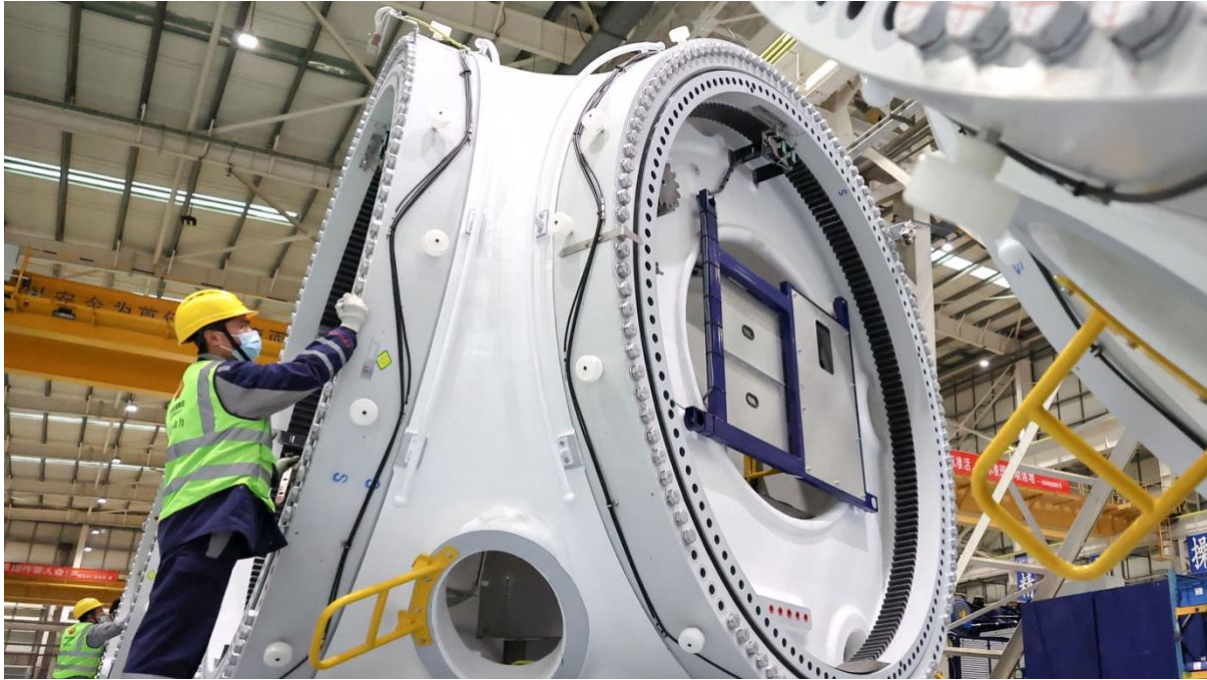


Opinion | China's Early Decarbonisation Holds Lessons for World

In 2024 it will break its coal addiction and start installing only renewables capacity.

Tim Buckley | 12 August 2024 | fDi Intelligence, Financial Times



Powering ahead: China's huge investment in clean energy manufacturing and installation means it will hit its 22030 decarbonisation targets six years early.

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China's global leadership in the energy system's decarbonisation is nothing short of astonishing. There is a significant chance that the country, which represented 56% of the world's coal consumption in 2023 according to the Energy Institute, will reach peak coal demand later this year. National carbon emissions will potentially peak and then plateau in lock-step.

The country's progress is laid bare by its National Energy Administration's recent electricity sector performance review. Over the first six months of 2024, China added 133 gigawatts (GW) of renewables capacity, a 25% year-on-year increase. That amounts to a staggering 22GW per month compared with the UK's 3GW in the whole of 2023 (as shown by government data). China's solar additions alone hit 102GW over the first six months of the year. By comparison, Europe's biggest solar power generator Germany installed a record high 7.5GW in the same period, according to its government data.

Quitting the coal addiction

China is powering ahead of the rest of the world because it has embedded at the heart of its economic policy and national security objectives a clear national priority to accelerate investment in zero-emissions technologies, be they renewables, batteries, smart grid transmission and electric vehicles (EV).

Its renewables deployments are backed by massive, world-leading manufacturing capacity expansions, underpinned by a huge \$676bn investment in 2023, according to Bloomberg NEF. The Paris Agreement calls on all countries to collectively address this global climate crisis. We call on other developed nations to match China's leadership here, and collaborate with China in jointly developing these solutions.

All this is not to say that China has broken free of its coal addiction. It is still installing the vast majority of all new coal-fired power plants globally, with its national coal fleet comprising a catastrophic 1405GW (at the end of June). This continued deployment is a reflection of three factors. First, its slowing economy is still growing at 5% year on year. Second, the central goal of energy security — and the imperative of pivoting from its reliance on imported oil and gas to domestic electricity — is a big driver behind its world leadership in EV adoption. Third, China is following a clear multi-decade strategy to progressively electrify everything.

Between 2000 and 2023, electricity's share of China's final energy mix increased from 14% to 29%, Enerdata shows. By comparison, its share of the final energy mix in Europe and the US has been flat at 22% to 23% over the past two decades.

China's world leadership in electrification leverages the energy security benefits of reducing imported oil and gas by transitioning the economy to domestic electricity generation, including coal, nuclear, hydro, wind and solar. Electrification of everything continues to progress. And the energy mix within this electrification trend is significant: over the first six months of the year, coal-fired power generation increased by just 2%, while zero-emissions generation increased 17%.

Great news for the planet

China is very close to a point where all additional electricity demand will be sourced from zero-emissions capacity additions. That point will likely be reached later this year, as clearly illustrated by its phenomenal momentum since January. This month, China's installed renewables capacity of 1180GW will grow to meet its 2030 target of 1200GW capacity, six years ahead of target.

It follows that peak coal demand is within sight. The downturn in China's property construction industry also means that the country — the world's largest producer of steel and related emissions — is likely to have passed peak steel consumption back in 2022. Both developments are great news for the planet.

The time is now for China to boost the formal ambition of its climate goals, and for other countries to engage with the Asian superpower on technology development, to extend a carbon border adjustment mechanism across all global trade, and to jointly finance cleantech deployments in the Global South. All are critical steps if we are to address the collective existential challenge of climate change.

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