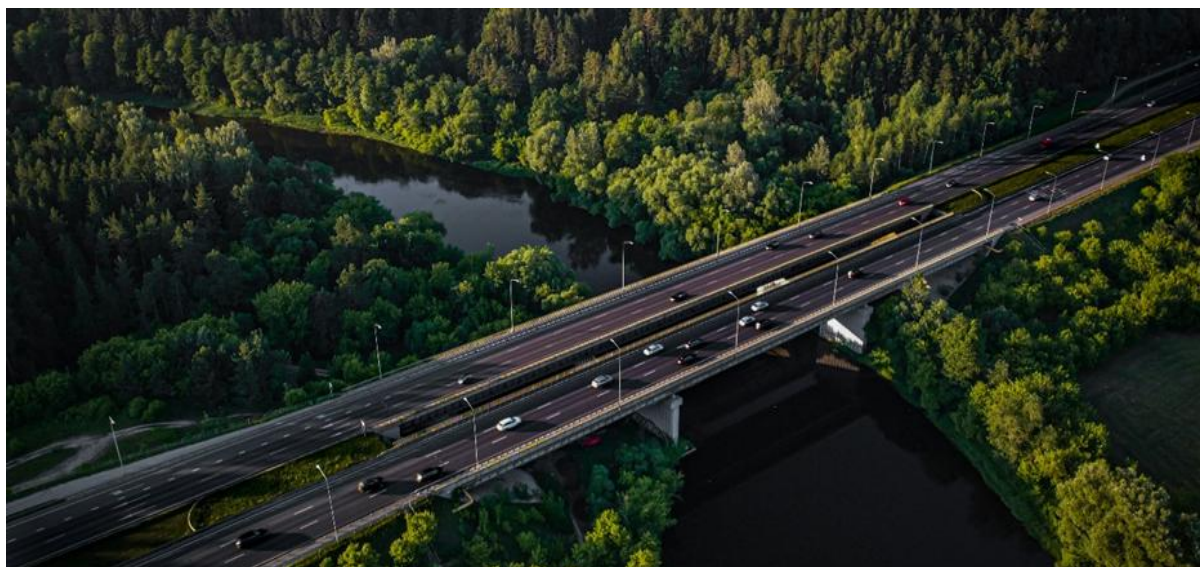

China Carbon Neutrality Tracker Newsletter



The bimonthly *China Carbon Neutrality Tracker (CCNT)* newsletter monitors critical climate initiatives led by China’s government, businesses, and other organizations as the nation progresses toward its dual-carbon goals. Alongside tracking policy and industrial action, it highlights cutting-edge research accelerating global carbon neutrality efforts.

TOP NEWS: Highlights of climate progress across China

Market-oriented Pricing Reforms for New Energy

New Energy Storage

China’s Sovereign Green Bond

Energy Work 2025

SUBNATIONAL UPDATES: Subnational and city-level official statistics, policies, and actions related to dual-carbon goals

New Energy Storage

Hydrogen

Dual Control of Carbon Emissions

Climate Adaptation

Carbon Peaking

Carbon Market

Top News

Decoding Policy – Expert views on new policies

China advances market-oriented pricing reforms for new energy.

The National Development and Reform Commission, together with the National Energy Administration, published the [Notice on Deepening Market-Oriented Reform of the Pricing System for New Energy to Promote High-Quality Development of New Energy](#). It aims to ensure that all electricity generated from new energy sources such as wind and solar power enters the electricity market, with **prices determined through market transactions**. At the same time, a price settlement mechanism supporting the sustainable development of new energy will be established, with differentiated measures for existing and new projects, to promote high-quality growth in the industry.

Direct Impacts on the Electricity Market

[Lin Boqiang](#), Director of the China Energy Policy Research Institute at Xiamen University, explains that this market-oriented reform means that the price for renewable energy will now be entirely determined by supply and demand, marking the end of price support and guaranteed full purchase. He thinks that the fixed feed-in tariff for renewable energy lacks flexibility in reflecting market dynamics, thereby limiting the efficient regulation of the power system.

[Chai Wei](#), expert at the Technical Economic Research Institute of China Energy Group, explains that before the release of the *Notice*, only coal-fired electricity price was fully determined by market forces (as outlined in the [Notice on Further Deepening Market-Oriented Reform of the Pricing System of Coal-fired Power](#) in 2021). For most other power sources, the prices remained government-regulated. Certain power sources, such as early-deployed nuclear and hydro power, are now considered "low-cost" because their initial investment costs have largely been recouped through subsidies and other mechanisms. Chai Wei believes it is essential to develop a pricing system that encourages these sources to participate in the market to avoid excessive profits or widespread losses. **The successful reform in renewable energy pricing offers a promising model for the future market-oriented pricing reforms of gas, nuclear, and hydro power.**

A Shock to the Energy Storage Industry

In addition to its direct impact on the electricity market, the policy states that "energy storage will no longer be a prerequisite for the approval, grid connection, or online access of new energy projects." This marks the end of mandatory energy storage for renewable energy projects.

As the renewable energy sector scales up, power grids and consumption mechanisms have lagged behind, causing "curtailed wind and solar power." Energy storage is viewed as critical supporting technology to address this. In many regions, local governments have mandated that renewable energy projects include energy storage.

"The mandatory energy storage policies have catalyzed the industry's rapid development, driving down costs and leading to technological innovations," says [Feng Siyao](#), Deputy Director at the China Industrial Association of Power Sources. Feng also points out that the rapid growth of the industry has revealed three major issues: the lack of economic viability due to low utilization rates; hindered technological progress from low-quality products; and inefficient resource allocation in regions with minimal demand for flexible resources.

The suspension of the mandatory energy storage requirement could lead to reduced or delayed investments in energy storage for renewable energy projects. Nevertheless, Feng highlights two opportunities for new energy storage. First, the electricity market may offer a more flexible profit model for energy storage, positioning it as an important participant (as outlined in the [Guiding Opinions of the National Energy Administration on Supporting the Innovative Development of New Business Entities in the Power Sector](#)). Also, as renewable energy generation continues to grow, energy storage will become essential for grid stability and flexibility.

China launches its sovereign green bond framework, aiming to diversify high-quality green bond products in the international financial market.

[The People's Republic of China Sovereign Green Bond Framework](#) lays the foundation for the issuance of international sovereign green bonds, which aims to diversify high-quality green bond products in the international financial market. It stipulates that the funds raised through sovereign green bonds will be entirely allocated to green expenditures within the central fiscal budget, contributing to **climate change mitigation, climate change adaptation, natural resource conservation, pollution prevention and control, and biodiversity conservation**. Additionally, the Framework outlines the process for project evaluation and selection, management of proceeds, and information disclosure.

[Liu Huixin](#), researcher at the International Institute of Green Finance at Central University of Finance and Economics, notes that this is **China's first green bond issuance framework backed by sovereign credit**. Its issuance will encourage more Chinese entities to issue green bonds and provide guidance on green financing for local governments, financial institutions, and enterprises. With its high transparency and international recognition, the sovereign bond will increase the appeal of green bonds issued by Chinese entities, attracting more international capital to China's green sectors such as sustainable transportation and ecological restoration. This will expand financing options for China's green projects and accelerate the standardization and internationalization of the domestic green bond market, offering global investors more diverse investment opportunities and efficient ways to engage in China's green transition.

Policy Snapshot – Policy Highlights at a Glance

China unveils key points for energy work in 2025, with a continued focus on increasing new energy installed capacity in both volumes and proportion.

The National Energy Administration issued the [Guiding Opinions on Energy Work in 2025](#), highlighting that total power generation capacity will reach more than 36 million MW, with new energy generation capacity increasing by more than 2 million MW.

The share of non-fossil energy sources in installed electricity generation will increase to about 60%, an increase of 5% compared to the [Opinion in 2024](#), and the share of non-fossil energy sources in total energy consumption will increase to about 20%, an increase of 1.1% compared to 2024. New progress will be made in renewable energy substitution in key areas such as industry, transportation, and construction. The installed capacity of pumped storage energy will reach over 0.62 million MW.

China encourages the development of a new energy storage manufacturing industry.

The [Action Plan for High-Quality Development of the New Energy Storage Manufacturing Industry](#), launched by the Ministry of Industry and Information Technology, outlines six key initiatives, including promoting the **innovation** of new energy storage technologies and fostering industry **collaboration**. The *Plan* encourages diversification of core technologies and greater participation of independent energy storage entities in the electricity market.

Construction of the Beautiful China mechanism moves forward.

In January-February, a series of policies regarding the construction of a Beautiful China was released following last year's programmatic [Opinions](#). The [Implementation Opinions on Building Pioneer Zones for a Beautiful China](#) aim to advance the construction of a Beautiful China by **setting benchmarks**. Shortly afterwards, the [Implementation Plan for the Construction of Beautiful Cities](#) outlines five key requirements for a Beautiful City, which includes green and low-carbon development and other key requirements related to environment, livability, and governance. There's also an [Implementation Plan for the Construction of Beautiful Countryside](#), addressing rural ecological environment quality as well as **green and low carbon development of agriculture**.

Subnational Updates

Policy Decoding

Two provincial regions make moves to promote the development of new energy storage.

To support energy transition and energy safety, both [Shanghai Municipality](#) and [Sichuan Province](#) issued policies on new energy storage, emphasizing holistic and healthy development.

[Shanghai Municipality](#) outlines that:

- **By 2026**, a new energy storage core technology and equipment industry chain will be established, with two new energy storage **industrial parks** created and an application scale of over **800 MW** targeted.
- **By 2030**, the application scale is expected to exceed **2 GW**, achieving full peak load shaving and driving the industry scale to double.
- **Starting from January 1, 2025**, new onshore wind power projects (including upgrades and renovations) must configure new energy storage systems with at least **20% of the installed capacity** and a minimum **charge/discharge duration of 4 hours**. For new offshore wind power projects, energy storage will be configured through competitive bidding. Independent energy storage stations will be constructed through self-built, co-built, or capacity leasing models.

[Duan Mingxing](#), the Secretary General of the Energy Storage Leaders Alliance in Jiading District (Shanghai), points out that new energy storage technologies, such as electrochemical energy storage (including lithium and sodium batteries), compressed air energy storage, and flow batteries, differ from traditional pumped storage in their fast response times and high flexibility. They are widely used in power generation, the grid, and by end-users, and play a key role in supporting the development of distributed energy and the consumption of green power. As one of China's economic hubs with high energy demand, Shanghai's adoption of new energy storage technologies is critical to both increasing the share of green energy and ensuring grid stability and reliable energy supply.

An article from [Greenergy Daily](#) suggests that Shanghai is at the forefront nationwide in establishing a mechanism for energy storage benefits. The city has defined energy storage charging and discharging prices and has also been the first to propose "capacity subsidies" for energy storage.

[Sichuan province](#) emphasizes that:

- By the end of **2027**, the installed capacity of new energy storage in the province should reach **5,000 megawatts**, with Chengdu accounting for no less than 2,000 megawatts. It emphasizes strengthening policy coordination and support in four key areas: **energy storage allocation mechanisms, grid connection and dispatch, pricing mechanisms, and market participation**.

Based on this, Sichuan proposed further improvements to the [pricing system](#):

- Independent energy storage stations and user-side new energy storage systems can **participate in the provincial electricity market** as electricity users when charging, with their discharge prices determined by electricity market trading rules.
- For user-side new energy storage projects that are completed and put into operation by December 31, 2026, the electricity fees for the increased capacity demand resulting from the normal operation of new energy storage equipment will be included in the provincial coordination plan for the first two years of operation.

Jiangsu sets quantified goals on supporting the high-quality development of the hydrogen industry.

Following the [national](#) and [provincial](#) medium- and long-term plans on hydrogen industry development, [Action Plan for Promoting High-Quality Development of the Hydrogen Energy Industry in Jiangsu Province \(2025-2030\)](#) further proposes that:

- **By 2027**, a more robust institutional system for hydrogen energy development will be in place, with a well-established supply chain and industrial system of hydrogen production, storage, transportation, refueling, and utilization.
- **By 2030, green hydrogen** will become the main source of hydrogen supply, and the cost of hydrogen will drop significantly. The province aims to build **over 100 hydrogen refueling stations** and promote the use of more than **10,000 fuel cell vehicles**. Large-scale applications of hydrogen energy in various sectors will achieve significant progress.

Jiangsu is an important hydrogen energy hub in China. According to the [Medium- and Long-Term Plan for the Development of Hydrogen Energy Industry in Jiangsu \(2024-2035\)](#), there are over 300 enterprises and institutions involved in the hydrogen energy industry, and the industry's scale exceeds 20 billion yuan (around 3 billion USD).

[Jiangsu Energy Storage Association](#) points out that the *Action Plan* can create a complementary effect when combined with the [Notice on Deepening Market-Oriented Reform of the Pricing System for New Energy to Promote High-Quality Development of New Energy](#) (See [Top News](#)). "The market-based electricity pricing mechanism helps to lower the price of green electricity, particularly in regions rich in renewables. During peak solar output times in the afternoon, electricity prices may fall below 0.1 yuan per kilowatt-hour, directly reducing the cost of electrolysis hydrogen. On the other hand, as new energy grid-connected electricity fully enters the electricity market, market-oriented transactions will diversify the ways green electricity is consumed. Wind and solar projects will increasingly focus on hydrogen production as a consumption channel.

Snapshot

Three coastal provinces and cities issue action plans on climate adaptation.

Following the [National Adaptation Strategy for Climate Change 2035](#) in 2022, [Zhejiang Province](#), [Guangdong Province](#), and [Chongming District of Shanghai Municipality](#) have issued plans on climate adaptation, highlighting key aspects such as improving the climate change adaptation **risk prevention system**, the quality and stability of **natural ecosystems**, and the **adaptive capacity** of socio-economic systems. They all identify agriculture as a key vulnerable sector that needs to be strengthened.

Jiangxi issues a policy to accelerate the establishment of a dual-control system for carbon emissions.

In line with the goals proposed in the [national work plan](#) published in August and following the steps of [Shanxi Province](#) and [Ningxia Hui Autonomous Region](#), Jiangxi issues its [Implementation Plan for Accelerating the Establishment of a Dual-Control System for Carbon Emissions](#) in January. Notably, it lists **lithium batteries, ceramics, and copper** as major products for establishing carbon footprint accounting standards.

Quanzhou City (Fujian Province) promotes carbon peaking in the industrial sector.

[Action Plan for Carbon Peaking in the Industrial Sector in Quanzhou City](#) proposes six key priorities, including: (1) promoting transformation of industrial structures, (2) enhancing energy efficiency and optimizing energy consumption, (3) accelerating green manufacturing system, (4) advancing circular economy, (5) speeding up the innovation and application of green and low-carbon technologies and (6) promoting digital transformation of the industrial sector. The *Action Plan* also identified the **petrochemical, building materials, textile dyeing, and steel** industries as key focuses.

Tianjin Municipality expands the scope of the local carbon market to more sub-sectors and companies.

[Notice on Expanding the Coverage of the Tianjin Carbon Emissions Trading Market](#) proposes that it will lower the inclusion threshold for the industrial and aviation (airport) sector enterprises in the current Tianjin carbon market, adjusting the requirement from annual carbon emissions exceeding 20,000 tons to 10,000 tons. The freight port industry, as well as the maritime and air cargo transport sectors, will also be included.

About the Institute for Global Decarbonization Progress (iGDP)

The Institute for Global Decarbonization Progress (iGDP) is a non-profit think tank focusing on green and low-carbon development with offices in China and Europe. Established in Beijing in 2014, iGDP is dedicated to supporting China's green and low-carbon practices, contributing to the global effort to address climate change, and providing decision-makers, investors and local communities with forward-thinking solutions. Through interdisciplinary, systematic, and empirical policy research, iGDP promotes robust energy and climate solutions with high implementation and investment feasibility. iGDP works with its partners to promote a zero emissions future and tell the story of China's green and low-carbon development.

About China Carbon Neutrality Tracker (CCNT)

China Carbon Neutrality Tracker (CCNT) is an online database and interactive platform that tracks China's national and sub-national carbon neutrality actions by collecting and sorting publicly available policy documents with an impact on GHG emissions. It offers an overview and structural classification of China's climate actions and serves as a comprehensive compendium of the specific policies and actions of various government departments and key non-state entities. CCNT includes all policies and actions with a climate impact and classifies them by region and sector. It gathers policy information primarily from authoritative government sources at national, regional, provincial and municipal levels. CCNT currently has national and provincial webpages. The database is continuously updated to include new provincial and city-level actions, and CCNT regularly issues short policy briefings.

For the latest national and subnational carbon neutrality actions, please visit the CCNT database at <https://ccnt.igdp.cn>.

If you have any suggestions or feedback, please email us at ccnt@igdp.cn.

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