The Planning Inspectorate
Yr Arolygiaeth Gynllunio

SCOPING OPINION

Proposed Morlais Tidal Array

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an Inspector appointed by the Welsh Ministers

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INTRODUCTION

Background

1. Menter Môn Cyf ('the Applicant') has requested a Scoping Opinion for the proposed Morlais Tidal Array from the Welsh Government, in accordance with the Transport and Works Act 1992 and the Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006 (as amended[1]) ('the EIA Regulations').

2. In accordance with Rule 8 of the EIA Regulations, an Applicant may ask the Secretary of State ('SoS') to state in writing its opinion "*…as to the information to be provided in the environmental statement (a "scoping opinion")…"*.[2]

3. The Welsh Ministers have appointed the Inspector to produce this Scoping Opinion on their behalf. This has been achieved through initial scoping and drafting by the Planning Inspectorate's Environmental Services Team, along with co-ordination and assistance provided by staff in Planning Inspectorate Wales.

4. This document is the Scoping Opinion which has been prepared in respect of the Proposed Works by the Planning Inspectorate. It is made on the basis of the information provided in the Applicant's report entitled Morlais Tidal Array Scoping Report ('the Scoping Report') (dated 4 April 2018). This Scoping Opinion can only reflect the proposals as currently described by the Applicant.

5. The Applicant has notified the Welsh Ministers that they propose to provide an Environmental Statement ('ES') in respect of the Proposed Works.

6. Rule 8 of the EIA Regulations requires that before adopting a scoping opinion the SoS must take into account:
   a) the specific characteristics of the works in question;
   b) the specific characteristics of works of the type concerned; and
   c) the environmental features likely to be affected by the works.

7. This Scoping Opinion has taken into account the requirements of the EIA Regulations as well as current best practice towards preparation of an ES. It should be read in conjunction with the Applicant's Scoping Report.

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[1] Statutory Instrument 2006 No.1466 - The Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006 are amended by the Environmental Impact Assessment (Miscellaneous Amendments Relating to Harbours, Highways and Transport) Regulations 2017). The amendments are made to transpose Directive 2014/52/EU ('the 2014 Directive'), which amends Directive 2011/92/EU ('the EIA Directive') (on the assessment of the effects of certain public and private projects on the environment). In particular this instrument implements the amendments to the EIA Directive across a number of regimes concerned with the consenting of transport-related projects.

[2] The wording of the EIA Regulations pre-dates the Wales Act 2017, and devolution of the relevant powers to the Welsh Ministers.

8. The Planning Inspectorate has consulted on the Applicant's Scoping Report and the responses received from the consultation bodies have been taken into account in adopting this Opinion (see Appendix 1).

9. The points addressed by the Applicant in the Scoping Report have been carefully considered and use has been made of professional judgement and experience in order to adopt this Scoping Opinion. It should be noted that when any subsequent ES is considered, account would be taken of relevant legislation and guidelines. The Welsh Ministers will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with the application for a Transport and Works Act Order.

10. This Scoping Opinion should not be construed as implying that I agree with the information or comments provided by the Applicant in their request for an opinion.

11. Rule 8(2) of the EIA Regulations states that a request for a scoping opinion must include:
    a) a plan sufficient to identify the land affected by the works in question;
    b) a brief description of the nature and purpose of the proposed works; and
    c) a brief description of the possible effects on the environment of the works, and may include such other information as the applicant wishes to provide.

12. I consider this to have been provided in the Applicant's Scoping Report, and I am satisfied that the Scoping Report encompasses the relevant aspects identified in the EIA Regulations.

13. Rule 11(2)(a) states that, where a scoping opinion has been issued in accordance with Rule 8, an ES accompanying an application for an Transport and Works Act Order should "…*be based on the most recent scoping opinion issued (so far as the proposed works remains materially the same as the proposed works which was subject to that decision)*…".

14. I note the potential need to carry out an assessment under The Conservation of Habitats and Species Regulations 2017 and The Conservation of Offshore Marine Habitats and Species Regulations 2017 ('the Habitats Regulations'). This assessment must be co-ordinated with the EIA in accordance with Rule 8A of the EIA Regulations. The Applicant's ES should therefore be co-ordinated with any assessment made under the Habitats Regulations.

The Planning Inspectorate's Consultation

15. In accordance with Rule 8(4) of the EIA Regulations the Planning Inspectorate has consulted the following consultation bodies before adopting a scoping opinion:

    - Isle of Anglesey County Council (IoACC);
    - Cadw;

- Marine Management Organisation (MMO);
- Natural Resources Wales (NRW);
- Royal Society for the Protection of Birds (RSPB) Cymru; and
- Welsh Government (Biodiversity and Nature Conservation, and Marine & Fisheries Division, and Marine Conservation & Biodiversity)

16. The list of respondents who replied within the allowed timeframe and whose comments have been taken into account in the preparation of this Scoping Opinion is provided, along with copies of their comments, at Appendix 1, to which the Applicant should refer in preparing their ES.

17. The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.

Withdrawal from the European Union

18. Following the EU Referendum and the steps taken in relation to the United Kingdom's withdrawal from the European Union, there are, as yet, no changes to the legislation and policies that are relevant to this Scoping Opinion.

THE PROPOSED WORKS

Introduction

19. The following is a summary of the information on the Proposed Works and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the Proposed Works and the potential receptors/ resources.

Description of the Proposed Works

20. The Proposed Works are for a tidal technology demonstration zone of up to 240MW capacity. It comprises both onshore and offshore elements.

Offshore

21. The offshore area is located approximately 0.5km at its nearest point from the west coast of Holy Island, Anglesey and is 35km^2 in size. The offshore area is shown on Figure 2.1 of the Scoping Report.

22. The offshore components would include Tidal Energy Converters ('TEC') of multiple technology types; offshore substation/hubs to convert energy into an exportable format; site monitoring equipment; inter-array cables; surface floating navigation buoys; subsea export cables and cable protection measures.

23. Up to nine export cables from the offshore substation/hubs would make landfall at Penrhos Feilw, south of South Stack lighthouse where it would connect to an onshore cable (potentially within a transition pit); the export cable route and exact landfall location has not yet been determined.

Onshore

24. The onshore components of the Proposed Works would be located somewhere within the onshore scoping area which is depicted on Figure 4.1 of the Scoping Report. The Scoping Report describes the onshore scoping area as a mix of agricultural grazing land, grass land, scrub, maritime heath and semi-urban areas on the east side.

25. The onshore cable would route from landfall to an onshore substation; the location of which has not been determined but is expected to be located to the east of Penrhos Feilw.

26. The onshore cable would be routed from the onshore substation to one of the following grid connection points:

- a 132kV connection at the Orthios Holyhead Eco Park;
- a 33kV connection at Parc Cybi; and
- a 132kV connection at Valley.

27. Should the grid connection be made at Valley, the onshore cable would cross the Cymyran Strait. It is proposed that the cable route would cross within the existing road crossing.

28. A further substation or switching facility may be required at the grid connection point.

29. Road strengthening may be required dependent on the preferred substation and cable route option.

Responsibilities

30. Section 5.1 of the Scoping Report confirms that the Applicant would install communal infrastructure (including an offshore substation, export cable route and onshore infrastructure from the landfall to the onshore substation). Prospective tenants would be expected to install their own TEC arrays and install any infrastructure required to transmit generated power to a communal focal point (such as an offshore electrical hub).

The Inspector's Comments

Description of the Proposed Works

31. The ES should include a description of the Proposed Works comprising at least the information on the site, design, size and other relevant features of the Proposed Works.

Offshore

32. It is recognised that the Proposed Works will seek to support the delivery of new and emerging technologies, which at this time necessitates a very broad description of the Proposed Works' offshore elements. However, accommodating such a broad description within the Order and providing a robust assessment of it will be challenging. The Scoping Report explains that the assessment approach will be to establish a worst case project envelope. In applying this approach the Applicant should have regard to the below section on 'Flexibility'.

33. Consultee comments and resulting 'Actions Taken' recorded in Table 11-1 of the Scoping Report's Appendix A1 indicate the potential for dredging within the offshore area; however this has not been discussed in the project description. The ES should identify the location and likely extent of any dredging required and ensure that any likely significant effects associated with dredging activities are presented in the ES.

34. The ES should describe any elements of the Proposed Works in the offshore area which would extend above sea level and therefore be visually prominent.

35. I note that the Proposed Works are being specifically designed for the installation, testing and commercial demonstration of arrays of TECs. The Scoping Report does not explain specifically what 'testing' would mean or confirm whether TECs could be changed during the operational phase of the Proposed Works i.e. should it be determined following the installation and 'testing' of a specific type of TEC that it is unsuitable for any reason, whether this would result in the removal of that structure and replacement with an alternative type. For the purposes of this Scoping Opinion it has been assumed that once installed, the TECs will remain in place for their

operational life.[3] However, if replacement works following testing are necessary during the 'operational' phase to change TECs then the ES should address any resulting likely significant effects.

Onshore

36. The onshore scoping area extends to a large area. The precise locations of onshore elements are yet to be determined and there is only limited text within the Scoping Report to explain the approximate anticipated locations. The Applicant should be aware that the lack of detail at this stage limits the ability for this Scoping Opinion to provide comments on the onshore works.

37. It is assumed that at the point of application (and to address Rule 11 of the EIA Regulations), the onshore elements of the Proposed Works will be refined to include a precise cable route and locations for transition pit (if required), substation(s) and any necessary switching gear at the grid connection. The ES should describe each of these features along with the locations and sizes of construction compounds, access tracks, haulage roads and any areas temporarily required for construction (including the working width of the onshore cable). The ES should identify dimensions of any permanent structures.

38. Table 9-10 of the Scoping Report refers to 'overhead grid infrastructure'; however there is no further reference to such structures. The ES should confirm whether overhead grid infrastructure is required, and if so provide the location and dimensions for these features. Likely significant effects associated with the overhead grid infrastructure as part of the Proposed Works must be presented in the ES.

39. Details of any requisite road strengthening should be provided in the ES and the potential impacts from these works included in the assessment scope where significant effects are likely to occur.

Timeframes

40. Table 9-10 of the Scoping Report indicates that construction is planned during the summer months. The ES should provide a clear construction programme for the Proposed Works including phasing of key work elements.

41. Section 5.4.1 of the Scoping Report states that the "*project will have a maximum 37-year lifespan*." The ES should confirm the lifespan of the Proposed Works and ensure that this is taken into account in relevant aspect assessments.

42. The ES should confirm whether any structures are expected to remain in-situ on the seabed post-decommissioning.

Flexibility

43. The Scoping Report explains that: a wide range of offshore technology types are currently being developed and optimised (as detailed in Table 5-1 of the Scoping Report) by the tidal energy sector; and, that consequently multiple types of TECs may be installed at any one time. It is understood that: the final location of TECs will be decided through an assessment of

[3] The letter requesting this Scoping Opinion notes the project to include "…*the long term commercial deployment of a number of tidal stream technologies*…"

device needs, availability of locations and potential environmental, physical and human use constraints; and, decisions relating to the technology type and precise location would be made after the granting of the Order.

44. The Applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the Proposed Works have yet to be finalised and provide the reasons. At the time of application, any Proposed Works parameters should not be so wide-ranging as to represent effectively different works. The works parameters will need to be clearly defined in the ES. It is a matter for the Applicant, in preparing an ES, to consider whether it is possible to robustly assess a range of impacts resulting from a large number of undecided parameters. The description of the Proposed Works in the ES must not be so wide that it is insufficiently certain to comply with the requirements of the EIA Directive.

45. It is noted that "*During the EIA, the final design of onshore infrastructure such as specified cable routes and substation dimensions may not be completed prior to application submission*".[4] The Applicant therefore intends to develop a project design envelope (often referred to as a 'Rochdale envelope') to identify the maximum environmental impact. Such an approach for the dimensions of the substation is considered to be appropriate.

46. However, I am concerned with the suggested lack of detail proposed in regard to the defined onshore cable route. There is no explanation as to why these details could not be supplied at the point of application, nor is there justification provided in the Scoping Report as to the need for flexibility in this regard. The Scoping Report suggests that limits of deviation may be required. If limits of deviation are proposed these should be clearly presented in the ES and within a specified onshore cable route.

47. The Scoping Report identifies both open-trench and trenchless construction methodologies for the onshore cable route and two methods for cable installation at landfall. If the precise method of construction is not determined by time of application, the ES should set this out along with a justification and assess impacts based on the worst case scenario.

48. The Scoping Report does not identify the potential number of TECs that could be deployed within the offshore tidal array; instead, the TECs would have a combined generating capacity of up to 240MW. The Scoping Report indicates that TECs vary considerably in terms of: their physical dimensions; the number and size of turbine blades; and, the ways in which they are anchored to the sea bed. TECs also vary in individual generating capacity. It is therefore apparent that the device type will very likely result in different impacts to receptors. As the type and number of specific devices will not be determined pre-application, the Applicant will need to carefully consider how the worst case scenario will be defined, taking into account that this may differ for different aspect assessments and for different receptor groups. The assessment envelope should be very clearly described and consistently applied throughout the ES.

49. The ES should seek to identify the maximum number and length of array cables. Any necessary cable protection should also be quantified. The same

[4] Section 4.3 of the Scoping Report

applies to the export cable(s). Impacts associated with array and export cable installation and protection should be assessed where significant effects are likely to occur.

50. Maximum quantities of scour protection and cable protection should be identified and impacts associated should be assessed where significant effects are likely.

51. Although the Scoping Report states that percussive piling is 'unlikely' due to the presence of hard substrate, its use has not been completely excluded. The maximum number and dimensions of piles (both percussive and/or drilled) should be defined for the purposes of the assessment.

52. The ES states that the maximum support structure footprint is to be defined. The maximum dimensions of devices should also be defined (both beneath and above sea level) - this should not be limited to just the height of a structure.

53. The Scoping Report does not specify if the assessment will be based on a maximum number of TECs or if other offshore structures will be identified. If precise details cannot be provided in the Order the ES should ensure that suitable parameters are identified in order to enable a robust assessment in the ES.

54. The Scoping Report states that there are various methods available for cable laying and a range of appropriate methods will be assessed within the ES. It is considered that in keeping with the project design envelope approach, a worst case scenario should be applied. However, it is acknowledged that the worst case may differ for different aspects or receptor groups. The Applicant should carefully consider the assessment approach in this regard to ensure that is sufficiently clear to meet the requirements of the EIA Regulations.

Alternatives

55. The EIA Regulations require that the Applicant provide '…*A description of the reasonable alternatives studied by the applicant, which are relevant to the proposed works and their specific characteristics, and an indication of the main reasons for option chosen, taking into account the significant effects of the proposed works on the environment*…'.[5]

56. It is apparent that the Applicant intends to consider alternatives within the ES. The ES should contain a discrete section that provides details of the reasonable alternatives studied and the reasoning for the selection of the chosen option(s), including a comparison of the environmental effects.

Well-being of Future Generations

57. The Applicant's intention to support the Well-being of Future Generations (Wales) Act 2015 in its objectives to improve the social, economic, environmental and cultural well-being of Wales is welcomed.

[5] Rule 11(1)(d) and Schedule 1 Part 2 of the EIA Regulations

ES APPROACH

Introduction

58. This section contains specific comments on the scope and level of detail of information to be provided in the Applicant's ES.

59. Aspects/ matters are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by (or on behalf of) the Welsh Ministers. The ES should be based on the Scoping Opinion in so far as the Proposed Works remain materially the same as the Proposed Works described in the Applicant's Scoping Report.

60. This Opinion sets out where I have/ have not agreed to scope out certain aspects/ matters on the basis of the information available at this time. This Scoping Opinion does not prevent the Applicant from subsequently agreeing with the relevant consultees to scope such aspects/ matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/ matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.

61. Where relevant, it will be necessary for the ES to: demonstrate how the delivery of measures proposed to prevent/ minimise adverse effects would be secured through suitably robust methods; and, confirm whether relevant consultees agree on the adequacy of the measures proposed.

Scope of Assessment

General

62. It is recommended that in order to assist the decision-making process, the Applicant uses tables:

- to identify and collate the residual effects after mitigation for each of the aspect chapters, including the relevant interrelationships and cumulative effects;
- to set out the proposed mitigation and/ or monitoring measures including cross-reference to the means of securing such measures;
- to describe any remedial measures that are identified as being necessary following monitoring; and
- to identify where details are contained in the Habitats Regulations Assessment (HRA) information (where relevant), such as descriptions of European sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.

63. The Scoping Report states that a single ES will be submitted to support an Order application to the Welsh Government and to support an application for a marine licence.[6] This Scoping Opinion has been produced solely in regard to the works to be consented through the Transport and Works Act.

[6] For example, paragraphs 3.2.1 and 5.1 of the Scoping Report

64. The Applicant intends for the supporting infrastructure of the Proposed Works to be developed with sufficient capacity to support the grid connection of the Minesto Holyhead Deep project (located northwest of the offshore scoping area). However, the Minesto Holyhead Deep project does not form part of the Proposed Works. It is recommended that the ES assesses the potential cumulative effects of the Minesto Holyhead deep project and the Proposed Works.

65. Table 11-1 (at Appendix A1 of the Scoping Report) states that it is likely decommissioning will be assumed to be the reverse of construction. For some aspect chapters in the Scoping Report, impacts of construction have been identified but impacts from decommissioning have not, without any justification. Where there is the potential for an impact from construction, it follows that there is also the potential for an impact from decommissioning. As such, the Applicant should ensure that impacts from decommissioning with the potential to result in significant effects are thoroughly assessed within the ES.

66. Each aspect chapter of the Scoping Report includes a table identifying potential impacts and the phase of development for which such an impact could occur (i.e. construction or operation). The Applicant has only made limited requests to scope out matters; these requests are responded to in the aspect tables of this Scoping Opinion.

67. A number of potential impacts have been identified for a single phase only (e.g. Table 7-2, suspended sediment identified for construction phase only). Unless otherwise indicated within the aspect tables of this Scoping Opinion, it is agreed that potential impacts are relevant to the phases identified in these tables.

Baseline Scenario

68. The ES should include a description of the baseline scenario, with and without implementation of the Proposed Works. This description should be on the basis of: the extent to which natural changes from the baseline scenario can be assessed with reasonable effort; and, the availability of environmental information and scientific knowledge.

69. The Scoping Report has not consistently identified study areas for the aspect chapters. The study area for each aspect should be defined and justified within the ES. It is recommended that the Applicant makes effort to agree study areas for aspect assessments with relevant consultees.

70. The Scoping Report has not assigned sensitivities/values to any of the identified receptors. The aspect chapters of the ES should identify the specific receptors to be assessed and their sensitivity/value; this should be based on recognised guidance where possible.

Forecasting Methods or Evidence

71. Section 6.2.2 of the Scoping Report provides a very high level description of the generic assessment approach, although it does not explicitly state how significance of effects will be determined. It is recommended that the ES includes a chapter setting out the overarching methodology for the assessment, which clearly distinguishes effects that are 'significant' from 'non-significant' effects. Any departure from that methodology should be described in individual aspect assessment chapters.

72. The aspect chapters themselves provide baseline information and identify potential effects. Limited detail has been provided in the aspect chapters on the approach to assessing the significance of effects. Similarly, few references have been made to specific guidance which may be followed in undertaking the assessment. This has limited this Scoping Opinion's ability to respond to the proposed assessment scope. It is therefore strongly advised that assessment methodologies are discussed and agreed with relevant consultees for each aspect.

73. The EIA Regulations require an ES to include a description of the forecasting methodologies, therefore this detail must be provided within the ES.[7]

74. The ES should contain the timescales upon which the surveys which underpin the technical assessments have been based. For clarity, this information should be provided either in the introductory chapters of the ES (with confirmation that these timescales apply to all chapters), or in each aspect chapter.

75. The Scoping Report makes numerous references to undertaking literature reviews of similar studies to inform the environmental baseline, however limited detail is provided as to what information would actually be reviewed. The ES should provide details of any information used to inform the baseline, including the time periods and spatial area covered by the data. The relevance of any such information used to inform the assessment should be carefully considered by the Applicant.

76. The potential impacts table within each aspect chapter include a column titled 'Anticipated Significance'. In some cases the tables conclude that a potential effect is unlikely to be significant; however it is not clear whether the Applicant is proposing to scope out these matters (the Scoping Report explicitly requests to scope out some other matters). For the avoidance of doubt, this Scoping Opinion has assumed that all potential impacts identified in these tables will be assessed within the ES (unless it is stated otherwise in the aspect tables of this Scoping Opinion).

77. The ES should include details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.

Residues and Emissions

78. The EIA Regulations require an estimate, by type and quantity, of expected residues and emissions, [8] where relevant. Specific reference should be made to water, air, soil and subsoil pollution, noise, vibration, light, heat, and radiation, where relevant. This information should be provided in a clear and consistent fashion and may be integrated into the relevant aspect assessments.

Mitigation

79. The Scoping Report acknowledges that mitigation measures will need to be developed for the Proposed Works, but it does not propose any specific mitigation at this stage. This Scoping Opinion has not provided comment on

[7] Schedule 1 Part 4 of the EIA Regulations, in relation to Rules 4(1) and 11(2)
[8] Schedule 1 Part 1(c) of the EIA Regulations,

mitigation within the aspect tables to this Scoping Opinion; however the ES will be expected to explain in detail any mitigation that it relies upon for the purposes of its assessment. The likely efficacy of the mitigation proposed should be explained with reference to residual effects. The ES should also address how any mitigation proposed would be secured.

Risks of Major Accidents and/or Disasters

80. The ES should include a description and assessment (where relevant) of the likely significant effects resulting from accidents and disasters applicable to the Proposed Works. The Applicant should make use of appropriate guidance to better understand the likelihood of an occurrence and the Proposed Works' susceptibility to potential major accidents and hazards. The description and assessment should consider the vulnerability of the Proposed Works to a potential accident or disaster and also the Proposed Works' potential to cause an accident or disaster. The assessment should specifically assess significant effects resulting from the risks to human health, cultural heritage or the environment. Any measures that will be employed to prevent and control significant effects should be presented in the ES.

81. Relevant information available and obtained through risk assessments pursuant to European Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.

Climate and Climate Change

82. The ES should include a description and assessment (where relevant) of the likely significant effects that the Proposed Works would have on climate (for example having regard to the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change. Where relevant, the ES should describe and assess the adaptive capacity that has been incorporated into the design of the Proposed Works. This may include, for example, alternative measures such as changes in the use of materials or construction and design techniques that will be more resilient to risks from climate change.

Transboundary Effects

83. In accordance with Rule 16 of the EIA Regulations, the ES should provide a description of the likely significant transboundary effects, where relevant.

Confidential Information

84. In some circumstances it will be appropriate for information to be kept confidential. In particular, this may relate to information about the presence and locations of rare or sensitive species such as badgers, rare birds and plants where disturbance, damage, persecution or commercial exploitation may result from publication of the information. Where

documents are intended to remain confidential the Applicant should provide these as separate paper and electronic documents with their confidential nature clearly indicated in the title, and watermarked as such on each page. The information should not be incorporated within other documents that are intended for publication or which the Welsh Ministers would be required to disclose under the Environmental Information Regulations 2014.

Clive Sproule

INSPECTOR

15 May 2018

ASPECT BASED SCOPING TABLES

Metocean Conditions and Coastal Processes

(Scoping Report section 7.1)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	11.2.2.1 & Table 7-1	Reduced energy in tidal currents from energy removed by tidal devices	Paragraph 11.2.2.1 of the Scoping Report requests to scope this matter out on the basis that previous studies for other projects such as Perpetuus Tidal Energy Centre and SeaGen have found little evidence of significant changes to tidal strength downstream of devices and have predicted no significant impacts on coastal processes. Whilst this is noted, the Perpetuus Tidal Energy Centre is a 30MW development and it is not accepted that the findings of such previous studies are directly applicable to the Proposed Works, which is 240MW and is seeking a wide project design envelope. In addition, the request to scope this matter out is contradicted by Table 7-1 of the Scoping Report which states that removal of tidal energy from the environment may result in increased sedimentation downstream of TEC devices and that significance of impact is unknown. It is therefore not agreed that this matter can be scoped out of the ES. The ES should assess potential hydrodynamic impacts from the presence of offshore infrastructure.
2	11.2.2.1	Changes to wave climate from submerged and surface piercing infrastructure	The Applicant states that EIA and monitoring studies from other surface piercing technologies, namely offshore wind, have found no evidence to suggest that surface piercing devices significantly alter wave climate or strength inshore of project areas. No specific studies have been referenced and it is unclear if such studies conducted for different technology types will be applicable to the Proposed

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
			Works' tidal technologies, which may include substantially different structures to wind turbines. On the basis of the information provided at this stage, it is not agreed this matter can be scoped out of the ES. The ES should assess potential hydrodynamic impacts from the presence of offshore infrastructure.

ID	Para	Other points	Scoping Opinion comments
3	7.1.3	Baseline characterisation	The Scoping Report provides limited detail on how the baseline will be characterised. The Applicant should make efforts to discuss and agree the approach to baseline characterisation with NRW. The proposed coastal process conceptual modelling should inform the need of any further field surveys e.g. bathymetric and/ or geophysical investigations. Sediment samples should also be taken in sediment laden seabed areas to determine sediment type, composition and sediment volume that could potentially be suspended through the cable trenching activities. Topographical data from the landfall location should be provided to inform any impacts on the beach profile and sediment morphology from cable landfall.
4	Table 7-1	Increased suspended sediment from reduced water energy	The ES should assess the likely significant effects associated with the alteration of near bed currents and sediment transport pathways caused by rock armour protection on the seabed, not just the tidal energy devices.
5	n/a	Prediction of impacts	The Scoping Report does not explain how the significance of effects relating to changes to metocean conditions, sediment transport, and coastal processes will be assessed. The Applicant is recommended to discuss and agree their approach to this assessment, including the need for

ID	Para	Other points	Scoping Opinion comments
			hydrodynamic modelling, with NRW. Details of any models used should be provided in the ES, including any assumptions and limitations and how these have been factored in to the assessment.

Marine Sediment and Water Quality

(Scoping Report section 7.2)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Para	Other points	Scoping Opinion comments
2	7.2.1 & Table 7-2	Potential impacts and receptors	The Scoping Report identifies marine water quality designations including bathing waters and a European Shellfish Water within the offshore scoping area and adjacent Holy Island coastal area. Table 7-2 (Potential impacts on marine sediment and water quality) of the Scoping Report identifies potential impacts but does not relate impacts to specific receptors such as designated sites for water quality. The ES should clearly identify and assess impacts to specific receptors where significant effects are likely. The ES should include figures that clearly depict the locations of such receptors.
3	7.2.1.2 & Table 7-2	Mobilisation of contaminants	Section 7.2.1.2 of the Scoping Report indicates the potential for contaminated sediments in the offshore area. The mobilisation of contaminants during construction has not been identified as a potential impact in Table 7-2 of the Scoping Report, although it is noted that it has been identified as a potential impact on benthic ecology in Table 8-4. The Applicant should identify other receptors that may be significantly affected by the mobilisation of contaminants and if so, assess any impacts accordingly within the ES.
4	Table 7-2	Increase in suspended sediment	Evidence should be provided within the ES to justify the assertion that any suspended sediments would be rapidly dispersed due to tidal flows, particularly in the nearshore and intertidal areas.

ID	Para	Other points	Scoping Opinion comments
5	7.2.3	Site-specific sediment contaminant sampling	It is recommended that the sampling programme is discussed and agreed with NRW.
6	n/a	Onshore water quality	Section 7.2 of the Scoping Report has only considered potential impacts to water quality in the offshore area. Section 7.3 (Geology, Geomorphology, Soils, Hydrology and Flood Risk) identifies hydrological features within the onshore scoping area, however does not consider the potential for the Proposed Works to impact on the water quality of such features. Therefore it is unclear if the ES will include an assessment of impacts on water quality in the onshore scoping area. Given the limited detail currently available regarding the location of the onshore cable route, any potential impacts to water quality cannot be discounted and should be assessed in the ES. It is also noted that horizontal direction drilling ('HDD') may be used at the chosen landfall location. The ES should address potential risks to both groundwater resources and surface water bodies from HDD activities including leakage of drilling fluid. Any measures to be implemented in order to address such risks or impacts should be explained in the ES and it should be made clear how they will be secured.
7	n/a	Assessment methodology	The Scoping Report has not detailed how the potential impacts will be assessed. The methodology must be detailed in the ES. It is considered that modelling will be required to predict the anticipated increase in suspended sediment from the Proposed Works. The ES should include details of the parameter inputs to the model and provide an explanation/justification of any worst case scenario that has been assumed.
8	n/a	Crossing of hydrological features	The ES should provide a schedule demonstrating the methods for each crossing and how any such methods have been factored into the assessment.

Geology, Geomorphology, Soils, Hydrology and Flood Risk

(Scoping Report section 7.3)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	Table 7-3 & 11.2.2.2	Onshore geology	The Scoping Report anticipates there would be no impacts on geological features due to the limited nature of the onshore development, and because all works would be expected to be located within surface soils (except the landfall installation which would require either open trenching or horizontal directional drilling through rock). The Applicant therefore proposes to scope out impacts to geology features. However, Table 7-3 states that the significance of impact is unknown (although predicted to be negligible). Parts of Anglesey are designated as a UNESCO Geopark, although the extent of the designation has not been identified within the Scoping Report. It is acknowledged that the Applicant intends to lay the majority of the onshore cable within or adjacent to existing road infrastructure (section 5.1.3). However, there is no detailed cable route at present and there is no definitive location for the onshore substation. There is also a need for short sections of cable route to cross unmade ground (section 8.6.1.1 of the Scoping Report). These points combine and accordingly, it would be premature to scope this matter out of the ES.

ID	Para	Other points	Scoping Opinion comments
2	7.3.1.4	Water feature survey	The Applicant should undertake a water feature survey along the cable route and around the proposed locations of the onshore structures and compounds. The likely significant effects on the quantity and quality of

ID	Para	Other points	Scoping Opinion comments
			surface water and groundwater should be assessed.
3	7.3.1.4	Flood risk	The Scoping Report describes the flood risk in the onshore scoping area. It is recommended that the ES contains figures clearly delineating the levels of flood risk across the site(s) for onshore works.
4	7.3.1.4	Flood risk	The ES should take into account not only the potential impacts of flood risk to the Proposed Works, but also whether the Proposed Works could increase flood risk elsewhere.
5	7.3.1.4	Flood risk	The assessment of flood risk should consider the impact of climate change upon flood levels and surface water run-off. The Applicant should make efforts to discuss and agree the appropriate extreme sea levels and climate change allowances with NRW.
6	7.3.3	Water Framework Directive	The consideration of potential impacts to Water Framework Directive waterbodies is welcomed, although the Scoping Report has not identified the existing water body status for the Caernarfon Bay North coastal water body within which the application site is located. The catchment summary for this water body confirms that it has an overall 'Good' status.[9] The Applicant should demonstrate that the Proposed Works would not affect waterbody status and is advised to follow the WFD assessment framework set out in NRW's response (see Appendix 1 of this Scoping Opinion).
7	n/a	Inter-relationships	Suitable cross reference should be made between this aspect and other aspects of the ES, for example benthic ecology, marine mammals, fish and shellfish ecology (as signalled in paragraph 6.2.2 of the Scoping Report).
8	n/a	Private water supplies	The potential impact on small drinking water supplies should be assessed,

[9] https://naturalresources.wales/media/679396/2016_updated_ynys_mon_catchment_summary_nrw.pdf

ID	Para	Other points	Scoping Opinion comments
			where significant effects are likely.
9	n/a	Preliminary risk assessment	The potential for land contamination in the onshore environment should be identified through a Preliminary Risk Assessment.

Natural Heritage Designated Sites

(Scoping Report section 8.1)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	8.1.1.1 & 8.1.1.2	Study areas	It is recommended that the Applicant makes efforts to agree the relevant study areas with NRW and that they are appropriate to ensure any likely significant effects are identified in the ES.
3	8.1.1.1	Habitats Regulations	The Applicant should note that the Habitat Regulations referred to in the Scoping Report were consolidated and replaced in 2017.
4	Figure 8-1 & Table 8-1	Designated sites	There are number of errors in the Table 8-1 including incorrectly named designated sites and features. The Applicant should ensure that any such errors are omitted from information in the ES. There are a greater number of designated sites listed in Table 8-1 of the Scoping Report than shown on Figure 8-1. The ES should include figures identifying the location of all designated sites discussed in the text and also identify the distance of the designated sites from the Proposed Works.
5	Table 8-1 & Table 8-2	Potential impacts	It is unclear how habitat loss will affect some designated sites located far away from the Proposed Works e.g. Dee Estuary SAC. This should be clarified in the ES.
6	Table 8-1 &	Potential impacts	The potential impacts are duplicated in Table 8-2, although do not always correlate with the potential impacts identified in Table 8-1 (e.g. effects of

ID	Ref	Other points	Scoping Opinion comments
	Table 8-2		lighting are noted in Table 8-1 but not Table 8-2). Where relevant the Applicant should ensure consistency between information presented in the ES.
7	Table 8-1 & Table 8-2	Potential impacts	Tables 8-1 and 8-2 of the Scoping Report identify a number of potential impacts for which it is assumed modelling could be required e.g. noise impacts, collision risk, electro-magnetic field ('EMF'). The Scoping Report does not explain the intended approach to predicting these potential impacts. The ES should provide details of any models used, the input parameters and any assumptions made in the models. Any guidance used to inform the assessment should be detailed within the ES. This comment also applies to the Benthic Ecology and Terrestrial and Coastal Ecology aspects.
8	Table 11-1 (Appendix A1)	Ancient woodland	Isle of Anglesey County Council's (IoACC) comment in Table 11-1 of the Scoping Report is noted, along with the need to consider ancient woodland at and around Penrhos Coastal Park. The Applicant's response indicates intent to consider ancient woodland in the assessment, however there is no further reference to ancient woodland in the Scoping Report. The potential impacts to ancient woodland should be assessed within the ES.

Benthic Ecology

(Scoping Report section 8.2)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	8.2.1.1	*Sabellaria alveolata* and *Modiolus modiolus* reef	The Scoping Report notes the potential for *Sabellaria alveolata* and *Modiolus modiolus* reef to be present in the offshore scoping area. The Applicant should take into account NRW's response (see Appendix 1 of this Scoping Opinion) stating that several areas of *Sabellaria alveolata* have developed into *Sabellaria* reef. Any likely significant effects on *Sabellaria* reef should be assessed within the ES. The ES should consider potential direct impacts from construction and also the potential impacts from maintenance activities on reef that may colonise the cables during the operational phase.
3	8.2.1.1	Annex I habitats	The Scoping Report states that *"there are no SAC or Annex I habitats identified within the offshore scoping area".* NRW's response (see Appendix 1 of this Scoping Opinion) states that Annex I Reef habitat is present within the zone. The ES should assess impacts to Annex I habitats where significant effects are likely to occur.
4	8.2.1.1	Section 7 marine habitats and species	Section 7 marine habitats and species which could be impacted by the Proposed Works should be acknowledged within the ES and an assessment of likely significant effects upon them should be undertaken.

ID	Ref	Other points	Scoping Opinion comments
5	Table 8-4	Loss of habitat due to infrastructure footprint	It is understood that the type and locations of TEC devices within the offshore area will not be determined by the time of application. As such, the ES should consider a worst case scenario of habitat loss. When assessing the potential impacts from loss of habitat, the ES should also give consideration to habitat loss resulting from the introduction of any scour and cable protection.
6	Table 8-4	Construction phase impacts	Potential construction phase impacts identified in Table 8-4 of the Scoping Report are equally applicable for the decommissioning phase and should be assessed as such in the ES.
7	Table 8-4	Potential impacts	The ES should assess the likely significant effects from pollution from accidental spillages, impacts due to changes in water movements and changes in habitat type.
8	Table 8-4	Impacts to benthic communities due to changes in sediment regime	Potential impacts due to change in sediment regime are included in table 8.4. However, Table 8-2 identifies potential impacts to benthic ecology interest features of designated marine and coastal sites due to changes in coastal processes, sedimentology and hydrodynamic regime in Table 8-2. The ES should assess the likely significant effects on intertidal and subtidal benthic ecology from changes to physical process (e.g. alteration to flow conditions, waves regime and sediment transport pathways).
9	Table 8-4	Intertidal and subtidal ecology	The ES should assess and differentiate between likely significant effects to intertidal and subtidal ecology.
10	8.2.3	EIA Baseline Characterisation	The Applicant should consider the applicability of existing data to the Proposed Works. The Scoping Report explains that ecology characterisation surveys may potentially be required. It is recommended that the sufficiency of any existing data, and the need for any site specific surveys, is discussed

ID	Ref	Other points	Scoping Opinion comments
			with NRW. NRW's comments (see Appendix 1 of this Scoping Opinion) regarding the need for subtidal and intertidal surveys should be taken into account by the Applicant.
11	8.2.3	EIA Baseline Characterisation	The ES should explain how the sensitivity of benthic receptors sensitive to smothering and disturbance is determined, for example if it based on research or guidance. The ES should also take into account the sensitivity of benthic receptors to the other potential impacts identified in Table 8-4 of the Scoping Report.
12	n/a	Colonisation of structures	The ES should assess any likely significant effects from the colonisation of hard structures by non-native species.

Marine Mammals, Basking Sharks and Reptiles

(Scoping Report section 8.3)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	Table 8.1.1.2	Study area	The Scoping Report has utilised an initial search area of up to 50km. The Applicant is recommended to agree the study area with NRW, noting NRW's comments (see Appendix 1 of this Scoping Opinion) of the need to utilise the relevant marine mammal management units.
3	Table 8-5	Underwater noise	The ES should set out the noise levels at which effects on marine mammals and basking sharks occur and explain how these levels have been derived.
4	Table 8-5	Disturbance	Disturbance from the presence of construction and operational vessels should be assessed, where significant effects are likely.
5	Table 8-5	Displacement	The potential for displacement from underwater noise has been acknowledged in the Scoping Report; however, the resultant indirect effects have not been considered e.g. energy expenditure in avoiding the area. This should be assessed within the ES.
6	8.3.3	EIA baseline characterisation	The Scoping Report has not proposed any site specific surveys to inform the baseline and it is unclear whether the marine mammal surveys which have been undertaken alongside the offshore ornithological surveys cover the application site. The Applicant should consider the applicability of existing data to the

ID	Ref	Other points	Scoping Opinion comments
			Proposed Works and application site. It is recommended that the sufficiency of any existing data, and the need for any site specific surveys, is discussed with NRW.
7	8.3.3	Collision risk	The Scoping Report states that collision risk would be determined through a literature review of similar studies and the results taken from SeaGen and the MeyGen projects. Therefore, it is assumed that site specific collision risk modelling will not be undertaken. However, the Scoping Report fails to provide the information necessary to obviate the need for collision risk modelling taking into account the chosen device(s) and the location of the Proposed Works. The ES should ensure that impacts which may result in likely significant effects to these species are assessed, including those from collision risk. The Applicant should make effort to discuss and agree the approach to the assessment with NRW. If reliance is placed on existing information to demonstrate an absence of likely significant effect, the ES should explain why the studies referenced are applicable to the Proposed Works.
8	8.3.3	Underwater noise baseline	The Applicant's attention is drawn to the existence of the Defra Marine Noise Registry which could inform the baseline noise environment.
9	n/a	EMF	The Scoping Report has identified the potential for EMF to affect benthic ecology and migratory fish; however no reference has been made to potential impacts from EMF on marine mammals. Any likely significant effects to marine mammals from EMF should be assessed within the ES.
10	n/a	Changes to prey resource	Potential impacts from a decrease in water quality has been identified as a potential impact for fish and shellfish. The resultant indirect impacts for marine mammals, basking sharks and reptiles should be assessed.

Fish and Shellfish Ecology

(Scoping Report section 8.4)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	8.4.1.1	Marine Fish	The documents referred to in footnotes 50 and 51, which have been used to inform the described marine fish baseline, are over 20 years old. Baseline information is expected to be informed by up to date studies, or evidence should be provided to demonstrate that these are still relevant. The Applicant is recommended to make efforts to agree the species to be included within the assessment with NRW; taking into account the comments made in NRW's consultation response (see Appendix 1 of this Scoping Opinion).
3	8.4.1.2	Shellfish	The Fish and Shellfish Ecology chapter does not identify the European Shellfish Water designation that is identified in Section 7.2.1.1 of the Scoping Report. Appropriate cross reference should be made to the Marine Sediment and Water Quality chapter.
4	Table 8-7	Potential impacts	Table 8-7 of the Scoping Report states that the significance of effect for a number of potential impacts would be dependent on construction methods and project design. It is understood that the precise detail of the construction methods will not be known at the time of application. On this basis, the ES should ensure that a worst case scenario attributable to construction is assessed.

ID	Ref	Other points	Scoping Opinion comments
5	Table 8-7	Loss of shellfish habitat	The Scoping Report has identified the potential for loss of shellfish habitat through the placement of devices and the swept area of mooring cables. The loss of habitat (including seabed, spawning or nursery grounds) for demersal fish should also be assessed in the ES.
6	Table 8-7	Impacts on fish and shell fish through a decrease in water quality	The ES should assess the likely significant effects from increased turbidity on larvae of fish and shellfish species.
7	Table 8-7	EMF	The Scoping Report identifies EMF as a potential barrier to migratory fish. No reference is made of impacts to non-migratory fish. This should be considered and if significant effects are likely this should be assessed within the ES.
8	Table 8-7	Underwater noise	The Scoping Report identifies the potential for underwater noise to displace migratory fish. No reference is made of impacts to non-migratory fish (e.g. behavioural impacts, injury or death). Impacts to non-migratory fish which could result in significant effects should be assessed within the ES. The ES should also justify the approach to the assessment based on fish species sensitivity to underwater noise. The assessment of underwater noise during construction should include all construction activities e.g. piling, vessels, seabed preparation and cable installation.
9	8.4.3	Site specific surveys	The need for and design of site specific surveys should be discussed and agreed with NRW.
10	n/a	Changes to species composition	Table 9-4 has identified the potential for changes in abundance of commercial fisheries target species. If significant effects are likely, changes to species composition should also be assessed in the Fish and Shellfish

ID	Ref	Other points	Scoping Opinion comments
			chapter of the ES.
11	n/a	Biosecurity	The ES should assess the potential impacts from the spread of non-native invasive species. Any measures to mitigate the spread of this species should be identified in the ES.

Ornithology

(Scoping Report section 8.5)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	8.5.1.2	Foraging distances	The ES should detail the foraging distances used for migratory species, along with references to justify the distances used.
3	Table 8-9	Displacement from vicinity of turbine	Table 8-9 of the Scoping Report states that displacement is expected to be both minor and localised, however the report also acknowledges a "*lack of understanding on whether operational devices cause displacement*". The ES should therefore provide further justification to support the conclusions reached. If necessary further assessment should be undertaken to ensure the validity of the findings. The potential indirect effects from displacement should also be assessed in the ES e.g. energy expenditure from species avoiding the area.
4	Table 8-9	Disturbance by vessel activity	Statements such as "*these species are relatively tolerant of vessel activity*" should be corroborated by relevant evidence.
5	Table 8-9	Marine seabed habitat loss/change due to installation of infrastructure	Table 8-9 of the Scoping Report states that "*the sensitivity of the impact will depend on the proportion of available habitat replaced*". There is no reference to habitat replacement elsewhere in the Scoping Report therefore this should be clarified within the ES. The Applicant should also take care with terminology as sensitivity is usually

ID	Ref	Other points	Scoping Opinion comments
			considered to be a component of the receptor rather than of the impact.
6	8.5.3	Surveys	It is recommended that the scope of the surveys is discussed and effort is made to agree the approach with relevant consultees including NRW.
7	Table 11-1 (Appendix A1)	Barn owls	NRW's comments in Table 11-1 of Appendix A1 of the Scoping Report, identify potential impacts on barn owls, however this species has not been identified as a relevant species for assessment in the baseline of the Scoping Report. The potential impacts on barn owls should be assessed in the ES.
8	Table 11-1 (Appendix A1)	Sedimentary process and pollution	Table 11-1 of the Scoping Report states that the potential impacts to sedimentary process and pollution would be assessed in the ornithology assessment; however they have not been identified in Table 8-9 of the Scoping Report. These effects should be assessed within the ES.
9	n/a	Noise from landfall works	The ES should consider and assess any potential noise impacts on birds at the foreshore from the landfall works where significant effects are likely.
10	n/a	Indirect effects	The ES should consider and assess any potentially significant indirect effects on ornithological receptors, including those resulting from impacts to prey species.

Terrestrial and Coastal Ecology

(Scoping Report section 8.6)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	8.6.1.1	Focus on the ecology on Holy Island	The Scoping Report has focused on the ecology on Holy Island only. It is noted that one grid connection option is located in Valley, which is not on Holy Island. The ES should encompass the entire application site and the study area for the assessment should be defined according to the relevant receptors that may experience impacts by the Proposed Works.
3	8.6.1.1	Designated sites on Holy Island	Only designated sites on Holy Island have been considered in terms of terrestrial ecology. In addition to the comments above, consideration should be given to sites outside of Holy Island that have mobile species.
4	8.6.1.2	"*The impact on coastal SACs and SSSIs in terms of changes to sediment processes and receptor food resource would be assessed in the EIA and specific impacts on SAC and SSSI interest features would be addressed separately*."	This statement is not understood. The ES should assess all potential impacts to designated sites.

ID	Ref	Other points	Scoping Opinion comments
5	8.6.2	Surveys	The Scoping Report does not identify what site specific surveys would be undertaken. It is recommended that the scope of the surveys is discussed and agreed with relevant consultees including NRW.
6	n/a	Lighting	The Scoping Report identifies the potential presence of species which could be affected by artificial lighting e.g. bats. The ES should assess the potential impacts of onshore lighting including temporary lighting during construction and any permanent lighting at the substation where significant effects are likely.
7	n/a	Protected species	The Applicant should demonstrate that the favourable conservation status of protected species would be maintained.

Seascape and Landscape

(Scoping Report section 9.1)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	9.1.1.1	Drilling rig	The ES should confirm how long the drilling rig would be required at the landfall and this should be factored into the assessment.
3	9.1.1.1	Surface piercing infrastructure	The ES should identify the maximum height, massing and number of surface piercing structures.
4	Table 9-2	Potential impacts	Table 9-2 of the Scoping Report has not referred to the potential impacts of any works that would be required at the grid connection site (i.e. a substation or switching facility). The ES should assess the potential impacts of all elements of the Proposed Works, including any elements that would be temporary.
5	Table 9-2	Changes to visual amenity	The Proposed Works have the potential to impact on visual amenity in the onshore area as well as offshore; this should be taken into account in undertaking the visual impact assessment.
6	n/a	Landscaping	Details of any proposed landscaping should be provided within the ES. Consideration should be given to the length of time for foliage to develop and whether planting could be commenced in advance of construction to maximise the growth period before structures are in place.

ID	Ref	Other points	Scoping Opinion comments
7	n/a	Study area	The study area has not been defined within the Scoping Report, although the IoACC's comment in Table 11-1 of Appendix A1 of the Scoping Report indicates it would be 500m. The study area should include all elements of the Proposed Works and be appropriate for the anticipated impacts assessed. Different elements may have different study areas (e.g. the substation is likely to be more visually prominent than cable laying works and therefore may require a wider study area). A zone of theoretical visibility should be produced to inform the study area(s).
8	n/a	Viewpoints	The Scoping Report has not made reference to the selection of viewpoints. However, it is recommended that these are discussed and effort is made to agree them with the local authority and NRW.
9	n/a	Lighting	The ES should describe the temporary and permanent lighting required for the Proposed Works and the impacts of which should be assessed within the ES.
10	n/a	Photomontages and wireframes	It is recommended that wireframes and photomontages are produced for the offshore and onshore works respectively, in order to aid the reader in understanding the visually prominent characteristics of the Proposed Works. In producing visualisations, including photomontages and wireframes, views should be verified and visualisations should accord with industry standards.

Land Use and Quality

(Scoping Report section 9.2)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	9.2.4	Potential contamination	The Applicant is recommended to discuss and effort is made to agree the scope of any geophysical works with NRW. Should contamination be identified, the ES will need to incorporate any mitigation and/or remediation measures that would be implemented as part of the Proposed Works. Similarly, the ES should detail any measures required to minimise the significant effects to land contamination resulting from the Proposed Works.
3	n/a	Best and Most Versatile ('BMV') land	The ES should identify whether any BMV land would be affected by the Proposed Works. Any temporary and permanent loss of BMV should be quantified and the significance of effects should be assessed with a description of any necessary restoration measures.

Commercial Fisheries

(Scoping Report section 9.3)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	Table 9-4	Access to fishing grounds	The loss or restricted access to traditional fishing grounds may have subsequent effects on alternative fishing grounds. Impacts from intensification of fishing in alternative fishing grounds should be fully assessed within the ES. The exclusion of certain types of fishing may make an area more productive for other types of fishing. The assessment should include detailed surveys of the effects on fish stocks of commercial interest and the potential reduction or increase in such stocks that will result from the presence of the TECs and of any safety or buffer zones.
3	Table 9-4	Potential impacts	The ES should assess the likely significant effects resulting from target species being affected by the Proposed Works and not being able to migrate to inshore areas.
4	n/a	Loss of or damage to fishing gear	The potential for loss of or damage to fishing gear during all phases of the Proposed Works should be assessed.

Shipping, Navigation and Marine Infrastructure

(Scoping Report section 9.4)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	n/a	Vessel movements	The ES should detail the anticipated vessel movements during all phases of the Proposed Works. These should be presented on a worst case basis.
3	n/a	Search and rescue	The ES should also assess the implications of the Proposed Works on search and rescue operations.

Military Activity

(Scoping Report section 9.5)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	n/a	n/a	This Scoping Opinion has no specific comments on the proposed assessment scope.

Archaeology and cultural Heritage

(Scoping Report section 9.6)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	n/a	Study area	The onshore study area should be defined and justified within the ES. It should take into account the elevated areas within which a number of the identified scheduled monuments are located.
3	9.6.1.1	Onshore baseline	The Scoping Report identifies a number of Scheduled Monuments within the onshore scoping corridor. Cadw has also identified the Holyhead Road: Quay on the Stanley Embankment (see Appendix 1 of this Scoping Opinion). This should be included as a receptor within the assessment of effects. The listed buildings identified in Cadw's response should also be included as receptors.
4	9.6.1.2	Impacts to historic wrecks and submerged military aviation heritage	The Scoping Report has not identified physical disturbance to artefacts within the marine area. As noted by Cadw (see Appendix 1 of this Scoping Opinion), the locations of historic wrecks and submerged vessels on maps may not be accurate. Therefore the assessment should consider the potential for submerged archaeological remains and vessels, particularly along the cable route where the potential for physical disturbance is at its highest.
5	Table 9-7	Impacts on historical setting	The assessment of potential impacts on historical setting should include consideration of noise and visual effects from construction activities.

ID	Ref	Other points	Scoping Opinion comments
6	Table 9-7	Indirect disturbance from sediment	In addition to assessing the potential impacts of changes to sediment during operation, the ES should consider the potential for indirect effects from sediment during construction and decommissioning.
7	9.6.3	Walk over survey	The need for, and scope of a walkover survey should be discussed and ideally agreed with the relevant consultees, including the local planning authority and Cadw.
8	n/a	Guidance	The assessment should be undertaken in line with the best practice guidance documents identified by Cadw (see Appendix 1 of this Scoping Opinion), including Welsh Government guidance in the document 'Managing Setting of Historic Assets in Wales'.

Noise and Vibration

(Scoping Report section 9.7)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	9.7.1.2	Offshore airborne noise	The Scoping Report states that "*The MDZ [Morlais Demonstration Zone] is 0.5km from shore at its nearest point therefore it is unlikely that onshore receptors will be impacted by increases in offshore noise from the Project*." It is agreed that given the distances involved noise impacts to onshore human receptors from the construction, operation and decommissioning of the offshore elements of the Proposed Works are unlikely to be significant and can be scoped out, with the exception of the export cable works (see below). In reaching this conclusion, this Scoping Opinion acknowledges that disturbance to biological receptors will be considered within the relevant sections of the ES.
2	9.7.1.2	Offshore airborne noise – noise from cable laying	The Scoping Report states that "*noise generated by cable laying vessels is generally low and is unlikely to be significantly elevated above background levels. Vessel based works inshore will also be short in duration*". The Scoping Report has not provided existing noise background levels, nor provided evidence that cable laying works generate low levels of noise, nor has it quantified 'short in duration'. The locations of onshore receptors have not been specified in the Scoping Report and the exact location of the landfall has yet to be determined. In the absence of this information, it is not agreed that this can be scoped out.

ID	Ref	Other points	Scoping Opinion comments
3	9.7.1 & 9.7.3	Site-specific survey and noise sensitive receptors ('NSRs')	It is recommended that the baseline survey and assessment methodology and choice of NSRs should be agreed with the relevant Environmental Health Officers. The choice of receptors and assessment of impacts arising during construction and operation should be based on a justified worst case scenario.
4	Table 9-8	Operational impacts	With the exception of noise arising from activities at Holyhead Harbour, Table 9-8 of the Scoping Report does not consider noise during operation. It is agreed that operational noise from movement of the offshore TECs would be unlikely to result in significant effects to onshore receptors. Similarly, having regard to the characteristics of the Proposed Works, operation of the electrical connection is unlikely to result in significant effects. However, in absence of a defined location for the onshore substation(s) and potential switch gear facility, it is considered that the ES should assess potential operational noise and vibration impacts from the substation. It is also noted that Section 9.12 (Health) of the Scoping Report proposes to assess noise disturbance from operation of the substation and National Grid infrastructure.
5	n/a	Noise generating activities	The ES should provide a description of the noise generating elements of the Proposed Works during both the construction and operation stages. Any distinctive tonal, impulsive or low frequency characteristics of the noise should be identified and assessed.
6	n/a	Impacts to ecological receptors	The results of the noise and vibration assessment should be used to inform the assessment of impacts on ecological receptors.

Air Quality

(Scoping Report section 9.8)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	9.8.1.2	Offshore air quality	The Scoping Report identifies exhaust emissions from vessels as the main source of atmospheric emissions. However, it states that the number of vessels on site would be negligible and there are no receptors nearby that would be impacted by the increase. Section 9.8.1.2 of the Scoping Report requests to scope this matter out (although it is identified as a potential impact in Table 9-9). Although numbers of vessel movements have not been provided within the Scoping Report, it is agreed that this is unlikely to result in significant effects to air quality and that this matter can be scoped out.

ID	Ref	Other points	Scoping Opinion comments
2	9.8.1.1	Site-specific survey and sensitive receptors ('NSRs')	It is recommended that the baseline survey and assessment methodology and choice of sensitive receptors should be agreed with the relevant Environmental Health Officers.
3	Table 9-9	Increased emissions onshore	Where effects are likely to be significant, increased emissions onshore should be assessed for the decommissioning phase.
4	n/a	Study area	The study area for road traffic emissions should be informed by the affected road network which should be determined to inform the Traffic and Transport chapter.

Tourism and Recreation

(Scoping Report section 9.9)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	9.9.1	Public rights of way	The ES should identify any public rights of way which would be temporarily or permanently affected by the Proposed Works. Any necessary diversions or closures should be identified and the resultant effects assessed.
3	9.9.1; Table 9-10; 9.9.3; 9.13.1.5; Table 9-14.	Employment	The Scoping Report states that increased personnel and temporary construction workers may put pressure on tourist accommodation and result in a 'more buoyant' rental market, this potential impact has also been identified within the Socio-economics section of the Scoping Report. The ES should clearly state how construction and operational workers are anticipated to be accommodated, and how this may impact tourism. The ES should state how any mitigation and/ or enhancement measures are to be secured.
4	Table 9-10	New draw for tourists	The Scoping Report states that the Proposed Works may create a new draw for tourists. The ES should clarify if this is due to the existence of the Proposed Works and if other features are proposed as part of the project, such as tourist education. The ES should explain any assumptions and limitations made in undertaking this assessment.
5	Table 9-10	Visual effect on tourists	The Scoping Report states that the Proposed Works may impact tourist visual amenity onshore and offshore when tourists are arriving from sea.

ID	Ref	Other points	Scoping Opinion comments
			The Applicant is advised to include this assessment within the Seascape and Landscape Chapter of the ES, identifying tourists as a receptor of seascape and landscape visual effects, providing clear cross-reference to the Tourism and Recreation aspect Chapter of the ES.
6	Table 9-10	Recreational angling	The ES should assess any likely significant effects associated with the potential impacts to recreational angling and changes to target species.
7	n/a	Cross referencing	The Applicant should consider how to avoid duplication and potential conflict within the ES, specifically between the Socio-economic and Tourism and Recreation aspect chapters of the ES. Clear cross-referencing should be utilised.
8	n/a	Landfall works	The ES should identify whether any beach closures are necessary for the landfall works, and if so, the areas and duration for which access would be restricted.

Aviation

(Scoping Report section 9.10)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	9.10.1	Onshore infrastructure	It is agreed that there would not be a pathway to aviation receptors from the onshore infrastructure because it is an underground connection and that this matter can be scoped out of the ES.
2	Table 9-11 & 11.2.1.1	Commercial aviation	Section 11.2.1.1 of the Scoping Report states that there is no pathway which would result in impacts to commercial aviation receptors at the Valley airfield. Table 9-11 of the Scoping Report states that the impacts on radar equipment is not well understood and that further consultation is required with commercial operators. It is therefore premature to scope out potential impacts to commercial aviation at this stage, and this matter should be addressed in the ES.

ID	Ref	Other points	Scoping Opinion comments
3	n/a	n/a	This Scoping Opinion has no other specific comments to make on the proposed assessment scope.

Traffic and Transport

(Scoping Report section 9.11)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	Table 9-12	Potential impacts	Table 9-12 of the Scoping Report refers to disruption to local traffic and driver delay. The assessment should also assess severance, pedestrian and cycle amenity and road safety.
3	Table 9-12	Potential impacts	Table 9-12 of the Scoping Report states that the nature, duration and magnitude of effects will be dependent on transportation methods and crossing methods. It is therefore imperative for the ES to define the project as far as is possible, and to ensure that a worst case scenario is assessed if flexibility is sought.
4	n/a	Traffic movements	The ES should detail the anticipated vehicle movements during all phases of the Proposed Works. The assumptions made in deriving the traffic demand should be clearly explained within the ES and should represent a worst case scenario.
5	n/a	Affected road network ('ARN')	The ARN should be identified and justified within the ES. This should include roads and transport links likely to be used to transport construction materials and should inform study areas for other aspects (e.g. air quality, noise and vibration).
6	n/a	Decommissioning	The ES should assess the potential impacts from decommissioning.

ID	Ref	Other points	Scoping Opinion comments
7	n/a	Traffic surveys	It is recommended that effort is made to agree the baseline survey with the relevant consultees including the local highways authority and should take into account seasonal traffic fluctuations.
8	n/a	Sensitive receptors	The ES should identify any specific receptors which would be sensitive to traffic impacts e.g. schools, recreational facilities. Ecological receptors should also be identified, including any protected sites within 200m of the ARN.

Health

(Scoping Report section 9.12)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	9.12.1	Human health offshore	The Scoping Report states that human health will be considered within relevant onshore aspect Chapters of the ES. The Scoping Report has not addressed potential human health impacts offshore, however significant health impacts offshore are unlikely and therefore do not need to be considered within the ES.
3	9.12.1; 9.12.3	Health Impact Assessment	The Scoping Report refers to the Human Health aspect chapter of the ES as the 'health impact assessment' (HIA). The Applicant is advised that the term HIA refers to a separate process which is a non-statutory requirement in Wales. Whilst a HIA can be submitted to support the Proposed Works, this should not constitute the Human Health aspect chapter of the ES. The Applicant is advised to consult with Wales HIA Support Unit (WHIASU) for further guidance relating to HIA if required.
4	Table 9.13	Potential impacts	The Scoping Report states that all potential impacts to human health are to be addressed, as relevant, in other aspect chapters of the ES. It is not always clear where this would be the case. For example, 'hazardous waste and substances', 'EMFs' (to humans) and 'loss of access to green space' do not appear to have been considered elsewhere in the Scoping Report. The Applicant should ensure that these impacts are assessed within the ES where significant effects are likely to occur.

ID	Ref	Other points	Scoping Opinion comments
5	9.12.3	EN-1	The Scoping Report refers to National Policy Statement (NPS) for Energy (EN-1). The Proposed Works is not a National Significant Infrastructure Project and so the applicability of the NPS is not obvious. However, the direct impacts on health that are addressed by the NPS may be relevant to this project. The Scoping Report is unclear as to whether impacts are to be assessed within the ES as not all are identified in Table 9-13 of the Scoping Report. For the avoidance of doubt, odour, exposure to radiation and increase in pests are not considered likely to result in significant effects and therefore do not need to be assessed within the ES.

Socio-economics

(Scoping Report section 9.13)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	n/a	n/a	No matters have been proposed to be scoped out of the assessment.

ID	Ref	Other points	Scoping Opinion comments
2	9.9.1; Table 9-10; 9.9.3; 9.13.1.5; Table 9-14	Tourism, housing, worker migration	The impacts from increased worker numbers during construction and operation to other industries, such as tourism has also been identified within Section 9.9 Tourism and Recreation of the Scoping Report. The Applicant is advised to avoid duplication and potential conflict within the ES, and should consider how duplication can be avoided between the Socio-economic and Tourism and Recreation aspect Chapters of the ES and provide clear cross-reference as required.
3	Table 9-14	Improvements to infrastructure and facilities and local transport services	The Scoping Report identifies a potential beneficial impact from external investment to local infrastructure, including the transport network, Holyhead Harbour and public services. If such investment is not guaranteed and does not form part of the Proposed Works, this should not be taken into account in the ES.
4	9.13.1.5	Well-being of Future Generations (Wales) Act 2015	The Applicant's intention to support the Well-being of Future Generations (Wales) Act 2015 in its objectives to improve the social, economic, environmental and cultural well-being of Wales is welcomed.
5	9.13.3	Qualitative assessment	The Scoping Report states that the Socio-economic aspect chapter will present a qualitative assessment of potential impacts. The ES should provide clarification regarding the methodology of the assessment, given

ID	Ref	Other points	Scoping Opinion comments
			that Scoping Report later states economic impacts e.g. number of jobs will be calculated within an economic impact assessment. Where it would be appropriate, a qualitative assessment is expected of potential socio-economic impacts.
6	9.13.3	Guidance	The Applicant should take care to ensure that the methodology applied is sufficient to identify and assess the likely significant effects from the Proposed Works.
7	9.13.3	Local business survey	The Scoping Report states that survey(s) and discussions will be undertaken with local businesses to gather data and ascertain the capabilities of the local supply chain. The ES should clearly set out the methodology for survey(s) and discussions, such as providing the questions posed in the survey(s) and ensure leading questions are avoided.

Cumulative impacts and in-combination effects

(Scoping Report section 10)

ID	Ref	Applicant's proposed matters to scope out	Scoping Opinion comments
1	Table 10-1	Aspects to be considered	Table 10-1 identifies potential cumulative impacts for some, but not all, aspects to be assessed in the ES. There is no justification for the exclusion of aspects such as terrestrial ecology, land use and quality, air quality, noise and vibration (and this list is not exhaustive). Cumulative impacts should be assessed for all aspect chapters where significant effects are likely to occur.

ID	Ref	Other points	Scoping Opinion comments
2	10.1.1 & 10.3.1	Projects for consideration	It is recommended that the other projects to be included within the cumulative assessment are discussed, and ideally agreed, with relevant consultees. It would be useful for their locations to be identified on a figure included within the ES. Section 10.3.1 states that 'relevant' other projects will be included in the cumulative impacts assessment; the ES should clearly explain what is considered to be 'relevant'. It is understood that the Horizon Nuclear Power Plant comprises elements to be consented through the Town and Country Planning Act 1990 and elements to be consented through the Planning Act 2008. The Applicant should ensure all elements of Horizon's proposed works are considered in the cumulative assessment, including the offshore elements.
3	n/a	Assessment methodology	The Scoping Report contains little detail on how the assessment will be undertaken. Although produced for Nationally Significant Infrastructure

ID	Ref	Other points	Scoping Opinion comments
			Projects, the Applicant is advised to utilise the approach set out in Planning Inspectorate Advice Note Seventeen: Cumulative effects assessment.[10]
4	n/a	Cumulative impacts and in-combination effects	The chapter of the Scoping Report is entitled 'Cumulative impacts and in-combination effects' however has only made further reference to 'cumulative impacts'. The Applicant should ensure terminology is defined and utilised consistently in the ES.

[10] https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/

APPENDIX 1: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

Consultation bodies who replied by the deadline:

Cadw
Marine Management Organisation
Natural Resources Wales

Llywodraeth Cymru
Welsh Government

Plas Carew, Uned 5/7 Cefn Coed
Parc Nantgarw, Caerdydd CF15 7QQ
Ffôn 0300 025 6000
Ebost cadw@llyw.cymru
cadw.gov.wales

Plas Carew, Uned 5/7 Cefn Coed
Parc Nantgarw, Caerdydd CF15 7QQ
Ffôn 0300 025 6000
Ebost cadw@llyw.cymru
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Plas C
Parc N
Tel 03
Email
cadw.

Robert Sparey
The Planning Inspectorate

policy.wales@pins.gsi.gov.uk

Eich cyfeirnod Your reference	3200283
Ein cyfeirnod Our reference	
Dyddiad Date	2 May 2018
Llinell uniongyrchol Direct line	0300 025 6007
Ebost Email:	amadminplanning@gov.wales

Dear Mr Sparey,

EIA Scoping Opinion - Morlais Tidal Array, Demonstration Zone, Holy Island, Anglesey, North Wales

Thank you for your letter of 13 April 2018 asking for Cadw's comments clarifying what should be included within an Environmental Statement (ES) for the above mentioned proposal.

Designated Historic Assets

I can confirm that the impact on the following designated historic assets, and their setting, should be taken into account:

Scheduled Monuments:

AN011	Trefignath Burial Chamber
AN012	Ty-Mawr Standing Stone
AN016	Holyhead Mountain Hut Circles
AN017	Penrhos Feilw Standing Stones
AN019	Caer y Twr
AN033	Plas Meilw Hut Circles
AN034	Porth Dafarch Hut Circles
AN146	The Holyhead Road: quay on the Stanley Embankment

Listed Buildings

14733	Ebenezer Chapel	II
14743	No 1, Stanley Cottages, Tyn Pwll Road	II
14744	No 2, Stanley Cottages, Tyn Pwll Road	II
14745	No 3, Stanley Cottages, Tyn Pwll Road	II
14746	No 4, Stanley Cottages, Tyn Pwll Road	II
14747	No 5, Stanley Cottages, Tyn Pwll Road	II
14748	No 6, Stanley Cottages, Tyn Pwll Road	II

16524	Pont Cytir, Cytir Road	II
16525	Pont Penlech Nest, Penllech West	II
16526	Bridge over Railway near Ty Mawr Farmhouse, Kingsland	II
19231	Stanley Embankment	II
19232	Milestone	II
19233	Valley Station Signal Box	II
19234	Cleifiog Fawr	II
20069	Stanley Tollhouse	II
20073	Milestone	II
20074	Stanley Embankment	II
20077	Fynnon y Wrach	II
20081	Tan-y-Cytiau	II
5714	Old Customs Post	II
5759	Valley Railway Station Main Building	II
5762	Kingsland Windmill, Mill Road, (S side)	II*

Within the offshore buffer:

18032	Enclosure Walls at South Stack Lighthouse	II
18033	Storehouse at South Stack Lighthouse	II
18034	Former Oil Store at South Stack Lighthouse	II
18035	Bridge Towers at South Stack Lighthouse	II
5284	South Stack Lighthouse and former keeper accommodation	II

Further details are available at:

http://cadw.gov.wales/historicenvironment/recordsv1/cof-cymru/?lang=en

Potential Impacts

The proposed Environmental Impact Assessment (EIA) Scoping Report provides a basic outline of the methodology proposed to be applied for assessing impact on *Archaeology and Cultural Heritage*. Currently this is very minimal in detail and needs to be worked up providing greater detail on the methodology of investigation and assessments proposed to understand and evaluate the potential impact on historic assets.

A number of scheduled monuments lie within the onshore scoping area or close to it. Many of these – including Trefignath Burial Chamber, Ty-Mawr Standing Stone, Holyhead Mountain Hut Circles and Caer y Twr are in the care of Welsh Ministers and are popular visitor attractions. Many of these sites were located specifically to take advantage of elevated viewpoints and have extensive settings – for example Caer y Twr watchtower. The onshore study area must therefore take account of this and ensure that full account of the potential impact of the works on the settings of these designated historic assets. The text of the report indicates that this will be the case however it would be advisable for the boundary of the scoping area be re-drawn to include the designated assets described in section 9.6.1 within the assessment area. The same comments apply to the important group of listed

buildings, including those at South Stack. It will also be particularly important to consider the impact on non-designated historic assets.

It is not clear from table 9.7 “Impact on Historic Landscape” whether this is referring to impact on the setting of historic assets, impact on wider landscape settings or both. The EIA will need to take account of the potential impact on the settings of all historic assets within the scoping area. This should be undertaken in line with Welsh Government Guidance provided in the document *Managing Setting of Historic Assets in Wales.*

It is noted that the locations of historic wrecks and submerged vessels are likely to be imprecise and therefore it cannot be assumed that the locations provided on maps are accurate. The study needs to take account of this and consider potential for submerged archaeological remains and vessels – particularly along the cable route where potential for physical disturbance is at its highest. The Royal Commission on the Ancient and Historic Monuments should be consulted for advice regarding the choice and application of survey techniques suitable for establishing the potential for maritime heritage impacts.

EIA Baseline Characterisation

Cadw is the primary source of information for designated assets and is also directly responsible for the management of some of the scheduled monuments within the study area.

The regional Historic Environment Record (HER) hosted by the Gwynedd Archaeological Trust is the primary source of information for non-designated historic assets. The online map Achwilio presents a sub-set of HER information and is not suitable for use for the purposes of the Environmental Impact Assessment.

The Royal Commission on the Ancient and Historic Monuments of Wales is the primary source of information for marine historic assets.

Methodology

Surveys (p135) - Reference is included to the need for bathymetric / geophysical surveys – the context implying this relates to off-shore assessment only. Similar geophysical measures and potentially test pitting may also be required onshore to assess suitable locations for the substation and onshore cable routes. A method statement for onshore evaluation will be required commencing with a Desk Based Assessment.

Cadw has published guidance clarifying the required methodologies for assessing impact of developments on the setting of historic assets – see list below.

The work required to determine the magnitude of impact of the development on the historic environment will need to be assessed using professional

judgement by a competent expert. It is strongly recommended that this work should be undertaken applying industry standards by a Member of the Chartered Institute for Archaeologists (CIFA) or CIFA registered organisation.

Best practice guidance

The following policy and guidance documents will need to be taken into account:

- Planning Policy Wales
- UK Marine Policy Statement
- Conservation Principles for the Sustainable Management of the Historic Environment in Wales
- Welsh Government Technical Advice Note 24: the Historic Environment
- Draft Welsh National Marine Plan
- Managing Setting of Historic Assets in Wales.
- Managing Heritage Impact Assessment in Wales
- Managing Conservation Areas in Wales

Yours sincerely,

Nichola Davies
Casework Manager

Marine
Management
Organisation

Marine Licensing
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE4 7YH

T +44 (0)300 123 1032
F +44 (0)191 376 2681
www.gov.uk/mmo

Robert Sparey
The Planning Inspectorate

(By email only)

10 May 2018

Dear Mr Sparey,

EIA Scoping Opinion Request Potential Application for a Transport and Works Act Order: Development of 240MW tidal generating capacity within the Morlais Demonstration Zone

Thank you for your scoping opinion request dated 13 April 2018 and for providing the Marine Management Organisation (MMO) with the opportunity to comment on the scoping request for the above development.

The MMO have also received an invitation from Natural Resources Wales (NRW) to provide comments on the request for a scoping opinion for this development under the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended). Please be advised that the MMO intend to provide our comments regarding this development in response to this request from NRW.

If you require any further information, please do not hesitate to contact me using the details provided below.

Yours sincerely

Emma Toogood
Marine Licensing Case Officer

D: +44 (0)208 225 8270
E: emma.toogood@marinemanagement.org.uk

Cyfoeth Naturiol Cymru
Natural Resources Wales

Ein cyf/Our ref: CAS-61020-N1K8
Eich cyf/Your ref: 3200283

Ebost/Email: northplanning@cyfoethnaturiolcymru.gov.uk
Ffôn/Phone: 03000 65 5265

BY EMAIL ONLY
FAO: MR ROBERT SPAREY

11th May 2018

Dear Mr Sparey

TRANSPORT AND WORKS ACT 1992

TRANSPORT AND WORKS (APPLICATIONS AND OBJECTIONS PROCEDURE) (ENGLAND AND WALES) RULES 2006

EIA DIRECTIVE 2011/92/EU – EIA SCOPING OPINION REQUEST

DEVELOPMENT OF 240MW TIDAL GENERATING CAPACITY WITHIN THE MORLAIS DEMONSTRATION ZONE

HOLY ISLAND, ANGLESEY, NORTH WALES

Thank you for consulting Natural Resources Wales (NRW) for an Environmental Impact Assessment (EIA) Scoping Opinion based on the proposals submitted by Morlais Menter MÔN. The consultation was received on the 13th April 2018.

The following comments are provided without prejudice to any comments we may wish to make when consulted on the proposed development in the future (either at pre-application or formal application stage). This is because there may be new or different information available in relation to the proposal which we will need to consider in making a formal response.

The overarching comments which form our EIA Scoping Opinion may be found below in the main body of this letter, with Appendix 1 comprising our specific comments on the EIA scoping report. The comments in Appendix 1 follow the same order of the chapters / sections presented in the scoping report.

EIA Scoping Opinion – Overarching Comments

Previous EIA Scoping Opinions
Please note that we have provided EIA Scoping Opinions on a previous iteration of the proposed development under the Marine Works (Environmental Impact Assessment) Regulations 2007 and the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. These letters are dated 12/08/2015 and 08/02/107 respectively. Whereas some aspects of the proposal have changed, for example an increase in generating capacity

and change in cable landfall location, much of the detail presented in the EIA scoping report currently under consideration remains the same as previous. As such many of our previous comments are still relevant and are reiterated below where appropriate.

Proof Reading

We recommend that any future documents submitted for review would benefit from a thorough proof reading before submission to ensure that information such as protected site names and designated features of interest are correct. Incorrect or missing information may result in incomplete assessments within the Environmental Statement (ES) and could cause delays should further information be required that has not been considered previously.

Guidance

Guidance provided to the applicant by NRW to assist with scoping the proposal and EIA does not appear to have been fully used to inform all aspects of the EIA scoping report [1][2][3]. We also note that the scoping report has not drawn upon information collated within the Crown Estate's plan level Habitats Regulation Appraisal for their 2013/14 wave and tidal leasing round, which culminated in the leasing of the six UK demonstration zones, including Morlais Menter MÔN. NRW provided a guidance note to the applicant on how we considered that this information could be used at an individual demonstration zone level [4]. It is important that the ES makes full use of these sources of information.

Flexible Project Design

The scoping document and EIA will use a Rochdale Envelope approach to cover a range of potential technologies that could be deployed within the demonstration zone. At this stage there are uncertainties associated with the project description. It is difficult therefore to make detailed comments on the scope of the EIA since the potential range of devices, installation techniques and infrastructure needed has not been determined. The exact nature of the work that is required to inform the EIA may vary depending on the design choices. The EIA must address this uncertainty so that there is a clear explanation of the potential impact of each of the different scenarios.

The flexible project design envelope will need to achieve an appropriate balance between providing sufficient detail to allow for a robust assessment of impacts, whilst retaining the flexibility to avoid the need for consent modifications in the future. It is likely that some project design parameters will need to be tightly defined, where the potential for impact on sensitive receptors is significant. Other project design parameters may be more benign in their potential to cause significant effects and so greater flexibility within the design envelope can be retained.

1. NRW advice on scoping Environmental Impact Assessments for wave and tidal stream demonstration zones and project sites (Cover note for items 2 and 3 below.
2. NRW advice on scoping and Environmental Impact Assessment for marine renewable energy developments
3. NRW natural heritage checklist: tidal stream demonstration zone west of Holy Island, Anglesey.
4. NRW note on The Crown Estate's Habitats Regulations Appraisal of their 2013/14 leasing round for wave and tidal stream energy

The EIA process must allow for the project design envelope to be modified and evolve up to the point of application so that it can be informed by best available evidence. This might include data gathering within the offshore scoping area as well as experience from the consenting process for other test sites.

We consider that there will be a need for further iterative discussion between the applicant, NRW's Development Planning Advice Service and the Regulators to design and agree the design envelope for the project. The key drivers for this process should be the likely impact pathways and sensitive receptors.

Key policy and legislation

The applicant will need to consider the implication of the proposals on European Directives in the ES, including;

- EC Habitats Directive (protected sites and protected species)
- Marine Strategy Framework Directive
- Water Framework Directive

The requirements of national legislation will also need to be considered, including;

- The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000
- The Conservation of Habitats and Species Regulations 2017 (as amended)
- The Environment (Wales) Act 2016

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2010 and Offshore Marine Conservation (Natural Habitats &c.) Regulations 2007 have been consolidated and replaced by the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017 respectively. References to earlier regulations should be avoided in the ES.

The proposal is relevant to sites designated under the provisions of the above regulations. In due course the proposal will require special consideration by the competent authority under Regulation 63 in the form of a Habitats Regulations Assessment (HRA) which will take the conservation objectives of the designated sites concerned into account.

It is important that there is distinction between the EIA and HRA processes; however, the information contained within the ES may be of relevance and may be used within the HRA. We therefore recommend that the ES should include a section containing 'information to inform the HRA'.

Without wishing to prejudice the HRA or consenting process, a package of measures that would avoid or mitigate the effects of the proposal and avoid adverse effects on the integrity of European protected sites would appear challenging to achieve in this instance. If this is the case it may be necessary to consider the proposal under Regulation 64 of the above regulations, where the possibility of alternatives to the proposal that would not give rise to adverse effects on the integrity of European protected sites are considered.

We encourage the applicant to refer to the Crown Estate Technical Report: *Wave and tidal enabling action: consolidation of wave and tidal EIA / HRA issues and research priorities (2014*). This will provide guidance to addressing the key strategic EIA / HRA issues associated with wave and tidal stream arrays and identify strategic research priorities which individual developers may plan to undertake, or which could be addressed through a coordinated programme.

Certain species listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) are legally protected from 'reckless or intentional disturbance' Species listed in Annex IV(a) of the Habitats Directive, and whose natural range includes any area in Great Britain, are legally protected under the Habitats Regulations (above) and the Conservation of Offshore Marine Habitats and Species Regulations 2017. The Regulations prohibit the deliberate capture, injury, killing or disturbance of any 'European Protected Species (EPS)'. An EPS licence may be required for activities depending on the significance of any disturbance; this should be determined as part of the EIA process and documented in the ES.

EIA baseline characterisation strategy.
There is a need for clarity of terminology to make clear the distinction between survey or data gathering to inform the assessment of impacts within the ES and data gathering against which there will be impact monitoring, for example to validate predictions made in the ES. Identifying the key impact pathway / receptor combinations will help focus any additional evidence or data collection to most effectively inform the assessment of impacts within the EIA process. We would welcome the opportunity to discuss the need for and scope of any additional data gathering with the applicant prior to work commencing.

Marine Licensing Requirements
The NRW Permitting Service notes the applicant's recognition that the marine licence application will require an EIA to be carried out under the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended). NRW Permitting Service has received a request for a scoping opinion from Meter Môn Cyf and will provide feedback on the scoping report in their scoping opinion.

Our comments above only relate specifically to matters that are included on our checklist "Natural Resources Wales and Planning Consultations" (March 2015) which is published on our website: (https://naturalresources.wales/media/5271/150302-natural-resources-wales-and-planning-consultations-final-eng.pdf). We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests, including environmental interests of local importance. The applicant should be advised that, in addition to planning permission, it is their responsibility to ensure that they secure all other permits/consents relevant to their development.

Please do not hesitate to contact us if you require further information or clarification on the contents of this letter.

Yn gywir / Yours sincerely

Delyth W Rowlands

Delyth Wyn Rowlands
Cynghorydd Cynllunio Datblygu / Development Planning Advisor
Cyfoeth Naturiol Cymru / Natural Resources Wales

APPENDIX 1: SPECIFIC COMMENTS

1.0 Defining the Scoping Area

In relation to the "offshore" section on page 35 of the EIA scoping report, it should be noted that the area of impact on offshore receptors may extend beyond the immediate footprint of installed infrastructure and / or the swept area of tidal devices. The full zone of influence needs to be determined for each potential technology type and / or component of the project and the full area of impact for each receptor assessed appropriately. (Note that this may extend beyond the demonstration zone itself, depending on device type, location, and physical processes).

2.0 Project Description

Section 2.3.3.2 states that "a series of seabed installed cables will be laid between individual offshore electricity hubs and the landfall location". It goes on to state that, whilst the eventual design will be informed by a front-end engineering design study, the applicant anticipates that "up to nine 33kV" export cables may be installed to accommodate both the proposed 240MW Morlais Tidal Array and the Minesto Holyhead Deep scheme. This compares to a shared "single offshore export cable" for both projects detailed previously in the 2015 Morlais Tidal Demonstration Array Scoping Report. Section 5.3.2.3 further states that each array (berth) will require "a specific export cable coming to land at the landfall location, with individual project cables converging at an appropriate location and following a single approach to the landfall". The ES must assess the reasonable worst-case scenario in terms of the collective direct and indirect export cable impacts from footprint extent, burial/trenching and protection.

Clarity is sought on the decommissioning aspects of the project, and whether the 37-year lifetime includes a decommissioning period (see section 5.4.1). The time-period stated here conflicts with that given in the previous scoping report of 45 years. It is also stated that a worst-case scenario will be considered, with this including the removal of cables from the seabed. It is unclear, however, whether any structures are expected to remain in-situ on the seabed post-decommissioning.

3.0 Physical Processes

General Comments

Zone of influence and impact pathway descriptions have not been provided in sufficient detail for scrutiny in the EIA scoping report. We are therefore unable to confirm whether we agree with the impact zone of influence or impact pathways. This presents implications for the advice that can currently be provided with respect to designated sites, cumulative impacts and activities to be scoped out. It is not known at present what devices will be deployed in the demonstration zone area etc therefore it will be important that the zone of influence identifies the maximum environmental impact based on realistic worst-case scenarios. The baseline evidence used to determine the zone of influence will need to be clearly stated in the ES.

Little information is currently provided in the EIA scoping report with regard to cable protection requirements. It is not defined at present where and how much cable protection will be required if the export cables are surface laid on exposed bedrock and protected by rock armour or concrete mattresses. Cable protection could include permanent rock armour

protection on the seabed potentially altering current flows near the seabed, inducing sediment scour and potentially altering sediment transport pathways near the coast. Worst-case scenarios for cable protection will need to be assessed in the ES.

The baseline characterisation work proposed within the EIA scoping report is limited. Clarification is required regarding how the applicant intends to describe the site selection process for the tidal energy devices and grid connection route if detailed hydrodynamic, bathymetric and geophysical investigations are not carried out to provide the necessary baseline evidence. We advise that the applicant should use accurate bathymetry and geophysical survey data of the demonstration zone to inform their decision on the export cable route pathways through the proposed demonstration zone. Sediment samples should also be taken in sediment laden seabed areas to determine sediment type, composition and sediment volume that could potentially be suspended through the cable trenching activities.

The EIA scoping report suggests that the applicant will not be conducting hydrodynamic investigations of the demonstration zone area. If that is the case, we seek clarification regarding how the applicant intends to assess potential hydrodynamic impacts from the presence of the offshore infrastructure that they are responsible for (i.e. offshore hub, inter array and export cables and associated cable protection) and the tidal energy devices themselves.

Potential Impacts

Potential impacts on metocean conditions and coastal processes only includes impacts during the operational phase of the proposed development (see table 7.1). The other phases of the project life (construction and decommissioning) should also be considered within the ES. For example, during the construction phase there could be impacts caused by the cable laying activities, such as alteration to the seabed morphology caused by presence of rock armour protection on the seabed. This could have a significant impact on coastal processes if located across an active sediment transport pathway. There could also be a potential for sediment scour downstream of the structure and alteration of flow near the seabed.

Table 7.1 describes the potential impact 'increased suspended sediment from reduced water energy'. It is unclear how reduced water energy will increase suspended sediment concentrations. Reduced water energy may increase sedimentation of suspended material; is this what is meant?

Again, it is unclear how potential impacts relating to metocean conditions and sediment transport, and coastal processes be assessed for impact significance in the EIA without conducting hydrodynamic modelling studies pre and post tidal array/cable installation (see table 7.1). Without physically measuring or modelling the change in the energy potential downstream of the devices and alteration to the wave directions under different wave conditions, it may not be possible to determine significance and magnitude of impact on the coastal processes.

With reference to table 7.1 we recommend that consideration should be given in the ES to the alteration of the near bed currents and sediment transport pathways caused by rock armour protection on the seabed, not just the tidal energy devices.

EIA Baseline Characterisation

Regarding 'EIA baseline characterisation' NRW welcome the inclusion of a conceptual model to describe the hydrodynamic and coastal process. A coastal processes conceptual model is a useful way to identify where there are gaps in existing baseline evidence which may then inform the requirement for further metocean data collection through field surveys. At the scoping stage, metocean and coastal processes field data collection should not be ruled out (see section 7.1.3).

We advise that hydrodynamic modelling to inform the EIA impact assessment should also not be ruled out at the scoping stage until it is confirmed that there is enough baseline evidence to qualify and quantify the EIA impact assessment process for hydrodynamics, sediment transport and coastal processes.

It is recommended that the coastal processes baseline characterisation needs to also include topographical data at the landfall location which may be used to inform any potential impacts on the beach profile and sediment morphology arising from the cable landfall of the export cable from offshore to onshore and the construction of a transition pit.

Further information is required regarding how the potential impacts to the physical processes caused by the deployment of multiple tidal energy devices will be qualitatively and quantitatively assessed using a non-numerical approach i.e. development of a conceptual model. The physical processes impact assessment is an important assessment as any alteration to the flow conditions, waves regime and sediment transport pathways caused by the presence of the tidal devices and the associated infrastructure will potentially impact on the intertidal and subtidal benthic ecology, water quality and coastal morphodynamics. This in turn could then affect the integrity of the protected sites designated under the Habitats directive and affect the ecological status defined under the Water Framework Directive.

Topics to be Scoped Out of ES

We disagree that the offshore physical processes associated with reduced energy in tidal currents from energy removed by tidal devices should be scoped out from the EIA. It is not clear at this stage what devices will be deployed within the demonstration zone. PTEC are potentially generating 30MW of power whilst the demonstration zone will potentially be generating 240 MW of power. The scale of both projects is very different and ruling out the effects caused by a reduction in energy based on the findings of a much smaller project is not acceptable at this stage.

2.0 Water and Sediment Quality

In section 7.2.1.1 there is reference to the bathing water quality for eight beaches in the MDZ coastal area and reference to one designated European Shellfish Water. There is, however, no inclusion of the Water Framework Directive (WFD) existing water body status for the coastal water bodies within the demonstration zone. This is an important omission from the water quality section.

Contaminated sediments could be present in the demonstration zone and investigations should be carried out to determine the level of contaminated sediments particularly in areas where sediment may be disturbed into suspension during the construction phase i.e. installation of devices and the cable laying activities which could potentially release

contaminants into the water column. We welcome the inclusion “It is likely that site-specific sediment contaminant sampling would also be undertaken during the EIA “and recommend that this activity is carried out (see section 7.2.3).

There has been no inclusion of tidal current data in the demonstration zone which shows the magnitude and direction of flow over the zone to substantiate the assumption that the suspended sediments would rapidly disperse. We agree that in fast flowing currents, dispersion of suspended sediments could occur rapidly and the potential for smothering would be reduced as a result (see table 7.2). However, there is no baseline evidence presented in the metocean section that supports this assessment of impact. We advise that further evidence is presented to show the magnitude and direction of the tidal currents in the nearshore and intertidal areas which are often much smaller than those experienced offshore, and which may not be enough to promote rapid dispersion of suspended sediments and potential contaminants released through trenching activities over this zone.

Section 7.2.3 states “baseline water quality conditions within the offshore scoping area. This would be done through a review of available literature”. It is unclear which baseline water quality conditions are being referred to. If the baseline water quality conditions are not adequately evidenced after review of available literature, we recommend that further surveys should be carried out to inform the baseline characterisation.

4.0 <u>Water Framework Directive (WFD)</u>

The demonstration zone is located at its nearest point, 0.5km (0.27 nautical miles) from the west coast of Holy Island Anglesey and falls within the Caernarfon Bay North WFD coastal water body which currently has an overall Good status, with a Good chemical status and a good ecological status. We advise that a Preliminary WFD Assessment report is prepared by the applicant in support of the application and, where required, a detailed WFD Compliance Assessment Report be undertaken.

We welcome further discussion relating to WFD compliance assessment. We advise that WFD should be considered at an early stage in project planning and included in pre-application discussions to ensure avoidance, mitigation and/or improvement measures are built in to the project where appropriate to minimise costs for the applicant and to provide the best environmental outcome.

The Directive does not specify the format or process to follow for WFD assessments. This allows a flexible and proportionate approach to be undertaken. To aid in the decision-making process, it is recommended that the appraisal of an activity or project is conducted in 3 stages:

- **Screening:** exclude any activities that do not need to go through the scoping or detailed assessment stages
- **Scoping** – identify the quality elements that are potentially at risk from the proposed activity and need further detailed assessment
- **Detailed assessment** – consider the potential impacts of an activity on bodies of surface and ground water, identify ways to avoid or minimise impacts, and identify if an activity may prevent the water body achieving good status or cause deterioration.

In the event that an activity may prevent the water body achieving good status or cause

deterioration then it may be allowed to proceed if it meets the requirements of Article 4.7.

The WFD assessment must consider:

- all activities carried out; and,
- each stage of the activity, for example construction, operation, maintenance and decommissioning
- The WFD compliance assessment process needs to also consider the zone of influence of the project in its entirety and any WFD waterbodies that fall within it, not just where there are direct impacts.
- Consideration should be given to whether the potential impacts are short term effects (< 6 years) or will cause a non-temporary/permanent change (e.g. direct habitat loss, alteration to sediment transport pathways, interference with migratory fish pathways etc). If the impacts are considered a non-temporary/permanent effect on the biological, chemical or hydro morphological elements of the WFD water body in question then the impact must be carried forward for consideration in the WFD compliance assessment process.

Please see attached OGN 72 for further consideration. This is NRW's internal guidance document on assessing activities and projects for compliance with the Water Framework Directive. It is worth highlighting that these documents are intended for internal NRW use and therefore some of the links may not work and some content may not be relevant externally.

4.0 Geoscience

Please note that since 1st January 2018 the exemption for abstraction of groundwater and dewatering for engineering and quarrying has been removed. An abstraction licence will be required for these activities if there is an intention to abstract over 20m3/day. Further detail can be obtained from our Water Resources Permitting team (0300 065 3000).

We are aware that there are a number of private water supplies (PWS) located on the Isle of Anglesey; the local authority Environmental Health Officers will have a register of these. The works have the potential to impact small drinking water supplies such as PWS and we therefore recommend that the local authority is contacted for further advice.

There is the potential for works associated with the proposal to cause land contamination and the applicant should be mindful of this. Once the landfall location has been finalised we will need further information of the site setting regarding potential for land contamination (a Preliminary Risk Assessment) and a water feature survey. The water feature survey should be carried out along all the cable routes and around any buildings, compounds and substations for the development.

Requirement for a Preliminary Risk Assessment

1. Follow the risk management framework provided in CLR11, Model procedures for the management of land contamination, when dealing with land affected by contamination (EA, 2004).
2. Refer to the Environment Agency "Guiding Principles for Land Contamination" (which has been adopted by NRW) for the type of information required in order to assess risks

to controlled waters from the site (EA, 2010). The local authority can advise on risk to other receptors, e.g. human health.

Requirements of a Water Feature Survey

The applicant must undertake a preliminary site assessment, which should include the following:

- Identification of all water features both surface and groundwater (ponds, springs, ditches, culverts etc.) within a 300 metres radius of the site.
- Use made of any of these water features. This should include the construction details of wells and boreholes and details of the lithology into which they are installed;
- An indication of the flow regime in the spring or surface water feature, for example whether or not the water feature flows throughout the year or dries up during summer months;
- Accessibility to the spring/well;
- This information should identified on a suitably scaled map (i.e. 1:10,000), tabulated and submitted to Natural Resources Wales. It would be useful for the developer to photograph each of the identified water features during the survey.

Based on the results of the survey the applicant must assess the likely impacts from the development on both quantity and quality of the surface water and groundwater. This should take into consideration both the preferred methods of construction and the assumed hydrogeology in the vicinity of the development.

We may require identified groundwater features to be monitored during the proposed workings and would therefore recommend that the survey be undertaken as soon as possible to enable the developer to carry out suitable baseline monitoring prior to the commencement of workings at the site.

5.0 Flood Risk

With regard to flood risk associated with the landfall and cable route we are generally satisfied with the content of the EIA scoping report in that flood risk will be considered further as part of the ES (see section 7.3.1.4). We would advise that the flood maps referred to in footnote 34 show current day risks and do not include any allowances for climate change. Climate change allowances (75 years) would be in line with CL-03-16 (http://gov.wales/topics/planning/policy/policyclarificationletters/2016/cl-03-16-climate-change-allowances-for-planning-purposes/?lang=en).

It would also be appropriate to refer to any main rivers; again footnote 34 can be used and using “detailed view” to see main river layer within the route and directly downstream of the reservoirs referred to. Activities in, over, under or within 8m of a main river may be subject to a Flood Risk Activity Permit under the Environmental Permitting Regulations.

Extreme sea levels can be obtained for this coastline for a range of probability flood events including that of climate change allowances. These extreme sea levels would allow for surge conditions but not wave action. To obtain the levels a request may be made to our data distribution team.

6.0 Designated Sites

Baseline

In our previous EIA scoping responses to Anglesey County Council and NRW's Marine Licensing Team we stated that we agreed with the designated sites, species and receptors identified within section 7 of the scoping report (table 8.1 in current EIA scoping report) to be included within the EIA and HRA. We noted that the Anglesey Terns SPA was not included within the scoping report and should be considered as part of any subsequent ES. Table 8.1 has since been changed and now contains numerous errors. We strongly advise that these are rectified prior to the submission of any ES.

A number of the designated sites included in table 8.1 (and throughout the report) are incorrectly named and there are several examples of duplication, possibly stemming from the fact that some sites have both a Welsh and an English name. Where sites are duplicated, such as is the case for Llyn Dinam SAC, Glannau Ynys Gybi/Holy Island Coast SPA, Glannau Rhoscolyn/Rhoscolyn Coast SSSI and Porth Diana SSSI to name a few, differing (conflicting) levels of potential impacts are often reported.

The entries under the 'features' column of table 8.1 are inconsistent and often incorrect. We advise that the column is carefully checked and the features communicated in a consistent format that is easy for the reader to understand.

The 'features' column text for the Anglesey Terns SPA in table 8.1 suggests a single island colony, however, please note that the site comprises 3 separate breeding colonies and extensive areas of surrounding sea. The numbers of breeding pairs provided for the site should be checked for accuracy.

In table 8.1 the statement provided regarding drainage in Llyn Padrig SSSI is incorrect; the water table has been artificially lowered across the whole site and there is clear evidence of this in the surrounding fields.

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Potential Impacts

Impacts to terrestrial ecological protected sites (table 8.2) are dismissed as being minimal on the grounds of being localised. We note, however, that the cable landfall will cross the Glannau Ynys Gybi / Holy Island Coast SAC, SPA and SSSI and therefore impacts have the potential to be significant in the areas affected.

In addition to Rhosneigr Reefs SSSI and Beddmanarch-Cymyran SSSI, we recommend that possible effects on intertidal habitat and species features of Glannau Rhoscolyn SSSI (in addition to those identified against ornithology receptors) will need to be considered.

7.0 Subtidal Ecology

Continual reference has been made to the HABMAP dataset (see section 8.2) in relation to the benthic habitats that are within and adjacent to the Morlais demonstration zone. Whilst this is valid, it should be recognised that the confidence with which the HABMAP biotopes have been predicted is generally low to moderate. Comprehensive survey data does not exist for the demonstration zone, although there are some records in the Marine Recorder database which should be examined and incorporated into the summary.

There are a number of factual inaccuracies in section 8.2.1.1 which we advise are corrected prior to completing the ES. Page 79 states that "there are no SAC or Annex I habitats identified within the offshore scoping area….". This is incorrect, as HABMAP predicts several rock biotopes and also coarse sediments and mixed sediments, which in some cases may form stony reef. In addition, data in Marine Recorder confirms the presence of Annex I Reef habitat within the zone. It is likely that Annex 1 rocky reef and / or stoney reef will be present within the demonstration zone, and / or export cable corridor.

References to "*Sabellaria alveolata"* should be changed to "*Sabellaria spp".* Recent survey work by NRW in and around North and West Anglesey found several areas of developed *Sabellaria* reef. Video analysis, though inconclusive from a species identification point of view, appears to show a mix of both *S. alveolata* and *S. spinulosa* present in the elevated reef structures. It is therefore likely that any similar reef aggregations found within the zone will contain a mixture of *Sabellaria* species.

Section 7 (formerly BAP / Section 42) marine habitat records are present within or near the Morlais Demonstration zone. These include *Musculus discors* beds (two records to the North of Holyhead from 1996), seagrass (recent and historic records) in shallow water on the east and west sides of Holy Island (outside of the zone but potentially within the wider zone of impact) and fragile sponge and anthozoan communities both within and adjacent to the zone. Section 7 subtidal mixed muddy sediments, and subtidal sands and gravels are also predicted to occur in and adjacent to the zone, along with patches of Annex 1 rocky reef (survey records and BGS hard substrate map). The Section 7 species *Arctica islandica* and *Haliclystus auricular* have also previously been found in shallow waters off Holy Island (MNCR records from 1996) and may occur within the zone. These habitats and species need to be acknowledged and considered in the EIA.

Potential Impacts

It is difficult to comment on the potential impacts outlined in table 8.4 due to the range of unknowns associated with such a broad Rochdale Envelope approach. Impacts will depend on the number, size and types of devices put in place. The table currently states "significance of impact unknown" in the "anticipated significance" column for many impact pathways. The potential impacts listed are quite broad and will need to be subdivided into specific parts for the EIA (for example, "impact to benthic communities due to the creation of sediment plumes during construction" could cause impacts both through increases in suspended sediment and also increases in sediment deposition). Some of the impact pathways that are missing include (but are not limited to) pollution from accidental spillages, impacts due to changes in water movements and changes in habitat type. A full assessment of potential impacts will therefore need to be made for the EIA and for all individual projects within the zone.

Specifically, in Table 8.4, the impact pathway identified as "impact to benthic communities due to the creation of sediment plumes during construction" is assessed as "effects unlikely to be significant". However, the comment for this impact states that the significance of impact would depend on the sensitivity of the local benthic habitats as well as the nature of sediment dispersal. In light of this fact, the significance level should be changed to "unknown" until further knowledge of the benthic communities present at any given development location is attained via site specific surveys.

We welcome the acknowledgement of potential impacts to benthic ecology interest features of designated marine and coastal sites due to changes in coastal processes, sedimentology and hydrodynamic regime in table 8.2. We note, however, that only potential impacts due to change in sediment regime are included in table 8.4 *Potential impacts on benthic ecology*. We wish to draw the applicant's attention to our comments relating to coastal process aspects of the EIA Scoping Report. Specifically, we would welcome clarity on how the potential impacts to the physical processes caused by the deployment of multiple tidal energy devices and associated infrastructure will be adequately assessed using a non-numerical (conceptual model) approach, and how this will be applied in the context of potential impacts to intertidal and subtidal benthic ecology, water quality and coastal morphodynamics arising due to physical process impacts (alteration to flow conditions, waves regime and sediment transport pathways).

EIA Baseline Characterisation

The current text in this section does not specifically state how further information will be obtained on the benthic habitats and species within the demonstration zone. Survey work is only mentioned as potentially being required. We advise that a targeted ground-truthing survey is carried out within the demonstration zone to properly characterise the area in terms of subtidal ecology (we understand that multibeam data already exists for the marine development area and could be utilised to target future surveys). This would reduce uncertainty as to the presence of sensitive features or receptors in the area. We can provide further guidance on the interpretation and ground truthing of acoustic data (multibeam and side scan) for ecological purposes. We would be happy to advise on the scope of such surveys if required.

We note that the Offshore Scoping Zone now includes the sea area between the demonstration zone and the shore. Additional multibeam / acoustic survey and benthic ground-truthing will be needed in this area to inform the benthic impact assessment associated with the export cable route from the Lease Area if not already available.

8.0 Intertidal Ecology

The benthic ecology impacts (section 8.2.2) need to be separated between intertidal and subtidal ecology, and these need to be further separated for the different stages of development (e.g. potential effects during construction; operation and decommissioning). Each of the individual impacts should then be assessed against other potential cumulative effects from other existing or planned developments.

The intertidal ecology section (section 8.2.1.2) remains very brief. The inclusion of an intention to 'assess' CCW Phase 1 habitat survey data, as part of the applicant's data gathering exercise to inform EIA baseline characterisation, is welcomed. This information needs to be presented in a similar way to the subtidal section (see table 8.3) and assessed against a reasonable worst-case scenario for the anticipated installation method, landfall location and spatial extent of the export cable/s.

We consider that, in respect of the proposed export cable landfall location, the ES must include a detailed assessment of potential impacts to the intertidal habitats present in and around the Penrhos Feilw area. We recommend that, in order to inform baseline/characterisation of the intertidal zone at the proposed landfall location, the applicant

commits to undertake a repeat of the Phase 1 intertidal habitat survey at an appropriate scale for the planned works.

9.0 Marine Invasive Non-native Species (INNS) and Biosecurity

NRW welcomes the applicants recognition (see table 11.1) that a thorough biosecurity risk assessment should be undertaken as part of the EIA process. We maintain that the ES and associated biosecurity risk assessment should include consideration of how *Didemnum vexillum* will be contained within the marina and detail any measures to mitigate the onward spread of this species. This is particularly important if, during any stage of the development (construction, operation, decommissioning), the applicant intends to use the facilities at Holyhead marina or port for berthing of vessels, materials or equipment.

10.0 Marine Mammals

Protected Sites Baseline

In section 8.1.1.2 it states that "due to the wide-ranging nature of offshore ecological receptors such as … marine mammal receptors, an initial search of up to 50km has been used for these receptors". We advise that with regard to marine mammals, rather than the 50km search area proposed, the relevant marine mammal management units provide the appropriate spatial extent for screening in marine mammal protected sites (including SSSIs where appropriate) (see IAMMWG, 2015).

For Annex II marine mammal species, the Welsh SACs within the relevant management units are as follows:

- Harbour porpoise

Management Unit: Celtic & Irish Sea
Welsh SACs with harbour porpoise as a feature within the Management Unit:
North Anglesey Marine
West Wales Marine
Bristol Channel Approaches

- Bottlenose dolphin

Management Unit: Irish Sea
Welsh SACs with bottlenose dolphin as a feature within the Management Unit:
Pen Llyn a'r Sarnau
Cardigan Bay

- Grey Seal

Management Unit: South and West England and Wales
Welsh SACs with grey seal as a feature within the Management Unit:
Pen Llyn a'r Sarnau
Cardigan Bay
Pembrokeshire Marine

Please note that that the series of Harbour Porpoise SACs in the UK are now officially adopted by Europe and must be formally considered in HRA. Sites outside of Welsh waters (eg in Irish, English, Northern Irish, Scottish waters) should also be screened in based on their presence in the relevant management unit.

Species Baseline

The nearshore and inshore waters of the Anglesey coast are important for cetaceans and seals. We advise that the scope of the ES assessment must consider the impacts of all stages of the development (construction, operation and decommissioning) on the following marine mammal species: harbour porpoise, common dolphin, Risso's dolphin, grey seal, minke whale and bottlenose dolphin.

Some species might present a high risk and require a more quantitative approach to assessment than others, for example bottlenose dolphin, grey seal, harbour porpoise, which are all SAC species from nearby sites.

Please note that bottlenose dolphin in the demonstration zone area are likely to be from Cardigan Bay SAC and Pen Llyn ar Sarnau SACs in the Irish Sea Management Unit (not just Cardigan Bay SAC).

There are regionally important grey seal pupping sites on Anglesey, including on Holy Island (see Westcott & Stringell 2003). An NRW commissioned census of grey seal pupping abundance and distribution has recently been completed and indicates at least a doubling of pup production in North Wales (Banga et al 2018 in prep – this paper might be available in time for consideration within the ES).

The use of the demonstration zone and surrounding area by marine mammals will need to be assessed both spatially and temporally. The spatial extent of activities and operations and marine mammal protected sites should be guided by the relevant marine mammal management units (IAMMWG, 2015).

Potential Impacts

Table 8.5 currently presents very broad appraisal of the potential impacts to be assessed; we consider that a more detailed list of possible impact pathways needs to be considered and presented in the ES. Where a particular impact is ruled out as being not significant, it is important that the decision is based on clear evidence. The impact pathways identified in the ES should also be considered in the cumulative impact assessment and HRA, where appropriate. We recommend that the ORJIP Ocean Energy Forward Look provides a useful start for prioritising impact pathways and evidence needs (see http://www.orjip.org.uk/documents).

At this stage, the key issues would appear to relate to displacement, disturbance and collision during operation and noise impacts during construction, operation and decommissioning. There, however, be will be other impacts to consider, including indirect effects on prey species and cumulative effects.

We advise that it is likely that the key issue of collision risk during operation will need to be considered in quantitative detail. The potential for population level effects on marine mammals will need to be considered where significant impact pathways have been identified. For the assessment of marine mammal collision risk, we advise that the use of modelling frameworks such as the Population Consequences of Disturbance (PCoD) or toll quotas such as Potential Biological Removal should be considered.

EIA Baseline Characterisation

We advise that the Sparling et al 2015 publication "Guidance to inform marine mammal site characterisation requirements at wave and tidal stream energy sites in Wales" should be followed to assist in determining the level of baseline charecterisation required to inform the ES.

Note that although a literature review and results of collision risk analysis from similar studies (e.g. SeaGen and the MeyGen projects) will be informative, we advise that there will likely be a need to adapt present models to fit the chosen device(s) and unique location characteristics (open tidal site).

11.0 Fish and Shellfish Ecology

Fish and Shellfish Baseline

The assessment of fish species to inform the Environmental Statement needs to identify all possible fish species that may be affected by the proposed development and indicate the relevant legislation for each, for example: Common Fisheries Policy zero TAC species, UK Biodiversity Action Plan species, Section 7 Environment Act species, IUCN European Red List species etc. Assessment should consider the impacts of all stages of development (i.e. construction, operation and decommissioning).

In light of the above information we advise that species such as the spurdog or spiny dogfish (*Squalus acanthias*) will need to be included as a potential impact receptor in the ES; it is known to use the area and is classed as vulnerable in the IUCN Red List. This, and other elasmobranch species may be impacted by, for example, electromagnetic field effects and so should be included in the ES for assessment.

The Pembrokeshire Marine SAC fish species features of sea lamprey, river lamprey and allis shad (note that twaite shad is missing) are included in table 8-1 but Pembrokeshire Marine SAC has been omitted from table 8-6 *Relevant SACs for migratory fish.* NRW welcomes the statement in table 11-1 that migratory fish will be fully considered in the ES, including the provision of a justification where specific sites and species are scoped out.

Section 8.4.2.1 of the EIA scoping report states "*that shellfish are the only commercial species landed at Holyhead*". This statement is incorrect as fish species are also landed there. The EIA suggests '*that no scallop vessels at Holyhead are licenced for scallop fishing*', however, several vessels fish for scallops from Holyhead. Longlining fishing for rays occasionally occurs off western Anglesey with vessels from Holyhead participating.

Impact Pathways

We welcome the acknowledgement of the potential impact pathways identified for Annex II species (fish) features and *natural fish and shellfish* in table 8.1 and table 8.7. We note, however, that the potential impact to migratory and non-migratory fish from 'collision risk with devices' has been identified as 'unlikely to be significant', despite the applicant indicating that migratory pathways are not well understood, and that more information is required to assess potential impacts to non-migratory fish. A full examination and evidenced justification in support of this view will be required within the ES.

We advise that impacts on migratory fish from underwater noise should include consideration of impacts on hearing specialists such as herring which are a prey species of marine mammals. Other impacts which we recommend are assessed within the ES include possible impacts on larvae of fish and shellfish species from increased turbidity.

We welcome the applicant's indication in table11.1 that transitional fish species (such as bass, whiting and herring) will be considered as part of the wider fish assessment which will include consideration of seasonal variation in fish spawning and larval activity. We maintain that the ES should differentiate between transitional and migratory fish assemblages where possible.

12.0 Ornithology

Onshore Ornithology Baseline

It is unclear why the applicant has singled out the four species listed in section 8.5.1.1. We advise that an improved characterisation of the bird communities within the terrestrial scoping area will be required in the ES. The characterisation should focus on species that are listed as features of protected sites that might be impacted (SPAs / SSSIs), species listed in schedule 1 of the Wildlife & Countryside Act (as amended) 1981, and species listed in Section 7 of the Environment Act (Wales) 2016. In addition to the data sources listed in section 8.5.3 we recommend that the applicant obtains data held at Cofnod to assist in characterising the terrestrial scoping area. This will help inform the need for any targeted survey work for onshore species (including chough). Please note, where a schedule 1 species is likely to be disturbed the applicant will require a schedule 1 disturbance licence issued by NRW.

Coastal and Offshore Ornithology

We recommend that the applicant first reviews available baseline data to ascertain which species have been found within the areas of sea/coastal areas potentially affected. For the offshore areas this may include ESAS data (ESAS/WWT in the past), while for coastal areas NeWs (Non-estuarine waterbird survey) and WeBs (Wetland bird survey) counts may be useful to give context to the data that is being collected as part of the ornithological survey programme.

We advise that the mean maximum foraging ranges detailed within Thaxter et al (2012) are utilised to determine which breeding colonies could be affected by the proposed development, with particular emphasis on colonies that are features of SPAs and SSSIs. There is no mention of Skomer and Skokholm SPA and the Glannau Aberdaron and Ynys Enlli / Aberdaron Coast and Bardsey Island SPA, for example, designated for Manx shearwater. We would welcome a map which shows the seabird features of designated sites within mean maximum foraging range of the proposed demonstration zone.

The proposed scoping area overlaps with the Glannau Ynys Gybi / Holy Island SPA. We advise that sufficient information should be provided on the impacts on breeding and non-breeding chough, a qualifying feature of the SPA. The ES should propose and deliver appropriate mitigation to ensure that the works do not have adverse effects on the site integrity of the Glannau Ynys Gybi / Holy Island SPA. The ES should assess the likely impacts from disturbance and/or loss of chough foraging areas (both within and beyond site boundaries) and, where required, detail proposed mitigation measures

Potential Impacts
The ES should consider the potential for displacement of food sources from the area in addition to displacement of birds themselves; to date the EIA scoping report has not addressed this point.

13.0 Terrestrial and Coastal Ecology

Baseline
Section 8.6.1.1 states that the proposed scoping area overlaps with the Holy Island SAC and SSSI but fails to mention the Glannau Ynys Gybi / Holy Island SPA. This omission should be rectified in the ES.

According to the EIA scoping report the landfall and substation will be mainly situated in areas of agricultural land of limited interest (section 8.6.1.1). This may be true for the substation, however, without seeing location maps this statement cannot be confirmed. The applicant should note that even apparently dull agricultural land can provide valuable feeding ground for chough and the landfall will have to cross the Glannau Ynys Gybi / Holy Island SAC / SPA and SSSI.

Section 8.6.1.2 states that "The central areas of Holy Island are largely rural pastoral land and coastal grassland, with upland areas of heath around Holyhead Mountain. These areas would be expected to be of low to moderate importance to terrestrial ecology receptors". Clarification is sought as to how areas of SAC heathland and SPA habitat can be dismissed as low to moderate importance.

Potential Impacts
There are various records of great crested newts, bats, otters and water voles within the scoping zone. Any formal application for consent will need to consider the impact of the proposal on protected species and demonstrate that the proposal will not impact on the Favourable Conservation Status of European and nationally protected species.

In consideration of the impacts of the proposed development on birds and animals (table 8.10) it is important that consideration is given to the seasonality of works e.g. certain elements of construction for example may be more disruptive or damaging if they were to occur during breeding periods or periods of hibernation etc. Attention will also be required to the issue of habitat and species connectivity in order to avoid habitat fragmentation and indirect impacts up sensitive receptors. In addition, the ES should consider any hydrological effects which could arise and impact receptors within hydrological connectivity of the proposed development.

EIA Baseline Characterisation
Should surveys conclude the presence of protected species, then we would expect the applicant to propose and deliver appropriate mitigation and / or compensation schemes along with Reasonable Avoidance Measures, to ensure that the favourable conservation status of the species is maintained. Please be aware that the development may only proceed under derogation licence should surveys confirm presence of species that are protected. Although NRW will only advise on matters of national and international significance, the

submission will need to include information about other ecological interests to allow your Authority to take account of its duty under the Environment (Wales) Act 2016.

14.0 Seascape and Landscape

We note the EIA scoping report incorporates comments we provided within our previous consultation response to Morlais Demonstration Zone (see table 11.1). Much of the detail we provided at the time remains relevant to how the assessment of this topic should be progressed at the EIA stage.

Baseline

The EIA scoping report covers the seascape and landscape baseline context appropriately. As a minor point of clarification, paragraph 2 on page 113 notes that '*construction activity and surface piercing infrastructure would be visible from receptors in areas of offshore SCAs 30, 31 and 32'*. We advise that SCA32 therefore needs to be included in table 9-1. Marine Character Area descriptions may also be relevant and should be incorporated within the baseline description where appropriate.

Visual receptors have been described in general terms. As the project develops we would wish to be consulted on viewpoints that will be used to assess change to visual amenity and change to character. A viewpoint schedule, reason for inclusion, receptor sensitivity and viewpoint location plan would be useful. Photomontage images to help explain the visual aspects of the project will be required.

To help clarify how effects upon natural beauty of the AONB can be addressed, in our experience the visual and character aspects of the assessment need to be brought together when assessing effects upon special qualities and people's perceptions. We recommend that it would be helpful to set this assessment out in the visual effects tables that accompany the photo viewpoint images.

Potential Impacts

The potential impacts upon Seascape and Landscape are set out generically at this stage but cover the key themes of the assessment topic appropriately. The category 'changes' to visual amenity is described within the framework of potential impacts on the amenity of the offshore area. We assume, however, that both onshore and offshore visual receptors will be assessed.

The project will be informed by a range of constraints and impacts to be avoided or minimised. Imbedded and iterative design are important components of EIA towards impact avoidance, and we would welcome design input imbedded to positively benefit the scheme's visual integration and influence any options being considered.

Wireframe modelling of the development for key sensitive viewpoints, panoramas and sequential views (where they exist) will help identify and look to resolve the potential issues of the offshore development component. A colour assessment for the sub-station and its landscape context is recommended, to identify a palette of integrating colours, given the open and wind-swept nature of much of the AONB. Limited use of lighting is recommended to avoid night time effects upon dark skies/ dark seascapes and tranquillity of the AONB.

There is no published guidance for the planning and design of tidal arrays in relation to seascape, landscape and visual amenity contexts, however established guidance for wind farm planning and seascapes, seascape sensitivity and assessment methodologies are relevant; for example,

- LI and EIMA Guidelines for landscape and visual impact assessment 3rd edition 2013
- Dti Guidance on the assessment of the impact of offshore wind farms 2012
- SNH Offshore renewables - guidance on assessing the impact of coastal landscape and seascape 2012
- SNH Visual representation of wind farms guidance 2017

15.0 Commercial Fisheries

We advise that vessels from Nefyn/Trevor should be mentioned when describing the baseline environment due to the potential that some of them utilise the area close to the proposed demonstration zone or their fisheries may be impacted by the development.

The potential impact of change in abundance of target species outlined in table 9.4 should also address the possibility of species movement being affected by development and not being able to migrate to inshore areas.

16.0 Air Quality

The ES should take into account roads and transport links that are likely to be used to transport construction materials and whether the potential change in traffic pollution will be significant. When further information on the roads that are likely to be used is available NRW will be able to provide more detailed scoping advice on the potential air quality impacts.

Protected sites within 200m of the selected roads will need to be identified. The amount of NO_x, SO_2, dusts, nitrogen deposition that is likely to occur at the sites within 200m of the roads and whether this pollution is greater than 1% of the relevant nutrient nitrogen critical loads. NO_x and SO_2 critical level and dusts deposition for these sites.

17.0 Tourism and Recreation

Recreational angling including charter boat trips are addressed within this section, however, we recommend that consideration should be given to changes in target species not just the potential to restrict or impair the access to the area

18.0 Pollution Prevention

We welcome the commitment in table 11.1 to the production of an Environmental Management Plan to include information on how pollution incidents will be dealt with. This plan should cover all phases of the proposed development. We note that the intention is that the plan will also include information on dealing with any waste generated as a result of the proposal.

The applicant should be aware of the Port of Holyhead OPRC plan to deal with spillages in the port area and should liaise with the harbourmaster regarding the extent of a plan and agree actions in the case of a spill.

The applicant should be aware of the latest pollution prevention guidance, especially GPP5 and PPG6. The latest guidance is now available at the Netregs website;

http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/
To our knowledge the EIA scoping report has not addressed whether the underground cables will contain cooling oil or not. Should the cables contain oil we recommend that there should be a leak or pressure loss detection function built into the system.

19.0 Cumulative Impacts and In-Combination Effects

The new power station at Wylfa is mentioned in relation to potential onshore cumulative impacts (see section 10.1.2). We advise that offshore aspects of the power station also need to be considered, including HNP's plans for sediment and rock disposal at Holyhead Deep (this is in addition to the existing use of the disposal ground from Holyhead Port), increased boat traffic / shipping movements and biosecurity. It should also be noted that the HNP Wylfa Newydd development will mostly sit adjacent to the existing power plant rather than use the same site footprint.

It's important to note that, in addition to inter-project effects outlined in Section 10, intra-development effects, where multiple development elements have the potential to impact the same receptor, need to be considered throughout the relevant ES chapters and wider EIA process.

20.0 References

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Environment Agency (2010). GPLC1 – Guiding Principles for Land Contamination

IAMMWG (2015). Management Units for cetaceans in UK waters (January 2015). JNCC Report No. 547, JNCC Peterborough.

Jones E, McConnell B, Sparling C, Matthiopoulous J (2013) Grey and harbour seal density maps. SMRU report to Scottish Government under Marine Mammal Scientific Support Research Programme MMSS/001/11, Task MR 5 (part), Version 1500

Sparling CE, Smith K, Benjamins S, Wilson B, Gordon J, Stringell T, Morris C, Hastie G, Thompson D, and Pomeroy P (2015) Guidance to inform marine mammal site characterisation requirements at wave and tidal stream energy sites in Wales. No. 82. NRW Evidence Report, 2015

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Westcott SM, Stringell TB (2003). Grey Seal Pup Production for North Wales, 2002. CCW Marine Monitoring Report No: 5a. Countryside Council for Wales, Bangor