



Offshore Wind Turbine Maintenance Specialist



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Project Information - Monopile Preservation

Scroby Sands Wind Farm is an Offshore Wind Farm located 1.5km off the Norfolk coast. The wind farm consists of 30 Wind Turbine Generators each rated at 2MW, mounted on monopile foundations. The Wind Farm has been operational since 2004 and is one of the UK's first commercial Wind Farms located in Great Yarmouth, which is owned and managed by E.ON from a local facility.

ABFAD Ltd won a three year contract with a one year extension to refurbish the Monopiles steelwork from grating elevation to sea level deploying rope access techniques.

Work consisted of:

1. Removing walkway gratings and davit arms in stages - one half at a time.
2. Blasting structure steelwork to SA2.5 standard to remove corrosion, profile existing coating and feathering back edges prior to coating application.
3. Spray apply protective coating.
4. Reinstall gratings and davit arm.

5. Remove second half of gratings and davit arm to expose structural steelwork.

6. Reinstall gratings and davit arm

7. Blast and coat main steelwork structure below grating steelwork, to designated sea level elevation.

Phase 1 - Structural steelwork below walkway gratings refurbished as far as Monopile collar section.

Phase 2 - Refurbish all steelwork below collar section to sea elevation.

Rope access blasting and spraying has been performed with ABFAD Ltd unique patented permanent magnet clamps in conjunction with rope access equipment. The magnetic clamps assist rope access blaster/sprayers to hold their position whilst suspended from ropes, reducing standard work norms. This technique ensures blaster/sprayers can perform their work to the highest quality due to the magnets holding them securely in position with no lost time to tie-in on each and every drop on Monopile structure.



Existing condition of Monopile steel, detailing corrosion to structural beams below gratings and main body of structure



Picture detailing severe corrosion to main steel sections below gratings



Corrosion of Monopile structure



Blasting structure by means of rope access with unique magnet system



Picture detailing all corrosion removed to blast standard SA2.5 with sound paint profiled to take new spray coating



Work in progress on Monopile with sections of corrosion removed and existing coating profiled and feathered back in preparation for spray coating



Rope access blasting to SA2.5 standard with sound paint profiled to take new spray coating



New protective coating being applied to the main structure



Close up of new protective coating, applied by airless spray unit, applied to required thickness to main structural steel below gratings



Picture detailing completed Monopile structure which has been fully blasted and protected by nominated coating from walkway grating beams to sea level, including all pipework



Completed Monopile structure after protective coating applied



Picture showing the equipment used, which was transported to the turbine on a support boat

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