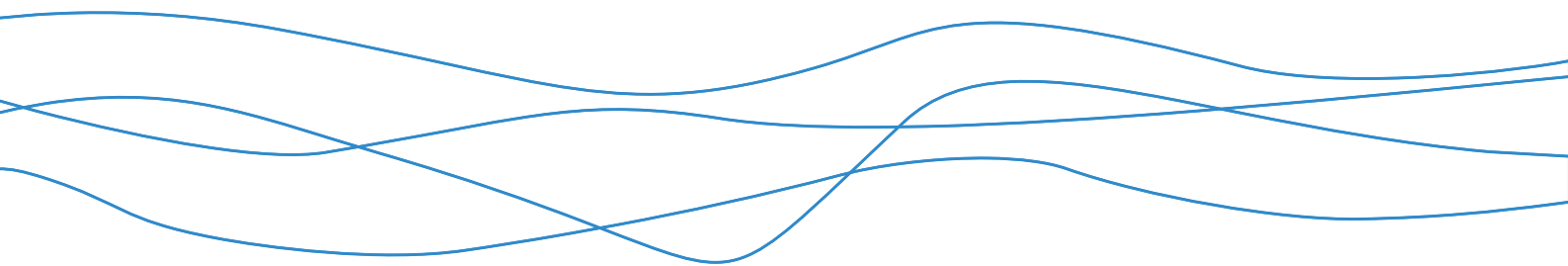




# **Bowdun Offshore Wind Farm, Offshore EIA Report**

Volume 1, Chapter 1: Introduction

TWP-BOW-RPS-OFE-RPT-00002 | April 2026



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## Glossary

| Defined Term                                                         | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Additional Mitigation</b>                                         | Also referred to as secondary mitigation which is defined by The Institute of Sustainability and Environmental Professionals (ISEP) (formerly Institute of Environmental Management and Assessment (IEMA)) as: Actions that will require further activity in order to achieve the anticipated outcome. These may be imposed as part of the planning consent, or through inclusion in the Environmental Impact Assessment (EIA) Report (sic).                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Applicant (the)</b>                                               | Bowdun Offshore Wind Farm Limited (BOWFL).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Array Area</b>                                                    | The Array Area is the area in which the Offshore Generation Assets will be located.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Bowdun Offshore Wind Farm Limited (BOWFL)</b>                     | A Special Purpose Vehicle (SPV) (legal entity) for the purpose of developing the Project. BOWFL are the Applicant for the Offshore Application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Crown Estate Scotland (CES)</b>                                   | Public corporation accountable to Scottish Government, responsible for the management of land and property, including marine assets in Scotland owned by the monarch.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Embedded Mitigation</b>                                           | Measures that are adopted as part of the Proposed Development and therefore assessed within the EIA. The proposed approach for the EIA for the Proposed Development is that Embedded Mitigation includes both primary mitigation and tertiary mitigation. These are defined by the ISEP as follows:<br>Primary: Modifications to the location or design of the development made during the pre-application phase that are an inherent part of the project, and do not require additional action to be taken.<br>Tertiary: Actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects. |
| <b>Environmental Impact Assessment (EIA)</b>                         | Process for the assessment of likely significant environmental effects of a project on the physical, biological and human environment during construction, Operation and Maintenance (O&M) and decommissioning.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Environmental Impact Assessment Regulations (EIA Regulations)</b> | Terminology used in this Offshore EIA Report to refer to three sets of regulations:<br><ul style="list-style-type: none"> <li>• The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017;</li> <li>• The Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017; and</li> <li>• The Marine Works (Environmental Impact Assessment) Regulations 2007.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Export Cable Corridor</b>                                         | The area seaward of Mean High Water Springs (MHWS) which connects the Array Area with the Landfall within which the Offshore Export Cables will be installed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Habitats Regulations</b>                                          | A term that refers to the collective legislation that translates the Habitats Directive into specific legal obligations in Scotland, namely: The Conservation (Natural Habitats, &c.) Regulations 1994; The Conservation of Habitats and Species Regulations 2017; and The Conservation of Offshore Marine Habitats and Species Regulations 2017 (in each case as amended).                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Defined Term                                   | Definition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Habitats Regulations Appraisal (HRA)</b>    | An assessment carried out under the Habitats Regulations to determine if a plan or project could adversely affect the integrity of a European Site.                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>High Voltage Alternating Current (HVAC)</b> | A system of power transmission and distribution that utilises alternating current at voltages typically exceeding 1000 volts, as defined by the International Electrotechnical Commission (2015). HVAC systems are designed to efficiently deliver electricity over long distances with minimal losses, leveraging transformers to modify voltage levels.                                                                                                                                                                           |
| <b>Inter-Array Cables (IAC)</b>                | Cables which link the Wind Turbines to each other and with the Offshore Substation Platforms (OSPs).                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Interconnector Cables</b>                   | Cables which will connect individual OSPs to each other to provide redundancy against cable failure elsewhere.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Intertidal Area</b>                         | The area between MHWS and Mean Low Water Springs (MLWS).                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Landfall</b>                                | The area in which the Offshore Export Cables make landfall and is also the transitional area between the Offshore Transmission Assets and the Onshore Transmission Assets. Located in the Intertidal Area at Benholm.                                                                                                                                                                                                                                                                                                               |
| <b>Marine Directorate (MD)</b>                 | The Marine Directorate of the Scottish Government, formerly known as Marine Scotland. The planning and licensing authority for Scotland's seas and custodian of Scotland's National Marine Plan (NMP). The Marine Directorate - Licensing Operations Team (MD-LOT) are specifically responsible for managing Section 36 Consent and Marine Licence Applications seaward of MHWS.                                                                                                                                                    |
| <b>Marine Licence</b>                          | A Marine Licence permits the undertaking of different activities in the marine environment, including construction, the deposition or removal of substances or objects, and dredging. The Marine (Scotland) Act 2010 requires Marine Licences to be obtained for licensable activities taking place within Scottish Territorial Seas (MHWS to 12 nm). The Marine and Coastal Access Act (MCAA) 2009 requires a Marine Licence to be obtained for licensable marine activities within the Scottish offshore region (12 nm – 200 nm). |
| <b>Maximum Design Scenario (MDS)</b>           | The scenario within the design envelope likely to result in the greatest impact on a particular topic receptor, and therefore the one that should be assessed for that topic receptor.                                                                                                                                                                                                                                                                                                                                              |
| <b>Mean High Water Springs (MHWS)</b>          | The average tidal height throughout the year of two successive high waters during those periods of 24 hours when the range of the tide is at its greatest.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Mean Low Water Springs (MLWS)</b>           | The average tidal height throughout the year of two successive low waters during those periods of 24 hours when the range of the tide is at its greatest.                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Mitigation</b>                              | Measures to avoid, prevent, reduce or control effects on the environment. See also definitions for Embedded Mitigation and Additional Mitigation.                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Offshore Application</b>                    | Term used to refer to the applications associated with the Proposed Development. The Applicant will apply for: <ul style="list-style-type: none"> <li>• A Section 36 Consent under the Electricity Act 1989; and</li> <li>• Marine Licence(s) under Marine Scotland Act 2010 and Marine and Coastal Access Act 2009.</li> </ul>                                                                                                                                                                                                     |

| Defined Term                                                                                    | Definition                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Offshore Environmental Impact Assessment (EIA) Report (hereafter, 'Offshore EIA Report')</b> | Document prepared to report the findings of the EIA for the Proposed Development and produced in accordance with the EIA Regulations. The Offshore EIA Report is submitted to support the Offshore Application for the Proposed Development, and to comply with EIA Regulations.                                                                                                                                      |
| <b>Offshore Export Cables</b>                                                                   | Subsea cables used to transmit electricity generated offshore by the Wind Turbines from the OSPs to shore. The Transition Joint Bay (TJB) is the location where the Offshore Export Cables terminate, and the onshore cabling begins.                                                                                                                                                                                 |
| <b>Offshore Generation Assets</b>                                                               | The infrastructure of the Proposed Development required to generate electricity comprising of the Wind Turbines, Wind Turbine foundations and associated infrastructure e.g. IACs.                                                                                                                                                                                                                                    |
| <b>Offshore Infrastructure</b>                                                                  | All of the Offshore Infrastructure associated with the Proposed Development that is located seaward of MHWS, comprising the Offshore Generation Assets and the Offshore Transmission Assets.                                                                                                                                                                                                                          |
| <b>Offshore Scoping Report</b>                                                                  | The report that presents the findings of the EIA scoping process undertaken for the Proposed Development with the purpose of obtaining a Scoping Opinion. The Offshore Scoping Report defines what is intended to be assessed and reported as part of the EIA.                                                                                                                                                        |
| <b>Offshore Substation Platform(s) (OSPs)</b>                                                   | OSPs comprise the support structure, topside and electrical components used for collecting and/or converting electricity generated by the Wind Turbines for transmission by the Offshore Export Cables.                                                                                                                                                                                                               |
| <b>Offshore Transmission Assets</b>                                                             | The infrastructure of the Proposed Development required to transmit the generated electricity comprising of the OSPs, Offshore Export Cables and associated infrastructure up to MHWS.                                                                                                                                                                                                                                |
| <b>Onshore Scoping Report</b>                                                                   | Document prepared to comply with The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 in order to provide information on the potential impacts of the Onshore Transmission Assets.                                                                                                                                                                                             |
| <b>Onshore Transmission Assets</b>                                                              | The transmission infrastructure associated with the Project above MLWS which is subject to the Planning Permission in Principle (PPP) Application submitted to Aberdeenshire Council (REF: APP/2025/1952).                                                                                                                                                                                                            |
| <b>Operation and Maintenance (O&amp;M)</b>                                                      | The phase of the Proposed Development following completion of construction. This phase of development includes routine inspections, repairs and replacement of infrastructure and equipment (including Interconnector Cables and IACs), Scour Protection replenishment or replacement, major component replacement, painting and/or other coating works, removal of marine growth, and replacement of access ladders. |
| <b>Option to Lease Agreement (OLA)</b>                                                          | An agreement between CES and a developer, permitting the future development of offshore wind within an agreed area.                                                                                                                                                                                                                                                                                                   |
| <b>Plan Option Area (POA)</b>                                                                   | A location identified in the Sectoral Marine Plan (SMP) as a preferred area for commercial scale offshore wind development.                                                                                                                                                                                                                                                                                           |
| <b>Pre-Application Consultation (PAC)</b>                                                       | Pre-Application Consultation with communities and stakeholders with regard to the consent applications for the Project that meets the requirements of Marine Licensing (Pre-application Consultation) (Scotland) Regulations 2013.                                                                                                                                                                                    |

| Defined Term                                          | Definition                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Project (the)</b>                                  | An overarching term for the Bowdun Offshore Wind Farm (Bowdun OWF) comprising the offshore and onshore infrastructure required to generate and transmit electricity from the Array Area to the onshore Grid Connection Point (GCP). The Project includes the Offshore Generation Assets, the Offshore Transmission Assets and the Onshore Transmission Assets.                               |
| <b>Project Design Envelope (PDE)</b>                  | A description of the range of possible elements that make up the design options for the Proposed Development under consideration when the exact engineering parameters are not yet known.                                                                                                                                                                                                    |
| <b>Proposed Development</b>                           | Term used to define the Offshore Infrastructure associated with the Project seaward of MHWS for which consent is being sought. Further details of the parameters are included in Volume 1, Chapter 3: Project Description.                                                                                                                                                                   |
| <b>Report to Inform Appropriate Assessment (RIAA)</b> | The RIAA provides detailed information to support the process of Appropriate Assessment (undertaken by the competent authority) as part of the HRA, which evaluates the potential impacts of a project or plan on European sites.                                                                                                                                                            |
| <b>Scottish Ministers (the)</b>                       | The decision makers with regard to Marine Licence(s) and Section 36 Consent applications in Scottish Offshore Waters and Scottish Marine Area.                                                                                                                                                                                                                                               |
| <b>Scottish Territorial Waters</b>                    | The territorial waters of Scotland that extend out from MHWS to 12 nm.                                                                                                                                                                                                                                                                                                                       |
| <b>ScotWind Leasing Round</b>                         | A seabed leasing round run by CES to grant property rights for the seabed in Scottish waters for new commercial scale offshore wind project development. ScotWind Leasing must be sited within POA of the SMP.                                                                                                                                                                               |
| <b>Section 36 Consent</b>                             | Scottish Ministers' consent under Section 36 of the Electricity Act 1989 required to permit the generation and operation of an energy generation station.                                                                                                                                                                                                                                    |
| <b>Site Boundary</b>                                  | The boundary within which all elements of the Proposed Development will be located. The Site Boundary comprises the Array Area and Export Cable Corridor which ends at MHWS.                                                                                                                                                                                                                 |
| <b>Study Area</b>                                     | For each environmental topic, the baseline environment will be characterised, and the potential environmental impacts will be described within a topic-specific study area. Specific study areas are defined for each topic and are based on the maximum spatial extent across which potential impacts of the Project may be experienced by the relevant receptors (i.e. Zone of Influence). |
| <b>Thistle Wind Partners (TWP)</b>                    | Company established for the development of the Project                                                                                                                                                                                                                                                                                                                                       |
| <b>Wind Turbines</b>                                  | Structures comprising of a tubular tower, rotor blades, and a nacelle which houses the Wind Turbine generator.                                                                                                                                                                                                                                                                               |

## Acronyms

| Acronym       | Definition                                               |
|---------------|----------------------------------------------------------|
| <b>BOWFL</b>  | Bowdun Offshore Wind Farm Limited                        |
| <b>CCC</b>    | Climate Change Committee                                 |
| <b>CES</b>    | Crown Estate Scotland                                    |
| <b>CRM</b>    | Collision Risk Modelling                                 |
| <b>EIA</b>    | Environmental Impact Assessment                          |
| <b>EPCI</b>   | Engineering, Procurement, Construction, and Installation |
| <b>GCP</b>    | Grid Connection Point                                    |
| <b>HRA</b>    | Habitats Regulations Appraisal                           |
| <b>HVAC</b>   | High Voltage Alternating Current                         |
| <b>IAC</b>    | Inter-Array Cable                                        |
| <b>IEMA</b>   | Institute of Environmental Management and Assessment     |
| <b>MD-LOT</b> | Marine Directorate-Licensing Operations Team             |
| <b>MDS</b>    | Maximum Design Scenario                                  |
| <b>MHWS</b>   | Mean High Water Spring                                   |
| <b>MLWS</b>   | Mean Low Water Spring                                    |
| <b>NTS</b>    | Non-Technical Summary                                    |
| <b>OSP</b>    | Offshore Substation Platform                             |
| <b>OWF</b>    | Offshore Wind Farm                                       |
| <b>PDE</b>    | Project Design Envelope                                  |
| <b>POA</b>    | Plan Option Area                                         |
| <b>RIAA</b>   | Report to Inform Appropriate Assessment                  |
| <b>SMP</b>    | Sectoral Marine Plan                                     |
| <b>TWP</b>    | Thistle Wind Partners Limited                            |

## Table of Units

| Units                 | Definition       |
|-----------------------|------------------|
| <b>GW</b>             | GigaWatt         |
| <b>km</b>             | Kilometre        |
| <b>km<sup>2</sup></b> | Square kilometre |
| <b>MW</b>             | MegaWatt         |
| <b>nm</b>             | Nautical mile    |

# **1 Introduction**

## **1.1 Overview**

- 1.1.1 This chapter of the Offshore Environmental Impact Assessment (EIA) Report introduces the offshore infrastructure of the Bowdun Offshore Wind Farm (the ‘Project’). For ease of reference the offshore infrastructure of the Project, seaward of Mean High Water Springs (MHWS), is referred to as the ‘Proposed Development’. This chapter provides an overview of the Proposed Development, along with the consents and licences which are necessary for the Proposed Development.

## **1.2 ScotWind Leasing Round**

- 1.2.1 In 2020, Crown Estate Scotland (CES) launched the ScotWind leasing process to facilitate the increase in offshore wind capacity to support the Scottish Government’s 2045 Net Zero target (Scottish Government, 2024). The Climate Change Committee (CCC) estimates that around 88 GW of offshore wind by 2040 will be needed to deliver Net Zero, with the combined capacity of the ScotWind leasing round (27.6 GW) covering a significant portion of this (CCC, 2025; CES, 2022). On top of the progression towards the 2045 Net Zero and 2040 offshore wind capacity targets, the ScotWind leasing round also has wider benefits such as creating Scottish jobs and investment, supporting the supply chain and providing additional revenue for the Scottish Government. Following the ScotWind leasing round in 2022, Thistle Wind Partners (TWP), as the development company for Bowdun Offshore Wind Farm Limited (BOWFL) (hereafter referred to as the ‘Applicant’), were successful in securing the option to develop a commercial scale Offshore Wind Farm (OWF) project in the E3 Plan Option Area (POA) as defined in the Scottish Government’s Sectoral Marine Plan (SMP) for Offshore Wind Energy (Scottish Government, 2020). BOWFL entered into an Option to Lease Agreement (OLA) with CES, to secure the rights to develop within the POA. The Proposed Development will be situated in the E3 POA with further information on the Proposed Development, and the Project as a whole, covered in Section 1.3.

## **1.3 The Project and the Proposed Development**

- 1.3.1 The Applicant is developing both the offshore and onshore elements of Bowdun OWF, collectively known as the ‘Project’. This Offshore EIA Report supports the Applicant’s submission to the Marine Directorate - Licensing and Operations Team (MD-LOT), acting on behalf of Scottish Ministers, for the offshore elements of the Bowdun OWF (hereafter known as the ‘Proposed Development’). The regulations under which this Offshore EIA Report is being prepared are The Electricity Works (EIA) (Scotland) Regulations 2017, The Marine Works (EIA) (Scotland) Regulations 2017 and The Marine Works (EIA) Regulations 2007 which, hereafter, will be collectively referred to as the EIA Regulations.
- 1.3.2 The Project is an estimated 1 GW OWF, with the Array Area located approximately 38 km off the Aberdeenshire coast at the closest point to the mainland. The Offshore Export Cables will reach Landfall at Benholm, Aberdeenshire. The Proposed Development’s Site Boundary comprises of the

Array Area and the Export Cable Corridor, as shown in Figure 1.1. The Proposed Development is located seaward of MHWS out to Scottish Offshore Waters. The Onshore Infrastructure, located in Benholm, is subject to a separate onshore planning application under The Town and Country Planning (Scotland) Act 1997, and is located landward of Mean Low Water Springs (MLWS). The onshore planning application was submitted in November 2025 (Planning reference: APP/2025/1952)

- 1.3.3 For the purposes of this Offshore EIA Report, the Proposed Development refers to the Offshore Infrastructure only. A more detailed description of the Proposed Development is provided in Volume 1, Chapter 3: Project Description.

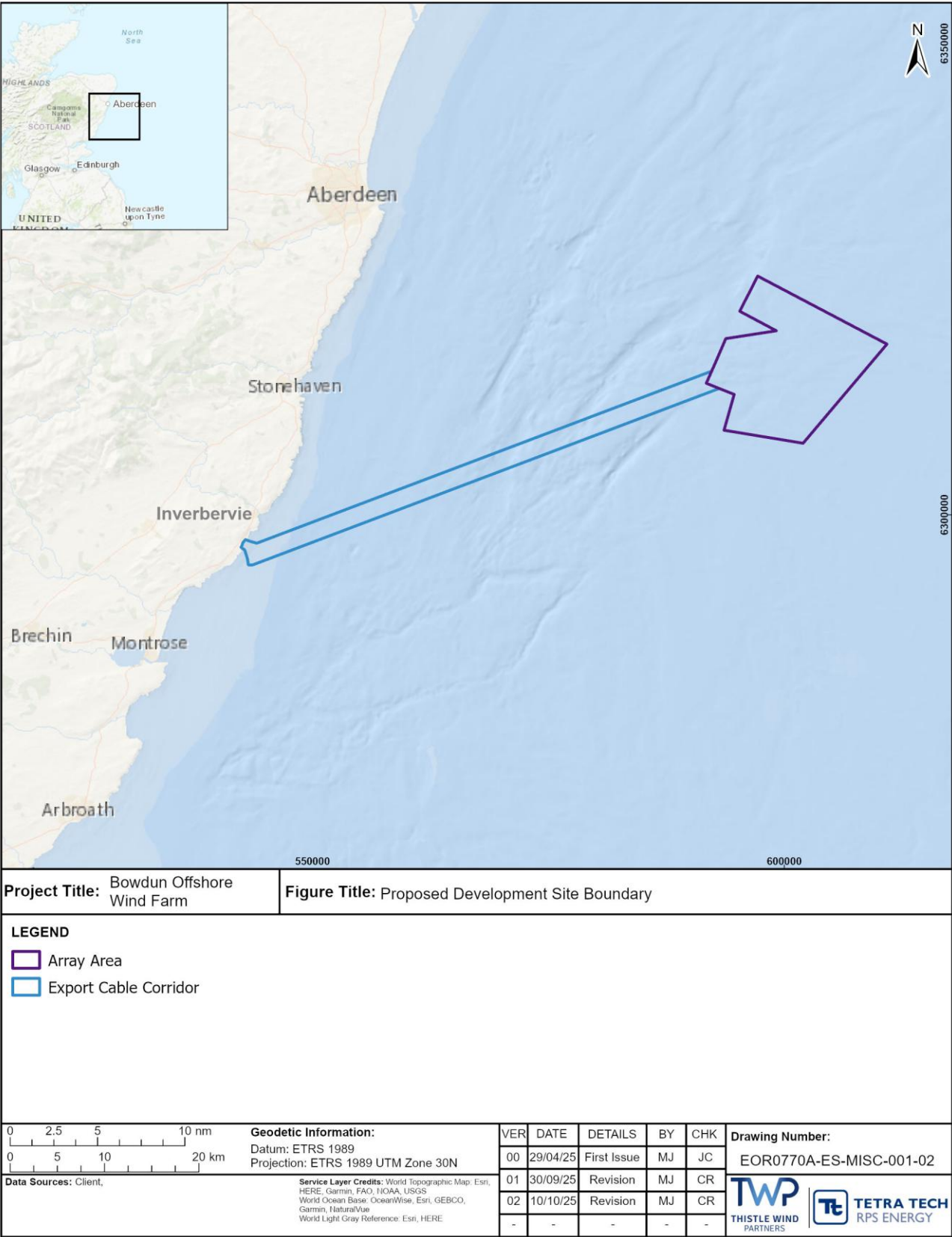


Figure 1.1: Proposed Development Site Boundary

## **1.4 Consents, Licences and Permissions**

- 1.4.1 The Applicant is seeking the following consent and licences as part of this application:
- Section 36 consent under the Electricity Act 1989 for an offshore generating station in the Scottish offshore region (12 nm to 200 nm);
  - Marine Licence covering the Offshore Generation Assets; and
  - Marine Licence covering the Offshore Transmission Assets.
- 1.4.2 The Applicant may also apply later for further consents, licences and permissions, including but not limited to:
- Safety zone declarations during construction and operation under the Energy Act 2004; and
  - Decommissioning scheme under the Energy Act 2004.
- 1.4.3 Further detail of the policy and legislative background to the Proposed Development, and details of the required consents and licences, can be found in Volume 1, Chapter 2: Policy and Legislation and the Offshore Planning Statement.

## **1.5 Project Overview**

### **The Proposed Development**

- 1.5.1 The Array Area of the Proposed Development is located approximately 38 km off the Aberdeenshire coast, with a total lease area of 187 km<sup>2</sup>. Minimum and maximum water depths of the Array Area are 55 m and 75 m respectively, with an average water depth of 65 m. The Export Cable Corridor will include a maximum of three High Voltage Alternating Current (HVAC) Offshore Export Cables, each with a length of up to 70 km and will make Landfall at Benholm, Aberdeenshire. The Offshore Export Cables will be brought onshore via three cable ducts constructed using a trenchless solution such as Horizontal Directional Drilling (HDD) or pipe jacking.
- 1.5.2 The Site Boundary has been informed by stakeholder feedback received during the pre-application phase (see Volume 3, Technical Appendix 5.1: Consultation Log for further detail), a review of the environmental and engineering constraint analysis, together with outputs from site surveys and subsequent design.
- 1.5.3 Further details of the site selection process and design evolution of the Proposed Development are provided within Volume 1, Chapter 6: Site Selection and Consideration of Reasonable Alternatives. A detailed project description for the Proposed Development is included in Volume 1, Chapter 3: Project Description.
- 1.5.4 Key components of the Proposed Development include:
- Up to 67 Wind Turbines on fixed foundations, which will be located within the Array Area;
  - Static Inter-Array Cables (IACs);

- Up to three Offshore Substation Platforms (OSPs) located within the Array Area;
- Interconnector Cables between the OSPs;
- Electricity from the OWF will be transported to the Onshore Infrastructure via the Offshore Export Cables; and
- Scour protection would also be used around foundations.

1.5.5 Once electricity reaches the Onshore Substation via the Onshore Export Cable it will connect to the Grid Connection Point (GCP) which forms part of the National Electricity Transmission System (NETS). The onshore GCP does not form part of this consent submission and subject to a separate planning application, (Planning reference: APP/2025/1952, submitted to Aberdeenshire Council) the details of which are found in the Onshore EIA Report (BOWFL, 2025).

1.5.6 The overall capacity for the Project is expected to be around 1 GW, but is dependent on the number and capacity of the Wind Turbines installed within the parameters of the Project Design Envelope (PDE) defined for this assessment. The most appropriate locations for the Wind Turbines will be determined through detailed site investigation works and this will further improve understanding of the extent of the area for development. This will allow for the refinement and confirmation of the Proposed Development generating capacity before construction.

1.5.7 Construction activities associated with the Proposed Development are anticipated to last for a period of five years and are expected to commence in 2031. Pre-construction surveys, such as further geophysical and geotechnical investigations, would be undertaken in advance of construction activities. The Applicant is seeking consent for a 30-year operational period. The decommissioning process will follow a similar programme to construction, although in a reverse manner. Further details on the Proposed Development are provided in Volume 1, Chapter 3: Project Description.

## 1.6 Application for Consent

### The Developer

1.6.1 TWP is an offshore wind developer founded in 2020 by a Joint Venture (JV) of three companies - DEME Concessions<sup>1</sup>, Qair Marine<sup>2</sup> and Aspiravi International<sup>3</sup>. Together, the founding companies and the TWP team have a strong background in offshore renewable energy development and delivery, and associated port developments. TWP is the development company for the Project on behalf of the Applicant.

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<sup>1</sup> <https://www.deme-group.com/>

<sup>2</sup> <https://www.qair.energy/marine-renewable/>

<sup>3</sup> <https://www.aspiravi.com/en/>

### **Bowdun Offshore Wind Farm Limited (the Applicant)**

- 1.6.2 Bowdun Offshore Wind Farm Limited (BOWFL) is the Applicant for the Project and is owned by DEME and Aspiravi. DEME is a Belgium based global solutions provider and a world leader in the highly specialised fields of offshore energy, dredging, marine infrastructure, and environmental works with almost 150 years of experience. DEME have a wealth of experience in fixed foundation installation having installed over 2,700 offshore Wind Turbines to date, having a strong global portfolio, being involved in over 70 offshore wind projects globally. Capabilities of DEME cover everything from Site Investigation to the full Engineering, Procurement, Construction, and Installation (EPCI) scope. Local examples include the Moray East 950 MW offshore wind project - Foundations EPCI and IACs installation (completed 2021); and Neart na Gaoithe (NnG) 450 MW - EPCI cable installation (completed 2024).
- 1.6.3 Aspiravi International, a subsect of the Aspiravi Group, develops, implements and operates renewable energy projects with a total installed capacity of over 1.7 GW (Aspiravi, 2024). The Aspiravi projects primarily consist of wind energy (both onshore and offshore), however the Aspiravi Group also own and operate biomass installations, biogas engines and hydro-electric installations (Aspiravi, 2024).

### **The Offshore EIA Consultant**

- 1.6.4 The Applicant appointed Tetra Tech RPS Energy Limited (hereafter referred to as 'RPS') to lead the EIA and preparation of this Offshore EIA Report. RPS is a founding member of the Institute of Environmental Management and Assessment (IEMA) (now known as Institute of Sustainability and Environmental Professionals) as well as a registrant of IEMA Quality Mark scheme. They have a vast amount of experience writing EIA Reports for offshore wind projects, having written the reports for the Hornsea Projects one, two and three whilst also working to deliver the Berwick Bank and Ossian Offshore EIA Reports. As well as the recent experience of the Hornsea, Berwick Bank and Ossian projects, the relevant experience of RPS technical experts, and the subcontractors used, can be found in Volume 3, Technical Appendix 1.1: Qualifications and Relevant Experience of Technical Authors.

### **Environmental Impact Assessment**

#### ***Purpose of this Offshore EIA Report***

- 1.6.5 The Applicant has developed this Offshore EIA Report, which has been prepared to meet the requirements of the EIA Regulations, to accompany the Offshore Application for consent as detailed in Paragraph 1.4.1.
- 1.6.6 This Offshore EIA Report includes a description of the Proposed Development as well as providing the environmental information that has been considered to carry out an assessment of the likely significant environmental effects of the Proposed Development on the receiving environment.

1.6.7 This Offshore EIA Report specifically:

- offers technical information to help statutory and non-statutory consultees with their understanding of the Proposed Development;
- describes the EIA methodology used in the assessments;
- identifies and explains the study area which will be utilised for each of the specific topic assessments;
- provides a description of the relevant policy, legislation and guidance;
- presents evidence of the main reasons for site selection and offers a description of the reasonable alternatives studied by the Applicant;
- presents the current environmental baseline and future baseline conditions;
- offers a summary of consultation undertaken relevant to the topic, including comments provided as part of the Scoping Opinion (MD-LOT, 2024), and how they have been considered by the Applicant;
- presents the findings of the impact assessment, including:
  - identification of the Maximum Design Scenario (MDS) for each impact assessment;
  - Embedded Mitigation measures adopted to minimise or mitigate likely environmental effects which are relevant to the impacts being assessed;
  - consideration of impacts and assessment of significance of resultant effects;
  - identification of any Additional Mitigation measures required to reduce the likely significant environmental effects and the consideration of any residual effects;
  - identification of inter-related effects;
  - identification of potential cumulative effects with other projects;
  - evaluation of any transboundary effects; and
  - identification of any future monitoring that may be required.

1.6.8 An overview of the findings of this Offshore EIA Report in non-technical language is provided in the Non-Technical Summary (NTS). Both this Offshore EIA Report and the NTS are available for download at: <https://thistlewindpartners.scot/bowdun/>.

***Scope of the Assessment***

1.6.9 In August 2024, the Bowdun OWF Offshore Scoping Report (BOWFL, 2024) was submitted by the Applicant to MD-LOT to support a request for a formal Scoping Opinion from Scottish Ministers. The Scoping Opinion was received in November 2024 (MD-LOT, 2024). The representations made as part of the Bowdun OWF Scoping Opinion (MD-LOT, 2024), together with the Scoping

workshops held with stakeholders on 25 April 2024, provided guidance to the Applicant when defining the proposed scope and approach to this Offshore EIA Report. As a result of this, this Offshore EIA Report focuses on the following topic areas:

- Physical Processes;
- Benthic Ecology;
- Fish and Shellfish Ecology;
- Marine Mammals;
- Offshore Ornithology;
- Offshore Bats;
- Commercial Fisheries;
- Shipping and Navigation;
- Aviation and Radar;
- Infrastructure and Other Users;
- Major Accidents and Disasters;
- Socio-economic, Tourism and Recreation
- Marine Archaeology;
- Seascape, Landscape and Visual Impacts;
- Cultural Heritage;
- Climatic Change; and
- Inter-Related Effects.

1.6.10 Details of the consultation with statutory and non-statutory stakeholders carried out by the Applicant during the pre-scoping, scoping and EIA phases is presented in Volume 1, Chapter 5: Consultation and Engagement, together with a complete list of stakeholders who were involved in the consultation. A summary of the topic specific consultations is also included in each topic chapter where relevant (see Volume 2, Chapters 7 to 23). Consultation taken as part of this Offshore EIA application is also discussed in Volume 3, Technical Appendix 5.2: Pre-Application Consultation Report.

***Structure of this Offshore EIA Report***

1.6.11 This Offshore EIA Report is divided into four volumes:

- Volume 1 – Introductory Chapters;
- Volume 2 – EIA Report Topic Assessment Chapters;
- Volume 3 – Technical Appendices; and
- Volume 4 – Management Plans.

1.6.12 Table 1.1 provides a breakdown of the contents of each of the Offshore EIA Report volumes and the Lead Author.

- 1.6.13 The Applicant provides a robust and well-informed application, with each technical topic listed in Table 1.1 delivered by competent experts, as required by the EIA Regulations. Details of the qualifications and experience of the competent experts involved in this Offshore EIA Report are provided in Volume 3, Technical Appendix 1.1: Qualifications and Relevant Experience of Technical Authors.
- 1.6.14 A separate Habitats Regulations Appraisal (HRA) has been carried out for the Proposed Development and a Report to Inform Appropriate Assessment (RIAA) has been prepared and has been submitted alongside the consent submission. However, the HRA does not form part of this Offshore EIA.

**Table 1.1: Structure and Content of this Offshore EIA Report**

| Number                                                 | Chapter Title                                               | Lead Author                              |
|--------------------------------------------------------|-------------------------------------------------------------|------------------------------------------|
| <b>Non-Technical Summary</b>                           |                                                             |                                          |
| -                                                      | Non-Technical Summary                                       | RPS                                      |
| <b>Volume 1 – Introductory Chapters</b>                |                                                             |                                          |
| -                                                      | Table of Contents                                           | RPS                                      |
| -                                                      | Overarching Glossary and Acronyms                           | RPS                                      |
| 1                                                      | Introduction                                                | RPS                                      |
| 2                                                      | Policy and Legislation                                      | RPS                                      |
| 3                                                      | Project Description                                         | RPS                                      |
| 4                                                      | Environmental Impact Assessment Methodology                 | RPS                                      |
| 5                                                      | Consultation and Engagement                                 | RPS                                      |
| 6                                                      | Site Selection and Consideration of Reasonable Alternatives | RPS                                      |
| <b>Volume 2 – EIA Report Topic Assessment Chapters</b> |                                                             |                                          |
| 7                                                      | Physical Processes                                          | ABPmer                                   |
| 8                                                      | Benthic Ecology                                             | RPS                                      |
| 9                                                      | Fish and Shellfish Ecology                                  | RPS                                      |
| 10                                                     | Marine Mammals                                              | RPS                                      |
| 11                                                     | Offshore Ornithology                                        | RPS                                      |
| 12                                                     | Offshore Bats                                               | Environmental Resources Management (ERM) |
| 13                                                     | Commercial Fisheries                                        | NiMa                                     |
| 14                                                     | Shipping and Navigation                                     | NASH Maritime                            |
| 15                                                     | Aviation and Radar                                          | Coleman Aviation                         |
| 16                                                     | Infrastructure and Other Users                              | RPS                                      |
| 17                                                     | Major Accidents and Disasters                               | RPS                                      |
| 18                                                     | Socio-economic, Tourism and Recreation                      | Jacobs                                   |
| 19                                                     | Marine Archaeology                                          | RPS                                      |
| 20                                                     | Seascape, Landscape and Visual Impacts                      | RPS                                      |
| 21                                                     | Cultural Heritage                                           | RPS                                      |

| Number                                 | Chapter Title                                                                                            | Lead Author           |
|----------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------|
| 22                                     | Climatic Change                                                                                          | RPS                   |
| 23                                     | Inter-Related Effects                                                                                    | RPS                   |
| <b>Volume 3 – Technical Appendices</b> |                                                                                                          |                       |
| 1.1                                    | Qualifications and Relevant Experience of Technical Authors                                              | RPS                   |
| 4.1                                    | Scoping Report                                                                                           | RPS                   |
| 4.2                                    | Scoping Opinion                                                                                          | MD-LOT                |
| 4.3                                    | Scoping Opinion – Appendix I: Consultation Responses & Advice                                            | RPS                   |
| 4.4                                    | Cumulative Effects Assessment - Screening                                                                | RPS                   |
| 4.5                                    | Transboundary Impacts - Screening                                                                        | RPS                   |
| 4.6                                    | Schedule of Mitigation and Commitments                                                                   | RPS                   |
| 5.1                                    | Consultation Log                                                                                         | RPS                   |
| 5.2                                    | Pre-Application Consultation Report                                                                      | RPS                   |
| 7.1                                    | Physical Processes Baseline Environment                                                                  | ABPmer                |
| 7.2                                    | Physical Processes Model Design and Validation                                                           | ABPmer                |
| 7.3                                    | Physical Processes Technical Assessment                                                                  | ABPmer                |
| 7.4                                    | Physical Processes Assessment of Potential Changes to Stratification and Frontal Systems                 | ABPmer                |
| 7.5                                    | Offshore Water Framework Directive Assessment                                                            | RPS                   |
| 8.1                                    | Benthic Ecology Technical Report                                                                         | RPS                   |
| 8.2                                    | Bowdun OWF Benthic Characterisation Survey 2024: Survey Report                                           | Ocean Ecology Limited |
| 8.3                                    | Marine Protected Area Assessment                                                                         | RPS                   |
| 9.1                                    | Fish and Shellfish Ecology Technical Report                                                              | RPS                   |
| 10.1                                   | Marine Mammal Technical Report                                                                           | RPS                   |
| 10.2                                   | Marine Mammal Digital Aerial Survey Report                                                               | RPS                   |
| 10.3                                   | Marine Mammal iPCoD Modelling Report                                                                     | RPS                   |
| 10.4                                   | Subsea Noise Technical Report                                                                            | Seiche                |
| 11.1                                   | Offshore Ornithology Baseline Characterisation Report                                                    | RPS                   |
| 11.2                                   | Nearshore, Intertidal and Offshore Ornithology Along the Export Cable Corridor Baseline Technical Report | RPS                   |
| 11.3                                   | Offshore Ornithology Displacement Technical Report                                                       | RPS                   |
| 11.4                                   | Offshore Ornithology Collision Risk Model Technical Report                                               | RPS                   |
| 11.5                                   | Offshore Ornithology Migratory Bird CRM Technical Report                                                 | RPS                   |
| 11.6                                   | Offshore Ornithology Apportioning Technical Report                                                       | RPS                   |

| Number                             | Chapter Title                                                                                      | Lead Author                |
|------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------|
| 11.7                               | Offshore Ornithology Population Viability Analysis Technical Report                                | RPS                        |
| 12.1                               | Offshore Bats Literature and Data Review                                                           | ERM                        |
| 13.1                               | Commercial Fisheries Technical Report                                                              | NiMa                       |
| 14.1                               | Shipping and Navigation Navigational Risk Assessment                                               | NASH Maritime              |
| 14.2                               | Shipping and Navigation Vessel Traffic Survey Report 2024                                          | NASH Maritime              |
| 14.3                               | Shipping and Navigation Vessel Traffic Survey Report 2025                                          | NASH Maritime              |
| 15.1                               | Aviation and Radar Technical Report                                                                | Coleman Aviation           |
| 15.2                               | Instrument Flight Procedure Safeguarding Report Aberdeen Airport                                   | TRAX International Limited |
| 18.1                               | Socio-economic, Tourism and Recreation Baseline                                                    | Jacobs                     |
| 18.2                               | Socio-economic Quantitative Assessment Methodology                                                 | Jacobs                     |
| 18.3                               | Socio-economic, Tourism and Recreation Combined Assessment (Onshore and Offshore) Technical Report | Jacobs                     |
| 19.1                               | Marine Archaeology Technical Report                                                                | RPS                        |
| 19.2                               | Unexploded Ordnance Technical Report                                                               | RPS                        |
| 20.1                               | Seascape, Landscape and Visual Impacts Technical Report                                            | RPS                        |
| 20.2                               | Seascape, Landscape and Visual Impacts – Accompanying Graphics                                     | RPS                        |
| 21.1                               | Cultural Heritage Technical Report                                                                 | RPS                        |
| 21.2                               | Cultural Heritage – Accompanying Graphics                                                          | RPS                        |
| 22.1                               | Climatic Change Risk Assessment Technical Report                                                   | RPS                        |
| 22.2                               | Climatic Change Greenhouse Gas Technical Report                                                    | RPS                        |
| 22.3                               | In Combination Climate Change Impact Assessment                                                    | RPS                        |
| <b>Volume 4 – Management Plans</b> |                                                                                                    |                            |
| <b>Appendix 24</b>                 | Outline Environmental Management Plan                                                              | ERM and the Applicant      |
| <b>Appendix 25</b>                 | Marine Pollution Contingency Plan                                                                  | ERM and the Applicant      |
| <b>Appendix 26</b>                 | Marine Invasive and Non Native Species Biosecurity Plan                                            | ERM and the Applicant      |
| <b>Appendix 27</b>                 | Outline Marine Mammal Mitigation Protocol                                                          | RPS and the Applicant      |
| <b>Appendix 28</b>                 | Fisheries Mitigation, Monitoring and Communication Plan                                            | NiMa/RPS and the Applicant |
| <b>Appendix 29</b>                 | Outline Navigational Safety and Vessel Management Plan                                             | ERM and the Applicant      |
| <b>Appendix 30</b>                 | Outline Scour Protection Management Plan                                                           | ERM and the Applicant      |

| Number             | Chapter Title                                                             | Lead Author           |
|--------------------|---------------------------------------------------------------------------|-----------------------|
| <b>Appendix 31</b> | Outline Lighting and Marking Plan                                         | ERM and the Applicant |
| <b>Appendix 32</b> | Outline Aid to Navigation Management Plan                                 | ERM and the Applicant |
| <b>Appendix 33</b> | Written Scheme of Investigation and Protocol for Archaeological Discovery | RPS and the Applicant |

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