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China's transition snapshot

Key facts

Translating China's cleantech prowess into successful climate leadership will depend on reducing coal reliance, overcoming grid constraints and managing growing trade and supply chain tensions. As the world's largest market and manufacturing base for many clean energy technologies, China has positioned itself as central to the global energy transition. Between 2019 and 2024, it accounted for around 40% of global renewable capacity expansion, underpinned by rapid investment in renewables, transmission and increasingly sophisticated power systems.[1] The economic benefit of clean energy is embedded in China's industrial strategy, with global leadership in solar PV, battery storage and EVs providing a source of technological advantage, export growth and economic development.

China's domestic transition is increasingly centred on the combination of renewable deployment and economy-wide electrification. Renewables are expected to remain the backbone of electrification, providing both domestic supply security (by expanding generation capacity) and an export-oriented industrial base. Rapid growth in EV production and adoption, driven by supportive policy, is extending the transition beyond the power sector. This dual approach has been crucial to cushion China from the fossil fuel crisis that emerged from the closure of the Strait of Hormuz, alongside deploying strategic fossil fuel reserves.[2]

China's cleantech advancements are limited by continued reliance on coal, which remains a core part of the power system and still is a source of energy security and system stability. The role of coal is, however, changing, with retrofits and power market reform driving a shift in its primary role, from baseload generation to supporting system flexibility.[3] That said, coal still powered 54.6% of the electricity mix in 2025, and gas a nominal 3%, with renewables comprising 37%.[4] China's 2035 NDC, submitted in 2025,[5] introduced an economy-wide absolute emissions reduction target for the first time, but its headline 7–10% reduction from peak levels has been criticised as overly conservative

[1] IEA, 2023, **China - Countries & Regions**
[2] Brookings, 10 August 2026, **Electrostates vs. petrostates: The US, China, and the Hormuz energy shock**
[3] Ember, 10 February 2026, **From baseload to flexibility: How coal's role in China is changing**
[4] Ember, 2025, **Electricity Data Explorer**
[5] UNFCCC NDC Registry, 3 November 2025, **2035年中国国家自主贡献报告** (PDF)

relative to the pace of China's existing transition.[6] China's 15th Five-Year Plan (FYP), approved March 2026, likewise supports further clean energy deployment and reductions in energy and carbon intensity without establishing a binding near-term coal cap or a clear pathway to "No New Coal".[7] The Coal Industry FYP, subsequently released in August 2026, reiterates the target of coal consumption peaking by 2030, without setting a specific timeline within the five-year period or introducing an absolute consumption cap.[8] Ensuring that renewable growth increasingly displaces, rather than supplements, fossil generation will be critical to meeting China's 2060 carbon-neutrality goal.

China's dominance in clean technology supply chains has become a source of ongoing trade tensions. China is the leading refiner for 19 of 20 strategic minerals assessed by the IEA, with an average market share of around 70%; combined with its formidable manufacturing base, this gives China significant economic and geopolitical leverage.[9] However, this concentration has also heightened economic security concerns among trading partners and accelerated efforts in the US, EU and elsewhere to protect their domestic industries and diversify supply chains.

Domestically, grid integration is a key constraining condition for advancing clean energy and absorbing more cleantech supply within China. Rapid renewable deployment has increased pressure on transmission, storage and cross-provincial electricity trading; in some regions curtailment limits the ability of new renewable capacity to feed into the system and displace coal. Investment in grids and storage,[10] identified as priorities in the most recent FYP, are therefore central to unlocking the next phase of China's transition.

Opportunities for international collaboration

- **Engagement with EMDEs on strengthening their voice and demonstrating how the transition can support growth as well as decarbonisation.** China can deepen its existing cooperation with countries across the Global South by combining access to affordable clean technologies and infrastructure investment with greater local value addition and capacity building. Maintaining predictable export procedures would also help build confidence among its partners.
- **Further contribute to multilateral development bank (MDB) reform** and measures to address debt constraints, helping mobilise finance for energy transitions and adaptation in developing economies.

[6] Climate Action Tracker, 25 September 2025, **China's new target unlikely to drive down emissions**
[7] State Council of the People's Republic of China, March 2026, **China's 15th Five-Year Plan (2026–2030)**
[8] National Development and Reform Commission (NDRC) and National Energy Administration (NEA), 10 August 2026, **Notice on Issuing the 15th Five-Year Plan for the Development of the Coal Industry (2026–2030)**
[9] IEA, 2025, **With new export controls on critical minerals, supply concentration risks become reality**
[10] Reuters, 15 January 2026, **China's power grid investments to surge to record $574 billion in 2026-2030**

- **Continued engagement with the EU and other partners** can support cooperation on key areas like methane abatement and supporting the multilateral climate regime, even when trade tensions seem to block other routes to cooperation.
- **Promoting just and equitable transitions through its 2027 BRICS presidency.** China can use its presidency to advance more inclusive clean technology value chains, supporting local economic development, decent work and fair outcomes for communities affected by the energy transition.

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AUTHORS

Dido Gompertz is a Policy Advisor in the Global Clean Power Diplomacy team, whose work focuses on building the coalitions and enabling conditions for the transition to clean power systems in various regional contexts.

Jeongha Ju is a Senior Policy Advisor in the Political Economy and Governance team. Her expertise lies in comparative political economy analysis and methodological design, focusing on the structural forces shaping energy transitions across countries.

Samora Levy is a Programme Lead in the Global Clean Power Diplomacy team, who leads work on the power sector transition and diplomacy including in Africa and China, an on the team's research and analysis.

Suzie Marshall is a Policy Advisor in the Global Clean Power Diplomacy team, where her focus includes accelerating the global exit from coal power, and energy security and the impact of the Hormuz crisis on power sector transitions.

Oyku Senlen is a Senior Researcher in the Global Clean Power Diplomacy team and is an expert on Turkish climate and energy policy. She leads E3G's Türkiye strategy and produces data analyses on the global clean energy transition.

Hamsa Srikanth is a Researcher in the Global Clean Power Diplomacy team. She works on research, analysis and data visualisations of the global power sector transition and the politics and policy that underpin it.

Matt Webb is Associate Director for the Global Clean Power Diplomacy team.