

SUMMARY RECORD
THE 30TH MEETING OF THE APEC EXPERT GROUP ON ENERGY DATA AND ANALYSIS
BALI, INDONESIA, 26-28 FEBRUARY 2019

The 30th Meeting of the APEC Expert Group on Energy Data and Analysis (EGEDA) was held in Bali, Indonesia from 26-28 February 2019.

The meeting was hosted by Center for Data and Information Technology on Energy and Mineral Resources (PUSDATIN) of Indonesia's Ministry of Energy and Mineral Resources (ESDM). Mr James Kendell, Senior Vice President of the Asia Pacific Energy Research Centre (APEREC) chaired the meeting. Representatives from Australia; Brunei Darussalam; People's Republic of China; Hong Kong, China; Indonesia; Korea; Malaysia; New Zealand; the Philippines; Singapore; Chinese Taipei and Thailand attended the meeting. Representatives from the International Energy Agency (IEA) and the International Renewable Energy Agency (IRENA) participated as well as guest speakers and resource persons.

The meeting commenced with the opening address of the EGEDA Chair, Mr Kendell thanking the Government of Indonesia for their hospitality and welcomed all the participants in the meeting. From the host side, Dr Ego Syahril, Secretary General, Ministry of Energy and Mineral Resources of Indonesia delivered the welcome address describing the increasing energy demand of the economy and hence the need to increase supply so that all regions can be provided with the needed energy. He also highlighted the accomplishments of Indonesia for the last four years especially in increasing renewable energy. These accomplishments were also relayed through a short video clip.

The meeting discussed the following items:

- 1) Report on APEC activities (16th APEC Workshop, EWG55 and EWG56)
- 2) APEC energy statistics
- 3) Joint Organisations Data Initiative (JODI)
- 4) New and renewable energy
- 5) Other developments
- 6) APERC's research activities
- 7) Other business

Session 1: Report on APEC Activities

1.A. Report on 16th APEC Energy Statistics Workshop, APEC EWG55 and EWG56

The Chair reported on 16th APEC Energy Statistics Workshop, APEC EWG55 and EWG56. He mentioned that the JODI participation was approved for three years at EWG55. The updated EGEDA's Terms of Reference was also approved at EWG55. One-week clearance period on APEC Energy Statistics publications was approved at EWG56. He noted that consumption survey development, estimation techniques, validation/data cleaning techniques and small-scale renewable surveys were discussed at the 16th APEC Workshop on Energy Statistics. He also explained EGEDA's inputs to "Post 2020 APEC Energy Vision."

He emphasised EGEDA's energy data collection from the standpoint of (1) strengthening energy security and (2) advanced clean energy.

1.B. EGEDA Energy Statistics Training Courses by APERC/ESTO

Mr Goichi Komori, Senior Researcher, ESTO reported on the EGEDA Energy Statistics Training Course. ESTO will hold the Short-term Course on 19-30 August and the Mid-term Course on 19 August-11 October this year. The report included the financial support provided by APERC. He noted that the number of the Short-term Course trainees has been increasing since ESTO started the Course in 2014. In addition, some economies even sent a few self-funded trainees. ESTO has been paying much attention to the feedback provided by the trainees. In general, all participants were satisfied with the Short-term Course in 2018. However, ESTO should improve the contents of some lectures and should seek a better way to carry out hands-on exercises. APERC will assess the effectiveness of this training program and decide whether this should continue after 2023.

During the discussion, Mr Jen-yi Hou, Vice Chair of EGEDA, suggested that ESTO should find key persons on data collection to ensure that the right persons are trained. Mr Agus Cahyono Adi, Head of Center for Data and Information Technology, noted that sharing experiences of other economies (case study) would be a useful part of the training course.

Session 2: APEC Energy Statistics

2.A. Report on data collection by ESTO

Mr Edito Barcelona, Research Fellow and Head, ESTO, presented on the collection of 2016 and 2017 annual energy supply and demand data. For the 2016 data, he reported that ten of 21 member economies submitted annual data using APEC questionnaires while annual data of seven OECD member economies (excluding Japan) were obtained from the International Energy Agency (IEA). Russia and Singapore's data were also obtained from IEA. He also explained that one member economy submitted annual data using its own energy balance table (EBT) while the annual data of a member economy were estimated by ESTO. For the 2017 data, six economies have submitted as of 22 February 2019. As regards quarterly data, he reported that 15 member economies completed the 2016 quarterly data. For 2017, only 13 member economies were able to submit complete quarterly data. As regards CO₂ and energy prices data, six economies submitted the former and ten submitted the latter.

Mr Barcelona also enumerated the outstanding data issues that need to be addressed by the concerned member economies. One of the outstanding data issues is the missing international bunkers data in some member economies.

The EGEDA Vice-Chair, Mr Jenyi Hou, suggested that information on international bunkers may be available in the tax offices as these products are usually tax exempted. He also suggested that the secretariat prepares a manual for uploading data to the EGEDA website.

On quarterly data submission, Malaysia mentioned that it is difficult for the economy to submit data on time because the data providers submit the quarterly data at the same time as the annual data.

2.B. Overview of Energy Statistics by ESTO

Ms Elvira Gelindon, Senior Researcher, ESTO, presented the overview of energy supply and demand in APEC region using the 2016 data. She presented ESTO's analysis on total primary energy supply, final energy consumption and some energy indicators. She also presented on the progress on the APEC Goals (energy intensity and RE doubling goal).

On the calculation of the share of renewable energy, Mr Adrian Whiteman of IRENA cautioned that the definitions ESTO used for renewable energy are still in draft form. He also mentioned that showing annual variation of renewable energy may not be meaningful as some years' production of hydro are affected by drought.

The Chair also clarified that ESTO excluded traditional biomass in the calculation of modern renewable energy but still considered it renewable energy. The Chair also asked if there's a possibility that the goals will change when 2017 data is ready. Ms Gelindon replied that there may be changes if there are some improvements on data, like when there are updates and if the economy starts to revisit RE definition.

Session 3: Joint Organisations Data Initiative (JODI)

3.A. Global Progress

Mr Julian Prime, Senior Statistician, International Energy Agency, reported on the global situation of the Joint Organisations Data Initiative (JODI). He discussed the recent JODI events such as regional training workshops, the heads of JODI Meeting, Inter-Secretariat Meetings and Information Seminar. He noted that the JODI Heads asked that a plan should be developed covering 2020-2025. JODI continues its effort to extend JODI coverage to Africa and other regions missing from the JODI map and extend JODI coverage to LNG trade flows and others as appropriate.

3.B. Progress on JODI in APEC by ESTO

Mr Komori presented an update on the status of JODI Oil and Gas in APEC region. On JODI Oil, 12 of 13 non-OECD economies submit data currently. As of 26 February 2019, eight non-OECD member economies completed the 12-month report; two members – 11-month report; and two members– 9-month report. Viet Nam has not submitted since the October 2010 data. Seven non-OECD member economies were able to submit the data from January 2017 to December 2018 by the M-1 deadline. Seven non-OECD member economies submitted the complete data.

On JODI Gas, PNG submitted data from January 2015 to March 2017, but no additional submission ever since. Indonesia submitted data to December 2018. Peru has not reported data from September 2016. Viet Nam has not resumed data submission yet. Timeliness was a challenge as only two non-OECD economies submitted data on time for M-1 from January 2017 to December 2018. Completeness was also a challenge as eight non-OECD economies submitted only 50% of the required data.

Special Presentation from Indonesia

Mr Agus Cahyono Adi, Head of Center for Data and Information Technology, reported on the energy and data collection in Indonesia. Indonesia has five energy development priorities; (1) maximising the utilisation of renewable energy; (2) minimising the utilisation of crude oil; (3) optimising the utilisation of natural gas and new energy; (4) utilising coal as the balance of the remaining energy supply; and (5) harnessing nuclear as the last option. Indonesia collects data on fuel, biofuel, natural gas and LPG, coal and briquettes, biomass and electricity. Indonesia has 85 different themes of maps to support 19 ministries and institutions. These maps are coordinated by Coordinating Ministry of Maritime and can be used for emergency purposes. Indonesia has policy to control export of energy. Energy companies have obligation to fulfill domestic supply first.

Session 4: New and Renewable Energy

4.A. Presentation by IRENA

Mr Adrian Whiteman, Chief Statistician, IRENA, delivered a presentation on the definition of renewables, especially on the traditional biomass used for residential including, among others, heat production; auto heat production; household bioenergy production. He highlighted the importance of SDG targets; while WB, APEC, Africa have all respective doubling targets. The doubling target is country-driven so the SDG target and other organisations might have differences on reporting, calculations and definition hence, there's a need to clarify which to be included and not. He mentioned some of renewables which maybe not captured such as bioenergy

and renewable heat. He was also surprised to see the report of APEC has a lot of data on renewables as compared with other regions or organisation, and again mentioned about APEC's computation on traditional biomass. As, for example, in agriculture sector, biomass was used for heat which might not be accounted.

ESTO clarified that traditional biomass is still considered renewables, but it is considered as non-modern renewables and was not included in the calculation of the renewables share. It was also highlighted that ESTO does not make estimations on traditional biomass consumption especially on large traditional biomass users, e.g. China so there might be differences between APEC and data from other sources.

IEA made a similar presentation on renewable energy use in OECD. The presentation highlighted the changes in the renewable questionnaire that they send to the members to capture more renewable energy data. He also mentioned difficulties in collecting renewable energy consumption in residential sector.

There was also a discussion on what member economies are doing to improve the accuracy of renewable energy data.

Session 5: Other Developments

5.A. Energy Modernisation for a better quality of life (Policy Dialogue – APEC 2018)

The Chair gave a presentation on a policy paper proposed by Chile during EWG55. The policy paper was approved by EWG, and the EWG lead shepherd asked the expert groups to discuss the same at their respective meetings and provide comments in EWG57. The Chair asked the members to comment on the policy paper.

On innovation, the Vice Chair pointed out that innovation should be supported by institutional and regulatory measures as well as incentives. Statisticians need to provide sufficient information to policy makers. Mr Agus mentioned that innovation would be disruptive, especially to the supply chain. He added that digital technology would play a big part in innovation as well as in data collection. Mr Prime mentioned that IEA launched a digitalisation strategy and showed how statisticians can use digitalisation to improve data.

On sustainable ground transport, New Zealand commented that affordability would be a big factor on switching to electric vehicles. Data are needed for the analysis. The Chair added that life-cycle cost information of electric vehicles might be a very important information.

The Vice Chair mentioned that digitalisation would be helpful in collecting information on electricity use in households for electric vehicle. The switch to more sustainable transport might be driven by stricter regulation on emission than by providing subsidies.

On modern regulatory frameworks, Indonesia; Korea; New Zealand and Chinese Taipei supported that this is important for the utilisation of modern technologies in power generation, hydrogen vehicles and renewable energy.

5.B. APERC presentation on energy efficiency indicators template

Mr Barcelona presented the status of submissions of the 2016 energy efficiency template which included the industry and transportation sectors. He reported that of the 13 non-OECD APEC economies, seven submitted the template. Among the eight OECD APEC member economies, two shared the template that were submitted to IEA. ESTO plans to improve the training materials of its short-term course to focus on end-use energy consumption methodologies.

5.C. Energy efficiency data and dissemination improvements through capacity building

Mr Prime reported on energy efficiency indicators data collection in IEA. The statistical outputs of this data collection are IEA's energy efficiency indicators database and energy efficiency indicators highlights publication.

Country practices database is also made available at the IEA website and could be used as reference by any interested country/economy. Mr Prime also reported on IEA's assistance to emerging economies which provided support for a data mapping work. He cited the training they carried out in Africa wherein energy statisticians and energy efficiency specialist from each country were invited to the same training. The result was that statisticians and energy efficiency specialists have started dialogs which may lead to the production of better energy data.

Mr Barcelona, suggested that it might be good if EGEDA and EGEE&C (expert group on energy efficiency and conservation) hold a joint meeting so that APEC statisticians and energy efficiency specialists would start working together to collect information for the energy efficiency indicators template.

The Non-OECD members were also asked if they are willing to share the energy efficiency indicators template they submit to ESTO with IEA. Three members agreed (Malaysia; Chinese Taipei and the Philippines), and the other members which submitted the energy efficiency template will send their response later.

5.D. Other matters

5.D.1. Hydrogen based fuels – the need for data?

Mr Prime gave a presentation on hydrogen-based fuels which included production, usage and countries that have hydrogen policies/strategies/roadmap. He shared a question that IEA received from a reporting member country on how to report hydrogen produced from hydrolysis of salt water which is then used to generate electricity. IEA's reply was to report electricity produced under *other sources* and do not report the corresponding fuel input. In the energy balance, electricity output from hydrogen would be primary production of electricity rather than secondary.

Mr Prime then raised the question on whether hydrogen-based fuels should be captured in energy statistics. Are the statisticians fully engaged in policy making know how hydrogen is being used so that the amount of hydrogen that will be used as an energy source could be accurately estimated? He also asked the participating APEC members economies which among them are or will be producing hydrogen. What uses and what data will be collected?

Korea shared the information that it will start collecting information on hydrogen vehicles in late 2019. Australia is also producing hydrogen from brown coal and investing in research in green hydrogen produced using solar energy and the government has the power and legislation to collect information. Brunei Darussalam will start producing hydrogen via steam reforming of natural gas supplied from Brunei LNG's recovered fuel-gas pool. Mr Whiteman mentioned that hydrogen is a secondary fuel. IEA responded that it has to work with the UN to study how to treat hydrogen in energy statistics.

5.D.2. Other matters from IRENA

Mr Whiteman reported that IRENA is holding training and capacity building courses two times per year and PNG will be the APEC economy that will be participating in one of these trainings. IRENA has revised its website and among the information that are available are: NRE statistics, statistics manual, methodologies for estimating off-grid NRE, measuring biogas production and estimating solar energy use from trade data of solar products.

Regarding renewable energy and climate change, Mr Whiteman suspects that energy statisticians seem to be not involved in countries' preparation of nationally determined contributions (NDCs). He stated that energy statistician should be involved especially in providing information considering that in many countries' energy is the source of 80% of emissions.

5.D.3. Revisions to APEC energy questionnaires and updates on APERC district cooling study

Mr Barcelona presented the revisions to the APEC JODI Gas and annual energy questionnaires. For JODI Gas, the revision is the expansion of the list of countries/economies/territories for the sources of imports and destination of exports of LNG and natural gas. This is in view of the request of data users for JODI to make available LNG trade data.

As regards revisions to the annual energy questionnaire, Mr Barcelona reported that a new transformation process “district cooling plants” is added in the transformation part of the questionnaire. This is to capture energy used to produce chilled water in district cooling plants. The lists of imports by source and exports by destination of countries/economies/territories were also expanded similar to that of APEC JODI Gas format. On the electricity questionnaire, two rows in the “supply to demand” table were added. These are the “used for the production of chilled water” for electricity and “used for electricity production” for heat. On the NRE questionnaire, the classification of hydro was changed from classification by size to classification by type such as: storage hydro, run-of-river hydro, pumped-storage hydro and mixed plants (storage and pumped).

On the district cooling study, Mr. Barcelona provided an update on the information obtained during the APEC energy statistics workshop in July 2018. There are at least 11 out of the 21 member economies that have district cooling facilities. He also mentioned that ESTO recommends the inclusion of district cooling in the energy balance and the huge potential for the use of free cooling in many cities in APEC.

Session 6: APERC’s Research Activities

6.A. Report on APERC Research Activities

The Chair Mr Kendell presented APERC’s activities, including the activities held for the past year including independent research projects publication and cooperative projects. He gave a sneak peek on the results and what to expect in the ongoing works on APEC Demand and Supply Outlook 7th Edition. He also gave indication on the road show for the 7th edition. Finally, he mentioned the work currently underway in support to energy security, low carbon, and oil and gas supply.

6.B. APEC Energy Overview

Ms Gelindon briefly discussed the APEC Overview emphasising on energy development and policies in each of the 21 APEC member economies, using EGEDA data as much as possible. Ms Gelindon reported the schedules of 2018 APEC Overview, including the possible dates of exchanges with EGEDA members.

The issue was raised on how the renewable shares was computed in the Overview, in which Ms Gelindon responded was the same as the methodology presented in the renewables share presented in the APEC goals. As Mr Agus was concerned that Indonesia’s definition of the renewable share might be different, which she responded will be considered accordingly. It was also clarified that though the updates on data are not necessary in the Overview, the updates if there are any, will be reflected in the APEC database.

Session 7: Other Business

In March 2019, IEA has several events which includes the statistical workshop with OLADE to harmonise reporting templates and the Energy Statistics Training Week in Paris. Some of APEC member economies will also be joining the training. IEA very much welcomes countries/trainees who encounter problems and challenges in statistics and will try to resolve them.

Mr Prime also mentioned the IEA workshop on energy balance table and energy efficiency template for AFREC. The JODI-InterSecretariat Working Group (ISWG) Meeting will be held in Vienna. It was noted that IEA was satisfied with the successful InterEnerStat in October 2018.

The Spanish version of IEA's training videos would be available by the end of March, which would be useful for Latin American APEC economies.

For IRENA, it will hold energy statistics workshop for West African countries and Small Island Developing States (SIDS). IRENA is working with WCO to harmonise trade codes for solar energy products.

Mr Barcelona reported that the 17th APEC Workshop on Energy Statistics would be held jointly with the International Energy Forum (IEF) in Tokyo on 11-13 June 2019. ESTO has already sent invitation letters to the EGEDA focal points. The topic of the workshop is oil and gas statistics. ESTO hopes that the participants would get better understanding not only of JODI Oil and Gas data but also annual oil and gas data, since all JODI Partner organisations are expected to participate.

Mr. Barcelona also mentioned that ESTO will hold Short-term Statistics Training course in Tokyo on 19-31 August 2019. He stated ESTO's preference in selecting the two economies for Mid-term Statistics Training course in Tokyo on 19 August – 11 October 2019.

Hong Kong, China announced that they would host the 31st EGEDA meeting in 2020. The meeting details will be shared later.

Session 8: Summary Session

The Summary of the 30th EGEDA Meeting was adopted and the meeting was adjourned. Final copy of the Summary Report will be distributed to the participants later.