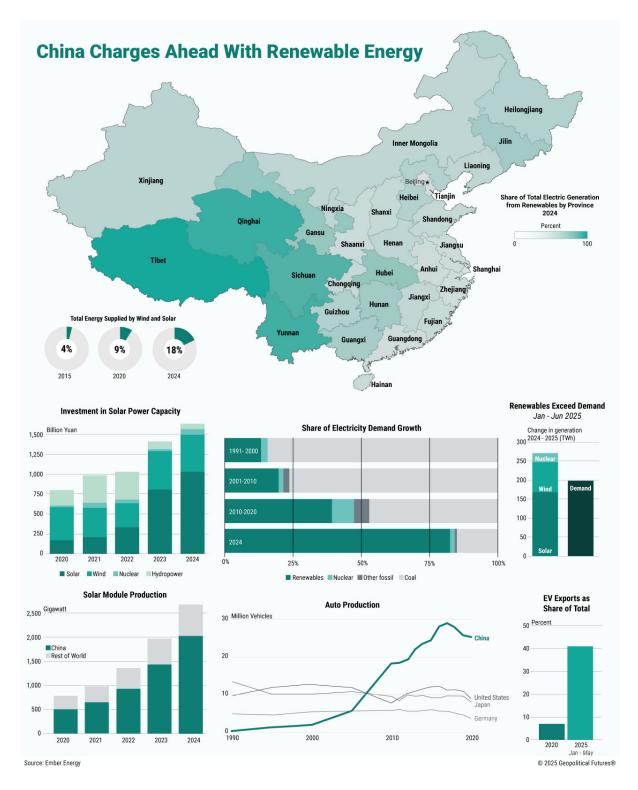


Green China

by Geopolitical Futures - October 10, 2025





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Over the first half of 2025, renewable energy overtook coal for the first time in history as the world's number one source of electricity. Intent on diversifying away from fossil fuels and avoiding the pollution that comes with them, China has been a leader in the global push for clean energy. Its transition has been driven by massive investment and growth in wind, solar and electric vehicle technology. Last year, China saw an 18 percent increase in wind capacity and a 45 percent growth in solar capacity, achieving the 1.2 terawatts renewable energy capacity target set by President Xi Jinping five years ahead of schedule. According to the International Energy Agency, China's achievements make it possible to reach the global goal of tripling renewable power capacity by 2030. Unsurprisingly, China's green transition has reshaped its own emissions trajectory: Despite an increase in energy consumption, the rapid deployment of renewables means that new electricity demand is increasingly met with non-fossil fuel sources.

But the transition is not yet complete. The next major challenge will be to integrate renewables into the energy grid. Many of the new wind and solar installations are located in inland regions with abundant natural resources – far from the densely populated coastal areas where demand is the highest. Without sufficient ultra-high voltage transmission infrastructure, large volumes of clean energy are wasted. The current grid system lacks the flexibility to handle the intermittent nature of renewables, and fossil fuels still dominate backup capacity. To address these issues, China will try to invest more in modernizing its long-distance transmission lines, expanding energy storage solutions and implementing smart grid technologies. Reforms to electricity pricing and market mechanisms can also be expected. Implementing these measures will be crucial to translating China's renewable buildout into real emissions reductions.

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