

SOLAR PHOTOVOLTAIC PANELS (PV) DWELLING AT BALLYCUTLER, CO DOWN

Background:

Downpatrick homeowner Isobel Hood applied to the Energy Saving Trust Solar grant to install 3kWp of PV on the south facing roofs of her home. This will be sufficient to produce around half of her annual electricity needs, and Isabel is looking forward to reduced energy bills in the future. " I could not have afforded the true cost of the installation without the grants from the Energy Saving Trust and NIE. I feel that I'm doing something positive for the environment by substituting some fossil fuel use with solar power".

Kirk Archibald of the Energy Saving Trust visited Isabel in April 2004 to see the system in action. He said " The beauty of a photovoltaic system is that you don't need a sunny climate for them to have a significant impact on a household's energy costs. Even on cloudy days in Northern Ireland there is a huge amount of diffused light in the atmosphere and photovoltaic cells still generate electricity. We welcome NIE's proactive promotion of renewable energy sources and hope more homeowners will adopt alternative energy sources in the future".



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 £20,942. Energy Saving Trust grant £10,471, NIE grant £5,236.

Useful Contacts:

www.niesmart.co.uk

www.solarpvgrants.co.uk

www.actionrenewables.org

Supported by:



Inverter display panel