Summary Record of the 15th APEC Workshop on Energy Statistics (EGEDA Workshop)
Tokyo, Japan
4-6 April 2017

The workshop was the 15th of the series which EGEDA conducts yearly on top of the EGEDA regular annual meetings. This year's workshop aims to impart best practices and experiences in collecting end use and new and renewable energy data among EGEDA members. The 15th EGEDA workshop was participated in by 12 APEC member economies (Australia, Chile, China, Japan, Republic of Korea, Malaysia, Peru, Russia, Singapore, Chinese Taipei, Thailand and the United States) and three ASEAN non-APEC members namely, Cambodia, Lao PDR and Myanmar. International organizations namely, the IEA and IRENA were also invited to share their best practices in collecting end use energy data and new and renewable energy data, respectively.

The summary of the proceedings were as follows:

OPENING SESSION

In his welcome remarks, Mr. Ishii, Director of the Ministry of Economy, Trade and Industry, Japan mentioned several developments in the energy sector including the current situation of Japan after the Fukushima incident and the historic 2015 Paris Agreement. Alongside these international happenings, he also mentioned that APEC has two aspirational goals which were directed by the APEC leaders that would help achieve a sustainable future namely, energy intensity reduction of 45% in 2035 with 2005 as the base year and the RE doubling goal— doubling the share of renewables in the APEC energy mix, including in power generation, from 2010 levels by 2030. In those global events, EGEDA would play an important role being the experts on energy data. In relation, he highlighted the importance of data and statistics in achieving those goals, as a well-collected data would at least give indication whether APEC is on the right track.

Mr. Ojimi, APERC President mentioned in his opening remarks the activities of APERC, majority of which are in response to the Ministerial directives. He cited the preparation of Outlook as one of its major activities, wherein the aspirational goals where developed into scenarios in the 6th Edition of the Outlook and further in the ongoing 7th Edition. He reiterated the role of EGEDA as regards maintaining APEC data as these will be used in monitoring the progress of APEC's aspirational goals as agreed upon in the recently conducted APEC EGEEC/EGNRET Joint Meetings. He was also pleased to mention the successful trainings conducted by Energy Statistics and Training Office (ESTO), the Coordinating Agency (CA) of EGEDA, to help out APEC members in improving energy data and statistics. And among those who benefited from the training happen to be some of participants in this year's workshop.

SESSION 1: Setting the Tone

Four presentations were made in this session to set the tone for the discussion in the workshop. APERC-ESTO presented on the need for end-use energy consumption and detailed new and renewable energy data as well as its experience in collecting these data. Likewise, IEA and IRENA explained their experiences in collecting energy indicators and new and renewable energy data, respectively.

The session highlighted the challenges faced by the members in gathering end-use energy consumption data, the most common of which is the non-availability of the end use data in several economies. Surveys were identified as the most effective tool in gathering these information. However, there were suggestions that aside from surveys, smart meters may be a potential source of information for estimating end-use consumption of electricity. On the difficulty of collecting end-use data, IEA shared that per experience, it took them several years before data from its members became satisfactory but level of data improved over time. The improvement was brought about by the need of the IEA members themselves for their own policy formulation on data collection.

SESSION 2: Sharing of experiences in end-use energy data collection for energy efficiency indicator analysis

In Session 2, there were four economy presentations showing how energy data are collected, processed, disseminated and used in APEC member economies. Australia presented the survey in the industry sector, which is the biggest sector in Australia accounting for 20 per cent of total energy consumption. The survey is conducted under the National Greenhouse and Energy Reporting Scheme (NGERS). Republic of Korea and Chinese Taipei presented their detailed energy consumption surveys in the residential sector while the United States presented its Commercial Buildings Energy Consumption Survey (CBECS).

In the ensuing discussion, it was emphasized on the need for expert survey interviewers. The United States has to train people who are expert interviewers on energy matters. This is to ensure that energy information are adequately captured during the surveys. It was mentioned that in Hong Kong, China, the consultants were trained by the government from scratch as there were no expertise on energy surveys in the territory before this kind of surveys were carried out. The economies had also implemented various survey techniques such as paper-assisted personal interviews (PAPI), computer-assisted personal interviews (CAPI), and computer-assisted telephone interviews (CATI).

SESSION 3: Sharing of experiences in new and renewable energy data collection

In Session 3, there were four economy presentations showing how renewable energy data are collected, processed, disseminated and used in APEC member economies. Chile; Peru; China and Thailand have a long-term energy plan, respectively and would like to enlarge the use of renewable energy in the future. Chile doesn't conduct renewable energy survey (e.g. biomass) in household sector but estimate based on economic growth, weather and thermal comfort.

In the ensuing discussion, it was learned that the definition of new and renewable energy was different from economy to economy and that it may also be difficult to set a standardized definition throughout the world. It was emphasized on the need to exchange and obtain knowledge and experiences through the contacts of international energy-related bodies. To carry out suitable renewable energy survey, capacity of staff and budget are the necessary conditions. While enlarging the coverage of renewable energy data survey is important, it is relatively difficult to carry out a survey.

SESSION 4: Challenges in the collection of end-use energy consumption data and new & renewable energy data

Malaysia and Russia gave their respective presentations on challenges in collecting data for end-use energy consumption data and new and renewable energy data.

Malaysia explained the sectoral surveys (manufacturing, residential and commercial sectors) they have conducted from 2013 to 2016 to use as baseline for end use data. Meanwhile, the survey for transport sector takes place this year. Malaysia emphasized the difficulty in collecting data for new and renewable energy by sector due to the absence of regulation and budget limitations. And due to latter, no additional projects will be carried out to improve the data collection. It was clarified whether the use of biomass in the residential sector is also covered in the survey and Malaysia responded that based on the 2,000 samples collected, no household using biomass was found in residential sector.

For Russia, data on production and consumption are collected using a centralized form in monthly and annual basis, excluding small enterprises. Statistical monitoring of small enterprises can only be conducted every five years, according to the Federal Law.

APERC-ESTO, IEA and IRENA shared the regular training courses offered by each of these three organizations, including future training and capacity building plans. Regarding participation in the training, IEA stated that priority will be given to energy statisticians, but those who work in other energy fields are also welcomed to participate.

SESSION 5: Next steps for further exchanges

Three special presentations from ASEAN non-APEC member economies, namely Cambodia, Lao PDR and Myanmar comprised the morning session.

The electricity power sector of Cambodia was briefly analyzed showing increase both in the generation capacity and electrification rate. The energy data collection mechanism showing the type of data and responsible institute was discussed. The floor suggested to enhance the set of electricity data by collecting the station use information and segregating the use of electricity by various types of consuming sector.

The energy flow structure and the status of data collection in Lao PDR was introduced. Presentation was also made on the details of the 2015 energy supply and demand.

The legal framework for collecting energy data as well as the institutional structure, data sources and compilation mechanism in Myanmar were introduced.

APERC-ESTO introduced the APEC energy hierarchy and the on-line EGEDA database, noting on the large amount of on-line visitors annually. It was highlighted that the database is being upgraded with new hardware and software using cloud servers with a new URL, http://www.egeda.ewg.apec.org. The content of the upgrade was briefly introduced which expects to facilitate the submission and dissemination of data like improving the quality of submitted data and sharing other information such as training materials in the future. The floor gave several comments and suggestions to improve the EGEDA website such as among others; the possibility of a database showing the data collection system of member economies for the benefit of others and the inclusion of energy definitions used internationally as well as explanations on the data collected, per economy if possible.

The last two presentations in the afternoon session concluded with presentations on the new and renewable energy policy in Japan and APERC research activities, respectively.

The Long Term Energy Supply and Demand Outlook (2015-2030) of Japan was introduced with key objectives on energy independence, generation cost reduction and CO2 emission targets. Renewable

energy is noted to be the key component of Japanese energy policy with a target of 22-24% of renewable energy composing the electricity generated in 2030. The overview of Feed-in Tariff Scheme in Japan including its recent reform was also explained.

APERC research activities were presented which include among others, Energy Demand and Supply Outlook, the Overview publication and monitoring of the APEC energy intensity reduction goal. Focus was made on the renewable activities.

A review was made on various projection models in the next edition of the Supply and Demand Outlook, concentrating on an assessment of the renewable heating and cooling potential, and on the 2016 APEC transportation study that included biofuel supply and demand balances. Members were also informed that the 18th APEC Energy Overview will soon be dispatched for review by member economies. APERC is proposing to reduce the number of indicators (using only data of the final energy consumption excluding non-energy for calculation) and increase the involvement of EGEE&C in the process of monitoring the APEC's minister's goal of reducing energy intensity by at least 45% by 2035.

SUMMARY:

EGEDA Acting Chair, as the Chair of the workshop once again thanked the participants for their major contributions to the workshop, which were quite helpful to future EGEDA activities. He mentioned that it was his sincerest wishes that the workshop also proved interesting and informative to the participants for their future activities in their member economies.

Annex 1: List of Participants

	Economy/Organization	Name
1	Australia Department of the Environment and Energy	Ms. Allison Ball
2	Australia Australian Embassy - Tokyo	Ms. Masako Yoda
3	Chile Ministry of Energy	Mr. Stefano Banfi
4	China National Bureau of Statistics	Mr. Hu Wei
5	Japan Ministry of Economy, Trade and Industry	Mr. Shinji Ishii
6	Japan Institute of Energy Economics, Japan	Dr. Kenji Kimura
7	Republic of Korea Korea Energy Economics Institute	Dr. Moon-Sun Choi
8	Malaysia Energy Commission	Ms. Aimi Hazwanie Nordin
9	Peru Ministry of Energy and Mines	Ms. Claudia Milagros Espinoza Zegarra
10	Russia Federal State Statistics Service	Ms. Olga Burova
11	Singapore Energy Market Authority	Ms. Erica Liu Yang
12	Chinese Taipei Taiwan Research Institute	Mr. Hou Jen-Yi (EGEDA Vice Chair)
13	Thailand Energy Policy and Planning Office Ministry of Energy	Ms. Korakot Phupaiboon
14	Thailand Department of Alternative Energy Development and Efficiency, Ministry of Energy	Ms. Patcharee Youngcharoen
15	Thailand Department of Alternative Energy Development and Efficiency, Ministry of Energy	Ms. Passarin Petchumli
16	United States Energy Information Administration	Mr. Hiroaki Minato
17	United States Embassy of the United States of America, Tokyo, Japan	Mr. Ross Matzkin-Bridger

18	United States Embassy of the United States of America, Tokyo, Japan	Mr. Cameron Salony
19	United States Embassy of the United States of America, Tokyo, Japan	Mr. Koichi Uchida
20	International Energy Agency (IEA)	Mr. Duncan Millard
21	International Renewable Energy Agency (IRENA)	Mr. Tobias Rinke
22	Cambodia Ministry of Mines and Energy	Mr. Sok Chandareth
23	Lao People's Democratic Republic Ministry of Energy and Mines	Mr. Sengthong Pormuangpieng
24	Myanmar Ministry of Electricity and Energy	Mr. Zaw Myint
25	APERC	Mr. Takato Ojimi
26	APERC	Mr. James Kendell
27	APERC (ESTO)	Mr. Masazumi Hirono (EGEDA Acting Chair)
28	APERC (ESTO)	Mr. Edito Barcelona
29	APERC (ESTO)	Mr. Cho-Yee Ip
30	APERC (ESTO)	Ms. Elvira Torres Gelindon
31	APERC (ESTO)	Mr. Goichi Komori
32	APERC (ESTO)	Dr. Yusuke Kimura
33	APERC (ESTO)	Ms. Dk Nur Afifah Atikah Pg Hj Ismail
34	APERC	Dr. Ruengsak Thitiratsakul
35	APERC (ESTO)	Ms. Yuko Fukuda