

Summary Record
The 28th Meeting of the APEC Expert Group on Energy Data and Analysis
Putrajaya, Malaysia, 1-3 November 2016

The 28th Meeting of the APEC Expert Group on Energy Data and Analysis (EGEDA) was held in Putrajaya, Malaysia on 1 to 3 November 2016.

The meeting was hosted by the Energy Commission, Malaysia. Mr. Masazumi Hirono, Head, Energy Statistics and Training Office, Asia Pacific Energy Research Centre (APERC) chaired the meeting as the Acting Chair. Representatives from Australia; Hong Kong, China; Korea; Malaysia; Philippines; Chinese Taipei and Thailand attended the meeting. Representatives of the Asia Pacific Energy Research Centre (APERC) and APEC Expert Group on New and Renewable Energy Technologies (EGNRET) were also present. Representatives from the International Energy Agency (IEA) and the International Renewable Energy Agency (IRENA) attended the meeting as guest speakers. The list of participants is provided in the Annex.

The meeting commenced with the opening address of Mr. Hirono as Acting Chair and the welcome address by Datuk Ir. Ahmad Fauzi bin Hasan, Chief Executive Officer of Energy Commission, Malaysia.

The meeting discussed the following items:

1. Report on APEC Activities
2. APEC Energy Statistics
3. Joint Organisations Data Initiative (JODI)
4. New and Renewable Energy
5. Results of the Two Trial Data Collections
6. APERC's Research Activities
7. Other Business
8. Summary Session

Session 1: Report on APEC Activities

1.A. Brief on APEC EWG52

Mr. Hirono reported about the EWG52, which was held in Moscow on 17 to 21 October 2016, hosted by Ministry of Energy, Russia.

Session 2: APEC Energy Statistics

2.A. 2014 Standard Run and APEC Energy Database

Ms. Elvira Torres-Gelindon, Senior Researcher, APERC/ESTO, presented on the status of data submissions for 2014. She reported that 10 of 21 member economies submitted annual data using APEC questionnaires while annual data of seven OECD member economies (excluding Japan), Russia and Singapore were downloaded from IEA Energy Data Centre. She also explained that one member economy submitted annual data using its own energy balance table (EBT) while the annual data of one member economy were estimated by APERC/ESTO. As regards quarterly data, she reported that 17 member economies completed the 2014 and 2015 quarterly data (including one member economy wherein the quarterly data was downloaded from the economy's website). For the 1st quarter 2016, only 15 member economies were able to submit quarterly data. She also mentioned that while the deadline for the 2nd quarter 2016 is due on 31 October, eight member economies have already submitted. In terms of completeness, she pointed out that reporting stock change continued to be a challenge. She also reported that submission turnout of other energy related data such as CO₂ emissions data, energy price data and energy efficiency template is very low, hence she encouraged members to submit them as these data will be helpful in analysing trends.

On APEC energy database she presented that APERC/ESTO is upgrading the system where all the data - annual, quarterly, monthly and other energy related data will be moved to the new storage. Hopefully this migration will be completed in early 2017.

The Chair asked concerned member economies the reason for not being able to submit information of quarterly stocks data. Some member economies mentioned that the main reason is that monthly data submission is voluntary in their economies so companies may choose not to submit this information. As to those who are able to submit data, existing legislation or government regulation enable them to collect the required data. Two member economies that have not submitted data cited that quarterly data become available only at the same time with annual data.

2.B. Overview of Energy Statistics

Ms. Gelindon presented on the overview of energy supply and demand in APEC region using the 2014 data. She presented APERC/ESTO's preliminary analysis on total primary energy supply, final energy consumption and some analysis on energy indicators. She mentioned that preparation for the APEC Energy Statistics 2014 publication is ongoing where full analysis of the 2014 data can be found.

2.C. EGEDA Energy Statistics Training Courses

Mr. Editó Barcelona, Research Fellow, APERC/ESTO, presented a report on the EGEDA training program on energy statistics. The report included the contents of the training course as well as the financial support

provided by APERC/ESTO. The evaluation made by short-term trainees who completed their course in August 2016 were also presented. Overall trainee's impressions on the training were good. However, continuous improvement will be made based on the suggestions contributed by the trainees. APERC/ESTO hopes to receive more trainees for short-term training in 2017 especially from Brunei Darussalam, Indonesia and Peru.

APERC/ESTO will send an invitation letter to the member economies in March 2017 to call for the participation in the training courses of the next year. Interested member economies are kindly requested to give a reply by the deadline. To give a high-quality hands-on exercise, APEC/ESTO limits the number of trainees to less than or equal to 8 for the short-term, and 2 for the middle-term. In selecting trainees, priority will be given to the member economies that did not send trainees in the past few years.

2.D. Proposed Revisions to APEC Energy Balance Tables and Annual Energy Questionnaires

Mr. Barcelona presented the proposed revisions to APEC energy balance table (EBT) and annual energy questionnaires. The change in the energy balance table is to add the row "final consumption" which would be the sum of "final energy consumption" and "non-energy". In the current APEC EBT format, final energy consumption includes non-energy consumption. As regards the questionnaires, Mr. Barcelona mentioned that although there were slight revisions to the questionnaires in the past, developments in the past 11 years would necessitate the revision on the questionnaires. He showed the proposed revisions for the EGEDA members' comments.

After clarifications were made on the proposed additions, EGEDA members concurred on the suggested revisions. In this regard, it was suggested to extend the deadline of 2015 annual data submission to March 2017, which was accepted by the Chair.

Session 3: Joint Organisations Data Initiative (JODI)

3.A. World Progress of JODI

Mr. Duncan Milliard, Chief Statistician, IEA, reported on the global situation of the Joint Organisations Data Initiative (JODI). He reported on the action plans discussed during the recent Meeting of Heads of JODI Partner Organisations held in Algiers, Algeria in September of this year. He gave an update on JODI events such as the 2nd JODI User seminar and the two regional trainings that were organized in 2016. On the remaining challenges, timeliness is still an issue as most countries could not meet the monthly deadline. Moreover on sustainability, it is noted that there are fewer countries with 'happy' faces in the Smiley Faces assessment for the first half of 2016. Mr. Milliard also mentioned that the Smiley Faces assessment had been published for JODI Gas in September 2016. He also noted the success of the two user events that were held

in London and Geneva and the importance of JODI as free official data for users. He suggested highlighting the visibility of JODI data to data providers may help improve data quality and timelines.

On the question regarding the other actions aside from increasing JODI visibility and capacity building in the JODI 5-year action plan, Mr. Millard responded JODI organisations' desire that participating countries be able to submit complete data in a timely manner. Australia suggested that IEA cite major uses of JODI data in order for the member economy to encourage companies to provide monthly data.

3.B. Progress on JODI Oil in APEC

Mr. Barcelona presented an update on the status of JODI Oil in APEC region. Sustainability has improved from the previous year as almost all member economies are currently submitting monthly data with the exception of Viet Nam, which has had no submission since October 2010, and Chile, which has not submitted data since April 2016. However, Mr. Barcelona emphasized that this is an improvement from the last year's report on which only 16 economies were regularly submitting data. For timeliness and completeness, an average of 7 of the 13 non-OECD economies are able to submit at the current assessment criteria of 1 month + 10 days. APERC/ESTO will continue encourage Chile and Viet Nam to resume submission of JODI Oil data.

The Chair again asked member economies for the possible challenges encountered in JODI data. Malaysia replied that the problem on the completeness of data is due to unavailability. On APERC/ESTO's presentation of lack of submission from Chile, IEA offered that Chile has started to submit its JODI data again. The coordinating agency will check/re-visit IEF website.

The Chair went around the table to ask the EGEDA members on challenges encountered in filling out JODI questionnaires.

3.C. Progress on JODI Gas in APEC

Mr. Barcelona reported that 17 economies are regularly submitting JODI Gas data. Chile has stopped submitting from April 2016, Indonesia (January 2016), Papua New Guinea (January 2015) and Viet Nam (April 2013). As regards completeness of submitted data, Mr. Barcelona noted a slight improvement although only 7 of the 10 non-OECD economies are submitting at least 50% of the required data.

3.D. JODI's Enhanced Visibility

Mr. Hirono explained that the International Energy Forum (IEF) had proposed that IEF and JODI Partner Organisations give permission for data redistribution agencies (Bloomberg, Thomson Reuters, Argus, Platts etc.) to publish JODI data on their platforms following their request with an aim at enhancing JODI's

visibility.

This proposal was approved by the participants. The participants also agreed that EGEDA Acting Chair, in communication with Mr. Jen-Yi Hou, Deputy Director, Taiwan Research Institute, as EGEDA Vice Chair, would be responsible for the agreement between IEF and redistribution agencies. Mr. Hirono will raise this issue at the APEC EWG 53 in Singapore in April 2017 for APEC's final approval.

3.E. Proposed JODI Coal

Mr. Hirono explained that IEF was considering improving data transparency of other energy sources such as coal. It was agreed that once a specific proposal was made by IEF and considered appropriate by APERC/ESTO, the proposal would be discussed for approval at the EGEDA Meeting and then EWG Meeting.

Guest Presentation

Mr. Zaharin Zulkifli, Regulatory Officer, Energy Commission, reported on Malaysia's experience in conducting energy consumption surveys. The surveys aim to help them monitor the consumption pattern of Malaysia across all sectors to enable them to provide input to the government's efforts in policy and decision making. The survey which covers Peninsula Malaysia, was conducted between 2010-2013 first on manufacturing sector, followed by residential sector, commercial then transport sector, the latter is still on planning process. Mr. Zaharin expressed the challenges encountered in conducting the surveys such as budget limitation and need for expertise/consultancy. He also mentioned that each sectoral survey has its own problems or difficulties. All the results of the survey are reflected in the National Energy Balance publication.

IEA is pleased to learn about the surveys conducted by Malaysia and encouraged all member economies especially those which do not have end-use data to do the same. He requested that members running surveys or other data collection complete the IEA templates so the information could be shared on the IEA's database of country practices.

Session 4: New and Renewable Energy

4.A. Latest Developments on APEC EGNRET activities

Ms. Tarcy Jhou, EGNRET Secretariat, presented the latest developments on APEC EGNRET activities, including EGNRET 46 held in Taichung, Chinese Taipei in April of this year and EGNRET 47 held in Jakarta, Indonesia in October of this year. She also explained the ongoing and the completed EGNRET projects

including a couple of workshops. She referred to EGNRET members' shared views that APEC aspirational goal of doubling the share of renewable energy from 2010 to 2030 would be reached by aggregate renewable energy development among APEC member economies. She pointed out the importance of cooperation between EGNRET, APERC and EGEDA.

On the Vice Chair's question as to how EGEDA and EGNRET could collaborate, Ms. Jhou responded that EGNRET may cite EGEDA's data. The Vice Chair clarified that EGEDA is only in charge of energy statistics and as regards the RE roadmap he suggested that APERC can probably help in view of its APEC Outlook preparation. In response, APERC explained the data limitation it encountered in making the APEC RE Doubling Goal Scenario. Finally, Ms. Jhou acknowledged the suggestions from EGEDA Chair and Vice Chair, and also mentioned that EGNRET would be needing other relative data to develop the RE doubling goal roadmap and welcomes any help from EGEDA or APERC and other member economies. IRENA offered to refer a staff who can assist EGNRET on cost data.

4.B. World Progress of New and Renewable Energy

Mr. Tobias Rinke, Associate Programme Officer, Statistics and Investments, IRENA, presented IRENA's RE statistics strategy including activities and updates in renewable energy deployment. Highlights of the presentation included the IRENA Statistics data collection cycle and increasing response rate to its questionnaire; its data dissemination strategy through publications and its online portal RE source; and the capacity building activities, including manuals and regional trainings. IRENA also plans to conduct pilot data collection for a selected number of countries to refine data collection methodologies for household biogas production and non-household bioenergy consumption in rural areas.

Session 5: Results of the Two Trial Data Collections

5.A. APEC Energy Efficiency Template

Ms. Gelindon reported the low submission turnout of Energy Efficiency Template (7 out of 21 member economies). She reported that few submissions were probably caused by the economies' lack of end use data or due to time constraints. She also mentioned that the Coordinating Agency may have failed in following-up the submission or in guiding member economies how to fill out the template.

Australia, having submitted the data to IEA using the IEA energy efficiency template, promised to share the template to the coordinating agency. Korea shared that filling out the template is still difficult especially for lighting. However, a study is now being carried out to estimate lighting demand. Chinese Taipei shared that filling-out the template was not difficult because data are available due to the energy surveys that have been

conducted in the economy. Malaysia and the Philippines were not able to receive the template from the coordinating agency.

IEA welcomed the consistent approach being taken by APERC and that it was understandable that responses were difficult at the start. He urged all to provide templates of any end-use surveys to add to IEA's database on practices.

The Chair mentioned that another trial collection will be carried out next year. The Vice Chair suggested that sharing of practices on end-use energy data collection should be a part of the agenda for the APEC workshop on energy statistics that will be held in Spring 2017.

5.B. APEC revised NRE questionnaire

Mr. Barcelona presented a report on the trial collection of more detailed NRE data using a revised questionnaire. He outlined the differences between the old questionnaire and the revised NRE questionnaire and the comparison with the data collected by other international organizations. In the report, only 6 of the 13 non-OECD member economies are able to submit using the revised version. However, there was still an issue on completeness as some of the economies were not able to report the disaggregated products in the revised questionnaire.

On the questions on definitions, APERC/ESTO offered to consult IEA and IRENA. APERC/ESTO also shared that the unit for biomass will be changed to TJ as suggested by UN IRES due to differences in the compositions of biomass in each member economy. IRENA also considers estimations using assumed efficiencies and other appropriate methods on hydro and bio-energy for countries that do not have any detailed data. He also mentioned that the workshop to be held in Bangkok will try to address these difficulties, by providing the participants with guidance.

The Chair asked the non-OECD member economies of any problems that were encountered in filling out NRE questionnaire. Generally, the difficulties encountered were on the basis on estimating the details.

Session 6: APERC's Research Activities

APERC Research Activities

Mr. James Kendell, Vice President, APERC, described the APEC Energy Outlook 6th Edition, outlined plans for the 7th edition, and described APERC's research projects over the past two years. Mr. Kendell described outreach for the 6th edition to APEC governments and private sector organizations, and five key trends. He reviewed the modeling approach for the 6th edition and described planned changes for the 7th edition. He

noted that assumptions for the 7th edition would be released for comments in January 2017. Finally, he mentioned the 15 reports that APERC has released since January 2015 and the work currently underway on security, oil, gas, renewables, nuclear, and buildings.

APEC Energy Overview

The APEC Energy Overview describes the energy conditions and policy in each of the 21 APEC member economies, using EGEDA data as much as possible. Mr. Kendell reported that first drafts of the 2016 edition will be completed by the end of January 2017 and will be circulated for comments to APEC member economies by the 1st week of March 2016. The pdf version should be published on the APERC website by the end of May 2017.

Malaysia verified what modes are included in the APERC transport model and Mr. Kendell responded that the model included road, rail, pipeline, air, and water. It was further asked by Malaysia where are the renewables in the models in the 7th Edition and Mr. Kendell said that in the 7th edition, the renewable model will be split, with generation going to the electricity model and the other part going to the demand models. He also mentioned that APERC has not figured out how to allocate emissions to each economy, but would prefer to allocate them on a least cost basis. Finally, he mentioned that all APERC studies are published on the APERC website

Monitoring APEC Energy Intensity Goal

APEC has adopted a goal of reducing APEC-wide energy intensity by 45% between 2005 and 2035. Mr. Kendell noted that APERC uses three measures of energy intensity: primary energy supply intensity, final energy consumption intensity, and final energy consumption intensity excluding non-energy use. He showed intensity calculations for 2014 using both IEA data and EGEDA data, and compared the two. APERC is considering using only EGEDA data in the future, if timeliness and quality can be improved. While the IEA and EGEDA data for most member economies show similar results in 2014, data for three economies showed energy intensity going in different directions. Based on a continuation of trends for five of the six overall calculations, APEC would achieve its goal in 2038, three years after the target.

The queries were focused more on the GDP assumptions. Mr. Kendell explained that GDP was estimated using a Cobb-Douglas production function and that all methodologies are documented in Annex I of the APEC Energy Outlook 6th edition, posted on the APERC website. APERC also offered to check further on the differences of the derived intensities using APEC and IEA data.

Session 7: Other Business

7.A. EGEDA's Coming Events

Mr. Hirono informed the participants that the 15th APEC Workshop on Energy Statistics would be held in Tokyo from 4 to 6 April, 2017. EGEDA members are requested to inform APERC/ESTO of comments and/or requests on the sessions and speakers, if any by 30 November 2016.

7.B. Coming Events by APEC EGNRET, IEA and IRENA

Ms. Zhou said that APEC EGNRET will hold a joint meeting with APEC EGEE&C in Korea in March 2017. Mr. Millard explained that the IEA would organize the 2016 InterEnerStat Meeting focused on energy efficiency and end-use data in Paris on 13 to 14 December. Also, the continuation of all the IEA statistics training that was open to all and the recent developments on webinars. Mr. Rinke informed the participants that IRENA will organize a technical Renewable Energy Statistics Training with the focus on East and Southeast Asia with APERC/ESTO's participation in Bangkok on 12 to 14 December and is open for interested Asian APEC member economies.

7.C. Next Meeting

Ms. Allison Ball, Director, Energy Statistics, Economics Branch, Department of Environment and Energy, Australia announced that Australia would host the 29th EGEDA Meeting in Canberra in 2017. The participants expressed their appreciation to Australia for kindly hosting the Meeting. The Chair suggested to Australia to coordinate with the coordinating agency regarding this matter.

7.D. Others - EGEDA Terms of Reference (TOR)

Mr. Hirono explained that APEC Expert Groups are requested to submit the updated version of the term of reference to the APEC EWG53 in Singapore in April 2017 for approval and proposed the draft updated version. EGEDA members are requested to submit comments, if any by 30 November 2016.

Malaysia requested the coordinating agency to update the focal point list in the EGEDA website.

Session 8: Summary Session

A draft of the summary record was discussed and adopted after amendments.

On behalf of all participants the Chair once again expressed his sincerest appreciation to the Energy Commission, Malaysia for kindly hosting the meeting and the Ministry of Energy, Green Technology and Water for the warmest support.