

POTENTIAL IMPLICATIONS OF CHINA'S 15TH FIVE-YEAR PLAN ON CCUS

China's 15th Five-Year Plan (FYP) represents a critical policy framework shaping the country's climate and energy transition in the period (2026-2030) leading up to its first climate milestone - carbon-peaking target before 2030.^[1] As the final planning cycle before this milestone, the Plan places stronger emphasis on **building a “clean, low-carbon, safe, and efficient” energy system, strengthening carbon governance mechanisms, and accelerating the structural transformation of its major emitting industries.** While Carbon Capture, Utilization, and Storage (CCUS) is not positioned as a central mitigation pillar, its explicit inclusion—combined with broader systemic policy shifts—suggests an evolving role within China's decarbonization strategy.

Key Climate and Energy Targets in the 15th FYP

The 15th FYP focuses on a "green transition" while balancing energy security.

Policy area	Target/measure	Timeframe
Climate Policy	Achieve peak CO ₂ emissions	Before 2030
Climate Policy	Reduce carbon intensity of GDP by 17%	2026–2030
Energy Policy	Reduce energy intensity of GDP by 10%	2026–2030
Energy Policy	Increase non-fossil energy share to ~5% of primary energy consumption	By 2030
Energy Policy	Promote peaking of coal and oil consumption	2026–2030
Climate Policy	Establish dual-control system (total emissions + carbon intensity) and expand carbon market	2026–2030

The 15th FYP may represent a transitional phase in China's CCUS development, with policy aimed at moving from isolated demonstration projects toward more coordinated, system-level deployment, particularly within industrial sectors after 2030. This transitional phase is supported by the role of CCUS in maintaining the stability of China's existing energy and industrial systems under energy security constraints, as well as the gradual strengthening of carbon governance, including the introduction of emissions caps and the evolution of carbon market mechanisms. Together, these dynamics increase the strategic relevance of CCUS as a compliance and transition tool in sectors where rapid decarbonization remains technically or economically challenging.

^[1] China's "dual carbon" goals (30-60 targets) aim to peak carbon dioxide emissions before 2030 and achieve carbon neutrality by 2060.

The Essential Role of CCUS in China's Future Energy & Industry System

While China is advancing toward a “new energy system” centered on renewable energy, it continues to prioritize energy security, resulting in a transition strategy characterized by “safe substitution” rather than rapid fossil fuel phase-out. Within this framework, the 15th FYP targets a peak in coal and oil consumption during 2026–2030 but does not impose a binding cap on absolute coal use. This allows for continued, and in some cases expanding, coal utilization in strategic sectors such as power generation and coal-to-chemicals.

At the same time, structural shifts are emerging across fossil fuel systems. Oil demand is increasingly shaped by the rapid electrification of the transport sector, prompting the refining industry to transition away from traditional fuels toward higher-value petrochemicals and low-carbon feedstocks. Natural gas, meanwhile, is expected to continue expanding as a transition fuel, particularly in supporting system flexibility and industrial energy demand.

Taken together, these dynamics indicate that China is unlikely to fully phase out of fossil fuels in the near term. Instead, China is seeking to build an energy system that is simultaneously cleaner, more secure, and sufficiently flexible to support economic growth. Within this context, CCUS can play a critical enabling role by mitigating emissions from residual fossil fuel use, particularly in sectors where substitution is constrained, thereby supporting the compatibility between energy security and long-term decarbonization objectives.

Is CCUS Explicitly Recognized in the 15th FYP?

Yes. The language of “CCUS” was recognized in the FYP under “Key Project,” specifically within “Enhancing Foundational Capabilities for Carbon Peaking and Carbon Neutrality.” Under this Key Project, the Central Government will “strengthen technological innovation and engineering applications of carbon dioxide capture and biological sequestration technologies, and advance the development of carbon capture, utilization, and storage demonstration projects.”

Strengthening Carbon Constraints and the Rising Need for CCUS

The Plan announced a significant shift in China's climate governance approach. Instead of focusing solely on carbon intensity targets, China aims to move towards absolute carbon emissions constraints under the so-called dual-control systems. This transition means that emissions from fossil fuel use will increasingly be subject to binding limits. This is reflected in China's new NDC targets, announced in September 2025: by 2035, China will reduce economy-wide net GHG emissions by 7% to 10%. Consequently, carbon management is becoming a hard constraint for industrial activity rather than a relative performance indicator.

Furthermore, the national emissions trading system (ETS) is expected to undergo a substantial expansion. By 2027, it will extend beyond the current power, steel, cement, and aluminum sectors to cover another four high-emitting sectors - chemicals, petrochemicals, non-ferrous metals, and papermaking. This expansion is a crucial step towards embedding carbon costs across a broader segment of the economy.

While current carbon prices in the ETS remain relatively low, the expansion of market coverage and the gradual tightening of emissions constraints could strengthen the carbon price signal over time. Additionally, the development of voluntary carbon markets in China may provide additional flexibility and financing channels for mitigation activities.

In the meantime, the introduction of product-level carbon footprint accounting and carbon labeling systems in the 15th FYP is likely to extend carbon governance beyond production processes to value chains. This new movement may place additional pressure on export-oriented industries to reduce embedded emissions, particularly in response to emerging international trade measures. Consequently, CCUS could not only contribute to regulatory compliance but also help maintain international competitiveness.

What is the Outlook for CCUS?

While China's 15th Five-Year Plan does not position CCUS as a central pillar of the near-term low carbon transition, it creates a policy environment in which CCUS becomes increasingly relevant. The combination of continued reliance on fossil fuels for energy security and tightening carbon governance frameworks is likely to generate growing demand for emissions management solutions. Meanwhile, China will certainly support commercial CCUS demonstration projects from a strategic perspective in the next five years.

15 th FYP Driver	Practical Impact on CCUS by 2030
CCUS Demonstration Support	The Central Government will continue to provide financial assistance to selective or strategic CCUS demonstration projects.
Absolute Carbon Caps	As the absolute carbon caps take effect, more sectors may begin to demonstrate CCUS in their respective industries.
ETS Expansion	The expansion of the ETS may encourage more companies to incorporate CCUS into their future decarbonization plans.

While the outlook for CCUS is positive, large-scale commercial deployment is not guaranteed. **Progress will depend on stronger carbon price signals, clearer regulatory frameworks, and the development of the infrastructure for CO₂ transport and storage.** Together with its new NDC, the 15th and 16th FYP (2031-2035) are likely to represent a critical transition phase, determining whether CCUS can move from niche applications toward broader commercial deployment in China. Given the country's scale, this trajectory will have significant implications for the global role of CCUS in achieving deep decarbonization.