

Sure Partners Limited

ARKLOW BANK WIND PARK
PHASE 2
**ONSHORE GRID
INFRASTRUCTURE**

**ENVIRONMENTAL IMPACT
ASSESSMENT REPORT**

VOLUME II

Chapter 1 Introduction

ARUP

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Renewables

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1 Introduction

1.1 Introduction

The Arklow Bank Wind Park (ABWP) is an offshore wind farm, located off the coast of County Wicklow, on the east coast of Ireland. A Foreshore Lease was granted for the development of a wind park on the Arklow Bank in 2002.

Arup has been appointed by Sure Partners Limited (SPL), the Developer, to prepare this Environmental Impact Assessment Report (EIAR). The EIAR relates to the Arklow Bank Wind Park Phase 2 Onshore Grid Infrastructure (hereinafter referred to as the proposed development).

The EIAR will support the statutory consent application for the proposed development, which if granted, will enable the construction, operation, maintenance and decommissioning of the development as described herein.

This EIAR has been prepared in compliance with Council Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU (the Environmental Impact Assessment (EIA) Directive). The purpose of the EIAR is to provide a statement of effects which the proposed development, if carried out, would have on the environment.

The Foreshore Lease for Arklow Bank Wind Park covers an area approximately 27km long and 2.5km wide, on an approximately north-south alignment, 6 - 13km offshore, to the east of Arklow town in the Irish Sea.

The Foreshore Lease allows for the construction of up to 200 wind turbines with a Maximum Export Capacity (MEC) of 520MW. Advances in turbine technology over the past 15 years mean that it is possible to achieve the export capacity with the installation of up to 62 turbines in the same Foreshore Lease area, depending on the final turbine unit selected. Phase 2 of the wind park will transmit power from up to two new offshore substation platform(s) via 2 no. new 220kV offshore export cables, installed along consented cable routes identified within the Foreshore Lease.

An application is being submitted to the Minister for Housing, Local Government and Heritage (HLGH) to extend Long Stop Dates in the Foreshore Lease to allow development of the Project. This application is supported by an EIAR and NIS.

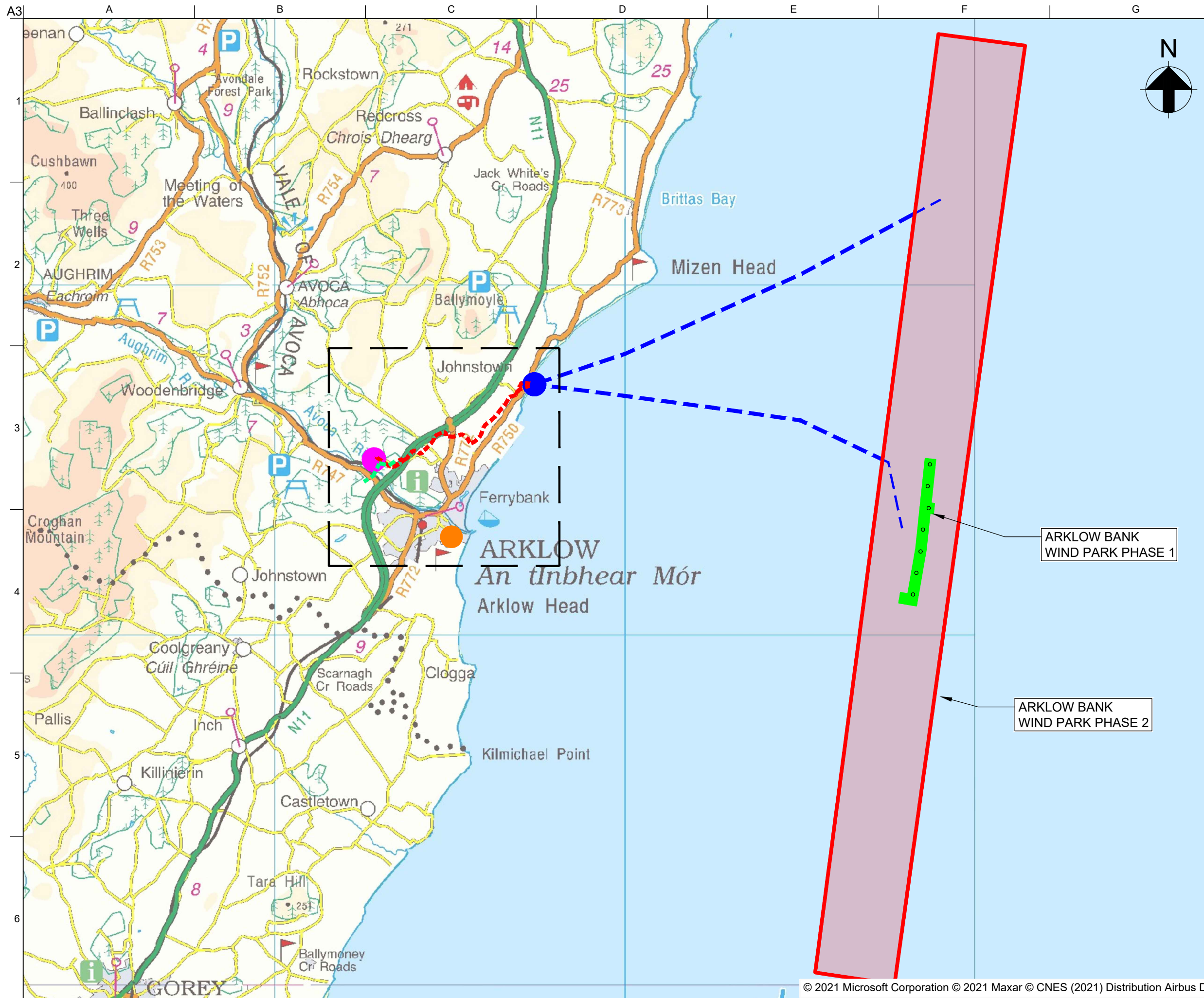
1.2 Overview of the Arklow Bank Wind Park Phase 2 (the Project)

Arklow Bank Wind Park Phase 1 was constructed in 2003 – 2004 consisting of seven wind turbines. Phase 1 is owned and operated by Arklow Energy Limited under a sublease to the Foreshore Lease. SPL, a wholly owned subsidiary of SSE plc (SSE), is now proposing to develop the remainder of ABWP, Arklow Bank Wind Park Phase 2 (the Project), under the existing Foreshore Lease. The Project and location context can be seen in **Figure 1.1 Overview of Project** .

SPL, the Developer, proposes to build out the Project under the existing Foreshore Lease. This overall project comprises three distinct elements:

1. Offshore Infrastructure;
2. Onshore Grid Infrastructure (OGI); and
3. Operations and Maintenance Facility (OMF).

In order to build out the Project, various terrestrial and maritime approvals are required, including planning approval for the proposed development. The proposed development is outlined below, with further detail provided in **Chapter 5 Description of Development**.



LEGEND:

- ARKLOW BANK WIND PARK PHASE 1
- PROPOSED ARKLOW BANK WIND PARK PHASE 2
- PROPOSED OFFSHORE CABLE ROUTE
- ONSHORE GRID INFRASTRUCTURE
- PROPOSED LANDFALL
- PROPOSED ONSHORE CABLE ROUTE
- PROPOSED SUBSTATION SITE
- PROPOSED NETN CONNECTION
- PROPOSED OPERATION AND MAINTENANCE FACILITY

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Rev	Date	By	Chkd	Appd

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Client
Sure Partners Limited

Project Title
Arklow Bank Wind Park
Phase 2

Drawing Title
Overview of Project

Scale at A3
NTS

Role
Civil

Suitability
For Information

Arup Job No
271715-00

Rev
P1

Name

Figure 1.1

1.3 Overview of the Proposed Development

Planning approval will be required for the proposed development from the highwater mark of ordinary or medium tides (shown as HWM on Ordnance Survey maps) to the point of connection with the National Electricity Transmission Network (NETN).

The proposed development will comprise:

- Landfall for two offshore export cable circuits from the High Water Mark (HWM) to two Transition Joint Bays (TJB) at Johnstown North, located approximately 4.5km northeast of Arklow Harbour;
- Connection by two underground 220kV high voltage alternating current cable circuits, and fibre optic cables over a distance of c. 6km, from the landfall to the new onshore 220kV substation;
- A new onshore 220kV substation, to be located at Shelton Abbey, north of the Avoca River, approximately 2.1km northwest of Arklow consisting of two connected compounds:
 1. The transmission compound with the infrastructure to physically connect to the NETN, and
 2. The connection compound with the infrastructure to allow the connection of the windfarm in accordance with EirGrid grid code requirements;
- Flood defence improvement works to the existing Avoca River Business Park flood defences located c. 500m west of the substation site;
- A 220kV overhead line connection from the new 220kV substation at Shelton Abbey to the existing 220kV transmission network located c. 200m from the substation site.

An overview of the proposed development is shown in **Figure 1.2**. This is detailed further in **Chapter 5** *Description of Development*.

A3 A B C D E F G

1
2
3
4
5
6



LEGEND:

- PROPOSED LANDFALL
- PROPOSED SUBSTATION SITE
- PROPOSED CABLE ROUTE
- PROPOSED M11 CROSSING HDD OPTION
- PROPOSED NETN CONNECTION
- RED LINE BOUNDARY
- PROPOSED OPERATION AND MAINTENANCE FACILITY

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Project Title
**Arklow Bank Wind Park
 Phase 2
 Onshore Grid Infrastructure**

Drawing Title
**Overview of the Proposed
 Development**

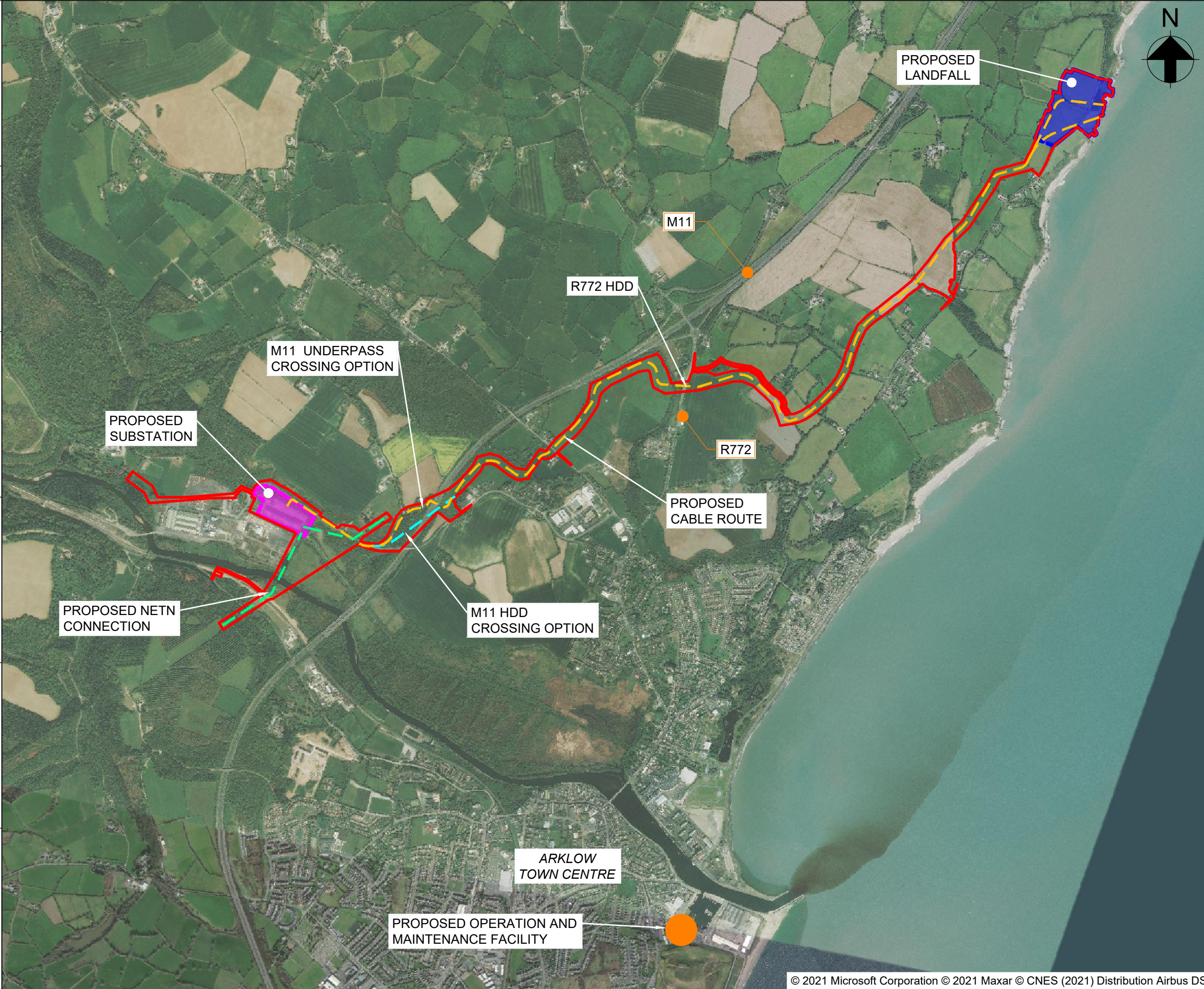
Scale at A3
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Role
 Civil

Suitability
 For Information

Arup Job No 271715-00	Rev P1
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Figure 1.2



1.4 Need for the Proposed Development

The proposed development will be an integral part of a project to transmit 520MW (MEC) of renewably generated electricity from Arklow Bank Wind Park Phase 2 to the NETN. This will further the Irish Government's objectives with regard to increasing the generation and supply of renewable electricity and reducing the emissions of greenhouse gases.

This will be an important contribution to reducing the effects of climate change on biodiversity and the environment, facilitating economic development and providing for a growing population.

The proposed development will contribute towards fulfilling the objectives of a wide range of European, national, regional and local energy, planning and development policies. These are described in detail in **Chapter 2 Policy Context**.

1.4.1 Economic Benefits

SSE has been in Ireland since 2008 and employs more than 1,000 people here. It owns and operates 745MW of onshore wind generation capacity across 29 wind farms including Galway Wind Park, Ireland's largest onshore wind farm.

The Arklow Bank Wind Park Phase 2 will be an enabler to unlock new infrastructure investment in Irish ports and maritime businesses. Irish ports are important nodes where future renewable and offshore energy projects could be based to stimulate new employment and investment opportunities.

The Developer estimates that for a project of this scale (of which the proposed development is part), assuming 520MW of export capacity will lead to the creation of approximately 80 full-time jobs in operation and maintenance work, most of which will be working from a new OMF in Arklow. These roles will consist of wind turbine technicians, office and management staff and vessel operatives.

In addition, the overall project will support companies in the operation and maintenance supply chain, including vessel services, water and fuel, technical inputs, and loading and unloading of project cargoes. Offshore wind energy can create industry sub-sectors delivering output and jobs across overlapping skill sets. The development of the new service base and associated employment represents an opportunity for significant new investment and ongoing economic activity at County Wicklow's existing maritime facilities.

The overall project (including the proposed development) will not only maximise regional economic benefits and create local sustainable jobs, it can also unlock focused community participation in the sector, particularly around port towns. Once the proposed development is operational, a multi-million-euro community benefit fund will be established to support communities near the wind farm for its lifetime.

1.5 Overview of the Planning Process

The current requirements for EIA for projects are set out by the European Union in the EIA Directive.

The obligations set out in the EIA Directive have been implemented into Irish law by the relevant provisions of the Planning and Development Act 2000 (as amended) (the Act) and the Planning and Development Regulations 2001 (as amended) (the Regulations).

This EIAR has adhered to the requirements of the EIA Directive and transposing European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) (EIA Regulations) which came into force on 1 September 2018 as well as associated guidance as described in **Chapter 3 EIA Methodology**.

1.5.1 Statutory Requirement for an EIAR

The prescribed classes of development and thresholds that trigger a mandatory EIA and the provision of an EIAR are set out in Schedule 5 of the Regulations.

The classes under Schedule 5 that are relevant to the Project are listed below:

Part 2 Class 3 Energy Projects

(i) Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts.

It is clear that the onshore grid infrastructure required to connect the offshore wind park to the NETN is an integral part of the Project. As the Project is subject to EIA, then the proposed development is also subject to EIA.

The approach to the EIAR is further detailed in **Chapter 3 EIA Methodology**.

1.5.2 Other Relevant Legislation

Habitats and Birds Directives

EU member states are required to establish a network of Natura 2000 sites under the obligations of Council Directive 92/43/EEC (Habitats Directive) and Council Directive 79/409/EEC (Birds Directive), as amended and codified in Council Directive 2009/147/EC. The Natura 2000 network comprises designated sites selected to protect important biodiversity including rare and threatened habitats and species including:

- Special Areas of Conservation (SACs, including candidate SACs) protected under the provisions of the Habitats Directive; and
- Special Protection Areas (SPAs, including proposed SPAs) protected under the provisions of the Birds Directive.

The Habitat and Birds Directives require that the likely significant effects of any plan or project, alone, or in combination with, other plans or projects, on the Natura 2000 site network (i.e. European designated sites), should be assessed before any decision is made to allow that plan or project to proceed. This process is known as Appropriate Assessment (AA), which starts with Stage 1 AA Screening and if likely significant effects cannot be ruled out, must progress to Stage 2 AA (i.e. preparation of a Natura Impact Statement (NIS)).

There are a number of steps and tests in place that should be undertaken sequentially and documented by competent authorities in order to make decisions on the approval or refusal of a plan or project that may impact on European designated sites). Part XAB of the Planning Acts, which transposes the Birds and Habitats Directive requires the following to be undertaken:

- Stage 1 – Screening for AA: To assess, in view of best scientific knowledge, if a development, individually or in combination with another plan or project is likely to have a significant effect on any European designated site.
- Stage 2 – AA: This is required if it cannot be excluded, on the basis of objective information, that the development, individually or in combination with other plans or projects, is likely to have a significant effect on a European designated site. The appropriate assessment must include a final determination by the competent authority as to whether or not a proposed development would adversely affect the integrity of a European designated site. In order to reach a final determination, the consenting authority must undertake examination, analysis and evaluation, followed by findings, conclusions and a final determination. The appropriate assessment must contain complete, precise and definitive findings and conclusions, and may not have lacunae or gaps.
- Stage 3 – Assessment of alternative solutions: This stage is only required if there will be no adverse effect on the integrity of a designated site. The process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the European designated sites.
- Stage 4 - Assessment where there will be no adverse effect on the integrity of a designated site whereby no alternative solutions exist and where adverse impacts remain: An assessment where no alternative solutions exist and where adverse impacts remain – an assessment of compensatory measures where, in light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

An NIS has been prepared to accompany this application to An Bord Pleanála (the Board). This report contains the necessary information required for the competent authority to undertake the AA of the proposed development.

The NIS concluded that, in the opinion of the lead ecologist (Carl Dixon of Dixon Brosnan), following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted effects from the proposed development and with the implementation of the mitigation measures proposed, that the construction and operation of the proposed development will not pose a risk of adversely affecting (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects, and there is no reasonable scientific doubt in relation to this conclusion. However, the competent authority (the Board), will make the final determination in this regard.

Other Consents

The following additional consents will be required for the proposed development:

- Consent to exercise the powers of ESB pursuant to section 53 of the Electricity (Supply) Act 1927 to Lay Electricity Lines Across Lands under Section 49 of the Electricity Regulation Act 1999, to be granted by the Commission for the Regulation of Utilities;
- Consent to exercise the power to lay electric lines conferred on ESB by section 51 and section 52(1) of the Electricity (Supply) Act 1927, to lay Electricity Lines Under the Public Road under Section 48 of the Electricity Regulation Act 1999, to be granted by the Commission for the Regulation of Utilities;
- (if required) Special Order for the Compulsory Acquisition of Lands under Section 45 of the Electricity (Supply) Act 1927, as amended by Section 47 of the Electricity Regulation Act 1999, to be issued by the Commission for the Regulation of Utilities;
- Licence to discharge trade effluent to surface waters under Section 4 of the Local Government (Water Pollution) Acts 1977 and 1990, required for disposal to a surface water body of any waters arising from dewatering the construction works, to be issued by Wicklow County Council;
- Relevant consents (if required) under the Arterial Drainage Act, 1945, for any proposed watercourse crossings; and
- Further consents which may be required as the development proceeds include Road Opening Licences, under Sections 2A, 14, 34, 34A and 35 of the Electricity Act 1999 and Section 98 of the Electricity (Supply) Act, 1927.

1.5.3 Guidance

This EIAR has been prepared with due regard to the following overarching guidance on EIA:

- European Commission (2017) Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report;
- Government of Ireland (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018);

- Department of Housing, Planning, Community and Local Government (2017) Key Issues Consultation Paper on the Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems;
- Department of Housing, Planning, Community and Local Government (2017) Circular PL 1/2017 - Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive): Advice on the Administrative Provisions in Advance of Transposition;
- Department of Housing, Planning and Local Government (2018) Circular PL 05/2018 - Transposition into Planning Law of Directive 2014/52/EU amending Directive 2011/92/EU on the effects of certain public and private projects on the environment (the EIA Directive) And Revised Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment; and
- Environmental Protection Agency (2017) Draft Guidelines on the Information to be contained in Environmental Impact Assessment Reports (Draft August 2017).

Additional topic-specific guidance used to undertake assessments is identified in **Chapters 7 - 19** as appropriate.

1.5.4 Structure of the EIAR

This EIAR has been prepared in three volumes as follows:

- Volume 1 provides the non-technical summary. This summarises the findings of the EIAR in a clear, accessible format that uses non-technical language and supporting graphics. The non-technical summary describes the proposed development, existing environment, effects and mitigation measures and relevant aspects of the EIAR in a manner that can be easily understood by the general public;
- Volume 2 encompasses the main EIAR including introductory chapters in addition to ‘assessment’ chapters for each environmental aspect in accordance with Article IV of the EIA Directive. The front-end chapters (**Chapters 1 – 6**) provide the relevant project context whilst the assessment chapters (**Chapters 7 -19**) provide a description of the relevant environmental aspects and likely significant effects with summary chapters provided thereafter (**Chapters 20 - 22**); and
- Volume 3 provides the technical appendices that support and are cross-referenced with Volume 2. This may include other relevant drawings, modelling outputs, background reports and/or supporting documents.

1.5.5 Project Team

1.5.5.1 Design team

The design has been developed on behalf of the Developer by a multi-disciplinary design team led by Aecom (primary consultants), Waterman Infrastructure & Environment Ltd (HDD consultants) and their relevant sub-consultants.

1.5.5.2 EIA team

This EIAR has been prepared on behalf of the Developer by a multi-disciplinary consultancy team of competent experts led by Arup with input from specialist sub-consultants.

Arup has been awarded an EIA Quality Mark by the Institute of Environmental Management and Assessment in recognition of its excellence in EIA activities. Further, all technical leads are deemed to be qualified and competent experts in their fields in accordance with Article 5(3) of the EIA Directive, given their academic qualifications, professional affiliations and professional experience on other EIAs for major infrastructure projects. Refer to **Appendix 3.1** of **Volume 3** for further detail on the competent experts that have prepared this EIAR.

1.5.6 Pre-Application Stage

The Developer commenced pre-application consultations with the Board on 17 February 2020 as required under section 182E of the Act. At the conclusion of this pre-application process, the Board confirmed, in a letter dated 20 November 2020, that the proposed development falls within the scope of Section 182A of the Planning and Development Act, 2000 as amended (the Act) and that accordingly, the proposed development is strategic infrastructure within the meaning of Section 182A of the Act. The Board confirmed that any application for approval for the proposed development must be made directly to the Board, under Section 182A(1) of the Act.

1.5.7 Application Stage

The planning application and the EIAR will be submitted to the Board and to the prescribed bodies identified by the Board.

Any person, including prescribed bodies, may make submissions to the Board in relation to the application, within a specified period, being not less than seven weeks from the date that the documents become available for inspection.

The Board may, at any stage, hold a meeting with the Developer or any other person and may request further information from the Developer including a revised EIAR. In addition, the Board must notify prescribed bodies in certain circumstances of the application and such bodies may make submissions.

The Board may hold an oral hearing.

In accordance with Section 182A of the Act, before making a decision on the application, the Board must consider:

- The EIAR and NIS submitted,
- Any submissions or observations made in accordance with the relevant sections of the amended Act,
- The likely consequence for the proper planning and sustainable development of the area in which the proposed development will be situated,
- The likely effects on the environment or adverse effects on the integrity of a European site as the case may be, and
- The report and any recommendations of the person conducting any oral hearing relating to the proposed development.

The Board must make its determination of the application ‘*as expeditiously as is consistent with proper planning and sustainable development*’. It has an objective, but not an obligation, to make a determination within 18 weeks of the latest date for the receipt of submissions from the public.

The Board may grant permission, refuse permission, grant permission for part of the proposed development, or modify the development and grant permission for the development in its modified form. An Bord Pleanála may also attach conditions to any permission granted.

1.6 Consultation Undertaken

Extensive consultation has been undertaken with a range of stakeholders during the development of the EIAR and statutory consent application in order to:

- Provide information on the proposed development;
- Ascertain and understand the views of stakeholders; and
- Seek input from stakeholders on the design, construction and assessment aspects of the proposed development.

This is detailed further in **Chapter 3 EIA Methodology**, which describes Project-wide consultation that has been undertaken. Where appropriate, **Chapters 7 – 19** identify specific consultation that has been undertaken to support individual assessments and assessment chapters.

1.7 Difficulties Encountered During the Assessment

No particular difficulties were encountered during the assessment process.

1.8 References

Department of Housing, Planning and Local Government (2018) *Circular PL05/2018 - Transposition into Planning Law of Directive 2014/52/EU amending Directive 2011/92/EU on the effects of certain public and private projects on the environment (the EIA Directive)*

Department of Housing, Planning, Community and Local Government (2017) *Circular PL 1/2017 - Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive): Advice on the Administrative Provisions in Advance of Transposition*

Department of Housing, Planning, Community and Local Government (2017) *Key Issues Consultation Paper on the Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems*

Department of the Taoiseach (June 2020) *The Programme for Government: Our Shared Future*

Environmental Protection Agency (2017) *Draft Guidelines on the Information to be contained in Environmental Impact Assessment Reports*

European Commission (2017) *Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report*

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The Department of Public Expenditure and Reform (February 2018) *National Development Plan 2018-2027*

The Department of Communication, Climate Action and Environment (2019) *The Climate Action Plan*

The Eastern and Midlands Regional Assembly (2019-2031) *Regional Spatial and Economic Strategy* (June 2019)

The Department of Housing, Planning and Local Government (November 2019) *Draft National Marine Planning Framework*

Wicklow County Council (November 2016) *Wicklow County Development Plan 2016-2022*

Wicklow County Council (June 2018) *Arklow and Environs Local Area Plan 2018-2024*