

29 January 2019

Dear Mr Tom Brinicombe,

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

Greenlink Interconnector – UK Marine Route

I am writing in response to your request for a scoping opinion, request dated 30th October 2018, made in accordance with the Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) (“The Regulations”).

The purpose of the Environmental Impact Assessment (EIA) scoping procedure is to determine what information should be provided in the Environmental Statement (ES).

In reaching our scoping opinion we have had regard to the information provided in the “Greenlink Interconnector UK Marine Route Scoping Report”, dated 30th October 2018, and considered the requirements of Schedule 3 of the regulations. We have consulted with the bodies that we consider to have an interest in the project, by reason of their responsibilities, or local or regional competences, as required by the Marine Works Regulations, and had regard to their comments.

Scoping Opinion

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

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

Please also note that our scoping opinion will be provided to all those bodies that were consulted and will be published on our website and on our Public Register.

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

Scoping Opinion (SC1816)

Summary of the proposal

Greenlink Interconnector has sought a Scoping Opinion from Natural Resources Wales Permitting Service (NRW PS) for the proposed Greenlink Interconnector UK Marine Route cable installation.

Greenlink Interconnector propose to develop an electricity interconnector linking the existing electricity grids in the UK and Ireland. The project will consist of two converter stations, which will be connected by underground cables (onshore) and subsea cables (offshore).

Location

The project will have two converter stations, one close to the existing substation at Great Island in County Wexford (Ireland) and one close to the existing sub-station at Pembroke, Pembrokeshire (Wales). The proposed marine cable route would run from Freshwater West, Pembrokeshire to the Hook Head Peninsula in County Wexford. The exact marine cable route has not yet been established and a number of corridors have been surveyed to determine the most appropriate route.

Consultation Responses Received

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

- Natural Resources Wales Technical Experts (NRW TE) (comments)
- Maritime and Coastguard Agency (MCA) (comments)
- Royal Yachting Association (RYA) (no comment)
- Trinity House Lighthouse Service (THLS) (no comment)
- Pembrokeshire County Council (no comment)
- The Crown Estate (no comment)
- ABPorts (no comment)
- Pembrokeshire Coast National Park Authority (comments)
- Welsh Government (ESNR – ERA Marine and Fisheries) (comments)
- Royal Commission on the Ancient and Historical Monuments of Wales (comments)

0. General comments/overarching comments

- 0.1. Section 1.4.2 identifies stakeholders in Table 1-1. To ensure consistency with regards to archaeological mitigation between Wales and Ireland, there should be additional stakeholders added to the list identified and consulted on pages 7 and 8, that being the Archaeological Survey of Ireland (<https://www.archaeology.ie/archaeological-survey-ireland>) in particular the Underwater Archaeology Unit (<https://www.archaeology.ie/underwater-archaeology> and <https://www.archaeology.ie/underwater-archaeology/planning-and-development>).
- 0.2. Reporting of all the route options considered and their reasons for rejection/adoption must be included in the final and completed EIA. This will provide the reassurance needed to ensure all options to minimise impact have been fully explored and any remaining impacts have been fully mitigated in the final engineering solution implemented.
- 0.3. NRW PS recommends that attention should be given to any landscape impacts (Schedule 3 of the Marine Works EIA Regulations 2007), including impacts on historic landscapes. The references to scheduled monuments, paleo-landscapes, military remains, and maritime heritage are noted and welcomed.
- 0.4. Marine and coastal guidance produced by NRW that may provide useful information to help with your project is available here: <https://naturalresources.wales/guidance-and-advice/business-sectors/marine/marine-and-coastal-guidance/?lang=en>
- 0.5. The ES submitted should demonstrate consideration of the points raised in this scoping opinion. It is recommended that a table is provided in the ES summarising the scoping opinion comments and how they are addressed in the ES.
- 0.6. The previous version of the scoping opinion (P1975F_R3994_Rev1) which is referred to within the Introduction was not submitted to NRW PS and therefore consultation was not appropriately conducted, in line with the Marine Works EIA Regulations 2017. It should be noted that any responses received for that document are not part of a formal scoping opinion and should be used as informal advice only.

1. Introduction

- 1.1 Table 1-3 lists pressure descriptions. The pressure descriptions of Displacement, Reduction in water depth and Loss of fisheries habitats/fish stocks must be considered for Fish and Shellfish as well as Commercial Fisheries. Many of the pressures descriptions identified for the Physical Environment should also include potential impacts on Intertidal and Benthic, as well as Fish and Shellfish. These include Water flow, Water exposure changes, Temperature changes, Changes in

suspended solids and Hydrocarbon and PAH contamination. The impacts of INNS should also be considered, as described in Table 1-3; Table 8-1 has screened out INNS in the summary table.

2. Project Description

- 2.1 The EIA must clarify whether a cable joint will be located within a sensitive area, and what the impacts which could arise from this would be. If mattressing/use of aggregates is needed in sensitive/designated areas where the cable will cross live cables, there must be consideration of the impact of this.
- 2.2 There is a lack of information on the type of cable lay which will occur (section 2.7.2). To ensure that HRA features, sensitive habitats and potential impacts from the cable lay are described within the EIA to the fullest extent possible, the information available on benthic habitats must be reconsidered, in combination with the NRW TE pre-application advice. The MarLIN's habitat sensitivity assessments must be used to evaluate the impacts in the EIA.
- 2.3 NRW TE provided advice on known survey results. If gaps in knowledge exist, as the entire extent of the route within the SAC has not been mapped, and there are areas of low confidence, we recommend that an exercise is undertaken in which degrees of confidence in the areas mapped is provided (using a combination of physical and biological data gathered) so that any areas of potential uncertainty are identified, especially where 'Reef' feature may be present. This information, in combination with the known cable lay method, would help in evaluating whether any further surveys are required to refine knowledge of existing habitats.
- 2.4 Micro-siting to avoid reef features would be preferable to movement of boulders. Boulders may likely form part of the 'Reef' feature of the Pembrokeshire Marine SAC.
- 2.5 The HDD exit hole is considered as a potential impact pathway as Freshwater West intertidal is a SAC habitat with the 'Mudflats and sandflats' feature. This must be appropriately assessed in the ES.
- 2.6 Where seabed preparation is required, Section 2.6.2 refers to the technique of mass flow excavation. It should be noted that the cable route goes directly through Turbo Bank which is an Annex 1 habitat and is part of the 'Sandbanks which are slightly covered by seawater all the time' features of Pembrokeshire Marine SAC. If mass flow excavation on Turbo Bank is considered as part as the project design envelope, the impacts must be considered in detail in the ES. They must also be considered in the HRA as this may compromise the structure and function of this SAC feature and at this stage could not rule out a likely significant effect.

3. Legislative Framework

- 3.1 The Environment (Wales) Act and Section 7 list must be considered within the ES. Mitigation will also need to be considered in light of the People Over Wind ruling.
- 3.2 The proposed cable routes pass through the Southern end of the Traffic Separation Scheme (TSS), including both East and Western “Areas to be Avoided”. These are established under the International Convention for the Prevention of Collisions at Sea 1972 (COLREGs), to regulate North/South traffic flows and to establish areas where vessels can take anchor/take refuge in the event of an emergency. Contravention of the COLREGs may constitute an offence against UK maritime legislation. It should be noted that the COLREGs do make provisions for cable-laying operations.

4. Physical Environment

- 4.1 We currently have no comments to make on this chapter.

5. Biological Environment

- 5.1 It is not clear how the habitats identified in Table 5-1 relate to biotopes identified within the surveys and for which sampling locations. We recommend that NRW TE preliminary advice on biotope mapping provided to Greenlink should also be used to establish the biotope maps for the chosen cable route.
- 5.2 There are currently no recommended Marine Conservation Zones in Welsh inshore and offshore waters, however Welsh Government will be starting work to identify MCZs in Welsh waters shortly, therefore if any relevant sites are sufficiently progressed before the application is submitted, they should be included within the assessment.
- 5.3 There does not appear to be any reference to invasive species in the report or to any biosecurity measures planned. These must be considered within the ES.
- 5.4 Defra originally identified the Celtic Deep as a candidate MCZ during its 2nd tranche of MCZs for habitat features. However, after the decision to transfer responsibility for this area of sea to the Welsh Ministers, Defra did not progress any MCZ (recommended or candidate) in the Welsh Offshore region, therefore the Celtic Deep rMCZ is not a site that currently exists. Figure 5-5 refers to a Marine Nature Reserve. This should refer to Skomer Marine Conservation Zone.
- 5.5 Table 5-9 does not contain all the correct site features and not all SSSI’s are listed. This must be corrected in the ES.

5.6 Consideration should be given to the impacts of lighting at any stage of the project on Manx shearwater, a feature of the Skomer, Skokholm and the Seas off Pembrokeshire Special Protection Area (SPA).

5.7 For landfall impacts, the Chough feature of Angle Peninsula Coast Site of Special Scientific Interest (SSSI) should be considered.

5.8 Table 5-7 refers to using marine mammal sightings data from the marine survey 2018. We would welcome the use of this data.

5.9 We are unable to form an opinion on the likely effects of underwater noise on marine mammals until further information on the predicted source level, frequency and duration of noisy activities is produced. This must be provided in the ES.

5.10 Consideration should be given to the measures to avoid disturbance to grey seals and it should be noted that Pembrokeshire Marine SAC is the most important breeding site for Grey seal in Wales. The project must avoid undertaking noisy activities within the SAC during the Grey seal pupping season (August – January). Boat transit within 100 metres from any haul-out sites must also be avoided and groups of mothers and their young must be completely avoided.

5.11 Under the potential pressure of underwater noise, unexploded ordnance must be included. Consideration should be given to the impact on cetaceans, given both routes' proximity to ammunition dumps at the mouth of the Milford Haven estuary.

5.12 A 100km buffer to screen for mobile species that have the potential to be affected by the project is a pragmatic approach. However, the relevant Marine Mammal Management Unit must be used as the scale to which to assess the potential impact.

5.13 The management units and relevant SACs which fall within the relevant management unit for each Annex II marine mammal species are as follows:

- Harbour Porpoise:
Management Unit: Celtic & Irish Sea
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
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
SACs with Grey seal as a feature within the Management Unit:
Pen Llyn a'r Sarnau
Cardigan Bay
Pembrokeshire Marine

5.14 The project should also consider impacts on other EPS cetacean species likely to be found in the area, in particular Minke whale, common dolphin and Risso's dolphin.

5.15 We are unable to form an opinion on whether the project will have a likely significant effect on any of these SACs or EPS without further information to be provided in the ES. Of particular relevance is the information on underwater noise which NRW TE believes to be the key potential impact to marine mammals.

6. Human Environment

6.1 Figure 6.1 does not include the additional corridor to the south of Route A and the new variation to join Route E to Route A. This should be updated within the EIA.

6.2 The Scoping Report states that additional routes have been added to the development, and these are not reflected in the data gathering and initial environmental assessment compiled for this Scoping Report. Section 6.4.1 refers to 21 potential archaeological sites being identified along the marine cable. It is not known whether there are more potential sites along the additional routes.

6.3 The methodology taken forward into the environmental statement should make adequate provision to ensure that all potential impacts on archaeological deposits are thoroughly and adequately assessed for all routes, including the cable installation through the intertidal zone to terrestrial connection point.

6.4 An updated Written Scheme of Investigation (WSI) must be provided with the submission of the EIA, to set out appropriate mitigation and the operation of the protocol for reporting unexpected archaeological discoveries.

6.5 Section 6.4 refers to an initial Desk-Based Assessment (DBA), a live WSI and Protocol for Archaeological Discoveries (PAD) which has been developed for the marine survey. It is recommended that the retained archaeological consultant is given opportunity to input archaeological advice into the technical specification of the survey before it is tendered to the hydrographic survey company.

6.6 Guidance on instrumentation choices and those which work best for archaeological detection must be followed;

Historic Environment Guidance for the Offshore Renewable Energy Sector, pg ix-x

https://www.wessexarch.co.uk/sites/default/files/field_file/COWRIE_2007_Wessex_%20-%20archaeo_%20guidance_Final_1-2-07.pdf

Historic Environment Guidance for Wave and Tidal Energy, Chapters 17 and 18

<https://historicengland.org.uk/images-books/publications/historic-environment-guidance-wave-tidal-energy/wavetidal/>

Marine Geophysics Data Acquisition, Processing and Interpretation, Part III

<https://historicengland.org.uk/images-books/publications/marine-geophysics-data-acquisition-processing-interpretation/mgdapai-guidance-notes/>

Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector, Chapters 9-11

<https://www.historicenvironment.scot/media/2376/2011-01-offshore-geotechnical-investigations-and-historic-environment-analysis-guidance-for-the-renewable-energy-sector.pdf>

6.7 There are different standards for seabed survey - what may be appropriate to map large bedforms such as sand waves may not be at a detail scale and resolution that is suitable to detect more ephemeral wreck material and scatters of that may represent debris fields. Hence, it is very important to allow archaeological input into the survey design and specification so that the correct instrumentation is deployed to gathered data at the best line spacing and resolution to make it suitable for both engineering and archaeological purposes.

<https://www.gov.uk/government/collections/hydrographic-guidelines-for-offshore-developers>

6.8 Table 6-4 does not present sufficient information to agree that the proposed investigations to inform this section of the EIA will be appropriate. More information should be provided.

6.9 This summary of the DBA in section 6.4.1 indicates that the presence of scheduled monument PE494 Gravel Bay anti-aircraft battery has been noted and it is assumed that the impact of the proposed development on the setting of this monument will be considered in the EIA. However, the presence of scheduled monument PE020 Devil's Quoit Burial Chamber within 1km and overlooking the development area is not noted. The impact on this designated historic asset must be considered in the EIA.

6.10 The EIA must confirm whether the development will have an impact on listed buildings 5954 Corse Bridge and attached Walled Channel; 17162 War Memorial;

and 17166 Rocket Cart House and their settings, as these are not mentioned in the summary of the desk-based assessment.

- 6.11 Due to the fact that a Written Scheme of Investigation and Protocol for Archaeological Discoveries, as mentioned in the Scoping Report is not included as an appendix, we not fully able to comment whether they outline appropriate investigations that will provide sufficient information for the production of the EIA.
- 6.12 Twenty-one potential sites have previously been identified along the marine cable route. No comment can be made on the additional corridor to the south of Route A and the new variation to join Route E to Route A as these have not been assessed previously and the Scoping Report does not reflect the most up to date state of environmental knowledge and information about the engineering solutions presently being proposed.
- 6.13 A detailed and current Navigation Risk Assessment must be included within your EIA. This must include appropriate risk mitigation measures and a detailed methodology, including assessments on collision risk, emergency response, marking and lighting during the works and the promulgation of Notices to Mariners. This should include further considerations for the effects on vessel navigation and communication equipment, as well as any electromagnetic deviation on ships compasses. A three-degree deviation for 95% of the cable route is acceptable. For the remaining 5% of the route no more than five degrees will be attained. We would however expect a deviation survey post the cable being laid; this will confirm conformity with the consent condition. This data must be provided to the UKHO via a hydrographic note (H102), as they may want a precautionary notation on the appropriate Admiralty Charts.
- 6.14 Particular attention should be paid to cabling routes and burial depth for which a Burial Protection Index study must be completed and, subject to the traffic volumes, an anchor penetration study may be necessary. Any consented cable protection works must ensure existing and future safe navigation is not compromised, accepting a maximum of 5% reduction in surrounding depth referenced to Chart Datum.
- 6.15 Consideration should be given within the NRA to both the regulations and the traffic environment. A method statement must be included considering the need for guard and support vessels to mitigate potential risks whilst transiting roughly perpendicular through the Traffic Separation Scheme (TSS) lanes.
- 6.16 Prior consultation and engagement is encouraged with local maritime stakeholders in advance and during the works.

7. Impact Assessment Methodology

7.1 We currently have no comments to make on this chapter.

8. Summary of Assessment

8.1 We currently have no comments to make on this chapter.

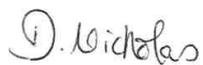
9. Scoping Questions

9.1 We currently have no comments to make on this chapter.

10. References

10.1 We currently have no comments to make on this chapter.

Yours sincerely



Debbie Nicholas
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Natural Resources Wales

Cc Consultation Bodies