



ORIEL WINDFARM
OFFSHORE RENEWABLE ENERGY

Oriel Wind Farm Public Consultation Webinar

10th February 2021



THE PROJECT TEAM

Parkwind is a **European offshore wind specialist**.

ESB operates **across the electricity market and is a leading developer of renewable power projects in Ireland and the UK**.

This partnership creates a **strong consortium with the experience and capability**.



Strong Team



Expertise



Experience



PROJECT LOCATION

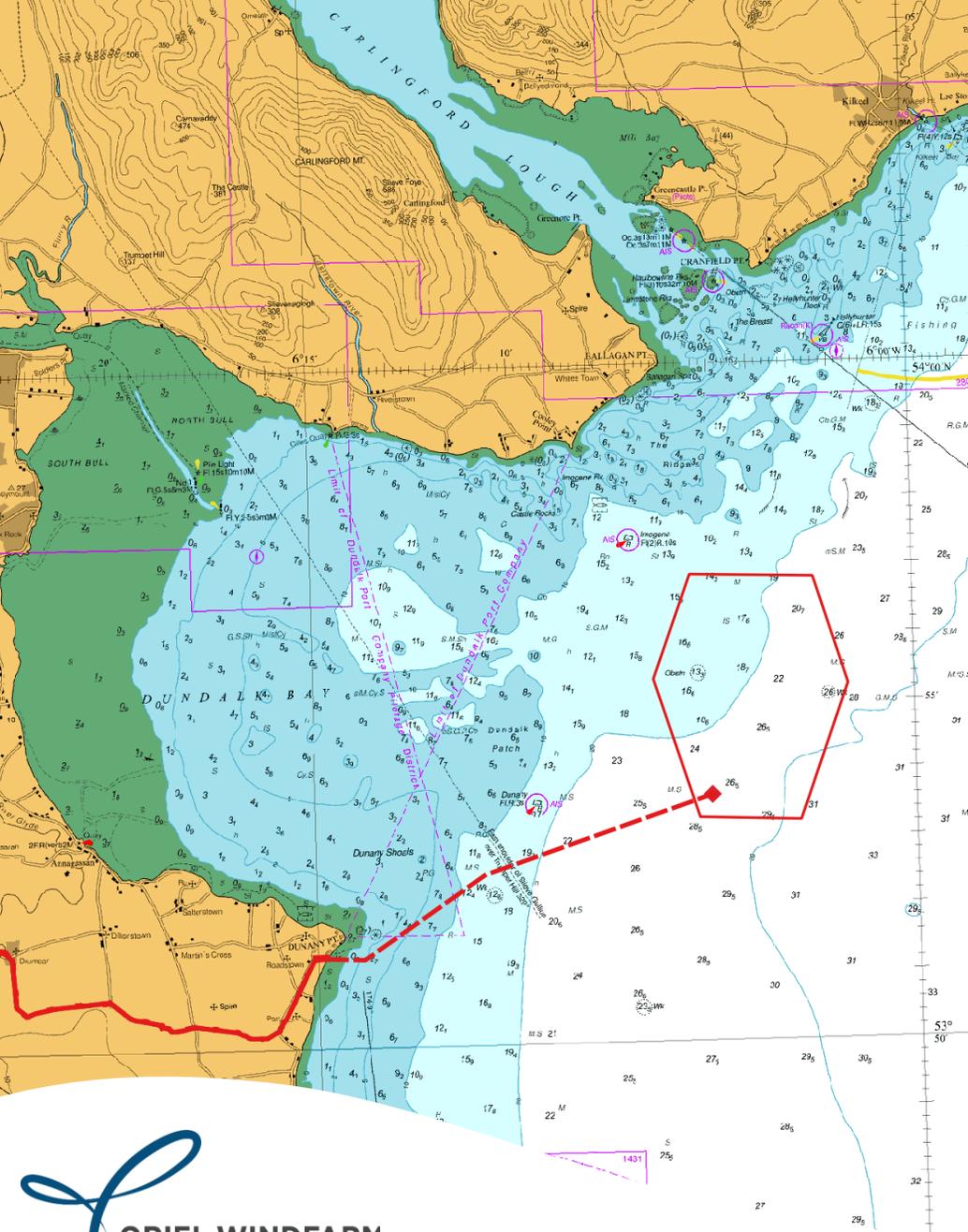
The Oriel project was **first proposed in 2006** for a location in the Irish Sea, off the north Louth coast. The location was chosen based on an assessment of the following criteria:

- Technical feasibility
- Environmental constraints
- Access to existing grid infrastructure
- Avoidance of trawling grounds and shipping channels.

An application for a 55 turbine project was assessed under the Foreshore Act at that time.

In May 2019 Oriel obtained a **Foreshore Licence to allow us to carry out additional environmental and technical studies.**

These studies are being used to **update the design of the windfarm,** maximising efficiency while minimizing any impacts on the environment.



RECENT ACTIVITIES

Following engagement with statutory bodies, we have conducted over 20,000 hours studying the site in the past two years.

OFFSHORE

- Metocean data collection
- Geotechnical investigation
- Geophysical mapping
- Seabird & mammal monitoring
- Acoustic marine mammal survey

ONSHORE

- Archaeology
- Ecological baseline surveys
- Onshore bird mapping
- Noise & air quality monitoring
- Infrastructure crossing design
- Soil and geology mapping



PROJECT DETAILS (OFFSHORE)

The Project will have a **capacity of up to 370MW** delivered using:

- **25 turbines** with a capacity of up to 15MW each.
- The closest turbines to shore will **be 6km from Cooley Point, 18km from Blackrock and 11km from Dunany Point.**
- The turbines will be **connected to an offshore substation** where the power generated will be collected and exported via a cable buried under the seabed to shore.

CAPACITY

Up to **370 MW**

PRODUCTION

1,500GWh / year

TURBINES

Up to **25**

CARBON SAVED

600,000 T / year

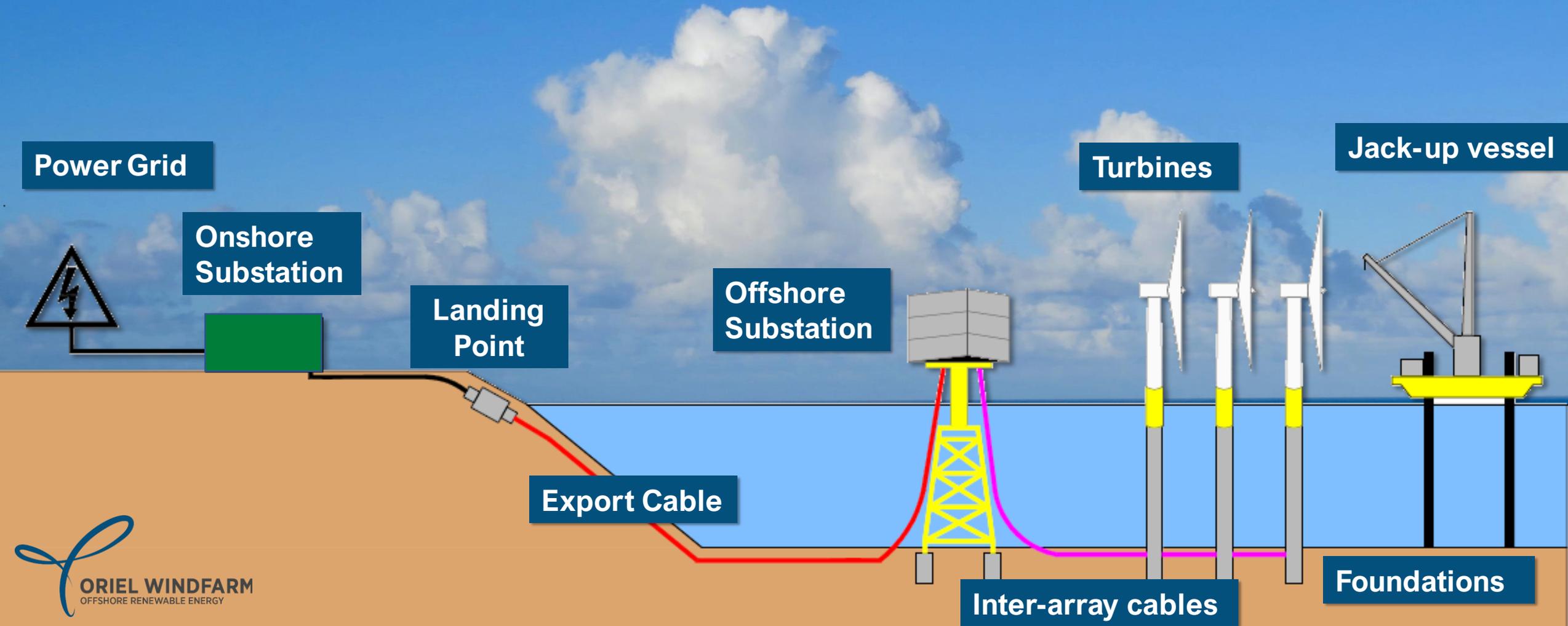
HOUSEHOLDS

300,000

DIMENSIONS

150m^{tower} **120m**^{blade}

OFFSHORE WIND FARM COMPONENTS

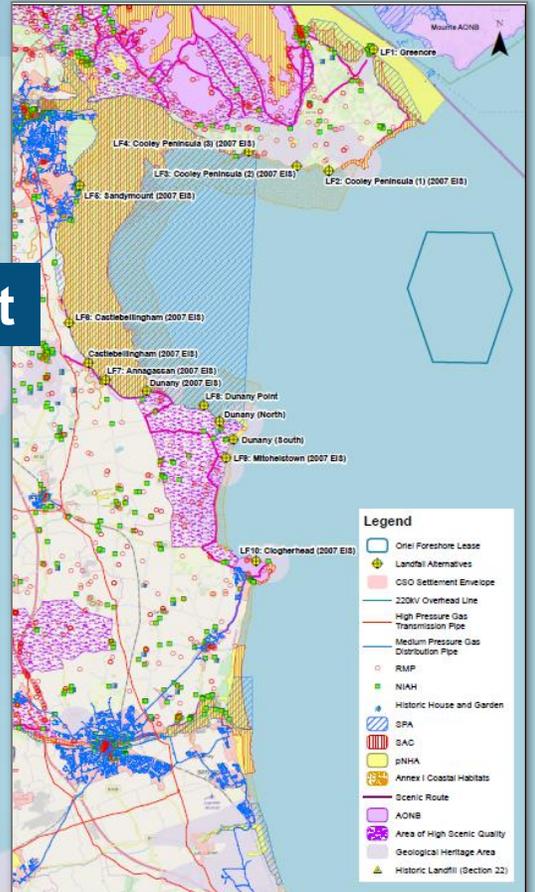
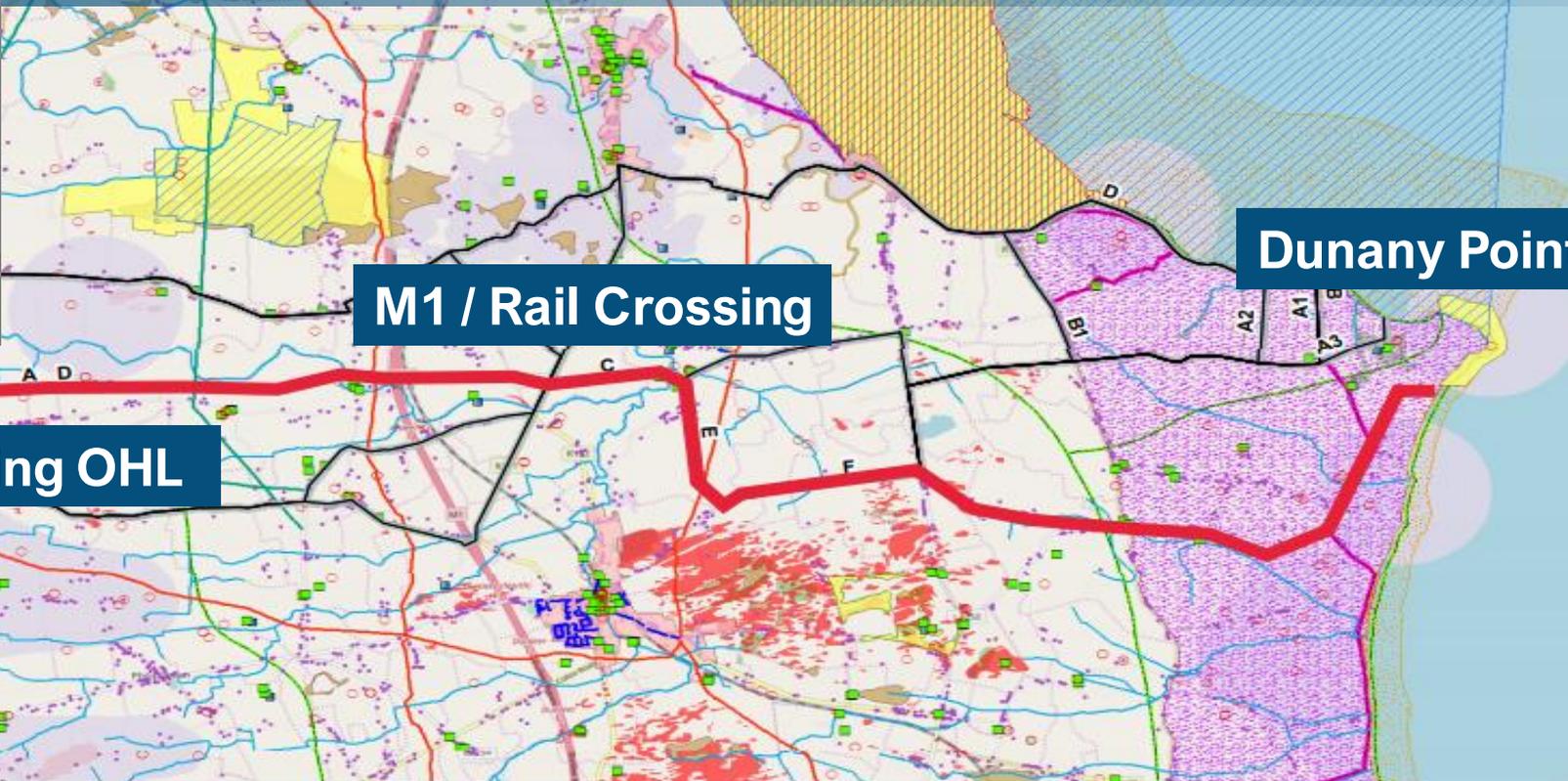


OFFSHORE WIND FARM INSTALLATION



PROJECT LOCATION (ONSHORE)

Substation Sites Considered



Landing Points Considered

Ardee

Existing OHL

M1 / Rail Crossing

Dunany Point

Legend

- | | | |
|-------------------------------------------------|----------------------------------------|----------------------------------------|
| — Onshore Cable Route Option [labelled options] | — High Pressure transmission pipelines | — Scenic Route |
| ■ Buffer of Options: 100m-wide Corridor | — Medium Pressure: Distribution Pipe | ■ Area of Outstanding Natural Beauty |
| ■ CSO Settlement Envelope | — WFD River Water Body | ■ Area of High Scenic Quality |
| • GeoDirectory (All Properties) | ■ Ramsar Site | ■ Landscape Character Area |
| ○ RMP | ■ SPA | ■ Geological Heritage Area |
| ■ NIAH | ■ SAC | ■ Soils 2006 - Peat |
| ■ Historic House and Garden | ■ pNHA | ■ Groundwater Vulnerability: Extreme/X |
| — ESB HV Overhead Line | ■ Annex I Coastal Habitats | ▲ Historic Landfill (Section 22) |

Legend

- Onshore Cable Route Option
- Landfill Alternatives
- CSO Settlement Envelope
- 220kV Overhead Line
- High Pressure Gas Transmission Pipe
- Medium Pressure Gas Distribution Pipe
- RMP
- NIAH
- Historic House and Garden
- SPA
- SAC
- pNHA
- Annex I Coastal Habitats
- Scenic Route
- AONB
- Area of High Scenic Quality
- Geological Heritage Area
- ▲ Historic Landfill (Section 22)



Ardee

Substation Location

M1 Motorway Interchange & River Dee Crossing

River Dee Crossing

Dunany Point

Landing Point

c. 22 km of underground cable along existing roads

PROJECT LOCATION (ONSHORE)

Legend

— Proposed 220 kV Underground Cable (UGC) Route

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Imagery Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



ONSHORE UNDERGROUND CABLE



Underground Cable Installation



Joint Bay Construction



Temporary Passing Bay

PLANNING PROCESS

- We intend to apply to An Bord Pleanála in mid 2021 for planning consent under the new **Marine Planning and Development Management** legislation, when enacted.
- The planning process **will adhere to a number of EU Directives**, including the EIA Directive, Habitats Directive and the Aarhus Convention.
- The application **will take into account the feedback from this consultation.**
- There will be a **further public consultation phase** after the application is made, with the opportunity for all interested parties to make an observation on the project directly to the Board.



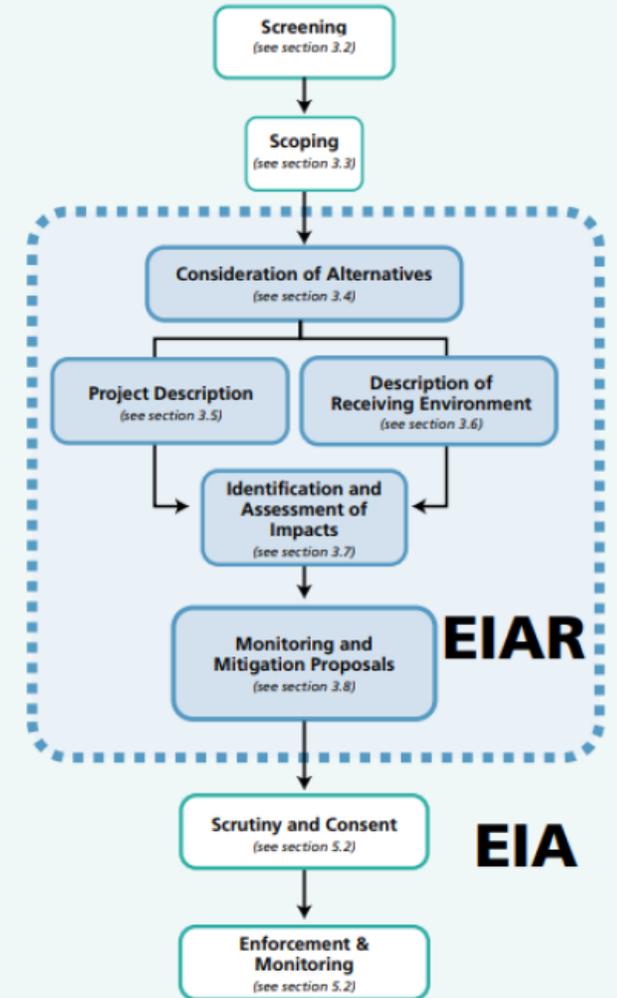
ENVIRONMENTAL ASSESSMENT

- **EIA Report** and **Natura Impact Statement** in preparation.
- Baseline studies by a wide range of technical specialists including Irish Whale and Dolphin Group, Birdwatch Ireland and Galway-Mayo Institute of Technology (GMIT) amongst others.
- Studies to date show **the range of species and habitats expected at the site.**
- Detailed Impact Assessment underway indicates that the Project will have **no significant adverse effect** on any ecology, sensitive species or habitats.

Project Inception

Preparation of EIAR

Completion of EIA



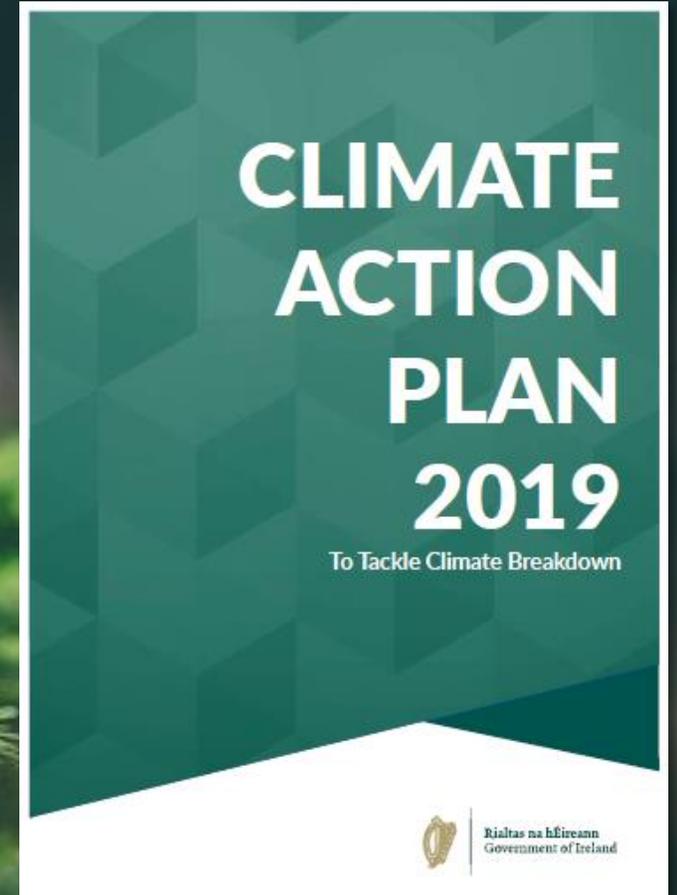
PHOTOMONTAGES

22 photomontages from various locations around the coast available to view and download on our website.



ENVIRONMENTAL BENEFITS

- Climate Action Plan set a target for **70% of our electricity from renewable energy by 2030**, including up to 5GW of offshore wind.
- The Oriel project will make a **major contribution** towards Ireland's environmental goals.
- Significant **positive effect on the environment** by reducing greenhouse gas emissions and improving air quality.
- Contribution to security of supply by **reducing our dependence on imported gas for power** generation and heating.



COMMUNITY BENEFIT



Major **community benefit fund** for the local community under the terms of the Renewable Energy Support Scheme. This fund will help build community facilities and strengthen local groups.

The details of this scheme are currently being developed by Government.

Investing in a **fund for local fishing enterprises**. This will help protect the long-term sustainability of the industry in the region.

ECONOMIC BENEFIT

- Oriel will place Louth County at the **heart of a new clean economy**.
- Significant **employment boost** during construction phase.
- The projects 25-year operational life will create **long term employment** opportunities in the local area.
- An operations base at one of the ports in County Louth will offer **opportunities for local businesses**.
- Offshore wind projects provide a boost to coastal communities through **direct employment** and the creation of new marine engineering businesses.
- Oriel can be an anchor to **create a clean tech investment hub in the region**. We will work with development authorities such as the IDA and the Local Authority to promote sustainable enterprises.

Economic
Growth



Employment



Opportunity



FURTHER INFORMATION AND HOW TO CONTACT US

www.orielwindfarm.ie

- Virtual consultation room
- Ask a question
- Arrange a call back

Public Information office – please call or email to arrange an appointment

 Phone number: (0)1 963 0313 or 086 2558111

 contact@orielwindfarm.ie