

building performance

congress

International Congress for
Architecture and Technology
24 – 27 April 2006
Frankfurt am Main

light+building

International Trade Fair for
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23 – 27 April 2006
Frankfurt am Main

IEECB Focus

Improving Energy Efficiency in Commercial Building Conference 2006

Organiser: Messe Frankfurt in co-operation with the European Commission DG JRC, Ispra, Italy

IEECB Focus

Improving Energy Efficiency in Commercial Building Conference 2006

Wednesday, 26 April 2006

Location: Congress Center Messe Frankfurt (CMF)

Time	Lighting Chair: Gerald Strickland European Lamp Companies Federation (ELC), Brussels, Belgium	Energy Service Companies (ESCO) Chair: Ralf Goldmann Berliner Energie Agentur, Berlin, Germany
	CMF, Room Harmonie 1	CMF, Room Harmonie 2
10:00	<p>Development of an international roadmap for daylighting design <i>Steve Coyne, Applied Optics Group, Science Research Centre, Queensland University of Technology, Brisbane, Australia</i></p> <p>The challenges of getting new, integrated daylighting systems into commercial buildings <i>Stephen Selkowitz, Lawrence Berkeley National Laboratory, Berkeley, USA</i></p> <p>Lighting in Call Centres <i>Paul Bannister, Exergy Australia Pty Ltd., Belconnen, Australia</i></p> <p>Best practice for lighting in Frankfurt schools also standard in the directive with 2W/(m2 100lx) <i>Axel Bretzke, City of Frankfurt, Dep. Energy Management, Frankfurt/Main, Germany</i></p> <p>The implementation of energy-efficient lighting in Flanders: "Groen Licht Vlaanderen" <i>Catherine Lootens, Groen Licht Vlaanderen, Gent, Belgium</i></p> <p>The results of the GreenLight Programme and the extension in the new EU Member States and Candidate Countries <i>Paolo Bertoldi, European Commission DG JRC, Ispra, Italy</i></p>	<p>Efficiency Valuation – Concepts and Practice <i>Paolo Bertoldi, European Commission DG JRC, Ispra, Italy</i></p> <p>Contracting in German state properties <i>Jens Gröger, Deutsche Energie-Agentur GmbH (dena), Berlin, Germany</i></p> <p>Internal performance commitments <i>Wolfgang Irrek, Wuppertal Institut für Klima Umwelt Energie GmbH, Wuppertal, Germany</i></p> <p>Comparison of different finance options for energy services <i>Jan W. Bleyl, Graz Energy Agency Ltd, Graz, Austria</i></p> <p>Promoting energy efficiencies : recent development of ESCO industry in Singapore and development of the local M&V protocol in Singapore <i>Majid Haji-Sapar and Qu Qing, Energy Sustainability Unit, Department of Building, School of Design and Environment, National University of Singapore, Singapore</i></p> <p>Private Investments Move Ecopower (PRIME) – A participatory approach to financing energy efficiency measures <i>Bettina Wittneben, Wuppertal Institut für Klima, Umwelt und Energie GmbH, Wuppertal, Germany</i></p>

12:00	<i>Lunch break</i>	<i>Lunch break</i>
Time	<p align="center">Renewable Energy Sources (RES) <i>Chair: Jerome Adnot</i> <i>Centre for Energy and Processes, Ecole des Mines de Paris,</i> <i>Paris, France</i></p>	<p align="center">Investments <i>Chair: Jacky Pett</i> <i>Association for the Conservation of Energy, London, UK</i></p>
13:00	<p>Techno-economic viability of an advanced cogeneration system integrated in a low energy demand public building <i>Joan Carles Bruno, Universitat Rovira i Virgili, Tarragona, Spain</i></p> <p>SOLITEM - Solar cooling systems based on SOLITEM Parabolic through collector PTC 1800 combined with double effect absorption chillers <i>Ahmet Lokurlu, SOLITEM GmbH, Aachen Germany</i></p> <p>A new project of the International Energy Agency: "Heat pumping and reversible air-conditioning" <i>Jean Lebrun, University of Liège, Liège, Belgium</i></p> <p>Wind catchers: Improving the operating performance for wider applicability <i>Farzad Jafar Kazemi, Mechanical Engineering Department, Faculty of Engineering, Islamic Azad University, South Tehran Branch, Tehran, Iran</i></p>	<p>Investors' motivation towards green buildings <i>Susanne Geissler, University of Natural Resources and Applied Life Sciences, Vienna, Austria</i></p> <p>"Green buildings" – investment benefits <i>Ashak Nathwani, Norman Disney & Young, Sydney, Australia</i></p> <p>Making invisible property investments attractive <i>Rick Wilberforce, EuroACE, St. Helens, UK</i></p> <p>Integral planning of energy efficiency, cost and comfort – a comprehensive cost and benefit evaluation <i>Martin Jakob, Centre for Energy Policy and Economics (CEPE), Zurich, Switzerland</i></p>

14:30	<i>Coffee break</i>	<i>Coffee break</i>
Time	<p>Heating, Ventilation, Air-Conditioning <i>Chair: Jean Lebrun</i> <i>University of Liège, Liège, Belgium</i></p>	<p>Energy Performance of Buildings Directive (EPBD) <i>Chair: Vincent Berrutto</i> <i>European Commission, Intelligent Energy Executive Agency, Brussel, Belgium</i></p>
14:45	<p>Experimentation of the CEN standard on the inspection of air-conditioning systems <i>Maxime Dupont, Centre for Energy and Processes, Ecole des Mines de Paris, Paris, France</i></p> <p>Energy pumping concepts to address simultaneously occurring cooling and heating demands in air-conditioned buildings - status quo, comparative analyses and design potentials <i>Evgenia Sikorski, University of Applied Science Offenburg, Bochum, Germany</i></p> <p>Selection of procedures for air conditioning audit and definition of the associated training package <i>Daniela Bory, Centre for Energy and Processes, Ecole des Mines de Paris, Paris, France</i></p> <p>Customer advising with help of documented case studies and of benchmarks; modelling and simulation for adaptation of benchmarking in HVAC <i>Philippe André, University of Liège, Arlon, Belgium</i></p>	<p>Applying LEED® Internationally: progress and lessons learned <i>Sabrina Morelli, U.S. Green Building Council, Washington, USA</i></p> <p>EPLABEL: a graduated response procedure for producing a building energy certificate based on an operational rating <i>Robert Cohen, Energy for Sustainable Development, UK</i></p> <p>Empirical benchmarking of building performance <i>Paul Bannister, Exergy Australia Pty Ltd., Belconnen, Australia</i></p> <p>EPA-NR, tools for the assessment of the Energy Performance of Non-Residential Buildings in the European countries <i>Bart Poel, EBM-consult, Arnhem, The Netherlands</i></p>

16:15	Coffee break	Coffee break
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Time	Heating, Ventilation, Air-Conditioning <i>Chair: Paul Bannister</i> <i>Exergy Australia Pty Ltd., Belconnen, Australia</i>	Energy Performance of Buildings Directive (EPBD) <i>Chair: Peter Wouters</i> <i>BBRI, Brussels, Belgium</i>
16:30	<p>National and EU wide efforts to increase energy efficiency of installed air-conditioners <i>Jerome Adnot, , Centre for Energy and Processes, Ecole des Mines de Paris, Paris, France</i></p> <p>Measured Building and AC System Energy Performance: An empirical evaluation of the energy performance of air-conditioned office buildings in the UK <i>Gavin Dunn, Association of Building Engineers, UK</i></p> <p>Effect of the certification on energy management <i>Yamina Saheb, EUROVENT, Paris, France</i></p> <p>The U.S. Energy Policy Act of 2005 and its impact on commercial air-conditioning and refrigeration equipment <i>Karim Amrane, Air-Conditioning and Refrigeration Institute, Arlington, USA</i></p>	<p>Will the Energy Performance of Buildings Directive make any difference to commercial sector emissions? <i>Jacky Pett, Association for the Conservation of Energy, London, UK</i></p> <p>B.E.A. (Building Energy Analysis) - a methodology for energy certification in buildings. A practical example for a small hospital <i>Francisco Javier Rey, Thermal Engineerig. Scool of Industrial Engineering, University of Valladolid, Valladolid, Spain</i></p> <p>Certification of non-residential buildings: results of dena field test on procedures and user-acceptance <i>Christina Sager, Deutsche Energie-Agentur GmbH (dena), Berlin, Germany</i></p> <p>The seasonal efficiency of multi-boiler and multi-chiller installations <i>Roger Hitchin, BRE Environment, Watford, UK</i></p>
18:00	End of First day	

Thursday, 27 April 2006

Location: Congress Center Messe Frankfurt (CMF)

Time	Monitoring <i>Chair: Martin Jakob</i> <i>Centre for Energy Policy and Economics (CEPE), Zurich, Switzerland</i>	Examples <i>Chair: Benke Georg</i> <i>Austria Energy Agency, Vienna, Austria</i>
	CMF, Room Harmonie 1	CMF, Room Harmonie 2
10:00	<p>Awareness activities for energy efficiency in the commercial and public sector : learning from success stories to disseminate good practices <i>Jean-Sébastien Broc, Ecole des Mines de Nantes (DSEE), Nantes, France</i></p> <p>Energy consumption metering, monitoring and benchmarking <i>Cui Qi, Department of Building, School of Design & Environment, National University of Singapore, Singapore</i></p> <p>Energy efficiency in commercial buildings – experiences and results from the German funding program SolarBau <i>Sebastian Herkel, Fraunhofer-Institute for Solar Energy Systems, Freiburg, Germany</i></p> <p>EVA – Evaluation of energy concepts for office buildings <i>Stefan Plessner, IGS – Institute for Building Services and Energy Design, Technical University Braunschweig, Braunschweig, Germany</i></p> <p>Mining corporate sustainability reports for building energy performance data <i>Adam Hinge, Sustainable Energy Partnerships, Tarrytown, USA</i></p> <p>Intelligent energy and water performance assessment in municipal buildings <i>Paul Fleming, Institute of Energy and Sustainable Development, Leicester, UK</i></p>	<p>Examples of advanced/demonstration buildings <i>Anita Preisler, Arsenal research, Vienna, Austria</i></p> <p>Integrated evaluation of buildings for energy efficiency: a case study in office buildings <i>Efrossini Giama, Aristotle University of Thessaloniki, Thessaloniki, Greece</i></p> <p>“Reality Check” organised by the competence network innovative building services engineering (KinG): the case Uniqa Tower Vienna <i>Susanne Gosztonyi, Arsenal Research, Vienna, Austria</i></p> <p>Incorporating energy in facility management experiences of the Dutch ministry of defence <i>Bart Poel, EBM-consult, Arnhem, The Netherlands</i></p> <p>Innovative commercial buildings in Upper Austria <i>Christiane Eggers, O.Ö. Energiesparverband, Linz, Austria</i></p> <p>The condition and analysis of thermal environment in Jinan Quancheng Square <i>Ma Xiuli, School of Thermal Engineering Shandong University of Architecture and Engineering, Jinan of Shandong, China</i></p>

12:00	Lunch break	Lunch break
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Time	Heating, Ventilation, Air-Conditioning Chair: Paul Waide International Energy Agency, Paris, France	Policy Chair: Paolo Bertoldi European Commission, DG JRC, Ispra, Italy
13:00	<p>Impact of climate change on energy demand in the commercial / service sector <i>Bernard Aebischer, Centre for Energy Policy and Economics (CEPE), Zurich, Switzerland</i></p> <p>Adaptation of commercial buildings to hotter summer climates in Europe <i>Conrad U. Brunner, A + B International, Zurich, Switzerland</i></p> <p>Air-conditioning surveys in the UK retail sector or “Keeping the Cold in” <i>Neil Brown, Research Fellow, Institute of Energy and Sustainable Development, De Montfort University, Leicester, UK</i></p> <p>The Components of Heating and Cooling Energy Loads in UK Offices, With a Detailed Study of the Solar Component <i>Andrew Marsh and Ian Knight, Welsh School of Architecture, Cardiff, UK</i></p>	<p>GreenBuilding: Enhancing the Energy Efficiency of Non-Residential Buildings <i>Annegret-Claudine Agricola, Deutsche Energie-Agentur GmbH (dena), Berlin, Germany</i></p> <p>The Austrian program for private service buildings: ecofacility <i>Margot Grim, Austrian Energy Agency, Vienna, Austria</i></p> <p>Beyond energy efficiency: How the USGBC and LEED are driving market transformation <i>Tom Hicks, U.S. Green Building Council, Washington, USA</i></p> <p>European Energy Trophy <i>Theresa Glasmacher, B. & S.U. Beratungs- und Service-Gesellschaft Umwelt mbH, Munich, Germany</i></p>

14:30	Coffee break	Coffee break
Time	Heating, Ventilation, Air-Conditioning <i>Chair: Roger Hitchin</i> <i>BRE Environment, Watford, UK</i>	Policy <i>Chair: Bill Bordass</i> <i>William Bordass Associates, London, UK</i>
14:45	<p>Reducing cooling energy demand in commercial buildings <i>Márton Varga, Austrian Energy Agency, Vienna, Germany</i></p> <p>Field testing of several CO2/presence based Demand-Controlled Ventilation techniques within six different tertiary sector buildings <i>Nancy Nicholson, Elyo Cylergie, Ecully, France</i></p> <p>Sizing and instrumentation of a solar-desiccant cooling system in the East of France <i>Dominique Marchio, Center for Energy and Processes, Ecole des Mines de Paris, Paris, France</i></p> <p>Gas Heat Pumps (GHP) reduce energy consumption of buildings <i>Thorsten Formanski, ASUE – Arbeitsgemeinschaft für sparsamen und umweltfreundlichen Energieverbrauch e.V, Essen, Germany</i></p>	<p>Australia’s path to energy efficiency in commercial buildings – regulation, rating tools and market approaches <i>Stephen Berry, Australian Greenhouse Office, Canberra, Australia</i></p> <p>Study on the incentive policies to promote China’s building energy efficiency <i>Kang Yanbing, Energy Research Institute, National Development and Reform Commission, Beijing, China</i></p> <p>Energy-efficiency regulations and better design practices in new commercial buildings in Mexico <i>Odón de Buen, Facultad de Ingeniería, Universidad Nacional Autónoma de México, México</i></p> <p>High-Performance Buildings in the US: Beyond energy code-based models for supporting premium efficiency in commercial buildings <i>Gary Epstein, Energy & Resource Solutions, Inc., Haverhill, USA</i></p>

16:15	Coffee break	Coffee break
Time	Office Equipment and Lighting <i>Chair: Silvia Rezessy</i> <i>Central European University, Budapest, Hungary</i>	Simulation <i>Chair: Adam Hinge</i> <i>Sustainable Energy Partnerships, Tarrytown, USA</i>
16:30	<p>Current and future energy demand of ICT appliances in offices – a recent assessment for Germany <i>Barbara Schломann, Fraunhofer Institute Systems and Innovation Research, Karlsruhe, Germany</i></p> <p>ELC actions to promote efficient lighting in the professional sector <i>Gerald Strickland, European Lamp Companies Federation (ELC), Brussels, Belgium</i></p> <p>Commercial building lighting energy use: an in-depth global assessment of lighting service, energy consumption, savings and potentials <i>Paul Waide, Energy Efficiency and Environment Division, International Energy Agency, Paris, France</i></p> <p>Lighting in commercial buildings: a global review of existing efficiency policies and the potential for them to be strengthened <i>Paul Waide, Energy Efficiency and Environment Division, International Energy Agency, Paris, France</i></p>	<p>Thermal performance and sustainability assessment of a health building in a maritime climate – A case study in Sheffield, UK <i>Hasim Altan, The University of Sheffield, Sheffield, UK</i></p> <p>A decision support model using expert knowledge for building energy management <i>Haris Doukas, Management & Decision Support Systems Laboratory, Department of Electrical and Computer Engineering, National Technical University of Athens, Athens, Greece</i></p> <p>Operation diagnostics – a methodology for enhanced building operation <i>Oliver Baumann, Ebert-Ingenieure München, Munich, Germany</i></p> <p>Modelling buildings for energy use: A study of the effects of using multiple simulation tools and varying levels of input detail <i>Clarice Bleil de Souza, Welsh School of Architecture, Cardiff, UK</i></p>
18:00	End of Conference	