



**Hambleside Danelaw Ltd**  
**Ecobuild press release – 27 February 2009**

### **Market-first micro-generating rooflight launched by Hambleside Danelaw**

Queen's Award winner Hambleside Danelaw is launching at Ecobuild 2009 the first insulated GRP rooflight to feature micro-generating photovoltaic cells.

The new Hambleside Insulator Photovolt rooflight will deliver for the end-user:

- micro-generation of electricity that can feed into the national grid
- enhanced natural daylighting within a building for a better working environment and
- high insulation levels to reduce energy costs.

Designed in partnership with Solar Source Ltd, the latest rooflight in Hambleside's Insulator range is ideal for use in industrial buildings, warehousing constructions or retail outlets and is easily installed into an in-plane roofscape using traditional roofing methods.

Each linear metre of rooflight panel is capable of producing 46kWh/ann of electricity and Hambleside Danelaw believes that there will be significant financial benefits to selling the micro-generated power through the national grid especially when feeder tariffs are introduced in the UK on a uniform basis during 2009. This will offset capital costs and the building occupier can also reduce energy costs through direct use of the electricity.

The British roofing products manufacturer, which has won numerous environmental awards as well as being renowned for its innovation, is convinced that the Insulator Photovolt rooflight offers a highly competitive alternative to standard over-roof PV panels that come with the expense of high installation costs but without the added benefits of natural daylighting and thermally efficient insulation.

The new rooflight will be available with insulated U-Values as low as a market-leading 0.8W/m<sup>2</sup>K and far inside the Building Regulations' minimum requirement. The translucent honeycomb core of the Insulator range has a dramatic effect on the natural light within a building, as it improves both the level and distribution of light, so reducing the effect of glare and shadow and enhancing the working environment.

Insulator Photovolt also scores high on sustainability because the cellulose acetate material within the honeycomb core is manufactured from a sustainable source and may either be recycled at end of life or composted.

Robin Jeffery, Hambleside Danelaw's vice chairman, said: "Micro-generation, enhanced natural daylight and unbeatable insulation mean that the Hambleside Insulator Photovolt rooflight provides a unique and compelling answer to specifiers looking for the ultimate energy-saving solution in a market where cost reductions are a major priority."

Hambleside Danelaw expects the Insulator Photovolt rooflight range to be available for delivery from the third quarter of 2009. The company will work with the building designer at the initial design stage in order to optimise the use of the product. This will cover the intended use of the generated power, supporting equipment and the requirements for the electrical installation.

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Contact Aidan Relf on 07710 305182 or [marketing@hambleside-danelaw.co.uk](mailto:marketing@hambleside-danelaw.co.uk)

#### Notes to editors

##### 1. About the Hambleside Insulator Photovolt rooflight

The Hambleside Insulator Photovolt rooflight incorporates a micro-generation power supply system that will contribute to energy costs through direct use or through tariff feed-in to the national grid. Each linear metre of rooflight panel is capable of producing 46kWh/an. In respect of a typical industrial building of 5,000m<sup>2</sup>, the installation of Insulator Rooflights could provide:

- For the south facing elevation: 500m<sup>2</sup> of Insulator Photo Voltaic Rooflights generating approximately 22,950 kWh/an, whilst still contributing to the natural daylight levels of the building
- For the north facing elevation: 500m<sup>2</sup> of thermally efficient Insulator rooflights.

On the south facing elevation the PV rooflights will be set out in a checkerboard pattern to optimise the spread of natural daylight and the micro generation.

The photo voltaic cells are laminated within the assembly and situated directly under the weather sheet. The wiring is directed through the insulating core to a sealed plug socket located on the liner panel on the underside of the unit. This plug is a simple male/female connector into which the wiring, linking the 'chain' of rooflights, is inserted. The wiring stage takes place when the roofscape is completed. The photo voltaic cells are 'live' from the moment of installation, i.e. no switching on or off is required. When the wiring connection to the chain is complete the generated DC power is collected and may be converted to AC for use within the building or fed in to the national grid through the local power supplier.

For installation, no modification or strengthening of the roof purlins is necessary. The average weight of a linear metre PV rooflight assembly is only approximately 8kg. Each PV rooflight section is installed in the same way as a standard factory assembled insulated panel.

The Insulator rooflight range offers elemental U-Values from 0.8W/m<sup>2</sup>K to 1.2W/m<sup>2</sup>K depending upon the required core thickness. The cellulose acetate honeycomb core is available in depths of 40mm or 80mm.

##### Cost comparison with standard over-roof PV panels

Standard over-roof PV panels are expensive with high installation costs. For example the typical kWh/an output of electricity produced per annum, per square metre, from a standard solar over-roof system would cost £6.90\*. This compares to the triple-function rooflighting system where the cost per kWh/an is £4.60\*. The rooflighting system generates not only a saving of 33% of the capital cost but also the added benefits of natural daylighting and thermally efficient insulation.

\* Calculations are based on a) the assumption that a completed standard solar system costs £700m<sup>2</sup> with a yield of 102 kWh/an; and b) the PV element of the rooflighting system with a yield of 46kWh/an costs £212m<sup>2</sup>.

## **2. About Hambleside Danelaw Ltd**

Details about Hambleside Danelaw, which won the Queen's Award for Enterprise: Innovation in 2006 for the Insulator GRP rooflight, and the company's roofing product range are available at:

[www.hambleside-danelaw.co.uk](http://www.hambleside-danelaw.co.uk). Hambleside Danelaw (**stand no. 2375**) is launching four new products at Ecobuild in London on 3-5 March 2009 ([www.ecobuild.co.uk](http://www.ecobuild.co.uk)).