

Photovoltaic (PV) – Ballyearl Arts & Leisure Centre

Newtownabbey Borough Council

Background:

Ballyearl Arts and Leisure Centre is a unique location where sports and arts meet recreation.

The Courtyard Theatre is set in the beautifully landscaped gardens of Ballyearl Arts & Leisure Centre. The Courtyard officially opened in January 1993 and was built as the name suggests in the courtyard and stable area of Burnview House.

The Courtyard is home to Newtownabbey theatre group, Theatre 3, and a plaque listing their many productions is on display in the main auditorium.

The System

The PV's comprise 26 x Sanyo modules and have been completed with 190 modules.

The total peak output of the PV's is 4.94 kW and the estimated total power produced annually is 4,450 kWhrs. This would typically provide power for;

- 167,000 slices of toast
- 243,000 cups of tea
- Total power for 1.5 three bed houses
- Lighting for 7.5 three bed houses
- Save 1912 kg of CO2 emissions



How does it work?

The word photovoltaic means electricity from light. A PV cell is a small energy conversion system that converts the sun's energy directly into electricity.

This is achieved by making use of the properties of semi-conducting materials, such as silicon, which release electrons when they are 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.

Cost:

The Energy Saving Trust contribute 50%* of the costs; NIE contribute a further 25%* leaving local authorities to pay approximately £7,500 for the high efficiency Sanyo system that has a 25-year guarantee. This is a unique PV offer for local councils enabling benefits of both bulk discount and a 75%* grant (from NIE and EST).

*Based on the current maximum contribution per kWp.

Useful contacts:

www.niesmart.co.uk
www.actionrenewables.org
www.solarcentury.co.uk
www.est.co.uk

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