



## **Energy Production at Treworgy**

### **Solar**

We think that Solar panels used for heating water are the most cost effective green energy.

In 2004 we installed banks of solar black plastic mats beside the swimming pool to reduce the huge amount of oil that we were burning to heat the pool. They made a big difference on sunny days in summer, but were not effective overall throughout the summer. Thus in 2007 we invested heavily replacing the mats with expensive glass solar tubes. Inside the the glass tubes are metal collectors within a vacuum. These tubes can get hot enough to fry an egg on sunny days and are still very effective on cloudy days. Solar thermal is particularly effective for heating a pool as the evacuated tubes heat large amounts of water from low temperatures. We are delighted with the tubes so far and expect to only need our oil boiler on rare occasions of wet weather throughout the summer.

In 2007 we also installed evacuated tubes on three of our cottages for domestic hot water. The collectors are capable of providing all the hot water required on sunny days in summer and will still contribute on a cloudy day in December.

We plan that more panels will therefore hopefully be installed each year until eventually all the cottages and pool have up to 70 % of hot water produced by direct solar energy. This will significantly reduce our carbon emissions.

If you are thinking of reducing your carbon emissions by producing some of your own energy, we highly recommend solar thermal for heating your domestic hot water as the most cost effective first step.



