

Summer 2007

# SESI news



**Welcome** to the first newsletter of the recently re-established Solar Energy Society of Ireland. SESI was first founded in May 1976 but was declared inactive in 1996 but due to renewed interest in the renewable energy area, the society was re-established in 2006 and we are currently building our membership profile.

We would like to take this opportunity to extend a warm welcome to all new members, especially our new corporate members DCU and DIT. We'd like to encourage other organisations to join under our corporate membership scheme. If you are interested in joining us, as an individual or corporate member, please contact us at [SESIreland@gmail.com](mailto:SESIreland@gmail.com).

If members would like any articles or information on upcoming events publicised in future newsletters, please feel free to contact the editor at [SESIreland@gmail.com](mailto:SESIreland@gmail.com). We would also like to include sections on recent developments in renewable energy technologies and energy issues in Ireland, or anything members would like to bring to the attention of readers.

## Storing Wind Energy-Ireland leading the way.

Sorne Hill, Inishowen, County Donegal is the location of a 32 MW wind farm, one of the largest in the country. What distinguishes this project from others around Europe is the energy storage technology due to be installed, which will lessen the problem of intermittency inherent in wind energy production. The 12 MWh energy storage system, developed by VRB Power Systems in

Canada, is the first large-scale system of its type to be installed, and is the largest of its type anywhere in the world. When the storage system is installed, Sorne will be able to provide a steady power supply whether or not the wind is blowing. It has been decided to employ a storage system capable of supplying 2 MW over a period of 6 hours. Tadbury, the windfarm management company, plans to expand the storage capacity depending on results of initial performance testing.

The VRB technology can store power when the wind is blowing

and release it again when it drops, as well as being able to discharge continuous power while simultaneously charging. Power stored during a windy day can be released hours later or weeks later. As described in reFOCUS magazine, the technology is "effectively a larger, environmentally benign version of a rechargeable battery". Further details on this exciting new technology can be read in reFocus magazine (December 2006).

## Recent planning exemptions for micro-renewables

“Renewable energy provides opportunities to address climate change, ensure security of supply and promote sustainable development. Through the new planning exemptions which I have made recently, this Government has taken **another step on the road to a Green Energy Revolution.**” - previous Minister for the Environment, Heritage and Local Government, Dick Roche. The exemptions referred to apply to wind turbines, solar panels, heat pumps and biomass and are designed, according to Roche, “to enable the

planning system to help expand the use of renewable energy.”

The exemptions from planning permission cover solar installations up to 12m<sup>2</sup>, or 50% of total roof area, whichever is less. Free standing panels up to 12m<sup>2</sup> are also exempt subject to certain location requirements. Wind turbines of less than 10 m mast height and 6 m rotar diameter are exempt, subject to noise level restrictions (<43dbA at the nearest neighbouring inhabited dwelling) and to location requirements. Building mounted turbines are not exempt but permission may be applied for in the normal way. The exemptions, in full, are listed on the department website; [www.environ.ie/en/DevelopmentandHousing/PlanningDevelopment/Planning/News/](http://www.environ.ie/en/DevelopmentandHousing/PlanningDevelopment/Planning/News/)



12.5 kWp system at Newbridge Silverware, commissioned by Coolpower in April 2007, part of 30 kWp in total at the site.



## Solar Photovoltaic Energy - Bringing the solar power revolution to Ireland.

John Walsh welcomed SESI to Cork on May 29<sup>th</sup>. At the meeting, held in the Lifetime lab, Xavier Dubuisson from Coolpower Ltd. gave a very informative presentation on solar photovoltaic systems in Ireland and the presentation was followed by lively discussion. Xavier's talk highlighted both the environmental and economic benefits of PV installations in Ireland. The presentation slides will shortly be available on the society website. Coolpower Ltd. design, supply and install photovoltaic systems and you can visit their website at [www.coolpower.ie](http://www.coolpower.ie).

## New PV Installations and Solar Monitoring Facilities in DIT

Researchers in DIT, Kevin Street are in the process of installing PV panels with total power output of 1kWp. (picture top). Datalogging equipment will allow continuous monitoring of the rooftop PV and of the solar thermal panels previously installed. More details, with initial performance results, will be available in the next issue and it is expected that a site visit will be organised for Autumn 2007.



## Upcoming Events

### June 25, "What about Solar Energy?", Trinity College

Prof Daniel Nocera, professor of energy in MIT, will deliver a lecture and lead a discussion on how the sun may answer our future energy needs. Prof Nocera's presentation on his work and on renewable energy is aimed at a general audience. It will be followed by a discussion involving an invited panel, including Prof Vincenzo Balzani of the University of Bologna, Dr Padraic Larkin of the EPA, and Prof Michael Graetzel. It takes place in the Burke Theatre, Trinity College, Dublin at 4.30pm on Monday 25th June. The presentation is free but must be booked in advance at [www.ria.ie](http://www.ria.ie).

### July, SESI meeting - DCU.

All members are invited to the next meeting to be held in DCU in early July. Members will be notified of the date and time by email.

### June 18-25, "Sustainable Energy Courses in Munster". Information Display, Cork Central Library.

An information display, detailing all the courses available in Sustainability and Energy in the Munster Region, including two new courses from Cork Institute of Technology, was held at the Cork County Show (16<sup>th</sup>-17<sup>th</sup> June). The display will be on show in the Central Library, Cork, over the week 18-25th June. The aim is to provide a central information point for sustainable energy courses in the Munster area and to help establish collaboration between centres of education covering the topic.

A ten week Introduction to Sustainable Energy Systems course is now available at CIT. The course includes sessions from visiting specialists who have direct experience of installation, economic, planning, and operational issues. There is also a one day small scale (1-5kW) Wind Turbine course available aimed at anyone interested in installing small scale systems, or anyone who wants to gain knowledge of wind generation. For any enquires on these new courses please contact the CAMMS centre at [camms@cit.ie](mailto:camms@cit.ie) or phone 021-4326264

