

# RISK ASSESSMENT FOR ANNEX IV SPECIES

## SSE RENEWABLES AT CELTIC SEA SITE INVESTIGATIONS (FS006983)



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Client:  
Foreshore Unit  
Department of Housing, Local Government and Heritage  
Newtown Road  
Wexford  
Y35 AP90

# **Foreshore Licence Application for FS006983 SSE Renewables Celtic Sea Site Investigations**

## **Risk Assessment for Annex IV Species**

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## 1.0 INTRODUCTION

### 1.1 Project Overview

SSE Renewables (“the Applicant”) has submitted a Foreshore Licence Application relating to the proposed geophysical, geotechnical and environmental site investigation works within the potential export cable corridors off Bunmahon Bay, Co. Waterford and Bannow Bay, Co. Wexford (“the proposed development”). The proposed development will inform the suitability of the area for the planned 800MW offshore wind development, located beyond the 12 nautical mile limit and therefore beyond the boundary of the foreshore.

A Foreshore Licence is required in order to complete the site investigation works which will enable a detailed mapping of nearshore shallow geological and seabed character, reconnaissance level mapping of seabed relief and features (i.e. archaeology), greater understanding of wind resource and metocean conditions and baseline environmental mapping. An application for such a licence was submitted to the Foreshore Unit of the Department of Housing, Local Government and Heritage (DHLGH) by SSE Renewables on the 19<sup>th</sup> March 2019 (hereafter referred to as “the Application”) with a revised Application being submitted on 22<sup>nd</sup> November 2019, following the requirement for a more detailed description of the location of the site investigation works within the cable export corridors.

The proposed development comprises the following:

- Geophysical survey
  - Bathymetric, side scan sonar, magnetometry, sub-bottom profiling
- Geotechnical survey
  - Borehole and Cone Penetrometer Test (CPT) of the seabed
- Wind resource and metocean survey
  - Deployment of wave rider buoys and a LiDAR buoy; ADCP proposed to assess tidal currents
- Topographic survey
  - Via traditional methods or via drone
- Environmental survey
  - Benthic invertebrate assessment using imagery and a series of grab samples

The purpose of this report is to identify and assess any negative impacts from the proposed development on species which are afforded strict protection under Article 12 of the Habitats Directive and corresponding national legislation and, on the basis of that assessment, to make recommendations regarding any mitigation measures or further licencing which may be required.

### 1.2 Application Documents

The Applicant submitted the following documents as part of the Application:

- Foreshore Licence Application Form (dated 19/03/2019)
- Foreshore Licence Application Form – Revised (dated 22/11/2019)
- Supporting Document (dated 18/03/2019)
- Revised Supporting Document (dated 15/11/2019)

- Foreshore Licence Map 1 (dated 20/03/2019)
- Foreshore Licence Map 1 – Revised (dated 16/09/2019)
- Foreshore Licence Map 2 (dated 20/03/2019)
- Foreshore Licence Map 2 – Revised (dated 16/09/2019)
- Foreshore Licence Map 3 (dated 20/03/2019)
- Foreshore Licence Map 3 – Revised (dated 16/09/2019)
- Copies of Newspaper Notices (dated 25/06/2019 – 28/06/2019)
- Consolidated versions of the submissions received from prescribed bodies and members of the public as part of the public consultation which was undertaken in accordance with Regulation 42 of SI 477/2011 between the 25<sup>th</sup> June 2019 and the 23<sup>rd</sup> July 2019.
- The responses from the Applicant to the submissions received as part of the public consultation which was undertaken in accordance with Regulation 42 of SI 477/2011 between the 25<sup>th</sup> June 2019 and the 23<sup>rd</sup> July 2019.

The Revised Supporting Document listed above contains an assessment of the impacts of the proposed development on protected sites, intertidal and benthic communities, birds, fish and marine mammals. The AA Screening Report and NIS are included in the appendices to the Revised Supporting Document.

The contents of the above documents were taken into account in the preparation of this report. No Annex IV risk assessment was submitted either as a standalone report or within another report. Therefore, this report presents an original Annex IV risk assessment report prepared by ROD rather than a technical review of one submitted by the Applicant.

### 1.3 Legislative Context

The Habitats Directive (92/43/EEC) is the principal instrument of EU legislation for the protection of natural habitats and wild species. Article 12 of the Directive requires all Member States to “*establish a system of strict protection for the animal species listed in Annex IV (a) in their natural range*”. This requirement is transposed into Irish law by Section 51 of the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No. 477/2011, as amended) (“the Habitats Regulations”).

The Annex IV fauna which are relevant in an Irish context include the following:

- ‘Microchiroptera – All species’ (all bat species present in Ireland),
- ‘*Lutra lutra*’ (Otter),
- ‘Cetacea – All species’ (all whales, dolphins and porpoises),
- A number of sea turtles, including the regularly occurring ‘*Dermochelys coriacea*’ (Leatherback Turtle) and the less frequent ‘*Caretta caretta*’ (Loggerhead Turtle),
- ‘*Bufo calamita*’ (Natterjack Toad),
- ‘*Geomalacus maculosus*’ (Kerry Slug).

Section 51 of the Habitats Regulations protects wild Annex IV fauna from deliberate capture, killing, disturbance (particularly during sensitive periods), taking or destruction of eggs, damage or destruction of breeding and resting places, and trade or trafficking by making all such activities an offence (save where done in accordance with a licence

granted under Section 54 of the Regulations). This applies to all of the life stages of the species concerned.

In addition, the relevant Minister is required to monitor the incidental capture and killing of Annex IV fauna and ensure that any incidental capture and killing does not have a significant negative impact on the species concerned.

## 1.4 Methodology

This assessment has been carried out with regard to the relevant legislation and guidance, as well as the documentation submitted with the Application and other information which is publicly available. The documents and sources of information which informed this assessment are as follows:

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Official Journal of the European Communities, L206/7.
- EC (2021) *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC*. European Commission, Brussels.
- NPWS (2007) Circular Letter NPWS 2/07. Guidance on Compliance with Regulation 23 of the Habitats Regulations 1997 – strict protection of certain species/ applications for derogation licences. National Parks & Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin
- European Communities (Birds and Natural Habitats) Regulations, 2011. *SI No. 477/2011* (as amended).
- DAHG (2014) *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters*. Department of Arts, Heritage and the Gaeltacht, Dublin.
- The documents which were submitted as part of the Applications, as listed in Section 1.2 above.
- Marine Institute (2022) *Ireland's Marine Atlas* <<https://atlas.marine.ie/>> [accessed 13/06/2022]. Marine Institute, Oranmore.
- NBDC (2022) *Biodiversity Maps* <<https://maps.biodiversityireland.ie/Map>> [accessed 13/06/2022]. National Biodiversity Data Centre, Waterford.

## 1.5 Statement of Authority

This report has been undertaken by [REDACTED] and [REDACTED]. [REDACTED] has a degree in Botany from Trinity College Dublin and an MSc in Ecological Management and Conservation Biology from Queen's University Belfast. He is a Full Member of the Chartered Institute of Ecology and Environmental Management and has over nine years' experience in the ecological assessment including impact assessment and Appropriate Assessment. [REDACTED] holds a BSc (Hons) in Zoology from University College Cork and an Mres degree (with distinction) from the University of Roehampton and has one year's experience in experience in ecological consultancy.

## 2.0 ANNEX IV RISK ASSESSMENT

### 2.1 Zone of Influence

The likely zone of impact in the Natura Impact Statement (NIS) (SSE Renewables, November 2019) was assessed for each of the identified ecological receptors. The likely zone of impact used in the Appropriate Assessment (AA) Screening Report (ROD, 2022) included all of the Natura 2000 sites within 5 km of the proposed development site boundaries. Based on the information provided in that report (ROD, 2022), this area is deemed to be appropriate as a Zone of Influence for the purposes of the Annex IV risk assessment.

### 2.2 Annex IV Fauna

Based on a review of the National Biodiversity Data Centre's *Biodiversity Maps* (NBDC, 2022) and *Ireland's Marine Atlas* (Marine Institute, 2022), the following Annex IV fauna were deemed to occur within the Zone of Influence of the proposed development:

- Daubenton's Bat (*Myotis daubentoni*)
- Whiskered Bat (*Myotis mystacinus*)
- Leisler's Bat (*Nyctalus leisleri*)
- Common Pipistrelle (*Pipistrellus pipistrellus*)
- Soprano Pipistrelle (*Pipistrellus pygmaeus*)
- Brown Long Eared Bat (*Plecotus runcat*)
- Otter (*Lutra lutra*)
- Common Dolphin (*Delphinus delphis*)
- Harbour Porpoise (*Phocoena phocoena*)
- Bottlenose Dolphin (*Tursiops truncatus*)
- Risso's Dolphin (*Grampus griseus*)
- Striped Dolphin (*Stenella coeruleoalba*)
- White-sided Dolphin (*Lagenorhynchus acutus*)
- Fin Whale (*Balaenoptera physalus*)
- Humpback Whale (*Megaptera novaeangliae*)
- Killer Whale (*Orcinus orca*)
- Long-finned Pilot Whale (*Globicephala melas*)
- Minke Whale (*Balaenoptera acutorostrata*)
- Leatherback Turtle (*Dermochelys coriacea*)

Other Annex IV fauna, such as those listed above in section 1.3, were deemed to either not occur within the Zone of Influence or occur only very infrequently or in exceptional cases. The assessment in the following subsections focusses on the species listed above in this section.

### 2.3 Assessment of Impacts

This section provides an assessment of the impacts arising from the proposed development on the Annex IV fauna listed in Section 2.2 above, as described in the Revised Supporting Document, in addition to bat species, otter and leatherback turtle.

### 2.3.1 Bat Species

Bats are known to be present in the area (NBDC, 2022). The Revised Supporting Document submitted with the Application did not assess whether the proposed development will have any potential impacts to bat species as a result of the proposed development.

Considering the survey activities will take place exclusively in the marine environment, given the nature and location of the proposed development, there will be no impacts to these species. Therefore, as a result of this conclusion, there will be no offence under Section 51 of the Habitats Regulations as a result of the proposed development.

### 2.3.2 Otter

Table A2 of the AA Screening Report, submitted with the Application in Appendix A of the Revised Supporting Document, includes Otter (*Lutra lutra*) as a qualifying interest of the Lower River Suir SAC and the River Barrow and River Nore SAC. The AA Screening Report (SSE Renewables, 2019) screened Otter out on the basis that the distance between the proposed development boundary and suitable otter habitat in the River Barrow and River Nore SAC is too great for the proposed development to have an impact on this species.

Given the distance between the proposed development and suitable Otter habitat on land, there will be no impact on Otter and there will be no offence under Section 51 of the Habitats Regulations as a result of the proposed development.

### 2.3.3 Cetaceans

A Marine Mammal Risk Assessment is provided in Section 4.4 of the Revised Supporting Document submitted with the Application. As explained in Section 2.2 of this document, eleven cetacean species, namely Common Dolphin, Harbour Porpoise, Bottlenose Dolphin, Risso's Dolphin, Striped Dolphin, White-sided Dolphin, Fin Whale, Humpback Whale, Killer Whale, Long-finned Pilot Whale and Minke Whale are considered likely to occur in close proximity to the proposed development on a regular or occasional basis.

Cetaceans are particularly sensitive to underwater noise and hydroacoustic impacts. Underwater noise emissions will come from the vessels, acoustics associated with the geophysical survey equipment (e.g. Multi beam echo sounding (MBES), sub-bottom profiler (pinger, chirper, boomer), side scan sonar (SSS)), and borehole drilling. Underwater noise has the potential to cause acoustic disturbance to cetaceans, which are particularly sensitive to such impacts given their reliance on sound as their primary sense. Table 4.3 of the Revised Supporting Document illustrates the typical frequency range of the geophysical survey equipment and which auditory group (i.e. low-, mid- and high-frequency cetaceans) will be most impacted by each piece of equipment. The cetaceans listed above represent Low-Frequency, High-Frequency and Very High-Frequency Cetaceans, with hearing ranges of 7 Hz – 35 kHz, 150 Hz – 160 kHz and 275 Hz – 160 kHz, respectively (Southall et al., 2007). With regard to sound produced by general activities, such as the operation of the vessel, these are unlikely to exceed background noise levels at this location.

Negative impacts to all cetaceans are possible if they are close enough to the equipment to receive sound levels above the threshold injury levels. Section 2.9 of the Revised Supporting Document includes mitigation measures embedded into the

survey design in order to reduce environmental impacts from the earliest stage. Embedded mitigation measures with relevance to cetaceans includes ensuring the survey contractor follows “*Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters*” (NPWS, 2014) with particular reference made to Section 4.3.4 (ii) of the document, ‘Multibeam, single beam, side-scan sonar & sub-bottom profiler surveys’. Requiring the thorough implementation of these guidelines are considered adequate mitigation measures for the prevention of disturbance and injury to cetaceans.

Section 4.4.2 of the Revised Supporting Document states that there is potential for cumulative effects between the proposed development and other surveys that are to be carried out in the vicinity of the proposed development. In order to avoid and/or reduce these cumulative effects, project specific mitigation includes to liaise with Greenlink Interconnector Ltd and Ireland-France Subsea Cable Ltd to assess whether survey schedules will overlap and efforts will be made to co-ordinate survey activities in order reduce any cumulative effects.

Given the implementation of these measures, it is considered that there will be no significant impact on cetaceans or any offence under Section 51 of the Habitats Regulations as a result of the proposed development.

#### **2.3.4 Leatherback Turtle**

Similar to the larger cetaceans, i.e. whale species, Leatherback Turtle is recorded predominantly in the deeper waters outside Waterford and Wexford Harbour. This species is generally only recorded as sightings of single individuals and the records reviewed on NBDC (2022) are almost all from between 1970 and 1995. The occurrence of turtles in the area in recent years is uncertain.

In some circumstances, the guidance document ‘*Guidance to manage the risk to marine mammals from man-made sound sources in Irish waters*’ (NPWS, 2014) can also be applicable to other marine species such as turtles and some fish species. As per section 2.3.3 of this document, given the implementation of these guidelines as mitigation, it is considered that there will be no significant impact on Leatherback Turtle or any offence under Section 51 of the Habitats Regulations as a result of the proposed development.



### **3.0 CONCLUSIONS AND RECOMMENDATIONS**

This report has assessed the potential for the proposed development to give rise to impacts on species listed on Annex IV of the Habitats Directive which would constitute offences under Section 51 of the Habitats Regulations. The following conclusions and recommendations have arisen from this assessment.

#### **3.1 Further Information**

As explained in subsections 2.3.1 – 2.3.4 above, the information provided in the Revised Supporting Document submitted with the Application provides an adequate assessment of the impacts of the proposed development on bat species, Otter, cetaceans and Leatherback Turtle. No further information is required with regard to these species.

#### **3.2 Pre-construction Surveys and Derogation Licences**

Without prejudice to the mitigation included already, i.e. an MMO being present on site and the use of a ramp-up procedure, the guidelines provided in DAHG (2014) should be followed to control the risk of impacts to cetaceans and other marine mammals during survey activities which generate underwater noise that could be harmful to marine mammals and leatherback turtle.