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### **Even 5% Growth Won't Stop China's Emissions Peak: David Fickling**

For all that commodities markets were disappointed by China's relatively subdued 5% growth target set out at the National People's Congress, the dirtiest end of the sector found reason to take cheer. Coal will remain the backbone of the country's power system and the energy intensity of the economy would decline only modestly, outgoing Premier Li Keqiang told the meeting in Beijing on March 5. Asian export coal traded at Australia's port of Newcastle jumped 5.6% the following day, the biggest increase in a month.

It's not hard to see why. China's rise has been fueled by energy, and it wasn't so long ago that this was being supplied almost exclusively by fossil fuels. The remarkable feat in 2022 — when emissions declined by a modest 23 million metric tons or so of carbon — came largely thanks to a Covid-induced slowdown that reduced growth in gross domestic product to just 2.9%. Lift that to 5%, and it's reasonable to expect that pollution will come roaring back.

Reasonable, but wrong. **One notable fact about China's carbon footprint is that there's precious little correlation these days between economic growth and greenhouse pollution.**

All of the marginal growth in the country's economy is coming from less carbon-intensive businesses like services and high-value manufacturing. The so-called "dual high" sectors that account for more than half of the country's smokestack pollution — such as cement, steel, base metals, oil refining, chemicals and glass — make thin margins, one reason Beijing is trying to rein them in.

Indeed, the only data point that moves really closely with greenhouse emissions is one so obvious as to be almost tautological — coal-fired power generation. There's an 88% correlation between those two factors, and even adding in weighted values for the country's energy-intensive construction industry and vast export sector barely changes that picture.

In that sense, we probably should be worrying less about what China's GDP target means for emissions, and **focusing instead on the expansion of its electricity grid.**

The news on that front doesn't look particularly promising, either: The China Electricity Council, a generators' lobby group, said in January there'll be 70 gigawatts of coal- and gas-fired plants installed this year — up from 40 GW last year. That's equivalent to adding the fourth-biggest coal fleet in the world after India, the US and China itself in just 12 months. All but a handful of these will burn solid fuel.

Take a look at what's happening in zero-carbon power, however. The same January report forecast an additional 100 GW of solar this year, plus 65 GW of wind and 17.3 GW of hydro, biomass and nuclear. At typical utilization levels, that should pump out an extra 348 terawatt-hours of electricity, enough to cover a 4% growth rate in power consumption without burning a single additional ton of coal or cubic meter of gas.

It's still not enough, however. Grid demand will go up by 510 TWh or 6%, according to the CEC, meaning that thermal power might still rise by about 161 TWh, equivalent to Germany's annual coal generation. The grip of fossil fuels, as Premier Li indicated, remains strong.

Hold on, though. One factor those assumptions don't account for is that 2022 saw an extraordinary drought grip China, driving the utilization of its hydro plants to their lowest levels in nearly a decade. The La Niña conditions that caused that anomaly are now fading, and though current forecasts don't suggest abnormally wet conditions, they should be enough to prevent a repeat of last year's disaster. That could be hugely significant. **If the productivity of China's hydro dams rebounds to merely historically low levels from the catastrophic situation of 2022, it could be enough to provide all the extra electrons needed to drive fossil fuel generation from the grid.** In a wet year, you'd expect to see output fall significantly.

It's pointless fretting about exactly how many years ahead of President Xi Jinping's 2030 target we'll see China's emissions peak. None of us know whether renewable deployment will be able to keep up the headlong pace of recent years, though government targets pretty much mandate it at least until 2026. Nor do we know whether the weak performance of its hydro dams in recent years was a La Niña-driven anomaly, or the early sign of a structural decline as climate change itself dries out the

renewable dams that are meant to be averting it. The long- term pace of China's electricity demand growth is yet another mystery, along with the question of whether the country's cheap coal reserves are hitting geological limits.

Still, the boom in China's renewable power, combined with rising official acceptance of slower growth rates and the long- overdue shift away from heavy industry toward services and advanced manufacturing, suggest the turning point is in sight, if not already in the rear-view mirror. China still accounts for as much greenhouse pollution as all developed countries put together — but from here on out, the picture is only going to improve.