



# EDINBURGH'S TELFORD COLLEGE LEADS THE WAY TO ENERGY SELF-SUFFICIENCY

Edinburgh-based Telford College has completed the first phase of an ambitious energy programme, designed to lead the way in energy self sufficiency. Completed at the end of July, the “green” programme involved the installation of a 50kWp PV system at the college’s main campus building on West Granton Road, Edinburgh. This installation is to be followed by subsequent programme phases that bring together a mix of mature and emerging low carbon technologies.

Telford College’s low-carbon efforts will not only lower energy costs and CO<sub>2</sub> emissions for the college but place it at the forefront of renewable energy teaching institutions. In addition to the opportunity for its students to have hands-on practical experience Telford College intends to become a hub of learning about renewable energy applications in the built environment for others in the construction industry including architects, designers and engineers.

The overall project is headed by John Laing, the college’s Business Senior Manager in Construction and Renewables and is being designed and implemented in collaboration with iPower Energy – a low carbon developer – and Heriot Watt University’s School of the Built Environment. The use of this team brings together experts who can advise on the appropriate energy mix that will balance the college’s

aim for self-sufficiency in energy generation with its desire to create learning opportunities for students and the wider community.

Subsequent programme phases are likely to include a mixture of solar PV, solar thermal, the introduction of LED lighting and measures to “green” specific facilities such as the hairdressing salon. Other emerging technologies, such as fuel cell CHP, are also being explored.

The first phase was project-managed by iPower, which has a mandate to optimise financial returns to property owners and uses part of its profits to address climate change and fuel poverty. Where necessary, iPower can help clients to overcome the financial barriers that restrict technology uptake by facilitating access to third party project funding.

Central to Telford College’s decision was the preparation of a tailored business case which used current energy consumption figures to reflect the payback period for the proposed installation (around 10 years from a combination of FiT revenue and reduced energy consumption for a 50KW system). Since 50kW was also the maximum that could be installed without planning permission the college chose to maximise its returns by going for this option. The entire procurement process was handled in a 10-day period to ensure that the installation could be completed before the July 31

feed-in tariff deadline. The installation was carried out by Sundog Energy, which has considerable experience of handling large-scale projects.

“This is a great day for our college. Not only are we moving towards becoming a greener college but the installation will provide the opportunity for students on our construction courses to combine practical learning with theory. We believe that this is one of the largest demonstration solar panelled roof in Scotland and we will continue to strive to be an exemplar for renewable energy. Both students and visitors to the College will be able to see how much energy we are generating through our data logger based in the main reception area. The display screen will also reflect the CO<sub>2</sub> emissions saved by the college through the use of the panels,” Laing explained.

In addition to the monitoring carried out by the College all panels will be remotely monitored by Sundog to check that they are performing optimally. ■

## Project Specifications

**Location:** Edinburgh

**System size:** 50kW

**Project design:** iPower

**Installer:** Sundog Energy