

LONDON DOCK ARRAY

With a capacity of up to 1000 megawatts (MW), the London Array Offshore Wind Farm in the outer Thames Estuary is expected to become the world's largest offshore wind farm when the construction of phase one of the project is completed towards the end of 2012.

Conditions in the estuary, including wind speeds and water depths lend themselves well to wind farms. This impressive wind farm development will contribute towards the energy requirements of the UK once they are complete.

On top of monopile foundations, transition pieces are fitted to provide the footing for the turbines themselves, which are said to stand higher than the London Eye itself at 87 metres above sea level. These transition pieces are protected from corrosion by products from AkzoNobel, including its Interzone® and Interthane® ranges.

"AkzoNobel boasts a wealth of experience in coating offshore assets in both power and in oil and gas industries, therefore we were confident in our ability to offer a system that could cope with the demands placed upon steel in those conditions" said AkzoNobel's Sales Manager in Denmark. "On this project, we worked closely with Bladt Industries, who are the world's leading supplier of Transition Pieces (TPI's). They have chosen and still choose our proven products to provide the London Array and other offshore wind energy projects with long term protection".

Photography © London Array



Wind power is an integral part of the UK Government's climate change initiative; with the recognition that offshore wind power in particular has the potential to generate a significant amount of the energy needed by the UK itself in coming years. The London Array project forms part of a 7 gigawatt series of projects in the UK, which when complete will provide the energy equivalent to the needs of 7% of the UK[‡]. Supplying coatings to the London Array is the latest step in AkzoNobel's experience in the offshore wind power market. Previous work includes supplying high performance coatings to some of the world's most exciting offshore wind developments including wind farms Alpha Ventus, Greater Gabbard, Beatrice and also Ormonde, a 150MW installation in the Irish Sea.

[‡] Source: bwea.co.uk/offshore/info

* 470,000 homes powered by the output annually for phase 1 of the project

* Based on an average annual household energy consumption of 4,478kWh and site specific data indicating a load factor of at least 39%.

† Carbon calculators are based on 430g CO₂/kWh and site specific data indicating a load factor of at least 39%.



The facts on the size of the project speak for themselves...

- 1 onshore substation
- 2 offshore substations
- 100 km² offshore area
- 175 wind turbines
- 450 km of offshore cabling (export and array)
- 470000 homes powered by the output annually*
- 925000 tonnes per year CO₂ saving†

AkzoNobel