

## APEC EXPERT GROUP ON NEW & RENEWABLE ENERGY TECHNOLOGIES (EGNRET)

### 54<sup>th</sup> Meeting

#### EGNRET 54 Summary Record

The Philippines (Virtual Meeting)

10-11 November 2020

#### **1. Introduction**

The 54<sup>th</sup> EGNRET meeting was held in virtual style by the Philippines at 9:00AM-12:00PM (UTC +8) on 10-11 November 2020.

#### **2. Welcome speech and meeting agenda**

On behalf of the host economy, Mr. Robert B. Uy, Assistant Secretary, Department of Energy of the Philippines made the opening remarks to EGNRET members. EGNRET Chair, Dr. Hom-Ti Lee gave the opening address, welcomed the delegates, and thanked the Philippines for hosting the EGNRET 54<sup>th</sup> meeting. The meeting was opened after the agenda was adopted.

The meeting was chaired by Dr. Hom-Ti Lee, the Chair of EGNRET.

Representatives were from Canada, Hong Kong, China, Japan, Republic of Korea, the Philippines, Chinese Taipei, Thailand and the United States. In addition, delegates from Asia Pacific Energy Research Centre (APERC), APEC Sustainable Energy Center (APSEC), Expert Group on Energy Data and Analysis (EGEDA) and APEC Expert Group on Energy

Efficiency & Conservation (EGEEC) were invited to participate in the meeting.

### 3. Updates of APEC/ APEC Fora

- (1) “Updates from APEC Secretariat” by Mr. Tetsuya Shimokawa, Program Director, APEC Secretariat.

The overall outcomes of APEC projects for 2020 were presented. The approval rate of APEC funded projects in Session 1, 2020 was 56% with 4 EWG projects were approved by BMC. In 2020 Session 2, the approval rate of APEC funded project was 66% with 11 EWG projects in the QA process.

The APEC project cycle for 2021 Session 1 including the deadline for concept note submission, the key information for updates, advice for project implementation in organizing workshops and APEC procurement rules were presented. The “PO Toolkit” and “Project Quality: Training and Guidance” were also introduced.

- (2) EGEDA Secretariat Updates by Mr. Edito Barcelona, EGEDA Secretary

EGEDA Secretariat presented the EGEDA activities including energy data collection, maintenance of APEC energy database and EGEDA website, EGEDA training program, and EGEDA meeting and workshop. EGEDA also introduced the cooperation with other international groups on energy statistics including joint organizations data initiative inter-secretariat working group meetings (JODI ISWG) and JODI training workshops, IEA’s energy statistics development group (ESDG) meetings, International energy statistics working group (InterEnerStat) and IRENA and UNSD training workshops (occasional).

In addition, EGEDA reported the achievement of the doubling APEC renewable

energy goal up to date. The renewable energy accounted for 6.9% of primary energy supply and 8.7% of the final energy consumption in 2018.

(3) EGEEC Updates by Mr. VY Ek Chin, EGEEC Chair

EGEEC introduced the previous EGEEC meeting held in September last year in Cebu, the Philippines. Due to COVID-19, the 55<sup>th</sup> EGEEC meeting is deferred to 17-20 November and would be held virtually by Hong Kong, China. It was the first joint meeting with EGEDA, and two workshops would also be held alongside EGEEC 55.

EGEEC also presented the latest projection from the APEC Energy Demand and Supply Outlook 7<sup>th</sup> edition, released in May 2019. In the business as usual (BAU) scenario, the goal would be reached in 2029, six years earlier than the energy intensity goal and eight years earlier than the timeline outlined in the 6<sup>th</sup> edition. In the 7<sup>th</sup> edition BAU forecast, APEC was projected to decrease its overall energy intensity by nearly 65% by 2050.

Furthermore, EGEEC mentioned that they would collaborate with APERC to monitor the impact of COVID-19 on the energy intensity trend in the coming years and continue to explore collaboration opportunities with EGRNET on post COVID-19 recovery measures in order to achieve both the APEC Energy Intensity Reduction Goal and the Renewable Energy Doubling Goal.

(4) APSEC Activity Updates by Prof. Jinlong Ma, Vice President, APSEC

APSEC made the presentation to introduce the APEC workshop on Energy Transition and Scaling-up Renewable Energy which was held by APSEC. Approximately 50 experts, scholars and researchers from 10 APEC economies and 2 European economies participated in the workshop.

APSEC also presented its self-funded project, “Innovative Approaches for Scaling-Up Renewable Energy Deployment in APEC Region.” APSEC thanked EGNRET members for providing comments for the draft outline of this project.

- (5) APERC Presentations by Dr. Victor Martinez and Mr. Manuel Heredia, researcher, APERC

APERC presentations covered two topics: “APEC Energy Demand and Supply Outlook 8<sup>th</sup> Edition” presented by Dr. Victor Martinez and “the Potential of Hydrogen to Reduce Carbon Emissions in APEC” presented by Mr. Manuel Heredia.

- A. APEC Energy Demand and Supply Outlook 8<sup>th</sup> Edition

APERC introduced recent trends and highlights of renewable energy development. The levelized costs of energy (LCOE) for selected generation technologies in 2020 suggest that some renewable energy were fully competitive with conventional energy sources, and the changing climate makes weather forecast and the generation prediction of renewable energy more difficult.

In addition, Dr. Victor Martinez introduced the scenarios, models, data science tools and preliminary results for APEC Energy Demand & Supply Outlook 8<sup>th</sup> edition. APERC mentioned that the COVID-19 impact has been included to adjust forecasting assumptions.

- B. The Potential of Hydrogen to Reduce Carbon Emissions in APEC

APERC introduced hydrogen technologies, plans and roadmaps. APERC would like to include hydrogen into the 8<sup>th</sup> edition to develop a perspective of hydrogen

demand in different economies and identify the major drivers for the development of the hydrogen industry in the APEC region.

#### 4. Project Updates

- (1) “Progress / Status of Current EGNRET Projects and Updates on EGNRET Project Submission Process” by Dr. Tarcy Sih-Ting Jhou, EGNRET Secretariat

EGNRET Secretariat debriefed the project submission process including the concept note stage and the proposal stage. The APEC project management in the EGNRET Secretariat and the latest deadline for concept note submission for 2021 session 1 were introduced as well.

EGNRET Secretariat reported the current EGNRET projects. The EGNRET has a variety of projects underway to facilitate the use of renewable energy technologies in the APEC region. Currently, EGNRET has 1 self-funded project, 5 proposed projects and 10 on-going projects. However, EGNRET has not any new projects since the EWG 59 meeting. These projects are listed below.

##### A. Self-funded Project

Project Number	Project Title	Proposed Economy
EWG 04 2020S	Innovative approaches for scaling-up renewable energy deployment in APEC region	China

##### B. Proposing Project

Project Number	Project Title	Proposed Economy
1	Roadmap for facilitating renewable energy investment in APEC	China
2	Utilizing renewable energy certification to facilitate APEC regional renewable energy growth	Chinese Taipei

Project Number	Project Title	Proposed Economy
3	The promotion of community waste-to-energy system	Chinese Taipei
4	Workshop on Korea's new and renewable energy policies and best practices applying them into the APEC region	Korea
5	APEC workshop on promoting renewable energy for rural and remote area development	Viet Nam

### C. Ongoing Project

Project Number	Project Title	Proposing Economy
EWG 04 2020A	A community-based waste management to renewable energy workshop	Indonesia
EWG 03 2020A	Integrating electrical vehicles and solar rooftop PV in electricity distribution systems with continued performance of distribution transformers	Thailand
EWG 10 2018A	Low emissions development strategies: supporting the transition to energy efficient, electric transport systems	USA
EWG 02 2019A	Filling the gap to reach the goal of doubling renewable energy in the APEC Region-Phase 2	Chinese Taipei
EWG 03 2019A	APEC multi-stakeholder dialogue on promoting renewable and clean energy policies	Viet Nam
EWG 04 2019A	Exploring co-benefit opportunities for renewable energy and energy efficiency projects in the APEC Region	Thailand

Project Number	Project Title	Proposing Economy
EWG 06 2019A	APEC workshop on university collaboration to support data gathering and analysis in energy efficiency and renewable energy	USA
EWG 10 2019A	APEC workshop on strategies and successful case studies on solar energy	Viet Nam
EWG 11 2019A	Accommodating disruptive technology into renewable energy & energy efficiency policy for energy security	Thailand
EWG 12 2019A	Evaluation of energy technologies, programs and policies	USA

## (2) EGNRET Projects Report

The representative from Thailand, Mrs. Munlika Sompranon, updated the project progress of 3 APEC projects: Exploring Co-Benefit Opportunities for Renewable Energy and Energy Efficiency Projects in the APEC Region (EWG 04 2019A), Accommodating Disruptive Technology into RE&EE Policies for Energy Security (EWG 11 2019A), and Integrating Electrical Vehicles and Solar Rooftop PV in Electricity Distribution Systems with Continued Performance of Distribution Transformers (EWG 03 2020A).

The representative from the United States, Dr. Cary Bloyd introduced 2 APEC projects: APEC Workshop on University Collaboration to Support Data Gathering and Analysis in Energy Efficiency and Renewable Energy (EWG 06 2019A) and Evaluation of Energy Technologies, Programs and Policies (EWG 12 2019A).

## 5. Member Economy Presentation: The Impact of COVID-19 on the Renewable

## Energy Development

Six APEC member economies, i.e., Canada, Hong Kong (China), the Philippines, Chinese Taipei, Thailand and the United States, presented on the impact of COVID-19 on the renewable energy development.

Member economies addressed the impacts of COVID-19 such as economic activities, energy supply and demand, quarantine for international travelers, project delays and entry restrictions.

**(1) Canada** has seen lower demand in a number of Canadian electricity markets.

Several utilities reported that demand fell with lockdowns, in line with the rest of the world.

In addition to the reduced demand, Canada is also experiencing challenges on the supply side of the electricity sector. The existing operations have not yet been affected. However, projects under development face a number of challenges. For instance, project developers have had to limit the number of workers living on site, in order to adhere to social distancing rules.

**(2) Hong Kong, China** reported the latest energy end-use data in 2018 and renewable energy development progress. The renewable energy initiatives including Feed-in Tariffs, renewable energy certificate schemes and waste-to-energy infrastructure were also briefed. Hong Kong, China also introduced its Green Tech Fund for supporting R&D on decarbonisation and green technologies to expedite low-carbon transformation.

(3) **The Philippines** representative started with power demand and supply in 2019 and described the impacts of COVID-19 pandemic including fiscal strain, economy activities, energy supply and demand. An analysis of renewable energy generation in 2019 and 2020 showed an upward trend this year.

(4) **Chinese Taipei** compared the energy and electricity consumption in first half of 2019 and 2020, and reported the current renewable energy development and target in Chinese Taipei.

The COVID-19 pandemic has had some impacts on its renewable energy development. For example, PV grid-connection has been postponed due to disruption of the supply chain. Offshore wind development has been affected by the traveling restriction for international travelers.

(5) **Thailand** summarized renewable energy development including the share of renewable energy in 2019, renewable energy target and promotion strategies. The fuel consumption in transportation decreased by 13.8% from January to July 2020, whereas the energy consumption increased slightly in the same period.

(6) **The United States** provided the historical data of electricity consumption since 2017 and its projection to 2021. The electricity consumption in commercial and transportation sectors decreased in 2020. The renewable energy production is forecasted to increase in 2020 and 2021. Meanwhile, the liquid fuels consumption is projected to decline 2.38 million barrels per day in 2020.

(7) APSEC reviewed the global impact of the COVID-19 pandemic to date. The primary energy demand in 2020 drops, which is the biggest change since WWII. APSEC summarized the pandemic impacts on projects in different stages, i.e., under development, under construction and in operation. APSEC also presented the projection of the post-COVID-19 recovery and provided suggestions for recovery policy.

## 6. Discussion- Achieving Doubling Renewable Energy Goal

EGNRET Secretariat presented on the background of the doubling renewable energy goal in APEC region and shared what EGNRET has done to contribute to this target. Afterwards, APEC EGNRET members provided suggestions for achieving the APEC renewable energy doubling goal.

The EGNRET members provided suggestions as below.

- Achieving doubling renewable energy goal should consider the differences in the potential and current status of renewable energy among APEC economies.
- Experiences in promoting renewable energy should be shared to enhance inter-economy's activities.
- The on-going APEC project, Filling the gap to reach the goal of doubling renewable energy in the APEC Region-Phase 2, will propose a policy recommendation to achieve the doubling goal mainly based on the analysis of current renewable energy policies of APEC member economies. Therefore, the proposed policy recommendation could be a reference for APEC economies to review their policies.

## 7. Administration and Operation

## **(1) Coming Events and Next Expert Group Meeting**

EGNRET Secretariat announced the next EGNRET meeting will be held by Chinese Taipei in the first half of 2021 and this upcoming meeting will be a joint meeting with EGEE&C. The date and meeting format of the EGNRET 55 meeting will be proposed later.

## **(2) Selection of Chair and Vice-Chair**

The selection was held at EGNRET 55 for the positions of Chair and Vice-Chair of EGNRET for the next two years (2020-2021).

Dr. Tom, H. T. Lee from Chinese Taipei has been selected as the EGNRET Chair, and Ms. Munlika Sompranon from Thailand has been selected as the Vice Chair for a two-year term. Furthermore, the selected Chair, Dr. Lee nominated 5 secretaries, Dr. Shin-Je Li, Dr. Nick, Tzu-Yar Liu, Dr. Tarcy Sih-Ting Jhou, Ms. Han-Yun Lee and Dr. Keng-Tung Wu to hold the EGNRET Secretariat after EGNRET 54. It was endorsed by EGNRET representatives.

At the end of the EGNRET meeting, the Chair and EGNRET delegates thanked the Philippines for hosting the meeting. The Chair also expressed his sincere appreciation to EGNRET members and the invited speakers for taking their time out of their busy schedules to contribute to this meeting.

The presentation files in EGNRET 54 meeting are available on the website at:

<https://www.egnret.ewg.apec.org/EGNRET54>

## ANNEX: LIST OF PARTICIPANTS

No.	Title	Name	Economy
1	Mr.	Tetsuya Shimokawa	APEC Secretariat
2	Mr.	Glen Sweetnam	APERC
3	Mr.	Manuel Heredia	APERC
4	Mr.	Nobuhiro Sawamura	APERC
5	Dr.	Victor Martinez	APERC
6	Mr.	Nobuhiro Sawamura	APERC
7	Prof.	Jinlong Ma	APSEC
8	Dr.	Yong Sun	APSEC
9	Mr.	Michael Paunescu	Canada
10	Dr.	Chung-Hsien Chen	Chinese Taipei
11	Mr.	Chun Tai Shih	Chinese Taipei
12	Ms.	Shih-Hua Hsu	Chinese Taipei
13	Ms.	Wendy Lin	Chinese Taipei
14	Mr.	Edito Barcelona	EGEDA Secretariat
15	Ms.	Elvira Gelindon	EGEDA Secretariat
16	Dr.	H.T. Lee	EGNRET
17	Dr.	Tarcy S.T. Jhou	EGNRET
18	Mr.	Harry Lai	Hong Kong China
19	Mr.	Willy Yu	Hong Kong China
20	Mr.	Ek-Chin Vy	EGEEC Chair
21	Ms.	Jovian Cheung	EGEEC Secretariat
22	Ms.	Hiroko Nakamura	Japan
23	Dr.	Yasushi Ninomiya	Japan
24	Ms.	Yulim Choi	Korea
25	Ms.	Ruby B. De Guzman	Philippines
26	Ms.	Marissa Cerezo	Philippines
27	Mrs.	Munlika Sompranon	Thailand
28	Mr.	Watcharin Pachittyen	Thailand
29	Dr.	Yaowateera Achawangkul	Thailand
30	Dr.	Supatchalee Sophonthammaphat	Thailand
31	Dr.	Cary Bloyd	USA

