

## *15 kW Wind Turbine RSPB Rainham Marshes Reserve, Purfleet*



The Proven 15kW ground mounted grid connected wind turbine system has been installed and commissioned by Ardenham Energy in March/April 2009. It was installed at the entrance to the RSPB Reserve in Rainham Marshes near Purfleet in Essex, after planning permission was granted by the London Borough of Havering.

The site located close to the Thames estuary will benefit from a good wind regime and complements the Solar PV and Ground Source Heat Pump already in situ within the building. The wind turbine along with the existing solar electric PV, will make the site total self sufficient in electrical energy needs over the year.

The generated power will be displayed at the visitor centre by means of a wall mounted public display, which will outline real time energy production as well as cumulative kWh and CO<sub>2</sub> savings.

The installation comprises:

- Proven 15 kW Wind Turbine
- 15 Metre Tower and foundation base
- 3 x Windy Boy 6000W inverters
- Proven rectifier and Control Unit
- G59 Marshalling cabinet for turbine and separate cabinet for solar PV
- Electrical and Mechanical installation
- Tower Foundation and cable groundwork
- G59 acceptance testing by EdF for turbine and PV.



**Ardenham Energy Ltd** is an engineering contractor certified under the UKMCS Low Carbon Buildings Scheme for grant aided projects ([www.lowcarbonbuildings.org.uk](http://www.lowcarbonbuildings.org.uk)). The company has extensive renewable energy engineering project experience and can provide a full service for wind systems, solar PV (electric), solar hot water systems, ground and air source heat pumps and backup power systems. These can be for domestic, governmental and commercial and non commercial buildings in the Home Counties and London region.

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