

BUILDING THE ORIEL PROJECT (OFFSHORE)

Offshore wind turbines use advanced technology to harness the power of ocean winds. The basic design of a wind turbine is quite simple. Each wind turbine is comprised of a foundation, a tower, a nacelle – which contains the gear box and generator – and the turbine rotor blades.

There are a number of foundation options. These include a gravity base, which sits on the seabed or monopile and jacket foundations which are buried in the seabed. No decision has been made on the type of foundations which will be used on the Oriel project.

The turbine tower, blades and nacelle are visible above the water. Under the water, the turbines are connected by cable strings to an offshore transformer station. This transformer is linked to a landing point by a cable which is buried under the seabed. The landing point will be close to Dunany Point.

The components of the wind farm are transported to the site in large ships. They are installed at sea, using large vessels called jack-up barges or floating platforms with cranes capable of lifting very heavy loads. The offshore cable is installed using a special cable laying vessel.

