Gaia-Wind
GENERATING BETTER VALUE

CASE STUDY: **ECO HOUSE, LANARKSHIRE, SCOTLAND**

"Compatible with what I am doing in the house. Allows me to be totally free of oil and gas.

Together the house and turbine earn money"

Mr. Graham Taylor,
Owner, Eco House

www.gaia-wind.com

BACKGROUND

Mr. Taylor is an architect by profession. He designed his own eco house incorporating a Gaia-Wind turbine as the principal power source. The house is all electric. The under floor heating and hot water are supplied by an electric combi boiler which has a 310 litre thermal store. The house itself is insulated to a high standard and includes a ventilation heat recovery system. The site includes a garage with an office above and has a 3 phase grid connection.

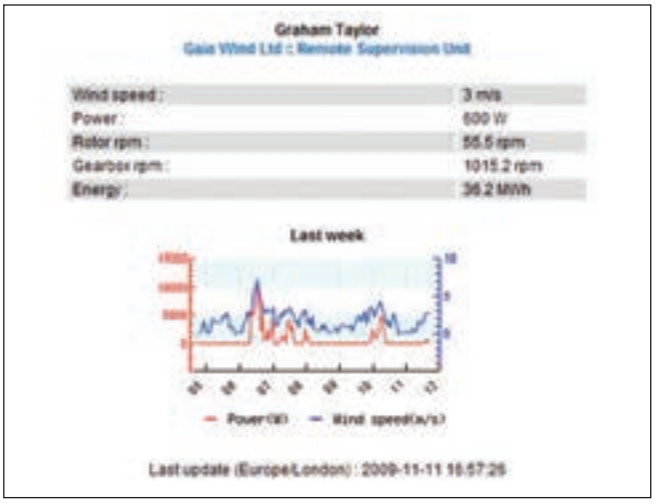
SITE CONDITIONS

The wind speed databases indicate this is a good moderate wind speed area, estimating an annual average wind speed of circa 6.4 m/s at the turbine hub height of 18m. The surrounding countryside is predominately open farmland with a few lines of trees along the field edges.

The turbine is positioned roughly 60m west of the house and has good aspects to the prevailing southwest winds. For other directions though the house and a few lines of trees compromise the wind quality and subsequent turbine production.

TURBINE PERFORMANCE

The turbine produced circa 28 MWh (28,000 units) of 'green' electricity during its first year of operation, averaging 77 kWh/day and offsetting circa 16 tonnes of CO2 production. The house and office consume 14,000 units annually so a substantial amount is exported. Mr Taylor also is registered with Ofgem for Carbon credits (ROCs). The overall result is that together the house and turbine generate a net income.



View a live monitor of selected sites
http://www.gaia-wind.com/133-11kw-turbine/live-monitor/

ABOUT GAIA-WIND

Gaia-Wind manufactures small wind turbines suitable for agricultural, rural residential and light industrial use. Our clients include working farms, educational institutions, large home owners, offices and other commercial premises.

Our wind turbines incorporate over 20 years of Danish wind industry design experience and offer control and safety features usually found only on larger, utility scale turbines.

The Gaia-Wind turbine is optimised for performance in moderate wind speed regimes (sites with a hub height annual average wind speed in the 5-7m/s range). In such conditions the large rotor allows the turbine to produce more energy than other similarly rated machines thereby offering superior project economics and return on investment.

A Gaia-Wind turbine, generating 30,000 units of green electricity per year, will offset around 17 tonnes of CO2 emissions from existing energy generation. This is sufficient to erase the carbon footprint of the average 4 person household.