



BUILDINGS AND APPLIANCES TASK FORCE

7th Meeting

8-10 April, 2009

New Delhi, India

Theme 6:

Role Enhancement of Building Energy Codes

06-24 : Survey building energy codes and Develop Scenarios for reducing energy consumption through energy code enhancement in APP countries

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

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Marc LaFrance/ USDOE, USA (06-25)

Project Summary

- **Project Objective**

To enhance mutual understanding of each country's building energy code including window rating, with the ultimate objective 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*

- **Project Outputs**

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

Comparative Report on Building Energy Codes in APP countries

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



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 (Mar. 2009)
- A comparative report on building energy codes in APP countries is in progress (Report will be completed by Jun. 2009)
- Project meeting in Washington DC USA (KICT/PNNL) (Nov. 2008)
- The development of scenarios for increasing energy efficiency through energy codes has commenced with India, China and the United States contributing policy documents



Project Status Update

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

- **Australia: Developed compatible window energy ratings and labeling program in one APP country (Mar. 2009)**
 - A database for Australian products is currently under discussion with house rating program developers.
 - Mandatory labelling is under development but still in early stages.
 - Australian accredited simulator trainers and training program approved by NFRC.
 - WERS has custom energy ratings for commercial fenestration systems using AFRC-NFRC procedures.



Project Status Update

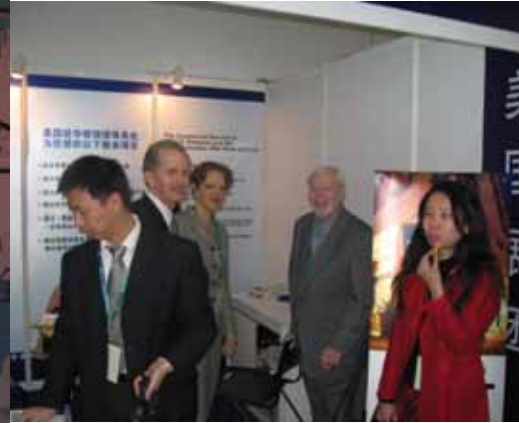
06-25: Develop/harmonize window rating procedures and/or labels

- **China : Building Envelope Safety/Energy Efficiency Experts Workshop, Beijing (Mar. 2009)**

- “Building Energy Performance Certification” Kick off meeting with Research Institute of Standards & Norms (RISN) and China Building Material Academy (CBMA) (Nov. 2009)
- USA-China Applied film standards harmonization task group meeting was held in U.S. (Feb. 2009)
- Initiated laboratory upgrade for Thermal Chamber and Air Infiltration Chamber with CBMA (Nov. 2008)



Event Pictures



**ASIA PACIFIC PARTNERSHIP ON CLEAN DEVELOPMENT & CLIMATE
BUILDINGS AND APPLIANCES TASK FORCE
7th Meeting in New Delhi on 8 - 10 April, 2009**



Project Status Update



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

- **India:**

- USA Pavilion at The Door and Window Trade Show, New Delhi (Dec. 5-7, 2008)
 - Demonstrated advanced and next generation window technologies.
- Hosted conference on Building Envelope Energy Efficiency Technologies (Dec. 7, 2008)
- Assisted CEPT to plan the set up of the building envelope testing laboratory (Feb. 2008)



- **Korea:**

- Started Revising Korean Window Rating and Procedure for harmonization of international window rating and labeling (Feb. 2009)

Project Status Update

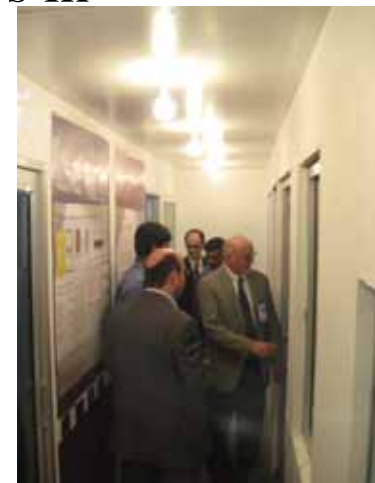
- What money/in-kind is committed
 - Korea: 60K USD
 - USA: 1.2 M USD
- Resources for establishment of Regional Energy Efficiency Centre at CEPT
 - Gujarat State Government – \$80K
 - Glazing Industry – \$200K
 - USAID – \$100K
 - NFRC and Industry – \$30K



Next Steps

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

- Publish Seven APP countries reports on building energy codes (Apr. 2009)
- The comparative report to be finished (by Jun. 2009)
- A workshop on the implementation of building energy codes in Beijing (Jul. or Sept. 2009)



Next Steps

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

- To develop a formal status report on the current Labeling and Rating programs in APP countries (by Jul. 1, 2009)
- **Australia:**
 - Continue to assist AFRC in development of Ratings program
 - NFRC is developing a new simulation tool CMAST for rating commercial product with capability to issue label certificate electronically and AFRC trainer will participate in simulation training of this new software tool.

Next Steps

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

- **China:**

- Develop simulation training manual and identify difference between USA and Chinese procedures
- Host the trainer workshop in Jun. 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 Jun. 2009

- **India:**

- Assist CEPT in setting up building envelope testing facilities
- Establishment of window energy rating agency to administer ratings in India
- Host the trainer workshop in Dec. 2009

Input Needed from Project Team

- **Commitment required**
 - Establish Working Group for Building Code Project and Window rating
- **Resources required**
 - Designation of experts for comparison work & developing scenario for Increasing Energy Efficiency through Energy Codes Enhancement
- **Information required**
 - Detail information of energy policy of member countries (History of revise, implementation process, etc)
 - Building energy consumption data of member countries
- **Meetings required**
 - Experts meeting in workshop on the implementation of building energy code in Beijing (Jul. or Sep. 2009)
- **Work required**
 - Reporting of building code & related standards for code comparison work

