APEC Expert Group on New and Renewable Energy Technologies

Discussion on RE Doubling Goal



EGNRET Secretariat Dr. Tarcy Sih-Ting Jhou

tarcy@itri.org.tw

EGNRET 54

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1. Background of RE Doubling Goal



2014 Leaders' Declaration

We endorse the Energy Ministers' aspirational goal to <u>double the</u> <u>share of renewables</u> including in power generation by 2030 in APEC's energy mix.

2015 Leaders'
Declaration

We therefore reaffirm our aspirational goals to reduce aggregate energy intensity by 45 percent by 2035 and double renewable energy in the regional energy mix by 2030 to achieve sustainable and resilient energy development within the Asia-Pacific.

2016 Leaders' Declaration

We reaffirm our aspirational goals to reduce aggregate energy intensity by 45 percent by 2035 and double renewable energy in the regional energy mix by 2030.

1. Background of RE Doubling Goal



Progress of Developing the Roadmap of RE Doubling Goal

EMM 11 2014

- Energy Ministers aspired to the goal of "doubling the share of renewables in the APEC energy mix, including in power generation, from 2010 levels by 2030."
- Energy Ministers instructed the EWG through the EGNRET to develop the road map.

Roadmap

development



- Role of EGNRET Toward the Doubling RE Goal
 - Discussion on definition of RE
- Proposing project to develop a roadmap toward the Doubling RE Goal

Report the draft plan of RE Roadmap

1. Background of RE Doubling Goal



2018	2019
EGNRET	EGNRET
51	52 & 53
Q	Q
0	

■ Proposing RE Roadmap-Phase 2

 Discussion on RE roadmap and cooperation with sub-fora



2. Definition of RE



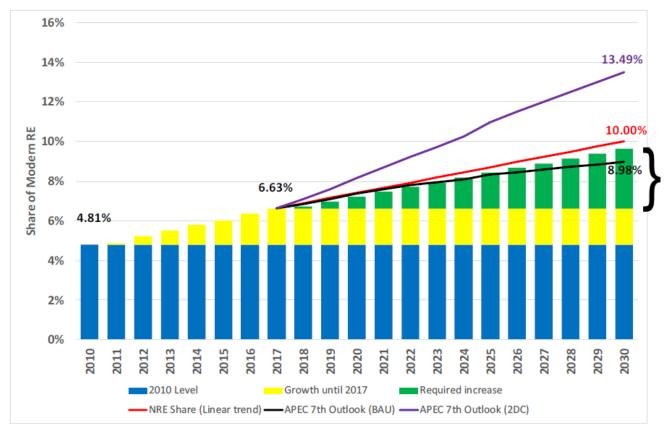
Key Conclusions of EWG54 related to RE Roadmap

For renewable energy doubling goal, but <u>traditional biomass will not be</u> <u>counted</u>; IRENA's definition of renewable energy is recommended; APEC data should be used for modeling and monitoring the progress.

3. Gap of RE Doubling Goal



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



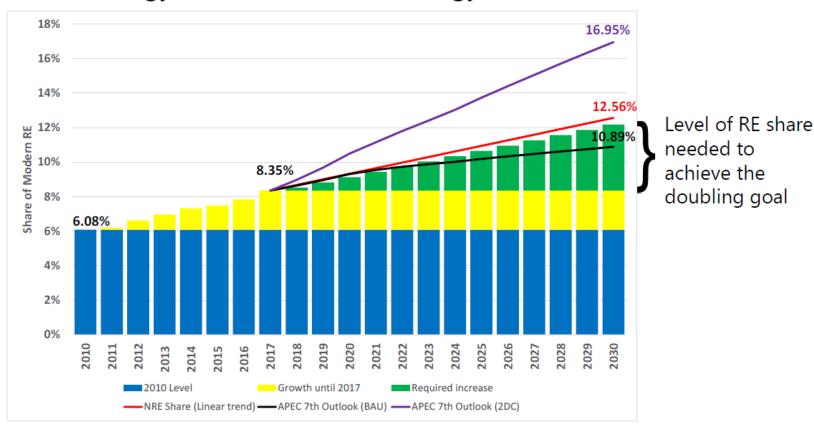
Level of RE share needed to achieve the doubling goal

Source: APEC data and APERC analysis.

3. Gap of RE Doubling Goal



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



Source: APEC data and APERC analysis.

4. EWG 59 - Key Conclusion



Instruction

In response to COVID-19, EGNRET is requested to carry out the study on the impact of pandemic on renewable energy; EGEEC is requested to discuss energy efficiency improvement as policy solutions; EGEDA is requested to keep monitoring the energy data. APERC's study on the impact of pandemic on oil and gas security is appreciated.

5. EGNRET Project



General

EGNRET has variety projects for renewable energy development from general planning to the specified technologies including solar PV, biomass, wind, energy storage technologies, investment, financing.

Year	Project Title
2014	APEC Peer Review on Low-Carbon Energy Policies (PRLCE), Phase 3
2014	Realization of APEC Low Carbon Model Town through Smart Grid Development (LCMT-SGD)
2015	APEC Low Carbon Model Town Solar Photovoltaic Agricultural Development Mode Study
2015	Promoting Safety in Using Renewable Energy
2015	Workshop on Experiences and Plans to Double Renewable Energy Utilisation by 2030 in the APEC Region
2015	APEC Fossil Fuel Subsidy Reform Capacity Building Workshop
2015	APEC Public-Private Dialogue on Promoting Trade and Investment in Renewable and Clean Energy
2016	Off Grid Electrification Option for Remote Regions in APEC Economies
2016	Filling the Gap to Reach the Goal of Doubling Renewable Energy in the APEC Region
2017	APEC Peer Review on Low-Carbon Energy Policies (PRLCE), Phase 4
2017	Economic and Life Cycle Analysis of Solar Photovoltaic Systems in APEC Region toward Low-Carbon Society
2017	Integrated Energy System Planning for Equitable Access to Sustainable Energy for Remote Communities in the APEC Regions using North Sulawesi as a Pilot Project/Test Bed

5.EGNRET Project



Year	Project Title
2018	Research on Integrated Multi-energy System to Improve Energy Efficiency and Enhance Technological Progress of Renewable Energy in APEC Region
2018	Technological Challenges and Opportunities to Supply Flexibility to Electric Systems
2019	Filling the Gap to Reach the Goal of Doubling Renewable Energy in the APEC Region-Phase 2
2019	Green Synergy Solutions in APEC Region
2019	Exploring Co-Benefit Opportunities for Renewable Energy and Energy Efficiency Projects in the APEC Region
2019	Accommodating Disruptive Technology into RE&EE Policy for Energy Security
2019	Evaluation of Energy Technologies, Programs and Policies
2019	APEC Workshop on University Collaboration to Support Data Gathering and Analysis in Energy Efficiency and Renewable Energy
2019	APEC Multi-stakeholder Dialogue on Promoting Renewable and Clean Energy Policies
2020	Roadmap for Facilitating Renewable Energy Investment in APEC
2020	Utilizing renewable energy certification to facilitate APEC regional renewable energy growth
2020	Workshop on Korea's new and renewable energy policies and best practices applying them into the APEC region
2020	A Community-based Waste Management to Renewable Energy Workshop

5.EGNRET Project



Biomass

Year	Project Title
2014	2014 APEC Workshop on Biodiesel Application Experiences
2015	Power Generation with Groundbreaking Biomass Fuel Cell Technology
2015	A Comparative Study on Multi-Field Applications of Building-Mounted PV (BMPV) in the APEC Region
2015	Best Practices for Developing the Green Energy Smart Farm in the
2015	Ethanol Trade Development as Part of APEC's Renewable Fuel Strategy
2016	Heating Applications of Bio-pellet Made from Ecological-hazard Plant in Small and Medium Enterprises to Enhance Utilization of Renewable Energy in the APEC Region
2016	Guidelines toward High Biodiesel Blend Diesel (eg B20) Specification in the APEC Region
2020	The promotion of community waste-to-energy system
2020	A Community-based Waste Management to Renewable Energy Workshop

5.EGNRET Project



PV

Year	Project Title
2015	APEC Low Carbon Model Town Solar Photovoltaic Agricultural Development Mode Study
2015	A Comparative Study on Multi-Field Applications of Building-Mounted PV (BMPV) in the APEC Region
	Developing Solar-Powered Emergency Shelter Solutions (SPESS) as an Energy Resiliency Tool for Natural Disaster Relief in APEC Community
2015	Long Term Reliability Study of PV Systems for Installation on Islands
2015	Best Practices for Developing the Green Energy Smart Farm in the
2015	Small and Medium PV System Database in the APEC Region
2018	APEC Workshop on Public-Private Partnership for Solar Energy Development
2020	Integrating Electrical Vehicles and Solar Rooftop PV in Electricity Distribution Systems with Continued Performance of Distribution Transformers

6. Discussion



- What are extra efforts needed to achieve renewable energy doubling goal?
- What inter-economy's activities should we focus on or propose?
- How has the COVID-19 affected renewable energy development in APEC region? Did it affect the renewable energy target?
- Suggest to collect the updated renewable energy target in the APEC region.

Thank you for your attention!







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