

Blyth, United Kingdom 2017 | 41.5MW

Case study

While we actively participate in developing comprehensive testing standards for wind asset solutions, the most important measure for a coating's performance is through extensive in-field operation. This is why we present one of our track records to you along with the challenges we helped overcome along with the challenges we helped overcome.

World's first float & submerged technology

Harsh North Sea conditions

Highly corrosive environment

Connecting the dots

*Image used for illustrative purposes only



Blyth Wind Farm

The first offshore wind farm globally to use float and submerge technology

AkzoNobel's market leading coatings brand, International®, will protect a small offshore wind farm 0.5 miles off the coast of Blyth, Northumberland, powering up to 36,000 homes with a total generation capacity of 41.5MW. Historically, a majority of foundation structures for offshore wind are made completely with steel. However, Blyth is the first offshore wind farm globally to use float and submerge technology. This means that the wind energy assets are supported with gravity-based foundations, which are transported by floating, which therefore made it cheaper to install as it didn't require drilling the foundations into the seabeds.



Image used for illustrative purposes only

The project

Within offshore wind, the foundation type does vary quite a bit depending on the ground conditions. Since a majority of this project has taken place in the North Sea, the gravity-based foundations are able to adapt to the harsh conditions of the sea where the water levels can reach up to 80 meters deep.

The 8.3 MW wind turbines are amongst the most powerful of their type to be used offshore. Since wind energy assets usually tend to have a lifespan of 20-25 years, it's important to stress the benefits of the protective coatings.

The location of this windfarm, the North Sea, also presented a challenge. Blyth windfarm was seen as a test case with a view to build a larger offshore wind presence in the North East coast.

Our products

The Interzone® 954 and Interthane® 990 coatings from our International® brand are making sure that Blyth windfarm's foundation pieces are kept in optimum condition, providing essential corrosion protection and long term structural integrity. Interzone 954 is ideally suited to offshore transition pieces with proven anticorrosive performance. It is a preferred choice globally and has been used across a large number of projects.

For the concrete element of the wind energy assets, Intercrete® products were applied. The technology used to coat these assets is specifically designed to suit concrete structures.

Since the wind industry began more than 40 years ago, AkzoNobel continues to set the industry standard and lead

Project details

Focus product	Interzone 954, Interthane 990
Year of project	2017
Location	United Kingdom
Project owner	EDF
Fabricator	Smulders
Project size	41.5W

the way with our extensive International® product range, which has been integral to offshore projects. Paired with technical expertise, AkzoNobel provides a 'tip-to-toe' approach, offering a range of high quality coatings for all aspects of a wind energy asset.

The results

With there being only five assets, the timeline of Blyth windfarm took place over a couple of months with completion occurring in 2017. Since it was a test project to begin with, Blyth windfarm has been in working condition for 6 years now proving the excellent lifespan of Interzone 954 and Interthane 990.

Francisco Yuste, AkzoNobel's Business Development Manager - Renewables, said: "These are products that have been used offshore for over 40 years and the reason they were chosen for this project is down to their track records.

People have confidence that these protective coatings work, last, and they have the performance required. Within offshore, there is a resistance to change so relying on products with strong track records and data behind them is crucial."

"AkzoNobel connects the dots of the industry through technical expertise and tip-to-toe solutions, and as a company, we are proud to have not only supplied coatings for Blyth windfarm but to have brought attention to an area that is right for offshore development."

Connecting the dots - unleashing the full power of wind energy.