



**6<sup>th</sup> Policy and Implementation  
Committee Meeting  
Vancouver, 28-30 Oct, 2008**

# **BUILDINGS AND APPLIANCES TASK FORCE**

**Park, Jungwook (Ministry of Knowledge Economy)**

**Chair**

**Ginsberg, Mark (US DOE) & Hogan, Kathleen (USEPA)**

**Co-Chairs**

# Mission & Goals

- Use cooperative mechanisms to support the further uptake of increasingly more energy efficient *appliances*.
- Promote best practice and demonstrate technologies in *buildings* and *appliances*.
- Support the integration of appropriate *mechanisms* to increase the uptake of energy efficient buildings and appliances.
- Systematically identify and respond to the range of barriers that limit the implementation of end-use energy efficiency practices and technologies.

# Review of 5<sup>th</sup> BATF Meeting

- **5<sup>th</sup> BATF meeting was held in Seoul on 23-24 June, 2008**
  - Project Meetings on Harmonization of Test Procedures and on Building Projects: Building Certification, Improvements to Existing Buildings, Role Enhancement of Building Codes, and High Performance Buildings and Developments
- **Proposed New projects**
  - US-India Cities Partnership for Sharing Best Practices on Energy and Environment
  - Existing Building Renovation in China
- **BATF endorsed Reporting Guidelines that outline responsibilities of Project Leads and Activity Leads.**
  - Project leads and activity leads have to submit PSRF (Project Status Report Form) provided by BATF four weeks and six weeks before each BATF meeting.
- **Collaboration with other TFs**
  - The Secretariat of APP REDG Task Force was invited to discuss common areas
  - The BATF will consider joint meetings with the REDGTF and PGTTF
- The chair of the Energy Efficiency Coalition, a branch of the Renewable Energy and Energy Efficiency Partnership (REEEP), also participated to discuss related issues.



# Review of 6<sup>th</sup> BATF Meeting

- 6<sup>th</sup> BATF meeting was held in Melbourne, 21-24 September 2008 in conjunction with the World Sustainable Building Conference (SB08)
- New numbering system for BATF projects drafted by ASG was approved.
  - *New numbering system*
    - 49 projects: 46 ongoing and 3 cancelled
    - 11 project areas maintained as “themes”
- Proposed India’s new project as a flagship project
  - Green Spaces - An IT/ITeS SEZ in India
- Performance Measures
  - Preliminary estimates were presented of the potential for energy and GHG reductions for selected projects from two US-led BATF projects
- Breakout Session on Net Zero Energy
- APP joint meeting with World Green Building Council

# New numbering system

- 11 approved projects → 11 project themes
  - Each activities are proposed to 49 separated projects
    - 46 ongoing and 3 cancelled

| Current Number              | Proposed Number            | Title  | Project Lead/Organization  | Theme                               |
|-----------------------------|----------------------------|--|----------------------------|-------------------------------------|
| <a href="#">BATF-06-1.1</a> | <a href="#">BATF-06-01</a> | Harmonization of Test Procedures for Electric Motors | Melanie Slade/<br>AU,DEWHA | 1. Harmonization of Test Procedures |
|                             | <a href="#">BATF-06-02</a> | Harmonization of Test Procedures for Motor Systems   | Melanie Slade/<br>AU,DEWHA | 1.Harmonization of Test Procedures  |
| BATF-06-1.2                 | <a href="#">BATF-07-36</a> | Quality Assurance Program and harmonization of CFLs* | Norman Barth/<br>US, DOS   | 1. Harmonization of Test Procedures |
|                             | <a href="#">BATF-06-03</a> | Phase-out of Inefficient Lighting                    | Melanie Slade/<br>AU,DEWHA | 1. Harmonization of Test Procedures |

# Approved BATF Projects

|            | Project Theme  | Project           |
|------------|--|-------------------|
| Appliances | <b>Harmonization of Test Procedures</b> (Korea Lead)<br><i>- Flagship 1. Quality Assurance and Harmonization of CFLs (USA-Australian lead)</i>   | <b>7 projects</b> |
|            | <b>Alignment of National Standby Power Approaches</b> (Australia Lead)   | 1 project         |
|            | <b>Market Transformation</b> (Japan Lead)  | <b>6 projects</b> |
| Buildings  | <b>Building Certification</b> (China Lead)   | 5 projects        |
|            | <b>Improvements to Existing Buildings</b> (USA Lead)   | 11 projects       |
|            | <b>Role Enhancement of Building Energy Codes</b> (Korea Lead)  | 2 projects        |
|            | <b>High Performance Buildings and Developments</b> (Australia Lead)<br><i>- Flagship 2. Green Buildings Flagships in China (USA lead)</i><br><i>- Mayors' Training Center</i><br><i>- Buildings Center of Excellence</i><br><i>- Olympic Micro-Energy Building (Completed)</i> | <b>9 projects</b> |
|            | <b>Utility Regulation and Incentives</b> (USA Lead)  | <b>2 projects</b> |
|            | <b>Smart Systems</b> (Australia Lead)  | <b>1 projects</b> |
|            | <b>Green Leases</b> (Australia Lead)   | <b>1 projects</b> |
|            | <b>Commercial Financing</b> (USA Lead)   | <b>1 projects</b> |

**49 BATF projects: 46 ongoing and 3 cancelled**

**The new numbering system for BATF projects is available for more details.**

# Flagship 1. Quality Assurance & Harmonization of Compact Fluorescent Lamps



## **Selected Actions since last update and next steps:**

- Benchmark testing of 1500 CFL samples at test labs in China (funded by Australia), India (funded by US) and Australia (funded by Australia).
- Industry Roundtable & Regional CFL Workshop June 08
- Manila Compact – signed by world's four largest lighting companies & several national lighting associations.
- Data collection on CFL standards across Asia
- Draft report on CFL standards in Asia
- Coordination with APEC's Energy Standards Information Systems
- Roundtable on CFL quality monitoring and compliance in China
- Developed draft CFL quality guidelines

## **Selected Next steps:**

- Finalize agreement with participants of Asia CFL quality Charter
- Guide to phasing out inefficient lamps
- Initial work on CFL finance in India
- Further work on global harmonized performance standards through IEC

# Flagship 2. High Performance Buildings and Developments – Green Buildings Flagships in China

**Mayors' Training Center:** Municipal officials receive training twice a year

- BATF working with MHURC and CABR to make existing Training Center more efficient, design high-performance building to be new Center, and update curriculum to include energy efficiency training.
- *Status:* New building design under discussion; curriculum development to begin in 2008.

**Buildings Center of Excellence in Sustainable Design and Technology (COE):**

- COE to provide display, exhibition, and training opportunities in cutting-edge building technologies, benchmarking techniques, and software tools.
- *Status:* Project underway but delayed by MOST decision that Agenda 21 building cannot house the COE.

# Continued

## Olympic Village Near-Zero Energy Building

- BATF worked with Olympic Village Developer to construct near-zero energy Welcome Center (to be converted into a Kindergarten after the Olympics).
- **Status: Completed August 2008.**



# Theme 1. Harmonization of Test Procedures

- **Project Outputs**
  - Potential greenhouse gas emission reductions of 1,200 MT CO2 per year when 10 products are harmonized with 10% improvement across APP Partners.
- **BATF-06-01 Harmonization of Test Procedures for Electric Motors (Australia)**
- **BATF-06-02 Harmonization of Test Procedures for Motor Systems (Australia)**
  - Creating a government forum to facilitate dialogue among government officials.
  - Creating a “Technical Exchange” forum for round-robin motors testing.
  - Facilitating APP member countries’ engagement with IEC working groups, as well as other regional groups.
- **BATF-06-03 Phase-out of Inefficient Lighting (Australia)**
  - Phase-Out 2008, Shanghai, China, 12-14 May 2008
- **BATF-06-04 Harmonization of Test Procedures for HVAC (Korea)**
  - Ductless AC/HP meeting, Madrid, Spain, 7 July 2008, and Sydney, AU, 3 Nov
- **BATF-06-05 Harmonization of Test Procedures for Household Refrigerators (Japan)**
- **BATF-06-06 Harmonization of Test Procedures for Electronics (USA)**
  - Four priority electronic products—TVs, monitors, computers, set-top boxes
- **BATF-07-37 Quality Assurance Program and harmonization of CFLs\***
  - Flagship project



HVAC-R WG, Gaithersburg, USA,  
27-31 August 2007

Household refrigerator meeting, Tokyo,  
Japan, 14 April 2008



## Theme 2. Standby Power

- **BATF-06-07 Alignment of National Standby Power Approaches (Australia)**
- **Project Updates**
  - Partners have agreed to a basket of common products, and a sample measurement approach.
  - APP Standby website launched ([www.energyrating.com.au/standbydata/app](http://www.energyrating.com.au/standbydata/app))
  - Report on outcomes of first round of country in-store data available at [www.energyrating.gov.au/library/details2008-app-standbyreport-initial.html](http://www.energyrating.gov.au/library/details2008-app-standbyreport-initial.html).
  - Training and data collection underway in partner countries
  - Standby conference in Washington, DC: Under preparation
- **Next steps**
  - Finalize report on preliminary data collections
  - Project partners to undertake further data collection before the end of 2008

# Theme 3. Market Transformation

- **BATF-06-08 Market Transformation Policies in APP Countries: Handbook and Analysis (Japan)**
  - Good Practices Handbook
    - Delivered first edition of brochure to G8 Summit (July 2008)
    - 2nd edition of Handbook nearly complete
- **BATF-06-09 Government procurement best practices (USA)**
- **BATF-06-10 Support for implementation of an energy efficiency endorsement labeling program for India (USA)**
- **BATF-06-11 Pilot US-China energy efficiency endorsement labeling harmonization (USA)**
- **BATF-07-37 Mitigating climate change via implementation of India's energy efficiency standards and labeling program (USA)**
- **BATF-08-47 US-India Cities Partnership for Sharing Best Practices on Energy and Environment (USA)**



# Theme 4. Building Certification

- **BATF-06-12 Evaluate policy and management systems for building certification and encourage adoption where appropriate (China)**
- **BATF-06-13 Pilot projects on building energy labeling (China)**
- **BATF-06-14 Establish information exchange network for continuous revision and improvement (China)**
- **Project Status for BATF-06-12 ~ BATF-06-14**
  - Setting up civil building testing and evaluation and labeling mechanism
  - Held a training course: “Technical guide on civil building energy efficiency testing and evaluation and labeling” (trained 64 people from 21 institutions)
  - Authorized 6 institutions for national-level on civil building energy efficiency testing and evaluation
- ***BATF-06-15 Provide green building guides and related training materials to APP countries : Cancelled***
- **BATF-06-16 Share U.S. experiences on building data and benchmarking (USA)**
- **BATF-06-17 OOPER (Office Operational Building Energy Rating) (Australia)**

# Theme 5. Improvements to Existing Buildings

- **BATF-06-18 Training workshops: on energy management, low-cost EE in existing buildings, tools, standardization, technical issues (USA)**
  - July 2008 – USEPA's eeBuildings provided training to approximately 30 building managers at Vanke, a residential and commercial property manager in China
- **BATF-06-19 Pilot implementation of no-cost and low-cost EE measures in existing buildings (USA)**
  - June 2008 - China eeBuildings delivered reports to the China Business Council for Sustainable Development (CBCSD) describing no-cost and low-cost recommendations for improving energy performance in four CBCSD member buildings
- **BATF-06-20 Proposed framework screening tool for evaluating potential for retrofits (Australia)**
- **BATF-06-21 Retrofit of Existing Building Chillers in India (USA, Carole Cook)**
  - August 2008 - USEPA delivered to the World Bank a beta-testing version of the financial analysis tool along with instructions and comment sheets for review
- **BATF-06-22 Develop a guide to retrocommissioning of existing buildings (USA)**
- **BATF-06-23 Energy efficiency upgrade: low energy high rise project (including international extension) (Australia)**

# Continued...

- **BATF-07-38 The urban climate project – building clean and efficient cities (joint project with Theme, Market Transformation) (USA)**
  - ICLEI has received a Statement of Interest from eleven cities in India confirming their interest in participating in this project
  - Next Steps: The Urban Climate Project team plans to visit potential cities, finalize the participants, and sign three-party Memoranda of Understanding (MOU)s with the cities.
- **BATF-07-39 Australian-Indian building tune-ups (Australia)**
- **BATF-07-40 Energy management program in India (USA)**
- **BATF-08-48 Existing Building Renovation in China (USA)**
  - Led by USDOE, the APP project team will work with CAST to provide design input to the building renovation and help make it a showcase of existing building renovation. Another planned deliverable is a case study to be widely disseminated through publications, workshops, and conferences.
- **BATF-07-41 Tianjin green office building retrofit (Australia)**

# Theme 6. Building Codes

- **BATF-06-24 Survey building energy codes and Develop Scenarios for reducing energy consumption through energy code enhancement in APP countries (Korea)**
  - Final report in progress by Pacific Northwest National Laboratory (PNNL)
- **BATF-06-25 Develop/harmonize window rating procedures and/or labels (USA)**
  - Established Australian Fenestration Rating Council (AFRC)
  - Agreement among MOHURD (formerly MOC), China Building Materials Academy, and NFRC to establish fenestration rating and labeling program in China
  - Established building simulation laboratory, post-graduate curriculum for Energy Efficiency in Buildings, and scholarship program at the Center for Environmental Planning and Technology (CEPT) University, Ahmedabad, India; the Centre has been approved as a Regional Energy Efficiency Center.
  - Trainings and train-the-trainer workshops in using the EnergyPlus, THERM, and WINDOW building simulation programs programs in Australia, India, and China.

# Theme 7. High Performance Buildings and Developments

- **BATF-06-26 APP web portal for information on high-performance buildings and developments (Japan)**
  - Sustainable buildings database portal launched in July 2008 ([www.asiapacificpartnership.org/sustainable-buildings.html](http://www.asiapacificpartnership.org/sustainable-buildings.html)).
- **BATF-06-27 Green building flagships in China\* (USA)**
  - Olympic Village Micro-Energy Building
  - Mayors' Training Center
  - Center of Excellence
- **BATF-06-28 SB08 – 6th World Sustainable Building Conference and other conferences (Australia)**
  - SB08: Joint meeting with World Green Building Council, APP Plenary Session, APP Special Forum on Hyperurbanization, Special Forum on China
  - China and India workshops: Showcase energy efficiency products and services; identify areas/projects for uptake of advanced building design
    - Chinese workshops (40km<sup>2</sup> development zone on fringe of Beijing; Tangshan Anji Lake Hot Spring Eco-City concept)
    - Roundtable with Indian developers

## Continued..

- **BATF-07-42 High performance commercial buildings in India (USA)**
  - Collected data on conventional commercial buildings and solar passive buildings
- **BATF-07-43 Regional energy efficiency centers in India (USA)**
  - Purpose: Commission pilot REEC in India
  - Visited the four institutions identified for support, and identified individual profiles and funding requirements for all four REECs
- **BATF-07-44 Promotional framework for passive design and solar energy technologies in energy-efficient buildings (India)**
- **BATF-07-45 Indian high tech buildings initiative: Data centers pilot (USA)**
  - Information gathering completed January 2008.
- **BATF-07-46 China Building Energy Rating Tool (CBERT) (Australia)**
  - Still awaiting NDRC approval.

# Theme 8. Utility Regulations and Incentives

- **BATF-06-29 Good practices and lessons learned in the APP region to promote financing and the implementation of energy efficiency programs in utilities (USA)**
  - Task 1. Identify lessons, good practices, and recommendations for utility regulation and incentives, and promotion of effective DSM programs
    - July 2008 – Australia completed report on its experiences to date with utility regulation and incentives
  - Task 2. Implement technical cooperation among APP countries to promote improvements in utility regulation, incentives and programs
- **BATF-06-30 Technical support for China and India (USA)**

# Theme 9. Smart Systems

- **BATF-06-31 Smart Meters (Australia)**

- Objective: Help utilities assess the business case for deployment of smart systems, and move toward critical momentum for their deployment.
- Status: Approved funding from the Australian government, but project proponent withdrew
- Canada and Australia working together to redefine project.

# Theme 10. Green Leases

- **BATF-06-32 Green Leases (Australia)**
  - Status
    - The US Government has confirmed its commitment to co-chair the project
    - A workshop in New York City is planned for late 2008 or early 2009 to identify best practice models suitable for APP applications; a second workshop in 2009 would involve landlords and tenants from the APP countries.
  - Next Steps
    - Identify tenant and building owner champions to participate in the second workshop
    - Carry out investment sector input studies for each country.

# Theme 11. Commercial Financing

- **BATF-06-35 India Public Sector Market Assessment (USA)**
  - Objective: Provide first-cut estimates of market size for improving energy efficiency in publicly owned or operated buildings in India and potential GHG reductions available in market.
  - Accomplishments to date
    - Conducted first assessment of macro level data (national and agency data on building types, floor space, energy use).
    - Collected about 70 building energy audits for various public building types.
  - Next steps
    - Complete survey of government agencies to estimate types of public buildings and floor space for each.
- **BATF-06-33 Share Approaches, Cancelled**
- **BATF-06-35 Joints Projects, Cancelled**

# Proposed New Flagship Project



- **Green Spaces™- IT / ITeS Special Economic Zone (India)**
  - The new project proposal is represented as “Green Spaces – IT/ITeS Special Economic Zone in India”
  - In June 2008 the Bureau of Energy Efficiency (BEE) Govt. of India (GOI), Ministry of Power, after consultation with TERI had recommended the project to the Ministry of Environment and Forests.
  - Goal: Build world’s most efficient comm’l building with U.S. GBC LEED Platinum certification and highest points rating, and widely disseminate data and results.
  - Proposed as a flagship project

## Next Steps

- 7<sup>th</sup> BATF meeting in New Delhi in April, 2009
- Update BATF Action Plans



# *THANK YOU FROM BATF !*



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