

Coal Push Damps Hopes of China's Climate Ambition

Momentum behind net zero pledges could be fading as Beijing prioritises economic growth and energy security

Edward White | 26 June 2024



Coal storage at the Xinhai power plant in Jiangsu: China's economy is still highly dependent on coal.

To have a chance of combating climate change, the world needs President Xi Jinping's administration to find a way to decarbonise China's economy.

The country, with 1.4bn people and a massive industrial economy still highly dependent on coal, is the world's biggest polluter — accounting for nearly one-third of global carbon emissions.

Climate activists around the world may have cautiously cheered in September 2020 as Xi told the UN General Assembly that China's carbon emissions would peak before 2030 and the country would achieve carbon neutrality by 2060, also known as the 30-60 targets.

But now, nearly four years later, fears are rising among some climate change experts that the momentum sparked by Xi's dual pledge has faded as officials prioritise economic growth and energy security.

“Momentum has been a challenging one: even though China continues to add renewables at a frenetic pace, and more renewables are being used in power generation, it is also adding more coal and talking about coal as the backbone of the energy system and a source of security,” says Michal Meidan, head of China energy research at the Oxford Institute for Energy Studies.

The key indicators of concern are the rise of new coal-fired power stations in China and the slow rate of retirement of older coal plants. Last year, China added new coal plants with the capacity to produce 47.4 gigawatts of power — which accounts for two-thirds of all global coal-capacity additions — while retiring only 3.71GW, according to Global Energy Monitor, a research group. GEM also noted that the pace of construction of new coal-fired electricity generation in China was nearly quadruple that of 2019, when the country hit a nine-year low in new coal builds.

However, at the same time, the rapid expansion of China’s renewable energy industry continues at pace, providing some hope that Xi’s goals can still be achieved.

Penny Chen, an analyst with Fitch, the rating agency, notes that China expects the contribution of wind and solar capacity in its fuel mix to rise towards 40 per cent, from around 20 per cent a year ago, and to exceed coal-fired capacity in the second half of this year. Notably, in the first quarter of this year, nearly 90 per cent of China’s power generation investments were in non-thermal sectors.

Junjie Zhang, a professor of environmental sciences and policy at Duke Kunshan University, near Shanghai, says there is a “yes and no” answer to the question of whether momentum on climate change has been lost.

He says Beijing’s actions on climate were, for years, spurred on by international pressure, including by the Obama administration and some European leaders, to act more aggressively. But, now, the role of the market has become much more important — with “huge” commercial interest in promoting renewable energy industries.

“The train has left the station,” Zhang says. “There is fierce competition within new energy vehicles, batteries, wind and the solar PV market. These industries are unstoppable.”

Experts say a crucial dilemma for Xi and his policymakers in Beijing centres on the economic and social risks created if, during this transition to renewables, China suffers more power shortages and blackouts.

David Fishman, a Shanghai-based analyst who covers Chinese energy at The Lantau Group, a consultancy, stresses that the broader climate objectives remain unmoved. But he says they can be “paused” if there is a perceived risk to energy security.

“If investments made into green energy are going to result in higher risk of blackouts, then they’ll build more coal plants,” he predicts.

Zhang, from Duke Kunshan, says the message from Beijing to local government officials across China is that they need to oversee an “orderly transition”. This, he adds, has been phrased in the Chinese context as, “before you find your new rice bowl, don’t break your old rice bowl”.

As is the case for all governments, climate transition costs remain challenging for Beijing. According to World Bank estimates, for Xi’s targets to be hit, China needs to spend as much as \$17tn on green infrastructure and technology in the power and transport sectors alone.

Despite that figure, others are optimistic. New modelling this year, from Climate Energy Finance, an Australian think-tank, suggests that China’s coal power generation will peak well before 2030, then plateau and decline.

Xuyang Dong, an analyst with CEF, says rapid reductions in the cost of wind, solar and battery storage technologies have sparked a “dramatic” change in the economics underpinning China’s energy system.

Dong and colleagues predict that coal will fade over the next 16 years from being a central pillar of China’s power sector to a “back-up role” ensuring stability during the transition to renewables.

Even so, some experts say that, while state-owned energy producers have been rapidly expanding the share of renewable energy, others with vested interests in fossil fuels are not acting fast enough to prioritise the transition away from coal.

“It happens to be the case that entrenched fossil fuel interests are all in the hands of state-owned enterprises . . . whereas the clean energy companies are all privately owned, and less politically powerful,” points out Li Shuo, director of the China Climate Hub at the Asia Society Policy Institute in the US. “This may become a key problem for China to transition from fossil fuels to clean energy.”

Ultimately, Meidan of Oxford says the reversion to more coal does not mean “China is backtracking on its ‘30-60’ targets”. However, she says there is a risk that the peak could be higher and later — which subsequently raises the costs and complexity of reaching the 2060 net zero goals.

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