

# The 54<sup>th</sup> Meeting of APEC Expert Group on Energy Efficiency & Conservation (EGEEC 54)

## **Meeting Summary**

23 – 25 September 2019

Cebu, the Philippines

#### 1. Introduction

The 54<sup>th</sup> Meeting of the APEC Expert Group on Energy Efficiency & Conservation (EGEEC 54) was held in Bai Hotel, Cebu, the Philippines on 23 – 25 September 2019. Technical visits to Profood International Corporation and San Miguel Mandaue Brewery were carried out on 25 September 2019.

The EGEEC meeting was co-chaired by Mr. VY Ek-chin, Chair of APEC Expert Group on Energy Efficiency & Conservation (EGEEC) and Director Jesus C. Anunciacion, Energy Utilization Management Bureau, Department of Energy, the Philippines. Delegates from 8 APEC member economies, namely Hong Kong, China; Japan; Malaysia; the Philippines; Chinese Taipei; Thailand; the United States and Viet Nam attended the meeting. Representatives from APEC sub-fora including Expert Group on Energy Data and Analysis (EGEDA) and Asia Pacific Energy Research Centre (APERC) also attended the meeting. Representative from the International Copper Association (ICA) participated in the meeting as observer.

The list of EGEEC 54 participants is attached in Appendix A of this meeting summary.

## EGEEC 54 (23 - 24 September 2019)

## 2.1 Official Welcome

Director Jesus C. Anunciacion, Energy Utilization Management Bureau, Department of Energy, the Philippines, delivered an official welcome on behalf of the host economy. He extended his warm welcome to all delegates and expressed sincere appreciation to representatives of APEC member economies for sharing their latest programs and activities on energy efficiency and conservation. Director Jesus mentioned that APEC member economies need to find a creative and resourceful way on how to maximize energy efficiency & conservation without sacrificing the economy development and quality



of life. He further pointed out that energy efficiency and conservation is a crucial component of a sound national energy plan. In the long term, efficiently managing energy use would not only support economic growth, but would also be beneficial to the environment by reducing greenhouse gas emission. He called on the support from APEC member economies toward building comprehensive multinational energy cooperation across the APEC region and encouraged APEC member economies for a productive discussion in EGEEC 54 which would bring tangible and durable output to APEC post 2020 visions.

### 2.2 Opening Address and Adoption of Agenda

EGEEC Chair gave the opening addresses. He welcomed delegates from APEC member economies and thanked the Philippines for its hospitality in hosting the EGEEC 54.

The EGEEC 54 agenda was approved by attending member economies.

## 2.3 Updates of APEC / EGEEC/ EGEDA/ APERC

Four (4) presentations were conducted as follows:

i) "APEC Secretariat Project Update" by Ms. Jovian Cheung, EGEEC Secretariat on behalf of Mr. Tetsuya Shimokawa, Program Director, APEC Secretariat

The overall outcomes of 2019 project sessions were presented. In 2019 project session 1, the approval rate of APEC funded project was 50% with 6 EWG projects granted in principle approval; 4 out of 6 EWG projects were approved by BMC. In 2019 project session 2, the approval rate of APEC funded project was 54% with 7 EWG projects granted in principle approval.

The APEC project cycle for project session 1, 2020 including the key information and updates were introduced followed by key advices for project implementation in organising workshops and APEC procurement rules. The key message from 2019 APEC Gender Focal Point Report were also presented.

## ii) "EGEEC Updates" by Ms. Jovian Cheung, EGEEC Secretariat

EGEEC Secretariat presented the meeting summary of the 53<sup>rd</sup> meeting of APEC EGEEC held on 18-22 March 2019 in Hong Kong, China including the EGEEC



APEC Expert Group on Energy Efficiency and Conservation (EGEE&C) Under the APEC Energy Working Group

Chair election results. Members reached consensus to elect Mr. VY Ek-chin from Hong Kong, China to be the EGEEC Chair for term 2019 – 2021, i.e. 4 meetings. EGEEC Secretariat also presented the status of EGEEC projects and the summary of EWG 57. EGEEC was tasked by EWG to discuss whether APEC Energy Standards Information System (ESIS) would be terminated in EGEEC 54.

## iii) "Progress toward Energy Intensity Reduction Goal and EGEDA updates" by Ms. Elvira Torres Gelindon, EGEDA Secretariat

EGEDA reported the progress on APEC energy intensity goal. The analysis showed that if the current trend continues, final energy consumption intensity reduction would meet the APEC goal of reducing 45% in 2035. Likewise, EGEDA mentioned that in accordance with APEC Energy Demand and Supply Outlook 7th Edition, the APEC energy intensity reduction goal could be met in 2029 under the Business as Usual Scenario.

A decomposition analysis of energy demand and development of energy efficiency measures was also presented for EGEEC members to better understand the underlying causes of changes in energy intensity. The decomposition revealed that intensity effect was the strongest factor affecting the final energy consumption trends. In order to have better energy decomposition analysis, EGEDA reminded that more detailed data should be provided by member economies for analysis.

EGEDA reported that annual energy supply and demand data for 2017 were collected to prepare the APEC Energy Statistics and Handbook 2017. EGEDA further reported that there was a low response rate on the energy efficiency indicators template.

Past and upcoming activities of EGEDA, including the APEC workshop on energy statistics, EGEDA's short- and middle-term training and EGEDA meeting were also introduced. EGEEC Chair encouraged member economies to send representatives to attend the trainings for capacity building.

EGEEC would like to seek assistance from EGEDA to provide decomposition of energy data by sector based on available data, for further discussion in coming EGEEC meeting.



- iv) "Overview of APERC Activities" by Hugh Marshall-Tate, Researcher, APERC APERC presented the background of APERC and its functions, tasks, research activities and cooperative projects in APEC. Mr. Marshall-Tate mentioned that the 7<sup>th</sup> edition of APEC Energy Demand and Supply Outlook was published in May 2019. The Outlook presents the projected trends for energy demand and supply in APEC economies through 2050 under three scenarios: Business as Usual, APEC Target (combines intensity goal with doubling RE goal) and 2 Degree Celsius Scenario (consistent with Paris accord goal to limit warming to 2°C). The overview of APEC Peer Review on Energy Efficiency (PREE), APEC Low-carbon Model Town (LCMT), Peer Review on Low Carbon Energy Policies (PRLCE) and a history of cooperative activities of APERC was also presented.
- "APEC ICA Cooperation" by Mr. Jean-Marc Alexandre, Manager Partnerships Asia, International Copper Association (ICA)
  ICA introduced the background of ICA and its initiatives to promote energy efficiency and renewable energy. He presented ICA's international cooperation programs with APEC, ASEAN and U4E. Status of the APEC funded workshop on Aligning Conformity Assessment Efforts for EE Regulations of Motors in the APEC and ASEAN Regions (EWG 05 2018A) was reported.

## 3.1 Project Update

The status of eleven (11) nos. of project were presented and a summary of the project status is provided below.

API	EC Project Title	Proposing	Project No.	Status
		Economy		
1	APEC Peer Review on Energy Efficiency	Japan	EWG 08	Completed
	(PREE) Phase 7		2017A	
2	APEC Peer Review on Energy Efficiency	Japan	EWG 02	On-going
	(PREE) Phase 8		2018A	
3	APEC Peer Review on Energy Efficiency	Japan	EWG 08	On-going
	(PREE) Phase 9		2018A	
4	APEC Low-Carbon Model Town (LCMT) Project	Japan	EWG 01	On-going
	Dissemination Phase 3		2019A	



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Asia-Pacific Economic Cooperation

APE	EC Project Title	Proposing	Project No.	Status
		Economy		
5	Low Emissions Development (LED) Strategies:	US	EWG 10	On-going
	Supporting the Transition to Energy Efficient,		2018A	
	Electric Transport Systems			
6	Aligning Conformity Assessment Efforts for	US	EWG 05	On-going
	Energy Efficiency Regulations of Motors in the		2018A	
	APEC and ASEAN Regions			
7	Coordinating Standards for Cool Roof Testing	US	EWG 14	On-going
	and Performance		2018A	
8	APEC Workshop on University Collaboration to	US	EWG 06	On-going
	Support Data Gathering and Analysis in Energy		2019A	
	Efficiency and Renewable Energy			
9	Sustainable Mobility: Routes for integrating the	US	EWG 05	On-going
	Energy and Transport Sectors for Urban Cities		2019A	
10	Exploring Co-Benefit Opportunities for	Thailand	EWG 04	On-going
	Renewable and Energy Efficiency Projects in		2019A	
	the APEC Region			
11	Accommodating Disruptive Technology into	Thailand	EWG 11	On-going
	RE&EE Policy for Energy Security		2019A	

# 3.1.1 APEC Peer Review on Energy Efficiency (PREE) Phase 7 (EWG 08 2017A/Japan)

APEC Peer Review on Energy Efficiency (PREE) Phase 7 had two parts. The first part of PREE Phase 7 was the Follow-up PREE, which was designed to assist a former PREE host economy, i.e. Malaysia, in implementing the recommendations of a PREE review team. The key objective was to assist the host economy to obtain in-depth knowledge on how to implement the best practice recommended by the review team in previous PREE for the host economy. The second part of PREE Phase 7 was Energy Efficiency Policy (EEP) Workshop, which succeeded Cooperative Energy Efficiency Design for Sustainability (CEEDS) project as a forum to further discuss key issues in the previous PREEs. Final completion report was submitted to EWG in April 2019 and available on APEC Project Database website.



#### **Status: Completed**

# 3.1.2 APEC Peer Review on Energy Efficiency (PREE) Phase 8 (EWG 02 2018A/Japan)

APEC Peer Review on Energy Efficiency (PREE) Phase 8 had two parts. The first part PREE Phase 8 was a peer review, which provides recommendations for the host economy on how implementation of their energy efficiency action plans could be improved with a view to achieving their energy efficiency goals. The second part of PREE Phase 8 was an Energy Efficiency Policy (EEP) Workshop, which succeeded the Cooperative Energy Efficiency Design for Sustainability (CEEDS) project as a forum to further discuss key issues in the previous PREEs. The peer review was cancelled due to the restructuring in the Russian Government. An EEP workshop was successfully held in Hong Kong, China in March 2019.

#### Status: On-going

# 3.1.3 APEC Peer Review on Energy Efficiency (PREE) Phase 9 (EWG 08 2018A/Japan)

APEC Peer Review on Energy Efficiency (PREE) responded to the declaration at the 9th APEC Energy Ministers Meeting (EMM9) in Fukui, Japan to promote the energy efficiency of the APEC member economies and meet the APEC's aggregate energy intensity reduction goal of 45% by 2035. A peer review would be conducted to provide recommendations for the host economy on how implementation of their energy efficiency action plans could be improved with a view to achieving their energy efficiency goals. In PREE Phase 9, a Follow-up PREE, which was designed to assist a former PREE host economy in implementing the recommendations of the PREE review team was held in Peru in March 2019.

#### Status: On-going

# 3.1.4 APEC Low-carbon Model Town (LCMT) Project Dissemination Phase 3 (EWG 01 2019A/Japan)

Dissemination Phase 3 was the final phase of a ten-year-LCMT project, which sought to accelerate the dissemination of low-carbon towns in order to manage



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rapidly growing energy consumption in the APEC region. Two main activities would be included:

- i. Holding a symposium to wrap up the LCMT project, to be held in late 2020 in Japan;
- ii. Conducting feasibility studies (FS) for La Molina (Peru), Khon Kaen (Thailand) and Phu Quoc (Viet Nam).

Concept note was approved in April 2019 and the project proposal was submitted and revised under Quality Assessment Framework (QAF).

### Status: On-going

3.1.5 Low Emissions Development (LED) Strategies: Supporting the Transition to Energy Efficient, Electric Transport Systems (EWG 10 2018A/US)

The project was led by USDOE's National Renewable Energy Laboratory. Assessments of renewable resource potentials on islands, including those in APEC economies, consistently showed their potentials are significantly larger than their utilization, and that further utilization would result in more secure, reliable and affordable electricity than that of fossil fuel-based generation. This project would profile 3 APEC islands and designed a roadmap for how they could integrate the transport and electricity sectors in a way that created the highest degree of sustainable development benefits. The three islands would get in-depth analysis of their LED strategy on:

- i. Alternative technology development scenarios,
- ii. Evaluation of SDG impacts of alternative scenarios;
- iii. An assessment of their financial landscape and existing investment environment; and
- iv. A policy toolkit that they could further explore and select from to achieve the goals and targets they set.

SD Strategies (Germany) had been chosen as the project consultant. The project had received a time extension and expect to hold the project workshop in early 2020.

#### Status: On-going

APEC Expert Group on Energy Efficiency and Conservation (EGEE&C) Under the APEC Energy Working Group-

Asia-Pacific Economic Cooperation

3.1.6 Aligning Conformity Assessment Efforts for Energy Efficiency Regulations of Motors in the APEC and ASEAN Regions (EWG 05 2018A/US)

The project was being led by Pacific Northwest National Laboratory, ICA and UL. The project expanded a 2008 project conducted by China on motor efficiency. It aimed to inform the regulatory and policy environments within APEC and ASEAN of the benefits of harmonization of standards and conformity assessment approaches to facilitate trade of energy efficient electric motors and accelerate progress toward energy intensity reduction in the region. The project had three primary objectives:

- i. Identify commonalities and differences in motor energy efficiency standards and labelling efforts in APEC and ASEAN.
- ii. Advance the ongoing public-private dialogue among APEC and ASEAN economies regarding ways to align motor energy efficiency requirements through the development and use of global standards such as IEC 60034 and more trade-friendly conformity assessment procedures.
- iii. To address and prevent unnecessary market access barriers for efficient motors, increase the availability and use of energy efficient products in markets worldwide and assist APEC and ASEAN economies meet domestic energy policy objectives.

The project was supported by EWG 04 2019S, Workshop on Current Energy Efficiency Requirements for Electric Motors in the APEC and ASEAN Region which is self-funded by ICA, United for Efficiency (U4E) and UL. IIEC had been chosen as the project consultant and there would be a project workshop on 28-29 October 2019 in Chinese Taipei.

## Status: On-going

# 3.1.7 Coordinating Standards for Cool Roof Testing and Performance (EWG 14 2018A/US)

The project was being led by the US DOE Buildings Technology Office. Space conditioning loads that were directly affected by the building envelope, including window, walls, roof and foundation, were responsible for approximately 30% to 50% of building electricity consumption, which made up approximately 50% of total electricity consumption in APEC economies. Cool roof and wall reduce space cooling energy demands by 20% and were particularly valuable in reducing peak



APEC Expert Group on Energy Efficiency and Conservation (EGEE&C) Under the APEC Energy Working Group

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demand. A number of APEC economies had adopted or were considering standards for the testing and performance requirements for reflective, "cool" surface technologies on roofs and walls. This project would develop a review and comparison of cool surface testing and performance standards in place or under consideration in APEC economies and provide a roadmap for establishing cool surface product testing and rating infrastructure in economies that do not have access to it. The project had received a time extension and will be completed in 2020.

### Status: On-going

3.1.8 APEC Workshop on University Collaboration to Support Data Gathering and Analysis in Energy Efficiency and Renewable Energy (EWG 06 2019A/US)

The key project objective was to promote information sharing and capacity building across APEC universities. The project included:

- i. A two-and-a-half-day workshop to bring together APEC members, faculty from APEC Universities, and members of APERC to talk about potential EWG/University collaboration.
- ii. Discuss potential research projects for University students to work in classes that would be most beneficial to the EWG, and determine how to identify potential projects in the future.
- iii. Identify best practices for project communication both between the EWG and University faculty as well as between faculty participants.
- iv. Discuss best methods for sharing project results from University students.
- v. Facilitate networking between APEC members, University faculty in APEC economies, and APERC to develop a consortium of Universities to provide support for the work of the EWG.

## Status: On-going

3.1.9 Sustainable Mobility: Routes for integrating the Energy and Transport Sectors for Urban Cities (EWG 05 2019A/US)

The key objectives to promote sustainable mobility across the APEC region of this project were:

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Asia-Pacific Economic Cooperation

- i. To deliver a Sustainable Mobility City Solutions Case study that addresses policy and technical guidelines for the implementation of sustainable, highcapacity public and shared transport systems, with existing infrastructure, or with examples of successful improvements. This case study will address clean transport solutions, stakeholder engagement processes, joint-policies and pilot programs with the energy-sector that would further consolidate the energy-efficiency aspects.
- ii. To build capacity and increase knowledge in APEC member economies with technical training, policy advice and sharing of regional and international good practices. This will be achieved via a workshop, which will be open to all APEC and non-APEC economies.
- iii. To provide a long-term platform for continued dialogue, knowledge sharing and learning within the APEC economies by incorporating interested APEC members into Asia's Clean Mobility Community of Practice, which will enable cities to be a regional leader in providing City-level solutions.

The project would apply findings from an existing APEC project (EWG 10 2018A) focused on pathways to integrate the energy and transport sectors in APEC island communities, in APEC cities.

# Status: On-going

# 3.1.10 Exploring Co-Benefit Opportunities for Renewable and Energy Efficiency Projects in the APEC Region (EWG 04 2019A/Thailand)

The objectives of this projects were:

- i. To share best practices of successful joint projects for RE&EE implementation with co-benefit in power generation and distribution, transport, and buildings sector.
- ii. To develop guideline with criteria and framework for joint RE&EE projects with co-benefit technically and economically.
- iii. To share example of cost benefit analysis (CBA) on successful projects , such as RE&EE in transport sector EV & biofuel.
- iv. To build capacity and network for co-benefitting project developers in designing, planning and assessing potential RE&EE joint project.

Project scope included:

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Asia-Pacific Economic Cooperation

- i. Research work on best practices of successful joint projects for RE&EE with co-benefit in power generation and distribution, transport, and buildings sectors.
- ii. 2-day workshop 1 in Maui, Hawaii, USA (Mar 2020).
- iii. 2-day workshop 2 in Bangkok, Thailand (Jun 2020).

## Status: On-going

# 3.1.11 Accommodating Disruptive Technology into RE&EE Policy for Energy Security (EWG 11 2019A/Thailand)

The objectives of this projects were:

- i. To review the impact of disruptive technologies on the power generation and distribution, transport, and buildings sector.
- ii. To share best practices on RE&EE policy to accommodate the disruptive technologies.
- iii. To build capacity on integration of the disruptive technologies for energy security.
- iv. To build capacity and network for co-benefitting project developers in designing, planning and assessing potential RE&EE joint project.

Project scope included:

- Review of current disruptive technologies on power generation/distribution, transport and buildings sectors with highlights on best practices of successful RE&EE policy to accommodate those disruptive technologies.
- ii. 2-day workshop 1 in Bangkok, Thailand (Oct 2020).
- iii. 2-day workshop 2 in Seoul, Republic of Korea.

#### Status: On-going

EGEEC Secretariat, on behalf of the project overseers, presented the status of below projects in the meeting as follows:

APEC Project Title		Proposing	Project	Status
		Economy	No.	
1	APEC Best Practice Guidelines for Establishing and	Australia	EWG 09	On-going
	Enhancing Energy Efficiency Incentive (EEI) Schemes		2018A	



## 3.2 Concept Notes Presentation

Three (3) nos. of concept notes were presented in the meeting as follows:

Со	ncept Notes	Proposing Economy
1	Energy Intensity Reduction in the APEC Region's Urbanised Cities	НКС
2	Research Study on Nearly/Net Zero Energy Buildings (N/NZEB)	the Philippines
	for Tropical Countries	
3	Evaluation of Energy Technologies, Programs and Policies	US

### 4.1 Economy Update

Nine (9) APEC member economies presented the updates on key development in energy efficiency polies and programmes. People's Republic of China submitted the economy update to EGEEC and EGEEC Secretariat presented it on behalf of China.

- i) **People's Republic of China** reported its recent actions for improving cooling efficiency.
- ii) **Hong Kong, China** reported the latest energy end-use data 2019 and energy intensity reduction progress. The updates on energy efficiency labelling scheme, energy saving targets in government buildings, innovation and technology and public engagement were also presented.
- Japan reported the international comparison of total primary energy consumption, energy supply and demand structure toward CO<sub>2</sub> emissions reduction target in 2030, energy efficiency and conservation policy framework and latest developments in energy efficiency efforts.
- iv) Malaysia reported its energy efficiency program under 11<sup>th</sup> Malaysia Plan (RMK-11).
- v) **The Philippines** reported the latest development under the Energy Efficiency and Conservation Act 2019 and its major provisions.
- vi) Chinese Taipei reported its energy efficiency situation and energy efficiency management.
- vii) Thailand reported its energy efficiency situation, compulsory and voluntary



measures under the Energy Efficiency Plan (EEP 2015).

- viii) **The United States** reported its energy efficiency policies and programs update including advanced vehicle technologies research and the EERE better buildings initiative.
- ix) **Viet Nam** reported its energy consumption update, key achievements of Vietnam National Energy Efficiency Program (VNEEP), constraints and limitations in implementing energy efficiency and conservation, and also targets and challenges in energy intensity reduction.

### 5.1 Updates on G20 Global Summit

EGEEC Secretariat presented on behalf of the EGEEC Co-chair on the outcome of G20 Global Summit on Financing Energy Efficiency, Innovation and Clean Technology held in Japan on 12 June 2019. APERC also presented to member economies the observations in the Summit.

### 5.2 IPEEC Cooperation

EGEEC Secretariat presented on behalf of the EGEEC Co-chair regarding the IPEEC cooperation. EGEEC Secretariat reported that IPEEC's Terms of Reference would expire in December 2019 and an International Energy Efficiency Hub would be established to achieve synergies between IPEEC and the International Energy Agency (IEA). The IPEEC was anticipated to be transformed into the Hub as a new and stronger vehicle for global energy efficiency collaboration. EGEEC would look for cooperation opportunities after the setup of International Energy Efficiency Hub.

#### 6. Discussion

## 6.1 APEC Energy Intensity Reduction Goal

EGEEC Chair invited APEC member economies to offer their views on whether the APEC energy intensity reduction goal should be maintained as in both analyses: 1) using extrapolation the goal will be met by 2035 and 2) in APEC Energy Demand and Supply Outlook 7th Edition projection, the APEC energy intensity reduction goal could be met in 2029 under the Business as Usual Scenario



It was concluded that before making recommendation to EWG, EGEEC members should prepare data and information on energy intensity, necessary to propose to the amendment of energy intensity goal, with the support from APERC, on:

- Compare the past APERC Energy Outlooks on energy intensity projection
- Look into the GDP Projection of APEC economies and its projection assumption;
- Provide historical trends in energy intensity and factors affecting the changes in the energy intensity; and
- If it is necessary, in-depth investigation on the aggregate energy intensity trends for the following economies will be made: Group 1: China, Japan, Russia and US;

Group 2: other APEC economies

EGEEC Chair encouraged member economies to look into their economies' energy intensity reduction trend and proposed to continue the discussion in coming EGEEC meetings.

### 6.2 Chile Policy Dialogue

EGEEC Secretariat reported that Chile presented the policy dialogue themed "Energy Modernization for a better quality of life for our citizens" and would circulate the final document once available.

## 6.3 APEC Energy Vision Post 2020

EGEEC Secretariat reported that the final version of APEC Energy Vision Post 2020 was circulated by EWG Secretariat on 14 August 2019.

(Post Meeting Notes: A further revised APEC Energy Vision Post 2020 was circulated by EWG secretariat on 3 October 2019 with a slight edit suggested by EWG members.)

## 6.4 APEC Energy Standard Information System (ESIS)

EGEEC Chair reported that EGEEC was tasked by EWG Lead Shepherd to discuss in EGEEC meeting whether duplicated efforts should be made to maintain the APEC Energy Standards Information System (ESIS).

EGEEC Chair reported that the funding to maintain APEC ESIS was exhausted and the website was shut down since October 2017. EGEEC members agreed that the APEC



ESIS had accomplished to promote energy efficiency standards and labelling in the APEC Region. EGEEC members reached consensus not to further maintain the APEC ESIS. APEC economies could have free access to CLASP for the necessary information.

## 6.5 Cross Fora / Organisations Cooperation

EGEEC Chair invited member economies to propose potential area for cross fora collaboration with EGEEC. A number of suggestions had been proposed by members as follows:

- EGEEC Secretariat suggested that a joint meeting would be held with EGEDA in pursuing of energy intensity reduction goal counts on the energy data and analysis. EGEDA would study the suggestion.
- Members suggested that the EGEEC meeting host economy might invite the local office(s) of international energy efficiency organization(s), for example UNESCAP and IEA, to present their EE programs.
- EGEEC Secretariat suggested EGEEC Members to recommend the potential international energy efficiency organization(s) and women in energy efficiency organization(s) for cooperation and collaboration. EGEEC Members might send the contact(s) to EGEEC Secretariat.
- EGEEC members suggested that EGEDA might include EGEEC Members in their data collection contact list so that EGEEC Members might provide assistance in the data collection process.
- EGEEC Members suggested EGEEC to explore collaboration with APEC working groups such as APEC Transport Working Group. EGEEC Chair would bring up this suggestion in coming EWG meeting.
- EGEDA suggested that collaboration opportunities might be looked into between EGEDA and EGEEC in the coming EGEDA meeting to be held in February 2020 in Hong Kong, China, in particular on district cooling system (DCS) applications in APEC region.

## 7. EGEEC Governance Issues

## 7.1 Review of Terms of Reference (ToR)

EGEEC ToR was reviewed and no amendment was suggested by Members.

## 7.2 EGEEC Website



EGEEC Members suggested that a window could be added to the front page of EGEEC website to inform Members on the latest development of EGEEC. APERC suggested to add a link to APEC Peer Review on Energy Efficiency (PREE) on the EGEEC website for promotion of PREE.

## 7.3 Upcoming EGEEC Meetings

EGEEC Chair announced that the Chinese Taipei had accepted EGEEC's invitation to host the next EGEEC meeting, i.e. EGEEC 55, in March 2020. Furthermore, Viet Nam had accepted EGEEC's invitation to host the EGEEC 56, in Viet Nam tentatively in September 2020. The EGEEC Chair thanked for the hospitality of Chinese Taipei and Viet Nam for hosting the coming 2 EGEEC meetings.

EGEEC Chair proposed that the host economy might suggest a theme in the future EGEEC meetings. The member economies would share their works on the theme proposed by the host economy in addition to their economy update.

EGEEC Secretariat invited interested economy who would like to organize workshops alongside with EGEEC meetings to approach the EGEEC Secretariat at soonest for further liaison with the host economies.

EGEEC Secretariat also invited member economies to consider hosting the EGEEC meetings in 2021 and 2022.

## 7.4 EGEEC 54 Conclusion

EGEEC Chair expressed his deep gratitude to APEC member economies in achieving the energy intensity reduction goal together. The Chair underlined that despite the statistics showed a positive trend, APEC member economies should continue to look at their energy efficiency regulations, targets, economic incentive and energy management resources with a view to sustain the reduction trend.

## 7.5 Closing

Director Jesus C. Anunciacion, Energy Utilization Management Bureau, Department of Energy, the Philippines, gave the closing remarks and expressed his gratitude to EGEEC Members for their active participation during the meeting.



Appendix A – EGEEC 54 List of Participants

No	Full Name	Economy	Organization
1	VY Ek Chin	Hong Kong, China	Electrical and Mechanical Services Department
2	Jovian CHEUNG	Hong Kong, China	Electrical and Mechanical Services Department
3	Willy YU	Hong Kong, China	Electrical and Mechanical Services Department
4	Naoko DOI	Japan	The Institute of Energy Economics
5	ZULKIFLEE UMAR	Malaysia	Energy Commission Malaysia
6			Ministry of Energy, Science, Technology, Environment
	Siti Sarah Sharuddin	Malaysia	and Climate Change (MESTECC)
7	Gerpy Erquiza, Jr.	The Philippines	Department of Energy
8	Jesus Anunciacion	The Philippines	Department of Energy
9	Art Habitan	The Philippines	Department of Energy
10	Lilian Fernandez	The Philippines	Department of Energy
11	William Quinto	The Philippines	Department of Energy
12	Allan Rabe	The Philippines	Department of Energy
13	Tony Wen-Ruey CHANG	Chinese Taipei	Industrial Technology Research Institute
14	Thakorn Chaiviriyakul	Thailand	Department of Alternative Energy Development and
		Thaliand	Efficiency, Ministry of Energy
15		Thailand	Department of Alternative Energy Development and
	Munlika Sompranon		Efficiency, Ministry of Energy



Appendix A – EGEEC 54 List of Participants (Cont'd)

No	Full Name	Economy	Organization
16	Cary Bloyd	USA	Pacific Northwest National Laboratory
17	Derek Greenauer	USA	UL LLC
18	HIEN Bui Thi	Viet Nam	Ministry of Industry and Trade
19	Elvira Torres Gelindon	-	EGEDA
20	Hugh Marshall-Tate	-	APERC
21	Jean-Marc Alexandre	-	International Copper Association