International Energy Agency

Renewables 2023

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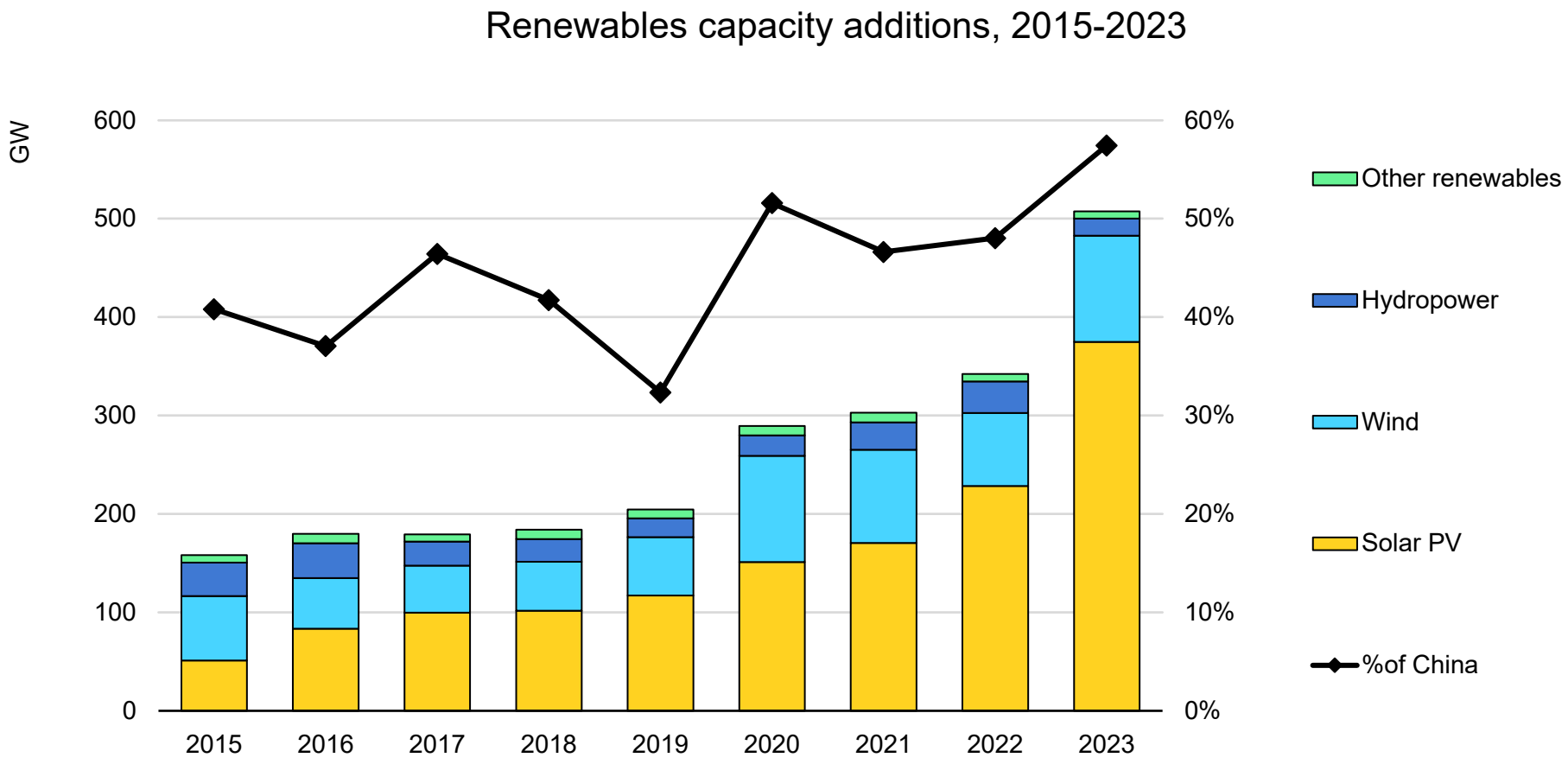
EGNRET 60 Meeting

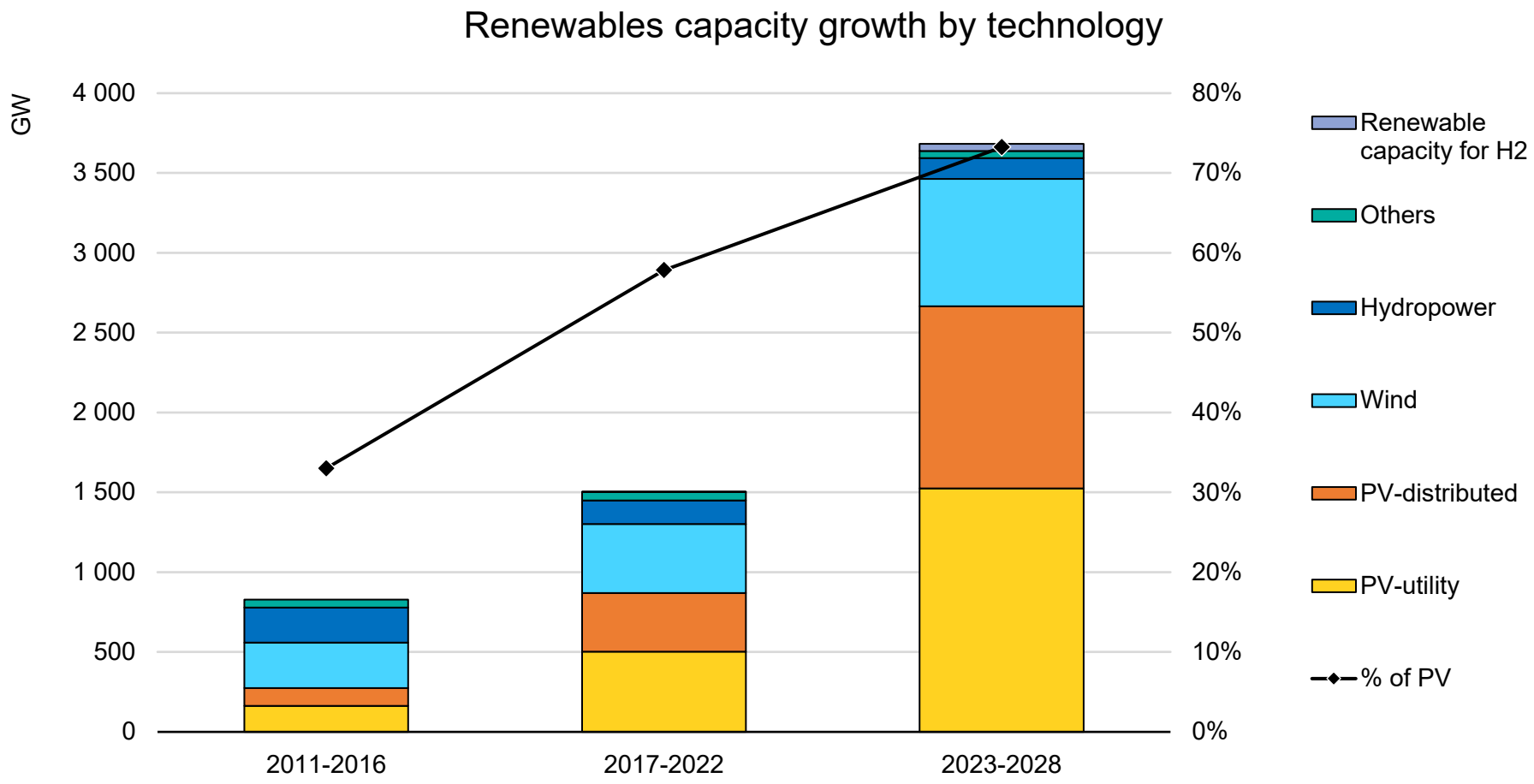
25 April 2024

2023 marks a step change for renewables growth driven by China



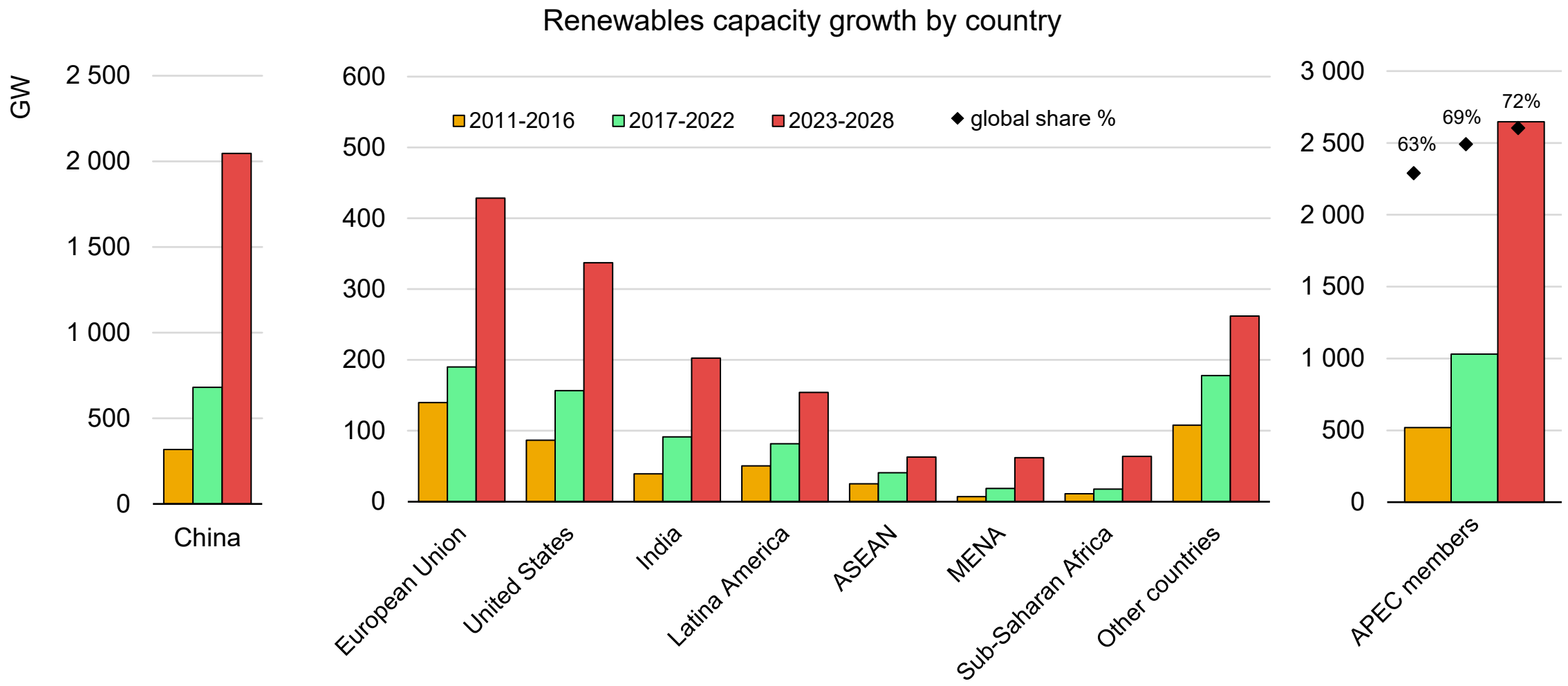
Renewable capacity additions broke records in the EU, US and Brazil but China's solar PV acceleration alone was responsible for two-thirds of global renewable additions growth in 2023.

Unprecedented expansion of renewables driven by solar PV



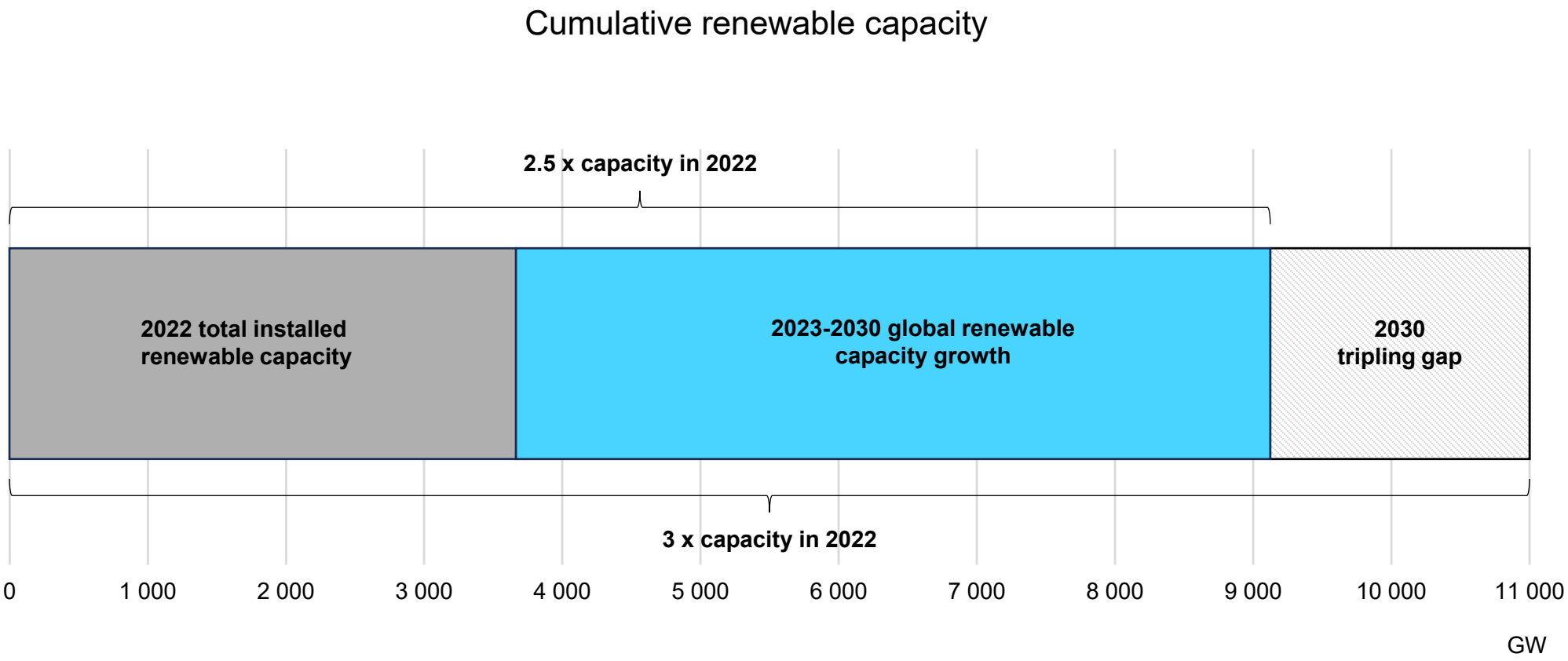
Declining prices and faster adaption of rooftop systems push PV forecast up. Wind forecast outside of China is less optimistic due to higher costs and slow permitting. RE capacity for hydrogen growth only account for 7% of announced projects

Policies accelerate renewable deployment everywhere



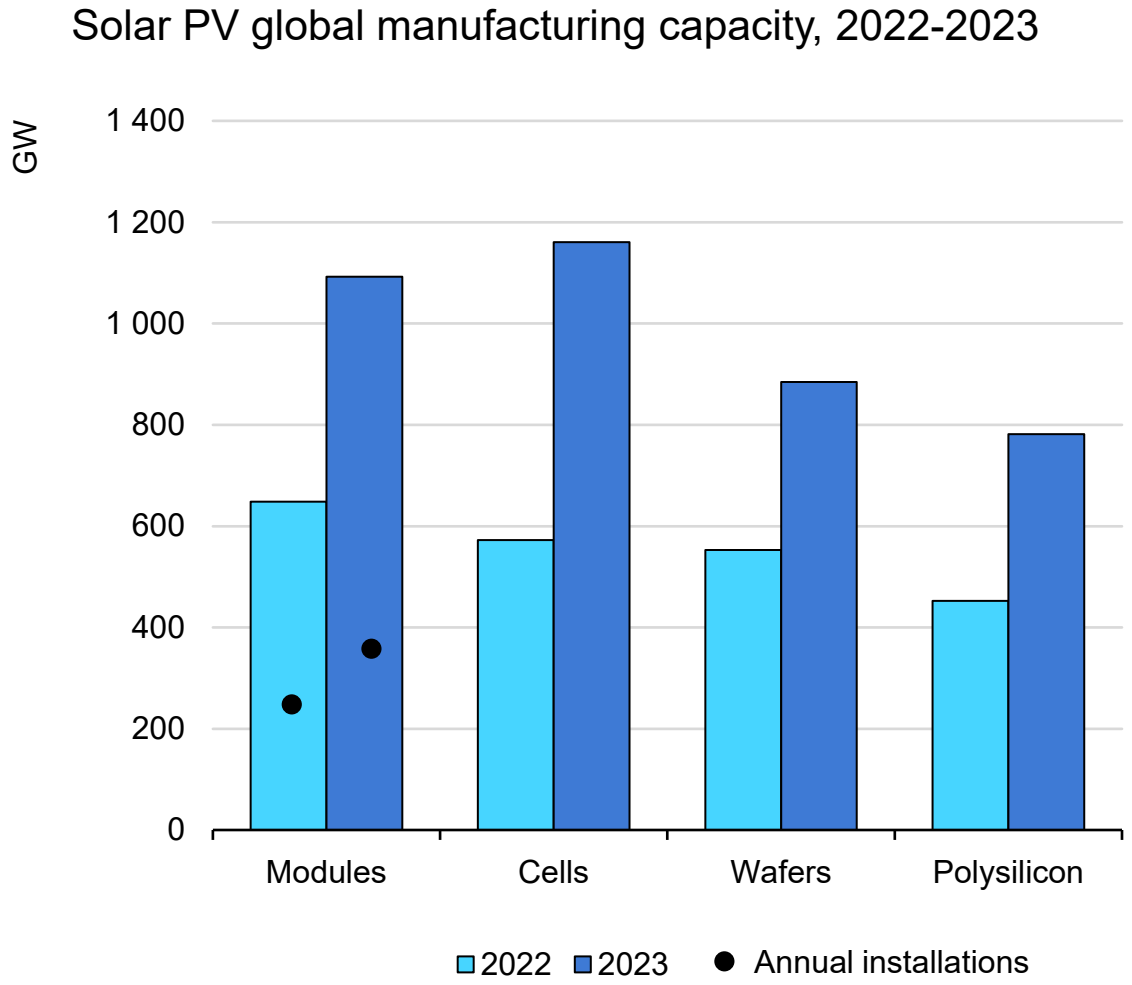
China, EU, US and India account for almost 85% of global expansion but renewables expansion rapidly catches up also in other parts of the world. For instance, growth in MENA and Sub-Saharan Africa matching ASEAN.

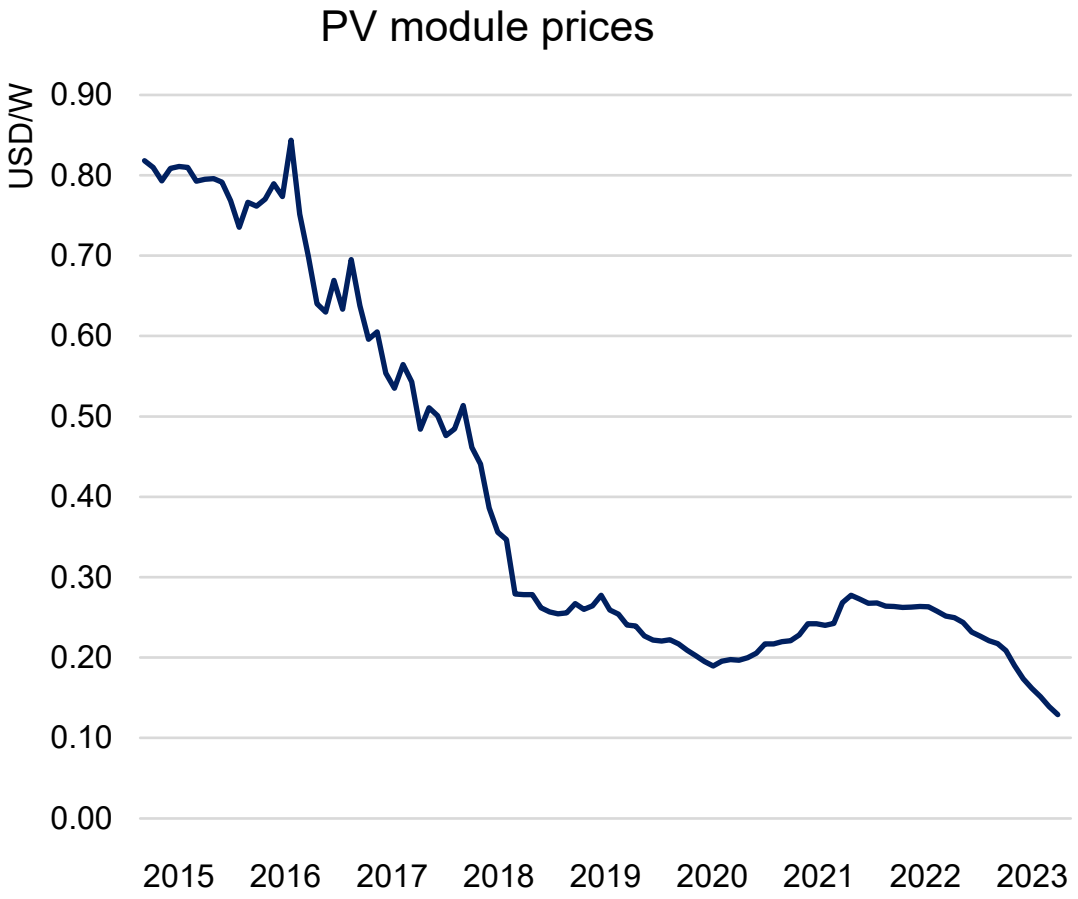
Tripling of RE capacity by 2030 is within reach but more effort is needed



Massive renewables capacity growth is led by steadily cheaper solar PV, while wind and hydropower's accelerated expansion is challenged by permitting, financing and social acceptance issues

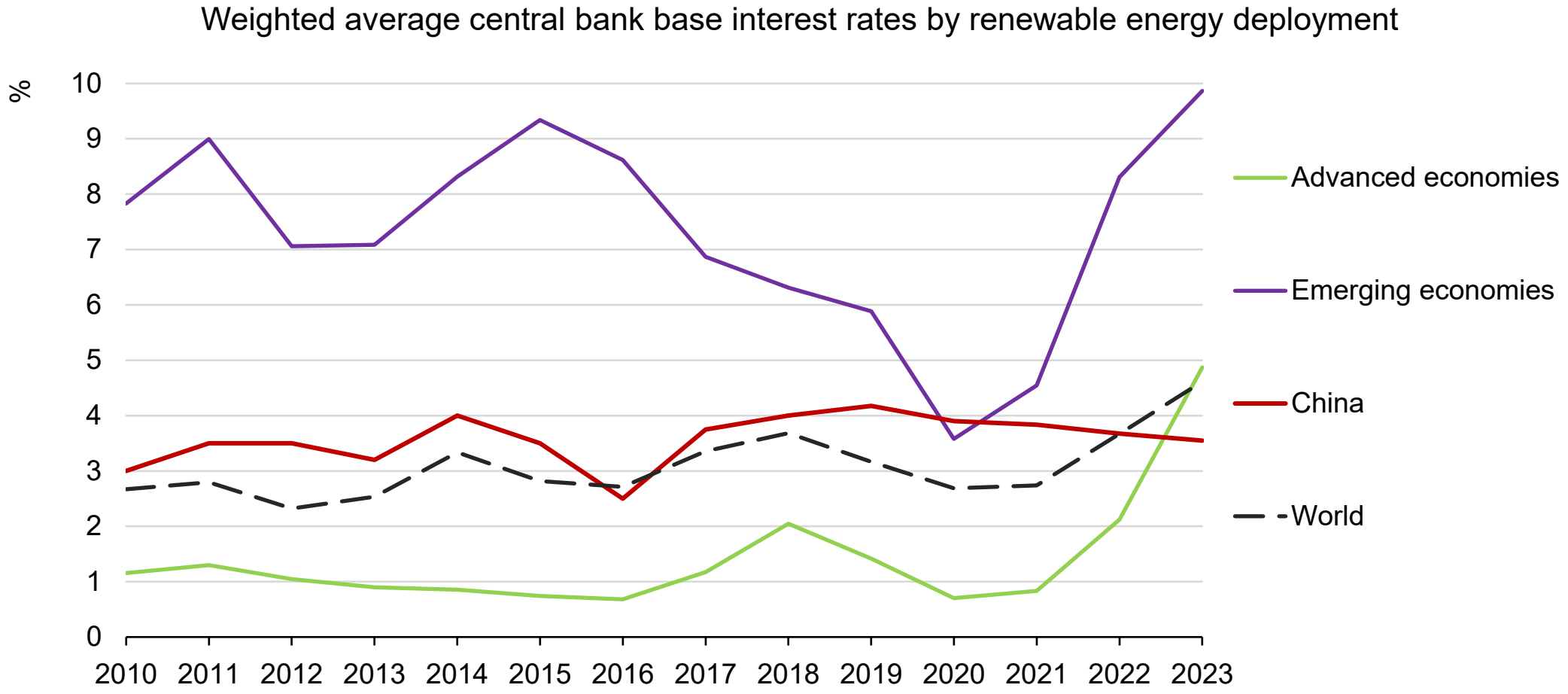
Growing supply glut driven by China results in record low PV prices





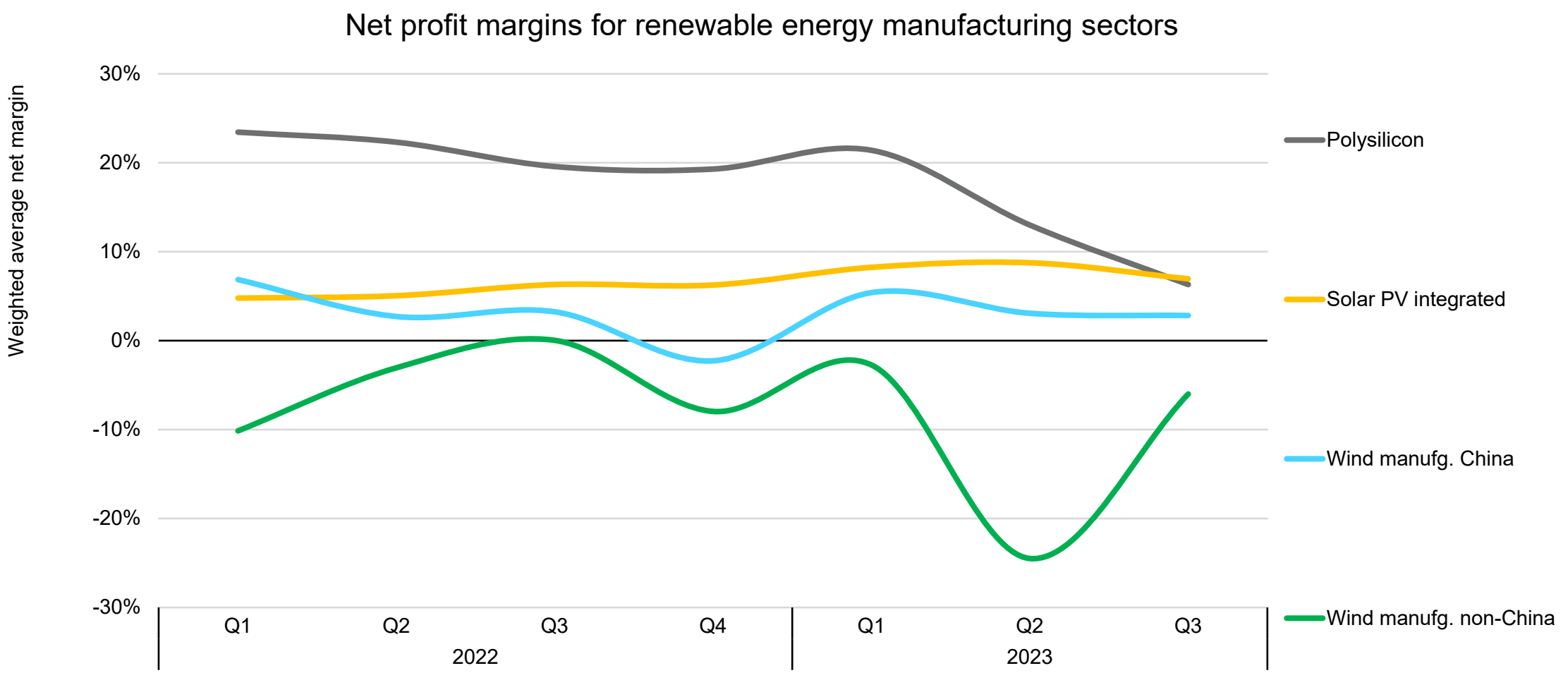
Global PV manufacturing capacity is doubling at the end of 2023, outstripping the demand. Despite manufacturing expansions in the US, India and the EU, China is expected to maintain a dominant position in global supply chains.

New macroeconomic reality for renewables needs policy attention…



Renewables success came in an era of low interest rates in advanced economies. In 2023, wind and PV deployment in advanced economies faced higher interest rates than China and global average for the first time.

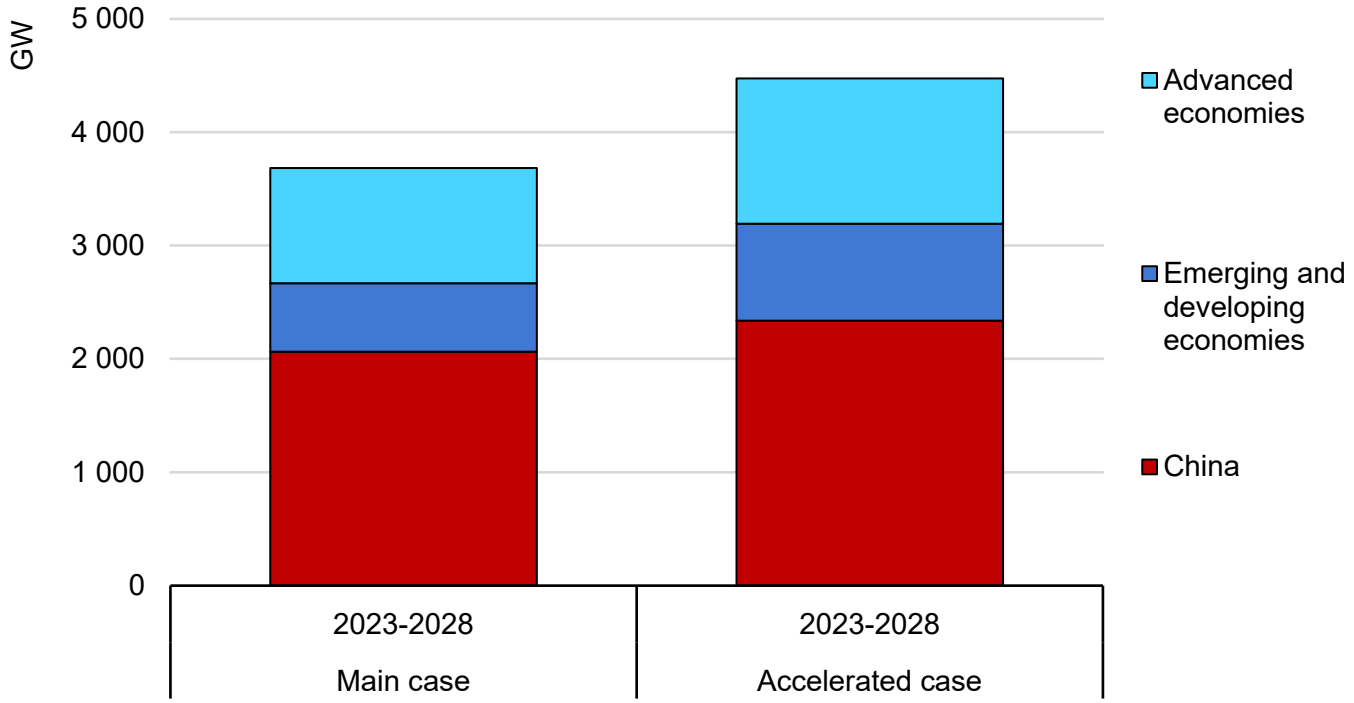
…and is affecting financial health of the renewable industry



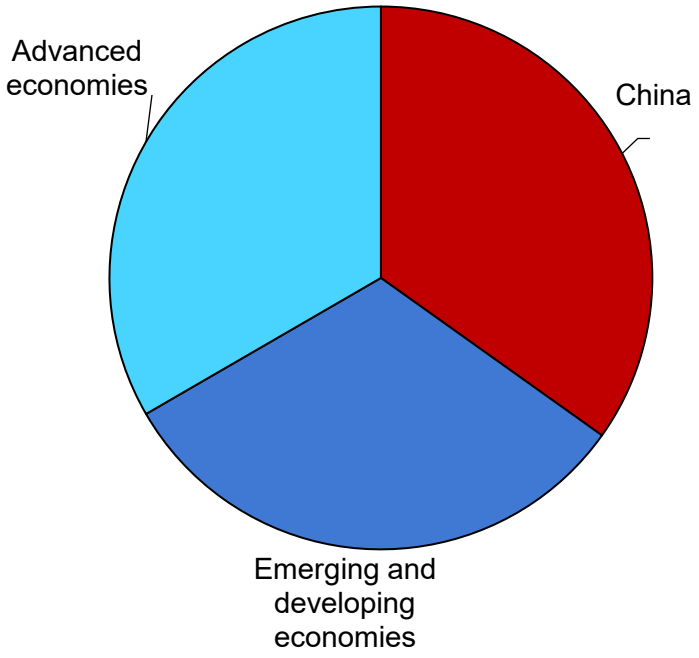
The wind manufacturing sector outside of China struggles for profitability due to a combination of ongoing supply chain disruption, higher costs and long permitting timelines, which require stronger policy attention

Improved policies can push renewables to be on track with the tripling pledge

Renewable capacity growth, main and accelerated cases

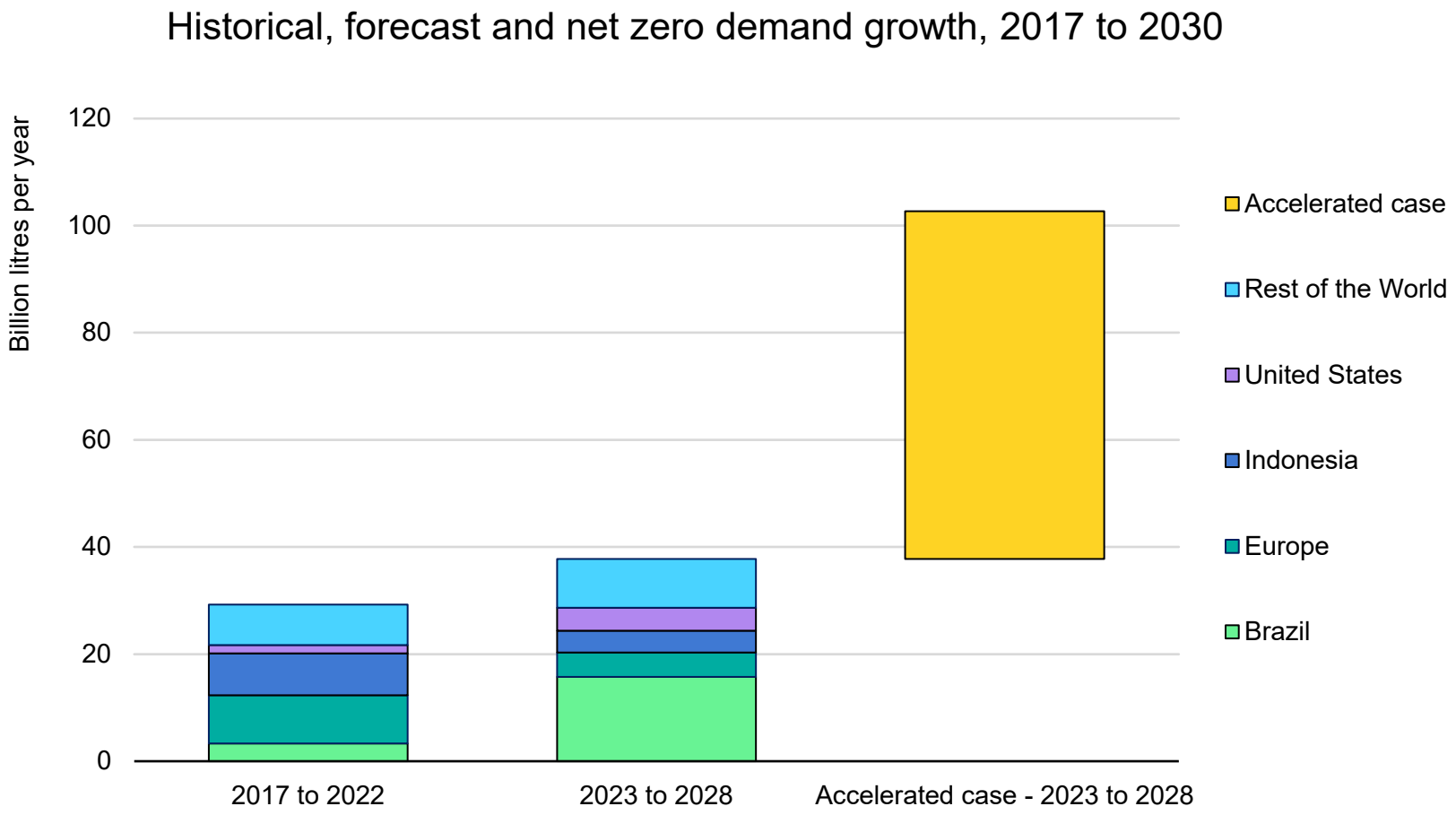


Main & accelerated case difference



Grid integration & faster permitting dictates renewables upside in advanced economies. EMDEs account for 15% of global expansion but 1/3 of the upside in the accelerated case. Policies de-risking investment and low-cost financing is key to unlock the full potential.

Biofuels growth is accelerating, but is not on track for net zero



Emerging economies, led by Brazil, dominate global biofuel expansion, which is set to grow 30% faster than over the last five years. Aligning with net zero requires new policies and addressing supply chain challenges.

Renewable Energy Progress Tracker

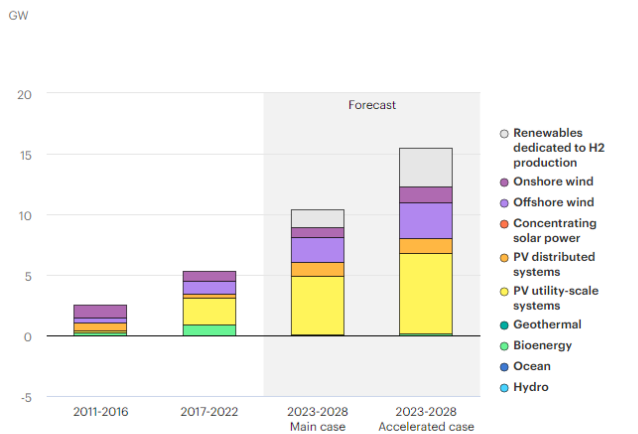
Explore electricity, heat and transport data from Renewables 2023

Country/region
Denmark

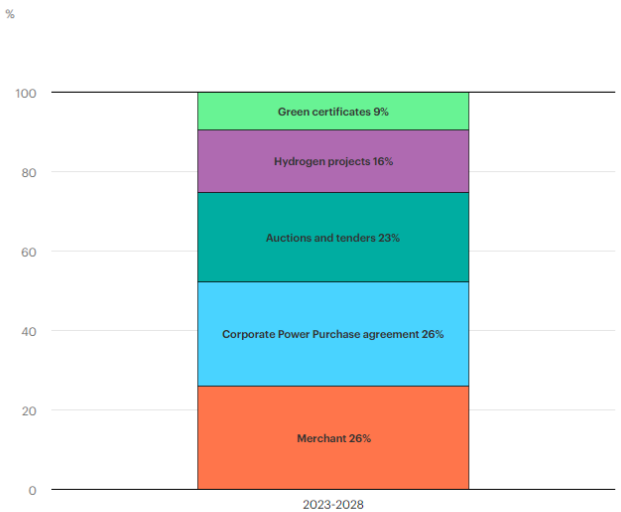
Cumulative capacity | Net additions | Generation

5-year capacity growth by generation technology, Denmark

Generation technology
All



Primary policy and market drivers for utility-scale renewable growth, Denmark



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Thank you for your attention

If you have any questions, please contact me: piotr.bojek@iea.org

https://www.iea.org/reports/renewables-2023

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