

Outer Dowsing Offshore Wind

Outline Plans

Outline Biogenic Reef Mitigation Plan

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Table of Contents

Acronyms & Definitions	4
Abbreviations / Acronyms.....	4
Terminology	4
1 Introduction.....	6
1.1 Project Background	6
1.2 Purpose of the Outline Biogenic Reef Plan	6
2 Consultation.....	7
3 Overview of the Potential Presence of Biogenic Reef.....	8
4 Mitigation Measures	9
5 Monitoring.....	10
6 Conclusion	11

Acronyms & Definitions

Abbreviations / Acronyms

Abbreviation / Acronym	Description
DDV	Drop Down Video
dML	deemed Marine Licence
ECC	Export Cable Corridor
GT R4 Limited	GT R4 or GT R4 Limited, the incorporated joint venture development Co.
IDRBNR	Inner Dowsing, Race Bank and North Ridge
SAC	Special Area of Conservation

Terminology

Term	Definition
Array Area	The area offshore within which the generating station (including wind turbine generators (WTG) and inter array cables), offshore accommodation platforms, offshore transformer substations and associated cabling will be positioned.
Mitigation	Mitigation measures, or commitments, are commitments made by the Project to reduce and/or eliminate the potential for significant effects to arise as a result of the Project. Mitigation measures can be embedded (part of the project design) or secondarily added to reduce impacts in the case of potentially significant effects.
Offshore Export Cable (ECC)	The Offshore Export Cable Corridor (Offshore ECC) is the area within the Order Limits within which the export cables running from the array to landfall will be situated.
Outer Dowsing Offshore Wind	The Project
Order Limits	The area subject to the application for development consent. The limits shown on the works plans within which the Project may be carried out.
The Project	Outer Dowsing Offshore Wind, an offshore wind generating station together with associated onshore and offshore infrastructure.

Reference Documentation

Document Number	Title
6.1.9	Benthic Subtidal and Intertidal Ecology

1 Introduction

1.1 Project Background

1. GT R4 Limited (trading as Outer Dowsing Offshore Wind), hereafter referred to as the 'Applicant', is proposing to develop the Project. The Project array area will be located approximately 54km from the Lincolnshire coastline in the southern North Sea. The Project will include both offshore and onshore infrastructure including an offshore generating station (windfarm), export cables to landfall, Offshore Reactive Compensation Platforms (ORCPs), onshore cables, connection to the electricity transmission network, ancillary and associated development and areas for the delivery of up to two Artificial Nesting Structures (ANS) and the creation and recreation of biogenic reef (if these compensation measures are deemed to be required by the Secretary of State) (see Volume 1, Chapter 3: Project Description (document reference 6.1.3) for full details).

1.2 Purpose of the Outline Biogenic Reef Plan

2. This outline plan has been prepared in response to feedback received from consultees, including Natural England, throughout the pre-application process. The purpose of this outline plan is to provide the framework for how potential impacts to *Sabellaria spinulosa* reef will be managed and mitigated during the design and pre-construction activities of the Project.
3. It is intended that this document will provide the basis for further discussions with relevant statutory advisors to agree the exact detail (timings, methodologies etc.) of the activities required. It should be noted that the final detailed plan will be produced post consent and submitted to the relevant authority for approval.
3. The document is structured as follows:
 - Introduction;
 - Consultation;
 - *Sabellaria spinulosa* presence within the Project Order Limits;
 - Mitigation measures;
 - Monitoring; and
 - Conclusions.

2 Consultation

4. This section within the plan will provide details of the consultation relevant to the mitigation of impacts on biogenic reef and how this has been addressed by the Project.

3 Overview of the Potential Presence of Biogenic Reef

5. The Project Offshore Export Cable Corridor (ECC) passes through the Inner Dowsing, Race Bank, and North Ridge (IDRBNR) Special Area of Conservation (SAC). The Offshore ECC overlaps with 70.1km² of the SAC (8.3% of the total SAC) which is designated for “sandbanks covered by seawater at all times” and “biogenic reef”.
6. Biogenic reef created by the Ross worm *S. spinulosa* has consistently been recorded within the IDRBNR SAC. These reefs are known to support a variety of species including hydroids, sponges, bryozoans, anemones, as well as the commercial species European lobster *Homarus gammarus* and pink shrimp *Pandalus montagui*. Biogenic reefs formed by *S. spinulosa* allow colonisation by species not otherwise associated with the adjacent, looser sediment habitats.
7. The Project has undertaken site specific surveys within the offshore order limits. Geophysical survey data collection, followed by ground truthing using benthic grab samples and Drop Down Videos (DDV), has been completed for the Project ECC and array area.
8. Within the array area *S. spinulosa* was present at two stations but was not reef forming and unlikely to constitute ‘reef’ as detailed within Appendix 9.1: Benthic Ecology Technical Report (Array) (document reference 6.3.9.1). Within the ECC there was a lack of unique *S. spinulosa* feature signatures within the geophysical data which did not allow for the delineation of these features within the Order Limits as detailed in Appendix 9.2: Benthic Ecology Technical Report (ECC) (document reference 6.3.9.2). A further review of the Project specific data, alongside third party data sources, was undertaken by Envision (Appendix 9.5; document reference 6.3.9.5) which further concluded that there was no *S. spinulosa* reef occurring within the offshore ECC or where the offshore ECC intersects with the IDRBNR SAC.
9. Pre-construction surveys will be undertaken to further the understanding of the potential for *S. spinulosa* reef within the Project array and ECC.

4 Mitigation Measures

10. The Project has committed to a pre-construction biogenic reef survey which will subsequently be used to inform any micro-siting of windfarm infrastructure. Following the outputs from the survey:
 - Within the SAC, the Project will microsite infrastructure around areas of biogenic reef.
 - Outside the SAC, Project infrastructure will be micrositied around biogenic reef as far as practicable.
11. Further details of the commitments in relation to benthic ecology are detailed in Chapter 9: Benthic and Subtidal Ecology (document reference 6.1.9).

5 Monitoring

12. This section will outline the monitoring to be undertaken during the pre-construction phase to identify the presence and extent of any *S. spinulosa* reef within the Order Limits.

6 Conclusion

13. This outline Biogenic Reef Mitigation Plan sets out the principles by which potential impacts on biogenic reef will be managed and mitigated during the design and construction of the Project. The final Biogenic Reef Mitigation Plan to be submitted to the relevant authority for approval will be based on the principles set out within this outline plan.