Project Case Study

Air Source Heat Pump and Solar Photovoltaic (PV) Installation, Caerphilly

Initially on an oil heating system this domestic property was difficult to heat and with fuel costs rising year on year was proving to be very expensive. The owners were looking for an alternative to these rising costs.

The Problem:
The owner of this domestic property in a small, former coal town, parish in Caerphilly was looking at ways to reduce the running costs of his property and renovating the aging heating system. WDS Green Energy were able to '*kill two birds with one stone'* and offered a solution that both upgraded the heating system with a new state-of-the-art **air source heat pump** and significantly reduced the running cost of the owners home.

The Solution:
To fully upgrade the aging heating system at this domestic property WDS Green Energy installed a new state-of-the-art **Dimplex LA 16 MI air source heat pump** system with a new more efficient hot water cylinder and retrofitted this new system to utilise the existing radiator system. The new heating system will not only ensure that temperatures inside remain nice and warm when outside temperatures are cold, but will also provide for all the hot water needs of this property.
WDS Green Energy also installed **3.5kW of polycrystalline solar photovoltaic panels** upon the roof of this domestic property. Polycrystalline panels are slightly larger than equivalent monocrystalline panels but this property had ample roof space and the costs of polycrystalline panels are significantly lower with only a marginal effect upon the output.

The Benefits:
The **solar photovoltaic array** will not only offset some of the running costs of the **air source heat pump** installed but will also generate an income for the owners under the Government Feed-in-Tariff scheme (FiTs).
The FiTs scheme pays per unit of electricity generated regardless of whether it is utilised on site or is exported back to the Grid. Money is saved as the owner needs to draw less electricity from the grid and there is a tariff paid for the 'excess' electricity which is exported back to the grid.
The **air source heat pump** system installed will provide for all the heating and hot water requirements of this domestic property and will also be eligible for Government incentives for renewable heat generation when they begin in Early 2014. The Renewable Heat Incentive (RHI) is very similar to the Feed in Tariff scheme and will pay per unit of heat generated.

WDS Green Energy
Grove House, 1 Coronation Rd,
Birchgrove, Cardiff, CF14 4QY
029 2019 0290
info@wdsgreenenergy.co.uk
www.wdsgreenenergy.co.uk