

**FUNDS FOR RENEWABLES - BUT NOT ENOUGH**

The DTI has unveiled a £30m funding package, entitled 'Low Carbon Buildings', intended to increase uptake of technologies such as solar cells, biomass, and small-scale wind turbines. This means that there will, after all, be no gap in funding between the Major Demonstration Programme for photovoltaics, and the Low Carbon Buildings Programme. Industry has given a mixed reaction, with disappointment that the sums are less than in previous years. Britain lags behind many European nations in the use of renewable power. The Low Carbon Buildings fund replaces two previous government schemes, the Clear Skies and Major PV Demonstration programmes, which have disbursed about £43m over the last four years.

**NEW ULTRA THIN SOLAR CELLS**

The Californian creators of new ultra-thin nanocrystal solar cells are heralding their invention as the leading contender in the race for future dominance of the solar market, arguing they have several advantages over the betting man's current favourite, organic cells. Researchers at the University of California have developed the first ultra-thin solar cells made entirely of inorganic materials which they claim gives the technology the cutting edge over its competitors. Such cells have been a theoretic possibility for some time but the American team's prototypes are the first to have been produced. Ian Gur, principal author of a paper on the research published in journal Science, said the cadmium-based cells would be as cheap to produce as organic equivalents but would be more durable.

**MINISTER DECLARES NUCLEAR POWER 'RENEWABLE'**

Nuclear power is a renewable energy source, a government minister has declared, indicating a growing acceptance that future energy sources will have to be nuclear. In a debate on energy security in the House of Lords, Lord Sainsbury of Turville, the Science and Innovation Minister, was asked whether he would reclassify nuclear as renewable energy. He said: "it clearly is so." Lord Sainsbury's declaration recently provides more evidence that the anti-nuclear stance of the government is shifting in response to mounting concern about an emerging energy deficit. A decision to reclassify nuclear as a renewable source of energy would have dramatic consequences. Nuclear generators would be exempted, like wind turbines, from the Climate Change Levy.

# Earthship Brighton gets power

October was a milestone in the Earthship Brighton project. All of the utilities were 'connected' up. The Earthship now has power, running water and waste services from the sun, wind and rain.

Earthships are 'low carbon' passive solar homes and workspaces, built using waste car tyres and many other reclaimed materials. They are in harmony with the planet's natural systems - using the sun's energy and rain to provide heat, power and water. Earthships have evolved as affordable homes, which people and communities can build for themselves. In essence, they are independent buildings that generate their own heat and power with a low global warming impact and low maintenance costs.

The Earthship Brighton is a community project building the first full scale earthship in the UK. All electricity and water heating needs in Earthship Brighton are provided by a 20kW portfolio of renewable energy sources. These are: a 1.116kW Unisolar photovoltaic array - 18 x 62W solar electric panels; 900Watt Whisper H40 Wind Turbine; 15kW wood pellet boiler and a solar thermal heating system.

As the Earthship is completely off-grid it requires its own battery bank - electricity is stored in 40 Trojan lead acid batteries. This storage is enough for 11 days capacity at around 4.2kW of electricity usage a day.

Southern Solar, a renewable energy company, accredited by Clear

Skies, the DTI's initiative to promote renewable technologies, carried out the installation. Howard Johns the Managing Director of Southern Solar commented that "It has been very exciting to be involved in the construction of the Brighton Earthship, it's a great showcase for renewable technologies. We hope that people will look at the Earthship and be inspired to make their own home more sustainable."

The entire cost of the installation was £35k, and this was covered by various grants including EDF Energy's 'Green Fund', the DTI's 'Clear Skies' Program and the Energy Saving Trust's 'Major Photovoltaic Demonstration Program'.

The next task on this community project is for a small team of volunteers to build the grey water planters. The planters have recently been lined with a TPO membrane, Flagon EP/PR, donated by Flag UK and are now waiting to be filled with rocks and sand prior to planting. All water treatment in the Earthship is with plants.

The Low Carbon Network has built Earthship Brighton as its first initiative and when completed, it will act as a community centre for Stanmer Organics, a land use co-operative. The Low Carbon Network was set up to help sow the seeds of environmentally conscious building and supports any community groups as well as self-builders. *Mischa Hewitt*



Earthship Brighton:  
[www.lowcarbon.co.uk](http://www.lowcarbon.co.uk)  
07974 122 770.

Southern Solar:  
[www.southernsolar.co.uk](http://www.southernsolar.co.uk)  
0845 456 9474.

## Sustainable Designer of the Year announced

Sheppard Robson has been named Sustainable Designer of the Year at the inaugural Sustainability Awards organised by Building magazine. The award recognises the commitment of a design practice to lead and promote sustainable design within the built environment. On presenting the award Michael Portillo said it was a 'unanimous decision' on behalf of the judges.

Alan Shingler, director of sustainability at Sheppard Robson said, 'We are absolutely delighted, this is a really important award for us. Sustainability is incorporated into the design and construction of all our projects and informs all our business processes. It is central to everything we do within the Practice and this recognition is fantastic.'

Sheppard Robson has implemented sustainability by using an environmental management system (EMS) led by a dedicated group of experts within the practice. This system enables the practice

to implement sustainable issues at the concept stages of a project encouraging consultants on the design team to influence and solve environmental issues early in a project life cycle. 'Sheppard Robson like to talk sustainability from the minute the client walks through the door', commented the judges.

Sheppard Robson is also at the forefront of environmental legislation and technological developments, leading and collaborating on research and development projects, partnering with key industry bodies.

The award also recognises in-house commitment to sustainability issues through initiatives which improve staff welfare, comfort and control of their environment. Sheppard Robson's offices in London and Manchester are located close to public transport, incorporate secure cycle storage and shower facilities, and regular fitness and team sports are supported. Energy use within the offices is monitored on a monthly basis and all consumables are bought from fair trade sources.