



Asia-Pacific  
Economic Cooperation

EGNRET

# APEC Potential New Energy-Related Goals

EGNRET Secretariat

Dr. Tarcy Sih-Ting Jhou

[tarcy@itri.org.tw](mailto:tarcy@itri.org.tw)

**EGNRET 57**

**(Virtual Meeting)**

**Hosted by Thailand  
5-7 October 2022**

# Background

## EWG 64 Key Conclusion

- Given that APEC members are **on track to meet the existing renewable energy doubling and energy intensity goals**, members discussed the possibility of developing new goals.
- The Lead Shepherd proposed **organizing a small group** to discuss new goals intersessionally and report back at EWG 64.
- Deputy Lead Shepherd take the lead in coordinating these discussions, asked for economies to volunteer to participate in the discussions, and asked APERC and APSEC to lend their support, as needed.

# Current Goals

## Renewable Energy Goal

Doubling the renewable energy share in the APEC energy mix by 2030 (relative to 2010).

## Energy Intensity Goal

An energy intensity improvement of 45% by 2035 (relative to 2005)



# Small Group Meeting



## First Meeting

- Date: 19 August 2022
- Participants:
  - ✓ (10) member economies, including Australia, China, Hong Kong China, Japan, Korea, Malaysia, Philippines, Singapore, Chinese Taipei, and the United States.
  - ✓ (4) APEC sub-fora, including APERC, APSEC, EGEEC and EGNRET.

## Second Meeting

- Date: 16 September 2022
- Participants:
  - ✓ (11) member economies, including Australia, People's Republic of China, Hong Kong, China, Japan, Republic of Korea, Malaysia, The Philippines, Singapore, Chinese Taipei, Thailand and the United States.
  - ✓ (4) APEC sub-fora, including APERC, APSEC, EGEEC and EGNRET.

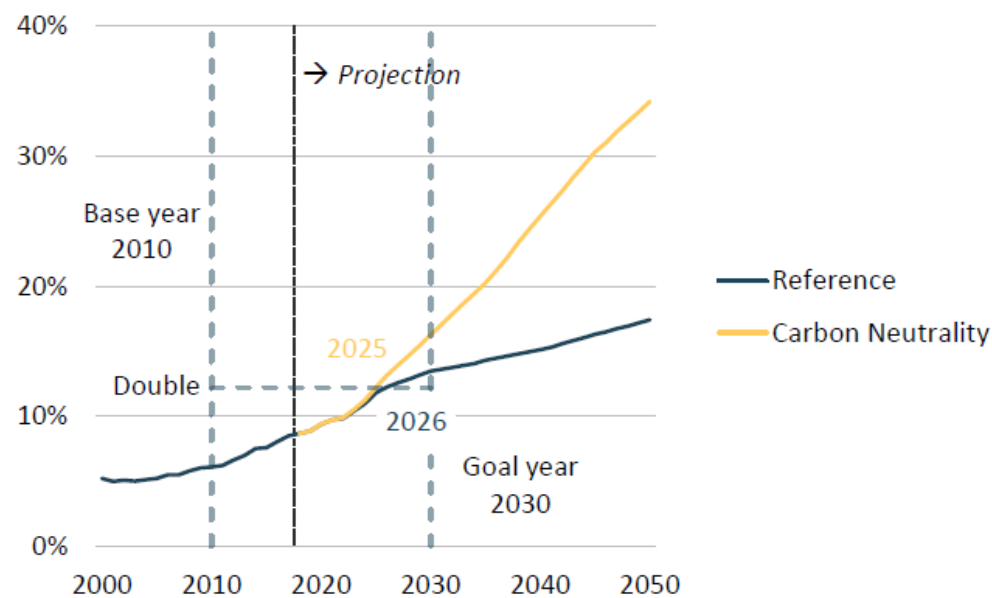
## Third Meeting

- Date: 18 October 2022



# Meeting Summary

Modern renewable energy share in REF and CN, 2000-2050.

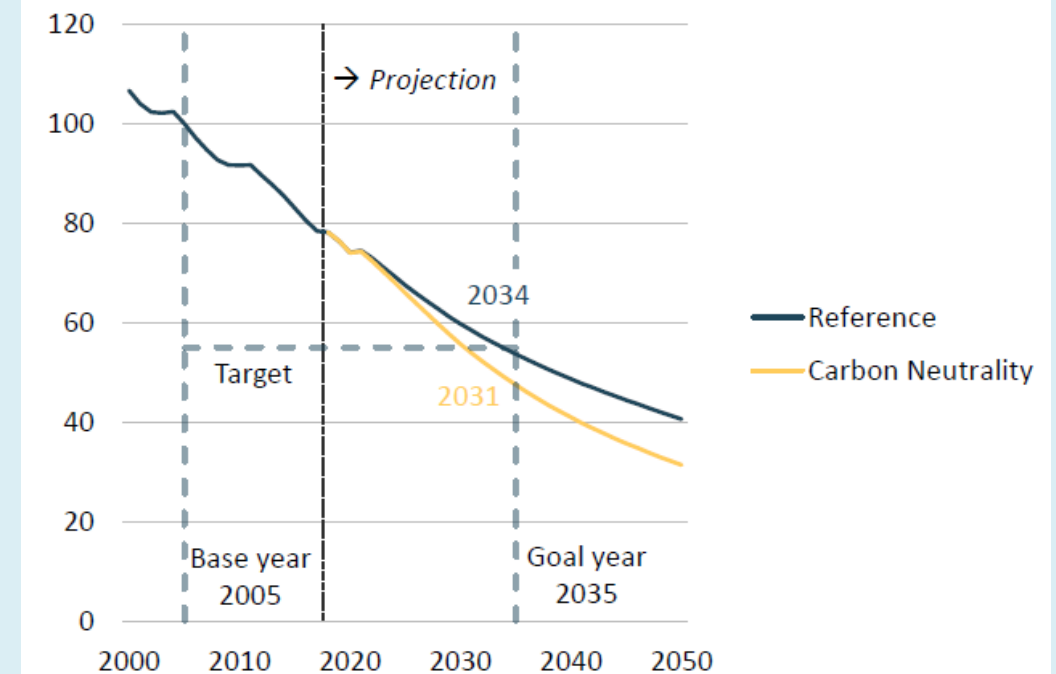


Sources: EGEDA, APERC analysis. Notes: Modern renewables: see definition on slide 5

## Doubling Modern Renewable Energy Share

The share of modern renewable energy was grown from 6.1% in 2010 to 8.7% in 2018 (42% from the 2030 target). **The renewable energy share doubling goal was expected to be achieved in both scenarios (REF in 2026 and CN in 2025) before the target year 2030.**

Final energy intensity in REF and CN (2005=100).



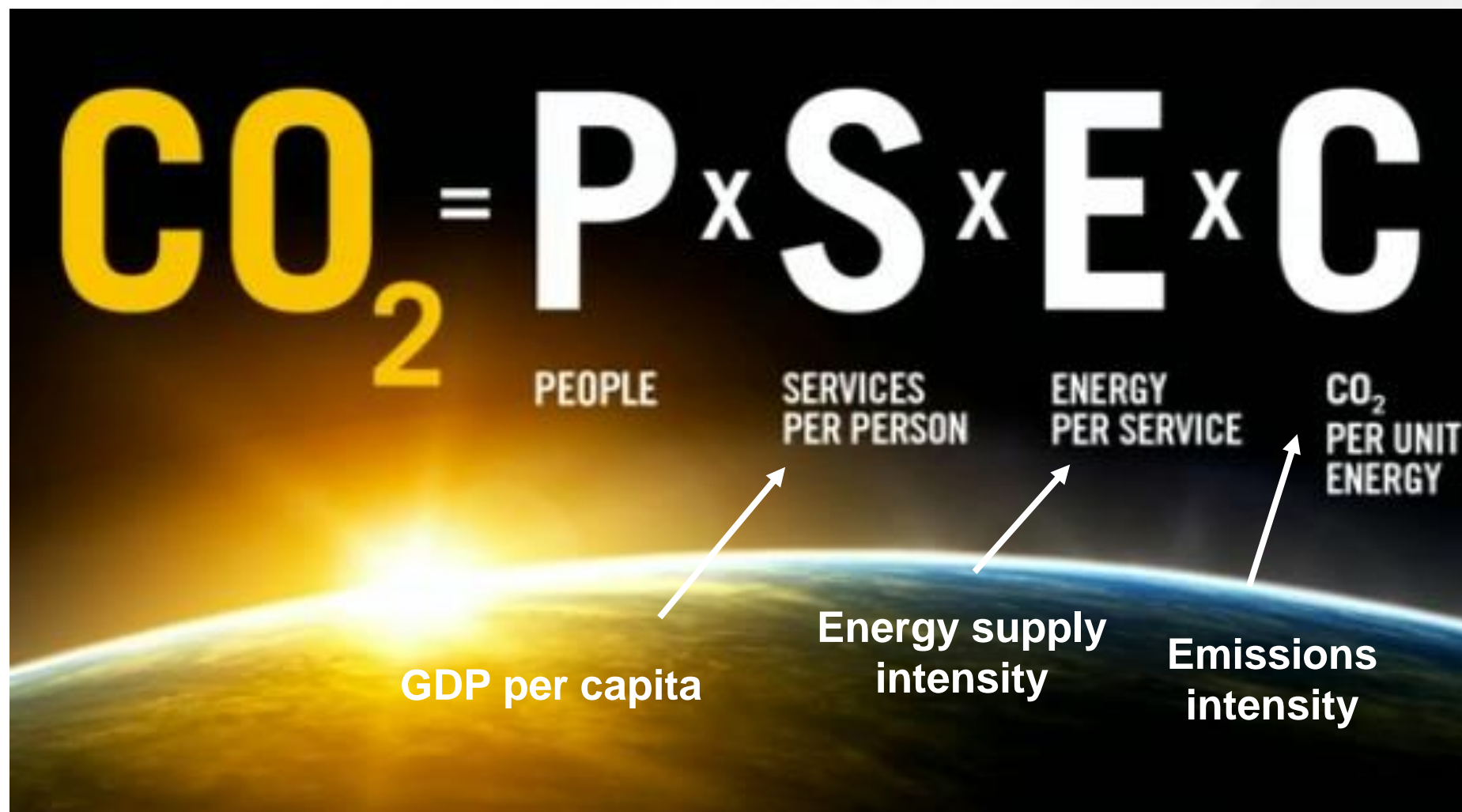
## Final Energy Intensity

Final energy intensity fell by almost 22% (roughly half of the 2035 target) from 2005 to 2018. **The goal of reducing energy intensity by 45% was expected to be achieved in both scenarios (REF in 2034 and CN in 2031) before the target year 2035.** Final energy intensity was estimated to improve by almost 60% (REF) and 70% (CN) by 2050.

# Meeting Summary

## APEREC and APSEC both introduced the Kaya identify formula

- The Kaya identity formula: it separates carbon dioxide emissions into four factors: namely (1) population, (2) GDP per capita, (3) energy supply intensity, and (4) emissions intensity


$$\text{CO}_2 = P \times S \times E \times C$$

The diagram illustrates the Kaya Identity formula,  $\text{CO}_2 = P \times S \times E \times C$ , set against a background of a sun rising over the Earth's horizon. Each variable is defined as follows:

- P**: PEOPLE
- S**: SERVICES PER PERSON
- E**: ENERGY PER SERVICE
- C**:  $\text{CO}_2$  PER UNIT ENERGY

Arrows point from the following labels to the variables in the formula:

- GDP per capita** points to **S** (Services per person).
- Energy supply intensity** points to **E** (Energy per service).
- Emissions intensity** points to **C** ( $\text{CO}_2$  per unit energy).

# Participants' View on New Energy-related Goals

- 1. Timeframe:** The new goals were suggested to end at the same target year and be compared to the same baseline year
- 2. Renewable Energy-related Goals**
- 3. Energy-related Emission Goals**
4. Energy Efficiency-related Goals

# Renewable Energy-related Goals

- SDG 7.b.1: **installed renewable energy-generating capacity** in developing economies.
- An intensified RE target by **2035** that aligned with the current Energy Intensity Reduction goal.
- The existing goal of doubling the share of renewable energy by 2030 relative to 2010 levels should **be monitored** in the future.
- It is not suggested to revise the renewable energy goal since it is aligned with the United Nations SE4ALL initiative.



# Energy-related Emission Goals

- Setting up mid-term and long-term goals was also suggested by members
- The new goals should be related to **decarbonization, or the COP21 Paris Agreement targets**. => should be related to energy supplies, such as focused on emissions from the power sector.
- APEC shall **support UNFCCC** and follow the goal instead of setting a different goal.
- The EWG is an energy-related group and new goals are suggested to be focused on energy-related goals.

# Participants' View on New Energy-related Goals

## ■ Factors to consider:

- ✓ The energy demand of the post-pandemic period (2020-2021).
- ✓ Each economy's pace towards the trajectory and contribute in a concrete manner.

■ Have more collaboration across research centres and expert groups, such as clean fossil fuel

**Thank  
You  
For Your  
Attention!**

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

