Green Building and Design - Wed 9 - Thurs 10 September

DAY 1 Wednesday 9th September

Time	Topic	Speaker
8:00 AM	**Registration**	
8:30 AM	**Opening address**	**Gavin Jennings MLC,** Minister for the Environment and Climate Change, Minister for Innovation
9:00 AM	**Keynote address:** **Carbon Mitigation in the Built Environment: Potential & Challenges in the Housing Sector** About 13% of total carbon emissions from all sectors in Australia is attributed to operating energy in residential buildings (CIE 2007); the embodied energy and carbon in the manufacture and on-site delivery of a house's constituent parts adds further into its life cycle carbon footprint. The Australian Zero-Emissions House (AusZEH) initiative involves the development and demonstration of technologies and innovative solutions to significantly reduce carbon emissions from the housing sector. This presentation will show the potential and the challenges for significant emissions reduction at the individual house level (e.g. a zero-emission house) and at a broader neighbourhood or regional scale. The latter involves the application of a decision support tool for planning and assessing impacts of regulations/policy options, incentives, new technology and voluntary programs on the carbon footprint of housing. To address the embodied carbon challenge, the presentation will also highlight efforts to develop a national Life Cycle Inventory (LCI) for construction and building products and to promote Life Cycle Assessment (LCA) more widely.	**Dr Greg Foliente,** Senior Science Leader, CSIRO Sustainable Ecosystems
9:30 AM	**Commercial Building Energy Efficiency – role of Government policy in driving market change** The Australian Government is committed to substantially improving the environmental performance of nation's commercial built environment. There are significant opportunities for cost effective GHG abatement in commercial buildings of today. However, these opportunities are largely untapped due to a number of market impediments and financial barriers. This presentation will outline a range of regulatory and fiscal instruments being developed by the Australian Government to encourage improvement in the energy efficiency of existing commercial buildings.	**Jayan Parry**, Assistant Director, Australian Government Department of the Environment, Heritage, Water and the Arts
10:00 AM	**Q & A**	all speakers
10:15 AM	*Morning Tea*	
10:45 AM	**Emissions Trading and Building Materials: price signals and strategic directions** The Carbon Pollution Reduction Scheme will place a price on the greenhouse gas emissions associated with the manufacture and supply of all goods, services and energy. The impact on material costs will depend on a variety of factors, including the carbon price, the extent to which suppliers and their input sources are entitled to free permits under government adjustment arrangements, the extent to which suppliers can pass through the carbon cost, and more subtle market factors such as profiteering or smearing of costs across a range of products. This paper explores the issues and proposes some strategies for material suppliers and customers	**Adjunct Professor Alan Pears AM,** RMIT Centre for Design, Sustainable Solutions Pty Ltd.
11:15 AM	**"Legal Greenfields": Legal liability and risk management considerations arising from the use of 'green materials' in design and construction** Stakeholders need to appreciate the legal liability issues resulting from committing to projects that require the engineering, procurement, design and construction to meet "green standards". Liability for health and environmental impacts arising from green buildings that become "sick" or "fail" will be discussed, as well as risk allocation in contract tendering and drafting, potential liability of various stakeholders in the design and construction process, the impact of green lease obligations and current common law liability principles. The aim is to give stakeholders an appreciation of how liability can be assumed or deflected including useful case study scenarios.	**Stuart Miller,** BA (Melb), LLB (Melb), MAIB, Special Counsel (Commercial Property and Dispute Resolution & Litigation Divisions)., Mason Sier Turnbull
11:45 AM	**Using Life Cycle Assessment as a decision support tool** This session will introduce the audience to the process of applying Life Cycle Assessment to a typical built environment problem. In walking the audience through the problem it will introduce some of the key issues that arise and outline the typical methods used to resolve these issues. The session will highlight that the LCA methodology can be extremely useful in providing decision makers with guidance, however it has key limitations that need to be carefully considered. The session will conclude with some 'rules of thumb' that commissioners can use to maximise value from LCA work undertaken.	**Andrew Carre,** Program Director, Life Cycle Assessment, RMIT Centre for Design
12:15 PM	**Q & A**	all speakers
12:30 PM	*Lunch*	
1:30 PM	**Strategies in using materials for environmental and economic gain** Conference delegates will come together in small groups to explore given questions. As people move between groups, discussions are linked, ideas evolve and new insights are discovered. Communication and sharing of knowledge and creativity through personal interaction form the basis of the Word Café as an integrated problem solving process.	**World Café**
2:30 PM	**Measurement of Chemical Emissions from Building Products and their Selection for Green Buildings** Over 90% of VOCs found in buildings following construction have resulted from materials used to construct and furnish the building. Voluntary schemes specified by various organisations in Australia are a driving force in the consideration of chemical emissions in the selection of materials for buildings. Presently CETEC has emission tested a wide array of materials used in the construction and furnishing of a Green Building. This information provides insight for the potential quality of the indoor air achieved through specifying chemical emission limits for materials used in buildings. Importantly do current chemical emission requirements lead to improved indoor air quality?	**Dr Robert Schiller,** Senior Consultant, CETEC Pty Ltd
3:00 PM	*Afternoon Tea*	
3:30 PM	**Assessing Best Practice in Third Party Product Certification** Independent third-party environmental assessments of fit out products and building materials are an essential part of demonstrating compliance with green building principles. However, with so many certification schemes available in the global market, the Green Building Council of Australia (GBCA) faces a challenging task to determine which schemes develop and operate standards in accordance with best practice principles while also delivering environmental best practice outcomes. This presentation will cover: 1) the GBCA's engagement with independent expert reference panels to identify best practices in governance, standards development, and content of environmental performance standards; 2) the best practice criteria that underpin the new Assessment Framework for Product Certification Schemes; and 3)the benchmarks and pathways for certification schemes that wish to apply for recognition in Green Star rating tools.	**Hal Dobbins,** Green Star Technical Manager – Materials, Green Building Council of Australia; **Shlomi Bonet**, Technical Manager - Materials, Green Building Council of Australia
4:00 PM	**Forest Certification, Green Material Procurement Guides and Rating Tools** The specification of wood products from certified forests has become one of the most debated of practices in the use of green building materials. Rating tools and green material procurement guides referring to forest certification schemes have received support, been opposed and are subject to constant pressure to change. This presentation will provide an overview of forest certification in this context and some of the perspectives expressed by stakeholders. The presentation will discuss where some of the current directions of this debate are going and how these will ultimately affect the way in which we specify timber with regard to achieving desired environmental outcomes.	**Chris Taylor,** PhD candidate, RMIT University
4:30 PM	**Green Smart Materials in Architecture and Interior Architecture** After an introduction and a general view on different types of smart materials this presentation shows especially green smart materials which are currently of interest to architects and designers. The participants of the conference will get helpful information, e.g. how they can apply these materials, see interesting applications from the fields of architecture and interior architecture. There will also be a practical presentation of some selected samples. Main topics are: Natural/organic smart materials: e.g. clay, wood Innovative systems with smart materials: e.g. wall coverings with e.g. phosphorescent paint, thermal insulations with PCM, drives with TEM, glass-systems with hydro gels Smart materials in the future: e.g. Utility Fog	**Dipl.-Ing. Dipl.-Ing. Axel Ritter,** Architect - Designer - Author, ritter architekten, Germany
5:10 PM	**Q & A**	all speakers
5:30 PM	*Networking drinks*	