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CHINA ENERGY POLICY
NEWSLETTER

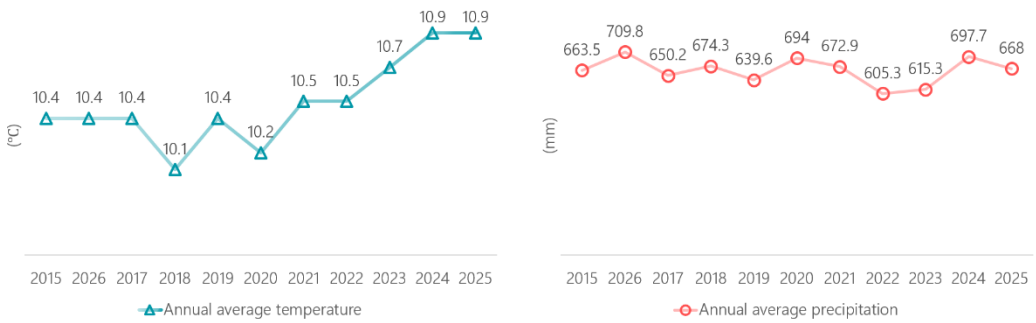
China Energy Transformation Programme

1. China energy transition updates

China's average temperature reached a record high in 2025

In June 2026, the Ministry of Ecology and Environment (MEE) released the *China Climate Change Adaptation Progress Report 2025* [1] (CHN: 中国适应气候变化进展报告（2025）), marking its third consecutive publication. The *2025 edition* provides an overview of China's climate change situation, focusing on five key areas: climate change monitoring, early warning and risk management, natural ecosystems, socio-economic systems, regional trends, and safeguard mechanisms. In 2025, the average national temperature stood at 10.9°C, tying with 2024 as the highest on record. The annual average number of high-temperature days was 16.5, the highest since 1961. Regional and episodic heatwaves, along with extreme rainfall events, significantly affected natural and socio-economic systems. China needs to speed up its efforts to improve climate adaptation capacities and mitigate climate risks.

2015-2025 National average annual temperature (left) and precipitation level (right)



Source: Ministry of Ecology and Environment (MEE), June 2026

[1] "《中国适应气候变化进展报告（2025）》," Ministry of Ecology and Environment, 17 June 2026, accessed at https://www.mee.gov.cn/ywdt/xwfb/202606/t20260617_1159586.shtml.

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Danish Energy Agency

CET 中国能源转型项目 CHINA ENERGY TRANSFORMATION PROGRAM

中国宏观经济研究院 能源研究所 Energy Research Institute of Chinese Academy of Macroeconomic Research

The 15th Five-Year Plans for ecological civilisation, climate change, carbon peaking, energy system transformation, power system transformation and renewable energy development were released

The Five-Year Plan (FYP) is a core element of China's economic and social development planning system. It is a top-level plan guiding the country's development over the next five years. Over the past 20 years, sustainable development and green transition have gradually emerged as key issues, prompting the relevant ministries to formulate sector-specific FYPs. 2026-2030 marks China's *15th Five-Year Plan* (15th FYP) period. In June and July 2026, the government successively issued the *15th FYPs* for ecological civilisation[2], climate change[3], carbon peaking[4], energy system transformation[5], power system transformation[6] and renewable energy development[7]. These six plans deepen the targets, detail specific tasks, and interact with one another, working together to build a *Beautiful China*.

- The *Beautiful China 15th FYP* is a comprehensive top-layer plan for ecological civilisation development. It serves as the overarching framework for coordinating efforts in industrial restructuring, pollution control, ecological protection, and addressing climate change.
- The *Climate Change 15th FYP* focuses on addressing climate issues outlined in *Building a Beautiful China*. It aims to meet carbon peaking and carbon neutrality goals and the 2030 Nationally Determined Contribution (NDC) commitments, setting out essential tasks to control greenhouse gas (GHG) emissions, develop carbon markets, and manage climate risks.
- The *Carbon Peaking 15th FYP* focuses on carbon emissions, targeting a peak before 2030. It highlights core sectors such as energy, industry, buildings, and transport, along with specific tasks for each.
- The *New-type Energy System 15th FYP*, the *New-type Power System 15th FYP*, and the *Renewable Energy 15th FYP* are sector-specific plans outlining detailed tasks for the energy system transformation, power system transformation and renewable energy development, respectively. They are essential pillars for implementing the carbon peaking targets and providing a solid foundation for addressing climate change and *Building a Beautiful China*.

Highlights of emission reductions and energy transformation in the *15th FYP* compared with the *14th FYP*.

1) This is the first instance of setting quantitative targets to reduce non-CO_2 GHG emissions within the FYP framework. The country will increasingly emphasise climate adaptation alongside mitigation efforts. The focus of the energy system transformation will shift from scaling up and optimising structures to comprehensive restructuring and high-quality development. A new trend will emerge - balancing energy security with the transition to a low-carbon system.
2) Power system development will adopt a balanced strategy across coal, wind, solar, hydro, and nuclear power. Coal power will accelerate its transition to a power-regulation source; wind and solar PV capacity expansion will slow, with average annual growth falling by 25% to 190 GW; nuclear and offshore wind will grow significantly; CSP, pumped hydro, and ocean power will also scale up. By 2030, total power generation capacity will reach 5,400 GW, of which over 2,800 GW will be from wind and solar. Non-fossil fuels will account for 50%, and wind and solar together will account for 30% of total electricity generation.
3) The *15th FYP* sets specific targets for various emerging power regulation resources, including chemical storage, vehicle-grid interaction and demand response. These targets cover not only capacity scales but also capacity values, e.g., responsibilities during peak loads. Notably, wind and solar power projects with energy storage will also be responsible for power regulation. By 2030, wind and solar power are expected to make up 20% of total power generation during evening peak hours on extremely hot or cold days.
4) Non-electric renewable applications like green heating and green hydrogen will grow in importance. During the *15th FYP* period, renewable-based hydrogen production will increase sevenfold. The government also set binding targets for non-electric energy consumption in energy-intensive industries such as electrolytic aluminium, steel, and cement for the first time. By 2030, non-electric renewable energy consumption will reach 150 Mtce, marking a 150% rise from 2025.

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[2] "国务院关于印发《美丽中国建设"十五五"规划》的通知, 国发〔2026〕20号," State Council, 5 July 2026, accessed at https://www.gov.cn/zhengce/content/202607/content_7074199.htm.
[3] "关于印发《国家应对气候变化"十五五"规划》的通知, 环气候〔2026〕42号," Ministry of Ecology and Environment, et al., 24 July 2026, accessed at https://www.mee.gov.cn/xxgk2018/xxgk/xxgk03/202607/t20260729_1163021.html.
[4] "关于印发《"十五五"碳达峰行动方案》的通知, 国发〔2026〕22号, " State Council, 5 July 2026, accessed at https://www.gov.cn/zhengce/content/202607/content_7074826.htm.
[5] "关于印发《新型能源体系建设"十五五"规划》的通知,发改能源〔2026〕884号," National Development and Reform Commission and National Energy Administration, 13 June 2026, accessed at https://www.ndrc.gov.cn/xwdt/tzgg/202606/t20260625_1406081_ext.html.
[6] "关于印发《新型电力系统建设"十五五"规划》的通知, 发改能源〔2026〕942号," National Development and Reform Commission, and National Energy Administration, 21 July 2026, accessed at https://www.gov.cn/zhengce/zhengceku/202608/content_7077425.htm.
[7] "关于印发《可再生能源发展"十五五"规划》的通知, 发改能源〔2026〕1067号," National Development and Reform Commission and National Energy Administration, 6 July 2026, accessed at https://www.ndrc.gov.cn/xxgk/zcfb/tz/202607/t20260723_1406641.html.

The 15th Five-Year Plan for Building a Beautiful China

In 2012, the *18th National Congress of the Communist Party of China (CPC)* first called for *Building a Beautiful China*. In 2016, this goal was integrated into the national five-year plan for the first time as a key component of green development, notably in the *Outline of the 13th Five-Year Plan for National Economic and Social Development* [8] (CHN: 国民经济和社会发展"十三五"规划纲要). In 2024, the State Council issued the *Opinions on Comprehensively Advancing to Build a Beautiful China* [9] (CHN: 关于全面推进美丽中国建设的意见), further clarifying its definition and primary pathways. *Building a Beautiful China* involves coordinated efforts across industrial restructuring, pollution control, ecological protection, and addressing climate change to achieve carbon and pollution reductions, green expansion, and economic growth. Together with maintaining ecological security and improving institutional frameworks, these efforts jointly establish a high-quality ecological environment that supports high-quality growth. In June 2026, the State Council published the *Beautiful China 15th FYP*, which sets phased targets and pathways by 2030, with an outlook for 2035.

Key targets relevant to emissions reduction outlined in the *Beautiful China 15th FYP*

By 2030, the national ecological environment quality will have improved overall, and the carbon peak target will have been achieved as scheduled.

- Total emissions of major pollutants continue to decline, while the capacity for solid waste governance, the quality of urban and rural living environments, ecosystem diversity, and nuclear and radiation safety levels all continue to improve, effectively safeguarding national ecological security
- ✓ Carbon dioxide emissions per unit of GDP fall by 17% from 2025 (–17.7% 2021-2025)
- ✓ The share of non-fossil fuels in total primary energy consumption reaches 25% (21.7% in 2025)
- ✓ Carbon emissions per unit of product in sectors covered by the national carbon market decrease by 3% from 2025

By 2035, the national ecological environment is fundamentally improved, and the goal of *Building a Beautiful China* is basically realised.

- The country widely establishes green production and lifestyles, significantly enhances the diversity and stability of ecosystems, and strengthens national ecological security; the modernisation of the ecological environment governance framework and capacity is fundamentally achieved
- ✓ Nationwide concentrations of fine particulate matter (PM2.5) fall below 25 $\mu g/m^3$
- ✓ Net GHG emissions across the entire economy fall by 7%-10% from their peak level

Source: State Council, June 2026

The National 15th Five-Year Plan to Address Climate Change

In July 2026, the Ministry of Ecology and Environment (MEE) along with 18 ministries released the *Climate Change 15th FYP*. This marks the first time China has established a full-sector, full-scope system to meet climate change targets within the national five-year plan framework. It aims to meet the carbon peak before 2030 and fulfil commitments in its NDC for 2030. The plan proposes three key tasks: emissions control, carbon market expansion, and climate risks management.

Emissions control	▪ Carbon dioxide emissions per unit of GDP fall by 17% from 2025 as the core target ▪ For the first time, it sets quantitative targets for reducing non-CO_2 GHG emissions, aiming for a 30 $MtCO_{2eq}$ reduction by 2030; it outlines specific strategies for methane, nitrous oxide, and fluorinated gases emission control
Carbon market expansion	▪ The national carbon market will expand the range of sectors and types of GHGs at a rational pace ▪ Gradually increase the share of allowances allocated by paid method, and establish an allowance reserve and market adjustment mechanism ▪ The carbon market's roles in price discovery and emissions reduction will be enhanced, with a goal of carbon emissions per unit of product in sectors covered by the national carbon market decreasing by 3% from 2025 ▪ To establish a credible, transparent national GHG CCER market that follows a unified methodology, ensures wide participation, and aligns with international standards ▪ The product carbon footprint management system is fundamentally in place
Climate risk management	▪ To carry out a balanced strategy of adaptation and mitigation, requiring the enhancement of climate adaptation across natural ecosystems, socio-economic systems, and key regions ▪ To carry out climate change risk assessments and specifically strengthen its resilience to extreme weather events

Source: Ministry of Ecology and Environment (MEE) et al., July 2026

[8] "中华人民共和国国民经济和社会发展第十三个五年规划纲要," the central government, 17 March 2026, accessed at https://www.gov.cn/xinwen/2016-03/17/content_5054992.htm.

[9] "中共中央 国务院 关于全面推进美丽中国建设的意见," the central government and the State Council, 11 January 2024, accessed at https://www.gov.cn/gongbao/2024/issue_11126/202401/content_6928805.html.

The 15th Five-Year Action Plan for Carbon Peaking

In September 2020, China publicly committed to reaching carbon peak before 2030 and achieving carbon neutrality before 2060. The first national top-layer policy - the *Action Plan for Carbon Peaking before 2030* [10] (CHN: 2030年前碳达峰行动方案) - was issued in 2021, outlining a two-phase pathway: the *14th Five-Year Plan* period (2021-2025) and the *15th Five-Year Plan* period (2026-2030), each with specific development targets and key tasks. The *Carbon Peaking 15th FYP*, released in July 2026, further details the implementation strategy for the critical 2026-2030 carbon-peaking phase, including primary carbon-reduction measures, major projects, and assessment mechanisms in energy, industry, building, and transport sectors.

Key targets outlined in the *Carbon Peaking 15th FYP*

Sector	Main targets and key tasks
Energy	▪ Accelerate energy mix optimisation by actively promoting non-fossil energy exploitation and improving renewable power consumption capacity ▪ Implement inter-provincial power transmission projects to increase mutual aid transmission capacity by 40 GW ▪ Control the installed capacity and electricity generation of coal power, promote the transition of coal-fired units to power regulation sources ▪ Implement major projects to retrofit coal power units and coal-chemical industries for low-carbon operation, and promote clean energy substitution for coal in light industry ▪ Optimise the oil and gas consumption mix and actively promote the use of green hydrogen, ammonia, methanol, biodiesel and sustainable aviation fuel
Industry	▪ Promote industrial restructuring and implement key energy-saving and carbon-reduction projects in energy-intensive sectors, such as steel, electrolytic aluminium and cement industries ▪ Accelerate the development of zero-carbon industrial parks and projects, and promote the green transition of computing infrastructure ▪ Strengthen the comprehensive utilisation of waste, the cascading use of energy, and the recycling of water resources
Building	▪ Implement key projects for low- and zero-carbon heating, cooling and green lighting ▪ Reduce energy consumption per unit of floor area in public institution buildings by 5% and carbon emissions by 8.5% from 2025
Transport	▪ Increase the share of new energy vehicles and new energy commercial transport vehicles in the total fleet to 30% and 25%, respectively ▪ Carry out key projects for zero-carbon road and waterway corridors
Carbon sink	▪ Consolidate ecosystems' carbon sink capacity, with the national forest stock volume to reach 22.4 Bm^3
Support mechanisms	▪ Put forward the amendment of the *Energy Conservation Law*, the *Renewable Energy Law* and the *Regulations on Energy Conservation in Public Institutions* ▪ Improve the national carbon emissions data management system and the national GHG emission factor database

Source: State Council, June 2026

The 15th Five-Year Plan for New-type Energy System Development, the 15th Five-Year Plan for New-type Power System Development and the 15th Five-Year Plan for Renewable Energy Development

In October 2022, the CPC *20th National Congress* introduced the concept of building a *New-type Energy System*. This system primarily relies on non-fossil energy supply, with fossil fuels as a backup, a new-type power system as key support, and green, smart, and energy-saving features as the orientation.[11] Driven by large-scale renewable energy development, by 2025, non-fossil energy accounted for 21.7% of total primary energy consumption; renewable energy dominated installed power capacity at over 60% and accounted for 38% of total electricity generation. In June 2026, the *New-type Energy System 15th FYP* was released, shifting the focus from scale expansion and structural optimisation during the *14th FYP* period to overall restructuring and high-quality development during the *15th FYP* period for the energy system transition. The *New-type Power System 15th FYP* and the *Renewable Energy 15th FYP*, published in July 2026, also emphasise a new trend: balancing energy security with the transition to a green, low-carbon energy system.

[10] "关于印发2030年前碳达峰行动方案的通知, 国发〔2021〕23号," the State Council, 24 October 2021, accessed at https://www.gov.cn/zhengce/content/2021-10/26/content_5644984.htm.

[11] "国家能源局局长王宏志撰文详解新型能源体系," National Energy Administration, March 2025, accessed at https://mp.weixin.qq.com/s?__biz=Mzg2MjY4Mzg4Nw==&mid=2247598386&idx=4&sn=8e9d4b654d1fb34fc25dbb4c99ff78f3&chksm=ce0716b2f9709fa4ec0440d7dc811ba43a40a0d6376e74d6b8abd6c0652c154ad5257f20dc7c&scene=27.

Energy security: steady growth in energy supply and reliable replacement by renewable energy

In recent years, fuel price volatility worldwide has increased, leading to a more complex energy security landscape. During the *15th FYP* period, China will maintain oil production and increase gas production and coal production capacity reserves, with total primary energy production capacity growing at an average annual rate of 2.5% to reach 5.8 Btce by 2030. Energy infrastructure improvements include a 20% increase in the West-Power-to-East transmission capacity, a 50% increase in inter-provincial mutual aid power transmission capacity, and a 20,000 km expansion of oil and gas pipelines. Power generation capacity will also expand, with an average annual addition of around 300 GW, reaching 5,400 GW by 2030. Renewable energy, especially wind and solar, will become key power sources, providing electricity, capacity backup, and power regulation services. During the *15th FYP* period, renewable peak generation capacity is expected to increase by 300 GW, accounting for 20% of the 2025 peak load. By 2030, the confident output of wind and solar will average 8% nationwide, with utility-scale projects exceeding 10%. These sources will account for 20% of total power generation during the evening peak-load period on extremely hot or cold days. Renewable energy will gradually replace fossil fuels at a reliable pace.

Green and low-carbon transition: steady growth in renewable energy scale and comprehensive improvements in utilisation efficiency

To fulfil its commitment to peak carbon emissions before 2030, China's coal and oil consumption will peak during the *15th FYP* period. Non-fossil energy is expected to account for 25% of total primary energy consumption in 2030. The country will continue to prioritise energy conservation in end-use sectors, including industry, buildings, and transport, through technical retrofits and improved management. These efforts aim to save 150 Mtce of energy consumption in total over the *14th- and 15th FYP* periods (2021-2030), equivalent to about 3.5% of final energy consumption in 2020. Another key focus will be a comprehensive clean energy replacement programme, with the expansion of scale and improvement of quality in renewable energy supply and consumption as a core measure.

- 'Expansion of renewable energy scale' on the supply side adopts a balanced strategy across coal, wind, solar, hydro and nuclear power. Coal power will speed up its transition to a power regulation source. Wind and solar power capacity will grow rationally, reaching over 2,800 GW by 2030, with an average annual increase of over 190 GW – about 25% below the 260 GW in the *14th FYP* period. Utility-scale and distributed projects will be promoted in parallel. Large-scale wind and solar power bases in the Three North regions (North, Northeast, Northwest) and distributed new energy (mainly wind and solar) projects nationwide will increase by 370 GW and 300 GW, respectively. Nuclear power capacity will grow by 48 GW, totalling around 110 GW, while offshore wind will expand by 53 GW, surpassing 100 GW in total, with both developments considerably faster than in the *14th FYP* period. CSP, pumped hydro and ocean energy capacity will each kick off scale-up expansion. By 2030, non-fossil energy will account for 50%, and wind and solar for 30% of total power generation. In addition, non-electric renewable energy supply will scale up. Notably, the renewable-based hydrogen production capacity will increase from 0.25 Mt/year in 2025 to 2 Mt/year in 2030.
- 'Improvement of renewable energy quality' on the supply side adopts diversifying and scaling up power regulation resources. Power regulation capacity is crucial for integrating renewable energy into the power grid. The combined power regulation capacity of power generators and energy storage facilities is expected to increase by over 40% over the *14th- and 15th FYP* periods. During the *15th FYP* period, the minimum output of coal-fired CHP units will drop to below 40%, CSP will grow from 1.8 GW to 15 GW, pumped hydro will expand from 66 GW to 160 GW, and new-type energy storage facilities, mainly electrochemical storage stations, will increase from 136 GW to 300 GW, showing a rapid expansion pace and becoming key power regulation sources for large-scale wind and solar power bases in the northwestern regions. Power regulation capacity from vehicle-grid interaction and virtual power plants will both reach 50 GW, serving as vital distributed power regulation sources in the central, eastern and southern load centres. By 2030, China's power supply adequacy (defined as the maximum available power generation capacity divided by the maximum power load) is expected to exceed 1.1. During peak load periods, non-fossil fuel power sources could meet 40% of peak demand, grid-independent energy storage systems could provide 140 GW of generation capacity, and demand-side resources could enable load shifting of up to 100 GW.
- 'Expansion of renewable energy scale' on the demand side refers to increasing renewable energy consumption across the board. The NDRC has issued binding targets for minimum renewable power consumption by province, and binding targets for minimum renewable energy consumption - covering both electricity and non-electricity targets - for energy-intensive industries such as electrolytic aluminium, steel, and cement. During the *15th FYP* period, the government will publish annual targets, conduct annual assessments, and gradually expand the scope of industries. By 2030, non-electric renewable energy consumption will reach 150 Mtce, a 150% increase compared with 2025.

- 'Improvement of renewable energy quality' on the demand side refers to improving energy-use efficiency across the board. During the *15th FYP* period, the power market will be further liberalised. Inter-provincial and inter-regional power transaction volume will increase by more than ¼; the share of market transaction volume in the country's annual electricity consumption will rise from 64% to 70%. Renewable power will be consumed across a wider region. Meanwhile, renewable electricity will be closely integrated with diverse energy-use scenarios through numerous innovative projects, such as direct green power connections and zero-carbon parks and factories. The end-use electrification rate will increase by 5 percentage points to 35% by 2030. There will also be active efforts to promote non-electric renewable energy applications, including renewable energy-based heating and green hydrogen, ammonia, and alcohol. By 2030, the national new energy utilisation rate - mainly referring to wind and solar - will remain around 90%, implying that their electricity curtailment rate will be controlled at 10%.

Key targets outlined in the *New-type Energy System, New-type Power System and Renewable Energy 15th FYPs*

Index	2025 Actual	2030 Target	Reference
Primary energy production and reserves			
Total primary energy production capacity	5.13 Btce	5.8 Btce [(a)]	[5]
Crude oil production	216 Mt	>200 Mt	[5]
Coal production capacity reserves	-	>100 Mt/year	[5]
Primary energy consumption			
Coal and oil	-	Reach the peak	[5]
Share of non-fossil fuels	21.7%	25% [(a)]	[5]
Renewable energy	1.18 Btce	1.8 Btce [(a)]	[7]
Final energy consumption			
Energy saving in major industries	>150 Mtce		[5]
Share of electricity	30%	35%	[5][6]
Residential electricity consumption per capita	1,130 kWh [(b)]	1,500 kWh	[5]
Non-electric renewable energy utilisation			
Non-electric renewable energy consumption	60 Mtce	150 Mtce	[7]
Renewable-based hydrogen production scale	250,000 t	2 Mt	[5][7]
Power generation capacity			
Total	3,890 GW	5,400 GW	[5][6]
Share of non-fossil fuels	61.7%	65%	[6]
Nuclear (operational)	62 GW	~110 GW	[5][6]
Renewable energy	2,340 GW	3,500 GW	[7]
- Hydro	450 GW	570 GW	[7]
- Conventional hydro	382 GW	410 GW	[5][6][7]
- Pumped hydro	66 GW	160 GW	[5][6][7]
- Wind and solar	1,840 GW	>2,800 GW [(a)]	[7]
- Large-scale bases added in the Three North	-	370 GW	[7]
- Distributed projects added nationwide	-	>300 GW	[7]
- CSP	1.82 GW	15 GW	[5][7]
- Offshore wind	47 GW	>100 GW	[7]
- Ocean	-	0.4 GW	[7]
Power generation			
Share of non-fossil fuels	42.3%	50%	[5][6]
Renewable energy	4,000 TWh	6,000 TWh	[7]
- Wind and solar	2,300 TWh	4,000 TWh	[7]
- Share of wind and solar	22%	30%	[5][7]
New energy utilisation rate [(c)]	-	~90%	[6]
Carbon emission/kWh [(d)] reduction	>10% [(a		[5]
Power system regulation			
Power supply adequacy [(e)]	<1.1	>1.1 [(a)]	[6]
Power regulation capacity [(f)] added	40%		[5]
Coal CHP units' minimum output	-	>40%	[6]
Share of non-fossil power generation capacity over peak-load [(g)]	-	40%	[6]

New-type energy storage [h] capacity	136 GW	300 GW	[5][6]
- Grid side independent systems for peak-load generation [i]	60 GW	140 GW	[6]
Dispatchable charging capacity under vehicle-grid interaction	10 GW	~50 GW	[5][6]
- Charging infrastructures	20 million	40 million	[5][6]
- Large power charging infrastructures	-	0.3 million	[6]
Demand-side peak-load shifting capacity	-	100 GW	[6]
Share of demand-side response in peak load	>3%	>5%	[5][6]
Power regulation capacity of virtual power plants	16.85 GW	>50 GW	[5][6]
Renewable energy replacement			
Average wind and PV confident output [j]	-	8%	[7]
- Utility-scale projects	-	>10%	[7]
- Advanced utility-scale projects	-	>20%	[7]
Share of wind and solar [k] in total power generation during the evening peak-load period on the extreme hot and cold days	-	20%	[7]
Renewable power generation capacity added for peak-load generation [l]	-	300 GW	[7]
Power grid			
West-Power-to-East transmission capacity	340 GW	>420 GW	[5]
Inter-provincial mutual aid transmission capacity	80 GW	120 GW	[6]
Distribution grid to accommodate distributed new energy capacity	500 GW	900 GW	[6]
Power market			
Share of electricity transaction volume in total electricity consumption	65%	70%	[6]
Inter-provincial and inter-regional electricity transaction volume	1,590 TWh	2,000 TWh	[6]
Gas and oil pipelines			
Oil and gas pipeline distance added	-	20,000 km	[5]
Backbone gas pipeline transmission capacity	-	500 bm^3/year	[5]

Note: (a) Binding targets; (b) Calculated based on residential electricity consumption in 2025 divided by the permanent residential population; (c) The 90% of new energy utilisation rate reflects the national average new energy electricity curtailment rate – mainly refers to wind and solar - to be controlled at about 10%; (d) Total carbon dioxide emissions from the power generation sector over the total electricity generation; (e) Maximum available power generation capacity over the maximum power load; (f) The sum of the power regulation capacity of power generators and energy storage facilities; (g) The equivalent power generation capacity of non-fossil generators over the peak power load; (h) New-type energy storage include electrochemical storage (primarily lithium-ion batteries), mechanical storage (compressed air energy storage, flywheel energy storage, gravitational energy storage) and thermal storage (primarily molten salt storage); (i) The equivalent time period for peak-load generation is 4 hours; (j) At a 95% confident level, the guaranteed wind and solar PV power output (incl. the discharge power of equipped energy storage facilities) over their total installed capacity; (k) with the electricity discharged from their equipped energy storage facilities; (l) At a 95% confident level, the guaranteed power output provided by wind and solar PV power generation projects together with their equipped energy storage facilities.

NDRC will set binding targets for non-electric renewable energy consumption

In June 2026, the National Development and Reform Commission (NDRC) issued a policy introducing two assessments: *minimum renewable power consumption targets* by province and *minimum renewable energy consumption targets* for end-user sectors.[12] This aims to progressively improve the system for assessing renewable energy substitution programmes, focusing on regional electricity consumption and energy use in key sectors. The *minimum renewable power consumption targets* are provincial-level indicators that define the minimum required proportion of renewable energy in each province's annual electricity consumption. They comprise two indicators: the share of renewable electricity overall and the share of non-hydro renewables. Since 2020, the government has set annual targets and evaluated them according to actual electricity consumption. The *minimum renewable energy consumption targets* serve as assessment indicators for end-user sectors, defining the lowest required share of renewable energy in a user's annual energy consumption, encompassing both electricity and non-electric consumption. Targets not met in the current year will be transferred to the next year, and provinces showing exceptional performance will receive stronger policy support.

- End-user minimum renewable electricity consumption targets: In 2024, the NDRC initially set this target for the electrolytic aluminium sector. In 2025, it was expanded to steel, cement, polysilicon, and national data centre hubs. Users can meet this requirement through three approaches: self-generation, direct green power connections, and green power transactions. The consumption volume is calculated based on verified green certificates.
- End-user minimum non-electric renewable energy consumption targets: In 2026, the NDRC will set this target across key energy-use sectors for the first time. This target can be achieved through non-electric applications such as renewable energy heating (cooling), renewable energy hydrogen production (ammonia), and biofuels. The consumption volume will be primarily calculated based on thermal energy use.

NEA expands the scope of green certificate issuance and trading platforms

Since 2023, China's green certificate issuance has covered all eligible renewable power projects[13] connected to the public grid, both utility-scale and distributed. In June 2026, the NEA expanded coverage to include non-public grid-connected projects, including off-grid projects and those connected to users' internal grids or within direct green power connection projects.[14] This broadened scope encompasses all self-generation and self-consumption, as well as off-grid renewable projects in China, enhancing the green premium for distributed solar and wind power. That same month, the NEA approved the *Inner Mongolia Power Trading Centre* to trade green certificates[15], making it the country's fourth platform[16]. West-Inner Mongolia Power Grid is the only provincial-level independent TSO in China. It supplies 60% of the province's electricity and is a hub for wind and solar resources and energy-intensive industries. This approval enables the integration of green certificates and green power transactions on a single platform, promoting the development of the local renewable energy value chain and encouraging local energy-intensive users to adopt more green electricity.

NDRC publishes grid transmission and distribution tariffs for 2026-2028

In China, end-use electricity prices are categorised into three groups: agricultural, residential, and industrial and commercial. The government sets agricultural and residential electricity prices, while industrial and commercial electricity prices are partially market-driven and consist of five components: feed-in tariffs, feed-in grid losses, transmission and distribution tariffs (T&D tariffs), system operation costs (i.e. ancillary service fee, capacity price of pumped hydro) and

[12] "《可再生能源消费最低比重目标和可再生能源电力消纳责任权重制度实施办法》," National Development and Reform Commission et al., 5 June 2026, accessed at https://www.ndrc.gov.cn/xxgk/zcfb/fzggwl/202606/t20260612_1405837_ext.html; "一图读懂 | 可再生能源消费最低比重目标和可再生能源电力消纳责任权重制度实施办法," National Development and Reform Commisison, 22 June 2026, accessed at https://www.ndrc.gov.cn/xxgk/jd/zctj/202606/t20260612_1405841.html.

[13] The scope of green certificate issuance includes wind power (including distributed wind power and offshore wind power), solar power (including distributed solar PV and CSP), conventional hydropower, biomass power, geothermal power, and ocean energy power generation.

[14] "关于组织推进非公共电网可再生能源发电项目绿证核发的通知, 国能综通资质〔2026〕60号," National Energy Administration, 5 June 2026, accessed at https://www.nea.gov.cn/20260623/62bac506e76544bda509a7a50e81ba08/c.html.

[15] "关于内蒙古电力交易中心开展绿色电力证书交易请示的复函," National Energy Administration, 12 June 2026, accessed at https://www.nea.gov.cn/20260625/5d6aff8953ba4cb6b104dfdea6c0fbae/c.html.

[16] The first three are China Green Certificate Trading Platform, Beijing Power Exchange Center, Guangzhou Power Exchange Center.

government funds and surcharges. T&D tariffs are set at both regional and provincial levels, with the NDRC releasing regional power transmission tariffs every 2-3 years and provincial T&D tariffs every three years. Since 2017, the NDRC has issued three phases of price documents (i.e. 2017/2018-2019, 2020-2022, and 2023-2025), gradually refining the pricing process to better align with China's evolving power market (see the policy brief of the first three phases on the CET website). In July 2026, the NDRC issued the Phase IV (2026-2028) T&D price document.[17]

- Transmission tariffs in regional power grids are structured as a two-part system: a uniform regional electricity tariff and a capacity tariff distributed by province. The electricity tariff is based on the actual traded and settled electricity volume and shows notable regional differences. Compared with Phase III (2023-2025), high-load areas such as the North, East, and Central regions have seen tariff increases of 32%, 23%, and 15%, respectively, while tariffs in the Northwest renewable energy export areas have dropped by 15%. Capacity tariffs are determined by each provincial grid's electricity sales, with over half the provinces experiencing a decrease. This implies that load centres in the central and eastern regions will increasingly depend on inter-regional power supply, which should absorb more costs to recover investments in building new ultra-high-voltage transmission lines. Conversely, lower transmission tariffs in the west will reduce renewable power export costs, encouraging bigger regional renewable power consumption.
- Transmission and distribution tariffs in provincial power grids follow a dual-track approach, comprising a single electricity tariff system and a two-part system that combines an electricity tariff with a capacity/demand tariff. Both pricing systems vary by province and voltage level. In the two-part system, most provinces have reduced electricity tariffs, while the capacity/demand tariff has generally remained stable or increased slightly. The electricity tariff depends on a customer's actual electricity consumption, so lowering it can reduce costs for large industrial and commercial users. Conversely, the capacity/demand tariff, tied to transformer capacity or maximum power demand, is a fixed cost. Raising the capacity tariff can motivate customers to optimise equipment use, improving overall grid asset utilisation efficiency.

Electricity tariffs in the regional transmission tariffs (RMB/kWh) for the four phases

Region	Phase I (2018-2019)	Phase II (2020-2022)	Phase III (2023-2025)	Phase IV (2026-2028)	Phase IV vs Phase III
North	0.0100	0.0071	0.0082	0.0108	+31.71%
East	0.0100	0.0095	0.0075	0.0092	+22.67%
Centre	0.0100	0.0100	0.0222	0.0256	+15.32%
Northeast	0.0200	0.0087	0.0163	0.0164	+0.61%
Northwest	0.0200	0.0200	0.0142	0.0121	-14.79%

Source: NDRC, July 2026

China's distribution grid investment accounts for 50% in 2025

The NEA released the *China Power Supply Development Report 2026* (CHN: 中国供电发展报告（2026）), summarising the power grid and electricity use in China in 2025.[18] The annual investment in the power grid grew to RMB 639.5 billion, with 50.3% allocated to distribution grids at 110 kV and below, improving the resilience of power grids in rural and remote areas. By 2025, low-voltage users surpassed 770 million, accounting for 99.19% of all users. Electricity demand from the tertiary industry and households in urban and rural areas contributed to half of overall annual growth. The share of electricity in final energy consumption reached 30%, about 4 percentage points higher than in 2020, with nearly 4 out of every 10 kWh of electricity used being green. Both urban and rural regions saw improvements in electricity reliability; outage duration in Beijing and Shanghai was under one hour, and in some city centres, outages lasted only minutes.

[17] "关于第四监管周期省级电网输配电价、区域电网输电价格及有关事项的通知, 发改价格〔2026〕1077号," National Development and Reform Commission, 8 July 2026, accessed at https://www.ndrc.gov.cn/xxgk/zcfb/tz/202607/t20260710_1406431_ext.html.
[18] "中国供电发展报告（2026）," National Energy Administration, 1 July 2026, accessed at https://www.nea.gov.cn/20260701/52eef0c7dc2c43968e411487618aaf06/c.html.

2. Policy monitoring

2026-07-16

https://szs.mof.gov.cn/zhengcefabu/202607/t20260717_3993743.htm

MoF reinstates consumption tax on Li-battery and PV cells

Announcement on Adjustments to the Consumption Tax Policy for Certain Batteries, MoF-GAC-STA Announcement [2026] No. 20

Since 2015, China has imposed a consumption tax on batteries but has exempted seven major categories, including lithium batteries, thereby encouraging large-scale industry growth. By 2025, the production capacity of lithium batteries and EV battery installations each dominated global totals, signalling industry maturity. Recently, the Ministry of Finance (MoF) announced an adjustment to the consumption tax. Starting September 1, 2026, a 2% tax rate will apply to mature categories such as lithium-ion, vanadium flow, mercury-free primary cells, nickel-metal hydride, and lithium primary batteries, increasing to 4% after a year. From April 2027, PV cells will also be subject to a 2% tax rate, rising to 4% after a year. By contrast, cutting-edge categories such as sodium-ion, solid-state batteries, fuel cells, and certain PV technologies, including perovskite, tandem, and gallium arsenide cells, will remain tax-free until the end of 2028.

2026-07-02

https://szs.mof.gov.cn/zhengcefabu/202607/t20260703_3992823.htm

MoF adjusts vehicle and vessel tax for new energy vehicles

Announcement on Adjustments to the Vehicle and Vessel Tax Preferential Policies for Energy-Efficient and New Energy Vehicles

Since 2012, China has reduced vehicle and vessel tax by half for energy-efficient vehicles, including verified passenger and commercial vehicles powered by petrol or diesel, and has exempted eligible pure electric vehicles, plug-in (including range-extended) hybrid vehicles, and fuel cell vehicles from this tax. By 2025, new energy vehicles made up over half of all new car sales nationwide, leading to increased road resource use and maintenance costs. The MoF announced that, from 1 January 2027, taxes on these energy-efficient and new energy vehicles will be reinstated. However, pure electric and fuel cell passenger cars will remain tax-exempt. This change aims to improve tax fairness.

2026-06-26

https://www.nea.gov.cn/20260710/4acf5873e20149cdbc52c709b16b30ff/c.html

Energy sector energy-saving action plan for 2026-2028 released

Notice on the Issuance of the 'Action Plan for Energy Conservation and Carbon Reduction in the Energy Sector (2026–2028), NEA Planning [2026] No. 45

The *Action Plan* aims to increase the share of non-fossil energy consumption by about 1 percentage point annually from 2026 to 2028. It outlines measures to save energy and reduce carbon emissions across the power, coal, oil and gas sectors. For coal power, it stipulates that by 2028 the share of its production capacity meeting energy efficiency benchmarks should increase by 15 percentage points. Additionally, units of 300 MW or less are to be decommissioned, and retrofitting 600 MW units to ultra-supercritical standards is required. Support will also be provided for co-firing low- and zero-carbon fuels and for retrofitting CCUS technology, aiming to cut carbon emissions per kWh by 10%. The plan promotes integrating coal power with renewable power through coupled heat and electricity storage to participate in peak-shaving, peak-load generation capacity, and integrated power transmission. Furthermore, the *Action Plan* stresses substituting non-fossil sources in the industry, building, and transport sectors, with plans to establish a batch of zero-carbon industrial parks by 2028 to enhance the greenness of energy consumption.

2026-05-29

https://www.gov.cn/zhengce/zhengceku/202606/content_7072002.htm

MoT drives the scale-up of new energy heavy-duty trucks

Notice on the Issuance of the Implementation Plan for Promoting the Large-Scale Adoption of New Energy Heavy Goods Vehicles, MoT Planning [2026] No. 52

By 2025, the share of new energy heavy-duty trucks in annual truck sales in China has reached about 29%. The MoT aims to raise this to 40% by 2030, with the total fleet exceeding 1.6 million, constituting about 20% of the truck stock. In the Beijing-Tianjin-Hebei area and the Fen-Wei Plain, over 80% of heavy-duty trucks on fixed short-distance routes will be electric. Alongside highway development, around 3,000 charging and battery-swapping stations for electric heavy-duty trucks will be built. By 2030, 18% of highway freight volume will be carried by new energy heavy-duty trucks. A comprehensive system - including infrastructure, technical equipment, support services, standards, regulations, and policies - will be established to support the industry's scale-up development.

2026-05-28

https://www.nea.gov.cn/20260615/ebbeeb6d9e804a658ac13d70b2e4bd6f/c.html

NEA launches high-quality geothermal energy pilots

Notice on Organising and Carrying Out Pilot Projects for the High-Quality Development and Utilisation of Geothermal Energy, NEA General Office Circular on New Energy [2026] No. 55

The pilot programmes focus on three main directions: medium-deep geothermal energy, shallow geothermal energy, and diversifying applications. First, to scale up medium-deep geothermal energy, increase its share in urban district heating, explore coupling with traditional heat sources, and enable long-distance heat transmission to replace gas-fired heating. Second, replace gas-fired heating with shallow geothermal energy in rural areas and to develop shallow geothermal heating clusters in urban areas. Third, to diversify geothermal uses by integrating with industrial processes, repurposing abandoned oil and gas wells for secondary development of existing geothermal resources, and promoting the cascade use of geothermal energy alongside the smart retrofit of old geothermal equipment.

2026-05-15

https://www.ndrc.gov.cn/xxgk/zcfb/tz/202606/t20260615_1405852.html

NDRC issues a three-year action plan for industrial energy-saving and carbon-reduction retrofit

Issuance of the Notice on Launching a Three-Year Campaign for Energy-Saving and Carbon-Reduction Upgrades in Key Industries, NDRC Environment and Natural Resources [2026] No. 698

Starting in 2026, a three-year plan to implement extensive energy-saving and carbon-reduction retrofits will focus on eight industries, namely steel, electrolytic aluminium, cement, flat glass, oil refining, ethylene, synthetic ammonia, and methanol, as well as the coal power sector. By 2028, the share of production capacity in each of the eight industries that meet the current energy efficiency benchmarks should rise by an average of 20 percentage points, with the coal power sector targeting a 15-percentage point increase. Capacity below the baseline levels should be nearly eliminated. At present, less than 30% of capacity in each of the crude steel, electrolytic aluminium, cement clinker, and flat glass industries is below the benchmarks, while some sectors are more than 10% below the baseline. Between 2026 and 2028, it aims to save over 100 Mtce of energy consumption and reduce over 200 Mt of CO_2 emissions. After 2028, the NDRC intends to expand industry coverage based on actual conditions.