

China ETS Supply, Demand & Price Update

2 July 2025

Introduction

China's National Emissions Trading System (CN ETS) saw rapid policy evolution throughout 2023 and 2024, which included the introduction of new industries – iron & steel, cement and aluminum – and a more than doubling of the entities covered by the market. Additionally, authorities in China have rolled out policy changes which are designed to reduce the volume of surplus China Emission Allowances (CEAs) in the market that have been unclaimed from previous compliance periods, which has had a profound impact on 2025 CEA prices.

The current update models four possible policy directions for the CN ETS: a baseline as-is scenario, the introduction of cap-and-trade, the introduction of auctioning, and expedited China Certified Emissions Reduction (CCER) development.

Calculating Market Supply & Demand

China power carbon intensity benchmarks

tCO2/MWh per year	Units above 300MW	Units at or below 300MW	Other Coal-Fired Units	Gas-Fired Units
2019-2020	0.8770	0.9790	1.1460	0.3920
2021	0.8218	0.8773	0.9350	0.3920
2022	0.8177	0.8729	0.9303	0.3901
2023	0.7950	0.8090	0.8285	0.3305
2024	0.7910	0.8049	0.8244	0.3288

Source: [Ministry of Ecology & Environment \(MEE\)](#)

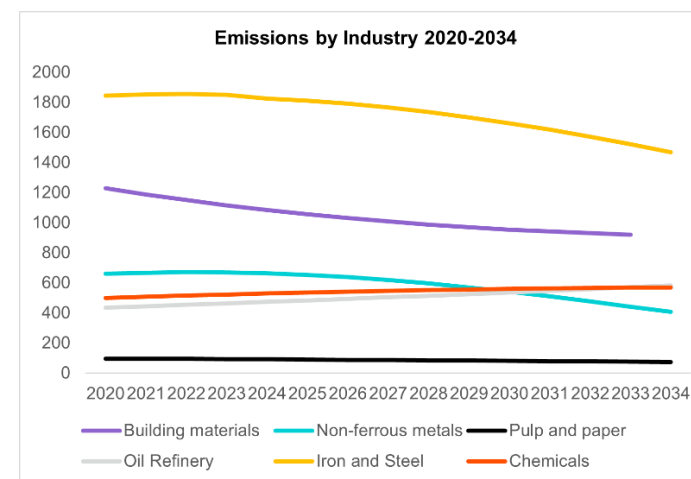
According to our calculations, power demand in China will be around 13,300TWh in 2030 and is expected to rise to 15,700 TWh by 2034. The share of renewable energy in China's power mix will continue to increase, with coal-fired output dropping to less than 45% of total

output in 2030 and to a further 39% of total output by 2034. Hence, the overall carbon emissions from the power sector are set to peak at around 54 gigatonnes (GT) between 2030 and 2031.

China industry emissions benchmarks

Emissions for industries other than power can be derived from two methods, either through official figures or, when unavailable, calculated by multiplying annual production to product carbon intensity. For the current update, LSEG first determined the emissions of the previous year before applying the industry trend curve from the [China energy transformation Outlook 2024](#) (CETO 2024), as prepared by the Energy Research Institute of the China National Development and Reform Commission's Macroeconomic Research Institute.

Figure 1. 2020-2034 carbon emissions by industry sector in million t



Source: CETO 2024; LSEG Carbon Research



LSEG DATA & ANALYTICS

Significant Policies

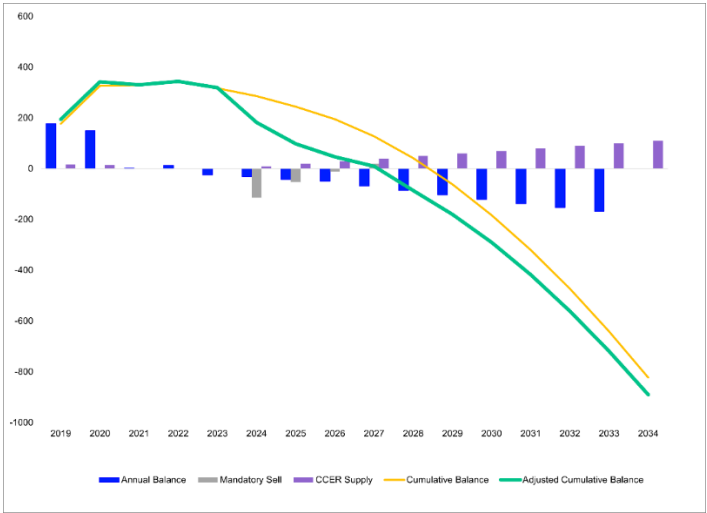
Timelines for CN ETS industry Expansion

Industry	Expected Inclusion Year
Oil Refining	2026
Chemicals	2026
Pulp & Paper	2027
Aviation	2028

The Introduction of Vintages & CEA Carry-over

Companies who have accumulated excess allowances throughout previous compliance periods are no longer able to hold on to the full volume of these allowances for future compliance periods following the introduction of CEA vintages and the “carry-over” policy, which is an undeniably bearish factor in the immediate term.

Figure 3. Annual & Cumulative CEA balance (million t)

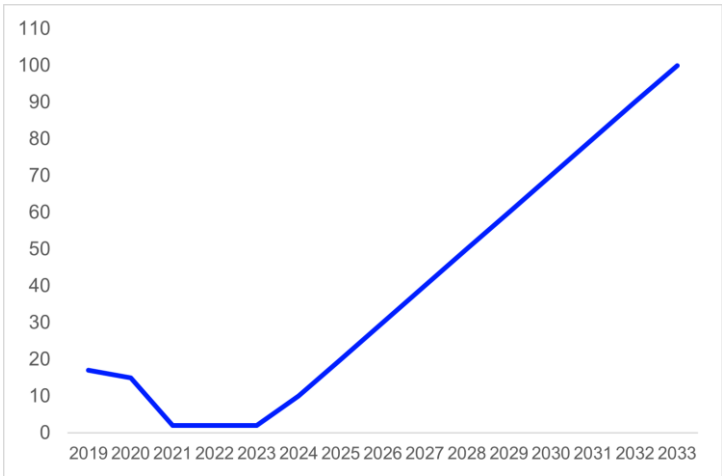


Re-introducing CCERs to CN ETS

New CCER credits have been issued from March 2025 following the program’s relaunch. While credits were slow to return to the market, availability has actually accelerated faster than the expectations laid out in our previous year’s CN ETS forecast and the LSEG Carbon Research team has updated its assumptions accordingly.

The CN ETS allows for regulated entities to claim up to 5% of their obligations through CCERs. There is currently not a sufficient amount of credits available for companies to meet this full quota, and CCER prices for most projects currently exceed CEA prices, which cuts down on the motivation for regulated companies to purchase them in lieu of CEAs. However, the current update expects that there will be greater use of CCER credits moving forward.

Figure 4. History and Forecast for CCER Supply (million t)



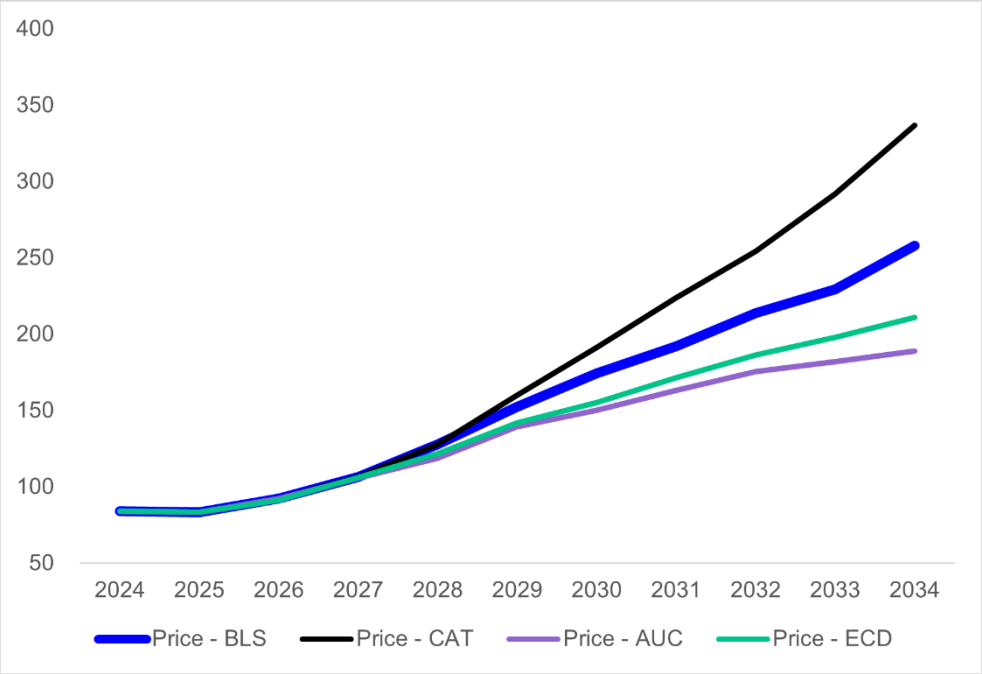
Conclusion

Using the LSEG Carbon Research in-house emissions and allowance supply models, CEA prices in China’s ETS are projected to decline in 2025 (compared to the upward trend observed in 2024, where the actual weighted CEA price was CNY 96.02/t). This decline is attributed to factors such as the carry-over policy, the absence of allowance shortages in the three newly included industries, macro-economic conditions, etc. However, this bearish

impact is expected to be temporary, as the allowance cap will tighten with the inclusion of other new industries in the ETS, leading to a longer-term price increase.

As shown in the table below, we forecast that China's ETS price will average CNY 83.40/t in 2025. From 2026 onwards, under the baseline (BLS) scenario, ETS prices are expected to rise steadily due to the continuous tightening of benchmarks and increasing annual allowance shortages, assuming no further changes to China's ETS allowance policy. By 2030, CEA prices are projected to reach approximately CNY 174.4/t, and by 2034, they are expected to rise to around CNY 257.9/t.

Figure 10. CEA Price, all scenarios (CNY/t)



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