



Summary Minutes
DRAFT
31st Meeting of the APEC Expert Group on Energy Efficiency & Conservation (EGEE&C)

15-16th November, 2007
Washington DC, USA

Chair: Li Tienan, China (absent – see note in session 1) litn@cecp.org.cn
Vice-Chair: Terry Collins, New Zealand Terry.Collins@eecca.govt.nz
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Session 1: Welcome and Introduction (Facilitator: Chair)

Welcome Address Jeffery Harris of the Alliance to Save Energy welcomed delegates to the offices of the Alliance on behalf of the US delegation. Mr Harris noted the timely nature of the meeting coming directly after the Energy Efficiency Global Forum giving the opportunity for a number of the delegates who had attended the Forum to potentially transfer ideas developed during the forum to the EGEE&C meeting (see Annex 1 for a listing of acronyms).

Introduction by EGEE&C Chair. Due to family bereavement the Chair, Mr Li Tienan (China), was unable to attend the meeting. Consequently, the secretariat proposed that the Vice-Chair (New Zealand) should lead the meeting and that the information supplied by the Chinese delegation should be presented by the Secretariat on China's behalf. Delegates unanimously agreed to the proposal, and therefore the New Zealand delegate took the meeting Chair (Mr Terry Collins).

The Chair then immediately proposed a message of condolence be sent to Mr Li Tienan on his sad loss (*Action: Secretariat to send message of condolence to Chair*).

The Chair (Mr Terry Collins) then introduced himself as the New Zealand delegate (replacing Mr Robert Tromop and Mr Selwyn Blackmore, both of whom have moved to new areas of responsibility) and welcomed the delegates to the meeting.

Self introductions by EGEE&C delegates. Delegates were invited to introduce themselves. A total of 21 delegates attended from 8 APEC economies: Australia (1), Canada (1), Chinese Taipei (2), Japan (2), Korea (2), Mexico (1), New Zealand (1) and USA (12 - included the Chair of the Renewable Energy Expert Group). In addition the meeting also included an APEC sponsor (from CLASP), observers from REEEP (2) and the EGEE&C Secretariat (see Annex 2 for details)

Adoption of the agenda. The delegates reviewed and adopted the draft agenda with minor additions of a presentation by the Renewable Energy and Energy Efficiency Programme (REEEP) in session 4 and a Tour of the Energy Efficient modifications made to the offices of the Alliance to Save Energy (tour undertaken in break of second morning). See Annex 3 for agree meeting agenda.



Session 2: Review of APEC-Funded Projects (Facilitator: Chair)

Reports were provided on each APEC funded project currently underway or recently completed. In all cases the reports were provided by delegate(s) from the project overseer's economy with varying levels of discussion following each presentation as outlined below (note a number of the associated presentations/reports are posted on the EGEE&C website).

Project 1: Survey of Transport Efficiency Policies in APEC Economies (USA)

The project is being implemented through the Alliance to Save Energy on behalf of the USA. As such, the project report was preceded by a brief introduction to the activities of the Alliance as follows:

- The Alliance was established in 1977 as a non-partisan, not for profit organisation promoting partnerships of professionals in business, government, education, research and the not-for-profit sectors. International programme activities began in 1995.
- The mission of the Alliance is "To promote energy efficiency worldwide to achieve a healthier economy, cleaner environment, greater energy security."

The APEC project seeks to identify and analyze policies and best practices in urban road transport in APEC economies. The rationale for the project is clear as trends in transport demands and related environmental problems are daunting. From 2000 to 2030:

- Passenger transport is projected to rise 335% in the Asian region (compared with 218% worldwide)
- Goods transport is projected to rise 294% in Asian region (compared with 203% worldwide)
- Transport-related CO₂ emissions are projected to rise 256 % in Asian region (compared with 193 % worldwide).

As an example, private vehicle ownership in large Chinese cities is rising at 15-20% a year, and the number of motor cycles is rising 30-35% nationwide.

Thus the project is seeking to better understanding of which transport policies are effective and how these "best practices" might be replicated. The project has chosen to define best practice as:

- A technique, methodology, program, or other intervention that has *proven to lead to a positive result*.
- The policy, systems, processes and/or procedures that are *generally regarded* as the *practice that delivers the optimal outcome, such that they are worthy of adoption*.
- May be either *emerging or established*.

The project aims to study polices which have the benefits of a reduction of air pollution, mitigation of global climate change, improvement of public health & safety, stimulation of economic growth and improvements in quality of life. However the actual policy measures may primarily be addressed one of the other key transport-related environmental problems in the APEC region, ie traffic congestion, inefficient energy use, pollution of air and water or noise pollution.

Examples were given of the type of policies that appear to have been successful to date including reducing congestion in Korea and Singapore, influencing the motor cycle market in Thailand, promoting more efficient cars in Japan (see presentation for details).

The project is split into Phase three Phases as follows:

- Phase 1 - Project Scoping
 - Collection and review of existing information (this is already underway with questionnaires distributed to all EGEE&C participants and a number of desk reviews and



interviews being undertaken). The breadth and depth of the survey and analysis will include

- transport policy goals – system level, vehicle-specific level
 - policy and program approaches to meet these goals
 - analysis of results to date in APEC economies
 - identification of information gaps and transport sector energy-efficiency solutions
- Phase 2 – Draft Report
 - Outline is already prepared
 - Peer review of draft report by EGEE&C members and other experts
 - Phase 3 – Final Report and Dissemination

It was highlighted by the Chair of the that the EWG have indicated a strong desire to see more transport projects and EGEE&C delegates were encouraged to bear this desire in mind when considering future projects. To this end, the importance of this project was highlighted as the first in the area and delegates agreed to ensure all key contacts were identified in each economy.

(Action: All EGEE&C delegates to supply USA with contact details for transport policy within their economy).

Project 2: Harmonisation of Standards and Labelling for Compact Fluorescent Lamps in Order to Reduce Trade Barriers in the APEC Economies (Australia, China)

The project aims to continue and build on both previous and ongoing work in APEC to reduce barriers to trade created by the existence of many different energy performance test methods and energy performance requirements for compact fluorescent lamps across the 21 APEC economies. Building on the work of a number of past activities within individual economies and on a transnational basis, the project has the following objectives:

- The primary objective is to work with governments in APEC to exchange information and develop support for harmonizing a set of standards for testing, quality, minimum efficiency, and labelling schemes of compact fluorescent lamps (CFLs). Through an APEC-wide survey, the project team will determine the reasons for these differences; whether they act as impediments to trade; and make suggestions for possible harmonization.
- A related objective is to promote harmonized technical standards by using the Efficient Lighting Initiative (ELI) labelling programme as a pilot tool for concrete cooperation among APEC economies.

The project is now in its closing stages. Through working cooperatively with other individual economies and regional and international initiatives (eg the CFLI and ELI), the project has realised outcomes beyond the original planning including:

- A published detailed review of the CFL trade, local markets, standards and labelling systems and regional incentive programmes used in seven APEC economies
- Detailed proposals for a revised CFL testing protocol that will facilitate harmonisation of CFL testing within all APEC economies, and harmonisation with a large number of economies beyond APEC. Proposals have been made to IEC for international adoption of the revised test procedure (IEC 60969). The proposals are now under review by the IEC technical group responsible for lighting with a revised committee draft document expected soon and international agreement on harmonised procedures expected early 2008.
- Initial proposals for 4 performance specifications for the region, incorporating the ELI standards. Further revisions of the proposed performance specifications have been undertaken by the China



Association of Lighting Industry with resulting proposals for a 3 Tier system for bare lamps (following agreement from all stakeholders present at the Xiamen APEC supported conference).

- A series of CFL testing results that not only verify (to date) the robustness of the testing protocol, but also demonstrate the compatibility of a number of testing laboratories within the APEC region.

A dissemination programme is now underway to promote the anticipated new test methodology and performance measures. Further, the outcomes of the project are being taken forward by the CFLI and by the Australian and US governments combined Asia Pacific Partnership project and the US Eco-Asia project, which together are working with governments in the majority of the APEC region to promote adoption of project outcomes and increased harmonisation. A project report is currently being prepared.

Project 3: Government Sector Energy Management: Best Practices Inventory and Comparative Analysis to Reduce Government Market Trade Barriers in APEC Economies (China presented by the Secretariat).

The project seeks to provide an inventory and comparative analysis on government sector energy management to provide a reference for all APEC economies on Government Energy Management Best Practice. The project is achieving this goal through the collection of information on Government activities related to:

- Policies, Targets, and Reporting
- Public Buildings – Existing and New (including project financing)
- Government procurement policy for energy efficient products
- Public Transport, Utilities, and Infrastructure
- Information, Training, and Recognition

To date, all information has been collected and onto a website. Further, a draft analysis report has been completed which:

- Compares the approaches in each program area among APEC economies, identifying gaps and opportunities for international collaboration
- Compares the energy, cost, and environmental savings from use of these harmonized energy efficiency criteria by the government sector in China and selected other member economies.

The final report is expected to be completed by the end of 2007, with publication and distribution via CD and the internet.

Delegates expressed a desire to continue this initiative (possibly in the same manner as ESIS – see session 5) plus to extend the activity to state and municipal level (ie not just federally). Further, it was suggested that the direct impact of “green” government decisions was not always economic, but rather was a market signal of commitment and there was currently no analysis of this approach. Hence a potential further project (or two) may be appropriate.

(Action China to examine the feasibility of whether approach can be extended to lower government levels and/or to include “non-economic” government leadership activities).

It was also proposed that this may be considered as one of the future meeting themes (see session 7).

(Action: Chair to consider Government Energy Management as a potential future meeting focus/theme).



Project 4: Application of Energy Indicators in APEC Economies (New Zealand)

The Application of Energy Indicators in APEC Economies project has held three workshops (the latest a capacity building workshop Singapore 17-21 September) and is currently preparing a report outlining a suite of energy indicators for APEC economies. This report includes some key messages to the EWG, recommendations for capacity building within APEC economies, how to develop the science of indicators and overall conclusions.

Key messages to the EWG (it is noted that a specific agenda item has been reserved for the presentation of these messages at EWG35):

- All economies need to build up expertise. There are big gaps in the pools of experts & analysts and some economies have no capacity in this area. In other economies there is an over-reliance on senior experts who want to retire one day. It is therefore a priority to grow 'young in career' analysts to a high level of expertise in energy analysis. This problem is faced by developed as well as developing economies. (Note that the recent APEC funded workshop is the only training event internationally in this area of energy analysis)
- Developing economies have both a large potential and a strong desire to improve their understanding of energy. They require further experience sharing workshops, and training, as well as direct support from developed economy experts.
- Energy Efficiency is just as important as supply options, so each economy should have an energy efficiency strategy.
- Energy efficiency indicators are important tools for any economy to understand the opportunities, priorities and progress in energy policy.
- Many economies face significant data gaps. It will take time for them to fix these gaps. Training for statisticians is important for ensuring an ability to gather data and ensure data quality.
- An agreed basic set of indicators for developing economies has been developed. EWG should prioritise assisting expert groups to assist those economies without data to complete the basic indicators
- Developing further cooperation with the IEA is critical. The IEA energy data template has been accepted as the international standard for standard for maintaining energy data consistency.
- IEA can help APEC with developing consistent data and analysis structures for economies. APEC EWG should develop an indicators / data clearing house to lead coordination of APEC indicators efforts and be the key contact with the IEA in energy indicators development.
- More workshops to show data / indicator experiences and get economies actually helping each other.
- If energy policy is important then indicators to understand and develop sound policy are just as important. Indicators are a priority - you must attach importance to indicators.

Capacity Building in APEC Economies:

- Generic analytical processes are used in indicator development, but each economies priorities are different. That means some customisation is required in each economy.
- Economies should start with simple energy balances and forecasts and do what can be done with existing data. Start by doing some small things well and evolve to the information systems that meet policy needs. You don't need a perfect process or perfect data before you can start in indicators. Proxy data, and interpolations can fill some data gaps
- Ensuring indicator processes are driven by policy needs, then selection of effective indicators to address policy needs, and then data gathered for those indicators ensures an efficient indicator process, avoids collection of irrelevant data, and minimizes the burden of data collection.
- It is useful to account for energy efficiency in economy energy balances.



- Need guidelines on how to address common identified data and analysis problems.
- Indicators are diagnostic tools – they identify problems & barriers and the best energy efficiency cures
- Bottom up as well as top down data is important. Need to move to sub-sector data, this is a data challenge
- EGEDA focal points need to emphasise the importance of expanding data.
- Use imagination. Work out what you need - look for any way to get data - Innovate; e.g. road stop survey by students gives car model, age, mileage, occupancy. Tell others what worked for you
- Show how energy efficiency is the best cost option for GHG reduction, security and other objectives

Developing the Science of Indicators.

- Establish networking for economy analysts; coordination, networking, sharing skills, tools, knowledge sharing
- We need to develop more effective tools that maximize the information we can get from basic data. (Why apply sophisticated analysis to variable data?).
- Harmonise APEC activities and techniques with IEA
- Set up a group to develop the science of indicator techniques. Tasks could cover;
 - A template for statistics review (e.g. NZ's Energy Domain Plan)
 - Disaggregation techniques, especially for trick sectors like commercial sector, and end use and sub sectors
 - Data is collected for many reasons, what can we get out of other commonly collected data?
 - Translate IEA guidebooks into key languages (note the IEA Energy Statistics manual is now in English, Spanish, and Russian.)
 - Techniques to validate and check data
 - Create models for economy that show linking of data - energy balances – indicators
 - Need end use efficiency to really understand end use opportunities
 - How to identify & fix data gaps
 - Be open to blue skies approach
- Develop guidelines on how to address problems that indicators highlight. What are effective policy responses to common problems identified by indicators.
- What are the limits of effectiveness for specific indicators? When are you reading too much into an indicator?
- Keep on developing consistency in data/indicators – this is important
- On line training options, especially for new analysts & those without any experience. Set up an on-line training course based on the material from this and related workshops so that new analysts can take themselves through a self learning process, and get recognition for completing a prescribed course.
- Training on how to communicate indicators in policy setting – how to get a ministers attention. 'How it can improve the lives of citizens'?

Conclusions:

- Energy Efficiency = Energy savings + service improvements (service improvements are always less clear but just as important for quantifying both takeback and value to consumers)
- Indicators are dependant on quality data
 - One size does not fit all



- There is no single key indicator – suites of indicator needed
- common frameworks are important, from general trends to specific indexes for diverse needs
- Context: The objective not to achieve a level of energy efficiency per se, Energy efficiency is not an end in itself – we do it for a wide range of social, economic and environmental drivers
- Wider goals – understand future energy needs so need to keep a wide perspective on society needs
- Maintain independence – we are analysts (diagnosticians not physicians) so we need to avoid distraction of policy decisions too much and keep some independence from political processes
- Top down approaches to end use are poor substitutes for basic end use data. Better of with essential end use data than sophisticated models
- Linkages between statistics and politicians are important. Generally poor connections between desire to know and awareness of effort required to maintain statistics systems.
- Communications is key – no point in perfect indicators that are not communicated effectively
- Balance supply and demand data/analysis
- Don't neglect “ordinary” indicators e.g. energy import dependence
- EE indicators need special attention, end-use data and good analytical technique.

Significant discussion followed on the development/use of indicators including:

- Currently there is no differentiation between the public and private sectors. New Zealand asked to discuss with the IEA the possibility of developing separate indicators/analysis for actions by the public and private sectors
- There was a request to that recommendations be slightly amended to focus on “energy savings” rather than “energy efficiency”
- Clarification was requested on the approach to be taken when the information collected conflicts with existing data sources
- REEEP has recently begun a project on similar areas based out of Holland and has encouraged liaison between the two projects.

(Action: Prior to completion of report on energy indicators, New Zealand to consider possibility of differentiating indicators/analysis of public and private sectors, revise “energy efficiency” to “energy savings”, and clarify how to resolve conflicts with existing data).

(Action: REEEP to provide New Zealand with contact details of Dutch Consultancy undertaking project related to energy indicators).

Project 5: Information Sharing on Financing Public Sector Energy Efficiency and Renewable Energy Projects (USA)

This project seeks to provide access to information on energy efficiency financing measures in place in various regions of the world, hence addressing a key barrier to the rapid spread of these mechanisms between economies. The project aims to:

- Bridge the gaps between the investment community and Energy Efficiency and Renewable Energy project developers
- Develop a web-based knowledge management system as a repository for available information on best practices, lessons learned, tools, etc
- Produce a project financing information sharing system to help reduce costs and effort for obtaining essential project financing information within member countries.



The system is being designed to provide:

- Users in APEC and non-APEC economies to have facts, sources of information, case studies, financing solutions and project development tools
- Project information collected by the system development team
- Capability to create, capture and store information and expertise from a variety of sources
- Open, multi-level access

The system is being developed based on a needs survey sent to the experts group representatives and a demo version is likely to be available in November at <http://demo.fivevision.com/apec/>. The final report will be disseminated all APEC economies.

Project 6: Electric Motors – Alignment of Standards and Best Practice Programmes with APEC (China presented by the Secretariat)

The project aims to promote the use of efficient motors in member economies by aligning test methods and energy performance standards. It builds on the recent agreement at the IEC to create a single method of test acceptable to world technical experts to measure motor efficiency. The project aims to facilitate the use of a single common test method and promote appropriate performance and efficiency endorsement levels amongst member economies. The use of a common test method and a set of aligned performance & “high efficiency” endorsement levels will enable suppliers to more easily market efficient products within APEC economies. The project aims to go beyond just a standards and labelling approach to examine linkages with best practice initiatives and to align APEC economy endeavours with best practice programs around the world.

To date the project has established a Technical Advisory Committee which includes experts from Australia, Japan Korea, Thailand and the USA. Further, the detailed scope of work of the project has been narrowed focus on Small and medium size three-phase asynchronous electric motors. Further development and the initial phases of the market research and technical analysis phase will be conducted at an APEC workshop to be held in Beijing on Dec.3-4, 2007. The market research and technical analysis phase is expected to continue through to the middle of 2008, with draft technical reports available by the end of September. Fully project reporting is expected by the end of 2008.

Discussion highlighted that this was not a competitive exercise with the new IEC test procedures, but more a parallel activity designed to assist APEC select the IEC methodology most appropriate to their needs – a process analogous to the CFL project. However, the US raised a query on how the project was being linked with other ongoing initiatives and who in the USA was coordinating interaction with this project and related APP and SEEEM initiatives. Thus, the secretariat was asked to approach the project lead to identify the US partner, and the chair agreed to seek more input (and possible a presentation at the next EGEE&C) meeting from APP/SEEEM representatives.

Action: Secretariat to identify US participant in Motor Project from Chinese Lead

Action: Chair to discuss project overlap/potential presentation on Motor activities from APP/SEEEM

Projects 7, 8 and 9: New Projects Just Approved

The US reported that three projects on which they are the lead had just been approved and were soon to start. The projects are:

- Methodologies to measure industrial energy efficiency in terms of \$ turnover and physical output
- How to ensure building codes are actually implemented (there was a request from participants that the same methodology be used as that developed by the IEA)
- A workshop



(Action US to investigate whether possible to use the IEA methodology in building codes project)

Additional Items Covered in Session

Brief comments were also made on projects recently approved for 2008:

- Survey on policies and programmes to measure and promote energy efficiency in industry in APEC economies (US)
- Comparison of building energy codes in APEC economies (USA)
- Workshop on policies to promote energy efficiency in transport in APEC economies (US)

The Chair also reminded delegates that ALL projects are required to submit a two page summary report

(Action all project leads are reminded of the need for a 2 page summary report at the end of each project)



Session 3: Review of Self-Funded Projects (Facilitator: Co-Chair)

Reports were provided on a number of self funded APEC project currently underway or recently completed. In all cases the reports were provided by delegate(s) from the project's lead economy with varying levels of discussion following each presentation as outlined below (note a number of the associated presentations/reports are posted on the EGEE&C website).

Project 1: APEC System for Managing and Benchmarking the Energy Efficiency of Traded Products (New Zealand) including the CLASP sponsorship of APEC ESIS (presented by CLASP)

The ESIS database collects and houses extensive data standards and labelling within the APEC region and beyond providing an extensive source of information for countries attempting to develop standards and labelling systems, for harmonisation of those systems and for analysis of impacts. Currently Japan, Australia, Korea and New Zealand are funding ESIS. Letters requesting funding for the next year have been sent out to existing funders and are also being sent to APEC economies that are not currently funding ESIS.

At EMM8 Darwin, APEC Energy Ministers reiterated their support for ESIS with the following statement in the EMM8 Declaration:

“Improving energy efficiency is a cost- effective way to enhance energy security and mitigate greenhouse gas emissions. There is great potential for energy efficiency improvements in the power generation, industrial, transportation, public, residential and commercial sectors. We encourage APEC economies to contribute to and utilise the APEC Energy Standards Information System (ESIS).”

At EGEE&C Beijing 2007, EGEE&C approved for EWG endorsement three sponsorship proposals;

- That CLASP become secretariat to ESIS within the scope of the existing sponsorship agreement. The ESIS steering group had proposed CLASP take up this role and CLASP agreed.
- The USAID Eco-Asia programme cooperate with ESIS – sharing Asian product data
- The UK Market Transformation Programme cooperate with ESIS – sharing European product data

These proposals were in turn endorsed in out of session decisions by EWG. CLASP is now acting as ESIS secretariat. The EWG lead shepherd has signed a sponsorship agreement with USAID. Uncertainty between the Market Transformation Programme staff and project overseer has delayed signing of the sponsorship agreement to EWG. This is currently with EWG for signing.

A proposal seeking APEC funding has been prepared for this meeting based on advice from EWG secretariat that EWG would consider funding for this long term currently self funded project (see session 5).

EGEE&C economy representatives were asked to note that CLASP is in discussion with REEEP about areas of common interest in standards and labelling information sharing and that REEEP was providing funding for the collection of data by ESIS beyond the APEC region. As a cofinancier, a request was made that the EGEE&C approach the APEC secretariat with a request to include the REEEP logo on all appropriate APEC pages which displayed or linked to information sourced using REEEP financing.



(Action: Secretariat to approach APEC to investigate display of REEEP logo on appropriate APEC pages which displayed or linked to information sourced using REEEP financing)

Project 2: US-Aid sponsorship of APEC ESIS and other activities (USA)

(Comment from Secretariat) Note that the report on this project occurred later in the session but is minuted here for clarity as closely associated with the previous project.

US-AID is providing sponsorship to enhance APEC ESIS through its Environmental Cooperation-Asia Clean Development and Climate Program (ECO-Asia CDCP). The support will increase the functionalities and provide more detailed level of information on end-use product and appliance efficiency, particularly for the ASEAN economies within APEC. In particular, the ECO-Asia CDCP will support the sharing of knowledge and providing more detailed information on technical standards and program activities related to lighting products such as compact fluorescent lamps (CFLs). This CFL work is an extension of other CFL harmonisation activities which are closely linked to ELI, the CFLI and APP.

The presentation also highlighted the other Eco-Asia activities focusing on Clean Coal and Financing of Energy Efficiency.

Project 3: Fiji Appliance and Equipment Energy Efficiency Programme (Australia)

The project has the objective to design and implement a mandatory energy labelling scheme and MEPS for residential appliances in Fiji, starting with refrigerators and freezers and expanding to other appliances. The project will also identify and prioritise the training needs of local institutions, agencies, authorities and private sector organisations to implement the programme. The project supports the previous APEC sponsored projects *Review of Energy Efficiency Test Standards and Regulations in APEC Member Economies (EWG 3/1999)*, which recommend APEC support the alignment of testing to the IEC method.

While Fiji is not an APEC economy member, this project is a model for engagement with Pacific Island countries and may well be used with Papua New Guinea in the future after the results of this trial become available. In particular, it aims to mitigate any migration of poorly performing products from the Australian/New Zealand markets to the Pacific Islands as more stringent regulations are introduced into the Australia/New Zealand markets.

In May 2005 the Australian Minister for Environment and Heritage committed to assist with the development of energy standards and labelling of refrigerators and freezers for the Fijian Government.

- The Collaborative Labelling and Appliances Standard Program (CLASP) by the International Institute for Energy Conservation (IIEC) to develop a *5 year Standards and Labelling Roadmap for Fiji*.
- *Cost-benefit analysis on energy labelling and MEPS for refrigerators and freezers (2006)* by George Wilkenfeld & Associates.

The Australian Greenhouse Office continued its support in 2006 in the implementation of the Roadmap with IIEC being appointed to provide technical assistance. Funding for Year 1 activities ended at 30 September 2007. On 11 September 2007 the Fijian Government gave formal cabinet approval for adoption of MEPS and energy rating labelling for household refrigeration appliances. Year 2 of the Roadmap includes the following activities:

- Technical assistance in implementing Year 2 of the Roadmap.
- Support for development and implementation of training packages for retailers and other stakeholders.



- Development and implementation of a consumer awareness strategy.
- Monitoring of the compliance program for refrigerators and freezers.
- Preparation of a cost-benefit analysis for labelling and MEPS for airconditioners.

Project 4: Japan-Australia Air Conditioning Test Laboratory Round Robin (Australia)

The project supports the previous APEC sponsored projects *Review of Energy Efficiency Test Standards and Regulations in APEC Member Economies (EWG 3/1999)*, which recommended APEC support the alignment of testing procedures.

Project Update:

- In 2006, Mechlab (an Australian test facility) and the Japanese industry testing facility conducted a comparison test of consumer type air conditioning products, to the ISO Standard. A copy of the report is available on request.
- Australia is endeavouring to locate facilities that test accurately to the ISO methodology with a view to assisting in testing the efficiency of air conditioners in the country of origin. Dialogue is about to commence with a Chinese facility about such testing.
- Australia are interested in exploring comparison testing between laboratories in APEC economies and endorsed facilities in Australia. The testing is conducted with each party bearing their own costs.

Project 5: Standby Power (Australia)

Australia has continued to extend its activities to curb consumption of Standby Power at the economy level and to work with international partners to develop an international approach. In November 2006 Australia held the APEC sponsored *Time for Global Action* conference which followed the APEC sponsored *Global Cooperation on 1 Watt* in Korea in 2005. Recently activity has been focused under the Buildings and Appliances Task Force (BATF) of Asia Pacific Partnership (APP), the project called *Alignment of National Standby Power Approaches*. Project objectives include:

- Promotion of a 1 Watt aspiration target
- Improved information through improved data collection
- Promotion of use of IEC62301 as a common test method
- Consideration of use of common policies to address standby

All countries are invited to participate. Currently APP countries committed are Australia, Korea, China, USA, India, Japan and Canada with other considering participation or already committed (New Zealand completed data collection, UK in principle agreement and the Czech Republic and Hungary planning data collection). The project is also cooperating with a number of other Standby related activities including the IEA Implementing Agreement Standby Annex (led by Australia) and the EU's Ecodesign Directive – seeks to apply a horizontal standard to products in standby mode. A major standby event is proposed for April 2008, probably under the banner of the IEA.

Additional Presentation by the Renewable Energy and Energy Efficient Partnership (REEEP)

Given the potential overlap in activities between EGEE&C participants and REEEP, and the potential cofunding of projects, the Asia Coordinator for REEEP was invited to provide an overview of their activities. This is wholly in line with the APEC Energy Ministers Darwin Declaration which included “We encourage EWG collaboration with REEEP on financing, Policy and Regulation”.

REEEP is a Public-Private Partnership for Clean Energy. It has a global remit to assist in structuring policy initiatives for clean energy markets and facilitates financing for sustainable energy projects with a goal to extend the markets for energy efficiency and clean energy. REEEP now has over 240 formal



partners representing governments, NGOs, development banks and the private sector. In addition there are 3,500 individual members. 12 governments provide donor funding. Implementation is through a number of regional secretariats.

REEEP's aim is to "accelerate the integration of renewable into the energy mix and to advocate energy efficiency as a path to improved energy security and reduce carbon emissions, thereby achieving socio-economic benefits". REEEP does not provide finance for developing or installing renewable energy, but focuses on supporting the development of financing mechanisms and support for policy and regulatory reform/development.

REEEP achieves these goals through:

- Initiatives and Interventions include:
 - The REEGLE information portal on renewables and energy efficiency (www.reegle.info)
 - The Sustainable Energy Regulators Network
 - Workshops on efficiency in buildings
 - The Renewable Energy Exchange (RE-EX), a matchmaking financial intermediary in Singapore who bring together renewable and energy efficiency projects together with funders and lenders (www.reexasia.com)
 - A global Energy Efficiency Coalition of major players to be announced at COP13 in Bali
- Funding Programme
 - Provides funding or approximately \$5m/year for projects in developing and transitional economies to remove market barriers to renewable energy and energy efficiency.
 - Projects are being to deliver new business models, policy recommendations, risk mitigation instruments, financing mechanisms, handbooks and databases. There are currently 68 projects in 39 countries.

REEEP noted their positive position towards the cofunding of APEC projects, although noted that this may be difficult as calls are generally annual and are competitive in nature.



Session 4: Reports on National EE Policies and Programs (Facilitator: Co-Chair)

Brief reports were provided on recent and upcoming national/regional EE policies and programs by economy, with an emphasis on sharing experiences and possible regional linkages. Presentations are outlined below (note a number of the associated presentations/reports are posted on the EGEE&C website).

Australia

The Australian representative noted that Australia was in an election period and as such was not in a position to discuss policy developments. However, whichever government was elected, it was likely that Australia would adopt an emission trading scheme and thus a request was made for delegates to provide any information that would support Australia in the development of such a scheme.

(Action: Delegates to provide Australia with information/contacts that may help with the development of a new emissions trading scheme)

Canada

The ecoENERGY Efficiency initiative has the goal of delivering “Environmental, Economic Productivity and Security Objectives” for Canada. Implementation is through the Office of Energy Efficiency (OEE) which is responsible for regulations, codes and standards, information, incentives and leadership; and CANME Energy Technology Centre (CETC) with regional delivery through laboratories in Alberta, Ontario and Quebec.

The objective of the programme is “A results orientated, comprehensive energy efficiency programme to provide Canadians with tools and know-how to reduce both greenhouse gas emissions and smog in every sector”. Three broad instruments are used:

- Regulation to remove poorly performing products from the market and encourage regulations outside federal jurisdiction
- Informing decision making including consumer information, industry benchmarking, labelling
- Focused incentives to accelerate adoption of efficient technologies and practices.

Results are already visible with Canada saving approximately 16% of energy against a business as usual model against a 1990 base, an estimated \$20.1bn in 2005 alone. However, total consumption has risen approximately 22% since 1990.

Budgets for climate change (and more recently clean air) have risen consistently since 2001 from approximately \$50m to a projected \$360m (of which efficiency is \$100m and biofuel incentives \$250m) in 2010.

Programmes are broken down as follows:

- Built Environment
 - Support for Technology development (S&T) programme (\$30m) for building energy technologies, district heating/cogeneration (and associated decision making tools), HVACR and the installation of North America’s first large scale solar project connecting 52 homes.
 - Market Transformation Programme
 - ecoENERGY Retrofit offering support to home-owners and small business to help retrofit their homes (\$292m)



- ecoENERGY for Buildings and Houses encouraging efficient initial construction and retrofit of buildings and houses (\$60m)
- Regulatory Agenda including the strengthening of the Energy Efficiency Act to:
 - Broaden authority to wider number of products, labelling and monitoring
 - Implement new regulations for 20 products including a 1 watt standby target
 - Regulation of lighting by 2012.These, together with associated initiatives will lead to the regulation of over 80% of the energy used in houses and businesses (\$32m)
- Industry
 - S&T programmes for industrial process, eg process integration, demonstration of emerging technologies, etc (\$11m)
 - ecoENERGY for Industry (\$18m)
 - Accelerating investment and exchange of best practice
 - Energy audits, employee training and information/awareness
 - Canadian Industry Programme for Energy Conservation (CIPEC). A government industry partnership since 1975 with 27 sector task forces involving 52 trade associations.
 - ecoENERGY Retrofit financing support for retrofitting smaller buildings and industrial processes (\$20m)
- Transportation
 - S&T programmes for hydrogen fuel cells, advanced renewable technologies and demo of fuel cell cars (\$11.8m)
 - Market Transformation Programme
 - ecoENERGY for personal vehicles (\$21m) including:
 - Information to motorists on buying, driving and maintaining their vehicles
 - Agreement with Auto Industry to reduce emissions by 5.3m tonnes by 2010
 - ecoENERGY for fleets (\$22m) aiming at training, education, sharing of best practice, anti-idling campaigns, etc
 - Regulation of vehicle fuel consumption (\$3m), in conjunction with the Motor Vehicle Fuel Consumption Standards Act and building on the existing industry voluntary agreement, to regulate vehicle consumption by 2011
 - Renewable Transportation Fuels Programme
 - ecoENERGY Biofuels Programme (\$1.48bn over 9 years)
 - Supporting the production of renewable energy alternatives to gasoline and diesel and to build a domestic renewable fuels industry
 - Operating incentives to producers of alternative fuels
 - Next Generation Biofuels Fund (\$500m over 8 years)
 - Repayable loans up to \$0% of cost for first of kind demonstration facilities for the production of next-generation fuels
 - Ethanol Expansion Programme (\$100m)
 - Nine ethanol plants being loan funded (7 complete) with nameplate capacities of 1 billion litres/year
 - Market Development Incentive Payments Programme (\$4.8m remaining)
 - Subsidies vehicle conversion to natural gas and associated refuelling infrastructure



- Clean Coal Generation
 - S&T (\$18.9m) including:
 - Clean coal technologies
 - Carbon capture, transportation and storage
 - RETSCREEN software allowing communities to select appropriate Renewable Energy options (translated into 21 languages and in use in 200 countries)
- Oil Sands and Heavy Oil (\$18.3m)
 - Technologies for recovering bitumen from oil sands and upgrading bitumen to heavy oil
 - Developing transformative technologies to enable shell to make \$1bn investment in oil sands
 - Initiating technology development for extracting intermediate oil sands resource
 - Addressing water, tailings management and energy consumption during extraction

China (presented by the Secretariat)

The report presented by China focused on the activities of the China Standard Certification Centre (CSC).

CSC have established a *Regional Help Desk on Sustainable Consumption and Production in Asia and the Pacific* on behalf of UNESCAP in partnership with UNEP in May 2006. The Help Desk seeks to assist governments and other stakeholders in Asia Pacific with the design and implementation of programmes and policies on SCP.

In June of 2007, the GEF approved \$6.85m funding of the \$34.2m BRESL project. The project is expected to rapidly accelerate the adoption and implementation of energy standards and labels throughout Asia. It will also facilitate harmonization of test procedures, standards and labels among developing countries throughout Asia, when appropriate. There are 5 countries currently participating in the project (Bangladesh, China, Indonesia, Thailand, and Vietnam), but other are encouraged to join.

CSC are actively involved in the development of Standards for Energy Management Systems. Currently four countries (Denmark, Sweden, Ireland, US) already have standards with three more actively developing them. As part of a UNIDO initiative, CSC is aiming to assist in the harmonisation of these standards and to promote a series of international standards using the “PDCA” approach to be recognised by ISO. An international meeting will be held on January 2008 in Beijing, hosted by UNIDO and CSC

Chinese Taipei

The ultimate energy consumption in Chinese Taipei in 2006 totalled 109 million kLOE broken down as Energy 7%, Transportation 15%, Industry 51%, Agriculture 6%, Residential 12%, Commercial 6%, Other 3%. Since 1986, consumption has risen by 292% as a whole (Industry rise 287%, Commercial and Residential rise 380%, Transportation rise 326%). However, actual energy efficiency has been rising by approximately 0.7%/year since the mid-70’s and is projected to increase by 1.5%/year between now and 2025 (a 33% overall improvement). This improvement is sought through a range of policy initiatives:

- Industrial Sector
 - Implementing diagnostic system for large energy users in quantity announced
 - Revising laws to enhance energy management for large energy user
 - Expanding energy diagnostics including reporting previous years consumption, energy diagnosis methods, etc
 - Guiding corporations to establish internal energy-saving service teams including 4 stage energy management qualifications
 - Encouraging chain-store signing agreement for voluntary energy saving.



- Promoting replacement with high-efficiency motors
- Initiating a guidepost value for green house emission of important products and equipment, and implement it.
- Assisting in raising manufacturing technologies in industry
- Transport Sector
 - Raising standard for energy consumed by vehicles (vehicles not meeting the standard cannot be imported or sold). Standards for vehicles were first introduced in 1988 for small cars and motorcycles, and further revisions and new standards have been introduced 7 times through to 2007
 - Initiating rewards for using hybrid vehicles
 - Promoting use of energy-saving vehicles and energy-saving traffic signal lamps.
 - Making good railway transportation services
 - Improving functions of highway passenger and city bus services
 - Regulating for a reasonable growth of automobiles and motorcycles
 - Utilizing advanced technologies to improve efficiency of energy used by transportation systems
 - Improving efficiency of freight transportation
 - Promoting the use of energy-saving, low emission vehicles and traffic facilities
- Commercial and Residential Sector
 - Initiating standards for medium and long term energy efficiency for appliances and promoting use of high-efficiency products (implementation of the first air-conditioning standards was in 1991).
 - A voluntary labelling programme started in 2001, but now includes over 21 product groupings. Labelled products are typically 20-30% more efficient than their equivalents and 50% higher than the national minimums
 - Planning for zero growth of energy use in government sector
 - Promoting energy-saving in lighting and eliminating inefficient lamps
 - Promoting ESCO services
 - Implementing certification system for air-conditioning designs that complies with energy saving
 - Expanding regulations for design of building envelop with energy saving and construction sizes, raising standard for energy waste through building skins
- Energy Sector
 - Reasonable energy price
 - Implementing time-of-use rates and electricity- saving strategies.
 - Improving power distribution and power transmission, reducing line lost
 - Revising laws for implementation of co-generation systems, encouraging use of co-generation systems
 - Implementing power demand feedback
 - Eliminating old units
 - Incorporating standard for coal fired and dual-cycle gas fired generator units into the guide of civilian power station
 - Guiding the replacement with high-efficiency new generator units in Taiwan Power Company
- Educational Programmes in Schools
 - Assisting in training teachers and designing teaching materials
 - Establishing major schools for education of energy saving
 - Promoting national energy-saving campaigns via high and grade schools



Public Education

- Pushing for public energy-saving campaigns.
- Energy saving promotion via network, providing necessary information to industry, school, and public
- Establishing service teams for “no cool-air leak” program
- Training energy management profession.

Japan

Japan has a Kyoto target to reduce consumption to 6% below 1990 level. However, although by 2010 energy demand in the industrial sector is expected to have levelled off relative to 1990, energy demand in the household, commercial, and transportation sectors is expected to be significantly increased (approximately 26-27% in the household sector, 47-49% in the commercial sector, 14-15% in the transportation sector). Therefore, projected domestic greenhouse gases emission in 2010 are 2.1% relative to the base year. This results in a 2.7 % (approximately 20 million to 34 million tons-CO₂) shortfall of the target (base year -6%) is projected, even including the reduction by the absorption by forests (3.8%), Kyoto Mechanism (1.6%).

Current Energy Conservation Policies (based on the Energy Conservation Law) include:

- Industrial Sector: Factories and workplaces which consume a certain quantity of energy saving plan and submit reports on energy consumption, etc
- Commercial Sector: Energy-saving measure reports shall be submitted for newly constructed, expanded and remodelled buildings
- Transportation Sector: An energy-saving plan and reports on energy consumption shall be submitted for consigners as well as carriers above a certain size.
- Top Runner Standard (Energy Conservation Law): Introduced by the 1998 revised law, expanding the target products now totalling 21 products as of April 2007
- Promotion of the Introduction of High-Efficiency Facilities (Subsidies, Tax Systems, Loans): Strengthening support for the introduction of energy-saving facilities such as high-performance industrial furnaces. Implementing the Taxation System for Promoting Investments in the Reform of the Energy Supply and Demand Structures (so-called "The Energy Reform Taxation System") promising high energy conservation effects. Low-interest loans to businesses contributing to energy conservation, particularly for the introduction of Top Runner qualified equipment and energy-saving businesses including ESCOs.
- Comprehensive Promotion of Energy Conservation Technology Development by developing mid- and long-term technology strategies and strengthening the cooperation among concerned parties.
- Promotion of the Introduction of High-Efficiency Hot-Water and Air Conditioning Systems in the Residence/Building Sector through expanding support for the introduction of high-efficiency hot-water systems to drastically enhance their distribution rate. Furthermore, support the introduction of high-efficiency air conditioning systems and insulation remodelling in residences.

Policies currently under consideration include:

- Industrial Sector:
 - Establish a common evaluation standard (benchmark) for major sectors (by business category, sector, etc.)
 - Assess and promote the businesses' actions for the rational use of energy by visualizing the energy consumption efficiency in the sector, in addition to the already implemented policy of the strengthening of the intensity improvement.



- Administrative actions (administrative notice) of the minister in charge authorized by the law are: 1. Monitoring the compliance of the evaluation criteria (only the standards); 2. Monitoring the status of improvement of the intensity; 3. Monitoring the status of compliance of the per sector benchmarking. The government assesses these.
- Utilize as the indicator to assess and promote the actions for the rational use of energy. Placed under the evaluation criteria.
- Introduce only for the business where assessing including the absolute level of energy consumption efficiency is regarded desirable in addition to the inter-annual improvement of the intensity.
- Examples of potential indicators include energy consumption per 1 ton of crude steel in the iron and steel industry, efficiency of electricity generation of thermal power stations in the electric power businesses, energy consumption per clinker in cement businesses, energy consumption per floor space in an office building, etc
- Commercial Sector:
 - Direct actions:
 - Introduce individual company energy management
 - Introduce the sector benchmarks for workplaces. The benchmarking be placed under the energy conservation standards
 - Expansion of TR target products
 - Strengthen energy conservation measures in buildings (secure the effectiveness, etc)
 - Reinforce the certification and labelling of energy conservation measures in buildings
 - Supporting Measures:
 - Strengthening the supporting measures for the commercial sector and buildings' energy conservation measures
 - Expand supporting measures (tax, budget) for buildings' energy conservation measures (discussion of taxation system to promote the introduction of energy conservation buildings)
- Household Sector
 - Direct actions:
 - Expand the Top runner target products and the labelling program
 - Strengthen energy conservation measures in houses and secure the effectiveness
 - Reinforce energy conservation standards in houses (unify the standards for facilities and building frames)
 - Reinforce the certification and labelling of energy conservation measures in houses
 - Supporting Measures:
 - Establish a framework that works well to promote energy conservation supporting measures to consumers by large businesses
 - National campaigns to further diffuse energy efficient home appliances.
 - Expand supporting measures (tax, budget) (including discussion of the introduction of a taxation system to promote the energy conservation remodelling.)



- Transport Sector
 - Ensure the implementation and secure the effectiveness of regulations based on the energy conservation law for large scale transportation businesses and consigners
 - Further promote the modal shift, traffic management, eco-driving.

Korea

KEMCO is responsible for the implementation of Korea's Efficiency, Renewables (Hydrogen/Fuel Cells, Photovoltaics and Wind) and Climate Change Mitigation (CDM) policies. Efficiency actions can be divided by four sectors

- Industry focusing on Voluntary Agreements, Energy Audits, ESCOs and Soft Loans
- Transport Sector focusing on the fuel efficiency and hybrid cars
- Building Certification
- Appliance Minimum Standards, Labelling and Rebates
- Voluntary Agreements

Appliance standards and labelling was first introduced in 1992. At present there are 20 product groups that are required to show the point label. A voluntary "high efficiency endorsement" label has been in place since 1996 and currently 37 product groups are covered. And finally, and "e-standby" label has been in place since 1999 and will become mandatory in 2010 (21 products).

The e-standby programme is a key programme as stand-by power is predicted to account for 25% of home energy use by 2020. The core aim is to reduce standby power <1W. From 2010, it will be mandatory for to show the energy boy voluntary label (or a warning label if the product is poor) on each of the following products:

- TVs, VCRs, Audios, DVD players, Set top boxes, Microwave ovens, Home gateways, Computers, Monitors, Printers, Fax machines, Copiers, Scanners, Multifunction devices, Bidets, Energy saving & controlling devices, Door phones, Cordless phones, Radios, Modems

Failure to comply will result in penalties of \$5,000 per model plus an additional penalty related to the energy consumed by products that have been sold. It will be compulsory for government to purchase compliant products.

Mexico

Mexican economy is particularly dependant on oil and natural gas and has a low energy intensity in the global context. In 2005 Total Primary Energy Supply was 6,649PJ of which 10.6% was supplied by renewable energy. Consumption of this primary energy is broken down as Transport 45.7%, Agriculture 3%, Commercial and Public 20.6%, Industrial 30.7%

The National Strategy for Climate Change aims to mitigate 106.8 MtCO₂/year between 2007-2014. This will include an increase in the production of Renewables (8 MtCO₂/year), and an overall increase in Energy Efficiency of 27.9 MtCO₂/year. To reach these goals, Mexico has created a National Development Plan for 2007-2012 which includes the desire to:

- To assure a trustful, high-quality and price-competitive energy supply demanded by consumers.
- To reduce emissions of greenhouse gases.

CONAE is the Public Federal Entity under the umbrella of the Ministry of Energy with administrative, financial and technical autonomy in charge of promoting energy efficiency and renewable energies. It is charged with



- Designing and operating programmes, developing standards, promoting and disseminating Best Practice
- Technical assistance and capacity building for public, private and social sectors
- Promote investment and innovative financing mechanisms

The current Instruments of Public Policy being employed are divided into the following:

- Mandatory Standards on Energy Efficiency (electrical and thermal) and Renewable Energy
- Federal Public Administration (Efficiency of Government Buildings)
- Requirements on State and Municipalities regarding efficiency and renewable energy use, and energy assessments of Municipal services (public lighting and pumping)
- Private Sector (SMEs, Big Industry and Transportation)
- Efficiency of Utilities (PEMEX, CFEyLFC)
- Government Vehicle Fleets

Current standards in place include:

<i>Domestic</i>	<i>Industry and Commercial</i>	<i>Buildings</i>	<i>Agriculture</i>
• Refrigerators and freezers	• Single Phase Motors	• Building lighting Systems	• Pumps
• Room Air Conditioners	• Three Phase Motors	• Road Lighting	• Submersible Pumps
• Central Air Conditioners	• Commercial Refrigeration	• Outdoor Lighting of Non-residential buildings	• Deep Well Pumps
• Washers	•	• Building Thermal Insulation	
• Water Heaters			
• Domestic Pumps			
• Fluorescent Compact Lamps			

Federal Government Buildings have been under a mandatory programme since 1999. Since this time, 149 energy efficiency committees have been established and conducted efficiency actions in 1,425 office buildings (4.97m square meters) with cumulative electricity savings equivalent to \$180m.

A Solar Water Heating Programme has the objective of developing and appropriate solar water heating technologies within the market place. It has the objective of installing 1,00 000 m2 installed by the end of 2012 (372,000 tons CO2/year). Key activities include:

- Regulation and certification
- Economic incentives for end users and manufacturers
- Market enhancement
- Development and assessment indicators, statistics and data
- Program synergies between agencies

The accumulated impacts of Conae programs (2001–2006) are:

<i>Program</i>	<i>2001-2006 Result</i>	<i>Equivalent in (m \$)</i>	<i>Avoided Emissions (mTon/CO2)</i>
Standards			
• Electricity Saved	• 70,586 GWh	• 105,880	• 45,881
• Avoided Capacity	• 2,926 MW	• 29,255	•
• Thermal Energy	• 22,676 Thous. Bep's	• 13,719	• 9,169



Efficient Industry

• <i>Public Sector</i>	• 23,654 Thous. Bep's	• 14,311	• 9,564
• <i>Private Sector</i>	• 3,200 Thous. Bep's	• 1,936	• 1,294
• <i>Transportation</i>	• 747 Thous. Bep's	• 452	• 302
• <i>FPA Buildings</i>	• 886 GWh	• 1,328	• 576
	TOTAL	166,880	66,786

The present administration is also working on:

- Promoting the use of energy efficient best available technologies for energy end users
- Intensifying the use of cogeneration capacities, renewable energies and any energy efficient technologies for energy supply
- Expanding the use of best practices in energy production and use among the sectors, specially the more energy intensive (industry, residential, commercial and transportation)
- Promoting the use energy efficient building design

The instruments to accomplish the objectives:

- Expand fiscal incentives for end users and technology developers
- Intensify government investment in R&D activities
- Expand the offer of financial schemes through more engagement of private banks
- Intensify awareness and education campaigns of EE/RE benefits and contribution to sustainable development.
- Foster and expand mandatory codes and standards, and voluntary labelling programs
- Expand the Energy Efficiency Program in the FPA as a model and example of political will.
- Launch Nationwide Programs for massive use of energy efficient technologies (Fluorescent Lamps, refrigerators, and air conditioning)

(Note that the representative from Mexico also provided a presentation on Mexico's transport energy policy. This can be viewed on the EGEE&C website)

New Zealand

On the 11 October 2007, the New Zealand Government launched the New Zealand Energy Efficiency and Conservation Strategy. This is the second version of the Strategy resulting from legislation first introduced in 2002 and represents a step change in funding and delivery for energy efficiency, conservation and renewable energy. The strategy is developed based on the cost benefit analysis and is a programme driven approach to setting targets and forecasting outcomes. So targets are built up from the bottom, not imposed from the top. The strategy also makes clear, on a programme by programme, basis who is responsible for delivery. Progress will be tracked and reported on annually.

The first version of the Strategy published in 2001 contained challenging targets for energy efficiency and renewable energy. Energy efficiency improvements were responsible for constraining the growth in the demand for energy by around 19 PJ, limiting growth to around 59 PJ between 2001 and 2005. A significant proportion of this is a result of NEECS programmes in which 31,000 homes were retrofitted with insulation. EECA's products programme, covering Minimum Energy Performance and Labelling Standards (MEPS and MEPL) delivered \$60 million in savings to consumers for a programme cost of \$3 million. EECA's business programmes have delivered \$88 million in saving.



The new strategy aims to address the four key barriers to efficiency in New Zealand:

- The initial cost of improvements
- Lack of information
- Split incentives (for instance between a landlord and tenant)
- Weak price signals.

The strategy aims to save 0 PJ of energy and 5-6 Mt of carbon emissions per year compared to business as usual; this is on top of savings already realised from the 2001 Strategy. The programmes also aim to expand the use of wood fuel and geothermal heat to deliver an additional 9.5 PJ of renewable energy in industry and homes. This is to be achieved as follows

Homes

Up to 180,000 insulation, clean heat or solar hot water upgrades for families. The focus of Energywise homes is warm, dry, healthy homes; improved air quality and reduced energy costs (every dollar we spend on insulation, energy efficiency and clean heating appliances, we can get up to \$2.20 back in energy and health savings). This is to be achieved through retrofits of low income homes, low costs loans to others, improving solar water heating standards, raising the building codes, etc. Incentivisation of the replacement of older inefficient refrigerators will be funded through an initial fund worth \$600,000.

Industry

Just 300 firms account for around 90 per cent of energy used in New Zealand's industrial and commercial sector. A significant amount of energy is used by large firms in the form of process heat. There is a lot of scope for fuel switching from electricity and fossil fuels to renewable energy such as woody biomass. Efforts in this area have been given a \$7 million dollar boost under the Forest Industry Development Agenda as detailed in the Sustainable Land Management and Climate Change Plan of Action. The Electricity Commission is to expand its programmes to increase the uptake of energy efficient compressed air systems and electric motors. Ongoing annual benefits from the EC's electricity efficiency programme are expected to be around 450 GWhrs and CO₂ savings of 87,000 tonnes. A \$850,000 programme to partner unions and Business New Zealand to develop a worker training programme has been initiated. Our intention is to expand this programme to cover relevant technical training programmes in the future so that they contain energy efficiency modules.

Agriculture, Forestry and Tourism

New programmes will focus on partnering with the rural sector to identify and deliver cost effective energy efficiency improvements on farms and for horticulture. The focus here will be on opportunities in glasshouses, dairy sheds, irrigation and on-farm processing. There are also many opportunities on farms to produce energy from wastes, whether it be biogas from animal and crop wastes, or electricity from small turbines on irrigation channels.

Commercial Buildings

Action will also be taken to lift the energy performance of commercial buildings through the Building Code, support for the Green Star rating scheme and additional research into lifting standards further. The strategy contains plans for a commercial building energy end-use programme (BEEP) to research how energy is used and design more efficiency programmes to save it. More new money, \$1 million, is going to go into a pilot programme to convert old coal-fired school boilers to clean, wood chip or wood pellet fired systems during 2008.



Transport

The main transport target is to improve the fuel efficiency of vehicles entering the fleet by around 25 per cent by 2015. An average standard will be set for vehicles entering the light fleet of 170g/Km of CO₂ which translates to 7.4l/100km for petrol vehicles and 6.5l/100km for diesels. It is also hoped that distance traveled by single occupancy vehicles in urban areas during peak hours by 10 per cent through a range of measures including better urban planning and cycling and walking facilities. The strategy starts by trying to reduce the demand for travel. Walking and cycling facilities are vital if we are to give people the option to switch from their cars for short trips. Producing travel plans for businesses and schools can help identify options for mode shift and efficiency gains. Enhanced public transport, in terms of the quality (frequency and reliability) of the services, can open up more alternatives to the car in many situations but it has to be high quality otherwise it's unreasonable to expect more people to use it. Funding for public transport has increased 10 fold since 1999, with major investments in commuter rail and bus facilities now well underway. Other transport actions may include:

- Freight to make that more efficient and to promote a level playing field across modes. Work in this area will include a study into options for improving the efficiency of the North Island main trunk line, including the possibility of completing electrification.
- New import standards or vehicles will literally save lives as well as money and emissions.
- Driver training programmes
- Endorsing locally produced biofuels, principally from tallow and whey
- Programmes to position New Zealand as a world leader in the adoption of electric vehicles.

Electricity Generation and Supply

To facilitate better use of the limited supply capacity and to accommodate more renewable (which will help us to meet the target of 90 per cent of our electricity coming from renewable sources by 2025), proposals are in place to:

- Provide larger users with better information to help them bid into the market, including for load shedding. As new technology comes online, increase the ability smaller users to pool demand and to reduce their load when demand is high or when there are capacity constraints
- Provide consumers with real time price information and related tariffs enabling them to better able to respond to price signals. So called smart meters can help with this. The really smart ones can be linked to appliances to automate demand response. The Electricity Commission is working on establishing standards for smart meters.

Distributed generation is also a focus, in particular micro-generation, such as photovoltaic, mini wind and hydro systems. Efforts are being made to bring costs down and make them more viable for widespread use. Central to this drive is improving grid connections and arrangements for putting surplus power on to the electricity network.

Government Purchasing

Government is trying to set an example. Government's purchasing power helps to create demand, and that can build capacity within the private sector for the supply of energy efficient and low carbon goods and services to the wider economy. This leads to further innovation and economic activity as householders and firms invest in these goods and services and as demand grows, economies of scale can be realised.

Delegates request more information on the development of the strategy and New Zealand agreed to supply relevant information including evaluating methodologies and cabinet papers.

(Action: New Zealand to supply delegates with information related to the development of Conservation Strategy)



USA

The US department of Energy focus on energy efficiency is targeted at the following areas.

- Research
 - Data Centres
 - Plug in hybrid vehicles
 - Solid state lighting
- Energy Efficiency Standards
- Energy Star criteria for emerging technologies
- Compact fluorescent lamps
 - Change a light, change the world programme (with USEPA)
- Housing
 - Build America
- DOE facilities
 - TEAM effort to reduce energy intensity
- Schools
 - New K-12 energy curriculum website
- Industry
 - Superior Energy Performance Partnership <http://www.superiorenergyperformance.net>
 - Save Energy Now <http://www1.eere.energy.gov/industry/saveenergynow/>
 - New Partnerships – national Association of Manufacturers
- State Programs
 - Utility efficiency targets
 - California GHG legislation
- Non-Governmental Initiatives and Partnerships
 - AIA + ASHRAE efficiency targets for new construction
 - LEED for neighbourhood development
- Commercial Building Initiative
 - Multi-year industry led initiative
 - Goal- Carbon neutral commercial sector by 2030
 - Create and diffuse the technology and practices to achieve this transition
 - New legislation authority and funding proposed (2008)
- Transportation Update
 - 31 Models of flex-fuel vehicles available 2008
 - New fuel economy sticker including improved test procedures and buyer information on \$ operating costs
- New Energy Bill
 - Advanced codes
 - Commercial buildings initiative
 - Light bulb standards
 - Efficiency portfolio standards (EERS) and as part of RPS
 - Federal leadership



Session 5: Presentation and Discussion of FY 2009 Proposals (Facilitator: Chair)

Prior to the meeting 9 outline proposals for APEC Funding for Financial Year 2009 were submitted for discussion. During the meeting, one further proposal (on methodologies to estimate the impact of standards and their harmonisation led by Mexico) was developed in the course of discussion. Summary details of these proposals are provided below.

Project 1: Alignment of National Standby Power Approaches (Australia)

To undertake coordinated activities in support of policies which target the reduction of standby power. Activities to span both policy and technical aspects and to be divided into two streams:

- Support for policies to tackle standby power
- Information collection and dissemination

Requested funding \$50,000.

Project 2: CFL Round-Robin Testing to Benchmark Regional Testing Laboratory Capacity (Australia)

To undertake round-robin testing of CFLs, using the soon to be agreed new IEC protocol, to establish existing technical capabilities of regional laboratories with respect to the new protocol and identify areas of technical weakness, this allowing corrective action to be taken. Once these technical weaknesses have been identified and addressed, the increase laboratory capacity will:

- Increasing individual national capacities to enforce CFL quality
- Increase likelihood of multilateral and pan-regional mutual recognition of results from individual laboratories
- Increased likelihood of multilateral and pan-regional harmonisation of enforcement actions

Together, increasing ability of regional economies to harmonise testing methodologies, performance specifications, and enforcement of product quality and ultimately increase inter-economy trade. Funding requested \$80,000.

Project 3: Capacity Development Workshop - Facilitation of International Harmonization of Standards for Energy Management in APEC (China)

The project is designed as a dialogue platform in APEC economics. The objective of the Seminar is to:

- Invite the APEC economics to join the cooperation that is already underway by a number of countries on MSE standards
- Update the MSE standards progress in APEC economics
- Provide the effective platform to share the experiences, best practices and different ideas
- Set up a close network of industrial energy efficiency experts, energy management and standards experts, policy makers and regulators in APEC economics;
- Seek the opportunities of cooperation and harmonization of MSE standards.

Funding requested \$55,000.

Project 4: Feasibility Study on Phasing out Inefficient Incandescent Bulbs in APEC Economies (China)

A number of APEC economies have recently announced plans to Phase-Out inefficient lighting. Presently there is a lack of feasibility study on phasing out incandescent bulbs in APEC economies. However, the policy makers in a number of APEC economies do not sufficient information and support for planning phasing out inefficient lighting bulbs. Furthermore, the challenges brought about by large-scale incandescent phasing out programmes need to be evaluated, such as the quality of CFL supply capacity, recycling and disposal capacity for hazardous



materials containing waste CFLs, etc. This project seeks to provide a comprehensive technical support to policy makers. The proposed feasibility study will research the current lighting market of the APEC economies, assess the respective economy capacities for phasing out inefficient incandescent lights in terms of policy, technology, finance and management, and provide an overall cost and benefit analysis.

Funding requested \$55,000.

Delegates noted that while this seemed a very good project, the goals seemed extremely broad given the limited size of the funding requested. Therefore, it was requested that the project proposal be reviewed to sharpen the goals and somewhat reduce the scope of the overall proposal.

Action: China to review project proposal on phase-out of inefficient lighting with a view to sharpening the goals and somewhat reducing the scope of the overall project proposal.

Project 5: Supporting APEC ESIS systems (New Zealand)

To ensure sustainable management and maintenance of the APEC ESIS website. ESIS faces ongoing costs to maintain the web server access for users of the ESIS database. This funding request stems from an indication by EWG that EGEE&C should seek support funding for ESIS from APEC. While the server services have been provided by economies previously, ESIS is now too large and access reliability too important to trust ESIS to other than a professional international server service provider.

Funding requested \$30,000.

Project 6: Survey of Best Practices of Building integrated Energy Efficiency and Renewable Energy in APEC Economies (USA) *Joint EE and RE Proposal*

As APEC economies represent one of the fastest growing regions in the world and a mix of developed and developing economies, they provide an opportunity to demonstrate to the world the advantage of combining renewable energy technologies with advanced energy efficiency technologies to drastically reduce the consumption fossil energy and resulting environmental emissions in the commercial and residential building sectors. This project will be a combined effort of the APEC Expert Groups on Energy Efficiency and Conservation and New and Renewable Energy Technologies to identify the current best practices across the APEC region of combined renewable energy and energy efficiency in buildings. The project will be carried out in two phases, the first being a survey report which identifies the best practices of combined renewable energy and energy efficiency technologies in buildings across the APEC economies. The second phase will consist of a workshop on the best practices conducted at a joint meeting of the two expert groups.

Funding requested \$100,000.

Project 7: Survey of Experience with and Potential Benefits of Cool Roofs in APEC Economies (USA)

In developing economies, urban population growth rates are several times those in rural areas. Because of the heat island effect, urban temperatures are increasing faster than average temperatures. During the summer, higher temperatures reduce occupant comfort, increase demand for electricity, and increase urban smog (through ozone formation). Higher air conditioning use in response to the higher temperatures increases urban energy use, and thus further exacerbates smog formation and increases greenhouse gas (GHG) emissions. Rising global temperatures add to these stresses.

Research has demonstrated a high potential to reduce temperature and electricity use in urban areas through the use of “cool roofs” – roofs consisting of materials that effectively reflect the sun's energy from the roof surface – and thus to improve air quality and reduce GHG emissions. This project would review the experience of the APEC economies with cool roofs, in both the residential and commercial sectors, and summarize their benefits. Initial estimates of potential energy and GHG savings of cool roofs will be made for all APEC economies where data are available, along with a review of locally available materials and technologies.



Funding requested \$50,000.

Project 8: Survey of Measurement Systems, Policies, and Programs to Promote Advanced Fenestration Technologies in APEC Economies (USA)

The purpose of this project is to compile information on ongoing efforts to reduce building energy use through the use of advanced fenestration technologies in APEC economies, by carrying out a survey and assessment of: 1) energy performance testing and rating practices to measure energy savings from fenestration technologies; 2) policies and programs to promote advanced fenestration technologies (in both new construction and existing buildings); and 3) the market status of climate-appropriate efficient fenestration technologies.

Funding requested \$50,000.

Delegates requested, and the USA agreed, to include blinds within the overall scope of the project when finally submitted.

Action: USA to include blinds in scope of final project proposal on Fenestration Technologies

Project 9: Practical Training on Proven Approaches to Energy and Water Efficiency in Water Supply, for APEC Water Utilities and Municipalities (USA)

The purpose of the proposed project is to hold a training course for water utilities and municipalities in the APEC economies to promote the benefits of launching efficiency programs in their water supply and/or wastewater treatment facilities, and to supply them with the information needed to do so. It has been conclusively demonstrated that enormous opportunities for water and energy savings exist in water supply and wastewater treatment systems. Most of these opportunities remain untapped, especially those relating to the energy use inherent in the supply of municipal water and wastewater services. These efficiency programs repay themselves rapidly and yield many rewards: reduced energy and water consumption, immediate improvements in water service, increased water delivery, and more revenue for system upgrades and new customer connections. A number of cities around the world—many in developing economies—have implemented technical and managerial efficiency improvements to improve energy and water efficiency in municipal water and wastewater systems, and there now exists a sizeable set of case studies that make a compelling case for incorporating efficiency practices into water supply and wastewater treatment systems.

Funding requested \$50,000.

Project 10: To develop reliable methodologies for the estimation of the impact of energy efficiency standards and their harmonization within the countries of the APEC region (Mexico)

To develop reliable methodologies for the estimation of the impact of energy efficiency standards and their harmonization within the countries of the APEC region. Counting on harmonized methodologies would bring as main benefits:

- Allow for meaningful cross country comparisons of the impact of standards in the APEC region
- International recognition and certainty on the impact of energy efficiency in the APEC region
- Strengthening the integration of APEC with harmonized methodologies in order to promote / improve the incursion in other economical regions world-wide
- Exchange of experiences and better understanding of the impact of standards in energy savings among APEC countries
- Identify, analyze and recommend improvements for the normalization of energy efficiency practices in the APEC region
- Count with reliable and harmonized methodologies that could be used for preparation of CDM programmatic projects, or GHG emission reductions for local or regional climate action programs.

Funding requested \$80,000.



Proposed Project Resubmission

In addition to the new project proposal, Chinese Taipei requested endorsement from the EGEE&C for the resubmission of their project *reducing barriers to trade through development of a common protocol for measuring the seasonal energy efficiency (SEER) of air conditioners*. This project had been previously submitted to the EWG and beyond, but requests had been made for revisions to the project before it received approval. Following consultation with the APEC secretariat, it was agreed that ideally the revised project should seek endorsement from the EGEE&C prior to resubmission, and as such Chinese Taipei requested this endorsement from the meeting.

Additional Discussions during Session

During the discussion on potential project submissions, it became clear that a number of representatives did not understand the actual project proposal process nor the differences between, and the requirements of, the various APEC funding mechanisms (eg the special account and TIF). The Renewable Energy Working Group Chair provides a comprehensive summary of the funding mechanisms, but to ensure clarity for all economies, the secretariat was asked to seek a guidance document from the APEC secretariat on the issue for distribution to all delegates. The secretariat was also asked to seek guidance on the process for actual project applications to APEC.

(Action: Secretariat to distribute guidance notes on various the various APEC project funding options, and the process for project applications)

Discussion was also undertaken on what constitutes a “partner” economy to be included on the project application. It was agreed that all economies present should be included as “partners” on all projects ranked for submission during AGEE&C 31 unless individual economies contract project lead to be excluded.

(Action: Individual economies to contact lead economy for any proposed project in which they do not want to act as a project partner)



Session 6: Consideration of FY 2009 Proposals (Facilitator: Co-Chair)

In order to provide a recommended ranking of project proposals for the EWG, each economy was asked to score projects based on their own assessment. Each economy provided their assessment on a confidential “voting” sheet by allocating a score to each project based on a scoring system of 1 = good proposal, 2=very good proposal, 3=excellent proposal (ie 1 was the lowest ranking and 3 was the highest ranking).

The secretariat then totalled the assessment given by each economy to each project to provide a total “score” for each project. The projects were then ranked according to these score and it is this ranking that will be provided by the EGEE&C to the EWG. Both the scores and the ranking of each project are given in the table below.

<i>Project</i>	<i>Lead</i>	<i>Score</i>	<i>Rank</i>
Feasibility Study on the Phase-out of Inefficient Incandescent Bulbs in APEC Economies ¹	China	22	1
Supporting APEC-ESIS	New Zealand	22	1
CFL Round-Robin Testing to Benchmark Regional Testing Laboratory Capacity	Australia	20	3
Alignment of National Stand-by Power Approaches	Australia	20	3
Harmonisation of Methodologies to Assess the Impact of Energy Efficiency Standards in the APEC Region	Mexico	16	5
Survey on Best Practices of Building integrated Energy Efficiency and Renewable Energy in APEC Economies (EGEE&C and EGRE Joint Project)	USA	15	6
Survey of Measurement Systems, Policies, and Programs to Promote Advanced Fenestration Technologies in APEC Economies ²	USA	13	7
Practical Training on Proven Approaches to Energy and Water Efficiency in Water Supply for APEC Water Utilities and Municipalities	USA	12	8
Capacity Development Workshop – Facilitation of International Harmonisation of Standards for Energy Management in APEC	China	11	9
Survey of Experience with, and Potential Benefits of, Cool Roofs in APEC Economies	USA	8	10

In addition to the individual ranking of projects, economies were asked whether they agreed that the EGEE&C should endorse the resubmission of the project led by Chinese Taipei on “*Reducing Barriers to Trade through Development of a Common Protocol for Measuring the Season Energy Efficiency (SEER) of Refrigerators*” (again this voting was conducted confidentially with totals tallied by the secretariat). This proposal was strongly endorsed by a vote of 6 in favour and 1 not in favour of endorsement. Hence the resubmission of the project was endorsed by the EGEE&C.

¹ Pending tightening of project proposal and scope

² Pending inclusion of blinds within the scope of the project



Session 7: Other EGEE&C Business (Facilitator: Chair and Co-Chair)

Reports from and to the EWG

Due to time limitations the Chair requested delegated review the *Reports on EWG 33 & 34 meeting* and the *EGEE&C report to EWG* (hard copy contained in the delegate package) and circulate any comments to the EGEE&C Chair all delegates by email.

(Action: All delegated to review reports to and from the EWG and provide comments to EGEE&C Chair and other delegates if required)

Proposal of New EGEE&G Chair

It was noted that the EGEE&C had previously agreed that at this meeting the Chair of the group would pass to New Zealand with the Vice-Chair being taken by China, this new arrangement to be in place for two years pending ongoing agreement from the EGEE&C delegates. However, it was also noted that the EWG has strongly requested that all expert groups coordinate the transfer of Chairs in the second half of 2008. Following a brief discussion, it was agreed that the transfer of the Chair and responsibility for the secretariat of EGEE&C to New Zealand (and the Vice-Chair to China) should take effect immediately, with a review towards the end of 2008 in line with the EWG request.

Timing and location of EGEE&C 32

The timing and location of the next meeting was discussed at some length. An original suggestion that a joint meeting may be held with the Renewable Energy Experts Group in Hawaii in March met with much enthusiasm and an outline programme proposed. Unfortunately it was felt that two consecutive meetings hosted by the USA may be problematical. As no other economy was in a position to offer to host the next meeting during the session, the Chair agreed to identify a host out of session and advise delegates before the end of December.

(Action: Chair to identify location and date of EGEE&C 32 and advise economies by the end of December)

In addition, the concept of having a focus for EGEE&C 32 was raised. Following some discussion it was agreed that the focus for reports from economies at EGEE&C 32 should be based on the evaluation methodologies they use for their policies and programmes. Where possible, project proposals should also focus on these areas. Delegates were encouraged to suggest other focus areas for later meetings.

(Action: All economies to prepare reports on evaluation methodologies used from policies and programmes within their economy for EGEE&C 32)

Peer Review on Energy Efficiency (PREE) process in APEC

APEC ministers have expressed a desire to develop a peer review mechanism whereby economies can voluntarily undergo a peer review of their energy efficiency policies and processes through which true progress can be measured, and lessons learned for the economy under review, but also by other APEC members. Currently, the EWG has no mechanism to implement such a peer review process, hence Japan agreed to explore the modality of such a process (the APEC Peer Review on Energy Efficiency APEC) for discussion at the EWG. The resulting report was presented to the EGEE&C for comment. The report included details of the following:

- Objective of the PREE
- Compilation of Energy Efficiency Policies of the APEC member Economies
- Choice of Economies to be Reviewed (including review team, criteria and cooperation with the IEA)
- Piloting and Development of Capacity



The paper detailing the proposed review process is posted on the EGEE&C website.

The EGEE&C delegates strongly supported the PREE process and will nominate experts to support the overall development and implementation process.

Action: Chair to indentify experts to support PREE process development and implementation.

Other Items (as proposed by delegates)

None

Close of Closed Sessions

The Chair thanked all delegates for their active and highly constructive participation in the close sessions of the meeting. The US delegation, and in particular the Alliance to Save Energy, were also thanked for their generosity in hosting the meeting and their excellent logistical support in assisting in the preparation for the meeting.

The closed sessions of the meeting was then formally closed by the Chair.



Session 8:

**SPECIAL EGEE&C OPEN SESSION
EGEE&C AND ASIA PACIFIC PARTNERSHIP (BATF) INFORMATION EXCHANGE
Friday 16 November 2007
13.30 – 17.30**

[Note from APEC EGEE&C Secretariat – Given the significant overlap in geographical coverage and project focal areas between APEC EGEE&C and the Asia Pacific Partnership's Building and Appliance Task Force (APP-BATF), an open session of the EGEE&C meeting was arranged where APP-BATF delegates were invited to exchange information on overall directions and specific project experiences.]

(Note: The EGEE&C secretariat would like to acknowledge and thank Ms Laura Van Wie McGrory of Lawrence Berkley Laboratories for the primary compilation of the minutes for this open session)

Terry Collins welcomed BATF delegates to the Open Session of the EGEE&C meeting and invited to the BATF Vice-Chair (Kathleen Hogan) to jointly chair the session. Their introductions were immediately followed by overview presentations on EGEE&C and BATF projects provided by the two Chairs.

I. EGEE&C Current and Proposed Projects (Terry Collins, Vice-Chair of EGEE&C)

In line with the outcomes of the earlier EGEE&C sessions, Terry Collins provided the combined group with the following information

Ongoing and Recently Completed APEC-Funded Projects:

- Survey of Transport Efficiency Policies and Programs in APEC Economies
- Harmonization of Standards & Labelling for CFLs
- Government Sector Energy Management: Best-Practices Inventory and Comparative Analysis
- Application of Energy Indicators in APEC Economies
- Information Sharing System for Financing Public EE and RE Projects
- Electric Motors – Alignment of Standards and Best Practice Programmes

Ongoing and Recently Completed Self-Funded Projects:

- System for Managing and Benchmarking Energy Efficiency of Traded Products (APEC ESIS)
- Fiji Appliance and Equipment Energy Efficiency Programme (EE Refrigerators)
- Standards & Labelling Programme in Fiji: Preliminary 5-Year Roadmap
- Standby Power
- CLASP Energy Standards & Labelling Information Network Sponsorship
- APEC ESIS Sponsorship Proposal

New Project Proposals

Very Strongly Endorsed

- Feasibility Study: Phasing Out Inefficient Incandescent Bulbs in APEC Economies (China)
- Supporting APEC ESIS Systems (New Zealand)
- CFL Round-Robin Testing to Benchmark Regional Testing Lab Capacity (Australia)
- Alignment of National Standby Power Approaches (Australia)

Strongly Endorsed

- Harmonization of Methods to Assess the Impact of Energy Efficiency Standards - APEC Region
- Survey of Best Practices of Building-integrated Energy Efficiency and Renewable Energy in APEC Economies (US)



Endorsed

- Survey Measurement Systems, Policies, and Programs to Promote Advanced Fenestration Technologies in APEC Economies (US)
- Practical Training on Proven Approaches to Energy and Water Efficiency in Water Supply, for APEC Water Utilities and Municipalities (US)
- Capacity Development Workshop – Facilitation of International Harmonization of Standards for Energy Management in APEC (China)
- Survey of Experience and Potential Benefits of Cool Roofs in APEC Economies (US)

Resubmitted

- Reducing Barriers to Trade through Development of a Common Protocol for Measuring Air Conditioner Seasonal Energy Efficiency, SEER (Chinese Taipei)

II. Overview of APP Buildings and Appliances Task Force Projects (Kathleen Hogan, Vice-Chair of BATF)

BATF Goals:

- Address main sources of greenhouse emissions in residential and commercial sectors, with the exception of transport.
- Use cooperative mechanisms to support uptake of energy efficient appliances.
- Promote best practices in building materials and in new and existing buildings.
- Increase uptake of energy efficient buildings and appliances into broader national efforts.
- Identify and respond to barriers that limit implementation of end-use energy efficiency practices and technologies.

Project Areas:

Project 1: Harmonization of Test Procedures for Energy-Using Appliances and Equipment (Korea lead, Japan/USA co-leads)

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

Activities: Four product working groups have identified products of focus:

- Lighting (CFLs)
- HVAC/R (household refrigerators, ductless AC/HPs)
- Electronics (computers and monitors, TVs, set top boxes)
- Motors (electric motors and motor systems)

Project 2: Alignment of National Standby Power Approaches (Australia lead, Korea co-lead)

Objective: Develop a common policy framework across APP partner countries to deliver lower standby power

Activities:

- Identify a basket of common products
- Agree on a simple measurement approach to enable comparison and benchmarking
- Hold international event in India (April 2008)



Project 3: Market Transformation (Japan lead, China co-lead)

Objective: Facilitate penetration of energy-efficient appliances into domestic markets

Activities:

- Market Transformation Handbook and Mapping Tool
- Collaboration on endorsement labelling in APP countries
- Collaboration on energy-saving programs in India:
- Government Procurement Workshop (July 2007)
- Urban Climate Project (1-2 cities)
- National Energy Management Program

Project 4: Building Certification (China lead, USA co-lead)

Objectives: Study building energy labelling experience in participating countries; promote technical approaches and incentive policies appropriate to each country.

Activities:

- Prepare report comparing building assessment and labelling in APP countries
- Carry out pilot projects on building energy labelling

Project 5: Improvements to Existing Buildings (USA lead)

Objectives:

- Establish continuous monitoring of building energy performance
- Increase low-cost O&M and cost-effective retrofits in commercial and public buildings
- Improve energy efficiency of residential buildings

Activities:

- Training workshops in China and India
- Proposed framework screening tool for evaluating potential for retrofits
- Retrofit of existing building chillers in India
- Building retrocommissioning guide
- No-cost/low-cost pilots in Chinese and Indian buildings
- Chinese-language eeBuildings Energy Performance Monitoring Tool

Project 6: Building Codes (Korea lead, USA co-lead)

Objectives:

- Improve mutual understanding of APP countries' building energy codes
- Enhance role of building energy codes for national energy conservation

Activities:

- Survey and compare building energy codes in participants countries
- Develop compatible window rating procedures and/or labels
- Develop scenarios for increasing energy efficiency through energy codes

Project 7: High-Performance Buildings and Developments (Australia lead, Japan co-lead)

Objectives:

- Increase proportion of new buildings and developments that incorporate cost-effective measures that support the APP's clean development and climate objectives
- Support wider uptake of advanced building design

Activities:

- Compile information/web links to APP country high-performance building databases
- Three Green Building Flagships in Beijing (Mayors' Training Centre, Olympic Village Zero Energy Building, Agenda 21 building "Centre of Excellence in Sustainable Design and Technology")



- Sustainable buildings workshops and conferences

Project 8: Utility Regulation and Incentives (USA lead, Australia co-lead)

Objective: Identify and encourage successful approaches for improving and expanding utility-funded end-use energy efficiency programs

Activities:

- Identify lessons, good practices, and recommendations for utility regulation and incentives, and promotion of effective DSM programs
- Compile “Good Practices” reference materials
- Technical papers on estimating potential for cost-effective EE, and EE measurement and verification
- Technical cooperation among APP countries to promote improvements in utility regulation, incentives, and programs

Project 9: Smart Systems (Australia lead, USA co-lead)

Objectives:

- Help utilities assess the business case for deployment of smart systems
- Move toward critical momentum for deploying smart systems, by encouraging collaboration among utilities to overcome barriers

Activities:

- Review international smart systems and common business drivers
- In collaboration with industry, develop standardized assessment framework and supporting tools for utilities
- Test, refine, and disseminate assessment framework and supporting tools

Project 10: Green Leases (Australia lead, USA co-lead)

Objectives:

- Increase efficient energy management of commercial building operations by providing transparent legal options to overcome the tenant-landlord split incentive problem
- Increase uptake of EE building designs and appliances by stimulating additional market demand

Activities:

- Summarize international experience with Green Leases
- Create commercial office Green Lease legal templates
- Investment sector national impact analysis of Green Leases

Project 11: Commercial Financing (USA lead, Australia co-lead)

Objective: Facilitate increased levels of private investment in building energy-efficiency projects in APP countries

Activities:

- Identify and share successful approaches to remove barriers to private financing of and contracting for energy efficiency investment
- Identify synergistic project opportunities with international financial institutions
- Implement joint projects to remove barriers to private energy-efficiency investment and demonstrate selected models



III. Discussion of Key Areas of Potential Project Information Exchange and Collaboration

Following the introductory presentations, a number of key areas of known joint interest were identified. In each case, a brief presentation by either an EGEE&C and/or BATF project lead was followed by an open discussion facilitated by the EGEE&C secretariat.

a) Energy Efficiency and Renewable Energy Financing

PRESENTATION: APP/BATF Commercial Financing Project (Cyndy Wilson, US Department of Energy)

Conditions for APP Energy Efficiency Financing Projects

Project must

- Advance APP goals for reducing GHG and pollution reduction and/or improving energy security
- Advance affected countries' objectives and have their endorsement
- Engage an international financier (e.g., international financial institution, private equity or debt, or NGO)

Bottom line: synergies and replication

Candidate Activities:

- Government policies (leadership in energy performance contracting, revolving funds)
- Alternative business models (ESCOs, demand side management, internally managed and financed projects)
- Risk sharing and management (partial risk guarantees, insurance, special purpose entities, manufacturer and vendor financing)

Approach to Date:

- Strategy: Identify synergistic project opportunities with MDBs and client countries
- Ongoing consultations with World Bank, Asian Development Bank, International Financial Corporation, Global Environment Facility, India and China

MDB Projects and Activities:

- Public Sector Energy Efficiency in India (World Bank and BEE endorsed study to assess market for public sector energy efficiency measures; project launched)
- Global Environment Facility joined BATF as an observer
- World Bank and DOE linking industrial energy audits to World Bank lending program

Conclusions:

- Country endorsement is critical
- Financing activities in multiple APP task forces and projects

DISCUSSION:

Peter du Pont, ECO-Asia: APEC has had a project to develop an international EE/RE financing protocol, building on an international monitoring and verification (M&V) protocol, but focusing on finance (in Mexico and Thailand so far). Could that be the tool that gets replicated?

Cyndy Wilson: This could be useful.



Jeff Skeer, US Department of Energy/APEC EWG: There's another APEC project on local bank training in Mexico that has a capacity building and training element to get banks to recognize the value of EE projects.

David Crossley, REEEP: REEEP recently established in Singapore a matchmaking service (financial intermediary) between banks and project developers. This is an interesting mechanism that both APP and APEC could consider to make sure that more projects get financing. Depending on the success of the Singapore project, REEEP will replicate it in other areas of the world.

Facilitator: Maybe REEEP could be a link between the two.

b) Standby Power

PRESENTATION: **Standby Project** (Gene McGlynn, Australian Department of the Environment and Water Resources)

APP Standby Project (Alignment of National Standby Power Approaches)

Project objectives include:

- Promote 1 Watt aspirational target
- Improve information through improved data collection
- Promote use of IEC62301 as a common test method
- Consider use of common policies to address standby
- A major standby event is proposed for April 2008

APEC Standby Project

- Recent work includes 2006 international conference – indicated benefits of international cooperation, voluntary move toward 1-watt, some technical issues around powering down
- APEC Standby proposal is for:
 - o Some technical issues about powering down
 - o Sharing info on policies to implement standby response
 - o Data collection on actual performance, linked to policy response

Areas for Possible Collaboration:

- Common methodologies and database on standby power performance
- Share information on policies
- Joint international event in India in April 2008

DISCUSSION:

Alan Meier, Lawrence Berkeley National Laboratory

- Since India is not an APEC economy, APEC may not be so involved in the India meeting next year.
- There is some overlap between the two projects, creating a natural opportunity to collaborate. In addition to coordinating current efforts, maybe the two groups could start some new paths together:
 - o The standby power issue does not just have a technological fix. There's a behavioural element that needs to be addressed. Both APEC and APP could address this element.
 - o Other low-power modes ("network standby") should also be considered.

Facilitator: Where will the collected data be stored?



Gene McGlynn: Maybe the APEC-ESIS database

Wayne Morris, AHAM, member of IEC62301 Standards Committee (being updated for Standby Power):

- Today, version 2.4 of IEC62301 was published for comment on the IEC website – partners should review it carefully. The comment period ends in March, and then the standard will go to the full IEC for action in the 10/08 time period. It will most likely go to the countries for votes in 2009. Countries/economies will have to adapt the horizontal standard for each product.
- Partners should look at the Rapporteurs Report under Lot 6 of the EUP: Data on energy used in various products. This has good data, e.g., for the ESIS website.

Terry Collins: Is it true that APP is more operational, and APEC more policy-oriented?

Gene McGlynn: APEC has been around longer and has a bit more of a policy perspective, but the difference is not so clear cut.

Jeff Harris, Alliance to Save Energy: There is a clear model for using the APEC-ESIS database as a place to store data. That seems like a perfect model to follow. Both groups could sign an MOU to use that to make information on standards and labelling, and the status of the market, available to all.

Facilitator: Could the Secretariats of both groups explore whether ESIS could be a hub for data from both groups?

- What about information storage on policies?

Peter du Pont, ECO-Asia: This is already happening. USAID has a sponsorship agreement with APEC-ESIS. ECO-Asia is collecting information on testing etc. in ASEAN economies, and the information is going into the APEC-ESIS database. APEC has recognized that it is valuable to have data from other (non-APEC) economies in ESIS.

David Crossley, REEEP: REEEP has also provided funding to APEC-ESIS to expand information beyond the APEC region.

c) Harmonisation

PRESENTATION: **Harmonisation Project** (Gene McGlynn, Australian Department of the Environment and Water Resources)

APP Harmonisation Project (Harmonisation of Test Procedures). Project includes development of common definitions, test methodologies on:

- Lighting (especially CFLs)
- Electric Motors
- HVAC
- Electronics (TVs, PCs, set-top boxes)

APEC Harmonisation Projects

- Previous work on CFL harmonisation and ongoing project on Electric Motors
- APEC has two proposals relating to CFLs:
 - “Star” Testing of CFLs



- Phase out of incandescents

Areas for possible cooperation

CFLs:

- Sharing experience in policy implementation
- Database of performance quality
- Share test results and capacity building
- **Coordinate with other initiatives going on around the world as well

Motors:

- International Workshop – Beijing, 4 December 2007
- Extended range of countries/economies covered

DISCUSSION:

Peter du Pont, ECO-Asia: Australia has been working independently on CFL harmonization for several years. This issue is now being addressed by APP. In addition, APEC has been working on harmonization of test procedures, and also has the ESIS database. Considerations:

- All could provide data on the ESIS website.
- APEC and APP – The partners involved do not represent logical boundaries for harmonizing anything. Harmonization efforts need to be more inclusive (e.g., all economies were invited to the Bangkok workshop a few weeks ago).
- Global Environment Facility – Working on incandescent phase-out, major suppliers, etc.

Motors projects: The two chairs should give the Secretariats the task of exploring how APEC could go to the December 4 motors meeting in Beijing.

Chinese Taipei has proposed an HVAC test procedure harmonization project for APEC (Reducing Barriers to Trade through Development of a Common Protocol for Measuring Air Conditioner Seasonal Energy Efficiency, SEER). It will come on line around the beginning of 2009, if it is approved.

Jun Choi, BATF Secretariat: We need to make the APP HVAC test procedure harmonization group aware of this APEC project.

d) Building Codes

PRESENTATION: Role Enhancement of Building Energy Codes (Jung-Ho Huh, University of Seoul, Korea)

BATF Building Codes Project Elements:

1) Survey and Compare Building Energy Codes in Participant Countries

Next Steps:

- Collect and analyze building codes
- Survey buildings, construction, materials in India and China
- Establish Building Material database
- Identify key fenestration/envelope manufacturers interested in APP country market.



2) Develop Compatible Window Rating Procedures and/or Labels

Next Steps:

- Build capacity for spectral data testing and analysis
- Survey Indian/Chinese windows and glazing
- Carry out trainings on THERM and WINDOW simulations, translate THERM and WINDOW to Chinese/Korean

3) Develop Scenarios for Increasing Energy Efficiency Through Energy Codes

Next steps:

- Carry out comparison analysis of building codes
- Collect energy policy documents from all APP countries
- Establish current status of electricity consumption in APP country buildings

DISCUSSION:

Laura Van Wie McGrory, LBNL and Jeffrey Harris, ASE: There are clear connections between the APP projects and:

- APEC building code survey (recently funded proposal, to begin in 2008)
- APEC window survey (proposed project, not yet funded)

Action items:

Laura Van Wie McGrory will work with USDOE to make sure the APEC building code survey uses similar data collection instruments as are being used (by the Pacific Northwest National Laboratory, PNNL) for the APP work. She will do the same with the APEC windows survey if it is funded.

Meredydd Evans of PNNL will keep in touch with the IEA secretariat to make sure these projects are coordinated with IEA work.

Jean Boulin, US Department of Energy: For projects involving modelling and simulation, we need to make sure capacity is at the right level in the participating countries, and that there is demand for the building simulation.

Jeff Harris, ASE: There is likely to be such a demand for public sector buildings. Many economies are now requiring these buildings to be higher than code.

Jean Boulin: Suggestion -- Make a list of all the economies where there is a disconnect between demand for tools and the availability of tools, and where APEC could help address this.



e) Public Sector Energy Management

PRESENTATION: APEC Government Sector Energy Management: Best-Practices Inventory and Comparative Analysis (Presented by EGEE&C secretariat on behalf of Li Tienan: China Standard Certification Centre)

Background:

- Government sector accounts for 10–20% of total economic activity
- Government facilities and functions are usually an economy's largest energy user and biggest purchaser of energy consuming equipment
- Government buying power and leadership can generate broader demand for energy-efficient products and services
- Investment in energy-efficient public buildings, procurement, and services can create a sustained, buyer-led market shift toward energy efficiency

Objectives:

- Create a reference source on government sector energy management for all APEC economies
- Learn from experience of other APEC economies about design of government sector energy management programs
- Help overcome trade barriers for energy-efficient products used by the government sector

Project Activities:

- Compile (and establish database of) detailed information by APEC economies:
 - o Policies, targets, and reporting
 - o Public buildings – existing and new (including project financing)
 - o Government procurement policy for energy efficient products
 - o Public transport, utilities, and infrastructure
 - o Information, training, and recognition
- Comparative analysis of program approaches, gaps, best practices
- Energy efficiency criteria for government purchasing (harmonization of criteria)
- Opportunities for future cooperation:
 - o Market aggregation in public procurement
 - o Training and technical exchanges
 - o Development of shared technical tools and data
- Timeframe: Project to be finalised end 2007/early 2008

DISCUSSION:

APP/BATF activities related to public sector energy management:

- Public sector workshop in India (July 2007) on government procurement (US, Korea, India, China participated). India is now re-writing regulations at the central government level.
- Whole building energy use management in India
- Public Sector Energy Efficiency in India (World Bank and BEE endorsed study to assess market for public sector energy efficiency measures)

Jeff Harris, ASE:

- There is large potential to study opportunities in the region (Korea, Japan, China).



- At the APEC EGEE&C meeting, there was a presentation on the potential for three products (ACs, fluorescent lighting, and motors?) using public information only.
- Suggestions:
 - o Use market aggregation of purchasing power (national, state, and municipal governments). The key is to harmonize purchasing specifications. Try to get private sector to adopt the same specs too.
 - o Establish a basis for performance disclosure in the marketplace (add value to the building, establish accountability for real performance). Mandate that the information is public.
 - o The website for Promoting an Energy-efficient Public Sector (PEPS) – www.peponline.org – contains proceedings from two China workshops on energy efficient government procurement.
 - o Australia and New Zealand have a lot of leased public buildings, and are using green leases as a market driver.

Anne Pellegrino, Australian Greenhouse Office:

- Australia has mandatory disclosure for both commercial and residential buildings.
- Green Leases (a 5-point plan for government buildings) are very popular and now the private sector is keen to adopt the green lease schedule.

Terry Collins: New buildings in New Zealand have to be zero carbon, and are going toward 90% renewable. People are building higher performing buildings to try to get the government as a tenant. Six major departments (including defence, emergency response) are required to be zero energy by 2012. The rest of the departments will have to comply by 2025.

Tomoko Hirano, Japan National Institute for Land and Infrastructure Management: Designing green public office buildings has been common in Japan since the 1990s. Most local and national government office buildings are being built very efficient.

IV. Other Considerations

Jeff Skeer, USDOE: The APP work on sustainable buildings connects with the APEC proposal on building-integrated EE and RE buildings.

Terry Collins, EGEE&C Vice-Chair:

- We need to be careful about what happens to the manufacturers who are making inefficient products (don't flood markets).
- Other potential areas for collaboration between EGEE&C and BATF:
 - o Common methodology for collecting data
 - o Where we deposit those data
 - o How we analyze the data
 - o Areas: Motors, CFLs, building codes, windows
- APEC is talking about making a strategic plan; we would like to have people from APP comment on the strategic direction.

Kathleen Hogan, BATF Vice-Chair: APP would be happy to participate in a strategic planning exercise with APEC. We can appoint a few people from BATF to participate.



IV. Session Close

The EGEE&C Chair thanked participants from both EGEE&C and the BATF for their participation in the enlightening session and encouraged ongoing communication between related projects. The EGEE&C chair also thanked the BAFT chair for their positive contribution to the meeting and encourage further cooperation in the future.

The Chair then close the meeting.



Annex 1: List of Acronyms

AGO	Australian Greenhouse Office
APEC	Asia-Pacific Economic Cooperation
APERC	Asia-Pacific Energy Research Centre
APP	Asia-Pacific Partnership for Clean Development and Climate (also called AP6)
CEA	Consumer Electronics Association
CFLs	compact fluorescent lamps
CSC	China Standards Certification Centre
CONAE	National Commission for Energy Saving (Mexico)
CLASP	Collaborative Labelling and Appliance Standards Program
EECA	Energy Efficiency and Conservation Authority (New Zealand)
ECCJ	Energy Conservation Centre of Japan
EGEE&C	Expert Group on Energy Efficiency and Conservation (APEC)
EGNRET	Expert Group on New and Renewable Energy Technologies (APEC)
ELI	Efficient Lighting Initiative
EMM	Energy Ministers Meeting (APEC)
ESIS	Energy Standards Information System (APEC)
ESCO	energy services company
EWG	Energy Working Group
GEF	Global Environment Facility
IEA	International Energy Agency
IFC	International Finance Corporation
ITR	Industry Trade and Resources (Australia)
KEMCO	Korea Energy Management Company
KILT	Korean Institute of Lighting Technology
KTOE	kilotons of oil equivalent
LBNL	Lawrence Berkeley National Laboratory
LED	light-emitting diodes
MEPS	minimum energy performance standards
METI	Ministry of Economy Trade and Industry (Japan)
MOEA	Ministry of Economic Affairs (Chinese Taipei)
MOU	memorandum of understanding
NDRC	National Development and Reform Commission (China)
NEDO	New Energy and Industrial Development Organization (Japan)
NEECS	National Energy Efficiency & Conservation Strategy (NZ)
PV	Photovoltaic
REEEP	Renewable Energy and Energy Efficiency Partnership
SOPAC	South Pacific Applied Geoscience Commission
T5, T8, T12	lamp diameters for fluorescent-tube lamps (each unit is 1/8 inch)
TILF	Trade and Investment Liberalization Fund
TOR	terms of reference
UNDP	United Nations Development Program
UN ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
USD	US dollars
WESIS	World Energy Standards Information System



Annex 2: Participants Attending EGEE&C Meeting 31
APEC Expert Group on Energy Efficiency and Conservation (EGEE&C) 31
15-16 November 2007 (Washington, DC, USA)

List of Participants

Asia-Pacific Economic Cooperation		Position	Organization	Address	Email	Tel	Mobile
Economy	Name						
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EWG Expert Group on Energy Efficiency & Conservation (EGEE&C)

Asia-Pacific
Economic Cooperation

Economy	Name	Position	Organization	Address	Email	Tel	Mobile
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**Asia-Pacific
Economic Cooperation**

EWG Expert Group on Energy Efficiency & Conservation (EGEE&C)

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CLASP	Christine Egan	Executive Director	CLASP	1414 G St., SE, Washington, DC, 20003	cegan@clasponline.org	+1-202-543-8515	
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Annex 3: Adopted Agenda EGEE&C Meeting 31

APEC Expert Group on Energy Efficiency & Conservation

Meeting No. 31

Washington DC, USA

15-16 November 2007

Thursday 15 November

08:00 – 08:30 Registration

Session 1: Welcome and Introduction (Facilitator: Chair)

08:30 – 08:45 **Welcome Address**

08:45-09:00 Introduction by EGEE&C Chair

Self introductions by EGEE&C Representatives and Participants

Adoption of the Agenda

Session 2: Review of APEC-Funded Projects (Facilitator: Chair)

09:00-10:30 **Report on Ongoing or Completed Funded Projects (10 mins each, plus Q&A)**

1. Survey of Transport Efficiency Policies in APEC Economies (USA)
2. Cooperation on CFL Standards and Labelling Collaboration (Australia, China)
3. Energy Efficiency and Energy Management in the Public Sector (China, USA)
4. Energy-Efficiency Indicators (New Zealand)
5. Information Sharing on Financing Public Sector Energy Efficiency and Renewable Energy Projects (USA)
6. Electric Motors – Alignment of Standards and Best Practice Programmes with APEC (China)
7. Recently approved (2008) projects
 - a. Survey of policies and programmes to measure and promote energy efficiency in industry in APEC economies (US)
 - b. Comparison of building energy codes in APEC economies (USA)
 - c. Workshop on policies to promote energy efficiency in transport in APEC economies (US)

10:30-11:00 Coffee/Tea

Session 3: Review of Self-Funded Projects (Facilitator: Co-Chair)

11:00-12:00 **Report on Ongoing or Completed Self-Funded Projects (10 mins each, plus Q&A)**

1. APEC System for Managing and Benchmarking the Energy Efficiency of Traded Products. (New Zealand, Australia, Korea, Japan)
2. Fiji Energy-Efficient Refrigerator Project (Australia, New Zealand)
3. Japan-Australia Air Conditioning Test Laboratory Round Robin (Japan, Australia)
4. Standby Power (Australia)
5. CLASP sponsorship of APEC ESIS
6. US-Aid sponsorship of APEC ESIS

12:00-13:00 Lunch Break



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Session 4: Reports on National EE Policies and Programs (Facilitator: Co-Chair)

- 13:00-14:45
- Brief reports on recent and upcoming national/regional EE policies and programs by economy, with an emphasis on sharing experiences and possible regional linkages.
 - Followed by open discussion of opportunities for APEC linkages and collaboration (including presentation by REEEP)

14:45-15:15 Coffee/Tea

Session 5: Presentation and Discussion of FY 2009 Proposals (Facilitator: Chair)

- 15:15-17:00
- Initial presentation and discussion of project proposals for APEC Funding for Financial Year 2009.

(Note: As the next EWG meeting is in March and EGEE&C will have to prepare their prioritised project proposals by February. To assist in the speedy review of projects, it will be helpful if delegates have as much information as possible to assist with project discussion. Therefore, it is requested where ever possible that *proposal synopses* are submitted to Secretariat at least one week prior to meeting)

- 17:00-17:45
- Informal Session: Time for discussions and brainstorming between economies to encourage proposal adjustments, realignments, and in some cases development of new proposal synopses.

18:30 **Formal Dinner for APEC EGEE&C Delegates**

Friday 16 November

Session 6: Consideration of FY 2009 Proposals (Facilitator: Co-Chair)

- 08:30-10:15
- Presentation of new and/or adjusted proposals
 - Ranking of proposals for EWG

10:15-11:45 Coffee/Tea (including Tour of the Alliance to Save Energy Building)

Session 7: Other EGEE&C Business (Facilitator: Chair and Co-Chair)

- 10:45-12:00
- Report on EWG 33 & 34 meeting
 - EGEE&C report to EWG
 - Proposal of New EGEE&G Chair
 - Timing and location of EGEE&C 32 (location to be identified)
 - Peer Review on Energy Efficiency (PREE) process in APEC (proposal by Japan to collaborate with EGEE&C)
 - Other items (as proposed by delegates)
 - Review and acceptance of closed session Summary
 - Close of closed session

12:00-13:30 Lunch Break and Transfer to Second Venue



**Asia-Pacific
Economic Cooperation**

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Session 8:

**SPECIAL EGEE&C OPEN SESSION
EGEE&C AND ASIA PACIFIC PARTNERSHIP (BATF) INFORMATION EXCHANGE**

**Friday 16 November 2007
13.30 – 17.30**

13:30-13:40	Welcome To Asia Pacific Partnership Delegates (EGEE&C Chair)
13:40-13:55	Overview of Current and Potential EGEE&C APEC and Self Funded Projects (EGEE&C Chair) <ol style="list-style-type: none">1. Ongoing and planned APEC projects2. Overview of economy bases activities
13:55-14:10	Overview of Current and Potential Activities of BATF Working Groups (BATF Chair) <ol style="list-style-type: none">1. Overview of ongoing and planned projects
14:10-15:00	Discussion on Key Areas of Potential Project Collaboration (for each item, 5 minute project outlines by either BATF or APEC project leaders with open discussion chaired by EGEE&C Chair) <ol style="list-style-type: none">1. Energy Efficiency and Renewable Energy Financing (led by USA)2. Harmonisation of Standards, Performance Measures and Quality (led by Australia)
15:00-15:30	Coffee/Tea
15:30-17:00	Continued Discussion on Key Areas of Potential Project Collaboration (for each item, 5 minute project outlines by either BATF or APEC project leaders with open discussion chaired by EGEE&C Chair) <ol style="list-style-type: none">1. Standby Power (led by Australia)2. Building Codes (led by Korea)3. Public Sector Energy Management and Efficient (led by China – presented by secretariat)4. Other potential topics of mutual interest (No presentation, open to the floor)
17:00-17:30	Summary of Potential Areas of Collaboration and Next Steps (EGEE&C Chair)
17.30	Meeting Close



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