

Report of the APEC Workshop on ‘Sustainable Energy Development in the Built Environment’, 14 April 2009, Singapore

The APEC Workshop on “Sustainable Energy Development in the Built Environment” was held on 14 Apr 09 in the APEC Secretariat, Singapore. The Workshop, jointly organised by Singapore’s Energy Market Authority and the Energy Sustainability Unit of the National University of Singapore, was attended by 72 participants and speakers from with Australia, Chinese Taipei, Hong Kong China, Japan, New Zealand, US, Republic of Korea, Singapore. The Workshop was jointly co-chaired by Mr Terry Collins, Chair of the APEC Expert Group for Energy Efficiency & Conservation and Professor. Lee, Head of the Energy Sustainability Unit at the National University of Singapore (NUS).

The objective of the Workshop is to support efforts to improve energy efficiency, by sharing best practices and experiences of countries in improving energy efficiency in the built environment. This is important for the long term sustainable development of cities, and will be increasingly relevant to the world with increased urbanisation globally.

The Workshop also contributes towards building capability among APEC countries and the APEC ‘aspirational’ goal of a reduction in energy intensity by at least 25% by 2030 from 2005 levels, as stated in the Sydney 2007 APEC Leaders’ Declaration on Climate Change.

Climate change is a global challenge, and a global collective effort is required to mitigate its effects. One of the effective and sustainable ways in which countries and cities can contribute towards mitigating climate change is through the improvement of energy efficiency, so that less energy resources are used to produce the same level of services, emitting less greenhouse gases in the process. Improved energy efficiency also helps to enhance energy security and reduce business costs and exposure to volatile energy prices in the long term.

To meet this goal, the Workshop discussed the need for APEC economies to continue collaborative efforts in energy efficiency improvement projects in all energy use sectors, and assist in the transfer of relevant knowledge and expertise between economies.

Key Outcome of Workshop:

- 1) The Workshop discussed strategic directions where energy efficiency in the built environment may be improved. These include the need for comprehensive & reliable database for energy efficient building design, management & benchmarking. This development will lead to the avoidance of over designing of new building while providing existing buildings with realistic targets for EE enhancement.

- 2) The potential benefits of APEC serving as a platform for the coordination of information and knowledge dissemination on various aspects of EE development was also raised at the Workshop. The delegates felt that the APEC Expert Group on Energy Efficiency & Conservation will be a suitable body / organisation to perform this task.
- 3) There was also a discussion on the need to assess the asset value appreciation of EE buildings that take into consideration the greater benefit of such asset enhancement beyond the superficial value of energy savings. The availability of such a tool will significantly encourage building owners to invest in energy efficiency development.
- 4) The Workshop also discussed the need to work beyond energy efficiency and conservation at building level, and pursue energy sustainability with a holistic view at town and city level where optimum benefits may be derived and sustained.

The findings derived from the Workshop discussion may lead the group towards its future work plan. This includes:

1. To step up database development and benchmarking efforts for the building sector.
2. To examine and establish a suitable platform for the coordination and dissemination of new information and knowledge among the APEC economies.
3. To establish a project group examining the methods of valuing asset with respect to energy efficient design and sustainable development.
4. To develop method of assessment and develop templates for the planning and design of eco-town and city.

Discussion and follow up action by the EGEEC:

The APEC EGEEC discussed the recommendations and agreed that the key item which is important and would be suitable for development into a project for the EGEEC would be the area of "Database development and Benchmarking for the building sector".

Members noted that database development and benchmarking for the building sector involved significant efforts and resources, and that there are ongoing programs at different levels of development among various members of APEC. The Meeting also acknowledged that it would be useful to document the existing database and benchmarking methodologies used among the members of APEC and internationally. Other issues such as useful technologies for the development and updating of database were also discussed.

The Meeting resolved to move ahead with the proposed program on “Database development and Benchmarking for the building sector”, by forming a working group to develop a paper outlining the objectives of the proposed project, identify the relevant tasks involve, and provide the relevant scope of work under each task.

Professor Lee Siew Eang of NUS (Singapore), Dr. Greg Foliente of CSIRO (Australia) and Mr. Ushio Yoshitaka of ECCJ (Japan) have agreed to serve as members of the working group to develop this paper, and submit it to the EGEEEC Chair by end of May 2009. The Chair will communicate this paper to all members of EGEEEC for further decision and action.

15th April 2009
