

PROJECT OVERVIEW

The Oriel project is a proposed offshore wind farm to be located in the Irish Sea. The development will be located off the north Louth coast.

The site was chosen based on an assessment of the following criteria:

- water depth
- seabed sediments
- wind speeds
- shelter from high wave loads
- low tidal currents
- access to existing grid infrastructure
- avoidance of trawling grounds and shipping channels.

There are few sites in Irish coastal waters that meet all these criteria.

Our objective is to minimise the environmental impact, while developing the project in a technically feasible and cost-effective manner.

Since the Oriel project was originally designed, offshore wind technology has improved significantly. This means that we can now generate more electricity with fewer turbines. Reducing the number of turbines allows us to move the project 20% further offshore. The table below provides an overview of the design parameters for the project.

Proposed project design parameters	
Capacity of windfarm	375MW
Turbine capacity	15MW
Number of turbines	25
Distance from Shore	6km at closest point
Tower height	150m
Blade length	120m
Expected energy production	1,500GWh/yr
Carbon saved at average output	600,000 tonnes/yr
Houses powered with renewable energy	300,000

By using turbines with a longer blade length, we can improve the efficiency and energy output of the project, while at the same time reducing the number of turbines from 55 in the original proposal to just 25 now. This reduction will also enable the turbines to be located further from shore.

