

SOLAR PHOTOVOLTAIC PANELS SERVITE PRIORY AT BENBURB

Background:

The Servite Priory in Benburb was one of the first PV installations in Northern Ireland to be funded through the DTI Solar grant and the NIE top-up grant. Under the scheme, the Priory received 50% funding from DTI and 25% from NIE top-up, both portions paid by Energy Saving Trust who are managing the project.

The 5kWp system will produce around 4,000 units of electricity each year, which will reduce the Priory's electricity bill, as well as reducing the amount of carbon dioxide emitted into the atmosphere. The poly-crystalline panels are grid connected. They are embedded in concrete in a field alongside the 19th century Priory.



Kirk Archibald, Energy Saving Trust, with Father Chris O'Brien at Servite Priory, Benburb – April 2004.

How does it work?

Photovoltaic means electricity from light. A PV cell is a small energy conversion system that converts the sun's energy directly into electricity. The conversion is achieved by utilising the properties of semi-conducting materials, such as silicon, which release electrons when exposed to light. When daylight strikes the specially designed PV cell it creates an electric field across two or more layers of silicon and generates an electric current. The electricity is passed through an inverter to convert it from DC to AC. The electricity can then be used in the normal way in the house for powering lights and appliances.

Cost:

Overall cost £35,250. Energy Saving Trust grant £15,000, NIE grant £7,500.

Useful Contacts:

www.solarpvgrants.co.uk
www.actionrenewables.org

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