JUNE 2026

CHINA ENERGY POLICY NEWSLETTER

China Energy Transformation Programme

1. China energy transition updates

The government establishes regulations for accounting non-fossil electricity consumption

Since 2026, the central government has begun evaluating carbon emissions across all provinces, with the share of non-fossil energy consumption included in the assessment as a binding indicator[1]. Electricity accounts for 95% of China's non-fossil energy consumption, yet current accounting practices for non-fossil electricity remain underdeveloped. To improve this, five ministries - including the NDRC, NEA, and MEE - jointly issued the *Guidelines for Accounting Non-Fossil Energy Electricity Consumption (Trial)* (CHN: 非化石能源电力消费核算指南（试行）). The guidelines define rules for identifying non-fossil electricity consumption by type and establish three levels of accounting methods for provinces, cities, and electricity users. This initiative aims to better support the enforcement of the dual-carbon emissions control policies.[2]

Identifying non-fossil electricity consumption involves classifying each kilowatt-hour into three categories: physical consumption, market transactions, and apportionment. Physical consumption includes self-generated and self-used electricity, electricity consumed via green power direct-connection projects, and electricity consumed for power generation. Market transaction identification includes conventional electricity trading, green power market trading (bundled electricity-and-certificate transactions), and standalone green certificate transactions. The government prioritises direct identification through physical consumption and market transactions, with any remaining electricity allocated reasonably between and within provinces in accordance with established rules. Accounting for non-fossil electricity consumption is performed at three levels: provincial, municipal, and electricity user. At each level, each kilowatt-hour is identified using only one method and assigned to a single entity, ensuring consistent rules and preventing double-counting.[3]

[1] If one or more binding indicators fail to meet the standards, the provincial government will deem the dual-carbon assessment a failure.
[2] "国家发展改革委等部门关于印发《非化石能源电力消费核算指南（试行）》的通知, 发改能源〔2026〕622号," National Development and Reform Commission, National Energy Administration, Ministry of Ecology and Environment, National Bureau of Statistics, National Data Administration, 6 May 2026, accessed at https://zfxxgk.ndrc.gov.cn/web/iteminfo.jsp?id=20636.
[3] "一图读懂 | 非化石能源电力消费核算指南（试行）," National Development and Reform Commission, 1 June 2026, accessed at https://www.ndrc.gov.cn/xxgk/jd/zctj/202606/t20260601_1405605.html; "国家能源局有关负责同志就《非化石能源电力消费核算指南（试行）》答记

NDRC promotes multi-user green power direct-connection projects

To address enterprises' green energy needs and boost local renewable energy use, China began actively promoting single-user green power direct-connection projects in 2025 (see the June 2025 newsletter for a policy overview). These projects involve transmitting electricity produced by renewable power plants such as wind, solar, and biomass power directly to a single user through point-to-point transmission lines. By April 2026, nearly 100 such projects had been approved, with a combined capacity of 34 GW.[4] However, the "point-to-point' supply of green electricity involves certain risks. If one user's operating conditions worsen, leading to a sudden decline in electricity demand, the project's economic viability diminishes, thereby reducing investment resilience. Additionally, high capital and maintenance costs mean that the withdrawal of a single user can easily lead to asset wastage.[5] In May 2026, the NDRC and the NEA jointly issued a document that allows the construction of multi-user green power direct-connection projects and outlines specific requirements.[6]

Multi-user green electricity direct-connection projects involve transmitting renewable power generated by sources such as wind, solar, and biomass to multiple users via point-to-point transmission lines and substation facilities. These users can be different legal entities but exclude residential and agricultural consumers. Single-user projects can be upgraded to multi-user projects as new loads are added. The power source range for multi-user setups remains, while the load range is notably expanded. The government supports energy- and carbon-intensive enterprises, zero-carbon parks, and industrial parks in establishing green power direct connections. According to the NDRC, industrial and commercial enterprises are particularly well-suited for multi-user projects due to their flexible load profiles. This reduces reliance on the backbone grid and helps accommodate the variability of renewable energy. The government also encourages multi-user projects to enhance its power regulation capacity and economic efficiency through load aggregation, improved centralised control, and energy storage, and offers financial incentives based on power regulation responsibilities.[7]

Key provisions for multi-user green power direct-connection projects

Applicable load	1) New load 2) Existing single-user green power direct-connection projects with loads expansion 3) Users with green electricity needs, including enterprises with binding green power consumption mandates, major energy-use and carbon reduction-focused companies, export-oriented production factories aiming to reduce carbon emissions, and their upstream and downstream partners 4) Industrial parks, zero-carbon parks, and existing loads in the incremental power distribution grids 5) Emerging industries like computing power centres, green hydrogen, ammonia alcohol production
Applicable power source	1) Newly built renewable power generation projects (incl. distributed PV) 2) Existing renewable power generation projects that are not yet connected to the grid or cannot be connected due to consumption constraints
Project type	1) Off-grid: The power source, load, and point-to-point transmission lines are not electrically connected to the public power grid 2) Grid-connected: The power source, loads and point-to-point transmission lines are connected to the public power grid as a single user, but a clear physical and responsibility interface is formed
Self-use ratio	▪ For self-generated and self-consumed electricity accounting for 60% or more of the total annual available power generation, the proportion supplied to the grid shall not exceed 20% ▪ For self-generated and self-consumed electricity making up 30% or more of the total annual power consumption, this share should be raised to 35% or higher by 2030

者问," National Energy Administration, 1 June 2026, accessed at https://www.ndrc.gov.cn/xxgk/jd/jd/202606/t20260601_1405604.html.

[4] "绿电直连新政，新在哪儿？国家发改委能源研究所赵晓东、王娟、邓良辰、冯升波解读," National Energy Administration, 25 May 2026, accessed at https://mp.weixin.qq.com/s/ZgYtQurQPvGEJcUQigK71A.

[5] "解读 | 扩大绿电直连政策范围 促进就近消纳加速发展," National Energy Administration, 25 May 202, accessed at https://mp.weixin.qq.com/s/CX7XYczSKzTBp348jDCqlw.

[6] "关于有序推动多用户绿电直连发展有关事项的通知, 发改能源〔2026〕688号," National Development and Reform Commission, National Energy Administration, 14 May 2026, accessed at https://www.ndrc.gov.cn/xxgk/zcfb/tz/202605/t20260520_1405313.html.

[7] "国家能源局有关负责同志就《关于有序推动多用户绿电直连发展有关事项的通知》答记者问," National Energy Administration, 20 May 2026, accessed at https://mp.weixin.qq.com/s/FowMYRgqBU58uPCZHw936g; "一图读懂《关于有序推动多用户绿电直连发展有关事项的通知》," National Energy Administration, 21 May 2026, accessed at https://mp.weixin.qq.com/s/O35j4C3OxqllvP55XKNv8A.

Investment model	1) Joint investment by the power source and the loads in principle 2) Investment by the power source or the loads 3) Industrial Park projects can be invested in by the park management committee or by third-party institutions (excl. TSOs) ▪ The responsible unit is responsible for constructing electrical facilities such as transmission lines, substations, and energy storage stations, and should prioritise the use of (leasable) existing facilities
Power market	▪ As an emerging market entity, it will engage in the power market as an integrated unit and will not buy electricity through TSOs acting as agents
Fees	▪ Transmission and distribution tariffs, system operating costs, administrative cross-subsidies, government funds and surcharges, etc.

Source: National Development and Reform Commission (NDRC), June 2026

China Green Certificate Development Report 2025 released

The NEA published the *China Green Electricity Certificate Development Report (2025)* (CHN: 中国绿色电力证书发展报告（2025）), which reviews the progress of China's Green Electricity Certificate (GEC) market in 2025.[8] In 2025, 2.947 billion GECs were issued nationwide, making up 38% of the total issued from 2017 to 2025. The full GEC coverage policy[9] continued to show its effectiveness. Conventional hydropower, wind power, solar power, and biomass power represented 36%, 35%, 23%, and 6% of total GEC issuance, respectively. Regionally, issuance was concentrated in Yunnan, Sichuan, Inner Mongolia, Xinjiang, and Hubei, which together accounted for 45% of the national total. These regions benefited from abundant hydropower resources - Sichuan, Yunnan, and Hubei - while Inner Mongolia and Xinjiang mainly relied on large-scale wind and solar energy installations. GEC issuance for distributed renewable projects grew rapidly, reaching 110 million certificates in 2025, a 93% increase from the previous year. Distributed wind power, distributed commercial and industrial solar PV projects, and household PV systems accounted for 24%, 66%, and 10%, respectively.

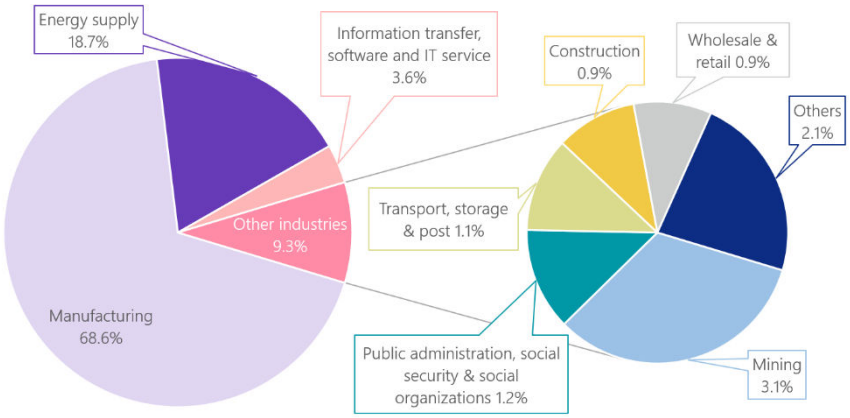
In 2025, a total of 930 million GECs were traded nationwide, representing a 108% increase over 2024 and accounting for 63% of the total trading volume from 2017 to 2025. The split between standalone GEC trading and green power market trading (bundled electricity-and-certificate transactions) was 73:27. The rapid growth in standalone GEC trading was mainly driven by users entering into long-term purchase agreements via intermediaries, thereby increasing the GEC trading volume of distributed renewable projects. Interprovincial trading also saw significant growth, with over 90% of standalone GEC transactions crossing provincial boundaries. In green power market trading, interprovincial transactions rose by 63% year-on-year, accounting for about 11% of total trading volume and enabling a broader distribution of green energy resources.

GEC prices clearly trended upward, with average prices rising from RMB 0.72 per certificate in 2023 to RMB 2.12 in 2024 and RMB 5.57 in 2025, indicating the better environmental value of renewable electricity. Willingness to buy and use GECs increased significantly, with participant numbers growing 88% year-on-year. The consumer base also became more varied. The manufacturing sector's share of GEC consumption dropped from 69% during 2017-2024 to 55% in 2025, while new groups such as the scientific research and technical services sector (4%) and the leasing and business services sector (3%) emerged in the GEC market.

[8] "中国绿色电力证书发展报告（2025）," National Energy Administration, 30 April 2026, accessed at https://www.nea.gov.cn/20260515/76a82a7375a942e2ab748b36cf7cc14b/c.html.

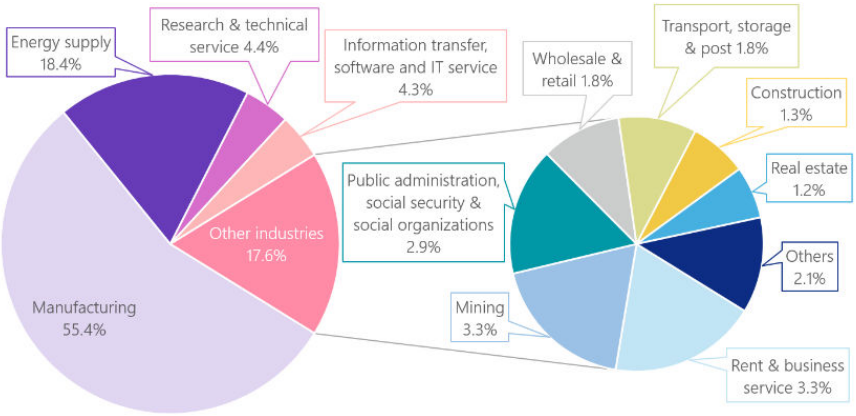
[9] Since 2024, the issuance of Green Electricity Certificates (GECs) has been extended from onshore wind and utility-scale PV projects to cover all renewable power generation projects that meet the relevant requirements.

2017-2024 Industry distribution of green certificate consumers



Source: National Energy Administration (NEA), May 2025

2025 Industry distribution of green certificate consumers



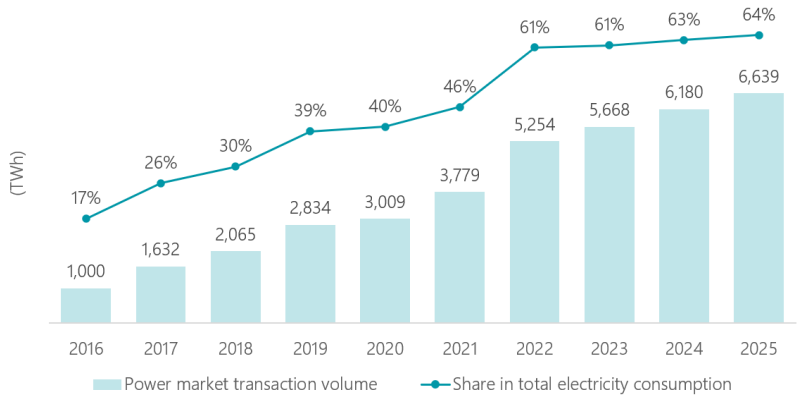
Source: NEA, June 2026

China Power Market Development Report 2025 released

The *China Power Market Development Report 2025* (CHN: 2025年度中国电力市场发展报告) provides a summary of China's power market development in 2025.[10] In 2025, the national market-based electricity trading volume reached 6,640 TWh, reflecting a 7.4% year-over-year increase and accounting for 64% of the country's total electricity consumption. This indicates that roughly two out of every three kilowatt-hours used in China are traded via market mechanisms. Inter-provincial trading hit a record high, with notable growth in spot trading. Hubei and Sichuan (Central China) recorded the highest sales volumes, while Zhejiang (East China) led in purchases, helping ease regional pressure on renewable power consumption. Intra-provincial transaction prices mostly declined, with the median-to-long-term average price estimated at 0.230-0.505 RMB/kWh in 2025, down 1.9% from regional baseline coal power prices. Day-ahead and real-time average transaction prices ranged from 0.229-0.331 RMB/kWh and 0.234-0.346 RMB/kWh, respectively, showing that spot prices within provinces were generally lower than medium- to long-term prices.

[10] "一图读懂《2025年度中国电力市场发展报告》," National Energy Administration, 28 May 2026, accessed at https://www.cpnn.com.cn/news/hy/202605/t20260528_1891375_wap.html; "中能观察丨全国统一电力市场建设进行时," China Power News, 28 May 2026, accessed at https://baijiahao.baidu.com/s?id=1866408544592618737&wfr=spider&for=pc.

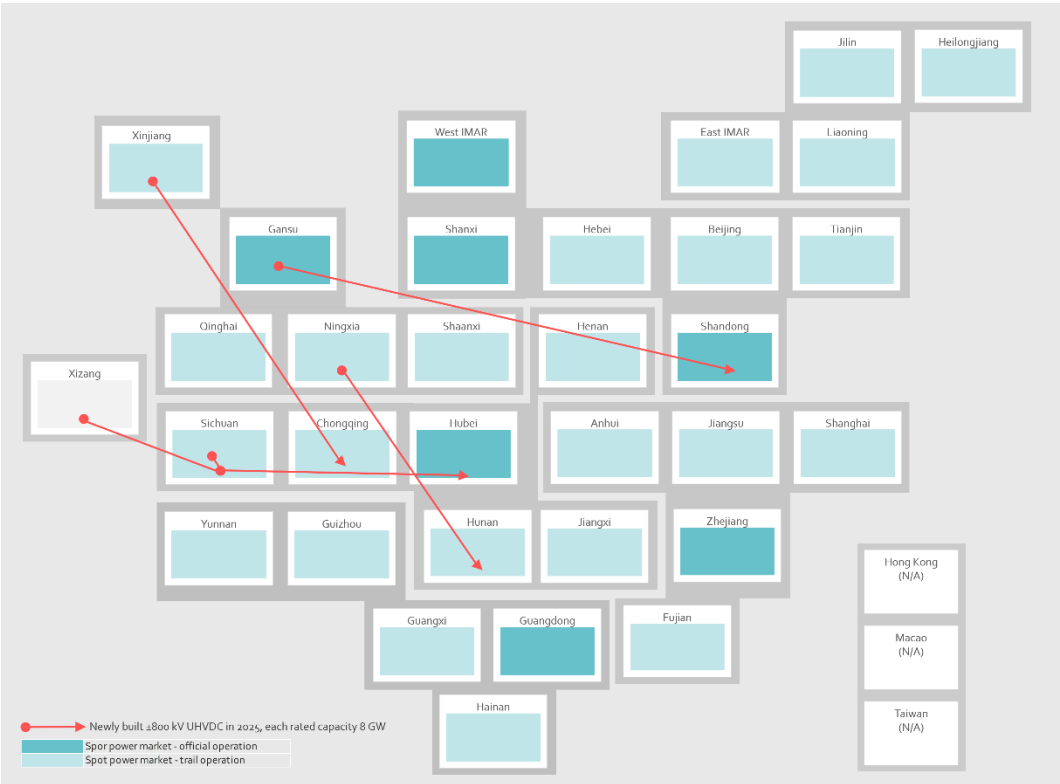
2016-2025 Market-based electricity transaction volume and its share in total electricity consumption



Source: China Electricity Council (CEC), accessed in June 2026

The ongoing growth of market-based electricity trading has been facilitated by improvements in power markets, trading rules, and grid infrastructure. By 2025, all provinces except Tibet had launched spot power markets and started continuous trading. Shanxi, Guangdong, Shandong, Gansu, West Inner Mongolia, Hubei, and Zhejiang had entered official operation, while others remained in trial phases. China also finalised the "1+6" framework of basic power market rules, which includes the *Basic Rules for Power Market Operation* and six supporting sets for medium- and long-term trading, spot trading, ancillary services, information disclosure, market registration, and metering and settlement. This framework covers the entire trading process and underpins a unified, standardised national power market system. Additionally, four ultra-high-voltage (UHV) direct-current transmission lines were commissioned, increasing capacity by 32 GW, bringing the total West-power-to-East transmission capacity to 340 GW, and supporting market operations.

Schematic diagram of the development of provincial (regional) spot power markets and newly added UHVDC transmission lines in 2025



Source: NEA, June 2026

China's first offshore wind-powered undersea data centre begins operation

In May 2026, China's first undersea data centre, powered directly by offshore wind energy, began operation in Shanghai. Situated 10 metres below the water surface near the East China Sea, the Lingang 2.3 MW Undersea Data Centre features 192 server racks, each with a 12 kW capacity, supporting about 2,000 servers. Unlike traditional data centres that consume large amounts of electricity and water - about 40% of their electricity is used for cooling - this facility uses the surrounding seawater's steady 15℃ temperature for natural cooling. This approach reduces power and water consumption, achieving Power Usage Effectiveness (PUE[11]) below 1.15, well below the typical 1.4-1.6 for onshore data centres. It also conserves around 40,000 tonnes of freshwater each year, equal to a household's water use over a century. Power is supplied via two 35 kV submarine cables linked to a nearby 200 MW offshore wind farm, making over 95% of the electricity consumption renewable. The project also demonstrates high land-use efficiency, with its offshore platform occupying only a tenth of the land required by a comparable onshore data centre. Its submerged modules use titanium alloy and polymer seals, reducing failure rates to one-eighth of those in comparable onshore facilities. This shows a successful commercial application of combining offshore wind power with undersea computing. Future plans involve deploying 5-7 MW modules and establishing interconnected undersea clusters in the Yangtze River Delta, Pearl River Delta, and Bohai Rim regions.[12]

China's first provincial weather-renewable power output integrated forecasting platform starts operation

In May 2026, Guizhou Power Grid launched the *Medium- and Long-Term Meteorological and Renewable Generation Forecasting Platform*, becoming China's first provincial platform that combines meteorological forecasting with renewable power output prediction. Renewable sources, especially wind and solar, now supply over 40% of Guizhou's electricity, while the province's mountainous terrain creates complex microclimates, leading to significant uncertainty in renewable power output and challenges in long-term project planning. To overcome this, Guizhou Power Grid (which is part of China Southern Grid) developed an integrated forecasting system that combines 30 years of ERA5 meteorological data with AI algorithms, unifying weather, climate, and renewable power forecasts. It offers weather predictions with 1 km × 1 km spatial accuracy and hourly updates, reducing wind speed forecasting errors by 81% and solar irradiation errors by 64%. The platform can also generate climate trend forecasts up to seven years ahead, supporting more scientific regional renewable resource assessments. This system is expected to enhance site-selection accuracy for new projects by 25%, thereby bolstering long-term new energy development and grid planning.[13]

[11] PUE refers to Power Usage Effectiveness, defined as the total power consumption of the data centre ÷ the actual power used by IT equipment; the closer the value is to 1, the smaller the cooling and power distribution losses and the higher the energy efficiency.
[12] "全球首个海底数据中心！绿电直供超95%，年省电6100万千瓦时," China Electric Power News, 15 May 2026, accessed at https://mp.weixin.qq.com/s/D2RsRjWb1E2jTUFoxYcF7w.
[13] "全国首个省级新能源气象与发电能力预测平台正式推广应用," cpnn.com.cn, 13 May 2026, accessed at https://mp.weixin.qq.com/s/bpQ_fGoqSRNaBl36bHYFQA.

2. Policy monitoring

2026-05-21

https://www.ndrc.gov.cn/xxgk/zcfb/tz/202606/t20260602_1405666.html

China to launch its first cross-TSO transmission rights trading

Notice on Conducting Market-Based Transmission Rights Trading on the Yunxiao Direct Current Transmission Project, NDRC System reform [2026] No. 734

In September 2022, the 2GW Yunxiao HVDC interconnection project was commissioned, linking Fujian Province in the State Grid area with Guangdong Province in the China Southern Power Grid area. This marked the first direct connection between the two provincial power grids. From June 2026, two TSOs will conduct transmission rights transactions for both medium- and long-term electricity trading and spot electricity trading via the Yunxiao HVDC line. Under this framework, once the basic power exchange needs between Fujian and Guangdong are met, any remaining transmission capacity will be offered as an independent tradable product through market-based auctions. This represents China's first transmission rights transaction across TSOs' administrative regions. Two TSOs will continue to refine the trading mechanism and parameters based on operational experience, gradually expanding the model to promote normalised cross-grid electricity trading.

2026-05-18

https://www.gov.cn/zhengce/zhengceku/202605/content_7069946.htm

NDRC optimises the eco-environmental compensation mechanism

Notice on Issuing the Implementation Plan for Promoting Comprehensive Ecological Compensation, NDRC Revitalization [2026] No. 697

China has been building and refining its eco-environmental compensation system since 1998. By now, it has established a preliminary framework. The central government allocates over RMB 200 billion annually for compensation, covering nearly all key ecological protection sectors and regions. Nevertheless, the current system depends heavily on the central finance funds, and limited funding sources are increasingly insufficient to meet rising ecological conservation demands. The NDRC recently issued a policy encouraging the creation of an eco-environmental compensation fund with greater participation from enterprises engaged in natural resource use and private investors. It also promotes the development of green financial instruments, such as green credit, insurance, and bonds, to finance eco-environment industries based on market-oriented and legal principles.

2026-05-07

https://www.gov.cn/zhengce/202605/content_7067978.htm

The government issues assessment regulations for *Building a Beautiful China*

Measures for Assessing the Effectiveness of the Beautiful China Initiative

In 2012, the government introduced the idea of *Building a Beautiful China* to facilitate ecological protection and restoration and low-carbon growth through measures such as reducing carbon emissions and pollution, increasing greenness, and encouraging low-carbon development. In 2026, the government announced assessment regulations for this initiative to annually evaluate the progress of key objectives in each province. The evaluation encompasses aspects such as air quality, water and marine ecosystems, soil health, solid waste management, and overall ecological quality. Responsibility for meeting these targets lies jointly with the party committees and governments of each province.