

## The APEC Energy Overview 2023

The Overview is an annual publication that highlights the current energy situation in each of the 21 APEC economies. It has been the pioneer publication for APERC that showcases the latest APEC energy data compiled by the Expert Group on Energy Data and Analysis (EGEDA) since its first publication in January 2001.

This year's APEC Energy Overview includes energy data to 2020, which begins to shed light on the impact of COVID-19, one of the biggest global economic, health, and societal shocks of modern times.

In addition to energy supply, transformation, and final consumption data for the period 2000 to 2020, an up-to-date accounting of energy policies and notable energy developments to 2023 is provided in each of the APEC member economy chapters.

The Overview also provides an update on the two energy-related objectives that APEC member economies have agreed to meet as a collective — to improve energy intensity and double the share of modern renewables. APEC is on track to meet both these goals.

### Highlights

APEC continues to be a net importer of energy from the rest of the world, but the proportion of net imports to energy supply has been declining rapidly for over two decades. The notable halt to the decline in 2020 is mostly attributable to APEC southeast Asia energy exports falling by more than 70% in 2020.

Most of the energy reliance on the rest of the world is tied to multiple APEC member economies importing oil from Middle East economies. But this reliance on the Middle East is being offset by the rise in energy production and exports from economies like Australia, Canada, Indonesia, Russia (until 2021), and the US.

Renewables were the only supply category to increase in 2020 (up 1.8%) though fossil fuels remain dominant, accounting for almost 86% of APEC energy supply.

Almost all APEC economies were severely impacted by the pandemic in 2020. The most notable exception was China, where energy demand increased 1.9% in 2020. A brief shutdown period and a prominent industry sector, which is less impacted by mobility constraints, partly explain why China continued to grow in economic and energy terms in 2020.

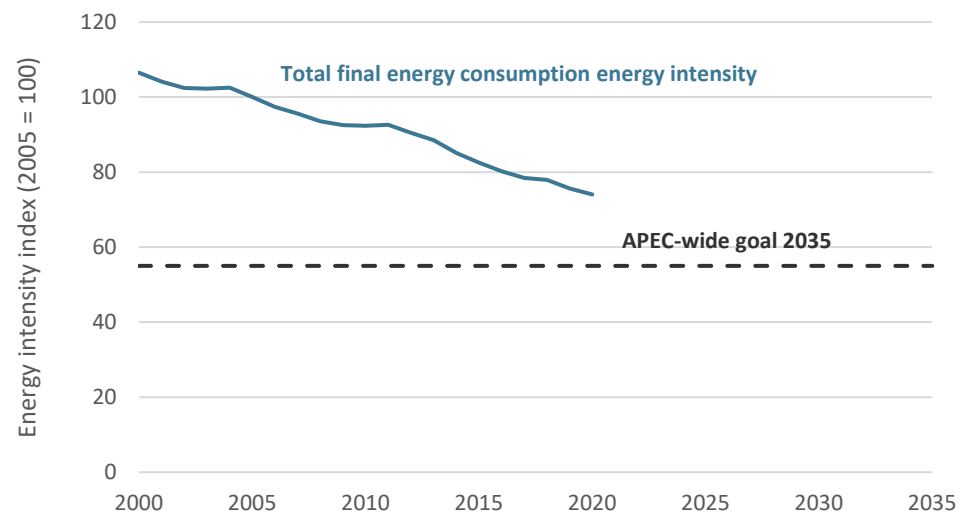
Renewables' share of total electricity generation rose from 23.1% in 2019 to 24.7% in 2020, with the almost 300 TWh increase being the largest ever observed.

Thermal electricity generation fell 2.0% in 2020, meaning its share of electricity generation was below 65%, down from the most recent peak of 73% in 2011.

### APEC energy intensity goal

In 2011, APEC member economies agreed to reduce energy intensity by 45% in 2035, relative to a 2005 baseline. As of 2020, APEC-wide final energy intensity had improved 26%, leaving an additional 19% to meet the 2035 goal (Figure 1).

Figure 1: APEC total final energy consumption intensity index (2005 = 100)



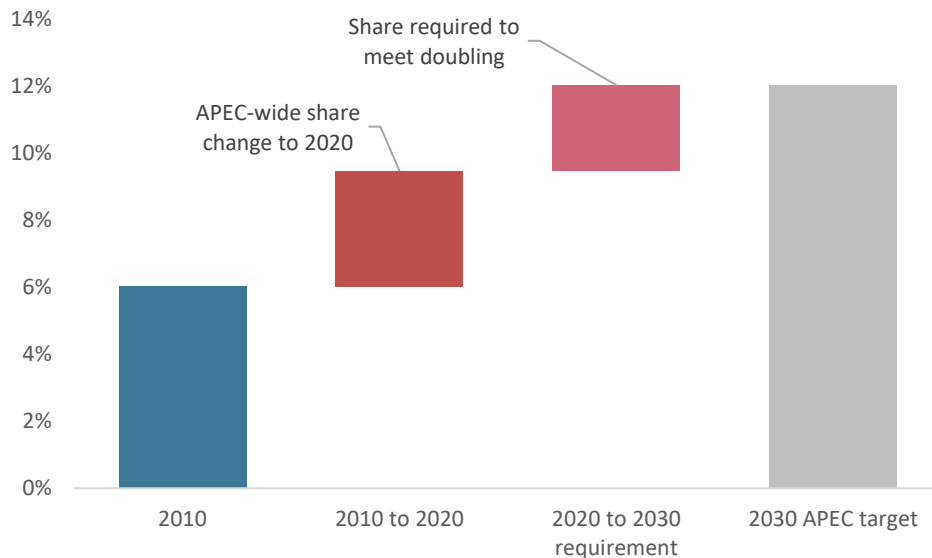
Source: EGEDA (2022)

## Doubling of renewables

The second energy goal involves doubling the share of modern renewables in the APEC energy mix for the period 2010 to 2030. Modern renewables do not include traditional biomass, which is typically relied on in emerging economies for household energy needs and is associated with negative health outcomes.

The modern renewables share of final consumption has increased from 6.0% in 2010 to almost 9.5% in 2020, which is a 57% improvement. This means that APEC is ahead of schedule to double its share of modern renewables by 2030 (Figure 2). For electricity, renewable generation accounted for 24.7% of APEC electricity generation in 2020, up from 15.6% in 2010 (Figure 3).

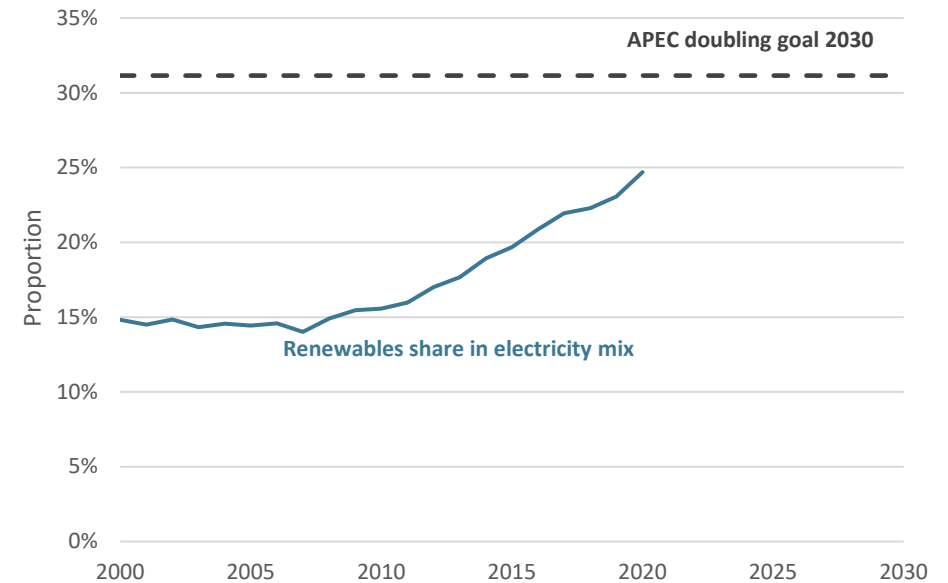
Figure 2: APEC renewable energy share in final energy consumption



Source: EGEDA (2022)

Note: Biomass used in the residential and commercial sectors is assumed to be traditional biomass and is not included in the definition of modern renewables. All other renewables (biomass used by industry, hydro, geothermal, etc.) are considered modern renewables. Modern renewables also include the share of electricity that is generated from renewable sources.

Figure 3: APEC modern renewable energy share in the electricity mix



Source: EGEDA (2022)