

CHINA, CARBON NOT PEAKING YET

*How is China's carbon peaking journey developing,
and what opportunities does it create for Swedish
companies*



FOREWORD

More than three years have passed since China officially announced the “Dual Carbon Goals” to achieve a carbon peak by 2030 and carbon neutrality by 2060. As of the beginning of 2025, China’s carbon emission is still on a rise to peak. Meanwhile, China has pushed through significant achievement in enlarging renewable energy capacity and continued adjusting short-term targets in order to meet the goals. With roughly six years remaining until 2030, the country continues to tackle challenges in reaching an optimal balance between the economic development, energy security and carbon reduction.

China aims to maintain robust economic growth for more than a decade to achieve its ambition of becoming a moderately developed country by 2035. This focus on GDP growth has, in the near term, led to trade-offs against key parameters of its Nationally Determined Contributions (NDCs), including reductions in total carbon dioxide (CO₂) emissions, energy intensity, and carbon intensity. Simultaneously, China’s rising coal consumption for ensuring national energy security became a contradictory prerequisite for its green transition.

Nevertheless, the regulatory framework established through the “1+N guidelines” and the nation’s massive renewable energy capacity constructed and under construction offer the potential for China to achieve its carbon-peaking plan. This report assesses China’s progress towards some of its key carbon peaking pledges, focusing on both quantitative and qualitative developments up to February 2025.

Regardless of whether China reaches its carbon peak by 2030, more sustainable and differential offerings will be needed in China’s development progress. The national push for green transition may generate more market offerings to Swedish companies, helping them tackle China’s environmental challenges while aligning with their global sustainability roadmaps. Swedish companies with leading and differential sustainable offerings could unlock significant market potential in China, particularly in advanced manufacturing equipment for energy-intensive industries, high-precision components embedded in green products such as electric vehicles, solar panels, and wind turbines.



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NATIONALLY DETERMINED CONTRIBUTIONS

Nationally Determined Contributions (NDCs) outline countries’ long-term contributions to reduce emissions and adapt to climate change under the Paris Agreement. Of China’s NDC targets for 2030, two have been met earlier than expected.

The main targets included in China’s Nationally Determined Contributions (NDCs)¹ are energy intensity, carbon intensity, the proportion of non-fossil energy consumption, forest coverage rate, forest stock volume, and installed capacity of wind and solar energy. These targets provide the basis for China’s dual carbon goals.

China has already achieved two of these targets (forest stock volume and installed capacity of wind and solar energy) well ahead of 2030. Some studies indicate that critical targets concerning energy intensity and carbon intensity are challenging to be met on time, given the current slow pace of progress. However, the targets to be adjusted for the 15th Five-Year Plan (FYP) period from 2026 to 2030, may add more hope to the successful completion of targets.

The Dual Carbon Goals are broken down into interim targets for 2025 to facilitate progress monitoring, as shown in the figure below.

This report analyses China’s progress in terms of energy intensity, carbon intensity, and the evolving balance between coal and renewable energy in the national electricity generation mix.

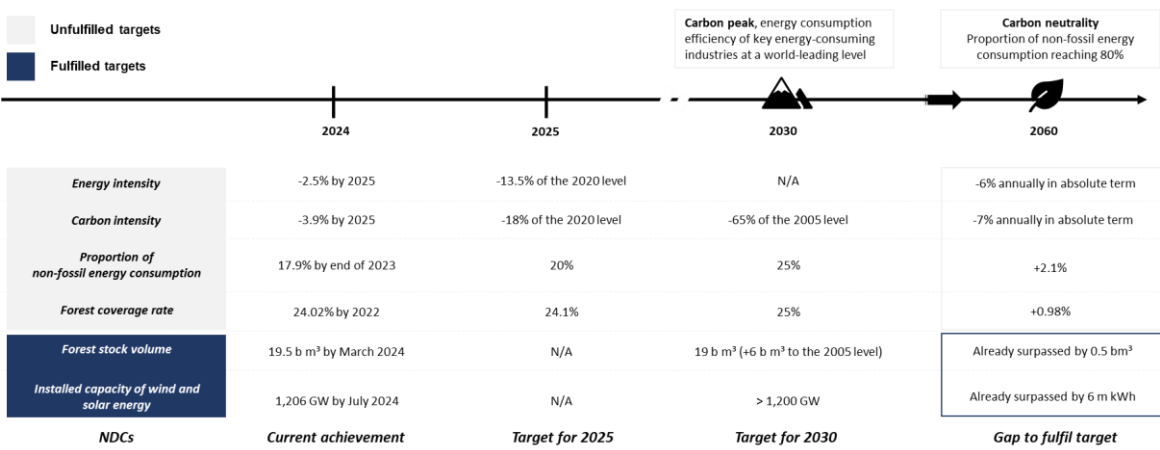


Figure 1: Progress of China achieving NDCs and sub-targets before 2030, fulfilled and unfulfilled targets and sub-targets.

¹ UNFCCC, NDCs of China, [Nationally Determined Contributions Registry | UNFCCC](#)

CARBON NOT PEAKING YET

An uptick in CO₂ emissions and the modest ambitions of the 14th FYP (2020–2025) cast uncertainty and call for greater stringency in China’s efforts to meet its targets during the 15th FYP period, ending in 2030.

China’s CO₂ emissions continue to rise annually. According to the International Energy Agency (IEA), emissions reached 12.6 gigatonnes (Gt) in 2023, up from 4.7% in 2022². In January 2025, the Centre for Research on Energy and Clean Air (CREA) provided an estimated growth of China’s CO₂ emissions at 0.8% year-on-year in 2024³.

While some international climate analysts speculated that China might peak its CO₂ emissions before 2030 due to its early completion of installing wind and solar capacity by July 2024, the National Energy Administration (NEA) has refused to make such promises. Instead, it re-emphasised the goal of peaking before 2030. The Central Committee of the Communist Party further tempered expectations by suggesting that a significant drop in CO₂ emissions might not occur until 2035, allowing for flexibility in balancing environmental improvement with other objectives⁴.

This announcement of not expecting a significant fall in CO₂ emissions until 2035 aligned with a recent initiative launched by the State Council in August 2024, which shifted carbon intensity from a binding measure to setting total carbon emissions as the binding measure for the upcoming 15th FYP period⁵. For the foreseeable future, plans to peak emissions follow a very gradual approach. Concerns over other objectives, such as maintaining stable economic growth and ensuring national energy security, may take higher priorities in the near term.

“Achieving ‘dual carbon goals’ is not a one-shot approach. China will step up its efforts to reduce traditional energy in an orderly manner and ensure stable economic and social development.”

President Xi. 8 December 2021

² IEA, <https://www.iea.org/reports/co2-emissions-in-2023/energy-intensive-economic-growth-compounded-by-unfavourable-weather-pushed-emissions-up-in-china-and-india>

³ CREA, <https://energyandcleanair.org/analysis-record-surge-of-clean-energy-in-2024-halts-chinas-co2-rise/>

⁴ State Council, 中共中央 国务院关于全面推进美丽中国建设的意见

⁵ State Council, https://www.gov.cn/zhengce/content/202408/content_6966079.htm

DECLINING ENERGY INTENSITY UNTIL 2023

Despite an increase in energy intensity in 2023, as China prioritised economic development through energy-intensive industries, energy intensity in China has declined overall from 2005 to 2023.

Energy intensity measures energy consumption per unit of GDP. Energy intensity decreases when GDP grows faster than energy consumption, and countries aim to reduce this metric to improve energy efficiency. While China's NDCs do not specify a precise reduction in energy intensity by 2030, the 14th FYP period, ending in 2025, outlines a short-term target of decreasing energy intensity by 13.5% from the 2020 level.

China's energy intensity had been declining since 2005 until 2023, when it saw an unusual increase of 0.5%. During the Covid period from 2019 to 2022, China achieved energy intensity improvements of around 3.3% per year.

However, GDP fluctuation during the pandemic significantly impacted China's energy demand and carbon emissions. It appears that maintaining China's GDP growth seems more important than environmental pledges, with the Chinese government easing short-term targets. Since 2023, to stimulate slowing economic growth and offset the ongoing decline in the real-estate sector – a key driver of the Chinese economy – China has leaned heavily on activities from the energy-intensive sectors such as chemical and heating system industry.

As a result, energy intensity improvement in 2023 deteriorated to just 2.4% after society resumed normal operations. Data from the National Bureau of Statistics of China shows that total energy consumption in 2023 increased severely by 5.7%, outpacing the annual GDP growth of 5.2% for the first time since 2005⁶. This trend did not see a turn in 2024, which ended with a 6.8% increase in power demand while the annual GDP rose by 5%⁷.

In February 2024, to get performance back on track, China redefined energy intensity by excluding non-fossil energy, effectively converting the metric into “fossil-energy intensity”. This change made the target numerically easier to achieve by reducing the numerator and allowing a 2.4% increase in fossil-fuel consumption. Meanwhile, it provided local governments with more flexibility to develop non-fossil energy projects, supporting growth in energy-intensive industries and economic growth⁸. Nevertheless, to get closer to the 14th FYP target by 2025, China is facing a

⁶ National Bureau of Statistics, https://www.stats.gov.cn/sj/sjjd/202401/t20240118_1946697.html

⁷ Carbon Brief, [Analysis: Record surge of clean energy in 2024 halts China's CO2 rise - Carbon Brief](#)

⁸ Dialogue Earth, <https://dialogue.earth/en/climate/why-isnt-chinas-emissions-growth-slowing-like-gdp/>

6% annual reduction requirement for energy intensity – far from the progress achieved in previous years⁹.

China’s softening of the annual target for a 2.5% reduction in energy intensity, coupled with an adjusted calculation method, indicates a short-term rebalancing between GDP and environmental improvement. However, China is likely to adjust its targets during the 16th FYP period accordingly to stay on track with its determined targets.

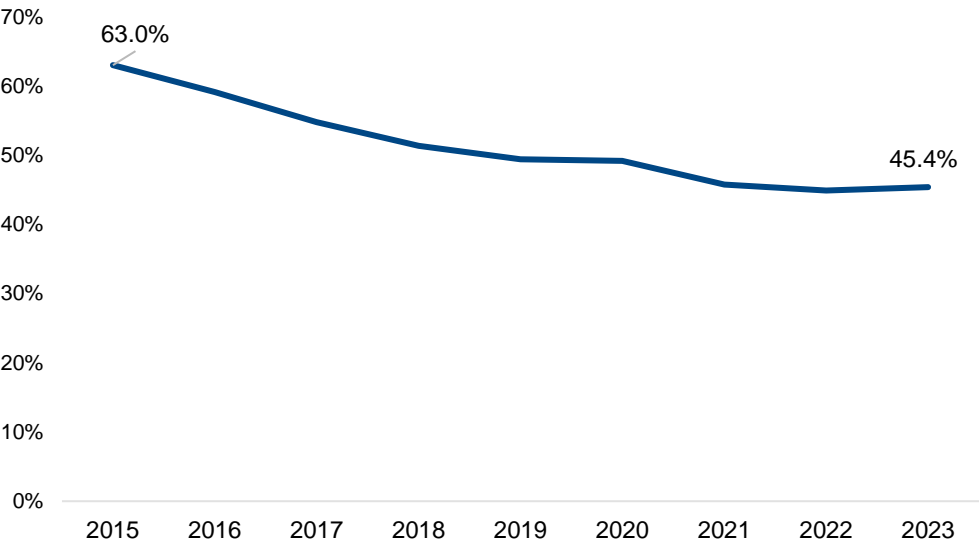


Figure 2: Energy intensity in China during 2015 to 2023¹⁰

⁹ Carbon Brief, <https://www.carbonbrief.org/analysis-record-drop-in-chinas-co2-emissions-needed-to-meet-2025-target/>

¹⁰ National Data, <https://data.stats.gov.cn/easyquery.htm?cn=C01>

CARBON INTENSITY TARGET FAR BEHIND

Improving reduction of carbon intensity remains a great challenge for China and will require significant breakthroughs in the coming years.

Reducing carbon intensity – CO2 emissions from energy use per unit of GDP – is a critical component of China’s 2025 and 2030 climate commitments. However, some analyses have labelled this target as a “mission impossible”. By the end of 2025, China aims to reduce carbon intensity by 18% compared to 2020 levels, with a broader goal of a 65% reduction from 2005 levels by 2030.

The pace of carbon intensity reduction has slowed markedly since 2020. Between 2005 and 2020, China achieved a rapid 48% decrease, but from 2020 to 2023, the reduction rate slowed significantly to just 5%. This sluggish progress has put China off track for its 2025 sub-target, necessitating substantial improvement between 2025 and 2030.

To avoid falling further behind, China has set a new annual target of a 3.9% reduction in carbon intensity for 2024, but China only managed to reduce 3.4% by the end of 2024.

Studies indicate that a further reduction of at least 17% in carbon intensity is needed, which means an annual emission reduction of around 7% in absolute terms instead of carbon emission per unit of GDP¹¹. Some observers have suggested that bridging this gap may be achievable, as China’s recent annual reductions in carbon intensity have consistently remained between 3% and 4%¹².

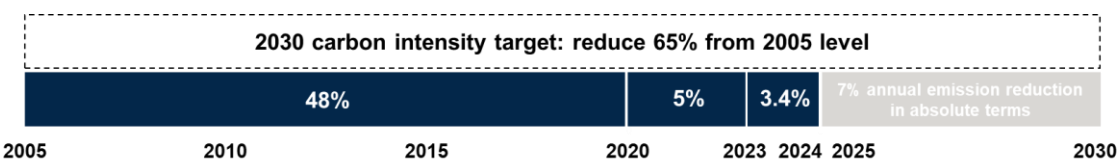


Figure 3: Energy intensity in China during 2015 to 2023

¹¹ Carbon Brief, <https://www.carbonbrief.org/analysis-record-drop-in-chinas-co2-emissions-needed-to-meet-2025-target/>

¹² Dialogue Earth, [Will China's new climate action plan match its great potential? | Dialogue Earth](#)

STILL COAL-HEAVY BUT AIMING TO SHIFT TO A MORE EFFICIENT BACKUP

Coal maintains its strategic position in China, mostly as an important backup energy source to ensure national energy security, albeit with increasing regulatory oversight to upgrade the efficiency of coal production.

China's coal production and consumption in absolute terms remain key factors in aligning with the 1.5C global warming threshold. Despite coal's high carbon footprint, it continues to hold strategic importance for China, serving as a counterbalance to growing dependence on imported oil and gas, and helping to maintain energy security and avoid severe electricity shortages, such as those experienced in central China during the summer of 2021.

In March 2024, China's National Energy Administration announced plans to steadily increase coal production in its annual work guideline. Another subsequent implementation plan issued by the state clarified the goal of constructing a flexible and schedulable reserve system by 2027 to handle urgent demand. In September 2024, a new initiative on the "clean and efficient use of coal" was launched by a coalition of national planning authorities. The initiative promotes a full life-cycle approach to coal, from exploration and mine planning production, transportation, and usage, with greater emphasis on efficient consumption and reducing pollution and emissions¹³.

As a result, emissions from coal power in China have continued to rise since 2016¹⁴. According to the International Energy Agency, coal-related CO₂ emissions accounted for approximately 79% of China's total emissions from fuel combustion. These emissions have grown at a compound annual growth rate (CAGR) of 5% from 2000 to 2022, reaching 8.4 billion tonnes¹⁵.

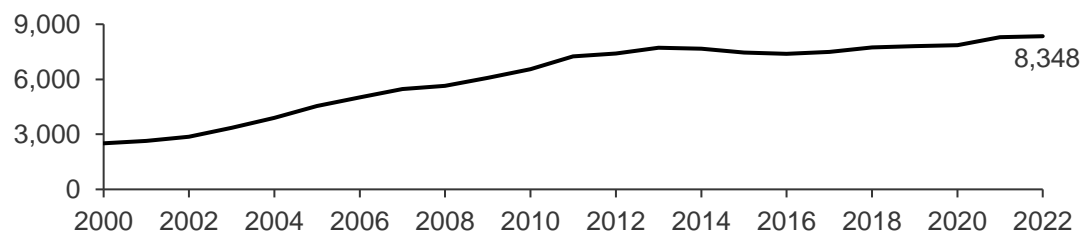


Figure 4: CO₂ emissions from coal in China from 2000 to 2022 (Mtonnes)¹⁶

¹³ NDRC, https://www.ndrc.gov.cn/xxgk/zcfb/tz/202409/t20240929_1393429.html

¹⁴ Energy. BJX, <https://m.bjx.com.cn/mnews/20240619/1384003.shtml>

¹⁵ International Energy Agency, *China - Countries & Regions - IEA*

¹⁶ IEA, <https://www.iea.org/reports/co2-emissions-in-2023/energy-intensive-economic-growth-compounded-by-unfavourable-weather-pushed-emissions-up-in-china-and-india>

In 2023, the same trend continued with coal production, consumption, and emissions:

- China's domestic raw coal production reached 4.71 billion tonnes, marking a 3.4% year-on-year increase.
- Coal consumption reached 3.2 billion tonnes, up 5.6% compared to the previous year.
- CO₂ emissions from coal-fired power generation reached 5.56 billion metric tonnes, representing an approximate 6% year-on-year growth.

The increase in coal production and consumption is driving China to its carbon peak. Nevertheless, the share of coal in China's electricity generation mix has been gradually declining, driven by large-scale renewable energy production and installations, especially from solar and wind power.



MASSIVE DEPLOYMENT OF RENEWABLE ENERGY

China holds an absolute leading position in the global renewable energy sector, particularly in solar and wind energy. The share of coal in China's electricity generation mix has declined, thanks to large-scale investments in renewable energy.

As an early achievement of China's NDCs, the 2030 target of 1,200 gigawatts (GW) of installed wind and solar energy was reached in July 2024, six years ahead of schedule¹⁷. Construction continues, with 339 GW of wind and solar capacity under development as of June 2024, nearly double the combined capacity under construction in the rest of the world¹⁸. By the end of 2024, China's installed capacity of solar and wind energy had exceeded 1,410 GWh and continues to grow rapidly¹⁹.

The share of solar and wind energy in electricity generation in China has been rising steadily. By May 2024, the non-fossil energy share reached 44% of electricity generation, with 23% of total energy contributed by solar and wind, marking a record high. This is a strong contrast to 2015 when wind and solar made up only 3.9% of the total share.

Apart from solar and wind energy, nuclear energy as a stable baseload power source that can compensate for the intermittent nature of renewables, is also being planned and deployed in China. The 14th FYP clearly outlines that the development of nuclear power will be both orderly and proactive, with a target of reaching about 70 GW of installed capacity by the end of 2025. As of September 2024, nuclear power accounted for approximately 5% of China's electricity generation²⁰.

This increase in renewable energy has helped push down the share of coal in China's electricity generation mix. Coal, which held a dominant 80% share in 2000, decreased significantly to 60.7% in 2023²¹. While this shift has not yet reduced coal consumption in absolute terms, studies speculate a decline in coal consumption if China continues its current energy transition²².

The expansion of renewable energy capacity has also increased the proportion of non-fossil fuel consumption in China, reaching 17.9% by the end of 2023. To meet the NDC target of 25% by 2030, China will need to maintain an improvement of 1% per year from 2024 to 2030²³.

¹⁷ National Energy Administration, https://www.nea.gov.cn/2024-11/08/c_1310787160.htm

¹⁸ The Guardian, [China building two-thirds of world's wind and solar projects | China | The Guardian](#)

¹⁹ South China Morning Post, [Clean energy: China to allow solar, wind power prices to be set by market forces | South China Morning Post](#)

²⁰ The State Council, [Country expanding nuclear energy's share in power generation](#)

²¹ Carbon Brief, [Analysis: China's clean energy pushes coal to record-low 53% share of power in May 2024 - Carbon Brief](#)

²² Carbon Brief, ['Critical turning point' for coal poses risks for China's state power firms, says report - Carbon Brief](#)

²³ National Development and Reform Commission, https://www.ndrc.gov.cn/fqgz/202409/t20240923_1393135.html

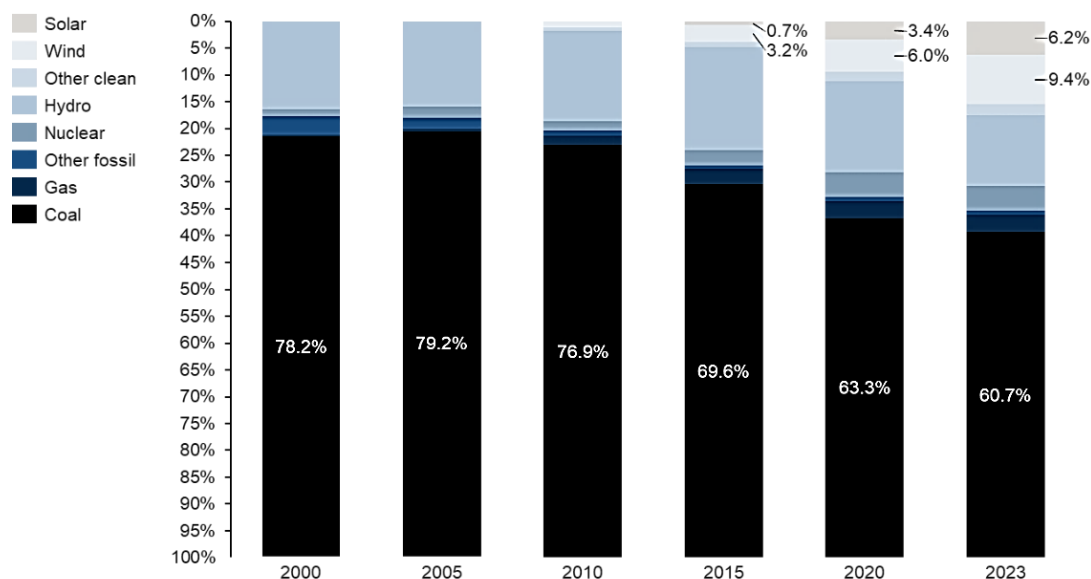


Figure 5: Coal's share in China's electricity generation mix is declining (%)²⁴

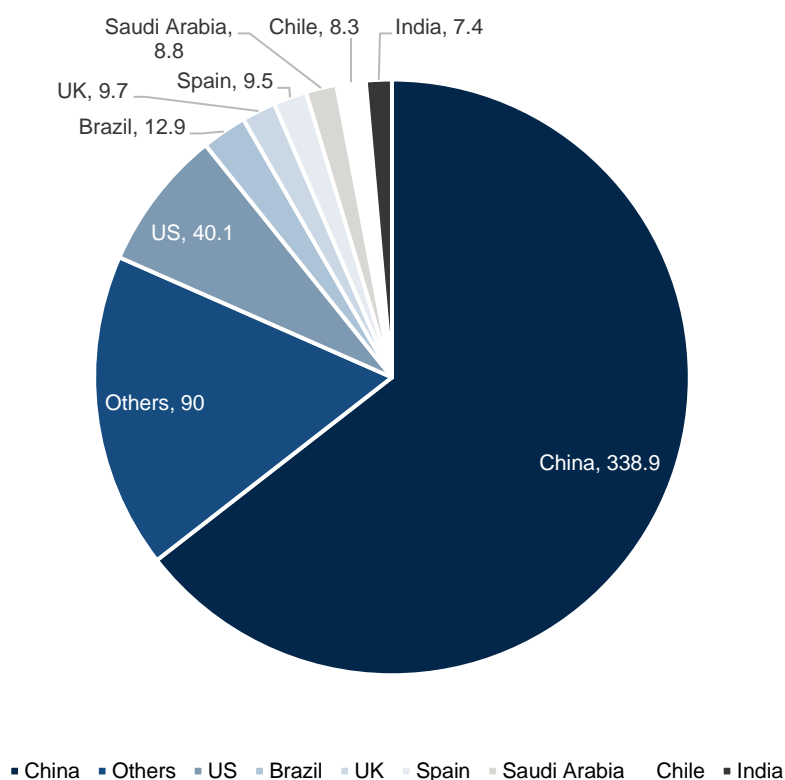


Figure 6: Nearly 2/3 of the world's solar and wind power under construction are in China (Gigawatts)²⁵

²⁴ EMBER, Yearly electricity data, [Thinking beyond diversification: Next step in China's coal power transition](#) | Ember

²⁵ Guardian, Global Solar Power Tracker, Global Wind Power Tracker, Global Energy Monitor. Projects at or above 20MW for solar and 10MW for wind. Data for China and European countries to June 2024. All other countries to December 2023, [China building two-thirds of world's wind and solar projects](#) | China | The Guardian

NDCS DEVELOPED INTO POLICIES

China's decarbonisation efforts are guided by top-level administrations, working closely with local regulatory bodies and companies to ensure effective implementation.

Policies in China are often implemented in a top-down approach with bottom-up input from industries and companies through local governments prior to an official policy release. This approach also applies to China's decarbonisation strategies and policies. Since the announcement of the dual carbon goals – carbon peaking by 2030 and carbon neutrality by 2060 – these objectives have been incorporated into both long-term and short-term development plans across all levels of government and high-emission industries.

The decarbonisation work is led by the State Council, with seven key ministries and administrations collectively driving the initiatives, as illustrated in the figure below.

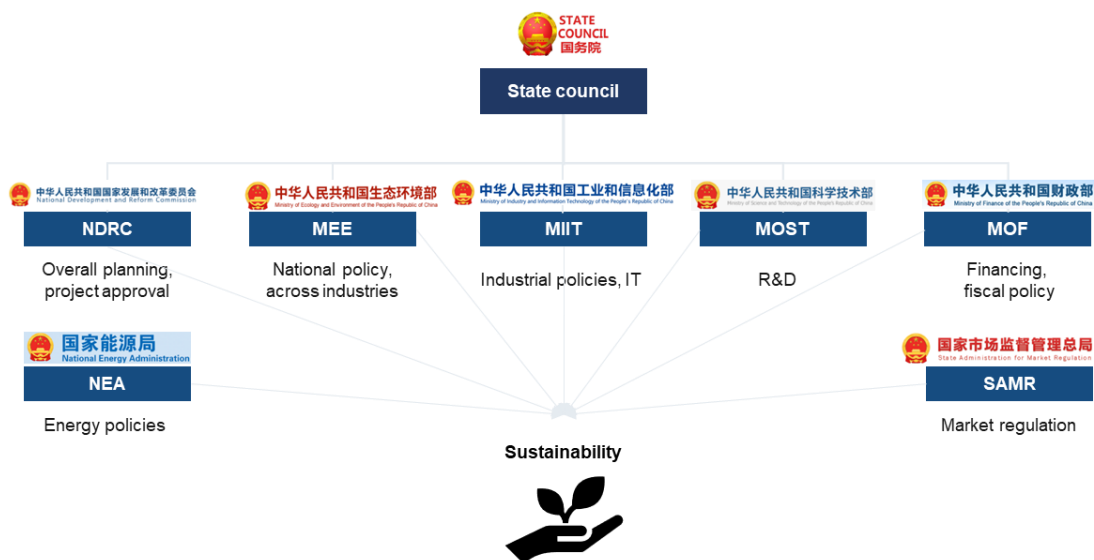


Figure 7: Major regulatory power in China to drive sustainability²⁶

²⁶ NDRC: National Development and Reform Commission; MEE: Ministry of Ecology and Environment; MIIT: Ministry of Industry and Information Technology; MOST: Ministry of Science and Technology; MOF: Ministry of Finance; NEA: National Energy Administration; SAMR: State Administration for Market Regulation

To unify commitments and efforts, China introduced a “1+N”²⁷ steering framework to guide and ensure the implementation of green transition throughout the country.

- The “1” represents the “Opinions”²⁸, which outline the high-level overarching strategy, framework, and principles of upcoming policies to keep China on a unified path towards achieving the Dual Carbon Goals.
- The “N” encompasses a combination of work plans and policies, primarily led by the Action Plan for Carbon Peaking by 2030. This approach provides flexibility and allows for diversified approaches at both local and industry levels, enabling all stakeholders to work towards the central goal at their own pace and according to their specific circumstances.

The framework addresses key areas requiring green transitions, including energy, industrials, urban and rural construction, transportation, and consumption. High-emission industries such as electricity, steel, coal, and petrochemicals are specifically targeted for carbon emission reductions.

To better achieve targets, the framework also outlines supporting measures, including financial tools, working mechanisms, standardised carbon emissions accounting methodologies, and technology enablers.

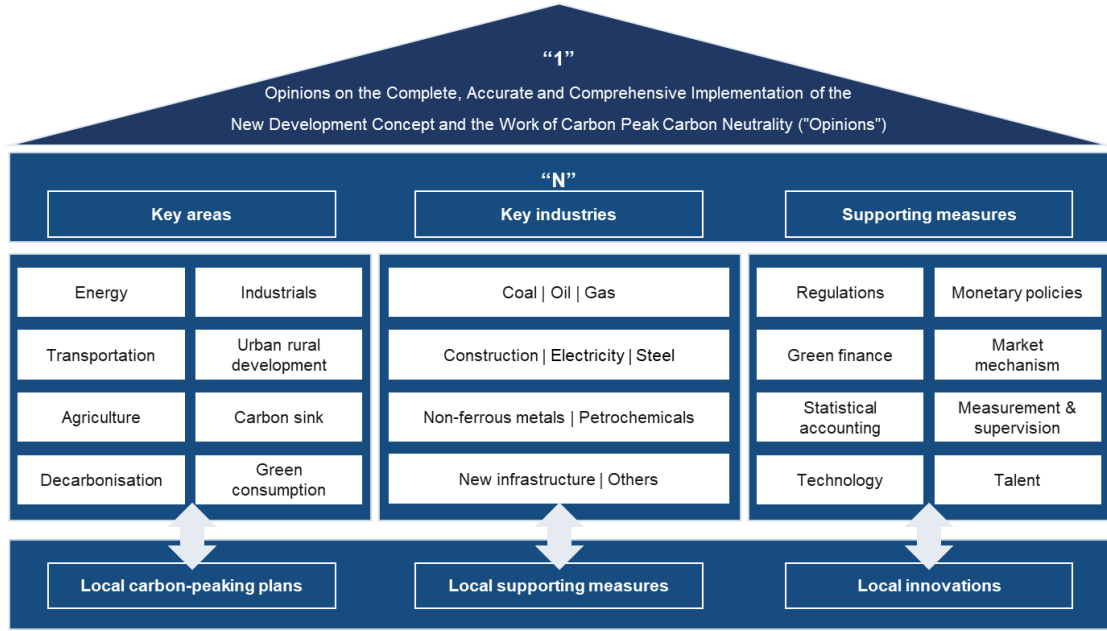


Figure 8: “1+N” framework

²⁷ State Council, Guidelines for Comprehensive Implementation of New Development Philosophy and the Achievement of Carbon Peak and Neutrality Work, https://www.gov.cn/zhengce/2021-10/24/content_5644613.htm

²⁸ The State Council, Opinions on the Complete, Accurate and Comprehensive Implementation of the New Development Concept and the Work of Carbon Peak Carbon Neutrality, https://www.gov.cn/zhengce/2021-10/24/content_5644613.htm

Following the “1+N” framework, China has launched various work plans and policies at national, industry, and provincial levels to accelerate progress towards carbon peaking. The following examples illustrate the diverse approaches taken to meet the goal:

EXAMPLES OF 1+N POLICIES

- **Carbon trading:** China’s carbon emission trading market initially targeted high-emission industries such as electricity, steel, cement, and electrolytic aluminium, providing economic incentives for emission reduction activities and investments. The electricity industry was the first to participate, with the market operating for over three years. By July 2024, the cumulative transaction volume of carbon quotas reached nearly 470 million tonnes, valued at approximately USD 3.7 billion, involving over 2,000 companies. According to the China Electric Power Union, between 2018 and 2023, CO₂ emissions per unit of power generation fell by 8.8%, while thermal power generation emissions decreased by 2.4%²⁹.
- **Steel industry:** The steel industry, being the largest emitter among manufacturing industries in China, is governed by the Special Action Plan for Energy Conservation and Carbon Reduction (2024–2025). The plan aims to reduce approximately 20 million tonnes of standard coal and 53 million tonnes of CO₂ through energy conservation, carbon reduction, and equipment renewal across the industry. It also sets sub-targets for energy consumption per unit of key production processes³⁰.
- **Green finance:** In October 2024, the People’s Bank of China, in collaboration with the Ministry of Ecology and Environment, the General Administration of Financial Supervision, and the China Securities Regulatory Commission, published the “Opinions on Leveraging Green Finance to Serve the Building of a Beautiful China”. The state plans to reinforce support through measures such as green bonds to drive sustainable development in several focus areas, including infrastructure in economic zones, renewable energy projects and development, decarbonisation technologies, and ecological protection and restoration.
- **Local decarbonisation plans:** Beijing aims to reduce total CO₂ emissions by more than 20% and CO₂ emissions per unit of gross regional product by more than 50% by 2025, compared with 2015 levels. Jiangsu Province targets a 17% reduction in energy consumption per unit of industrial value added (above designated size) and a 20% cut in CO₂ emission per unit of industrial added value from 2020 levels by 2025.

²⁹ National Carbon Market Information Network, <https://www.cets.org.cn/hjywt/6462.jhtml>

³⁰ State Council, Special action plan for energy conservation and carbon reduction in steel industry, <https://www.ndrc.gov.cn/xwdt/tzgg/202406/P020240607590381066762.pdf>

OPPORTUNITIES EMERGING FROM SCALABLE DEMAND AND DIFFERENTIAL EXPERTISE

With ambitious targets and policy assurances, China will need to continue refining its carbon-peaking efforts over the long term – creating business opportunities for Swedish companies with differentiated innovations that complements the capabilities required for China’s green transition.

A GROWING NEED FOR GREEN APPLICATIONS IN CONTINUOUS DEVELOPMENT

According to China’s Vision 2035, the country aims to double the size of its economy and GDP per capita, transitioning into a post-industrial, service-based economy as a medium-developed country. This ambition involves continued growth in energy consumption to support urbanisation and economic development³¹. As the economy scales, China will face increasing demand for green technologies, products, and solutions.

ENERGY-INTENSIVE INDUSTRIES

China’s development has largely been driven by energy-intensive industries such as chemicals, steel, ammonia, and cement. These industries are likely to remain significant but will need to adopt advanced products and solutions to optimise energy use and reduce emission. The Chinese government has begun regulating and promoting the renewal of industrial equipment and production processes to become more sustainable. This shift creates opportunities for Swedish companies with superior decarbonisation technologies, components, and solutions across the supply chain of these sectors.

IMBALANCE OF ENERGY SUPPLY AND DEMAND IN THE WEST AND EAST

China faces a geographical imbalance between energy supply and demand, with abundant energy resources in the west, but low demand, and high energy demand in the east, where supply is limited. To address this, substantial investments are being made in high-voltage direct current (HVDC) transmission and flexible alternating current transmission systems (FACTS). These developments leave room for further

³¹ World Bank, “Energy use (kg of oil equivalent per capita) – China”, <https://data.worldbank.org/indicator/EG.USE.PCAP.KG.OE?locations=CN>

optimisation in energy efficiency. China continues to rely on advanced power electronics, much of which are still imported.

DEMAND FOR CUTTING-EDGE PARTS IN GREEN PRODUCTS AND APPLICATIONS

China already holds a leading position in many tracks of green technologies and applications, including electric vehicle batteries, solar panels, and wind turbines. However, not every hardware or software contained within these technologies is made in China. For example:

- **High-efficiency solar panels:** While China dominates global solar panel production, it still relies on imports for high-efficiency solar cells (e.g., PERC, heterojunction, and tandem cells) and advanced manufacturing equipment, such as precision laser cutting and deposition tools.
- **Wind turbine technology:** Although China is a leader in wind turbine manufacturing, highly durable and high-precision components – such as bearings, control systems, and advanced composite materials for turbine blades – are often sourced from foreign suppliers.
- **Battery technology:** China is home to several global leading lithium-ion battery producers but faces challenges in developing next-generation technologies like solid-state batteries. These require advanced materials and precision manufacturing. Key components such as high-purity lithium compounds and advanced separators still depend on complementary providers from international markets.
- **Electric motors and power electronics:** High-performance electric motors and power electronics (e.g., inverters, converters) rely on precision engineering and advanced materials – areas where China continues to depend on foreign technology.
- **Autonomous driving systems:** Many Chinese electric vehicles incorporate foreign technologies such as high-precision sensors (e.g., LiDAR), advanced semiconductors, and software algorithms. As China continues its transformation, the need for such advanced components is expected to persist.

In general, Swedish companies with upstream or downstream technologies, components, products, or solutions that add value to China's green transition stand to benefit from the rising demand and the growing need for differentiated offerings in this market.

SUCCESS CASES

Alfa Laval: Harnessing waste heat from a power station for district heating in Inner Mongolia ³⁰

Hohhot, the capital of Inner Mongolia in China, is undergoing a significant industrial and energy transformation to meet national carbon reduction goals. As part of this effort, Alfa Laval will supply heat exchangers for a new sustainable district heating network, replacing an outdated coal-fired system.

The innovative district heating system will tap into waste heat from a power station located outside Hohhot, substantially reducing emissions. The power station will supply hot water to the network, offering the city a more sustainable heating solution. Alfa Laval's heat exchangers will play a vital role in transferring energy from the power station into hot water, which will then circulate throughout the district heating system.

Set to be operational in 2028, the new system is expected to deliver cleaner and more efficient heating to up to 910,000 homes, preventing the combustion of 1.13 million tonnes of coal annually.

SKF: Driving sustainability through renewable energy and green innovation in China ³¹

SKF's six plants in Mainland China now operate entirely on 100% renewable electricity. By the end of 2023, the company had installed 27 MWh of distributed photovoltaic systems across its production facilities, generating annual energy cost savings of at least RMB 6 million, reducing CO₂ emissions by over 11,000 tonnes per year. A standout example of SKF's "Smart" and "Clean" strategy is its Dalian plant, which has been recognised as a national "Green Factory" by the Chinese government.

SKF is also playing a proactive role in advancing the green transition by collaborating closely with its customers. In sectors such as aviation and wind power, the company has introduced high-performance solutions and continues to develop new technologies to support businesses in their green transformation and contribute to global low-carbon objectives.

In the new energy automotive industry, SKF has launched six key localised innovations in the Chinese market. These innovations enhance long-range efficiency, reduce friction, and ensure quiet operation, delivering a smarter and cleaner travel experience for the future.

³² ALFA LAVAL, <https://www.alfalaval.com/media/news/2023/cleaner-air-and-more-sustainable-cities/>

³¹ SKF, <https://www.gongkong.com/news/202412/439605.html>

KEY TAKEAWAYS

Market opportunities will emerge as China progresses on its decarbonisation journey. Swedish companies with advanced decarbonisation technologies should closely monitor China's rapidly evolving national, local, and industry-level developments to identify business opportunities and anticipate changes in the competitive landscape.

Swedish companies facing current challenges in achieving their sustainability goals in China may also benefit from the growing market of solution offerings.

How Business Sweden can support you

Business Sweden offers tailored support for Swedish companies, including regulatory analysis of decarbonisation developments at various levels of detail. By leveraging our deep market knowledge, we help businesses refine their expansion strategies for the Chinese market and facilitate their green transition.

To learn more about how we can support your growth journey, reach out to our team in China. Contact [Luting](#) or [Amanda](#).





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