

**London South Bank
University
London**

23-24 June 2010

Energy in the City

Securing the future

The new K2 building
including CEREB



Image: Grimshaw

Conference and Exhibition

www.energyinthecity.org.uk

The conference is organised by the the **SOLAR ENERGY** society, UK section of the International Solar Energy Society, in partnership with London South Bank University to celebrate the opening of the university's Centre for Efficient and Renewable Energy in Buildings (CEREB) in the new K2 Building.

We look forward to welcoming you to London South Bank University.

*Tony Day, Conference Chair;
Stas Burek, Chair Scientific and Technical Committee;
Tony Book, Chair The Solar Energy Society (UK-ISES)*

It was estimated that by the end of 2008 more people worldwide will live in cities than in rural areas. Cities are hugely important to economic development and wealth creation, which in turn makes them very large consumers of energy. This creates significant challenges for ensuring secure supplies and adequate infrastructures to meet these growing and changing needs. However, cities also offer some very real benefits for efficient generation and delivery of energy services.

This conference will explore the opportunities for local energy generation and community based delivery systems including the best new technologies, advances in network design, business models and the role of regulation and policy that can achieve truly low carbon cities of the future.

View of the ground source heat pump coils installed in K2 piles.



Photo: Ken Smith

CEREB is an exciting new facility at London South Bank University. Created in partnership with City and Kingston Universities, CEREB is a unique resource for the teaching, research and demonstration of low carbon energy technologies in the built environment. The three partners are leaders in training and research in the built environment and the Centre will be at the forefront of low carbon building design.

CEREB will provide a high quality teaching resource in sustainable energy technology and building design, construction and management. It will also offer facilities to conduct research and to demonstrate specific sustainable energy technologies. CEREB will be a showcase for low carbon energy technologies including photovoltaics, solar thermal, ground source heat pumps and wind power. Developed as a specially designed walk through demonstration facility at roof level on LSBU's new K2 building, CEREB will provide direct access to the building's installed mechanical

engineering and renewable low carbon energy technologies.

These facilities will be available to students, researchers, academics, the construction industry and others. Output data from the technologies will also be available through web-based virtual learning environments to enable the Centre to benefit a wider audience through a CEREB web portal.

K2 is a landmark building at LSBU's Central London campus created by Grimshaw Architects. Its design includes features to reduce carbon emissions including thermal massing, solar shading, ground source heating and cooling and solar thermal. The building itself is designed as a teaching tool providing opportunities for the demonstration and display of energy efficiency techniques. A state of the art building energy management system will enable students and researchers to study the building and its energy use.

Energy in the City – Securing the Future

Conference C92

London South Bank University, 23-24 June 2010

23 June

9.00	Registration
9.30 - 9.40	Conference Opens -
9.40 - 10.10	Keynote 1 - James Smith
10.10 - 10.30	Peter North Making a Market for Distributed Energy
10.30 - 10.50	Tony Day Are the Targets Being Delivered? The London Plan Energy Policies in Practice
10.50 - 11.10	Ashley Bateson Planning for low carbon development: Recent UK experience and lessons for policy and implementation
11.10 - 11.40	break
11.40 - 12.00	Martin Greaves Using psychological theory to reduce energy consumption in the workplace
12.00 - 12.20	Samantha Heath Changing behaviours for a more sustainable London
12.20 - 12.40	George Bartley Web-Based Real Time Energy Monitoring First Step to Energy Efficient Buildings
12.40 - 13.00	David Smithson "Energy efficient buildings making energy saving progress visible"
13.00 - 14.00	lunch
14.00 - 14.30	Keynote 2 - David Kennedy
14.30 - 14.50	Martin Fry "Energy Management Standards Their Role and State of Development"
14.50 - 15.10	Sigrid Lindner GIS Based Energy Concept for CO ₂ -Reduction by Town Planning
15.10 - 15.30	Alastair Scott Smart Purchasing as a Tool in Reducing Energy Consumption
15.30- 16.00	break
16.00 - 16.20	Martin Ratcliffe What can CHP do for London?
16.20 - 16.40	Phil Jones Strategic feasibility study of CHP options for the South Bank of London
16.40 - 17.00	P I Ogumka The performance of Tri-generation in strategic urban developments
17.00 - 17.20	John Oakey "Combustion of biomass and municipal solid waste to supply combined cooling electricity and heating"
18.00 -	CEREB launch - by request only

24 June

9.10 - 9.40	Keynote 3 - Isabel Deding
9.40 - 10.00	Angharad Jones DTZ Low Carbon Skills For London: Research Conducted on Behalf of the London Development Agency
10.00 - 10.20	Humber Williams Life Cycle Guarantors of Sustainable City Energy Management
10.20 - 10.40	Rob Williams Skills for Climate Change ñ Initial mapping and research report identifying the environmental and climate change skills relevant to London construction and built environment businesses
10.40 - 11.00	break
11.00 - 13.00	Posters
13.00 - 13.50	lunch
13.50 - 14.20	Keynote 4 - Rauri Maybank
14.20 - 14.40	Paul Lewis Commercial Mechanisms to overcome the barriers of Decentralised Energy Generation Systems to the Built Environment - 3MWp photovoltaic project in Gran Canaria: an International Case Study
14.40 - 15.00	Craig Groberty Electricity and Heat Distribution Systems
15.00 - 15.20	Paul Woods The potential for District Heating to contribute to electricity demand management to facilitate renewable and nuclear electricity generation
15.20 - 15.40	break
15.40 - 16.00	Darryl Croft Improving 'Hard-to-Treat' Homes: Incentivising the delivery of Solid Wall Insulation
16.00 - 16.20	Duke Solar Water Heating
16.20 - 16.40	Stas Burek Effects of embedded heat pipes on the thermal response of heavyweight building roof structures
16.40 - 17.00	Luisa Brotas Evaluating the solar energy potential of an urban housing site: a case study of Broadwater Farms estate London
17.00 - 17.20	John Oakey "Combustion of biomass and municipal solid waste to supply combined cooling electricity and heating"
17.20 - 17.30	Conference summary and close - Tony Day

Registration: Full details of Conference Registration overleaf.

Energy in the City is a non-residential conference. Delegates must make their own accommodation arrangements.



ENERGY IN THE CITY DELEGATE REGISTRATION FORM
Solar Energy Society Conference C92 London South Bank University, 23-24 June 2010

Please complete and detach the registration form and return to the Society's Secretariat together with your payment at the address below.

Early bird registration deadline: **Friday 21 May 2010.**

Your place will be confirmed in writing and venue details sent. Conference is Non- Residential. Delegates are responsible for arranging their own accommodation. Full Conference Rate includes all refreshments, lunches, reception on 23rd June. All registration categories include a copy of the Conference Proceedings C92. Registration by non-members includes standard national membership of the Society until end 2010. All prices inclusive of VAT.

Full Name:		
Organisation:		
Address:		
Tel and Fax No:		E-mail:
<u>CIRCLE FEES AS APPROPRIATE</u>		
FULL CONFERENCE RATE		
Registration Category	Early registration (On or before 21 May 2010)	Registration (22 May 2010 onwards)
UK-ISES/ CIBSE / Energy Institute Members	£200.00	£250.00
UK-ISES/ CIBSE / Energy Institute Student or Retired Members	£130.00	£180.00
Non UK-ISES/ CIBSE / Energy Institute Members	£290.00	£340.00
Non UK-ISES/ CIBSE / Energy Institute Student or Retired Members	£165.00	£215.00
ONE DAY RATE		
UK-ISES/ CIBSE / Energy Institute Members	£130.00	£180.00
UK-ISES/ CIBSE / Energy Institute Student or Retired Members	£75.00	£125.00
Non UK-ISES/ CIBSE / Energy Institute Members	£190.00	£240.00
Non UK-ISES/ CIBSE / Energy Institute Student or Retired Members	£95.00	£145.00

Method of Payment of Registration Fee

N.B. For Payment by Credit Card an Additional Charge of £10.00 will be made.

1. Credit Card (Visa, MasterCard)	<i>Number</i>	_____	Expiry Date	_____
	<i>Name on card</i>	_____		
	<i>Card Billing Address</i>	_____		
	<i>Postcode</i>		3 Digit Security Code	_____

Card Type	Credit Card	Debit Card
<i>(Circle as appropriate)</i>		

2. Cheque, payable to 'The Solar Energy Society'

3. Payment against Invoice Yes/No

Invoice Address if different from above

Signature: _____ **Date:** _____

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