



BUILDINGS AND APPLIANCES TASK FORCE

7th Meeting

8-10 April, 2009

New Delhi, India

Theme 1

Harmonization of Testing Procedures (Communities of Practice)

Jun Choi

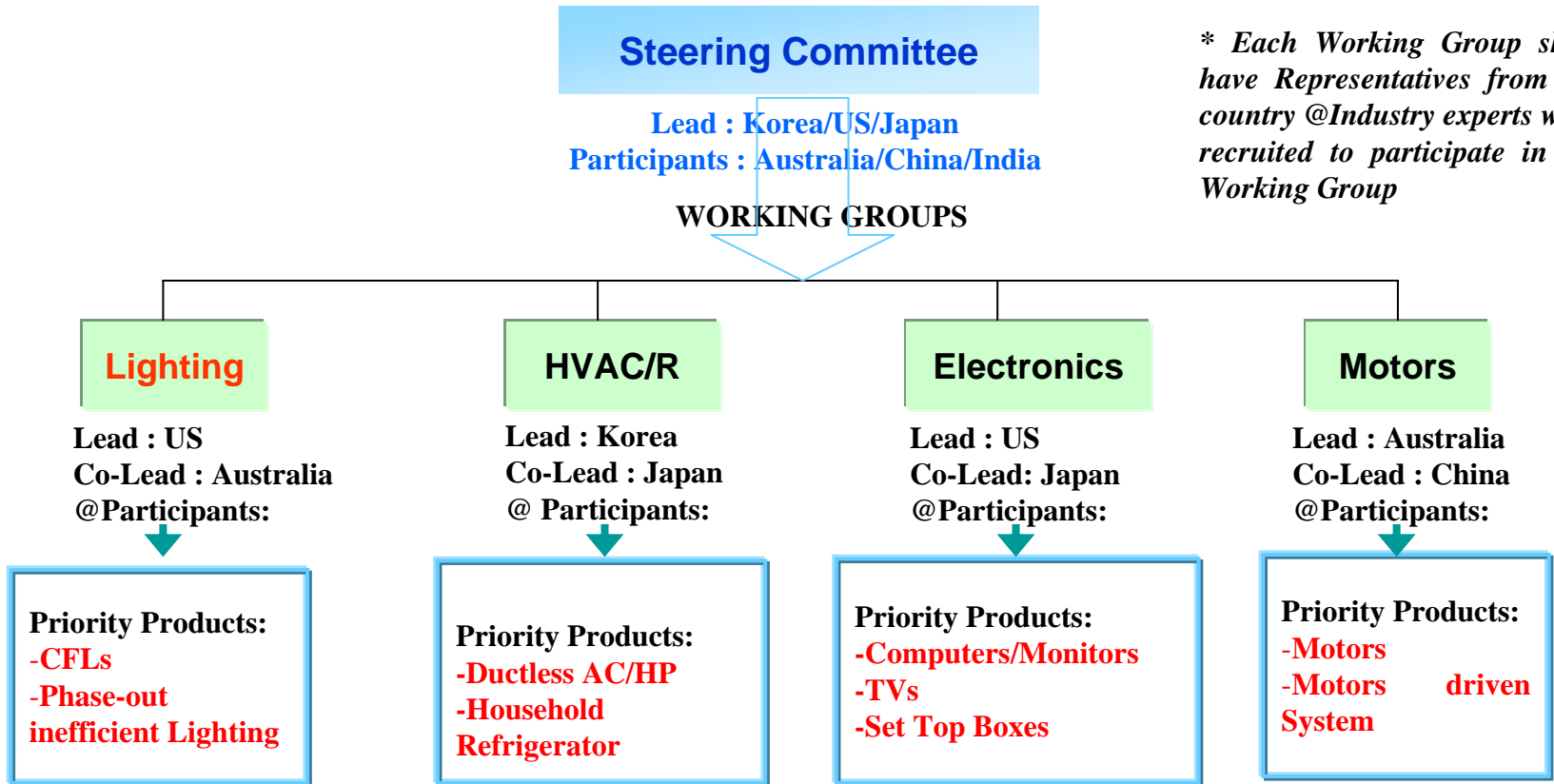
Project Leader

Project Summary

- **Project Objective**
 - Develop methodology for arriving at test procedures that measure product energy efficiency and/or energy consumption that are harmonized among the participant countries and could be adopted by other countries
- **Project Elements**
 - Four working groups
 - Motors, Lighting, HVAC/refrigeration, and Electronics
- **Project Outputs**
 - GHG emissions reductions: based on currently available (2006) country and world GDP figures, savings are estimated at approximately 1,200MtCO₂/year when 10 items (Motor, ACs & Heat pump, Lighting, TV etc) are fully implemented with 10% improvement across AP7 partner countries.



Structure of Project 1 WGs



** Each Working Group should have Representatives from each country @ Industry experts will be recruited to participate in each Working Group*



Project Status Update

- **Motor WG**

- **Project Number & Title :**

- BATF 06-01, Harmonization of Test Procedures for Electric Motors
- BATF 06-02, Harmonization of Test Procedures for Motor Systems

- **Lead Partner Country:** Australia/China , China/Australia

- **Project Manager :** Melanie Slade, Department of the Environment, Water, Heritage and the Arts of Australia

- **Participating Partner Countries and Organizations:** Australia, China, Korea (Japan, USA, India possible participants)

- **Milestones:**

- Three project workshops have been held so far - 10 June 2007 (Beijing), 10 December 2007 (Beijing) and 6 February 2009 (Sydney) to further progress this project.



- A motor testing round robin between Germany, Australia, China and Korea is in progress and is expected to be completed in 2009.

– **Actions Since Last Update:**

- Project workshop held 6 February 2009 in Sydney, Australia. Representatives from government and industry attended from Australia, China, Korea, India and the US.
- A testing round robin of electric motors between Germany, Australia, China and Korea is underway and expected to be completed in 2009. The aim of this round robin is to provide input to the and APP partners on the new IEC test method standard, IEC 60034-2-1.
- Approximately 21 motors will be purchased in China and tested at the Shanghai Electrical Apparatus Research Institute (SEARI) test laboratory by mid 2009. These motors will be tested to three test methods listed in the new IEC test method standard to enable APP partners to assess the difference between the three test



– Next Steps

- Complete the motor testing round robin which is currently underway between Germany, Australia, China and Korea and provide the results to the IEC round robin.
- Purchase motors in China and test each of the motors using three test methods in the new international test method standard, IEC 60034-2-1, at the SEARI test laboratory in Shanghai, China.
- Set up an online forum for APP partners to share information about recent international motor system energy efficiency developments and work towards developing guides that could be taken to the international standards bodies to further develop and publish.

– Proposed Project End Date: June 2012

- **Other Information:** AUD 1,300, 000 from the Australian Government, In-kind and other support to be confirmed from other APP partners.

- **Lighting WG**

- **Project Number & Title :**

- BATF 06-03, Harmonization of Testing Procedures – Facilitation of Regional Phase-out of Inefficient Lamps Sub-Project

- **Lead Partner Country:** Australia, Korea (Co-leader)

- **Project Manager :** Melanie Slade, DEWHA, AU

- **Participating Partner Countries and Organizations**

- Australia, Korea

- **Milestones**

- Data has been collated to construct a coherent and achievable guide for phase-out action
- Roadmap for early phase-out action has been drafted.

- **Actions Since Last Update:**

- Preparation of an edited version of conference proceedings from *Phase-Out 2008* (held in Shanghai May 2008). Proceedings are being prepared as a ‘state-of-the-art’ country guide to initiatives for the phase-out of inefficient lighting and promotion of energy efficient lighting
- Commencement of support for Asia region delegates (National Lighting Test Centre (NLTC) China) to attend a number of International Electrotechnical Commission (IEC) meetings concerning the creation of international lighting testing and performance standards.
- Further development of test methodology and standards for performance testing of reflector incandescent lighting.



– Next Steps

- Support for lighting efficiency workshops co-hosted with USAID's ECOAsia
- Clean Development and Climate Program, to be held in India (April 2009) which will include information on the development and implementation of inefficient lighting testing and performance standards.
- Lighting efficiency workshops proposed for manufacturing regions in China (May 2009) which will include information on the development and implementation of inefficient lighting testing and performance standards.
- Release of draft Phase-out Guide for stakeholder comment prior to finalization.



- **Proposed Project End Date:** 31 Jan 2011
- **Other Information:**
 - Note that some activities in this project are closely related to and combined with activities in the joint U.S.-Australia project entitled “Harmonization of Testing Procedures and Quality Assurance – Compact Fluorescent Lamps Sub-Project Plan”.



- **Project Number & Title :**
 - **BATF 07-36, Harmonization of Testing Procedures and Quality Assurance – Compact Fluorescent Lamps Sub-Project Plan (Flagship Project)**
- **Lead Partner Country:** Australia, US, (Co-leader)
- **Project Manager :** Norman Bath, US DOS
- **Participating Partner Countries and Organizations**
 - Korea
- **Milestones**
 - Benchmark testing of compact fluorescent lamp (CFL) quality.
 - Further actions on the Manila Compact
 - Independent organization to be established for CFL quality mark
 - CFL Conference planned for April in New Delhi, India
 - CFL finance in India

- **Actions Since Last Update:**
 - Completed further CFL testing in China and India test laboratories
 - Planned presentation of combined test results
 - Completion of data collection on CFL standards
 - Report on CFL standards in Asia
 - Cooperation with APEC
 - Roundtable on CFL quality monitoring and compliance in India
 - Draft CFL quality guidelines developed
 - Outreach on international standards



– Next Steps

- CFL quality guidelines
- Report on CFL standards in Asia
- On-going update CFL data in APEC ESIS
- Guide to phasing out inefficient lamps
- Report on CFL benchmark testing.
- Workshop on CFL quality in China
- Global Harmonised Performance Standards



- **Proposed Project End Date: 31 Oct 2009**
- **Other Information:**



- **HVAC-R WG**

- **Project Number & Title:**

- BATF 06-04, Harmonization of Test Procedures for HVAC

- **Lead Partner Country:** Korea, US and Japan(Co-leader)

- **Project Manager :** Junyoung Choi, KTL

- **Participating Partner Countries and Organizations**

- Australia, India, China

- **Milestones**

- Two project workshops have been held so far – Sydney 3 Nov 2008 , and Kyoto on 30 March 2009 to further progress this project.
- It was provided to evaluate the Energy Efficiency of Air-conditioners for APP countries

- APP members are active in ISO, now and in the future, and was agreed that each APP members will bring any information related political management of relation between standard & labelling and test procedures in the AC/HP sectors to share with all APP members.
- All APP members will bring a temperature distribution bin to the meeting in order to compare each other and to develop a normative temperature distribution bin before ISO meeting.
- It is important to ensure cooperation between ISO and APP on AC/HP in order to expand AC/HP with energy saving technology to APP countries.



– **Actions Since Last Update:**

- HVAC project workshops were held in Sydney on 3 Nov., and in Kyoto on 30 March 2009 before ISO TC86 SC6 WG1
- It was discussed that a new test method for Air-conditioner/Heatpump has to be capable of reflecting of annual performance factor.
- Estimation Method for Total Electricity Consumption on Air conditioner and Assessing Energy Efficiency of Electric Air conditioners in APP Partner Countries .
- Discussion topics of Air Conditioning sector profile
 - Energy Efficiency analysis for AC products sold in each countries
 - Establish an average or typical usage pattern for the product
 - Define products and subcategories (classes)
 - Survey manufacturers and/or local trade associations regarding number of products sold each year
 - Evaluating and Estimating the Energy Efficiency of Air-conditioners
 - Energy Efficiency goal for products in the AC sectors
 - Political Management of relation between Standard & Labelling and test procedures in the AC sectors





ASIA PACIFIC PARTNERSHIP ON CLEAN DEVELOPMENT & CLIMATE
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– Next Steps

- 4th Project workshop will be scheduled in Arlington, VA, US, on 17 Sep 2009 after ISO TC86 SC6 WG1.
- Support a new test method of reflecting of actual use with harmonizing APP countries when ISO develop
- ISO WD(Working Draft) including APF(Annual Performance Factor) will be completed within 2009, and move to next stage CD (Committee Stage)
- Propose a new item, ERV(Energy Recovery Ventilator)

– **Proposed Project End Date:** Oct 2012

– **Other Information:**

- **Project Number & Title:**
 - BATF 06-05, Harmonization of Test Procedures for Household Refrigerator
- **Lead Partner Country:** Japan
- **Project Manager :** Kiyoshi Saito (JEMA)
- **Participating Partner Countries and Organizations**
 - Australia, Korea, US, India, China
- **Milestones**
 - Two project workshops have been held so far – Sydney on 29-30 September 2008, and Munich 3 Nov. 2008 to further progress this project.



- **Actions Since Last Update:**

- Two project workshops were held in Sydney on 29 Sep. 2008 after IEC TC59. and in Munich on 3 Nov. 2008. before IEC TC59 WG12
- It was agreed that any new test method for refrigerators has to be capable of reflecting of actual use in different parts of the world – this is the key point.
- It was suggested that a building block approach should be adopted in the IEC test method wherever possible.
- It is important to ensure cooperation between IEC and APP on refrigerators.



– Next Steps

- Next meeting (Formal 3rd Meeting)
 - 18th May, 2009 Mexico City *The day before of IEC TC59/WG12
- Preparation data and the following next agenda item ;
 - Update of recent changes in APP countries
 - Following of IEC TC59/WG12 Munich meeting and detailed examination ;
 - » Establish a new test method “New concept for global IEC refrigerator energy consumption test procedure”
 - » Internal volumes – measurement method
- Estimate of the total electricity consumption and energy saving potential by household refrigerators in APP countries.
 - Establish a estimation method and data analysis

– **Proposed Project End Date:** Dec 2011

– **Other Information:**

- **Electronics WG**

- **Project Number:** BATF 06-06, Harmonization of Test Procedures for Electronics
- **Lead Partner Country:** US/Japan
- **Project Manager :** Andrew Fanara, US EPA
- **Participating Partner Countries and Organizations**
 - Australia, China, India, Korea
- **Milestones**
 - August 28, 2007 – First meeting of the Electronics Workgroup at the NIST Standards in Trade workshop



- **Actions Since Last Update:**

- Efforts were made to schedule a workgroup meeting at the Consumer Electronics Show 1/8 – 1/11/2009 in Las Vegas. Unfortunately, this timeframe did not work for a number of participants and thus no meeting took place.
- While APP activity for this project has been limited, test procedure harmonization continues to be coordinated through ENERGY STAR, IEA, and other efforts.



– **Next Steps**

- The workgroup will re-confirmed the proposed work plan and country commitments. A proposed next step is to create deliverables for each of the four priority product categories – TVs, computers, monitors, set-top boxes - that documents market and industry research and analysis

– **Proposed Project End Date: TBD**

– **Other Information:**

