



CASE STUDY – LARGE SCALE WIND ENGINEERING

KEY DATA

- No. Turbines: 1
- Turbine Type: EWT500 (500kW)
- Local Authority: Nottinghamshire Council
- DNO: Western Power Distribution
- Work start: August 2012
- Commission: End November 2012
- Production: 2,000 MWh annually



COMBS FARM WIND TURBINE CLIENT: TEMPORIS WIND

Green Cat Renewables acted as Technical Advisor for Temporis Wind as they developed this single turbine site in Nottinghamshire. The project brief was given in September 2012, and it stated that critical to the success of the project was achieving full installation and turbine commissioning by the 1st December, in order to take full advantage of higher Feed-In Tariff rates.

The key elements undertaken by Green Cat Renewables were:

- Management of fast turn-around technical procurement. This included preliminary site design, assessing tender responses, and meeting prospective contractors on site.
- Taking the role of Project Manager for both the Civil Works and Electrical works, as set out by the NEC3.
- Fulfilling the role of CDM Coordinator as set out by Construction Design and Management (2007) regulations, including coordinating communications between contractors, notifying HSE, and preparing the relevant H&S documentation.
- Managing compensation events arising from a developing the scope.
- Discharge of Planning Condition. The site is located adjacent to an historic roman camp; GCR coordinated the Archaeological Watching Brief with initial civil works.

- Coordination between the electrical contractor, DNO (Western Power) and Civil works contractor to ensure the various Grid connections works could run smoothly and without delays.

- Supervision throughout construction phase: regular site visits and inspections at key points such as before foundation concrete pour. Organising testing of tracks and Hardstandings.

To achieve a three month start-to-finish development, it was recognised that any delay would be crippling. Therefore, the risks were managed in such a way that all issues that had potential to cause delay were dealt with early in the project. This required very close communication and coordination with all the relevant parties.

This sort of single, 500kW turbine development takes full advantage of the Feed-in-Tariff banding system and is a good option for smaller sites with medium wind speeds. It will generate an income for up to 25 years.

The key requirements for a project of this nature are:

- Open areas of land heavily exposed to the wind
- Proximity to an 11kV or 33kV electrical supply
- No special environmental classification
- No special restrictions on use of the land