



Energy Working Group

EWG 47

**Kunming, Peoples Republic of China
19-23 May 2014**

EWG47 was held in Kunming, China on 19-22 May 2014. The Energy Working Group (EWG) Lead Shepherd Dr. Phyllis Yoshida, Deputy Assistant Secretary for Asia, Europe and the Americas, U.S. Department of Energy, co-chaired the meeting with Zou Yiqiao, Director General of International Cooperation at the National Energy Administration of China. Delegates from Australia; Brunei Darussalam; Canada; Chile; the Peoples' Republic of China; Hong Kong, China; Indonesia; Japan; Republic of Korea; Malaysia; New Zealand; Papua New Guinea; Peru; the Philippines; Russia; Singapore; Chinese Taipei; Thailand; the United States and Viet Nam participated in the meeting.

Officials from the Asia Pacific Energy Research Center (APEREC); the APEC and EWG Secretariats; Expert Group Chairs on, Energy Data and Analysis (EGEDA), Energy Efficiency and Conservation (EGEEC), and New and Renewable Energy Technologies (EGNRET); and the chair of the Low Carbon Model Towns Task Force (LCMTTF) participated in the meeting. The United States presented a report from the Expert Group on Clean Fossil Energy and Australia for the Task Force on Energy Trade and Investment.

1. Opening Addresses and Adoption of the Agenda

The Lead Shepherd opened the meeting with welcoming remarks, thanking China for their hospitality. The co-chair Zou Yiqiao welcomed delegates and emphasized the importance of international cooperation. He Duanqi, Vice Governor of Yunnan Province, welcomed delegates to Yunnan and described his province's contributions to China's low carbon development.

The EWG adopted the agenda.

2. Energy Working Group Management and Direction

a. APEC Secretariat Report

Jonghan Park, Program Director of the APEC Secretariat, provided clarification on why certain projects did not receive funding. APEC EWG projects are classified as funding criteria #2 which did not have competitive funding status in the first round of 2014. He said that the EWG should

reconsider which accounts are applied for and consider projects with trade implications so they can be receive priority rank. He encouraged the EWG to make sure that their Senior Officials were aware of the EWG's project ranking and why. Dr. Yoshida welcomed Mr. Park to his first meeting of the EWG. She encouraged expert groups and economy representatives to carefully consider funding streams when proposing projects, and emphasized that projects with some self-funding receive higher rank from some member economies.

b. APERC Presidents Report

The APERC President Ojimi gave a report on the energy demand and supply outlook, a priority task under the APEC Energy Working Plan. He introduced APERC's new Vice President, Brantley Thomas Liddle, and provided an update on cooperative activities including the Peer Review on Energy Efficiency, the Cooperative Energy Efficiency Program for Sustainability, the Low Carbon Model Town Initiatives, and APEC emergency exercises, the details were provided later on the agenda.

Japan expressed its appreciation to APERC's work towards contributing to APEC's aspirational goals, thanked support from the EWG Secretariat and member economies, and encouraged other economies to consider providing financial support. Chinese Taipei observed that when APERC was first set up it was a subdivision of EGEDA and focused primarily on statistical and data cooperation. Chinese Taipei proposed that it should be elevated to reporting directly to the EWG as it now has a broader portfolio, and proposed revisiting the TOR for APERC as well as all expert working groups at the next EWG. EGEDA agreed with Chinese Taipei's proposal and the EWG delegates were positive about the proposal. The Lead Shepherd will take these issues up for consideration at the next EWG meeting.

3. EWG Project Funding 2014

a. Members and Expert Group/Task Force Chairs present new proposals

- China presented two proposals, one on biogas applications in a transportation demonstration study, and another on innovative business models for scaling-up the application of photovoltaic technology in APEC. These projects were endorsed by the EWG. The Lead Shepherd informed the group that the EWG Secretariat has developed a database of all projects undertaken since 1990 and that economies should develop new projects taking into account the results of earlier projects.
- Chinese Taipei presented a proposal for an APEC network on development of biomass-derived fuel gas systems for zero-emission vehicles. This project was endorsed by the EWG.

- Thailand proposed a project on the Phase out of Electric Shower Unit Water Heaters. This project was endorsed by the EWG.
- Russia presented a new project on the Energy Security of APEC Economies: policy options for energy resource diversification in the Asia-Pacific Region. This project is pending endorsement and is seeking co-sponsors.

b. Members to consider and endorse any new self-funded EWG projects

- The United States announced an APEC Green Data Center Collaboration project that will develop a road map for improving energy efficiency and intensity of data centers in China. This project was endorsed by the EWG.
- The United States proposed an Aviation Energy Conservation and Emissions Reduction Project which will promote sustainable airports, introduce air traffic flow management, reduce aviation fuel burn, and standards development. This project is pending endorsement and is seeking co-sponsors.
- The Expert Group on Clean Fossil Energy put forth two self-funded proposals: one on the energy-water nexus, which will look at recovery and reuse of water in coal-based energy production, uses of alternative sources of water, and water conservation. The second proposal will focus on energy infrastructure and smart grid; Canada confirmed its interest in co-sponsoring this project. These proposals will be more fully developed over the next few months and will be shared with member economies for co-sponsors and endorsement.
- China put forth a proposal for the foundation of the APEC Sustainable Energy Center. The Center will focus on developing sustainable energy projects across APEC, planning an annual Asia-based sustainable energy congress, developing a pool of experts, publishing reports on sustainable energy technologies, and other possible activities. Over the next few months, China will flesh out the details and operational framework of the center. Member economies unanimously endorsed the formation of the center, and the Lead Shepherd expressed the need for all to understand the different functions of the Center, its relationship with the experts groups, relationship with APERC, and a delineation of roles and responsibilities. Dr. Yoshida encouraged the EWG to study activities that other international and ad hoc groups are undertaking, such as IRENA, the Clean Energy Ministerial, and the Clean Energy Solutions Center with which there could be synergies. Some member economies proposed the development of an ad hoc group that would meet before the Energy Ministers Meeting to flesh out and add more details to what will be proposed to the Ministers. Dr. Yoshida welcomed the next version and suggested a possible opportunity to get together could be around the third senior officials meeting.

4. Policy Dialogue

a. Dialogue Topic (The Policy Dialogue was not held to allow time for discussion of the Strategic Plan.)

b. Discussion of a topic for EWG 48 meeting.

- The United States suggested that each economy comment on their most successful energy policy for the recently-endorsed Sustainable Energy Center.
- Singapore raised cybersecurity as a topic where they would like to see more deliberate sharing, and they will be convening a roundtable on cybersecurity during Singapore International Energy Week on 27-31 October 2014. Singapore will send more details to all economies when available. Singapore also raised the idea of energy connectivity as a potential topic to discuss further.
- Thailand proposed business modeling and policy support to encourage investment in rural electrification.
- Lead Shepherd suggested waiting to discuss cybersecurity after results from the U.S. self-funded project and encouraged all to participate in the Singapore International Energy Week. The EWG endorsed rural electrification, including related issues such as sustainability and water, as the topic for the next EWG policy discussion.

5. Statement on Notable Energy Developments

Member economies presented notable energy developments that have occurred since EWG46.

- Singapore updated on its LNG terminal developments; in addition to expansion of an existing LNG terminal, they will also build a second LNG terminal in the eastern part of Singapore.
- Japan provided an update on the country's new energy strategy with an emphasis on developing a sustainable energy policy that incorporates coal, nuclear, renewables, and LNG.
- Australia noted two new energy policy developments: a new energy white paper will be finalized by the end of September which will be a comprehensive energy policy for the country, and the streamlining of a regulatory regime which applies to the exploration and production of oil and gas on offshore waters.

- Thailand mentioned two notable developments: activities on emergency response assessment and proposal on an energy sector initiative.
- New Zealand discussed a recent smart grid forum, the status of a recent oil and gas exploration block offer, renewable energy and bioenergy developments, and energy efficiency projects in the meat and dairy sectors. The country is starting to see a decoupling of energy consumption and GDP.
- The United States shared recent announcements of new programs on the development and deployment renewable energy, and on energy efficiency standards for appliances. The United States joined the Extractive Industries Transparency Initiative and will work with companies and civil society organizations to improve transparency.
- Viet Nam discussed its low carbon energy pathway with a focus on energy conservation and energy efficiency, diversifying energy supply sources, application of clean coal technologies, developing civil nuclear power, and enhancing international cooperation.
- Hong Kong recently launched public consultations on the future fuel mix for electricity generation, which strikes a balance between providing safe and reliable electricity, and affordability.
- Indonesia shared recent developments on low carbon model towns, bioenergy, renewables, its cross border electricity agreement with Malaysia, and cooperation with JODI on oil and gas data.
- Papua New Guinea discussed its 2030 Strategic Plan, with a target 75 percent electrification rate.
- Brunei discussed the launch of Brunei's first Energy White Paper which maps its strategic goals and action plans to achieve the Brunei Vision 2035; the signing of an MOU with EXIM Bank of the U.S. for financing energy projects in Brunei and the region; and the establishment of the Brunei Maritime Academy, which amongst others services the oil and gas industry.
- Russia discussed market transparency and security. The IEF in cooperation with other international organizations has launched new initiatives on international gas markets and transparency, and the EWG may want to coordinate with them.
- Malaysia has set renewable energy targets and established a fuel security index. Malaysia is exploring hydropower potential, rationalized subsidies for fuel sources, and setting minimum energy efficiency performance standards.
- Philippines discussed its electric tricycle program, an efficiency project, its green building rating system, and renewable energy developments.

6. Discussion of Energy Ministerial Meeting

- China will host the Energy Ministers Meeting from September 2-3 in Beijing. China will issue letters of invitation soon to member economies. The proposed theme will focus on sustainable energy development, and it is envisioned to have five sessions: energy security, economic growth, energy trade and investment, energy efficiency and sustainable communities, and develop cleaner energy sources. China requested member economies to indicate which session their ministers would like to participate in and suggest topics for discussion. China requested written feedback on the draft within two weeks.
- Japan explained its proposals to EMM. The first one is the Study Project on Energy and Competitiveness in APEC, and the second is the new launch of APEC Oil and Gas Security Initiative (OGSI).
- The EWG discussed the draft and Chinese Taipei circulated a paper based on LNG trade facilitation as a possible additional area to discuss.
- The Lead Shepherd asked member economies to provide feedback on the draft and declaration and any announcements to be made within two weeks. She suggested considering a shorter more focused paper with details to be available in the Strategy Paper that the EWG is considering. After a revised draft is provided, the Secretariat will decide whether an additional meeting is required to discuss further.
- China will provide additional logistical details on the Energy Ministers Meeting as soon possible.

7. Progress on Cross-Cutting APEC Energy Smart Communities Initiative (ESCI) Projects

- Mr. Alon Abramson from the University of Pennsylvania presented the current status of the ESCI Knowledge Sharing Platform (ESCI-KSP). The Lead Shepherd called for APEC economies to add new projects and information to this knowledge sharing platform.
- Chinese Taipei noted that up until now the ESCI-KSP has been a self-funded initiative, but that Chinese Taipei will provide a concept note after the EWG meeting for member economies to consider and endorse. Chinese Taipei would like to hold an ESCI-KSP workshop later this year after the Energy Ministers Meeting.
- Japan reported on the progress of the APEC Low-Carbon Model Town Task Force, and provided a summary of the Phase 3 project and the feasibility study work plan for San Borja, Peru. Site visits to low carbon developments in the United States and Peru will take place this July. A refined concept including APEC low-carbon town indicators will be provided in September and will be presented at the next EWG meeting, and the feasibility study should be completed by the end of this year.

8. Short Term Measures

a. EGEDA Report

- EGEDA reported on its activities including the status of JODI Oil and JODI Gas.
- The Lead Shepherd and the EWG agreed that raw data from JODI should not be shared with commercial media.

b. APEC Emergency Measures

- Japan and APERC provided an update on the APEC Oil and Gas Security Exercise Forum. The first forum was held in April 2013 in Tokyo and the second in March 2014.
- Japan and APERC announced the launch of the APEC Oil and Gas Security Initiative (OGSI) to replace the APEC Time Emergency Monitoring System. APERC agreed that there should be linkages with initiatives undertaken by other international and APEC groups.

c. Energy Emergency Response

- The host economy expert was not available to report on emergency response arrangements.

Long-Term ESI Measures

9. Energy Trade and Investment

- Australia reported that no activities have been undertaken in the last six months by the Energy Trade and Investment Task Force (ETITF) and encouraged other member economies to consider chairing the task force.
- After discussion by member economies, the Lead Shepherd noted that task forces are meant to be time limited and if there are no volunteers to chair the task force, the EWG should consider retiring the group while making a greater effort to ensure that trade and investment get embedded into proposals. The EWG endorsed this proposal and thanked Australia for its work chairing ETITF.
- The Lead Shepherd also suggested updating the strategic plan to emphasize how standards are the basis for encouraging and facilitating trade. Dr. Yoshida encouraged Australia to attend the next expert group chairs meeting in Papua New

Guinea to share the lessons learned from the energy trade and investment task force.

10. Energy Efficiency

a. Progress report including project highlights

- The EGEEC Chair presented highlights of Expert Group on Energy Efficiency and Conservation's (EGEEC) progress since the last EWG meeting, including identifying best practices for verification testing, building code harmonization in the energy smart community program. The Christchurch smarter grid roadmap was completed in March and has been posted on the APEC website. The EGEEC proposed 5 concept notes for the first round of funding and two were accepted for full proposals.

b. Reports on Peer Review of Energy Efficiency (PREE) and Cooperative Energy Efficiency Design for Sustainability activities (CEEDS)

- APERC reported on the results of its Peer Review of Energy Efficiency (PREE) and Cooperative Energy Efficiency Design for Sustainability (CEEDS). Philippines will host the second follow-up PREE for the transportation sector in fall 2014. Going forward, PREE will be combined with CEEDS. The future of PREE was discussed due to its failure to receive funding in the first round despite being ranked first. The APEC Secretariat clarified that an amended proposal can be submitted in the second round for the energy efficiency account rather than the operational account. Member economies were encouraged to discuss with their senior officials so that the officials understand that PREE is an important and valuable project that is supported by Ministers, which would help increase the probability of receiving funds.

c. Strengthening APEC Energy Standards Information System

- New Zealand presented on strengthening APEC Energy Standards Information System and requested all member economies to provide content updates by September 2014. The EGEEC Chair and the Lead Shepherd asked member economies to consider becoming vice chair of the EGEEC to ensure a smooth transition and requested updated contact information from all economies.

d. Progress toward Energy Intensity Reduction Goal

- APERC reported on progress towards the energy intensity reduction aspirational goal, and explained why IEA and APEC statistics differ. The EWG discussed reporting methodologies, decided that a progress report on this goal should be given to the Ministers, and decided that APERC would develop background information for the Ministers in advance.

11. New and Renewable Energy

a. Progress report including project highlights

- The Expert Group on New and Renewable Energy Technologies (EGNRET) presented a progress report which included current and projected renewable energy usage through 2030, renewable energy costs and roadmap. Seven projects have been completed, twenty are ongoing, and three new projects have been submitted for full proposal approval in 2014. The EWG Secretariat reminded member economies that the second of June will be the last deadline for submitting full proposals, and the Lead Shepherd reminded members to submit final reports when they complete projects. Thailand will host the next EGNRET43 meeting in November 2014 and the chair of this group is expected to be reelected at this next meeting.

b. Report on Peer Review Report and Low Carbon Energy Policies (PRLCE)

- APERC reported on the PRLCE Report for Malaysia and the upcoming PRLCE which may be held in Vietnam. Viet Nam agreed in principle to host the fifth PRLCE in the first half of 2015. Due to limited budget, Viet Nam proposed utilizing APEC funding to cover the hosting fee. The EWG endorsed the PRLCE Peer Review for Malaysia.

c. Discussion of Proposed Renewable Energy Goal

- The United States presented the proposed APEC aspirational goal of doubling renewable energy by 2030, and noted that it interacted with APEC's aspirational energy intensity goal so both needed to be considered together as work goes forward. The EWG expressed broad support for the goal, but noted that the goal is a collective target and that it requires some refinements in the definition. The EWG will revisit the goal every five years up to 2035. The Lead Shepherd suggested development of a band of cost ranges for renewable energies to assess cost-competitiveness and track progress towards commercialization. The EWG agreed that it would need to work with other international agencies closely to make sure

that APEC's viewpoints are expressed in the coming coordination of statistical definitions among international agencies such as IEA and IRENA.

12. Clean Fossil Energy

a. Progress Report/Project Highlights

- The United States presented an update on work by the Expert Group on Clean Fossil Energy on behalf of the chair.
- Projects include the APEC initiative for deployment of clean coal technologies, the completed APEC unconventional gas project, and the feasibility assessment for Carbon Capture Utilization and Storage and enhanced oil recovery in select APEC economies. The RFP for this project was posted.
- The next EGCFE will be held in Malaysia in late 2014 and will be scheduled as soon as the EGCFE chair confirms US financial support of the workshop. Chinese Taipei expressed interest in hosting the following meeting.

b. Presentation and Discussion on Progress on Inefficient Fossil Fuel Subsidy Reduction Peer Review and Activities

- The Lead Shepherd led a discussion on progress. Two economies volunteered to take part in the peer review, the first will be in Peru in the last week of June 2014. The second peer review will take place in New Zealand later this year. The results of the Peru review will be reported at the Energy Ministers Meeting in September and the review of New Zealand will be started by the November Leaders' Meeting.
- The Lead Shepherd called for member economy volunteers for the next round of Peer Reviews and that APEC Senior Officials would also be informed about the review and the opportunity to volunteer.

13. Discussion of the Strategic Plan

- The EWG discussed the draft strategic plan and provided suggestions on content. The Lead Shepherd requested member economies to provide inputs and edits by the end of June 6 so that China will be able to utilize the strategic plan to help draft the declaration for EMM11 and the plan will be ready to present to Ministers.

14. Other Long Term Measures and Discussion

- Canada gave a report on the carbon footprint workshop that was held on May 20, 2014.
- Lead Shepherd requested member economies to provide comments on the questionnaire back by August 1, 2014. Multiple entries from economies are welcome, and economies should coordinate entries internally.

15. Concluding Business

a. Dates and Location of Next Meeting

- The next EWG meeting will be held in Papua New Guinea from November 17-21, 2014.

b. Other Business

- The Philippines will host the 12th APEC Energy Ministers Meeting from October 12-14, 2015 at the Mactan Shangri-La in Cebu during their APEC Year of 2015. The theme will be APEC energy resiliency- a march towards sustainable development. Tentatively, a EWG Special Meeting will be held on October 12th, the APEC EMM12 meeting on October 13th, and a Ministers' Roundtable with Business Leaders on October 14th.