CASE STUDY

Fueling Europe’s Largest Off-Shore Wind Farm

The Gwynt y Môr Offshore Wind Farm is a €2 billion, 160 turbine project being built by RWE nPower renewables in Birkenhead, UK. A new marina refueling facility was required to enable construction of the new wind farm.

CHALLENGE
A high-speed marina fueling facility was required to refuel the support vessels traveling to and from the off-shore construction site. The specification called for 4 refueling nozzles simultaneously dispensing at 135 lpm each, 350m away from the 100,000 litre above-ground bulk diesel storage tank on the quayside.
Due to the environmentally sensitive location of the site, the pipework system had to be entirely dual contained; a difficult challenge given the choppy water in the Mersea and the 10m tidal range.

SOLUTION
Franklin Fueling Systems helped select submersible pumps and pipework to provide the required flow rates. UPP® fuel pipelines were run from the above ground storage tank, along floating walkways, to two fuel-dispensing cabinets on the fuelling pontoon.
A TS-550 evo™ fuel management system was installed to integrate automatic tank gauging of the bulk storage tank with two separate pipeline leak detection systems for complete environmental protection and peace of mind.

RESULTS
The installed fuel system gives flow rates of 135lpm across all 4 nozzles even when fueling simultaneously. The TS-550 evo™ Fuel Management System provides 24/7 leak detection of the hydraulic fuel line, with automatic pump cut-off and safety valve closing in the event of a leak. The UPP® pipe provides complete doublewall containment of the fuel pipeline and is engineered to withstand day-to-day tidal movements and 100-year storm surges.

“"The Franklin Fueling Systems products we choose for this installation are performing exactly as required and the service they provided has proved invaluable."
Premier Group

PRODUCTS
- TS-550 evo™ Fuel Management System
- Two 2hp FE Petro™ Intelligent Submersible Pumps
- Two 350m long 110/90mm Secondary Contained UPP® pipework lines

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