



BUILDINGS AND APPLIANCES TASK FORCE

8th Meeting

7-8 October, 2009

Tokyo, Japan

Theme 6: Building Codes

Dr. Seung-Eon Lee, KICT, Korea

Marc Lafrance/ USDOE, USA

Project Summary

- **Project Objective**

To enhance mutual understanding of each country's building energy codes, including window rating. The ultimate objective is to increase energy efficiency, address greenhouse gas emissions, and support international trade in energy efficient building technology by improving each member country's own code.

- **Project Elements**

06-24 : *Survey & Compare Building Energy Codes in Participant Countries and Develop Scenarios for Increasing Energy Efficiency Through Energy Codes Enhancement*

06-25 : *Develop/harmonize window rating procedures and/or labels*

09-52 : *Implementation of building energy codes in China*



Project Summary

- Project Outputs

06-24 : Country Reports on Building Energy Codes of APP countries

Comparative Report on Building Energy Codes in APP countries

Seminar on Code Enforcement, Beijing, September 2009

Scenarios for Increasing Energy Efficiency Through Energy Codes Enhancement

06-25 : *Harmonized Window Rating Procedure between Member Countries*

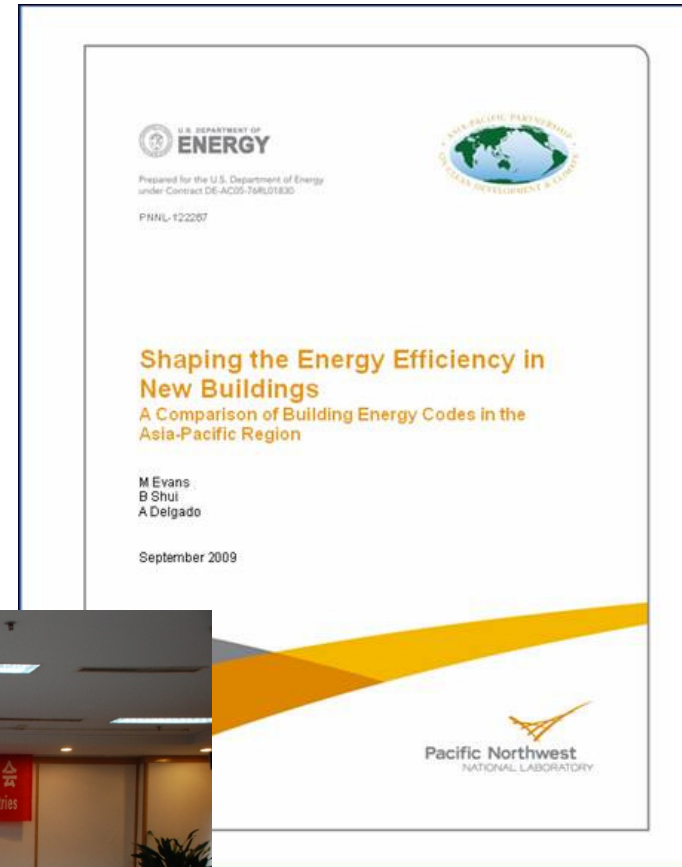
Dissemination of Window Rating Programs to Member Countries

09-52 : Quarterly Report finished, Stakeholder meetings

Project Status Update

06-24 : Survey & Compare Building Energy Codes in Participant Countries

- Seven APP country reports on building energy codes were completed by Pacific Northwest National Laboratory of U.S. Department of Energy with the help of member countries (Apr. 2009)
- A comparative report on building energy codes in APP countries (Sept. 2009)
- APP Seminar on Building Energy Code Enforcement in Beijing, Sept. 14-15, 2009



ASIA PACIFIC PARTNERSHIP ON CLEAN BUILDINGS AND APPLIANCES TASK FORCE 8th Meeting in Tokyo, Japan on 7 – 8 October, 2009



Project Status Update

06-25: Develop/harmonize window rating procedures and/or labels

Australia:

- Harmonized rating between USA and Australia. *Australian Fenestration Rating Council (AFRC)*
- July 2009 - Michael Palin of Australian Window Association (AWA) attend the National Fenestration Rating council Summer meeting in Baltimore. He also represented the Australian Fenestration Rating Council.

China:

- May 2009 - JGJ/T 151 -2008 standard (fenestration simulation methodology) became effective in China, and was translated into English.
- 6 Web conference with NFRC and CBMA were held to develop a simulation manual including differences between NFRC and Chinese simulation procedure. Manual to be used for THEMR and WINDOW “train the trainer” workshop.



Project Status Update

06-25: Develop/harmonize window rating procedures and/or labels:

India:

- July 2009 – USAID (through IRG Inc.) provided funds to Centre for Environment Planning and Technology (CEPT) for test equipment.
- NFRC and WinBuild Inc. providing technical assistance and additional funding for rating equipment and implement Energy Conservation Building Code (ECBC).
- July 2009 - WinBuild Inc. helped CEPT receive \$320K over 2 years from Ministry of New and Renewable Energy (MNRE) for a solar calorimeter for the CEPT energy center, and will continue to provide technical support .
- August 2009 – Mr. Shah (WinBuild inc.) visited CEPT to provide technical assistance for Air-Leakage chamber and solar calorimeter.
- September 2009 – Glazing Society of India (new non-profit administering rating and labelling of Building Envelope components) signed MOU with CEPT University, with help of WinBuild, to provide funding and support for test equipment.
- September 2009 – CEPT University to build new net-zero energy building to host the Building Envelop energy efficiency center and a virtual E-learning class room for students and officials.



Project Status Update

09-52: Implementation of Building Energy Codes in China

- One-day training in each pilot city (Ningbo, Zhejiang Province and Changchun, Jilin Province) on China building energy codes, and interactive discussions on China and US code implementation system; Each training has 60 + participants.
- Investigate the existing enforcement framework of building energy codes in China, and stakeholder relationship in China's implementation framework.
- Collect on-line information on two pilot cities and explore possible need of public information in the two cities.
- Study the development of building energy codes in other APP countries, especially on the enforcement framework.



Project Status Update

- What money/in-kind is committed
 - Korea: \$ 60 K
 - USA: \$ 700K
 - India: \$520K

Next Steps

06-24 : Survey & Compare Building Energy Codes in Participant Countries

General:

- Develop Scenarios for Increasing Energy Efficiency through Energy Codes Enhancement.

Australia:

- Continue to assist AFRC in development of Ratings program.

Next Steps

06-25: Develop/harmonize window rating procedures and/or labels

China:

- Host train the trainer workshop in November 2009.
- Update Air Leakage testing equipment to meet ASTM E 283 testing procedure.
- Final draft copy of the applied film standards to be completed by October 2009.

India:

- Assist CEPT in setting up building envelope testing and research facility.
- Continue to assist GSI to develop a Ratings program
- Host train the trainer workshop in December 2009.
- Establish an E-Learning center CEPT

09-52: Implementation of building energy codes in China

- Develop detailed action plan for project cities (Ningbo (Zhejiang Province) and Changchun (Jilin Province)), and prepare for the public information campaign.



Input Needed from Project Team

- **Commitment required**
 - Establish Working Group for Building Code Project and Window rating
- **Resources required**
 - Designation of experts for developing scenario for Increasing Energy Efficiency through Energy Codes Enhancement
 - Funds to support the new project proposed by India.
- **Meetings required**
 - Experts meeting in workshop on window energy rating and labelling.