

Round 15 accepted projects

London

Palestra House, Blackfriars – London Climate Change Agency

A new purpose built office development is planned in a high profile area of central London. As one of the tenants of the new building, the London Climate Change Agency requires that renewable energy is generated on or within the building. It is intended to integrate the installation programme of sustainable technologies with the existing construction plan. The building itself will have a minimum of a BREEAM Good rating and it is proposed to fit micro wind turbines alongside highly efficient mono-crystalline photovoltaic arrays mounted on the roof. Not only will the technology be highly visible from notable London sites but it also promotes the opportunity to align the installation of renewable technology with the main construction programme of a new build to gain time and cost benefits.

Size funded: 63.65 kWp
Modules: BP Solar BP7190 Mono-crystalline
Installer: Solar Technologies

Winston Way School – London Borough of Redbridge

One of two Ilford 'extended schools' planned for construction by September 2007 will incorporate sustainable features in its design whilst serving the surrounding community. The Winston Way School is located on a busy route around Ilford and will feature a prominently displayed roof mounted photovoltaic array. The array, made up of bolt-on poly-crystalline modules, will provide 30.36 kWp of carbon free energy to the school. Promotion of renewable technology within the community will be enhanced under the 'progressive Ilford' regeneration plan and the system will be highly visible to the surrounding community.

Size funded: 30.36 kWp
Modules: Schuco S165-SP Poly-crystalline
Installer: Solar Green

Porters Avenue Health Centre, Dagenham – Barking and Havering LIFTCo

As part of the NHS' LIFT programme a new one stop health centre is planned to be built. The project has set a target of 5% renewable energy production. The new build will achieve this through the installation of a highly efficient photovoltaic array made up of mono-crystalline modules. The array will produce 23.94 kWp and it is estimated that it will provide an annual saving in CO₂ emissions of 7,507 kg. Supporting this project not only supports the NHS' willingness to embrace renewable technology but enhances the chances of replication across the UK.

Size funded: 23.94 kWp
Modules: Suntech STP210S-18/Up Mono-crystalline
Installer: Solar Century

Ashwin Street – The Bootstrap Company

The Bootstrap Company is a development trust and charity committed to improving the social, economic and physical environment in some of Britain's most disadvantaged areas. The renovation of The Print House in Dalston, which houses local small and medium enterprises along with community and voluntary sector groups, consists of an additional level to the building and a new roof. The new roof is being designed to include the photovoltaic installation, comprising Sanyo 210 watt modules. These are the most efficient on the market and will be oriented to the South on the flat roof for optimal performance. The Print House's central location and close proximity to two main roads makes it an ideal site to demonstrate the feasibility of renewable energy generation in an environmentally deprived area, and is intended to encourage other developers to follow this example.

Size funded: 25.2 kWp
Modules: Sanyo HIP201NHE1 Hybrid-crystalline
Installer: Solar Century

Regent Street, London – The Crown Estate

Three different types of solar PV modules are going to be installed on this building. A standard array will be bolted to the flat roof of the building, solar tiles will be installed on the south facing façade and glass/glass modules will be installed into the roof lights. This is part of a wider restoration of Regent Street and this block is being completely redeveloped by the Crown Estate. At the heart of London's West End, this is one of the most prestigious developments in the UK. The photovoltaic technology will be a public demonstration of the Crown Estate's commitment to environmental and social sustainability. It will also demonstrate how PV can be successfully incorporated into historic buildings. Some 10,000 people work on Regent Street and many thousand more visitors and tourist pass each day. The threshold for a BREEAM 'Excellent' rating has been surpassed.

Size funded: 10.72 kWp
Modules: Sanyo HIP201NHE1 hybrid-crystalline, SunPower mono-crystalline, Romag glass/glass
Installer: Solar Century

Avenue Road, Erith – The Mayor & Burgesses of London Borough of Bexley

Erith School in Bexley specialises in sports, mathematics and computing and caters for eleven to eighteen year olds. A landmark project, which won the Building Magazine Sustainability Award in 2005 for innovation will use fully integrated C21 Sunpower roof tiles which will be installed in a dormer-style roof. The value of this development will be enhanced with other features to include rain water harvesting, sunpipes and ground source heat pumps. The PV system will allow the pupils and the local community to learn about solar power. Its prime location close to a shopping centre and busy bus route will all help raise awareness of this scheme. The Bexley Local Education Authority are responsible for a further 77 schools; this project would act as a blueprint of what can be done.

Size funded: 9.36 kWp
Modules: Solar Century PV-C21-MK2 Mono-crystalline
Installer: Solar Century

South East

The John Wesley Primary School, Singleton – Diocesan Board of Education

The ecumenical primary school, which is on a Greenfield site, will serve as a centre for the developing community at Singleton, Ashford. Adjoined by two sites being developed by Ashford Borough Council, the school will form part of a fully integrated environmental complex, providing greater interaction with this newly created school. The readily visible, fully integrated PV array will be combined with a traditional roof covering. With an information display at the entrance to the school this is an excellent site to promote renewable technology in an educational surround and within a specialist religious school.

Size funded: 10.80 kWp
Modules: Redland SRT40 Poly-crystalline
Installer: Sundog

Manor Farm Road, Reading – St James Homes

For the first time in the UK a major developer is offering customers a package of eco-options for their new homes. Over 11 years, 2 100 of these eco-homes will be built with options including photovoltaic power, solar thermal, wind power and grey water harvesting. The photovoltaic option will be in the form of roof mounted high efficient mono-crystalline solar tiles. In this phase, the total power of the 50 arrays will be 52 kWp, with each array producing 850 kWh per year. This project is a landmark proposal that brings renewable technology to home owners on a large scale, giving people the option of embracing sustainability in the UK. It should stand as an exemplar project to all developers for the future with massive scope for replication.

Size funded: 52 kWp
Modules: Solar Century C21-M52D Mono-crystalline
Installer: Solar Century

B&Q Warehouse, New Malden

As the B&Q brand moves to strengthen its position as a forward thinking and socially responsible organisation, its newest store will feature a photovoltaic installation. B&Q aim to dramatically reduce their eco footprint by using the most efficient technologies available in their new store. In addition to the 19.44kWp solar array, the site will also feature a vertical axis wind turbine to produce natural 'green' energy. The new building will replace the existing warehouse and will incorporate a new residential area, unit shops and underground car parking facilities.

Size funded: 19.44 kWp
Modules: SunPower Mono-crystalline
Installer: Solar Century

South West

The Health Centre, Dorchester – Brewery Square Ltd, A Waterhouse Company

The Masterplan for the Dorchester Brewery Site includes the development of 500 dwellings, a hotel, an Arts and Conference Centre and the new Health Centre. As an important part of the Masterplan philosophy, the Health Centre will provide the local community with significant input to the culture and commerce in the town. The photovoltaic system will be integrated into the flat roof and will act as a focal point for the community. This project will act as a catalyst for future developments.

Size funded: 19.6 kWp
Modules: RWE Schott & Romag ASE160 & Powerglaz Poly-crystalline
Installer: Solar Technologies

Westerleigh Business Park – O2 (UK) Limited

O2 have proposed the installation of a 30 kWp photovoltaic array on their Yate Switch Facility to help reduce their energy demands and carbon emissions. They will be utilising bolt-on Sanyo hybrid-crystalline pv modules. This project provides a chance to involve a major telecommunications company in the promotion of renewable technology with scope for replication on their numerous facilities and stores around the country. It also stands as an excellent test of emerging photovoltaic technology.

Size funded: 29.52 kWp
Modules: Sanyo HIP205NHE1 Hybrid-crystalline
Installer: Sunpowered Energy Systems

North East

The St Stephen's Development, Ferensway – ING Real Estate, Hull

This exciting redevelopment covering 40 acres in the city centre of Hull will become an iconic symbol. The modern and original complex will be surrounded by a large transport interchange and various entertainment facilities, making this development easily accessible. The facilities will be open 24 hours a day, 365 days a year providing excellent opportunities for trade and leisure. The customised photovoltaic arrays will consist of a series of mounted panels and will be clearly displayed in the main car park along with an array facing the busy public transport intersection. The intended installation will be connected to a large visual display which will be situated at the main pedestrian entrance to the centre becoming a magnet for public interest.

Size funded: 42.52 kWp
Modules: Sanyo & Unisolar HIP201NHE1 & ES-62 Hybrid-crystalline & Thin Film
Installer: Solar Century

North West

Burrowgate, Penrith – Penrith Co-operative Society

A century old landmark store in central Penrith plans to incorporate numerous sustainable features into a much needed refurbishment. Key among these features is the installation of a poly-crystalline photovoltaic array integrated into a pitched tile roof. This will be combined with a display unit that demonstrates the array's performance over time. Other features include: improved insulation, double glazing, heat exchangers, 'brise soleil' canopies to minimise heat gain in summer and an improved entrance design to minimise heat waste. They will also install roof mounted wind chargers and facilities to recycle rain water. This site demonstrates how renewable and sustainable technology can be incorporated into historic Edwardian buildings.

Size funded: 9.9 kWp
Modules: Schuco S165-SP Poly-crystalline
Installer: Sundog

Bridgford Street - Manchester University

The University of Manchester is the largest single-site university in the UK. It boasts an international standing for academic excellence and cultural diversity. The new building will combine the School of Sciences and the School of Environment & Development in one construction. The photovoltaic arrays consisting of 196 panels will provide a total of 41.16 kWp and will be mounted onto the large flat roof of the building. The PV array will provide an appropriate case study for the School of Environment & Development using pioneering software to monitor the power generated by the system. The building will be situated in a prime location therefore exposing many people to the planned technology.

Size funded: 41.16 kWp
Modules: Sanyo HIP210NHE1 Hybrid-crystalline
Installer: Solar Century

Northern Ireland

High Street, Omagh, Co. Tyrone - Omagh Arts Centre

The Omagh Arts Centre and Riverside Regeneration Project include the development of an integrated modern arts centre, which will provide a range of performing and visual arts facilities. This flagship project which serves the entire Omagh District Council area will play a vital role in developing community relations. The photovoltaic system will be mounted over the south easterly pitched roof of the building. The high profile of this building will without doubt encourage local interest and awareness in renewable energy generation.

Size funded: 15.99 kWp
Modules: Sanyo HIP205NHE1 Hybrid-crystalline
Installer: J A Graham



Scotland

Isle of Eigg - Eigg Electrical Limited

The Isle of Eigg currently relies on diesel generators for power. The Isle of Eigg Heritage Trust along with Eigg Residents have opted for the installation of a mains system. A subsidiary company, Eigg Electrical Ltd has been created to operate and maintain this system which will supply dependable and affordable electricity to all properties on the Island. Power generation will be created from a number of renewable sources supported by diesel generation to fashion a reliable and inventive power supply. The freestanding photovoltaic array will be located near the power house, an opportune location for monitoring the PV performance.

Size funded: 29.7 kWp
Modules: BP Solar BP3165S Poly-crystalline
Installer: Wind & Sun