

Retro-fit & New Build in Llanmaes, Near Llantwit Major



The owners of this beautifully renovated working farm set in a secluded area of the Vale of Glamorgan have turned one of their outbuildings into a flat with office space below. The building has been restored with careful attention to detail and adds to the gentle old-world charm of the property.

The Problem:

The owners wished to build an extension to incorporate a home cinema area, gym and swimming pool using architecture sympathetic to the current buildings. With no mains gas available on site for heating, the forward-thinking owners decided to find a more sustainable heating system than a fossil fuel boiler to help cut costs.

The Solution:

The owners approached WDS at a green fair in Brecon to find a heating solution for their project. *"I wanted the system to be as sustainable as possible so we talked over various options"* said David Harris, owner of the farm, *"An air source heat pump suited me best as I didn't really want to dig up the garden."*

A **16kW air source heat pump** was chosen for the project *"I understand that the system works very well with an under-floor heating system, and as we were laying a new floor we were able to install one which has proved to be very efficient"*.

At a later date the heat pump was linked up to heat the existing flat and office space, and fan convectors were installed as heat emitters.

The **Dimplex 16kW air source heat pump** has two heating circuits so a mix of fan convectors for the old building and under-floor heating for the gym and pool surround would not pose a problem when a retro-fit and new build needed to be catered for on the same site.

The Benefits:

"We wanted an efficient form of heating that would save as much money as possible and was a sustainable form of heating, and overall it has proved to be a very efficient system".

Both the new and old buildings are kept to a comfortable 21°C by the **air source heat pump** and are costing a fraction to run compared with a similar oil or LPG heating system.

"I took out a maintenance agreement with WDS Green Energy which is worthwhile as it gives us a bit of confidence should there be a problem." said David.

With regard to his future plans David said *"The swimming pool is currently heated with an electrical heating system but I would quite like to link the heat pump in so it would heat up the pool as well"*

