Volume 3, Issue 4
August 2011
Special Summer Issue

WSSET World Society of Sustainable Energy Technologies

NEWSLETTER

Inside this Issue:

WSSET Upcoming Events:

UK/China Workshop on Smart and Sustainable Cities
Hangzhou, China
10th-11th October 2011

You can book your place for this event by sending an e-mail to:
anca.bretan@nottingham.ac.uk.

SET 2011- 10th International Conference on Sustainable Energy Technologies
Istanbul, Turkey
4-7 September 2011

For details and to register please visit the website:
www.set2011.org.

1. Latest News from WSSET

International Journal of Low-Carbon Technologies

Have you been keeping up with the latest research in the ***International Journal of Low-Carbon Technologies***? *IJLCT*, edited by Professor Saffa Riffat, is concerned with the application of technology to the challenges created by climate change. The journal's scope has recently expanded and it will provide a forum for the cross-fertilization of ideas across all areas of the field of low-carbon technologies, including:

- Renewable energy technologies
- CO2 reduction and low carbon technologies
- Sustainable energy technologies in the built environment
- Renewable energy management and environmental impact

The journal's full aims and scope, editorial board, and past issues can be viewed online at **www.ijlct.oxfordjournals.org**. You can sign up to receive email alerts each time a journal issue or article is published online. Simply sign up at **www.oxfordjournals.org/ register**.

Don't forget, World Society of Sustainable Energy Technologies members can purchase a subscription to *IJLCT* at a special reduced rate. Click the 'Subscriptions' link at the top of the *IJLCT* homepage for details. Be sure that your institution also has access to this up-and-coming journal.

You can fill out a library recommendation form online at:
www.oxfordjournals.org/help/library_recommendation.html .

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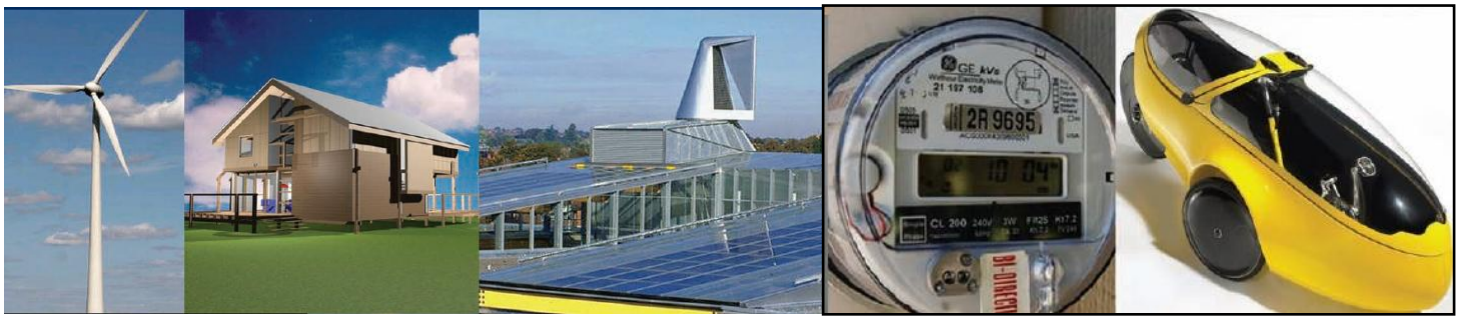

2. Research and Development Products

Micro-grid solution for Electric Vehicles and Solar PV

MiDDaS solution for grid-tie Electric Vehicles and Solar PV installations for smart homes and buildings

Energy Optimizers Limited is pleased to announce the completion of the **prototype MiDDaS micro-grid solution** following two years of research and development, funded under the EC Framework 7 programme. The system connects the DC output from an electric vehicle (EV), solar PV installation or static battery array to the grid, optimizing the charge costs and discharge revenues based upon forward supply market prices. In addition, the system controls loads (Demand Response) by circuit on a distribution board or by appliance through ZigBee wireless communications.

Demo Middas Installation:
2x Ploggs
2x Distribution Board Sensors
1x Electricity Meter Sensor
1x MPU
1x Zigbee Radio

Micro demand response and storage has an important role to play in aggregation of distributed load, storage and generation resources, especially where the consumer is exposed to peak and off-peal supply prices through the introduction of Smart Meters. New building schemes for multiple dwellings and community centres seeking zero-carbon status will be interested to learn about the comprehensive control features of the MiDDaS system.

MiDDaS is a low cost solution that has the potential to resolve a number of structural issues in national grids: the solution is independent of each installation thus reducing the risk of a systemic response failure; MiDDaS provides a linkage to micro renewable energy generation through the deployment of inverter and battery technologies, and the solution permits interoperability with upstream systems controlling multi site loads and generation (DG and Multi Micro Grid).

The MiDDaS Consortium is seeking strategic partners to take the prototype technology forward into commercial installations to achieve the benefits of savings realized by re-shaping the load curve in a multi-tariff environment.

Energy Optimizers Limited also participates in a number of publicly funded European research and development projects.

To find out more, visit: www.middas.eu ; www.plogg.co.uk.

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Transparent Photovoltaic Glazing Modules

Newly MCS-certified for the UK building integrated and retro-fit solar market - high-aesthetic and low-cost frameless thin-film **PV glass modules** from Polysolar - the UK's only developer and supplier of fully-transparent PV glazing modules.

Polysolar's 1300mm x 1100mm x 7mm range of laminated-glass PV modules work with standard inverters, mounting & glazing systems. Polysolar's unique bronze-tint transparent PV profitably substitutes for glass in porches, shelters, car ports, facades, sun-shades, balustrades, conservatories and greenhouses. Polysolar opaque modules offer one of the best-looking and highest energy-yield full-roof domestic retro-fit options available.

For more information contact sales@polysolar.co.uk **or visit** www.polysolar.co.uk.

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3. Innovations- new technologies and products

Drive down energy costs and reduce carbon footprint with Bayat!

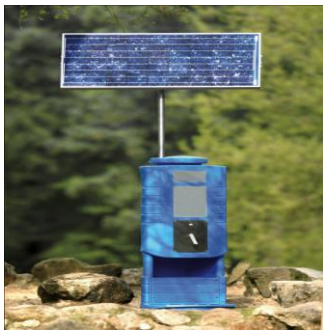
Bayat Energy is a global leading supplier of innovative clean tech products, providing the latest renewable, sustainable and energy efficient solutions and technologies to those looking to drive down energy costs and reduce their carbon footprint.

We provide comprehensive energy solutions for homeowners, businesses, and public bodies that assist them in lowering utility bills, reducing environmental impacts, and increase their energy independence through generating clean energy,

Bayat Energy markets and distributes to residential, commercial, and industrial clients worldwide, both for grid-tied and off-grid stand-alone applications, helping to deliver affordable energy efficient solutions.

Our range of **products** include: Solar Thermal Collectors, Thin-Film PV, Semi-Flexible PV, BIPV, Solar PV Water Pumps, Solar PV Water Purification, Portable PV, Rainwater Harvesting, LED and Energy Saving Lighting, Lighting Sensors, Vertical and Horizontal Axis Wind Turbines, Hybrid Street Lights, Water Efficiency, Hybrid Solar Air Conditioners and Air-Source Heat Pumps.

Can't afford Solar Panels? well here's a bright idea . . .
Lease them!



Bayat Energy is able to offer **full turnkey funding** for Solar PV for most domestic, commercial and industrial installations. The Solar Leasing option requires a zero down payment, has no upfront costs and is a more accessible option to those who cannot afford the high capital outlay or tie up necessary cash flow resources. Instead of buying the system you can simply lease it, providing all the benefits of Solar without the burden and heavy investment of ownership. There's no waiting for your investment to pay for itself and considerable savings on your monthly electricity bill can start immediately.

For further information please refer to the website: www.bayatenergy.co.uk ***END***

WSSET World Society of Sustainable Energy Technologies supports its members in the advancement of sustainable energy technologies in various ways:

- **Hosting international seminars and conferences**
- **Publishing technical journals**
- **Encouraging collaborative research projects in sustainable energy technologies**
- **Assisting licensing/commercialising of new technologies developed by universities**
- **Assisting industry with grant applications to various funding bodies**
- **Publicising/advertising the work/products carried out by industry active in sustainable energy technologies**

WSSET AMBASSADORS AND MESSENGERS OF SUSTAINABLE DEVELOPMENT

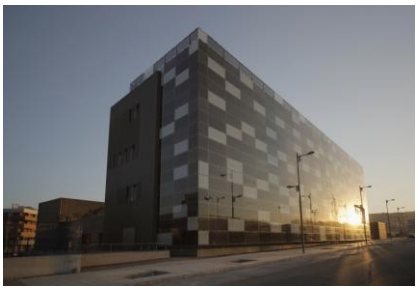
Global Warming needs holistic solutions. WSSET would like to enlist the volunteer services and support of prominent individuals from the world of arts, sport, literature, entertainment and politics to highlight priority issues and to draw attention to its activities. Professor Saffa Riffat, President of WSSET invites high profile individuals to serve as Ambassadors of Low Carbon Technologies, Sustainable Development and Global Warming peace.

A Donation of Time & Energy to WSSET!

Volunteers are a treasured resource at WSSET. WSSET looks for self-motivated individuals with passion and enthusiasm for low carbon technologies and interest in sustainable developmemt in poor in developing countries. In return we commit to providing a fun, engaging, diverse, challenging and supportive volunteer environment. To enrol please write to:

Zeny.Amante-Roberts@nottingham.ac.uk

Overarching Solutions by Onyx Solar



Ventilated PV façade for the Pfizer-University of Granada Center for Genomic and Oncologic Research

The solutions developed by Onyx Solar combine active and passive elements. Among the first ones, the in-situ electricity generation is the most important because it can be used for self-consumption or sold to the grid at a previously established price generating significant revenues. Passive elements are related to the design of the building to improve energy efficiency, increasing the insulation and reducing the energy needs of the construction. The combination of high efficiencies together with cutting-edge, aesthetic designs, have led to the development of photovoltaic curtain walls, ventilated façades, transparent PV skylights or PV walkable roofs that replace conventional materials at the same time that allows the building to generate energy onsite.

Onyx Solar has been chosen partner of the European Commission in recognition for the design of the transparent photovoltaic skylight installed in the new San Antón market in Madrid. Onyx Solar has a multidisciplinary team made up of physicists, engineers and architects who design from their *Castile and Leon (Spain)* headquarters, photovoltaic materials that are integrated into buildings throughout the world and help to reduce CO_2 emissions. In addition to this, it has also been acknowledged as the company with most growth potential in Europe, an award given at the European Entrepreneurship Awards.

Onyx PV Skylight in Expo 2010 Shanghai, Madrid Pavilion

Onyx Solar in SML house for the Solar Decathlon Europe

The company has offices in New York and Shanghai and has recently received the XXI Entrepreneur Award from La Caixa in the "Emprendes" category.

The company dedicated website available at: www.onyxsolar.com

For enquiries email at: info@onyxsolar.com

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How to make best use of the sunlight

Generating electricity from sunlight is an exciting, and rapidly developing field. **Geo Green Power** is built around a genuine passion for this technology - what is being done with it already, and what will be done with it in the near future.

The company's main business activity is the design, installation and commissioning of solar photovoltaic (PV) systems, especially in applications that have a rural/farming location or a conservation/listed building or other local planning sensitivity.

Geo Green Power do believe that use of renewable energy, generated close to where it is required, will make a major contribution to an improved living and working environment.

However, the company is aware that much work remains to be done in this area. To this end Geo Green Power is also researching applications of biomass and energy storage/conversion technologies. Our lives are possible because our planet is bathed in ample solar energy every day. The company believes that making our way of life sustainable depends on us being able to build efficient, cost effective energy reservoirs to store that energy.

Want to find out more? Please visit:www.geogreenpower.com

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4. Training and Development Programmes for Industry

Training available- WSSET recommends:

In an era of increased government and European legislation and also rising energy bills, Renewable Technologies are becoming increasingly important as the homeowner looks to alternative ways to heat their homes and provide hot water and power.

BPEC provides independent, generic and industry recognised training and certification packages covering Gas, Oil, Water, Electrical and **Renewable Technologies** to the Building Services Engineer via a network of over 300 further education colleges and private training centres.

BPEC has pioneered Renewable Energy training courses over recent years resulting in an extensive suite of courses that BPEC offers to the plumbing and heating engineer such as Solar Thermal Hot Water, Solar PV, Heat Pumps, Domestic Ventilation, Rainwater Harvesting and Greywater Recycling, Renewable Energy Awareness, Woody Biomass and Underfloor Heating.
BPEC Renewable Technology course are accepted by all of the various MCS funding bodies as evidence of training for installers wishing to register for MCS. BPEC has recently attained Awarding Organisation status and the BPEC Renewable Technology courses have now been mapped against the relevant National Occupational Standards (NOS) to ensure this continued recognition by the MCS bodies.

For more information visit www.bpec.org.uk or e-mail info@bpec.org.uk. ***END***

The European Energy Centre - UK

Based on the training currently taking place in Europe:www.EUenergycentre.org/training

The training is provided by lecturers from European Institutions, Universities and leading European experts. Some of which can be viewed at http://www.euenergycentre.org/training/our-energy-experts

The trainings are available in English, in French and Italian plus a Galileo Certificate is provided at the end of each course. The teaching, which leads to the Galileo certificate, is based on the European Project EMTEU (Energy Management Technician in Europe).

Please visit http://www.euenergycentre.org/ for information on our full range of activities, including the 14th European Conference, organised with the United Nations Environment Programme (UNEP), which took place in January 2011, at Heriot-Watt University in Edinburgh. You can read an article on the conference at: www.euenergycentre.org/component/content/article/110-14th-european-conference-onrenewable-energy-unep-eec-iir ***END***