

Lissett Airfield Wind Farm

Driving of precast piles for a new wind farm.



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The knowledge and experience of market sector leader Aarsleff and the expertise of foundation designer HCE Design Group of Hamburg, were key to successfully installing the foundation piles to support wind turbine generators at Lissett Airfield, and in particular in overcoming some of the more challenging ground conditions, which comprised of stiff clays, with overlying chalk bedrock at depth.

The RAF Lissett Airfield wind farm was once home to the respected WWII 158 Halifax bomber squadron and is now the site of a 30MW capacity installation of 12 Nordex N90 2.5MW wind turbine generators and associated anemometer masts. Remarkably, the site began generating power in February 2009 soon after piling commenced in 2008, despite the difficult geology.

Aarsleff was awarded the foundation work by the Renewables Division of McNicholas Construction Services, who constructed the wind turbines for its client Infinis Energy Holdings Limited. The contract lasted 15 weeks, with Aarsleff making two visits to the site during this period. On site, works saw Aarsleff design, install and load test 392no, 400mm square precast driven reinforced concrete driven piles with an average length of 23m each. The piles were supplied and manufactured by Centrum, Aarsleff's wholly owned subsidiary, based in Newark, Nottinghamshire.

Using its own Junttan PM26 piling rig, Aarsleff drove the piles through the clay to the chalk bedrock. With the piling valued at £573k, this high profile renewable energy project benefited from both programme and financial savings, which are the result of the vast expertise Aarsleff has gained working on many wind farm installations throughout the UK and through its Danish parent company across Europe too.

Speaking about the installation Aarsleff's Company Engineer, Bob Handley said: "Lissett was an interesting project, with some very challenging geology, but working with HCE Design Group, we were able to design a cost-effective solution that facilitated the fast installation times required to get the project up and running and more importantly generating green energy with no delay."



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Scope of Works

392 No. 400mm square precast reinforced concrete piles

Client

Infinis Energy Holdings Ltd

Equipment

Junttan PM26 Piling Rig

Construction period

2008

Aarsleff Ground Engineering Ltd, is the UK trading arm of Danish contracting giant Per Aarsleff A/S, and is one of the UK's leading piling and geotechnical design and installation specialist contractors; actively promoting early consultation to ensure each scheme can be Value Engineered to give clients the best service, quality design, safety and value. Aarsleff's strategy and philosophy of investment into the future has resulted in its wholly owned subsidiary Centrum Pile Ltd having the most advanced precast pile production facilities in the UK, producing segmentally jointed precast concrete piles to BS En12794 to Class 1A.

Contact

Aarsleff Ground Engineering
info@arsleff.co.uk
Tel 01636 611140