

**APEC EXPERT GROUP ON
ENERGY EFFICIENCY AND CONSERVATION MEETING 20
Mexico City, Mexico, 10th to 12th April 2002**

The twentieth meeting of the Expert Group on Energy Efficiency and Conservation (EGEE&C 20) was held in Mexico City, Mexico, from 10th to 12th of April 2002. Fifteen representatives from Australia, Canada, Japan, Korea, Mexico, New Zealand, Chinese Taipei, and the USA attended the meeting.

Wednesday, April 10

Opening & Welcome Address

Dr. Helena Gaytán Fregoso of Mexico welcomed the delegates to the expert group meeting. She pointed out that Mexico is hosting a number of APEC meetings this year, including the energy ministerial meeting in July. The main agenda will include: review of implementation of initiatives, current situation of the energy sector, and proposals for future work, under the theme of “Supporting Energy Co-operation: Setting a Long-term Vision.” This theme is well related to the work of EGEE&C, and she encouraged the expert group to continue its efforts for the benefit of the region.

Introduction and Review of the EGEE&C 20 Meeting Agenda

The chair of the expert group, Dr. Fanghei Tsau of Chinese Taipei, chaired the meeting. The chair welcomed the delegates and thanked Mexico for hosting the meeting. The delegates introduced themselves and approved the meeting agenda.

Report on Completed Projects

1. Supporting High Quality Energy Efficiency Indicator Development (New Zealand)

Mr. Robert Tromop presented the results of the workshop held on March 18-21 in Manila, Philippines, with 40 participants from 17 member economies. The workshop was aimed at developing capacity in APEC economies to overcome the critical missing link in the development of energy efficiency indicators. Recent studies show that deficiencies in energy end use data may hinder energy end use policy development, and major constraints include the high cost of surveys and the increasing scarcity of previously publicly available data under the guise of commercial sensitivity. Nevertheless, there is a general move to develop comprehensive energy end use data sets.

Since there is no single universally acceptable indicator/measure of energy efficiency, there is a need to use a “basket of indicators” based on the energy intensity pyramid, in which a national energy efficiency index needs to be linked to sectoral indicators, as well as sub-sectoral indicators. It is also important to decompose energy intensity into structural activity and technical factors, since energy intensity alone is no longer regarded as an adequate indicator for energy efficiency, and understanding the effect of the factors

contributing to energy intensity is essential to improved understanding of energy efficiency.

As for energy efficiency potentials, many technologies are available but not adopted in APEC member economies. Work is underway on energy indicators by APERC and in the Energy Efficiency Technologies Database developed in Japan. On data issues, energy sector restructuring generally leads to major reduction in the availability of energy statistics. Thus, government still has a key role in energy data gathering. Enhancing data availability also requires good databases and data management.

The workshop demonstrated that the availability of high quality data is key to developing high quality indicators. The workshop participants agreed to support a follow-up detailed training workshop, with a suggested title of a “Training Workshop on Applying Best Practice Energy Efficiency Monitoring and Indicators.”

The expert group noted that deregulated economies are struggling with data availability, since market restructuring may hinder data collection. This issue needs to be addressed as soon as possible, perhaps as a part of the agenda for the proposed future workshop. Because the follow-up workshop could not be proposed in time for 2003 project submission, the expert group suggested to bring it up directly at the EWG meeting in May for consideration, or to submit it as a 2004 project proposal.

2. Workshop on Distributed Generation, Distribution and Efficiency (USA)

Dr. Larry Hill presented the results of the workshop held on April 8-10 in conjunction with the EGEE&C 20 meeting, to discuss issues related to distributed generation (DG) and distributed energy resources (DER). DER is a broader term that incorporates DG, storage, load management, and energy efficiency. A wide range of DER technologies was described, ranging from fossil fuel to renewable technologies. Various barriers to adopting DER were also discussed, including technical (features and quality of DER, etc.), institutional (pricing, etc.) and human infrastructure (human capital, etc.). Suggestions to overcome barriers include: setting up interconnection standards for DG on electric utility grids; providing financial incentives for renewable technologies; conducting case studies on DER projects; and creating model regulations.

Potential areas of APEC collaboration include: co-operative research and development related to DER technology demonstrations, developing the business case for DER, case studies of success stories (information dissemination), DER standards (technology and interconnection standards), and financing (developing joint financial resources among APEC economies). Proposals for future work include: information exchange (virtual conferencing, workshop on topical issues), analysis, models, tools (country opportunities analyses, business cases), demo projects (Hawaii Gateway Project, other country-specific projects), and commercial development (business aspects). Most materials of this workshop fit with the collaborative with EGNRET.

The expert group discussed the relationship between DER and energy efficiency and its relevance to EGEE&C. It was clarified that DG itself is concerned more with renewable energy technologies, whereas DER in its broader definition involves storage, load management and energy efficiency and has relevance to this expert group. There's a

need for DER to straddle both expert groups and a need to look more into energy end-use conservation. A summary of the workshop will be included with the published proceedings.

Report on Current Projects

1. Studies on Algorithm Development for Energy Performance Testing (New Zealand)

Mr. Robert Tromop presented the project overview on behalf of the project overseer, Mr. David Cogan. The project is carried out in four studies:

(1) Selection of product groups

The first study investigated the applicability of a translation algorithm in the case of different product groups. It found that such procedure is however sometimes not needed due to one or more of the following factors:

- There are existing moves towards a common test procedure;
- There is a low volume of trade in the product group between economies;
- The product group is currently not being regulated.

Two product groups warranted detailed investigation – domestic refrigeration appliances and domestic air-conditioners, and each formed the subject of a separate study.

(2) Study of algorithms for domestic refrigeration appliances

Domestic refrigeration appliances are high value, high energy use, widely traded and commonly regulated for energy efficiency. This study shows that all existing published test procedures fail to provide a reasonable guide to how the appliance performs in actual service. Thus, there is a need to determine in-use performance under actual, real-life conditions. This requires a new set of test procedures that will take sufficient measurements to enable a “modelling algorithm” to be established, and it would take additional work to produce such an algorithm and to verify its accuracy in use.

(3) Study of algorithms for air-conditioners

The test procedures specified by the various standards for air-conditioners are similar to international (ISO) ones, with minor differences. Simple mathematical adjustment can produce reasonably accurate results. Predicting the performance of a model would require a modelling algorithm, the development of such is already occurring independently, and preliminary results are promising.

(4) Survey of industry and regulators

The fourth study asked manufacturers and regulators for their views on workable algorithms. The survey found that the presence of different mandatory energy performance standards does constitute a barrier to trade, and it indicated that a large majority of regulators would accept the results obtained by applying established algorithms. There is also very strong support for alignment of standards, although this is necessarily a long-term activity.

2. Development of Algorithm Criteria (New Zealand)

As a result of the project described above, it is recommended to the expert group that the emphasis of the follow-up algorithm project (EWG 06/2001T) should be directed towards:

- (1) encouraging the development of modelling algorithms for domestic refrigeration appliances and domestic air-conditioners; and
- (2) establishing a conversion algorithm for air-conditioners.

3. Symposium on the Development and Co-ordination of Energy Efficiency Programs and Standards during Energy Market Restructuring (Chines Taipei)

Dr. Fenghai Tsau presented the progress to date, noting that Chinese Taipei is now consulting with co-sponsoring economies to look for a host economy for the symposium. A consultant, and also the Rapporteur for the symposium because of limited budget, will be selected to help establish the symposium agenda, draw up a list of potential speakers and coordinate the conduct of the symposium with the host economy. The symposium will take place sometime between Sept. to Nov. of 2002 for a total of three days or more. It can be a single event or held in conjunction with EGEE&C 21. The host economy will be decided upon by May and the consultant by June 2002.

Dr. Tsau clarified that funding would be provided only for speakers, and the scope of the workshop could cover other energy market restructuring in addition to electricity. It was suggested that holding the workshop in a developing country would get better turnout, especially in an economy for which this is a current topical issue. A similar workshop had been held recently in Thailand, with over 100 participants. An open invitation was extended to all economies to hold the workshop, but the host must cover venue costs.

4. Energy Standards Information Development and Co-ordination (New Zealand)

Dr. Peter Du Pont presented the progress on the project, which covers testing standards, as well as minimum performance standards and energy-efficiency labeling. The purpose of the project is to develop, implement and maintain an energy standards web site, develop standards notification procedure, monitor international standards processes, promote sharing of information, reduce testing of products to different standards, reduce barriers to trade, promote harmonization of testing standards and procedures, and reduce energy use and related pollutants.

So far, the project has established contacts with key officials in APEC economies, solicited data updates from key contacts in each economy (5 so far), and developed a draft APEC Energy Standards Information System (ESIS) web site, on which members can log in and update the information. The web site is designed for easy use and clear focus, enabling search by economy or equipment, along with economy listings, equipment listings, information on reference standards, listing of standards under development and revision, list server for monthly update, and an expert forum for sharing information. A real-time demonstration of the draft web site was conducted for the expert group. The final web site will be presented at EGEE&C 21, with the final project report due in December 2002.

Questions were brought up on co-operation of this project with other similar international databases, its scope as an APEC database, and guidelines for data input. It was clarified that dialogue has been established with the EU, IEA and other international organizations that have expressed interest in the outcome of this project for the long-term maintenance and value purposes. Manufacturers worldwide should be very interested in it because of continuous changing of standards in many economies. The core database would consist of information from APEC economies, with links to information updates from economies outside of APEC. A manual will be made to assist contacts from member economies in updating the data, and a web master could check the data for consistency. Possible long-term implementation of the web site will be discussed under a separate agenda item on the next day of the meeting.

Report on Energy for Sustainable Communities Program (USA)

Dr. Larry Hill presented an overview of the APEC Energy for Sustainable Communities Program (ESCP), a self-funded project by the USA. The program evolved in response to a request from EWG's chair, and an organizational meeting was held in 1996 with the formation of a liaison group, which has met six times. Due to EWG reorganization, the liaison group was changed to a program under EGEE&C in 2001. The program has four objectives: (1) to facilitate exchange of information, knowledge, and experience; (2) to improve access to emerging technologies; (3) to assist member economies in finding financial resources for implementing sustainable practices; and (4) to assist member economies in monitoring and evaluating the progress of communities. Eight economies are participating in this program.

The main implementation strategy is a community outreach project, with the objectives of profiling a community's energy situation, institutionalizing a sustainable energy planning process, and financing and implementing sustainable energy projects. So far, activities under the project include: creation of a web site (www.apecnetwork.org/esc), sustainable energy training course for energy managers in 2001, three workshops, and the design of a sustainable city in Guanghan, China, with a finished master plan. The project overseer recommended asking EWG to endorse this master plan as an APEC report.

Since the report was very recently completed and there was insufficient time for circulation, the Chair recommended forwarding the report to EGEE&C members for comments out of session. If no objections are raised, the group will forward it to EWG for consideration, either at the next EWG meeting in May or the following meeting.

Thursday, April 11

Open Forum

USA

Dr. Larry Hill presented a report on U.S. Electric Restructuring and the Changing Nature of Energy Efficiency Programs. The electricity market in the US is regulated by various federal and state laws. The retail market is up to the states to regulate. The individual states in the US are at different stages of electricity market restructuring, and some are

backing away from it because of the recent crisis experienced by California. Historically, US utilities dominated energy efficiency programs. Since restructuring, system benefit programs have been created, and 20 states have created these programs. Programs are funded by a “public benefits charge” (“tax”) on electricity, and the proceeds are used to fund energy-efficiency, renewable energy, low-income, and research and development programs. Restructuring changes energy efficiency delivery mechanisms, and the US is moving away from utility administered DSM programs to creating funds administered by non-utility organizations, depending on state laws. The funds are transparent, and the information is readily available to the public.

Chinese Taipei

Mr. Kung-Yuan Lin described the new voluntary energy conservation labeling program established in Chinese Taipei in January 2002. The main objectives of the program are to influence public behavior toward the use of lower energy-consuming products and to provide an incentive mechanism to promote competitiveness in high energy-efficient products. The energy label is approved for products achieving energy efficiencies that are at least 15% higher than the minimum energy performance standards established by the Energy Management Law. So far, energy labeling standards have been established for four types of products, and for the first round of labeling accreditation in January 2002, 19 products from 5 brands have received accreditation.

For recent efforts in energy auditing, Chinese Taipei have started on-site auditing projects since July 1999 on the top 100 energy consumers. An energy audit team has been formed to conduct on-site auditing of the top 40 energy consumers. The team reviews their energy conservation target and program, as well as explores other possible energy conservation opportunities. One year after the initial on-site audits, follow-up visits were conducted to review their energy conservation results. On-site audits have found energy conservation opportunities that exceed the targets of the energy consumers by 3-7 folds. Most energy consumers are willing to carry out the recommended improvements. Through follow-ups, over 60% of the recommended improvements have been included in their implementation plans, which is a satisfactory result.

New Zealand

Mr. Robert Tromop outlined New Zealand’s new National Energy Efficiency and Conservation Strategy, a 5-year comprehensive plan that covers five sectors: transport, energy supply, industry/commerce, buildings/appliances, and government. It also has a full range of activities that include regulations for improving building codes, development and improving minimum energy performance standards, and best practice standards. New Zealand has a target of improving energy efficiency by 20% by the year 2012 and a renewable energy target of 25-55 PetaJoules by 2012. The full strategy is available at www.eeca.govt.nz. New Zealand has set up a climate change office with representatives from different offices. Preparations are ongoing to develop the New Zealand Government’s intention to ratify the Kyoto Protocol later this year.

Korea

Mr. Kanghyun Kim made a presentation on Korea’s energy efficiency programs. The energy efficiency standards labeling program help consumers to choose and purchase

more energy-efficient products and prohibits products which fail to meet minimum energy performance standards from being produced and sold; the energy grade label is applied to 11 items. The certification of high energy-efficient appliances program promotes the spreading of high energy-efficient appliances through efficiency guarantee system and covers 22 items. The program for enhanced spreading of efficient office and home appliances is aimed to reduce standby power and covers 14 items. The building energy efficiency grade certification program provides consumers with information on energy efficiency and the built environment and applies to new apartment buildings with over 18 households. It is identified by an energy saving mark and is obligatory for public organizations and apartments with over 50 households.

Japan

Mr. Takeshi Sekiyama described the recent expansion of the Top Runner Program in Japan. The long-term energy supply-demand outlook were recently reviewed and revised, and it showed that it is necessary to introduce additional measures for energy efficiency and conservation. These additional measures would conserve 7 million KLOE, in addition to 50 million KLOE from existing measures. The existing Top Runner Program covers 12 items of products in electric appliances, office equipment and vehicles, and additional 8 items will be put into the new program.

The Top Runner Program consists of legally binding energy efficiency standards based on the Energy Conservation Law. A voluntary energy labeling system was introduced in August 2000 to encourage households to select energy-efficient products, covering 5 types of appliances. The label consists of an orange logo with information on achievement rate of energy conservation standards and annual power consumption; the logo is green if the product achieves over 100% of the standards. As of summer 2001, almost 100% of manufacturers have put labels on their catalogues, and some also on their products.

The 2nd Summit of Energy Conservation Republic was held in February 2002, and a joint declaration was adopted to make transition to a new smart lifestyle pattern, reform awareness of energy conservation, and achieve innovation in the entire realm of our lives. In April 2001, ECCJ started Education Program at model schools to promote energy conservation by carrying out education and setting up system for energy conservation and by establishing leadership in community through collaborative activities.

Canada

Mr. Miles Leznoff described Action Plan 2000 (AP 2000), which is a \$500 million program over 5 year to reduce greenhouse gas (GHG) emissions. It is expected to achieve about one-third (65 megatons) of Canada's reduction target under the Kyoto Protocol during the 2008-2012 commitment period. The plan targets key sectors that account for the majority of emissions. Expected GHG emissions reductions resulting from AP 2000 by sector are: industry 15%, transportation 10%, buildings 10%, agriculture and forestry 20%, energy production 20%, and international 25%. More information about AP 2000 can be found at the web site www.climatechange.gc.ca. More information about Canada's energy efficiency programs is at <http://oee.nrcan.gc.ca>.

Debate in Canada is underway on whether or not to ratify the Kyoto Protocol. Canada is examining a three part approach: emissions trading; targeted measures to address emissions in sectors not covered by a domestic emissions trading system; and international credits that may be needed to close any remaining gap. Work is underway to assess the costs and impacts of ratification. Canada will make its decision after a workable plan is developed and after consultations have been completed.

Australia

Mr. Albert Ofei-Mensah noted that the Ministerial Council on Energy (MCE), which was established by the Council of Australian Governments, had its second meeting on 15 March 2002. The MCE has endorsed an initiative for 2002 to conduct an independent review of the energy market directions, which will set a firm basis for future policy development and implementation. The review will identify long-term strategic issues affecting the energy market and progress market development by pinpointing relevant government policies. A draft report from the review panel is expected in November 2002.

The MCE has also established five working groups involving all jurisdictions to help carry out its priority tasks. These working groups will address issues relating to strategic energy supply and security; energy market development; energy efficiency and greenhouse; downstream petroleum; and national oil supply emergencies.

Future Collaboration on Longer Term Development and Co-ordination of Energy Efficiency Programs and Standards

1. Future Collaboration Areas & Lead Economy Selection

The chair presented an issue paper to stimulate discussion on potential areas of collaboration for the expert group activities, with categories by sectors of interest. It was noted that these would be areas that are more project-specific than the terms of reference for the group. Upon deliberation, the US and other representatives proposed a list of activities with cross-cutting issues. After further revision, the group agreed to a draft matrix, which related sectors to cross-cutting activities, for potential areas of collaboration along with members noting their areas of interest (see Attachment 1). It was also agreed that one or multiple lead economy(ies) should be selected for each area of activity and would propose work plans for consideration by EGEE&C and identify funding sources. The chair will forward the matrix to members not present in this meeting for their consideration and input before it will be finalized at the next meeting.

2. Long-term Strategy, Planning and Co-ordination on Standards Development and Notification

Mr. Frank Pool of New Zealand presented several options to carry out future tasks for the energy testing standards projects, specifically the long-term maintenance of the APEC Energy Standards Information System (ESIS) web site. It is a TILF-funded priority project for 2001 and will in all likelihood not receive further funding next year. Some long-term funding options could include international organizations such as the Climate Technology Initiative (CTI), Asian Development Bank (ADB), International Energy Agency (IEA), and the United States Agency for International Development (USAID), possibly in collaboration with the Collaborative Labeling and Appliance Standards

Program (CLASP). It was proposed that the International Institute for Energy Conservation (IIEC-Bangkok), which also maintains the CLASP web site, appears to be the best institutional home for the web site. IIEC also has the added benefit of being a truly international non-profit organization, and it has well established contacts with other international organizations. During initial project implementation, it has become clear that non-APEC regions, such as the European Union (EU) and South Asia (India, Pakistan, Nepal, Bhutan, Bangladesh, Sri Lanka, and the Maldives) are also interested in collaborating with this project and putting their energy standards information into the ESIS web site framework. It was also pointed out that incorporating standards information on economies outside of APEC would make the web site of greater benefit to APEC member economies.

Expert group members noted the great value in maintaining the web site but also noted the need to consider the cost of maintenance, legal ownership of the web site, and any APEC protocol for outside funding when considering future funding sources. A rough initial estimate of the bare-bones cost of maintaining the APEC information on the ESIS web site (if housed in a developing economy where costs are lower) is on the order of USD 25,000-50,000 for the year 2003. The need was pointed out to avoid single-source funding by a large economy or trading block in order to prevent any bias to the content of the web site. It was also suggested that the ownership, funding and operation of the web site could be kept separate. Some members feel that the best option would be to keep the operation of the web site under successive APEC projects in order to ensure proper APEC supervision. At the same time, it was noted that energy standards are truly international, and not confined to the APEC region. There are no regional APEC energy standards, nor are any proposed. The web site is already populated with international reference standards (e.g., IEC and ISO). The ESIS will have maximum value to APEC if it is expanded to include economies outside of the APEC region.

The expert group agreed to propose an on-line presentation of the web site at the next EWG meeting and to seek advice from the EWG on future funding of the web site. The chair will also report to the next EWG meeting that the expert group:

- (1) strongly endorses the value of the APEC ESIS web site in disseminating information on energy testing standards in order to facilitate the trade of energy-efficient products and recommends that the web site be maintained and updated regularly for the long term.
- (2) presents to the EWG with the following funding options:
 - a) submit project proposal to seek emergency APEC funding to support and maintain the web site for the year 2003;
 - b) seek self-funded project proposals for support from any interested member economy(ies);
 - c) develop self-funded project proposals for support from a combination of any member economy(ies) and international organizations.
- (3) seeks clarification from the EWG on the ownership of web site and the possibility of using funding outside APEC to maintain the web site.

(4) notes the added value of collaborating with international organizations outside APEC to incorporate energy standards information (at no cost to APEC) of economies outside APEC.

3. Inputs to Chinese Taipei's EWG Initiative on Energy Standards and Labeling and Recommendation to the 5th Energy Ministers' Meeting

Mr. Robert Shih described the draft initiative that Chinese Taipei plans to present to the EWG meeting in May. The initiative seeks facilitate the exchange of information on energy standards and labeling, facilitate trade of energy-efficient products, and promote energy standards and labeling programs as an effective policy instrument for energy conservation. The initiative will be carried out through seminar/workshops, updating information on laws and regulations, sharing information on energy savings, establishing and maintaining a web site to disseminate information, coordinating with projects under the Framework for Cooperation on Energy Testing Standards, and coordinating with other international organizations on energy standards and labeling. If this initiative were adopted by the EWG, Chinese Taipei will also recommend to the 5th Ministers' Meeting in July 2002 to endorse the energy standards and labeling initiative in promoting energy conservation and reducing barrier to trade of energy-efficient products in the APEC region.

The members noted the value of the initiative and its practical benefits to APEC, and as such it will likely be welcomed by the Ministers. A suggestion was made to expand the scope of the Framework for Cooperation on Energy Testing Standards to cover standards and labeling. However, the members agreed that it would be more appropriate to have a new initiative to complement the framework rather than revising it. The members made recommendations to changes on the initiative, in particular to emphasize the link to the Framework for Cooperation on Energy Testing Standards.

Public Sector Energy Management and PePS Project (Mexico)

Mr. José González gave a presentation on "Leading By Example: Government Sector Energy Efficiency." Government facilities and services – national and local – are often the largest energy users within a country. Government agencies are also large buyers of energy-using equipment and a potentially powerful force for a buyer-led shift in the market toward energy efficient products and services.

As part of the PePS ("Promoting energy efficiency in the Public Sector") project, Lawrence Berkeley National Laboratory (LBNL), the Alliance to Save Energy (the Alliance), and the Comisión Nacional para el Ahorro de Energía (CONAE) in Mexico are gathering information for an inventory of current policies, programs, and administrative practices to improve energy efficiency within the government sector.

Building on the experience gained in Mexico, the US, and other economies, the PePS partners are working together to help spread the concept of effective energy management in the public sector to other developing economies. As a first step, the project is collecting examples of energy-efficient government sector policies and programs, and identifying possible interest in new pilot projects. As in Mexico's initiatives, PePS also

focuses on program elements that build on or contribute to private sector markets (e.g., energy efficiency labels by manufacturers, stimulation of an ESCO industry, training and certification for architects, engineers, and facility managers).

Friday, April 12

Report on Sustainable Electric Services (USA)

Dr. Larry Hill explained that the program on Sustainable Electric Services used to be called the Inter-utility Demand Side Management Liaison Group, which was formed in 1994 and met 13 times under the EGEE&C. The Liaison Group was reorganized as a program by the EWG in 2001. However, the EWG did not renew the program in 2002, and it currently is no longer in existence.

EGEE&C Terms of Reference Review and Revision Summary

The chair asked the members to consider the existing terms of reference of the expert group in conjunction with the APEC EWG Future Directions Strategic Plan adopted in May 2001. The group deliberated on the revision of the terms of reference and adopted a revised draft (see Attachment 2). The chair will prepare a revision summary and forward it to the EWG.

During the revision of the terms of reference, the issue of the vice-chair was brought up, and the group decided to hold the election. Chinese Taipei nominated USA for the vice-chairship, and the other economies seconded the motion.

2003 Project Proposals & Discussion on the Process of Future Submission

Because the project submission deadlines set by the EWG vary by year, the chair proposed that the group should discuss project proposals at the second meeting of each year to ensure that projects will be submitted on time. After deliberation, it was agreed that members should at least present a detailed project outline with budget estimate at the second meeting of the year **and**, with the expert group sanction, then submit a complete project proposal at the following meeting. In addition, the group agreed that there is no need to rank the project proposals at the expert group level because the EWG has the final decision on the ranking.

The group discussed 2003 project proposals that were submitted by members and already forwarded to the EWG. The project proposals include:

1. Update on Progress towards Green Buildings (Australia)
2. Co-operation on Energy Labeling (Chinese Taipei)
3. Energy Audit Training Program for the Industrial Sector (Chinese Taipei)
4. Seminar on Energy-Saving Opportunities in Buildings Requiring Stringent Control of Environmental Conditions (Chinese Taipei)

5. Business Guide to Formation of Energy Service Companies (USA)
6. Energy for Sustainable Communities Program (USA)
7. Sustainable Financing System for Energy-Efficiency Projects (USA)
8. Guide to Market Transformation Programs (USA)
9. Energy Efficiency and Energy Security in APEC Economies (USA)

The members commented on the proposals, raised issues for discussion, and made recommendations for improving the projects if approved.

Future Coordinated Activities with APEC EWG EGNRET

The chair noted the discussion in the previous EGEE&C meeting on the possibility of merging the expert group with EGNRET, and the members at that time decided against the merger. Although there are concerns with low attendance and the financing of meeting venues and travels, it was reaffirmed in this meeting that the two groups should be kept separate because of different emphases of each group. Nevertheless, the two groups can continue to consider areas of collaboration in the future.

Other Motions & Next Meeting

The chair noted that the dates and venue for the next meeting have not been confirmed. The chair will consult with members out of session and notify all members once the dates and venue are confirmed.

Consideration and Acceptance of Minutes

The meeting minutes were reviewed and accepted by the delegates present. The chair will email an electronic copy of the minutes to all members of the group.

Adjourn

The chair formally thanked the host economy, Mexico, for its courteous arrangements for this meeting. The meeting closed for formal business at 2:30 p.m.

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Attachment 1: Potential Areas of Collaboration for EGEE&C Activities (DRAFT)

| | Built Environment | Energy transformation/ transmission | Industry | Transport |
|---|---|--|--|--------------------------|
| Standards/Label | Korea, Mexico, Japan, Australia, NZ, Canada, CT | NZ | Korea, CT, Australia, NZ | NZ, Australia |
| Performance Measurements | Canada, Korea, NZ, Australia, SG | NZ, CT, Australia | Canada, NZ, CT, Japan, Australia, MA, SG | Canada, NZ, Australia |
| Sustainability | Australia, NZ, US, SG | US, NZ | US, SG | NZ, US, Australia |
| Financing/ Funding | US | US | US | US |
| Government Leadership | Canada, Mexico, CT, Australia, Japan, Korea | | Japan, Korea | Canada, Australia, Japan |
| Information/ Awareness/ Promotion | Japan, SG | | Japan, SG | |
| Training and capacity building | Japan, Canada, SG | NZ | CT, Japan, MA, SG | |

Note: Listing of economies in the matrix simply denotes interest in the topic and does not necessarily imply sponsorship or funding of potential projects.