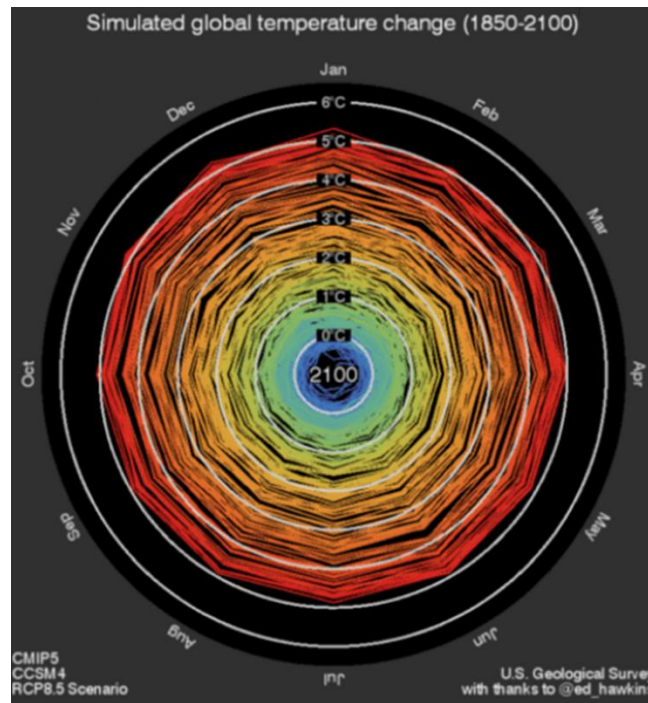


China's Climate Policy Is Demonstrating Its Strategic Vision



By Anita Tang

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China's climate policy is shaped by its dual role as the world's largest greenhouse gas emitter and one of the largest investors in clean energy. The country seeks to balance rapid economic growth with long-term decarbonization goals.

This paper examines China's energy strategy and the key drivers of economic growth, highlighting how decarbonization and industrial upgrading reinforce one another to create mutually beneficial outcomes. Using the electric vehicle industry as a case study, the paper demonstrates how China has aligned climate policy, industrial policy, and technological development to support both economic expansion and the energy transition.

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I. China's Climate Policy

Under the Paris Agreement, China pledged to peak carbon dioxide emissions before 2030 and achieve carbon neutrality before 2060.

China's climate policy is shaped by its position as the world's largest greenhouse gas emitter and its significant investments in clean energy. The country aims to balance rapid economic growth with long-term decarbonization objectives.

To better understand this balance, it is essential to look at two key dimensions: China's energy strategy and the broader structure of its economic growth model.

1. China's Energy Strategy

To meet its commitments under the Paris Agreement, China is implementing a “dual track” strategy, coupling energy security with energy transition. While intensifying its clean energy initiatives, the country continues to rely on coal to ensure energy security.

In expanding clean energy, China has set targets in several key areas:¹

- Solar power expansion – building the world's largest solar generation capacity
- Wind power growth – accelerating both onshore and offshore wind development
- Nuclear energy buildout – rapidly increasing nuclear power as a low-carbon baseload source
- Hydropower development – expanding large-scale hydro projects, especially in western regions
- Grid modernization – investing in ultra-high-voltage transmission lines to move renewable electricity across the country

Concurrently, coal remains central to China's power system:

- Coal remains the largest source of electricity
- New coal plants are still being built
- Existing coal plants are being upgraded for efficiency and grid stability

2. China's Economic Growth Pillars

To understand China's economic growth model, it is important to examine the nine core structural pillars that have supported the country's rapid growth and development:

¹ “What are the Main Policy Targets China has Set to Expand its Clean Energy System and Reduce Dependence on Fossil Fuels?” *ChatGPT (OpenAI)*, May 21, 2026. Retrieved on May 21, 2026, <https://chatgpt.com/c/6a19acc4-d078-83ea-a34f-efebdac6ef00>

manufacturing, exports, infrastructure investment, urbanization, real estate, a State-led planning system, advanced technology industries, domestic consumption, and energy and security systems. Together, these pillars reflect a growth model driven by investment, industrial strength, state planning, technology, and consumption.

The advanced technology industries are among the country's fastest-growing and most strategically significant economic pillars, playing a central role in its transition from low-cost manufacturing to a high-value, innovation-led growth model, outlined by the "Made in China 2025" strategic plan introduced in 2015².

- Electric vehicles (EVs) and mobility technology
- Batteries and energy storage
- Renewable energy manufacturing
- Semiconductors
- Artificial intelligence and digital technology
- Robotics and automation
- Aerospace, aviation, and defense technologies
- Biotech and life sciences
- Digital infrastructure, 5G and emerging 6G

II. China's Climate Policy Is Closely Aligned With Its Economic Growth Engines

China's approach to climate change is not solely focused on environmental protection; it is also a strategic approach for economic transformation. For China, decarbonization and industrial upgrading are two objectives that reinforce each other, creating synergies that are greater than the sum of their parts.

While China's advanced technology sector spans a broad range of industries, the following discussion focuses on several key areas that are most directly linked to the country's energy transition and climate-related economic transformation. These sectors illustrate how industrial upgrading and decarbonization are increasingly interconnected within China's development strategy.

² "Made in China 2025" is a national strategic plan and industrial policy to further develop the manufacturing sector of the People's Republic of China, introduced in May 2015. China aims to move away from being the "world's factory" – a producer of cheap low-tech goods facilitated by lower labor costs and supply chain advantages. The industrial policy aims to upgrade the manufacturing capabilities of Chinese industries, growing from labor-intensive workshops into a more technology-intensive powerhouse with more value added. Wikipedia. Retrieved on May 25, 2026, https://en.wikipedia.org/wiki/Made_in_China_2025

1. Renewable Energy Manufacturing, Batteries, and Energy Storage

China’s expansion of renewable energy manufacturing, especially in solar panels, wind turbines, and batteries, has created globally competitive industries.

Battery and grid-scale storage advancements have accelerated the integration of renewables, particularly wind and solar. Not only do renewable energies help reduce emissions, but they also help strengthen China’s export capacity, where it is increasingly exporting full grid-scale energy storage systems along with associated supply chain technologies³.

2. Electric Vehicles

Electrification across transport and industry is reshaping domestic demand patterns while also accelerating global adoption. The rapid growth of electric vehicles reduces oil consumption, thereby lowering exposure to global energy price volatility and enhancing long-term energy security. These dynamics become particularly visible during periods of global supply disruption, such as the recent volatility in oil markets linked to geopolitical tensions in the Middle East, which affect key shipping routes.

3. Semiconductors

Semiconductors form a foundational layer of China’s technological system. Although China still faces constraints in advanced semiconductor manufacturing, it is significantly expanding domestic chip capabilities to reduce reliance on imports.

On May 27, 2026, the *South China Morning Post* reported that Huawei Technologies unveiled a chip

**STRAIT OF HORMUZ CRISIS
ACCELERATES
GLOBAL ENERGY TRANSITION**

Large-scale U.S.-Israeli strikes on Iran began on February 28, 2026. In response, Iran closed the Strait of Hormuz to most shipping, threatening vessels and laying sea mines, which was countered by a U.S. naval blockade. It severely disrupted global oil and gas trade, effectively halting about 20 percent of the world’s oil and gas exports that normally transit the strait.

Markets feared supply shortages, pushing crude oil above US\$100 per barrel on March 3, 2026, and raising gasoline prices nationwide since. Fuel price increases have varied substantially by region. According to an inquiry in *ChatGPT*, the approximate increases in retail gasoline/petrol or closely related fuel prices through mid-May 2026:

Region	Average Increase (%)
United States	45-55
Canada/Mexico	30-50
South America	25-60
U.K. & Europe	25-45
Africa	20-79
Asia	35-75
Australia	25-40

Countries responded to this Strait of Hormuz crisis with a mix of emergency energy-security measures aimed at preventing shortages, controlling inflation, and stabilizing electricity grids.

In the long term, nations increasingly link energy security with climate policy, driving shifts in energy and industrial policy away from oil dependence.

³ “China Aims for Energy Storage Installations Equivalent to Today’s Global Capacity by 2027,” Andy Colthorpe, *Energy Storage News*, September 12, 2025. Retrieved on May 21, 2026, <https://www.energy-storage.news/china-aims-for-energy-storage-installations-equivalent-to-todays-global-capacity-by-2027>

architectural workaround to bypass U.S. sanctions. Analysts termed this “a major step towards China’s semiconductor self-sufficiency, giving Beijing powerful new leverage in its tech tug of war with Washington”.⁴

China’s effort to significantly expand domestic chip capabilities is strategically important because nearly all high-growth sectors – including artificial intelligence, automation, telecommunications, and advanced manufacturing – depend on secure access to semiconductors and computing hardware.

4. AI and Digital Infrastructure

Artificial intelligence is a versatile enabling technology that spans a wide range of fields. It helps improve performance across many sectors, from energy and industry to transport, logistics, and healthcare.

5G and the emerging 6G networks are enablers across industries; they strengthen real-time data processing and coordination, boosting overall productivity.

These digital systems are highly energy-intensive and depend on large-scale computing infrastructure. In particular, AI model training and deployment are concentrated in data centers, which are among the fastest-growing sources of global electricity demand. The International Energy Agency (IEA) projects that data center electricity consumption could rise to around 945 TWh by 2030, representing roughly 3 percent of global electricity demand, with higher-growth scenarios reaching up to 4.4 percent⁵.

To summarize, these developments in the advanced technology sector highlight the deep interdependence between China’s climate policy and its economic development strategy. Environmental objectives are increasingly embedded within industrial upgrading, while technological advancement simultaneously accelerates the energy transition. Rather than treating climate policy as a constraint on growth, China integrates it into a broader development framework in which energy systems, digital technologies, and industrial competitiveness evolve as a mutually reinforcing system.

III. China’s Electric Vehicle Industry – A Case Study

China’s electric vehicle industry emerged as a major beneficiary of the country’s effort to balance rapid economic growth with decarbonization goals.

⁴ “Another ‘DeepSeek Moment’? Huawei Milestone Alters China Trajectory in Chip Race: Analysts,” Iris Deng and Ann Cao, *South China Morning Post*, May 27, 2026. Retrieved on May 29, 2026, <https://www.scmp.com/tech/big-tech/article/3354938/another-deepseek-moment-huawei-milestone-alters-china-trajectory-chip-race-analysts>

⁵ “Energy Demand from AI,” IEA, Paris, 2025. Retrieved on May 21, 2026, <https://www.iea.org/reports/energy-and-ai>

1. The Hardware

The New York Times reported in its June 30, 2025, article that “China’s biggest automaker, its biggest battery maker and its biggest electronics company have each introduced systems that can recharge electric cars in just five minutes, all but erasing one of the most annoying hassles of EVs, the long charging times. China has nearly 700,000 clean energy patents, more than half of the world's total.”⁶

In 2025, global electric vehicle sales reached approximately 20.7 million units, marking a 20 percent year-on-year increase, and accounted for a quarter of global sales of all new passenger vehicles⁷. According to IEA’s Global EV Outlook 2026, EV sales may reach 23 million units this year, representing a 30 percent increase from 2025⁸.

The IEA Outlook noted that in 2025, of the more than 20 million EVs sold, some 55 percent, or 13 million units, were sold in China. Chinese automakers supplied 60 percent of EVs sold worldwide. It accounted for nearly 75 percent of the world’s 22 million EV production.⁹

The tables below show Chinese-manufactured EV sales and the top 10 countries for Chinese EV exports in 2025.

Table 1: Chinese-manufactured EV Sales (2025)

CATEGORY	SUB-CATEGORY	SALES (UNITS)	NOTES
Total NEV sales (EV+PHEV)		~16.49 million	Includes all new-energy vehicles
	Battery electric vehicles (BEVs)	~7.88 million	Pure EV segment
	Plug-in hybrid EVs (PHEVs)	~8.60 million	Remainder of the NEV market
Total EV exports		~2.62 million	Strong YoY growth (~100%)
	Europe exports	Largest share	Despite EU tariffs
	Emerging markets (SEA, LatAm, MEA)	Fast-growing share	Increasing penetration
China-made EVs: domestic + exports		~19+ million	China remains a global leader in EV production

Source: ChatGPT (OpenAI), generated response, May 25, 2026

⁶ “There’s a Race to Power the Future. China is Pulling Away,” David Gelles, Somini Sengupta, Keith Bradsher, and Brad Plumer, *The New York Times*, June 30, 2025. Retrieved on May 21, 2026, <https://www.nytimes.com/interactive/2025/06/30/climate/china-clean-energy-power.html>

⁷ “EV Sales Grew 20% Globally in 2025,” IER Institute for Energy Research, January 30, 2026. Retrieved on May 21, 2026, <https://www.instituteforenergyresearch.org/international-issues/ev-sales-grew-20-globally-in-2025>

⁸ “Close to 30% of Cars Sold This Year are Set to be Electric as Countries and Consumers Respond to Energy Crisis,” IEA, May 20, 2026. Retrieved on May 21, 2026, <https://www.iea.org/news/close-to-30-of-cars-sold-this-year-are-set-to-be-electric-as-countries-and-consumers-respond-to-energy-crisis>

⁹ “IEA: Global EV Sales Headed for Another Record Year Despite the Early Stumble,” Michelle Lewis, *Electrek*, May 19, 2026. Retrieved on May 25, 2026, <https://electrek.co/2026/05/19/iea-global-ev-sales-headed-for-another-record-year-despite-the-slowdown>

Table 2: Top 10 Buyers of Chinese EV Exports (2025)

RANK	COUNTRY	NOTES ON DEMAND PROFILE
1	Mexico	Largest overall importer; strong EV + re-export hub
2	Russia	Heavy demand for affordable Chinese EVs and ICE vehicles
3	United Arab Emirates	Major Middle East distribution hub
4	United Kingdom	One of Europe's largest EV import markets
5	Belgium	Key EU entry port; major NEV distribution center
6	Saudi Arabia	Fast-growing EV adoption in the Gulf region
7	Australia	Strong demand for Chinese EV brands (BYD, MG)
8	Brazil	Rapid EV + hybrid uptake in Latin America
9	Philippines	Southeast Asia's growth market
10	Kazakhstan	Regional Central Asia demand hub

Source: ChatGPT (OpenAI), generated response, May 25, 2026

2. Beyond Hardware

“The competition has moved beyond hardware. Chinese companies are integrating artificial intelligence, chips, and software ecosystems into vehicles,” asserted Wilson Lee Flores, an economics and politics analyst.¹⁰

A key reason for the lower barriers to entry for EV newcomers is the relative mechanical simplicity of EV hardware, and product differentiation increasingly depends on software that can be continuously upgraded. As noted earlier, sustained investment in semiconductors provides the underlying hardware foundation for both artificial intelligence and digital connectivity, supplying the computing power required for data processing, automation, and intelligent systems.

Meanwhile, artificial intelligence, as a general-purpose enabling technology, has broad applications across industries, including the EV sector, where it supports autonomous driving, battery management, manufacturing optimization, and smart connectivity. China holds a competitive edge in this area due to its early investment in AI development and energy policies that support industries' rising energy demand.

In addition, 5G and emerging 6G networks serve as foundational digital infrastructure, enabling real-time data exchange, coordination, and system-level optimization across industries, thereby significantly supporting the EV sector.

¹⁰ “How China’s Electric Vehicles Turn Crisis into Climate Opportunity,” Wilson Lee Flores, *China Daily*, May 17, 2026. Retrieved on May 25, 2026, https://www.chinadailyhk.com/hk/newsletter/top_headlines/article/583411

3. A Different Playing Field

At the Beijing Auto Show 2026, legacy Western automakers “are up against a completely different competitive environment,” reported Stephen Engle of *Bloomberg News*; “it is EV-centric, highly innovative, and in the middle of a brutal price war.”¹¹

The EV industry reflects the outcomes of “Made in China 2025,” evolving from labor-intensive manufacturing into a more technology-intensive, high-value-added sector. Chinese EVs are highly competitive on price and features, contributing to China’s dominant role in global supply, with Chinese automakers accounting for roughly 60 percent of global EV production and a significant share of worldwide sales.

Table 3 below shows pricing by EV segment in the China market for 2025-2026, distinguishing between short-range mass-market EVs and long-range premium EVs.

Table 3: EV Segment for Short-range and Long-range Vehicle Pricing (China Market, 2025-2026)

SEGMENT	EXAMPLE MODELS	APPROX. RANGE (CLTC)	PRICE (RMB)	PRICE (USD)
Short-range/Entry-level EVs	BYD Seagull	~305-405 km	69,800-85,800	~9,600-11,800
	BYD Qin L EV	~545 km	119,800	~16,500
	Xpeng Mona M03	~500-600 km	~119,800	~16,500
Mid-range EVs	Tesla Model 3 (RWD)	~634 km	235,500	~32,500
	Xiaomi SU7	~700 km	215,900-219,900	~31,000
Long-range/Premium EVs	Tesla Model 3 Long Range	~753 km	275,500	~38,000
	Xiaomi YU7	~760 km	253,500	~35,400
	BYD Han L EV	~700-1,000+ km	~270,000	~37,000

Source: ChatGPT (OpenAI), generated response, May 25, 2026

4. How Other Nations are Advancing in Electric Vehicles

While China's EV production won it the world’s largest EV producer title in 2025, Germany was a distant second, producing 1.22 million BEVs¹² and was closely followed by the U.S. with 1.04 million BEVs¹³.

China produced some 70-75 percent of the world’s EVs in 2025, and the remaining 25-30 percent was shared among Europe, North America, South Korea, Japan, and others, as indicated in Table 4 below.

¹¹ “How Chinese EV Makers are Winning Over Consumers,” Stephen Engle, *Bloomberg News*, April 27, 2026. Retrieved on May 25, 2026, <https://www.bloomberg.com/news/videos/2026-04-27/how-chinese-ev-makers-are-winning-over-consumers-video>

¹² “German BEV Production up 15%,” *15 Years Electrive*. Retrieved on May 28, 2026, <https://www.electrive.com/2026/02/05/german-bev-production-up-15>

¹³ “The United States Remains a Major EV Producer, but Not a Leader,” *EVDance*. Retrieved on May 28, 2026, <https://evdances.com/blogs/news/germany-overtook-the-u-s-in-ev-production-last-year-new-data-shows>

Table 4: 2025 Breakdown of Global EV Production by Country/Region

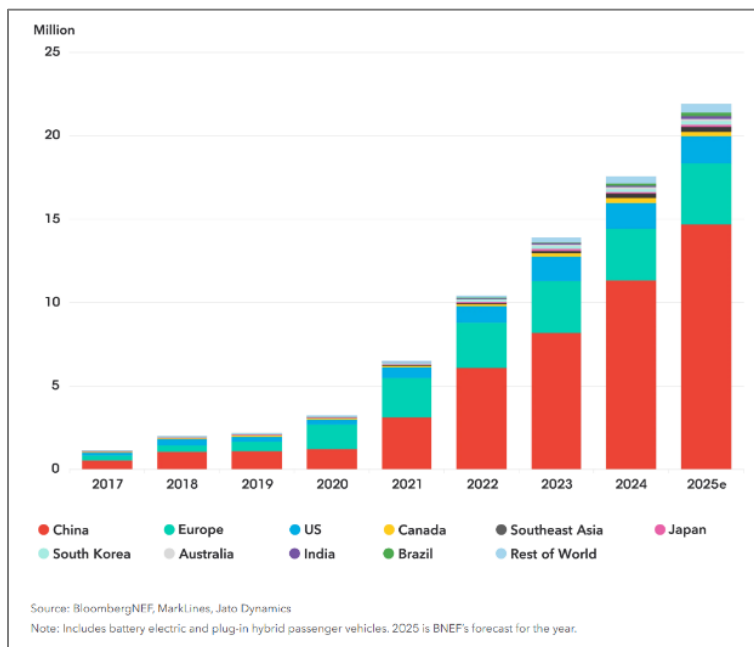
COUNTRY/REGION	ESTIMATED SHARE OF GLOBAL EV PRODUCTION (2025)
China	~70-75%
Germany	~6-8%
United States	~4-6%
South Korea	~3-5%
Japan	~2-4%
Other countries	~10-15%

Source: ChatGPT (OpenAI), generated response, May 28, 2026
Based on “IEA Global EV Outlook 2026”

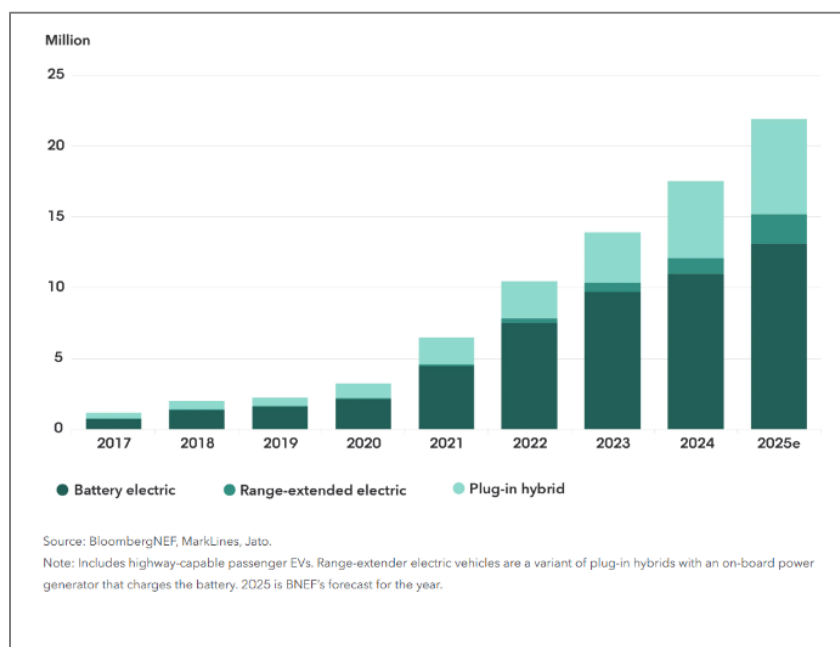
The adoption of electric vehicles can strengthen a country’s energy independence. Governments around the world are providing incentives such as subsidies, tax breaks, and grants to lower EV costs, making them more affordable for consumers.

“Electric car sales set new records in close to 100 countries last year (2025). The growing popularity of EVs has marked a major shift for car markets and the energy system as a whole – and it is providing some relief now amid the largest oil supply shock in history,” said IEA Executive Director Fatih Birol. “Looking ahead, the falls we have seen in battery prices and the potential policy responses to the current global energy crisis are set to provide further momentum in EV markets.”⁸

Chart 1: Global Passenger EV Sales by Markets (2017-2025 est)



**Chart 2: Global Passenger EV Sales
by Drivetrain (2017-2025 est)**



The current market is showing “a more cautious phase of electrification, shaped by policy shifts, trade tensions, and softer vehicle demand,” noted in *EV Volumes’* Global EV Outlook – March 2026 Update. But the Update also projects that long-term growth will remain strong, with EVs expected to account for more than 80 percent of global vehicle sales by 2040, while full fleet electrification will take considerably longer.¹⁴

- Global EV growth is slowing. Sales reached 21.6 million in 2025 and are forecast at 22.7 million in 2026, with the share rising to 24.7% as incentives decline.
- Regional divergence is widening. China continues to lead with over 50% EV share, Europe grows steadily through regulation, while North America lags. Non-Triad markets are accelerating from a lower base.
- Policy and affordability are key drivers. Subsidy changes, trade measures, and lower battery costs are reshaping adoption across markets.

5. Section Summary

Wilson Lee Flores captured the current EV landscape succinctly: “China’s advantage is not just innovation; it is also integration. A fully coordinated supply chain – spanning batteries, semiconductors, and assembly – allows faster iteration and lower costs. Global

¹⁴ “Global EV Outlook – March 2026 Update,” *EV Volumes*. Retrieved on May 28, 2026, <https://ev-volumes.com>

automakers are taking note. Partnerships with Chinese technology companies are no longer optional; they are increasingly necessary.”¹⁰

While China currently leads the world in EV production and sales, the future extends beyond hardware alone. China can export integrated AI, semiconductor, and software systems; build digital and charging infrastructure; and establish overseas facilities for renewable energy manufacturing, battery production, and energy storage.

More importantly, China is increasingly positioned to shape global industry standards and influence the regulatory frameworks governing the future of transportation and energy.

IV. Conclusion

“Higher petrol prices and the availability of affordable Chinese-made EVs are driving record sales around the world.”¹⁵ As the case study illustrates, the EV industry is only one of several growth engines underpinning China’s broader economic expansion. Its success also reinforces the country’s economic strength and enhances its geopolitical influence.

China combines strong innovative capacity with large-scale production capability, enabling it to supply goods and services to global markets at highly competitive prices.

This combination is particularly evident in the clean energy sector. As *The New York Times* notes, “Cheap Chinese-made solar, batteries and EVs have made the pivot to cleaner technologies possible for many large economies including Brazil, South Africa and even India, a regional rival to Beijing. That affordability is crucial for bringing down global emissions.”¹⁶

Taken together, China’s experience demonstrates how an integrated climate–industrial strategy can simultaneously support rapid economic growth and accelerate global decarbonization, positioning the country as a central actor in shaping the future of the clean energy transition.

¹⁵ “What is the Best Carbon Credit to Buy?” Jennifer L., CarbonCredits.com, April 22, 2022. Retrieved on June 25, 2022, <https://carboncredits.com/what-is-the-best-carbon-credit-to-buy>