



Project Erebus Environmental Statement Technical Appendix 2.2: EIA Scoping Opinion

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22 January 2020

Dear Lara,

SCREENING AND SCOPING OPINION UNDER THE MARINE WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2007 (as amended)

PROJECT EREBUS, FLOATING OFFSHORE WIND FARM

I am writing further to your request for a screening and scoping opinion, dated 11 October 2019, made in accordance with The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) ("The Regulations").

The purpose of the Environmental Impact Assessment (EIA) screening procedure is to determine whether the proposed works require an Environmental Impact Assessment and submission of an Environmental Statement (ES). The purpose of the scoping procedure is to determine what information should be provided in the ES.

In reaching our Screening Opinion we have considered the proposed works against Schedule A1 and A2 of the above regulations. In reaching our scoping opinion we have had regard to the information provided in the "Simply Blue Energy 1 Floating Offshore Wind Farm: Environmental Impact Assessment Scoping Report", dated 08 October 2019, and considered the requirements of Schedule 3 of the Marine Works Regulations. We have also consulted with the bodies that we consider have an interest in the project by reason of their environmental responsibilities, or local or regional competences, as required by the above regulations, and had regard to their comments.

Screening Opinion

It is our opinion that the works fall within the categories of project listed within Schedule A2, paragraph 21 of the above regulations (see below), and therefore must be considered in terms of its size, nature and location having regard to the relevant criteria listed in Schedule 1 of the above regulations.

21. Installations for the harnessing of wind power for energy production (wind farms).

We have carefully considered the views of the consultation bodies alongside the criteria as set out in Schedule 1 of the regulations, and have determined, based on the information provided; that the project has the potential to have a significant effect on the environment and therefore a statutory Environmental Impact Assessment is required.

We have come to this conclusion on the basis of the likely significant impacts of the project, specifically with regard to potential impacts on Ornithology features and the proximity of the project to the Skomer, Skokholm and the Seas off Pembrokeshire SPA. In addition, there is potential for significant impacts on other EIA topics, including but not limited to Marine Mammals, Navigation and Benthic Ecology.

Scoping Opinion

This letter sets out the additional information that we consider necessary to be included and/or assessed in the ES for this Project.

Please note our scoping opinion is based on the information available to us at this time. The information provided is not a definitive list of the ES / EIA requirements and further information may be required following an application for this project, to ensure a full assessment is carried out.

This Screening and Scoping Opinion will be provided to all those bodies that were consulted and will be publicised on our website and on our Public Register.

The Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended)

Scoping Opinion (SC1905)

Summary of the proposal

Simply Blue Energy Ltd (SBE) is the developer and seabed leaseholder for Project Erebus, a proposed floating offshore wind development in the Celtic Sea region.

The key Project components are:

- Between 7 and 10 floating Wind Turbine Generators (WTGs), of total capacity up to 96 MW, as well as the associated semi-submersible platforms and mooring infrastructure;
- Inter-array cables and a single offshore export cable to landfall;
- Onshore cabling between landfall and the grid connection; and
- Onshore substation at the grid connection point.

Location

The project is located approximately 44 km southwest of the Pembrokeshire coastline, in an outline area of interest of approximately 43.5 km².

Consultation Responses Received

In considering the scoping report, the NRW PS consulted with various consultation bodies. The consultation bodies that responded are listed below:

- Natural Resources Wales Advisory
- Joint Nature Conservation Committee (JNCC)
- Royal Society for the Protection of Birds (RSPB)
- Maritime and Coastguard Agency (MCA)
- Royal Yachting Association (RYA)
- Trinity House Lighthouse Service (THLS)
- Cadw
- Dyffed Archaeology
- National Air Traffic Service (NATS)
- Planning Inspectorate
- Pembrokeshire National Park Authority
- Welsh Government
- The Crown Estate
- UK Chamber of Shipping
- Specialist Underwater Noise Consultant
- Ministry of Defence

0. General comments

- 0.1. Marine and coastal guidance produced by NRW that may provide useful information to help with your project is available here:

<https://naturalresources.wales/guidance-and-advice/business-sectors/marine/marine-and-coastal-guidance/?lang=en>

- 0.2. The ES submitted should demonstrate consideration of the points raised in this scoping opinion. It is recommended that a table is provided in the ES summarising the scoping opinion comments and how they are addressed in the ES.
- 0.3. Throughout the ES robust evidence should be presented so that the potential environmental impacts can be properly understood and evaluated; and appropriate measures identified to avoid, reduce or, where necessary, compensate for those impacts.
- 0.4. The EIA must be undertaken by a competent person and the ES must include a competent expert statement.
- 0.5. We request that in future documentation the applicant provides clarification as to whether potential impacts will occur within territorial waters or offshore (outwith 12 NM). This should include the provision of the 12 NM boundary on maps produced to support conclusions.
- 0.6. Within the scoping report produced, reference should have been made throughout to the JNCC in terms of seeking advice on offshore nature conservation matters.
- 0.7. Consideration of cable routes has been approached in the same manner as the rest of the project. Should you wish to obtain further advice on route selection, engagement with NRW Advisory is encouraged through the NRW discretionary advice planning service <https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/advice-for-developers/our-service-to-developers/?lang=en>.

1. Non-technical Summary

- 1.1. As identified within the Scoping report (Table 3-3), the ES must include a Non-Technical Summary (NTS).

2. Consents and Scoping

- 2.1. It is noted that Figure 2.1 does not include within the Scoping area the entirety of the potential cable export route within Milford Haven. You must ensure that the entirety of the cable export route is included within the submitted ES.
- 2.2. You must include reference to the Water Framework Directive when identifying applicable policy / legislation in the submitted ES. Whilst this has not been identified within this section of the Scoping report, it is recognised that the WFD is referenced within the Water Quality chapter with specific reference to a WFD assessment in Section 5.5.

- 2.3. For the UK's offshore marine area, the submitted ES should ensure that it includes consideration of The Conservation of Habitats and Species Regulations 2017 and The Conservation of Offshore Marine Habitats and Species Regulations 2017.
- 2.4. The submitted ES should ensure that it makes reference to and considers any impacts under the Wellbeing of Future Generations (Wales) Act 2015.
- 2.5. You must ensure that reference is made to, and consideration to compliance with, the UK Marine Policy statement and the now published Welsh National Marine Plan and its associated policies within the submitted ES, alongside any further regional planning documentation (e.g. South West Wales Area Statement, once published). For information the published plan can be found here:

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

3. Proposed Approach to Environmental Impact Assessment

- 3.1. The ES must include:
 - A description of the likely significant effects of the project, whether direct, indirect, secondary, cumulative, transboundary, short-term, medium-term, long-term, permanent, temporary, positive and negative.
 - A description of the methods used to make the assessment of the significant effects and difficulties encountered in compiling the information, and uncertainties involved.
 - A description of measures to avoid, prevent, reduce or offset identified significant adverse effects, and proposed monitoring arrangements.
 - A description of the expected significant adverse effects of the project on the environment resulting from the vulnerability of the project to risks of major accidents or disasters
- 3.2. Where possible, other environmental assessments should be coordinated with the EIA process. However, it is important to note that HRA and WFD (and any other assessment) are separate processes to the EIA.
- 3.3. The UK is due to leave the EU on 31 January 2020. – all legal obligations relating to compliance with environmental licences/permits and legislation will continue to apply. NRW on behalf of Welsh Ministers will continue to issue licenses in line with our current practice.

4. Project description

- 4.1. The scoping report identifies that the service life of the project is 25 years. You must ensure that the submitted ES fully clarifies the timescales for all lifecycle stages and therefore ensure that the timeline being assessed is clear.
- 4.2. The submitted ES must clarify the export cable construction and ensure that any potential risks associated with the selected construction are appropriately assessed throughout the ES.

4.3. NRW Advisory have noted that they disagree with the stated approach:

“Cable will be left in situ as far as is possible from a technical and environmental perspective”

as it is considered a marine litter issue. NRW Advisory therefore recommend that the approach is modified such that everything that is placed on or within the seabed is able to be removed, including the cable and any cable protection, at decommissioning. We recommend that you engage with NRW Advisory in preparing a decommissioning plan, to discuss the proposed approach, specifically with regard to potential variation in approach between buried and non-buried cables.

5. Physical environment

5.1. Marine Coastal Processes

5.1.1. When assessing impacts on the physical environment, we agree with the use of a tidal excursion to determine the SIZ. However, it is unclear within the Screening and Scoping report as to whether the tidal excursion proposed is 10 km as identified in Section 5.1.1 (and applied in Figure 5.1) or 25 km, as referenced to Uncles and Stephens (2007) in Paragraph 5.1.4.2. The submitted ES must clarify the tidal excursion being proposed with sufficient justification to demonstrate why the value is considered appropriate. For the purposes of a precautionary assessment, we would advise you use the larger excursion, unless robust reasoning can be applied, we would recommend that you engage with NRW advisory at an early stage to discuss this.

5.1.2. We agree with the principles identified for the further development of the physical processes baseline. As and when the sampling intention is formalised NRW advisory would welcome sight of this, and would suggest using the following reference to support this process.

<https://cdn.naturalresources.wales/media/689057/guidance-on-best-practice-for-marine-and-coastal-physical-processes-baseline-survey-and-monitoring-requirements-to-inform-eia-of-major-development-projects.pdf>

5.1.3. You must ensure that all aspects of the project are included within the assessment of impacts on the physical environment in the submitted ES. This must include consideration of the impacts of cabling and cable protection across the receptors identified within Table 5.2 of the Scoping report.

5.1.4. We agree with the use of the Shoreline Management Plan to underpin the baseline understanding of current physical conditions and the plan level policy for future epochs of the landfall locations, as described in 5.3.3 of the scoping report.

5.1.5. In order to ensure completeness of the submitted ES it is recommended that the applicant engage with NRW advisory prior to conducting your assessment to clarify how sediment mobility will be considered for the Cable Burial Risk Assessment and foreshore steepening over the project lifetime, should the cable be trenched at landfall.

5.2. Marine Sediment and Water Quality

- 5.2.1. The first paragraph of section 5.2.3.1 (page 5-15) discusses seabed sediment types off the west coast of Wales. However, sediment type from the Milford Haven are omitted. We advise this information, and assessment of impacts of cable installation, will be required should the cable be routed through this location.
- 5.2.2. The WFD waterbodies have been omitted from consideration within the water quality chapter. We would recommend you consider these in the water and sediment quality section and feed through to the WFD assessment; however, we note that WFD waterbodies are included in the WFD chapter. For information, the website Water Watch Wales can be used to find up to date information on the WFD waterbodies. Water quality information and data within WFD waterbodies will be available from NRW Advisory to help inform a baseline.
- 5.2.3. We agree that background Suspended Sediment Concentration (SSC) and sediment properties should be considered (page 5-17 5.2.6. para 1). However, no further information is provided so no further comment can be made at this stage. We would recommend that you engage with NRW advisory at an early stage to discuss how baseline conditions will be characterised
- 5.2.4. No information is provided on how the potential effects on marine water and sediment quality will be assessed (page 5-17 section 5.2.6. para 2). We would recommend that you engage with NRW advisory at an early stage in order to discuss how the assessment will be conducted.
- 5.2.5. On page 5-17 section 5.2.6. para 3, no further data collection on marine sediment and water quality is being proposed due to low risk of contamination. We advise of the need for data collection to understand impacts the SAC / WFD / BW sites inshore. NRW advisory query how an assessment against existing baseline will be made if that baseline is not available. Should no further data be collected sufficient justification must be provided, we would recommend early engagement with NRW advisory to support this consideration.
- 5.2.6. You must ensure that both offshore and near-shore impacts on water and sediment quality are assessed within the submitted ES. This should include consideration of the potential impacts of heated cables on temperature responsive bacterial growth and potential impacts on Bathing Waters from all impact pathways (including suspended sediment and bacterial growth).

5.3. Water Framework Directive

5.3.1. In addition to the following:

“Milford Haven Inner transitional water body (GB531006114100), which is at Moderate Ecological Status because of and high concentrations of mercury and mercury-containing compounds, Tributyltin (TBT), Brominated Diphenylether (BDPE) and dissolved inorganic nitrogen;”

the submitted ES should be corrected to note that the Milford Haven Inner WFD water body is also failing (at moderate status) for opportunistic macroalgae.

- 5.3.2. Considering the study area defined in 5.5.1, we suggest that the WFD assessment should align with that of the wider EIA where there are topic areas/receptors of relevance to WFD within its geographical remit.
- 5.3.3. The submitted ES must ensure that the full range of data available to you is used when reviewing the baseline for the WFD. Potential data sources include the Lle data portal for spatial data and the Water Watch Wales website for biological and chemical data. This can be requested from NRW via the Access to Information Team.
- 5.3.4. We note that it would be beneficial for Figure 5.12 to include project infrastructure in the spatial context of the water bodies determined to be in scope when it is incorporated into the submitted ES.
- 5.3.5. Section 5.5.6 of the Scoping report considers the potential relevance of the project to Article 4(7) of the WFD. If the WFD assessment identifies any potential instances of Article 4(7) being triggered, then this would need to be raised with NRW as the Appropriate Agency in Wales for WFD; not the Environment Agency. We would encourage that this is raised at the earliest opportunity and that any potential impacts to the WFD objectives are avoided or reduced as far as possible through the design options appraisal stage.
- 5.3.6. It is expected that the WFD assessment will draw upon the wider EIA to inform its assessment and conclusions and a consistent approach to assessment should therefore be applied. For example, the assessment outputs from the marine sediment and water quality chapter will need to adequately assess the potential project effects against WFD objectives for any water bodies included in the study area and the results transposed into the WFD Assessment. In relation to physical processes, the conclusions of the physical processes chapter of relevance to WFD will need to be transposed into the WFD Assessment where relevant to the hydromorphological quality element; this goes beyond assessing hydrology (as currently included in the screening tables for WFD). Any physical effects to WFD water bodies, direct or indirect, must be adequately assessed within the submitted ES.
- 5.3.7. In addition to the impacts scoped in in Table 5-8 EMF and thermal effects on migratory fish must be scoped into the assessment and included in the WFD assessment as fish are considered a biological quality element in estuarine and river water bodies in the context of WFD.

- 5.3.8. The submitted ES must list the Shellfish (Upper Cleddau) and Bathing Waters (Freshwater West, West Angle) and their quality status and subsequently assess any potential impacts on them. We recognise that the risk is likely to be low, the ES must demonstrate that potential risks have been considered and discounted with sufficient reasoning to conclude that activity on the proposed development will not affect bathing water quality.

6. Biological Environment and Nature Conservation

6.1. Nature Conservation (Designated Sites)

- 6.1.1. We agree with the impacts identified for Marine Mammal features of designated sites in Table 6-6 of the Scoping report. However, as identified within Table 6-14 of the Scoping report, we request potential risk to marine mammal features from entanglement must be scoped into, and subsequently assessed within, the designated site assessment in the submitted ES.
- 6.1.2. Impacts on Skomer MCZ should be the same as those for SAC with grey seal features and as such should include impacts within the operational phase.
- 6.1.3. When scoping sites for marine mammal features, we recommend that all sites within the relevant marine mammal management unit are screened into the assessment. As such, in addition to those identified in Table 6.3 and 6.4 the following sites should be included:
- North Anglesey Marine SAC;
 - Pen Llyn a'r Sarnau SAC.
- 6.1.4. When assessing potential impacts on the Skomer, Skokholm and Seas off Pembrokeshire SPA connectivity of foraging ranges and breeding colonies must be included in the submitted ES to fully assess potential disturbance and displacement effects from the development.
- 6.1.5. Figure 6.3 appears to show the project overlapping with the Skomer, Skokholm and Seas off Pembrokeshire SPA. The spatial context of the project area with Skomer, Skokholm and Seas off Pembrokeshire SPA must be clarified in the submitted ES.

6.2. Marine and Coastal Ecology

- 6.2.1. We disagree with the conclusion of the scoping report that impacts of pollution through accidental spills on benthic habitats can be scoped out, as there is likely to be potential for impacts on intertidal benthic habitat in an accidental spill scenario. Pollution through accidental spills on benthic habitats must be scoped into, and assessed, within the submitted ES.
- 6.2.2. In light of the uncertainties as to the effect of EMF on fish and invertebrates, and associated potential heating effects, we disagree that EMF impacts on migratory

fish and marine mammals / reptiles can be scoped out. Effect of EMF on fish and invertebrate must be scoped into, and assessed, within the submitted ES.

- 6.2.3. We agree with the scoping in of marine INNS. It is recommended that the assessment should consider the potential for new structures in the marine environment representing a preferential substrate for INNS. Furthermore, we recommend that the submitted ES refers to 'priority marine species' as detailed in the following location:

<https://gov.wales/sites/default/files/publications/2018-02/invasive-aquatic-species-priority-marine-species.pdf>.

- 6.2.4. We welcome the proposed project-specific benthic species and habitat surveys. It is recommended that the applicant engages with NRW advisory during planning of these surveys to ensure they are of adequate scope. Relevant guidance to support survey planning can be found in the following location:

<https://naturalresources.wales/guidance-and-advice/business-sectors/marine/marine-and-coastal-guidance/?lang=en>

- 6.2.5. The submitted ES should ensure that all data sources are used to determine the baseline environment. For example, the following statement:

“As inferred from Lle, there are no known Environment (Wales) Act Section 7 and OSPAR Marine Habitats in Bullslaughter Bay, Freshwater West, West Angle Bay or Angle Bay”

is incorrect, as contradicted earlier in Section 3.3 of the scoping report which states:

“known biogenic habitats (e.g. biogenic reefs, seagrass beds, saltmarsh) [are present] in only a few sheltered locations in Milford Haven, such as around Dale, Angle Bay and West Angle Bay.”

These habitats, in addition to estuarine rock and intertidal mudflats within Angle Bay, are Section 7 / OSPAR Marine Habitats and should be assessed as such within the submitted ES.

- 6.2.6. When planning the requirement for stabilisation material (hard substrate) introduced into the environment, JNCC recommend using a targeted placement method (e.g. use of a fallpipe vessel rather than using vessel-side discharge methods).

- 6.2.7. The submitted ES must contain the following technical information:

- Footprint of area affected by laying of the export cable;
- Footprint of area affected by export cable protection;
- Footprint of area affected by inter-array electrical cables;
- Footprint of area affected by inter-array cable protection;
- Estimation of electromagnetic fields (EMF) potentially arising from cables both at exterior of cables and at surface of seabed above buried cables;
- Footprint of area affected by placement of drag embedment anchors;
- Footprint of area affected by mooring lines;

- Duration and rate of cable-laying;
- Number and types of vessels to be used in cable-laying operations;
- Routes of vessels for cable works.

6.3. Fish and Shellfish Ecology

- 6.3.1. There is no reference made within Table 6-12 of the scoping report to possible impacts to larvae by increased turbulence or avoidance of area by fish and shellfish due to particle motion (vibration through operational phase). We request that the applicant consider vibration transported down anchoring cables as well as EMF impacts on shellfish through cable routes. We request that the desk-based noise study discussed in 6.3.6 of the Scoping report includes consideration of vibration as, although this has not been done in a number of previous assessments for other projects, new information has indicated it may have an impact at some levels on some fish/shellfish species. Furthermore, we request that consideration of impacts from detonation of UXO and from cable ‘snapping’ associated with cable tension release in the mooring system are included within the noise assessment.
- 6.3.2. We recommend that the applicant includes angling data to support baseline characterisation, as this will include non-commercial species.
- 6.3.3. We recommend that the applicant considers the potential for the floating devices to act as Fish Aggregating Devices, and any subsequent impacts on fish or predator species (collision risk).

6.4. Marine Mammal and Marine Reptile Ecology

- 6.4.1. We agree with the current potential mitigation identified in Section 6.4.5 but would recommend inclusion of consideration for UXO detonation if required. With regards to the following statement:
- “Vessels will travel at speeds below the threshold to cause injury to marine mammal species;”*
- we would welcome clarification as to what speeds are considered below the threshold and would request additional detail within the submitted ES.
- 6.4.2. We recommend using SCANS III as the most up to date information on the bottlenose dolphin population rather than the cited Cardigan Bay SAC, 2019. We would also recommend using Lohrengel et al (2018) for information on the Cardigan Bay bottlenose population, but note that SCANS III would give a more proportionate estimate of the wider population likely to be found in the project development area. We recommend consulting SCOS (2018) and Büche & Stubbings (2019) for information on the grey seal populations.
- 6.4.3. In addition to the impacts scoped into the assessment for Marine Mammal and Marine Reptile Ecology we consider that underwater noise impacts during the operational phase should be scoped in for marine reptiles.

6.4.4. We agree that entanglement risk from mooring lines and ghost fishing should be scoped in, and recognise that it is difficult to quantify. However, we would be cautious with concluding that it is not likely to be significant at this stage and would encourage careful consideration of this risk as it has the potential to be of significant concern. A useful reference to inform the assessment is:

<https://www.nature.scot/snh-commissioned-report-791-understanding-potential-marine-megafauna-entanglement-risk-renewable>

6.4.5. With regards to agreeing the exact approach to EIA for Marine Mammals, we advocate using the MMMUs as the appropriate screening scale for HRA for all Annex II marine mammal features as we consider areas of sea beyond the boundaries of the SAC to be functionally linked habitat that may support the populations of the SAC. Thus, impacts occurring outside the boundary of the SAC may affect animals moving from or between SACs. Buffer distances that may be appropriate for one type of underwater sound are not appropriate to be arbitrarily applied to other impacts such as wider UXO injury/disturbance, or potential entanglement which does not have an impact footprint beyond the array, but could impact on animals passing through the array.

6.4.6. We agree with the proposed approach for construction, operational and decommissioning noise. However, there is a potential requirement for UXO detonation. Should UXO be discovered in the development area more detailed consideration or underwater noise modelling may subsequently be required.

6.4.7. Page 6-63, final para, somewhat confuses references to marine mammal injury thresholds and fish injury thresholds. This is assumed to be an error; however, the submitted ES should ensure that it clarifies this.

6.4.8. For the purposes of the noise assessment, the you must include a review of behavioural dose response relationships of marine mammals to noise sources.

6.5. Ornithology

6.5.1. We disagree with the reliance on the conclusions of Wakefield et al (2013) when scoping Northern Gannet colonies, as it is based on a single year's data. We therefore consider that all gannet colonies within the mean max. foraging range +1 SD (229.4 + 124.3 km) must be considered within the submitted ES. As such we consider that Table 6-16 and Table 6-18 should include Northern Gannet.

6.5.2. Collision risk should be considered a direct, rather than indirect, impact and should include both injury and mortality (currently the scoping report only includes injury).

6.5.3. FAME and STAR tracking data analysis for the RSPB should be referred to Wakefield *et al.* (2017) rather than Wakefield *et al.* (2013).

6.5.4. We query why North Cardigan Bay SPA (designated for Red-throated diver) has not been included within sites with ornithological features in Section 6.5 (ornithology), although it has been included within Table 6-4 in Section 6.1. We would consider it too early to screen out this site, prior to completion of surveys which could identify Red-throated diver within the study area.

6.5.5. We note that onshore ornithology surveys are not yet adequately defined. However, we recognise that onshore bird surveys will depend upon final selection of the onshore project options. RSPB have stated that they can provide terrestrial bird data for onshore options, including chough data, and are happy to offer further advice if required on suitable survey methods. Guidance on appropriate methodology can be found in:

Bird Monitoring Methods: A Manual of Techniques for Key Species Gilbert, G. Gibbons, DW and Evans, J. Pub. RSPB, BTO, WWT, JNCC, ITE Sandy 1998. ISBN 1 901930 03 3

6.5.6. There is currently no proposed approach to assessment for the effects of underwater noise on diving birds. We request that this pathway (including UXO detonation) is scoped into and assessed appropriately in the submitted ES. In the absence of any published response thresholds for diving birds, a review of their hearing sensitivity and observed responses to underwater noise should be included in the underwater noise assessment.

6.5.7. The RSPB have acknowledged that baseline data from site-specific surveys will inform the need for mitigation measures and have noted that they are happy to discuss mitigation and feasibility of potential options following establishment of the baseline.

6.5.8. The RSPB have noted that they are likely to consider that there will be a requirement for a thorough monitoring plan, to include post consent monitoring of seabird behaviour in and around the turbines to identify displacement and avoidance behaviours, if the project is progressed.

6.6. Terrestrial Ecology

6.6.1. Whilst key concerns regarding terrestrial ecology are expected to be addressed through the terrestrial planning system, the following comments have been received for consideration by the applicant.

6.6.2. We note the proposals laid down in Section 6.6 (Terrestrial Ecological) of the Environmental Impacts Scoping Report. Given that the terrestrial route of the cabling and the location of the sub-station are yet to be finalised, we would simply reiterate importance of adequate surveys effort (for habitats and species) to be carried out. We would refer you to our website for further advice with regard to undertaking any relevant surveys which should be carried out in accordance with best practice guidance and by suitably licenced and experienced ecologists. In addition, should the proposal require the removal of any trees, these should also be assessed for potential bat roosting features. Trees identified as having moderate or higher bat potential features will require further inspection, such as tree climbing and/or endoscope inspections. These surveys/assessments will be required, prior to determination of any future planning application. It is recommended that you liaise with the Local Authority's Planning Ecologist during survey design.

- 6.6.3. As the report states that there are no confirmed dormice (EPS) records within 10km of potential landfall sites. However, there is a very recent potential dormouse nest record in the area surrounding Pembroke Power Station. The record is not yet confirmed due to the nature of the nest, however, the ecologists on site considered it likely to be the nest of a young dormouse. We would recommend engaging with the National Park Authority on this point, and appropriate assessment recorded in the submitted ES.

7. Human Environment

7.1. Commercial Fisheries

- 7.1.1. No comments were received from consultees in relation to commercial fisheries and we have no comment to make on this section of the report (section 7.1). The ES should however include an assessment of impacts on commercial fisheries, as set out in the scoping report.

7.2. Shipping and Navigation

- 7.2.1. In addition to the impacts scoped into the ES in the scoping report, the following impacts must be scoped into and assessed within the submitted ES:
- The impact of visual intrusion and noise on commercial and recreational craft.
 - The risk to drifting recreational craft in adverse weather or tidal conditions.
 - The effect on small craft navigational and communications equipment.
 - The likely squeeze of small craft into the routes of larger commercial vessels.
 - A Burial Protection Index study to be included where cable burial is proposed and if applicable, an anchor penetration study should be considered.
- 7.2.2. We request that the submitted ES also incorporates the following methodologies within the Navigation Risk Assessment:
- Comprehensive vessel traffic analysis in accordance with MGN 543, taking account of MGN 372.
 - Any proposed layouts should conform with MGN 543.
 - An assessment of the impact of, and emergency response to, a turbine breaking free of its moorings, along with appropriate risk mitigation measures (e.g. AIS / GPS monitoring of offshore structures).
- 7.2.3. Should infrastructure be proposed to remain in situ following decommissioning the ES must consider potential risks from this infrastructure beyond the lifetime of the project.
- 7.2.4. MGN 543 Annex 2 requires that hydrographic surveys should fulfil the requirements of the International Hydrographic Organisation (IHO) Order 1a standard, with the final data supplied as a digital full density data set, and survey report to the MCA Hydrography Manager. Failure to report the survey or conduct it to Order 1a might invalidate the Navigational Risk Assessment if it was deemed not fit for purpose.

- 7.2.5. Trinity House have noted that they would consider that this development, potentially including export cables and vessels laying them, will need to be marked with marine aids to navigation by the developer/operator in accordance with the general principles outlined in IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities) Recommendation O-139 on the Marking of Man-Made Offshore Structures as a risk mitigation measure. In addition to the marking of the structures themselves, it should be borne in mind that additional aids to navigation such as buoys may be necessary to mitigate the risk posed to the mariner, particularly during the construction phase. All marine navigational marking, which will be required to be provided and thereafter maintained by the developer, will need to be addressed and agreed with Trinity House. This will include the necessity for the aids to navigation to meet the internationally recognised standards of availability and the reporting thereof.
- 7.2.6. It is recommended that you engage with the MCA in order to discuss proposed turbine layouts, which should minimise risks to surface vessels including rescue boats and surface rescue aircraft operating within the site. The MCA also require you to consult on the completion of a MGN checklist. In addition the MCA have identified that a Third-Party Verification of the mooring arrangement will be required.
- 7.2.7. The MCA have noted that where cable protection measures are required, they may be willing to accept a 5% reduction in surrounding depths referenced to Chart Datum this should be discussed further with the MCA.

7.3. Coastal and Marine Infrastructure and Other Users

- 7.3.1. No comments were received from consultees in relation to Coastal and Marine Infrastructure and Other Users and we have no comment to make on this section of the report (section 7.3). The ES should however include an assessment of impacts on Coastal and Marine Infrastructure and Other Users, as set out in the scoping report

7.4. Aviation and Radar

- 7.4.1. In the interests of air safety, the MOD have noted that are likely to request fitting of MOD accredited aviation safety lighting in accordance with the Civil Aviation Authority, Air Navigation Order 2016 should the project be progressed. Further information about the effects of wind turbines on MOD interests can be obtained from the following website:

<https://www.gov.uk/government/publications/wind-farms-ministry-of-defence-safeguarding>

7.5. Archaeology and Cultural Heritage

- 7.5.1. Cadw have reviewed the scoping area and noted that there are 66 scheduled monuments, 3 registered historic park and gardens, 2 registered historic landscapes and 188 listed buildings located inside the submitted scoping area for the Environmental Impact Assessment. However, only one scheduled monument (PE554 West Angle Bay Early Medieval Settlement) and two listed buildings (5954 Corse Bridge and attached Walled Channel and 16583 Seaweed on foreshore) are located inside 500m of the proposed cable route below the mean high-water spring tide line. These must be included within the assessment contained within the submitted ES.
- 7.5.2. LiDAR data identified as a data source in Table 7-9 tends to be low resolution or absent in many parts of Wales. Collection of LiDAR data should be considered as part of the archaeological surveys to inform the EIA.
- 7.5.3. When considering reasonable alternatives within the submitted ES, you should ensure that consideration is given to Archaeology and Cultural Heritage receptors, and whether impacts could be mitigated through alternative site or technology selection.

7.6. Land Use

- 7.6.1. No comments were received from consultees in relation to Land Use and we have no comment to make on this section of the report (section 7.6). The ES should however include an assessment of impacts on Land Use, as set out in the scoping report

7.7. Traffic and Transport

- 7.7.1. No comments were received from consultees in relation to Traffic and Transport and we have no comment to make on this section of the report (section 7.7). The ES should however include an assessment of impacts on Traffic and Transport, as set out in the scoping report

7.8. Seascape, Landscape and Visual Impacts

- 7.8.1. We advise the addition of the National Park Management Plan and reference to the Special Qualities of the park into the baseline data for the Pembrokeshire Coast National Park. It would also be advisable to refer to the detailed assessments in LANDMAP where the landfall and substation proposals are concerned.
- 7.8.2. With regard to the Seascape Character Areas identified in the National Park's Seascape Character Assessment, we suggest that SCA32 Inner Milford Haven is included in relation to the potential landfall/substation. A number of other factors are noted in the SCAs as well as those mentioned in the report e.g. coastal splendour; remote, unspoilt cliffs & sheltered bays. Full account needs to be taken of factors contributing to sensitivity.

- 7.8.3. With regard to the Landscape Character Areas identified in the National Park's Landscape Character Assessment, we suggest that LCA9 Marloes Peninsula and LCA10 Skomer & Skokholm are included, as these landscapes have the potential for visual impacts.
- 7.8.4. With regard to potential mitigation (7.8.4) we advise that the size and height of turbines, and the location, orientation and spread of the array and the inclusion or exclusion of lighting are also potential mitigation options for the project.
- 7.8.5. We note that direct physical impacts on the Heritage Coasts of South Pembrokeshire and Marloes & Dale have been scoped into the designated sites within Section 6.1 of the Scoping report. However, we recommend that potential landscape and seascape impacts on the Heritage Coasts should also be included in the submitted ES.
- 7.8.6. We suggest that, as well as the largest scale of turbine anticipated, consideration should also be given to the orientation of the array in relation to high sensitivity receptors i.e. Pembrokeshire Coast National Park and highly sensitive viewpoints. The orientation and spread of the array can affect the degree of impact on a visual receptor. In addition, the height of the offshore platforms as well as the height of the turbines needs to be taken into account. We note that turbines would be required to be marked in accordance with aviation requirements. If lighting is required, an assessment of night-time impacts would also be required. Dark skies are a feature of many offshore areas at night and contribute to perceptions of tranquillity & remoteness.
- 7.8.7. It is recommended that the applicant engage with NRW Advisory to support selection of viewpoints and photomontage production.
- 7.8.8. Please note that NRW have commissioned evidence reports on Offshore Wind Development: 1. Ready Reckoner, 2. Siting Guidance & 3. Sensitivity Assessment. These reports are principally focussed on the visual effects in relation to Designated Landscapes, therefore, rather than our Marine Character Areas the assessment units used are bespoke to the assessment and the marine settings of Designated Landscapes. It should be noted that the reports are an evidence base, rather than NRW's position or guidance. The reports can be found on NRW's website:

<https://cdn.naturalresources.wales/media/689503/eng-evidence-report-315-seascape-and-visual-sensitivity-to-offshore-wind-farms-in-wales.pdf>

7.9. Underwater Noise and Vibration

- 7.9.1. Section 7.9 identifies a further source of underwater noise, namely seabed preparation. It does not, however, identify potential noise from cable 'snapping'. The applicant must ensure that both of these sources are captured throughout all noise assessments within the submitted ES.
- 7.9.2. The underwater noise assessment will need to determine the potential zone of masking, i.e. the distance from the various sources of noise at which the received levels of underwater noise are less than background noise.

7.10. Airborne Noise and Vibration

7.10.1. No comments were received from consultees in relation to Airborne Noise and Vibration and we have no comment to make on this section of the report (section 7.10). The ES should however include an assessment of impacts on Airborne Noise and Vibration, as set out in the scoping report

7.11. Air Quality

7.11.1. No comments were received from consultees in relation to Air Quality and we have no comment to make on this section of the report (section 7.11). The ES should however include an assessment of impacts on Air Quality, as set out in the scoping report

7.12. Tourism and Recreation

7.12.1. No comments were received from consultees in relation to Tourism and Recreation and we have no comment to make on this section of the report (section 7.12). The ES should however include an assessment of impacts on Tourism and Recreation, as set out in the scoping report

7.13. Socioeconomics

7.13.1. No comments were received from consultees in relation to Socioeconomics and we have no comment to make on this section of the report (section 7.13). The ES should however include an assessment of impacts on Socioeconomics, as set out in the scoping report

7.14. Human Health

7.14.1. No comments were received from consultees in relation to Human Health and we have no comment to make on this section of the report (section 7.14). The ES should however include an assessment of impacts on Human Health, as set out in the scoping report

8. Cumulative Effects Assessment

- 8.1. The ES must include an assessment of cumulative and in-combination effects.
- 8.2. The following data sources may provide useful information on other projects for the assessment of cumulative effects:
 - The Nationally Significant Infrastructure Projects register: <https://infrastructure.planninginspectorate.gov.uk/projects/register-of-applications/>
 - The Developments of National Significance Register: <http://gov.wales/docs/desh/publications/180312-dns-register-en.pdf>
 - Planning Policy e.g. Local Development Plans, Transport Plans (National and Local) and National Policy Statements.
 - An up to date list of marine licensable developments can be found at the following link: <http://lle.gov.wales/catalogue/item/MarineLicences/?lang=en>
- 8.3. We recommend that for marine birds the extent of the CEA should be based on foraging ranges of features considered to be affected by the proposed project. All projects within the foraging range of a colony/protected site should be considered within the CEA of the submitted ES.
- 8.4. We agree with the inclusion of offshore search area extents in the cumulative effects assessment. For usefulness we recommend inclusion of distances and/or locations of projects and plans in relation to Project Erebus in the submitted ES.
- 8.5. The applicant should consider the inclusion of the Pembrokeshire Demonstration Zone (PDZ) within the CEA, depending on the current status of this project.
- 8.6. The cumulative underwater noise and vibration effects of the project with the nearby Castlemartin firing range and other marine activities (e.g. shipping) should be scoped in and appropriately assessed within the submitted ES.
- 8.7. We recommend that the following statement in Section 8.2.1 is clarified, to state that such projects have therefore been excluded from the CEA as they are considered within the baseline for each receptor chapter.

“Projects that were built and operational at the time that survey data were collected have been classified as part of the baseline conditions.”

Yours sincerely



Sion Roberts

Permitting Officer

Marine Licensing Team

Natural Resources Wales

Approved by



Peter Morrison

Marine Licensing Team

Natural Resources Wales

Cc: All Consultation Bodies