

OVERVIEW OF THE ORIEL WIND FARM

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 very few sites in Ireland that meet 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 wind farm was originally designed, offshore wind technology has rapidly advanced. This means that we can generate more electricity with fewer turbines. Reducing the number of turbines allows us to move the project further offshore. The table below provides an overview of the maximum design parameters for the project and a comparison with the original proposal.

Proposed maximum project design parameters	
Capacity of windfarm	Up to 375MW
Turbine capacity	Up to 15MW
Number of turbines	Up to 25
Distance from Shore	6km at closest point
Tower height	Up to 150m
Blade length	Up to 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 large 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 to 25 compared to what was originally proposed. This will also enable the turbines to be located further from shore.

