

**APEC Expert Group on  
New and Renewable Energy Technologies**

# **EGNRET Update**

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**Asia-Pacific  
Economic Cooperation**

**EGNRET**

**APEC EGNRET 55 & EGEEC 56 Joint Meeting**

*Chinese Taipei 12-14 May 2021*

# EGNRET 54 Meeting



**November 10-11, 2020  
(Virtual Meeting hosted by the Philippines)**

## 1) Participating Economies & Organizations

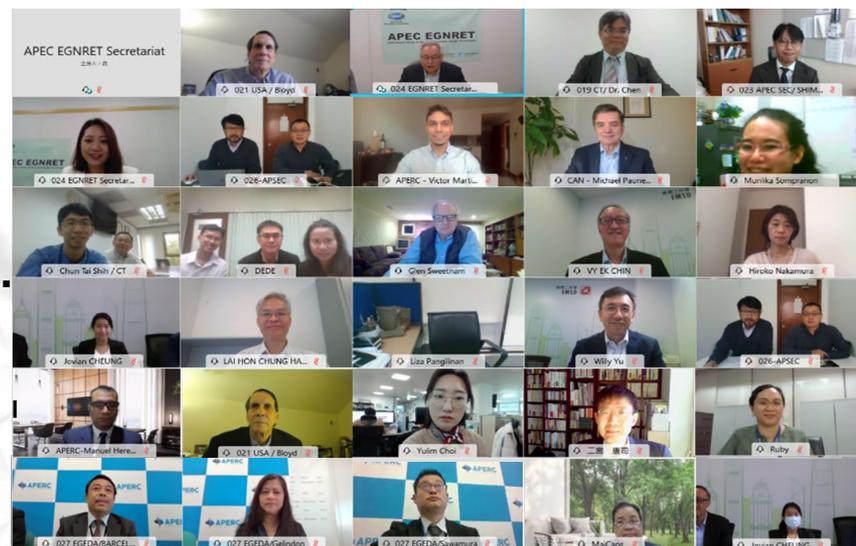
Opening remarks: Mr. Robert B. Uy, Assistant Secretary, Department of Energy, the Philippines

### ■ Economies (8):

Canada; Hong Kong, China; Japan;  
Republic of Korea; the Philippines;  
Chinese Taipei; Thailand; the United States.

### ■ APEC fora (5):

APEC Secretariat; APERC; APSEC;  
EGEDA; EGEEC.



# EGNRET 54 Meeting



## 2) Updates of APEC / APEC Centers

- APEC Secretariat Report
- APSEC: APSEC Activity Updates
- EGEDA: EGEDA Updates
- EGEEC: EGEEC Update

### ■ APERC:

- (1) APEC Energy Demand and Supply Outlook 8<sup>th</sup> Edition
- (2) The Potential of Hydrogen to Reduce Carbon Emissions in APEC

## 3) Meeting Theme: Impact of COVID-19 on Renewable Energy Development

### Impacts including:

- Economic activities
- Energy supply and demand
- Project delays: supply of RE components and materials
- Quarantine for international travelers
- Entry/travel restrictions, etc.



## 5) Chair and Vice Chair Selection

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The selection for the positions of Chair and Vice Chair for the 2021-2022 term

**Chair** Dr. Tom, H. T. Lee (Chinese Taipei)

Chief Technology Officer of Green Energy & Environment Research Labs., Industrial Technology Research Institute (ITRI), Chinese Taipei



**Vice Chair** Ms. Munlika Sompranon (Thailand)

Director of International Cooperation Section, Department of Alternative Energy Development and Efficiency (DEDE), Ministry of Energy, Thailand.



# EGNRET Project Update



Status	Projects
Concept Note	4
Projects under APEC review	5
Project in Implementation	14
Completed	0

# EGNRET Project Update



## Concept Notes (4)

2021 S2

Project Number	Project Title	Proposed Economy
1	Empowering Indigenous Social Awareness on Renewable Energy and Increasing Inclusion Sustainability for Green Recovery in APEC Regions	Chinese Taipei
2	The Legislation Recommendation and Promotion of Multifunctional Ocean Space Usage: Feasibility Analysis of Integrating Floating PV Installations at Offshore Wind Farms in the APEC Region	Chinese Taipei
3	Best Practices on the Energy Storage System in E-scooters Developments and Applications in the APEC Region	Chinese Taipei
4	Achieving Carbon Neutrality through Bio-Circular-Green Economy Principle	Thailand

# EGNRET Project Update



## Projects under APEC review (5)

Project Number	Project Title	Proposed Economy
1	Roadmap for facilitating renewable energy investment in APEC	China
2	Impacts of COVID-19 on renewable energy development in APEC Economies	China
3	Support offshore wind deployment and grid connection in APEC region	China
4	Lessons learned on resiliency and uptake of variable energy resources from islanded grids that support APEC clean energy goals	USA
5	Utilizing renewable energy certification to facilitate APEC regional renewable energy growth	Chinese Taipei

# EGNRET Project Update



## Ongoing Projects – 2018 & 2019 (8)

Project Number	Project Title	Proposed Economy
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
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 RE&EE Policy for Energy Security	Thailand
EWG 12 2019A	Evaluation of Energy Technologies, Programs and Policies	USA

# EGNRET Project Update



## Ongoing Projects – 2020 (6)

Project Number	Project Title	Proposed 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 14 2020A	The promotion of community waste-to-energy system	Chinese Taipei
EWG 13 2020A	Workshop on Korea's new and renewable energy policies and best practices applying them into the APEC region	Korea
EWG 08 2020A	APEC workshop on promoting renewable energy for rural and remote area development	Viet Nam
EWG 04 2020S (Self-funded)	Innovative Approaches for Scaling-Up Renewable Energy Deployment in APEC Region	China

# EGNRET Recent Workshops



Time	APEC-EGNRET Workshops	Economy
18-19 March 2021	The 1 <sup>st</sup> APEC Workshop on Exploring Co-Benefit Opportunities for Renewable Energy and Energy Efficiency Projects in the APEC Region (EWG 04 2019A)	Thailand
29-30 April 2021	The APEC Workshop on Accommodating Disruptive Technology into RE&EE Policies for Energy Security (EWG 11 2019A)	Thailand
12-13 May 2021	APEC Multi-Stakeholder Dialogue on Promoting Renewable and Clean Energy Policies (EWG 03 2019A)	Viet Nam

## Coming Workshop

8–9 June 2021	APEC Workshop on University Collaboration to Support Data Gathering and Analysis in Energy Efficiency and Renewable Energy (EWG 06 2019A)	USA
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# EWG 60 Meeting

## APERC Report

- From 2010 to 2018, APEC has already increased renewable energy share by 45%. Real progress has been made toward achieving the renewable doubling goal.
- It will be important to have **back-up generation** and/or increases in **electricity storage** to ensure grid stability.

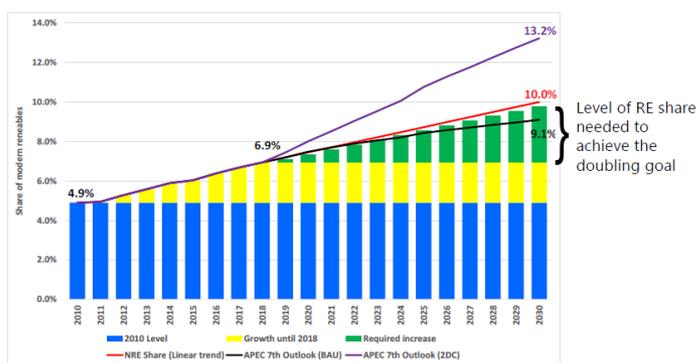
## Renewable energy supply and consumption

Electricity Generation, TWh

	2010	2018	% change
<b>Non-renewables</b>	<b>11,377</b>	<b>13,059</b>	<b>14.8%</b>
Coal	6,572	7,463	13.6%
Oil	330	210	-36.5%
Gas	2,711	3,624	33.7%
Nuclear	1,658	1,681	1.4%
Other non-renewables	106	81	-23.4%
<b>Modern renewable energy</b>	<b>2,103</b>	<b>3,824</b>	<b>81.9%</b>
Modern biomass	73	165	126.8%
Hydro	1,780	2,475	39.1%
Geothermal	53	60	13.7%
Solar	9	366	3966.3%
Wind	163	725	345.8%
Other renewables	26	34	29.6%
<b>Total</b>	<b>13,480</b>	<b>16,884</b>	<b>25.3%</b>
<b>Modern RE share</b>	<b>15.6%</b>	<b>22.7%</b>	<b>45.2%</b>

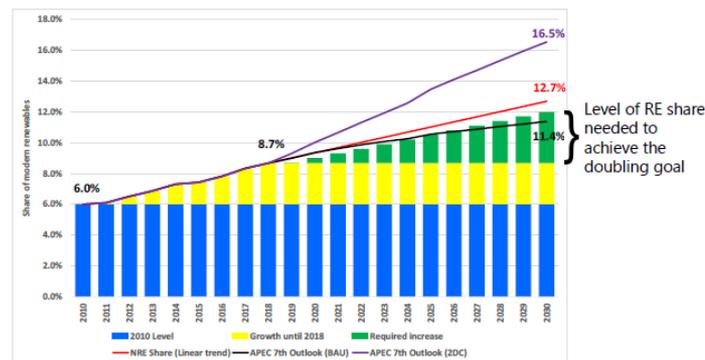
### Supply outlook BAU extrapolation fails to meet the goal

Renewable energy share in total primary energy supply, 2010-2030



### Demand outlook BAU extrapolation also fails to meet the goal

Renewable energy share in total final energy demand, 2010-2030



Source: 14.b. Progress toward energy intensity and renewable energy doubling goals, APERC (2020). EWG 60 Meeting.

# Thank you for your attention!



## EGNRET website <http://www.egnret.ewg.apec.org/>

