafting, ecological surveys (offshore birds and marine mammals), conversations for grid connection are underway. KA noted that innogy has formally informed PINS and NRW of the project.</p> <p>KA presented a high-level project timeline which is driven by the Agreement for Lease this year and by the CfD auction in 2023 (or 2025). The current programme for application submission is November 2022. KA noted that duplicate applications (one for the DCO and one for the ML) will be submitted as per previous offshore NSIPs in Wales. The aim is to be operational by 2030 to contribute to meeting the targets the Welsh Government has set.</p> <p>RE can only comment on landfalls 1-4 as landfalls 5-6 lie outside of the Conwy BC.</p>
<b>3</b>	<p><b>Traffic and Transport</b></p> <p>This part of the call was presented by DM and the traffic and transport scoping study will be undertaken by SLR Consulting.</p> <p>DM provided an overview of the data being proposed to inform the baseline of the EIA – see slide 38.</p> <p>RE requested that the presence of Active Travel routes be taken into consideration. The legacy that the project can provide should be considered by innogy. For example, RE would like to see the project provide improvements to the cycleway and footpath network. A potential opportunity could be through leaving in place haul routes and the future use of such haul routes should be taken into consideration when deciding their design and location. This would be advantageous to the local population and it is likely to encourage them to be supportive of it.</p>

	<p>RE recommended that the Conwy BC website is consulted for the location of INM/ aspirational shared routes in the area.</p> <p>KA confirmed that innogy would consider RE's request for providing long term improvements.</p> <p>RE highlighted that if construction traffic were to travel through Abergele (particularly the centre or slip road 23A/24) that would be of concern.</p> <p>KA explained that the WTGs will be brought in from the sea rather than land and it isn't known yet which port will be used.</p> <p>DM explained that the construction works are likely (based on GyM experience) to generate roughly the following amount of traffic:</p> <p><b>Cable installation:</b></p> <ul style="list-style-type: none"> <li>• 30 construction works per cable site</li> <li>• 20-30 HGVs per site</li> </ul> <p><b>Substation:</b></p> <ul style="list-style-type: none"> <li>• 20-30 workers</li> <li>• 20-50 HGV movements per day</li> </ul> <p>DM will be sourcing accident data for the local road network. RE confirmed that these are obtainable through the Welsh Government.</p> <p>RE will forward to innogy (via HT) a guidance document that the council have on the parameters that should be included in the traffic assessment.</p> <p>RE requested that if any highways traffic counts are made that the results of these be shared with the council.</p>
4	<p><b>AOB</b></p> <p>A second ETG meeting for traffic and transportation matters will be held in end of Feb/ early March to discuss the site selection. RE will be sent an invite.</p> <p>HT requested that any of the project information is not shared outside of Conwy Borough Council.</p> <p>RE requested that future meetings be held further east than Bangor (such as near Llandudno junction). HT agreed to consider this request.</p> <p>HT to forward the Terms of Reference Evidence Plan document to RE and comments are welcomed on it.</p>

Agenda Item	Action	Who?	Due Date
<b>1</b>	No actions recorded	N/A	N/A
<b>2</b>	No actions recorded	N/A	N/A
<b>3</b>	RE to e-mail to HT a copy of the council's guidance document for traffic assessment	N/A	N/A
<b>4</b>	HT to forward Terms of Reference document for the Evidence Plan	N/A	N/A

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**HUMAN ENVIRONMENT EXPERT TOPIC GROUP – TRAFFIC AND TRANSPORT SUB-GROUP MEETING  
 MINUTES**

**MONDAY 29 MARCH 2021, 15:00 TO 16:00**

MEETING ORGANISER:	RWE																																																	
LOCATION:	Teams dial in/Teleconference																																																	
PROJECT	Awel y Môr Offshore Wind Farm																																																	
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Documents provided:	Filename
Technical Note: Data Requirements (Traffic and Transport Chapter)	Provided by e-mail 11/03/2021
05356.00009.0092.1 Onshore Infrastructure Overview	Provided by e-mail 25/03/2021

Agenda item	Description
1	Introductions and aim of the meeting

2	KA Provided an update on the project, confirming choice of Route and Substation.
3	<p><b><u>Assessment Update</u></b></p> <p>DM provided an update in terms of Traffic and Transport. Following finalisation of the onshore cable corridor route, the following has been undertaken:</p> <ul style="list-style-type: none"> <li>• Liaison with the design team on the construction / permanent access options</li> <li>• Site visits to review the site access and construction traffic route options and the identification of sensitive receptors</li> <li>• PRoW walkover and crossing management review</li> <li>• Trip generation and distribution calculations based on maximum design scenarios</li> <li>• Issue of Traffic and Transport technical Note</li> <li>• Data requests and arranging new surveys</li> <li>• Data for Air Quality team, for screening</li> </ul>
4	<p><b><u>Access and Routing</u></b></p> <p>DM provided a summary of the landfall area, cable route and substation zone as presented on the infrastructure overview plans circulated to attendees before the meeting.</p> <p>MP highlighted that the B5119 is a very narrow road with several accidents recorded and sensitive receptors to the west. Use of this road for HGVs needs to be carefully considered</p> <p>MP asked who the Project had sought views from in the past</p> <p>MF responded that feedback had been sought from DCC in the past with limited response. The Awel y Mor proposals are based upon construction access for Burbo Bank Extension which also had construction access using the B5119</p>
5	<p><b><u>Baseline Data for Assessment</u></b></p> <p>DM set out that data would be sourced from the following</p> <p>Traffic Data</p> <ul style="list-style-type: none"> <li>• DfT Road Data Statistics (largely 2019 estimated flows)</li> <li>• New surveys - ATCs commissioned in April to supplement Dft Data, plus speed data</li> </ul> <p>Accident Data</p> <ul style="list-style-type: none"> <li>• STATS19 data requested for the routes identified</li> </ul> <p>PRoW / ATR Data</p> <ul style="list-style-type: none"> <li>• Informed by site audits and input from the Recreation team</li> </ul> <p>Abnormal Loads (Substation)</p> <ul style="list-style-type: none"> <li>• Review of Gwynt y Mor ALA, identify any changes to the highway network, additional Swept path analysis</li> </ul>
	<p><b><u>Trip Generation and Distribution Parameters</u></b></p> <p>DM summarised trip generation parameters as:</p>



	<p>Design Options (for Northern and Southern Cable Routes):</p> <ul style="list-style-type: none"> <li>Southern Landfall Option - Sections A/B and some Section C vehicles via B5119 west</li> <li>Southern Landfall Option - Sections A/B and some Section C vehicles via B5119 south</li> <li>Northern Landfall Option - Section A/B vehicles via A548/Rhyl</li> </ul> <p>All Traffic via A55 J26 or 27:</p> <ul style="list-style-type: none"> <li>Section A - E – J27, with some Section E vehicles using the Access N at J26</li> <li>Sections F – G – J26</li> </ul>
	<p><b><u>Assessment Parameters</u></b></p> <p>DM gave the scenarios that for each Design Option as</p> <ul style="list-style-type: none"> <li>Peak month of construction (Total Traffic) – Month 9</li> <li>Average across the 18 month programme</li> <li>Sensitivity Test - maximum HGVs to each construction access</li> </ul> <p>DM also confirmed other assessment assumptions</p> <ul style="list-style-type: none"> <li>Core Working / HGV delivery hours 07:00 to 19:00</li> <li>A small proportion (10%) of employees travelling in highway peak hours</li> <li>2 employees per car</li> </ul>
	<p><b><u>Trip Generation</u></b></p> <p>DM provided some example trip generation figures including 26 two-way HGVs per day (Peak Month 9), which is around one per hour in each direction, associated with the landfall HDD (Section A/B) using the B5119. Some additional HGVs associated with Section C may also use the B5119, but the likely maximum (around 20 two-way per day) would coincide with much lower trip generation for Section A/B.</p> <p>DM also set out that the likely peak hour trip generation (total vehicles) would be less than 30 two-way vehicle movements on any link, which would typically be a threshold for the requirement for junction capacity assessment and therefore suggested that the assessment would be focused on AADT link flows.</p> <p>MF asked whether the numbers would give cause for concern for the B5119</p> <p>MP observed the numbers shown were low numbers that would not require junction assessment only swept path analysis</p> <p>MP said that previous windfarm cable schemes had been very well managed</p>
	<p><b><u>Key points to agree for assessment</u></b></p> <p>DM highlighted that the key points that SLR is seeking to agree for assessment were:</p> <p>Site access locations and routes</p> <ul style="list-style-type: none"> <li>Any restrictions?</li> </ul> <p>Traffic data</p> <ul style="list-style-type: none"> <li>Existing</li> <li>New</li> </ul>

	<ul style="list-style-type: none"> <li>Seasonality factor?</li> </ul> <p>Assessment scenarios and parameters</p> <p>Scope of traffic assessment:</p> <ul style="list-style-type: none"> <li>AADT link flow</li> <li>Threshold for junction capacity assessments?</li> </ul> <p>MF confirmed that ATCs programmed after Easter had been programmed pending feedback and asked whether reliance could be given for ATC figures given the effects of COVID-19</p> <p>JR said that an approach could be to factor in an adjustment to survey figures and that a 10% increase had been used elsewhere</p> <p>MP highlighted existing HGV movements associated with current flood defence works were taking place using the A55, A525, Abergele road to Splash Point and these movements had experienced no issues. Suggest RWE review this data. Also referenced proposed flood defence works to Golf course</p> <p>SL asked to confirm the correction factor and MP confirmed 10-15% used elsewhere</p>
5	<p><b><u>Next steps</u></b></p> <p>KA asked about timescales for feedback and MF asked if feedback on the technical note and plans could be provided by the 8<sup>th</sup> April (2 weeks from issue)</p> <p>MP suggested contacting DCC Streetworks for comment and asked whether the DCO would contain assumptions that if DCC didn't respond to consultation on licencing within 21 days then confirmation could be assumed. MP explained DCC would resist this</p> <p>MF suggested a further meeting with DCC to review access proposals in more detail</p>
6	<p><b>AOB</b></p>

Agenda Item	Action	Who?	Due Date
1	MF to contact MP regarding further meeting on access points during w/c 5 <sup>th</sup> April	SLR	31/3/2021

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**

**PUBLIC RIGHTS OF WAY AND ACTIVE TRAVEL ROUTES MEETING MINUTES– 12/11/2021**

<b>MEETING ORGANISER:</b>	SLR CONSULTING		
<b>LOCATION:</b>	Teleconference with PowerPoint		
<b>PROJECT</b>	Awel y Môr Offshore Wind Farm		
<b>ATTENDEES:</b>	<b>Attendee</b>	<b>Organisation</b>	<b>Abbreviation</b>
	Hannah Arndt	Denbighshire CC	HA
	Sean Leake	GoBe Consultants	SL
	William Vasishta	GoBe Consultants	WV
	Mike Furness	Hatch	MFu
	Daniel Moran	SLR Consulting	DM
	Matt Faulkner	SLR Consulting	MFa
<b>APOLOGIES/MEMBER NOT REQUIRED FOR PARTICULAR MEETING:</b>	<b>Attendee</b>	<b>Organisation</b>	
	Ben Wilcox-Jones	Denbighshire CC	

Documents provided:	Filename

Agenda item	Minutes
1	<u>Introductions</u> Aim: to 'to discuss DCC feedback on PRoW and agree whether additional detail on Public Rights of Way (PRoW) is required for the Environmental Statement (ES) that will accompany the Development Consent Order (DCO) application
2	<u>Project Update</u> <p>MFa shared a figure that showed an overview of the planned onshore infrastructure of the project. MF went on to explain that the landfall is between Rhyl and Prestatyn and there is a cable corridor that runs down to a substation to the West of Saint Asaph Business Park, then there is a second smaller connection into an existing national grid substation. There is some optionality as there are two possible routes to the south east of Rhyl. In terms of landfall there is optionality as to whether there will be connecting infrastructure within the golf course or whether that will be to the south of the railway. There are also some different choices in regard to crossing the A55.</p> <p>1. Statutory consultation: participation &amp; AyM next steps</p>

	<p>MFa</p> <ul style="list-style-type: none"> <li>• Consultation Ran from 31<sup>st</sup> August to 11 October 2021</li> <li>• As well as section 42 virtual consultation was held for members of the public</li> <li>• This run for 6 weeks rather than the minimum of 4 and Preliminary Environmental Information Report (PEIR) formed the basis for consultation</li> <li>• 3,500 unique visitors to online exhibition</li> <li>• Face to face with 900 members of public</li> <li>• 300 formal written and survey consultation responses (S42, S47)</li> </ul> <p>2. DCO programme to submission</p> <p>3. Statements of Common Ground Topics Raised by Consultees</p> <p>MFa</p> <p>Agreements log is to be shared with consultees this later year and discussion on the log to take place Q1 2022. The purpose of the log will be to capture agreement and disagreement on key parameters of the assessment, such as characterisation of the receiving environment, policy referred to, and assessment methodologies. The agreements log will then be used to inform the Statements of Common Ground that will be developed during the post-application stage.</p> <p>4. <u>Denbighshire County Council Feedback</u></p> <ul style="list-style-type: none"> <li>• Concern regarding powers sought in DCO for stopping up or diversion of PRoW</li> <li>• Impact on Rhyl Golf Course</li> <li>• Minimise PRoW closure and re-open ASAP</li> <li>• Unclear if PRoW to be permanently stopped up</li> <li>• Few paths/bridleways in north of county (which has highest population)</li> <li>• Even temporary closures have significant effect</li> <li>• Reinstate paths ASAP</li> <li>• Wales Coastal Path and NCN5 along promenade – interaction with cable</li> </ul> <p>5. <u>Consultation material relevant to PRoW</u></p> <ul style="list-style-type: none"> <li>• Tourism and Recreation Chapter             <ul style="list-style-type: none"> <li>◦ Considers active use of open-air resources such as PRoW and open spaces</li> </ul> </li> <li>• Traffic and Transport Chapter             <ul style="list-style-type: none"> <li>◦ Assessment of the impact of the construction traffic associated with AyM on PRoW</li> </ul> </li> <li>• Outline Public Access and Management Plan (PAMP)             <ul style="list-style-type: none"> <li>◦ The likely management measures to be implemented for those PRoW that are impacted</li> <li>◦ Outline PAMP sets principles –</li> <li>◦ Detailed PAMP will be agreed with DCC as part of CoCP pre-construction</li> </ul> </li> </ul>
3	<p><u>Public Access Management Plan</u></p>

- The majority of the Active Travel Routes (ATR) or PRoW within the onshore ECC interact with the construction of AyM on a temporary basis, and will require temporary control measures to be put in place
- The majority of the Active Travel Routes (ATR) or PRoW within the onshore Export Cable Corridor (ECC) interact with the construction of AyM on a temporary basis, and will require temporary control measures to be put in place
- During construction, temporary disruption to any ATR or PRoW will be managed by the Applicant and durations of disruption will be kept to a minimum
- Temporary management measures would include:
  - Appropriately fenced (unmanned) crossing points;
  - Manned crossing points;
  - Temporary closures with diversions; and
  - Temporary closures without (formal) diversions
- PAMP will be agreed with DCC in advance of works via DCO Requirement (legal control)

MFa added there may be no permanent interacts with PRoW depending on how the substation site is accessed.

MFa asked if there were any thoughts or questions in regard to the slides just presented. None were raised.

MF added that there were lots of questions raised during consultation about whether there would be permanent stoppages and wanted to check whether the PAMP had been reviewed by the officers that were providing the consultation feedback. There was a large volume of material as would be expected of a project this size and it may be the case that this is just one of those documents that got lost along the way.

HA stated that personally she had not seen that document and asked for a copy to be sent through

MFa asked whether the PAMP addressed those concerns that DCC had and suggested that a discussion should be had with Adrian and Denise to follow up.

HA added that it would be best for Adrian to go back through the PAMP and then see if the concerns have been addressed.

**MFa took an action to email (with PAMP attached) Adrian asking him to review the PAMP and determine whether or not the concerns DCC had have been addressed.**

HA expressed concern regarding the substation at Bodelwyddan as the park at castle has been passed over to countryside service. As a result, additional discussion with DCC may be needed. HA stated she was happy to pass on the map to her colleagues so they are aware of the proposals as HA stated she was unsure whether this will have been discussed with them yet.

MFa agreed that this should be passed on but also noted the substation site itself doesn't enter the parkland but there may be a need for temporary mitigation during construction that could do. This mitigation would be for ecology and landscape e.g. vegetation management.

MFa shared the GIS map of the Bodelwyddan substation site to demonstrate that the site doesn't enter the parkland. MFu adds that this raises any questions then he is more than happy to go through them.

MFa asked whether MFu or DM had anything to discuss with HA.

DM added that there was a discussion about where the temporary closures would be and the different management measures that could be applied to each PRoW. To prevent too many crossings over the haul road there will be some temporary closures over a longer period but there will be alternatives for shorter routes. Where there are manned crossing the diversions will be small for small periods of time

MFu asked that in regard to Bodelwyddan Park changing hands would there be any infrastructures changes such as new paths leading people down to the Eastern side of the park because the research prior to this seemed to show that all the activity was in the castle and its immediate grounds. There was no apparent existing usage of the woodland by the public. If that is to change then there is more potential for an impact during the construction period.

HA responded that she would ask those questions and come back with answers.

MFa added that in siting the substation the views from the hotel and the castle overlooking it had been taken into consideration and development had been sited behind the block of woodland for screening. If there are proposals to open up other sections then these may need some consideration from a LVIA perspective as well as MFu's concern of recreation.

HA asked when the construction of the substation would be in the project timeline and wanted to confirm whether it would be post 2024?

MFa stated that the duration was 27 months and would occur at some point within the overall 5 year construction.

MFa added that there was a lot of concern surrounding the Rhyl Golf Course and that RWE are looking into this very closely in terms of their design.

MFa continued that one of the things that has been brought up more recently in terms of areas for a construction compound were some of the areas on the western side of the project landfall. RWE have identified a need to have an alternative construction compound in case there was an issue in using some of the other areas. MFa shared a map which detailed a proposed construction access route that would potentially reduce the interaction with the coastal path and NCN5. There would be a limited number of vehicles per day (estimated as 26 2-way movements). 13 deliveries would potentially use the slipway to access the beach and conduct works there. There are thoughts on whether a construction compound near the bowling centre could be included. There was a meeting with Wayne Hope a week prior and he shared some thoughts some landowner issues that may arise.

MFa asked if HA had any questions on use of those areas from a ProW or access perspective?

HA responded that she would need to know the duration of closures regarding the construction as it would be a long duration around a busy road.

DM the delay would only occur as the vehicle entered it would be more in the realm of 5 minutes at a time.

HA replied that this sounds fine but enquired as to whether the coastal path would be closed for 27 months or would it be a short-term closure.

MFa replied that it wouldn't be closed but rather managed in the form of temporary supervision while vehicles use it.

HA added that the other recreation concern is people using the car park and the dunes i.e. dog walkers as they don't stick to defined routes and may pop out in places you don't want them to.

MFa stated that that is helpful and would need to be a management consideration.

HA states that the North Wales path is on that she will have to go back and look at but guesses it will be covered in Adrian's response.

MFa added that it may not have been picked up specifically but DCC feedback had highlighted concern around stoppages. There are currently two options for the route Southeast of Rhyl and RWE are looking at those and will select an option going forward. One of the options has more interaction with the North Wales path and it is hoped that updates will be issued later this year or early next year as to the design options being taken forward.

	<p>MFu continues that another point of concern was where the river crossing is located there won't be any direct impact on users of the main path on the embankment which is also the North Wales path and an active travel route. Assurances can be given that users of that will not have any direct interruption, as the cable connection would be drilled beneath the path as part of the River Clwyd crossing, but the works will be visible.</p> <p>HA replied that this is good as that is a main route for elderly walking groups as the ground is flat. If this was closed for a long period that would be a concern, but this is not the case. MFa stated there will be some drilling under the right of way but the only interaction would be if there was a need for the use of something similar to Ground Penetrating Radar to ensure that the works were moving in the right direction at the correct depth. There would be no actual works taking place on the right of way.</p> <p>Meeting Ends</p>
4	
5	
6	

Agenda Item	Action	Who?	Due Date
1	Email (with PAMP attached) Adrian asking him to review the PAMP and determine whether or not the concerns DCC had have been addressed	MFa	(E-mail sent on 16/11/2021)
2			
3			

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**EXPERT TOPIC GROUP MEETING TO DISCUSS SOCIO ECONOMIC ASSESSMENT**  
**WEDNESDAY 5TH MAY 2021, 13:00 TO 14:30**

MEETING ORGANISER:	RWE																																						
LOCATION:	Teams dial in/Teleconference																																						
PROJECT	Awel y Môr Offshore Wind Farm																																						
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Documents provided:	Filename
Topic guide for stakeholder consultations – Socio Economics	Consultations – Socio Economics Topic Guide – FINAL.doc

Agenda item	Description
1	Introductions and aim of meeting to discuss Socio Economic aspects of the Environmental Impact Assessment (EIA) for Awel y Mor windfarm. JE noted that a new officer would be starting at Denbighshire County Council (DCC) in June. MF offered to introduce the AyM project when Officer in place



2	KA Provided an update on the project, confirming choice of Route and Substation
3	<p>LB confirmed the receptors that will be considered by the assessment for the construction, operation and decommissioning phases of the project:</p> <ul style="list-style-type: none"> <li>• Jobs &amp; GVA</li> <li>• Community facilities</li> <li>• Healthcare services</li> </ul> <p>and identified the Impact areas as:</p> <ul style="list-style-type: none"> <li>• Economy (jobs and GVA) – Wales and North Wales (North Wales is defined as Anglesey, Conwy, Gwynedd, Denbighshire, Wrexham and Flintshire)</li> <li>• Community facilities – area located within 500m buffer from onshore infrastructure Healthcare service – North Wales</li> </ul>
4	<p>LB listed the sources that would be used to establish baseline conditions within the study area as follows:</p> <ul style="list-style-type: none"> <li>• Key social and economic data published by the ONS, focussing on               <ul style="list-style-type: none"> <li>○ Employment</li> <li>○ Sectoral distribution, offshore wind supply chain capacity and capability</li> <li>○ Gross Value Added</li> <li>○ Labour market indicators (engagement, employment, unemployment, claimants, etc...)</li> <li>○ Future labour market</li> <li>○ Overall deprivation</li> <li>○ Community facilities within 500m buffer of PEIR boundary</li> <li>○ Healthcare services (GPs and A&amp;E)</li> </ul> </li> <li>• Other local based research (incl. policy documents)</li> <li>• Research about the impact of offshore winds farms on local economies + any supply chain analysis (e.g. research by RenewableUK, universities, etc...).</li> </ul>
5	<p>LB outlined the proposed methodology for consideration of impacts on Socio Economics as</p> <p><u>The Economy (Jobs and GVA)</u></p> <ul style="list-style-type: none"> <li>• Estimated construction cost for AyM + analysis of expenditure local retention drawing on project description, published data, and industry standards</li> <li>• Scenario development - based on potential location of construction and O&amp;M port(s)</li> <li>• Use of Hatch Input-Output tables to generate person years of employment + total economic output generated at identified impact areas by construction and O&amp;M of AyM</li> <li>• Annual FTE jobs and GVA supported directly + indirectly (through supply chain expenditure)</li> </ul> <p><u>Community Facilities</u></p> <ul style="list-style-type: none"> <li>• Google-Earth survey of community facilities located within 500m buffer of Onshore Infrastructure (incl. churches, education facilities, health, leisure facilities)</li> <li>• Consultation with stakeholders</li> <li>• Review of other (onshore) aspects (e.g. noise, traffic, air quality)</li> </ul> <p><u>Health Services</u></p>

- GPs and hospitals located within local study area
- Assessment of non-North Wales employees involved in onshore and offshore construction activities (i.e. sub-station, installation and commissioning of export cable)
- Healthy Urban Development Unit (HUDU) benchmarks (1,800 patients per FTE GP)

CE - highlighted that Conwy County Borough Council (CCBC) was assessing the capacity of GP services, which included population growth scenarios. Would be good to make sure these growth scenarios were consistent to those used for the AyM assessment

LB - The assessment will consider whether there will be increased demand for increased services such as GP surgeries as a result of AyM, so wasn't reliant on Pop. Suggested it would be useful to pick up with CCBC off-line.

**AWEL Y MÔR OFFSHORE WIND FARM APPLICATION**  
**EXPERT TOPIC GROUP MEETING TO DISCUSS TOURISM AND RECREATION ASSESSMENT**  
**THURSDAY 29 APRIL 2021, 15:00 TO 16:30**

MEETING ORGANISER:	RWE		
LOCATION:	Teams dial in/Teleconference		
PROJECT	Awel y Môr Offshore Wind Farm		
ATTENDEES:	ETG MEMBERS:		
	Attendee	Organisation	Abbreviation
	ANGHARAD CRUMP	CYNGOR SIR YNYS MON	AC
	SHANE WETTON	CONWY COUNTY BOROUGH COUNCIL	SW
	NIALL WALLER	FLINTSHIRE COUNTY COUNCIL	NW
	JON MERRICK	CONWY COUNTY BOROUGH COUNCIL	JM
	SIAN JONES	GWYNEDD COUNCIL	SJ
	MIKE WELCH	AURA LEISURE AND LIBRARIES LIMITED	MW
	MIKE FURNESS	HATCH	MF
	LUKE BONNICI	HATCH	LB
	NEIL EVANS	HATCH	NE
	KAREN ALGATE	RWE RENEWABLES	JKA
	SEAN LEAKE	GOBE	SL
	HELEN THOMAS	RWE RENEWABLES	HT
	POPPY TREMAYNE	RWE RENEWABLES	PT
	MATT FAULKNER	SLR	MDF
	ELIZABETH HOLMES	SLR	EH

Documents provided:	Filename
Topic guide for stakeholder consultations – Tourism and Recreation	Consultations – Tourism and Recreation Topic Guide – FINAL.doc

Agenda item	Description
1	Introductions and aim of meeting to discuss Tourism and Recreation aspects of the Environmental Impact Assessment (EIA) for Awel y Mor windfarm.

2	KA Provided an update on the project, confirming choice of Route and Substation
3	<p>LB confirmed the Tourism and Recreation (T&amp;R) receptors that will be considered by the assessment for the construction, operation and decommissioning phases of the project and identified the Impact areas as:</p> <ul style="list-style-type: none"> <li>• Volume &amp; value of tourism economy - Wider study area (50km ZTV)</li> <li>• Onshore recreation - Local area of influence (500m buffer from onshore infrastructure)</li> <li>• Offshore recreation – Local area of influence (offshore array)</li> <li>• Displacement of tourism – Local study area (Conwy + Denbighshire)</li> </ul>
4	<p>LB listed the sources that would be used to establish baseline conditions within the study area as follows:</p> <ul style="list-style-type: none"> <li>• Tourism economy data drawn from policy docs &amp; publicly available data (North Wales Tourism, 2011-19)</li> <li>• Any national or regional evidence of the impact of OWF (and associated infrastructure) on tourism and visitor economy</li> <li>• For outdoor rec, we have considered available data on user numbers, types of users and patterns of use for all significant assets (sources included local authorities, Sustrans, and NRW)</li> <li>• Where data was not available, we have used other national/ regional datasets, used recognised predictive tools (e.g. OrVAL) and used indicative data such as Strava heatmaps</li> <li>• We have sought assistance from local special interest groups and local recreation experts to identify assets of particular significance within the study area</li> <li>• Walkover survey (done February 2021)</li> </ul> <p>MF highlighted that where data is not currently available then recognised tools will be used, however, such tools will not be as robust as actual data. Discussion has taken place with Denbighshire County Council (DCC), who have identified some valuable sources of information</p> <p>SJ asked whether NRW could be a useful source of information given they collect data on walkers. Could be data available for the coastal path?</p> <p>MF has discussed the availability of user counts with DCC and NRW, however, not much information is available for the study area. Has also looked at the Wales national survey</p> <p>SJ – Cardiff University have provided useful information for other areas in N.Wales. May be able to provide some useful data for study area.</p> <p>MF – Will check with NRW</p> <p>NE – Hatch have contacts at Cardiff University that they will follow up with</p>
5	<p>LB outlined the proposed methodology for consideration of impacts on Tourism as</p> <ul style="list-style-type: none"> <li>• Approach distinguishes between visual impact of offshore infrastructure and landfall/ onshore infrastructure</li> <li>• Use of assessment framework which takes account of: nature of development &amp; relationship of OWF to visitor areas and assets; character of tourism areas and their offer; and characteristics of visitors</li> </ul>

	<ul style="list-style-type: none"> <li>• Assessment draws on a range of sources, such as:</li> <li>• Type and location of infrastructure and associated works</li> <li>• Review of tourism areas, visitors and assets, relationship to infrastructure and potential to be impacted</li> <li>• Review of evidence on impact of OWFs and related onshore infrastructure on visitor behaviour and volume and value of tourism (incl. impact assessments, other studies, employment data)</li> <li>• Assessment of other relevant effect (e.g. on marine users, SLVIA, LVIA, noise and vibration, traffic and transport, etc.)</li> </ul> <p><u>MF outlined the proposed methodology for consideration of impacts in Recreation as</u></p> <ul style="list-style-type: none"> <li>• Recreation impacts are assessed following the guidance published by the Institute of Public Rights of Way and Access Management (IPROW):</li> <li>• Consultations with stakeholders has taken place and is ongoing</li> <li>• Data collection – not a huge amount of quantitative data</li> <li>• Walkover survey (February 2021) has assessed ground conditions</li> <li>• Assessment of potential effects</li> <li>• Evaluation of significance of impacts</li> <li>• Review of cumulative impacts</li> <li>• consideration of replacement land will be undertaken if this is required - but this is not expected to be necessary.</li> </ul>
6	<p>Questions from Topic Guide</p> <ul style="list-style-type: none"> <li>• Are there any particular concerns and/ or opportunities in local tourism sector regarding OWFs</li> </ul> <p>JM – There is concern in the accommodation sector within Llandudno, particularly relating to visual impact affecting hotels along the sea-front. Some accommodation providers are collecting the views of guests on the impact of offshore turbines. Can provide details of the Llandudno Hospitality Association who are keen to engage with the project. Includes Mostyn Estates and Llandudno Hospitality Groups.</p> <p>HT - there have been previous discussions with Destination Conwy which included Mostyn Estates.</p> <p>NE - What is the major concern, given there are existing offshore windfarms</p> <p>JM – Is additional turbines in the bay around Llandudno and concern visitors would go to another resort as a result</p> <ul style="list-style-type: none"> <li>• Are you aware of any impact on local tourism from the existing Gwynt y Môr (before vs after)?</li> <li>• Is there any local research that we should be aware of (not mentioned above)?</li> <li>• Particular concerns about impact on tourism during construction phase of AyM?</li> </ul> <p>NW – Gwynt y Mor used Port of Mostyn as a hub for construction. Use of local accommodation was positive for accommodation providers but could have had a negative effect on visitors with a reduction in supply. Which port is being used for Awel y Mor?</p> <p>HT – RWE is yet to make a decision, the selection of Port is currently being considered</p> <p>LB – for the socio economic assessment will consider 2 scenarios</p>

	<ul style="list-style-type: none"> <li>○ A port in N.Wales</li> <li>○ A port that is not in N.Wales but is elsewhere in the UK, Ireland or the EU</li> </ul> <p>LB – any studies or contacts relating to experience of Gwynt y Mor on Tourism</p> <p>NW – can provide contact details for accommodation providers near Port of Mostyn</p> <p>LB – working on offshore windfarm on South Coast of England where there are opportunities with boat trips to the windfarm so positive activity</p> <ul style="list-style-type: none"> <li>• Particular concerns about impact on tourism during operations phase of AyM?</li> <li>• Is there anything that can be done to minimise/ mitigate impact on tourism economy during construction and operations phases?</li> </ul> <p>NW – avoid impact on road network during peak season</p> <p>MDF – cable connection would be drilled beneath roads to prevent need for temporary closures</p> <ul style="list-style-type: none"> <li>• Particular concerns about recreation activities that use offshore array, intertidal area, and onshore – which may be affected by construction and operations phases of AyM?</li> <li>• Are you aware of any positive or negative impacts to offshore recreation which may have resulted from construction and operations of Gwynt y Môr?</li> </ul>



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