

PV Panel System at New Commercial Offices for Cardiff Architects Stride Treglown



Award-winning architects Stride Treglown are amongst the top ten practices in the UK with a turnover of £14million. Sustainability and environmentally responsible design are at the heart of their business ethos.

The company constantly reviews its carbon footprint and encourages all staff to conserve energy, recycle and used green methods of transport where possible.

The Problem:

With a sustainable ethos at the heart of their business Stride Treglown wanted to build the first 'BREEAM Outstanding' office building in the UK and they wished to incorporate solar panels to help achieve this goal.

The building design incorporated many energy saving features including a wood pellet biomass boiler for space and water heating, energy saving lighting and controls, a 'nature' roof and grey water recycling.

Energy efficiency is aided by the adoption of a highly insulated timber 'envelope' and a natural ventilation strategy together with a small PV array, but if Stride Treglown were to reach their goal of carbon neutral they would need to look at increasing their micro-renewables.

The Solution:

WDS Green Energy designed a 15.3kWp photovoltaic panel system using 64 mono-crystalline 240w panels in four rows of 16 panels. Three rows were installed on the sedum roof and the other row was fitted as a 'brise soleil' using a specially manufactured mounting system, a feature which other companies had not been able to provide.

The Benefits:

The Stride Treglown studio building became Carbon Neutral with an EPC of zero following the installation by WDS Green Energy of additional PV's. they were also able to benefit from the Feed In Tariff for the system

Stride Treglown achieved the accolade of being the first 'BREEAM Outstanding Office' at design stage in the UK with the highest score achieved of 89.12%. Already performing well with building emissions at 55% (less than 2006 Building Regulations), the office has achieved an Energy Performance Certificate from WSP Consulting Engineers of A+ or zero emissions.

Since being built Stride Treglown has achieved many construction awards such as Constructing Excellence Wales Demonstration Award 2011 and BCO regional Award Estates Gazette Sustainability Initiative of the Year 2011.

