



Department of Communications, Marine and Natural Resources

Marine Notice No. 8 of 2004

Notice to all Ship Owners / Operators, Shipmasters, Skippers, Navigating Officers, Fishing Vessel Skippers, Yacht masters and Pleasure Craft Users

Deployment of Wind Turbine Parks in the Irish Sea.

Your attention is drawn to the deployment of wind turbines in the Irish Sea. The purpose of these wind turbines is to provide an alternate source of clean energy harnessed by wind. The turbines will be grouped together in what is commonly referred to as wind farms or parks. Currently there is one such wind park situated on the Arklow Bank approximately 6 miles from the coast.

It is envisaged that further similar developments may take place in the near future and these may involve a greater number of turbines than the Arklow bank project.

Although there is currently no provision for exclusion zones around the wind parks, this situation may change in the future.

[Admiralty Chart 1468]

Description:

The Arklow bank project consists of 7 x 3.6 megawatt turbines and is the first such development of its kind off the Irish coast. The turbines are arranged on the sandbank in a line running north-south, each separated by approximately 650 mtrs. Each tower is interconnected via submarine cables, which are then led into a system of trenches, which in turn come together before running ashore to a substation connection, and into the National Grid.

Markings:

The wind park is marked in the conventional way by a system of Cardinal buoys.

Each turbine is marked in such a way that it conforms to the Irish Aviation Authority and the Commissioners of Irish Lights standards of conspicuity in compliance with The International Association of Marine Aids to Navigation and Lighthouse Authorities.

So that by day 2 by 3.5 mtr all round stripped yellow bands may be seen and by night each will display two flashing yellow lights of 5 seconds duration with a range of 5 nautical miles. This increases to 10 nautical miles on the two outer towers.

Each turbine is fitted with two radar reflectors and two radar target enhancers thus presenting a good radar target.

The two outer most turbines will eventually be fitted with A.I.S. Automatic Identification System.

Technical Details:

In the case of the Arklow bank project each turbine comprises of a monopole foundation driven to a depth of 30 mtrs into the seabed, surrounded in the seabed by rock armour scour protection; a transition piece which supports dual ladder systems, cable conduits, and electrical switchgear; a tower with internal ladder system; a nacelle and a 104 mtr diameter rotor with 73.5 mtr hub height giving a maximum height of 125 mtrs . Each turbine utilises a footprint of 5 mtrs diameter (16 feet).

The overhead clearance of the rotor blades from sea level at M.H.W.S. will be approximately 20 meters.

The work of erecting and deployment is broken down into 6 sections.

- Section 1 This section of work comprises the onshore cable laying and interconnection facility to the primary substation export point. This work includes open cut trench as well as directional drilling and associated cable pulling and construction of a switch room.
- Section 2 The installation of the monopiles, tri pods or gravity type system.
- Section 3 The installation of the transition pieces.
- Section 4 The erection of the wind turbine generators
- Section 5 The installation of sub sea cabling
- Section 6 Energization and commissioning.

Warnings:

In considering the hazards associated with such developments mariners are advised to give such areas a wide berth. Under no circumstances should bottom trawling, anchoring in close proximity to the wind park or in the vicinity of the submarine cables that carry very high voltage be considered.

Mariners are further advised not to attempt to secure to the turbines or to board these structures other than in an emergency.

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For information in relation to technical specification/type approval of radio equipment contact the Radio Surveyors +353 1 678 2363/2364/2365/2367.

For general enquiries please contact the Maritime Safety Division at +353-1-678 2360

Any enquiries concerning Marine Notices should be addressed to:

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Or visit our website at: www.dcmnr.gov.ie