



ENERGY PRODUCTION AT TREWORGEY

Wind Turbine



In September 2007 we installed a Proven 6 kW wind turbine. Disappointingly, we were unable to install the larger 15 kW one that was planned. This is because the mains single phase supply we have here at Treworrey is incompatible with the larger turbine which requires a three phase supply.

Nevertheless, it is very satisfying to see our 6 kW turbine flying around on a cold windy winters day, knowing that we are generating our very own electricity and further reducing our carbon emissions.

The wind turbine was our most expensive and long term investment. We don't expect to recoup our investment for around 15 to 20 years - even allowing for

some grant funding that we received. However, the length of our payback will probably improve dramatically if the energy prices continue soaring!

Treworgey's turbine has been installed 300m up the hill on the windiest part of the farm, two fields away, behind the cottages. The blades are connected to the generating head. The electricity produced is passed down the cable underground to the inverters that are housed outside the farmhouse. The inverters convert the electricity so that it is compatible with the mains. The electricity then passes from the inverters to the main meter in the farmhouse, which feeds two other cottages and the office. We normally use all the energy produced plus more from the national grid. When on occasions like a windy summer day, we are producing more than we need, the surplus passes into the national grid and the electricity company pay us for a change!

The wind turbine compliments the solar thermal well because most of the energy we generate from the solar is in the summer, where as the turbine tends to work best in the winter, especially in stormy weather when we need lots of energy for heat, a time when the solar panels are not producing.