



**Audit Year:** 2010

**GTBS Award:** Silver

**Business Name:** Lanyon Manor Holiday Cottages

**Business Type:** Self Catering Cottage

**Location:** Cornwall, ENGLAND

**Website:** [www.lanyon-holiday-cottages.co.uk](http://www.lanyon-holiday-cottages.co.uk)

This 5 star self catering accommodation business set in the famous Cornish countryside has three farmhouses able to accommodate large number of guests. The business has a keen interest in green energy and so commissioned Aeolus, a British company, to install a 50KW wind turbine which satisfied all the onsite electricity demands as well as being able to export surplus power to the national grid. This in turn generates an income for the business. It has been an ambitious project with many benefits.

## Environmental Benefits

The environmental benefits of the wind turbine are largely centred on a reduction in carbon emissions as wind electricity is a clean, green, renewable energy and does not release carbon dioxide or other pollutants. Electricity which has been generated by wind locally can be directly distributed to local distribution networks which reduces the distance electricity would normally have to travel, meaning fewer transmission and distribution losses, and therefore saving energy.

Although wind turbines can be very tall, each footprint only uses a small plot of land, meaning the land below can still be used. This is especially useful in agricultural areas as farming can still continue beneath the turbines.

## Green Employment

The decision to install wind energy can bring other benefits. Green energy is supporting an increasing number of jobs, both in construction and ongoing maintenance of the wind energy turbine. This brings direct economic benefits to the community which in turn allows working families to remain in the area and so helps maintain the social fabric of the community.

## Economic savings

The power output of the turbine was remotely monitored on its first day of operation and it produced 740kWh (kilowatt hours) which is estimated to be sufficient to supply power to approximately 35 houses.

**Make and model** Endurance, 50KW.

**Cost of installation** Approx. £250,000.

**Project savings** Approx. £1,500 per year on electric over a 5 year period, estimated lifetime of wind turbine is approx. 25+ years.

Note: finance available through Feed in Tariffs should reduce payback significantly.

## Web Links

Images of installation: [www.youtube.com/watch?v=qazCdYOeO5I](http://www.youtube.com/watch?v=qazCdYOeO5I)  
Aeolus Power: [www.aeoluspower.co.uk](http://www.aeoluspower.co.uk)  
Renewable Energy Association: [www.r-e-a.net](http://www.r-e-a.net)