

Ballybane Windfarm, West Cork, Ireland



Ballybane Windfarm

Balvac utilises its specialist Capability to repair wind turbine foundations in Ireland

Balvac utilising its experience and knowledge repaired four wind farm foundations for a major European Wind turbine manufacturer in West Cork, Ireland.

The turbines are fixed to a steel “Can” which is embedded in a heavily reinforced concrete foundation. Occasionally problems occur when water penetrates between the embedded can and the concrete foundation. The water picks up particles of grit and sand which acts as a grinding paste. As the turbine rotates the forces in the tower are transferred to the “Imbedded Can” and cause the water, grit and sand to agitate, which slowly eats away at the concrete around the base flange of the embedded can, which in turn creates voids. As these voids increase the movement in the Can and tower increase. This causes serious problems that can eventually lead to the Turbine being isolated and inoperative

The repairs entailed:

- Careful breakout of any delaminated concrete around the edge of the Can
- Precise drilling to specific angles and depths to reach the base flange of the Can

A **Balfour Beatty** Company



Photo Top : Injection packers in position

Photo Bottom Injection in progress

- Careful Injection of specialist epoxy resin around the base flange of the can and between the can and concrete both outside and inside the Tower
- Removal of excess resin and the surface preparation of concrete / reinforcements
- Application of corrosion inhibitors and concrete repair mortars
- Preparation and careful application of specialist sealants around the “Can”

Principal Contractor: Balvac Ltd

Duration: 3 weeks

Completion: Nov-2010

Value: £32,000

Balvac

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