

# Photovoltaic (PV) – Bangor Sportsplex

## North Down Borough Council

### Background:

This International Sporting Centre of excellence was opened in 1997 at a cost of £4 million. Facilities include two astro-turf hockey pitches, two grass football pitches and a superb eight-lane international athletics track. The Pavilion houses excellent shower facilities and toilets, including a restaurant and a bar. There is wheel chair access and full changing rooms and toilet facilities for the disabled.

### 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 1.9 tonnes of CO<sub>2</sub> 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 will contribute 50%\* of the costs; NIE will contribute up to 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](http://www.niesmart.co.uk)  
[www.actionrenewables.org](http://www.actionrenewables.org)  
[www.solarcentury.co.uk](http://www.solarcentury.co.uk)  
[www.est.co.uk](http://www.est.co.uk)

### Supported by:

