Summary of China's energy and power sector statistics in 2025

(China Energy Policy Newsletter – March Special Issue of 2026)

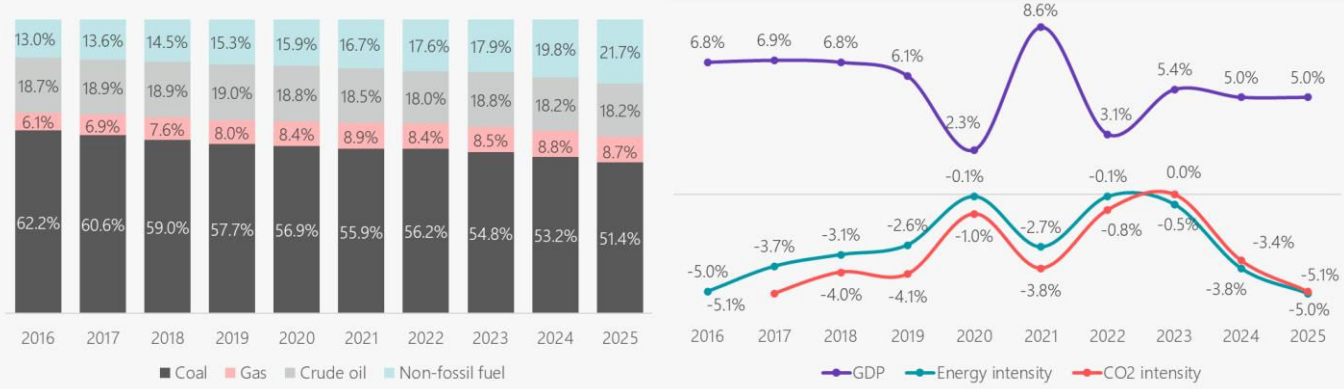
The *Summary of China's Energy and Power Sector Statistics* is a key research product of the China Energy Transformation (CET) programme, released annually as a special March issue of the *China Energy Policy Newsletter*. The *Summary (2025 edition)* provides annual data on China's energy and power supply and consumption for 2025, highlighting progress in renewable energy, new-type energy storage, new energy vehicles, hydrogen energy, and the power market. All data comes from publicly available statistics issued by government departments and think tanks, with primary energy consumption calculated via the coal substitution method. The *Summary (2025 edition)* concludes with forecasts from various energy think tanks on China's energy and power demand and supply in 2026, along with policy guidance for renewable energy. The summaries from 2019 to 2024 are available for download on the CET website.

Non-fossil energy consumption accounts for more than 20%

In 2025, China's Gross Domestic Product (GDP) grew by 5.0% year-on-year (YoY), exceeding RMB 140 trillion for the first time and demonstrating stable economic growth. The primary, secondary, and tertiary industries contributed 6.9%, 37.0%, and 60.0% of GDP, respectively. The added value of the secondary and tertiary industries increased by more than 5% annually for two consecutive years, with the tertiary industry showing the most notable rise in total share, up by 3.3 percentage points (pp) from 2024. Total primary energy consumption reached 6,170 million tonnes of coal equivalent (Mtce), a 3.5% increase YoY, with the growth rate declining for the third consecutive year. By fuel, raw coal consumption grew by only 0.1%, and the annual growth rate in the power, building materials, and steel industries all decreased. Natural gas consumption increased by 2.0%, a reduction of 5.3 pp compared to 2024. The growth rate of crude oil consumption turned positive, reaching 3.6%. The share of non-fossil energy consumption reached 21.7%, exceeding the 20% target set for the *14th Five-Year Plan* period (2021-2025), with the share of coal declining to 51.4%. The reductions in energy intensity (-5.1%) and carbon intensity (-5.0%) widened, indicating an accelerated shift in the energy structure towards a low-carbon model. [20][21]

> *Non-fossil fuels made up 21.7% of total primary energy consumption.*

2016-2025 Total primary energy consumption mix (left);
2016-2025 Annual growth rates of GDP, energy intensity, and CO2 intensity (right)



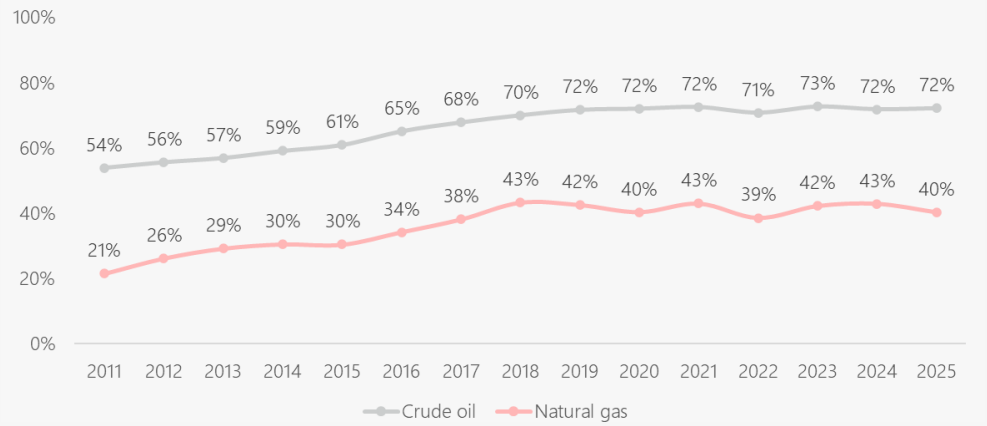
Note: Energy intensity refers to energy consumption (since 2023, it deducts feedstock and non-fossil energy consumption) per RMB 10,000 GDP; Carbon intensity refers to CO_2 emission per RMB 10,000 GDP.

Source: National Bureau of Statistics (NBS), accessed in March 2026

Energy supply capacity steadily increases

In 2025, total primary energy production reached 5,130 Mtce, marking a 3.6% growth rate, and the energy self-sufficiency rate hit 84.4%, reflecting steady improvements in energy security. The coal industry maintained a loose supply, with raw coal production and inventory rising by 1.4% and 4.6% YoY, respectively. Coal imports declined by 9.6%, and the average annual price of Qinhuangdao Thermal coal (5,500K) fell by 18.4%. The oil and gas industry continued expanding production, with both reaching record highs. The crude oil import dependence rate remained around 72%, while natural gas fell by over 2 pp to about 40%. [20][22][23]

2011-2025 Dependence on imported crude oil and natural gas



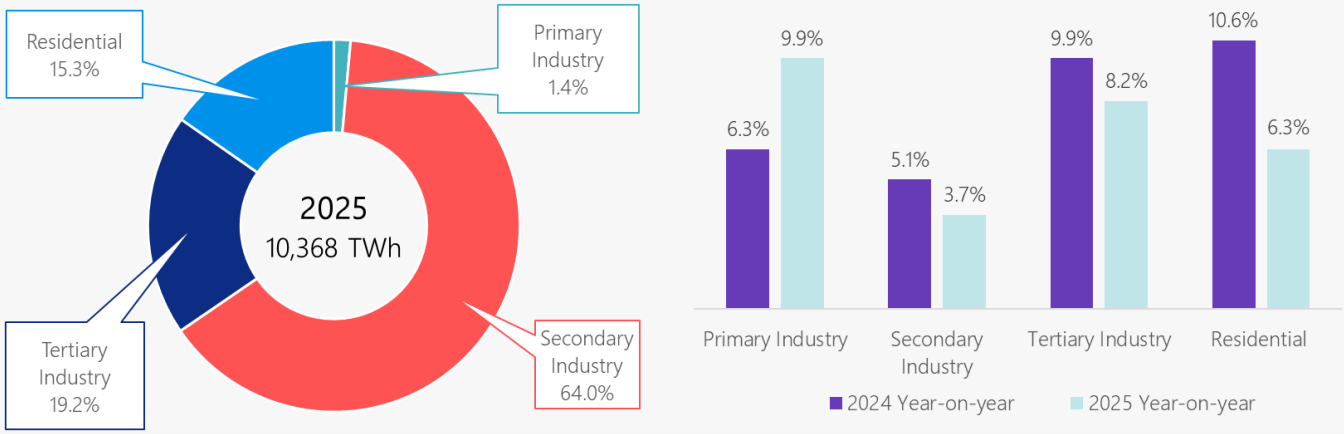
Note: The import dependence of a specific fuel is calculated using the formula of (annual fuel consumption – annual fuel production) / annual fuel consumption.

Source: NBS, accessed in March 2026

Residential, battery charging and swapping, and IT services maintain rapid electricity consumption growth

In 2025, total electricity consumption reached 10,368 TWh, marking a 5.0% growth rate, down 1.8 pp from 2024. For the first time, annual electricity consumption exceeded 10,000 TWh, doubling that of the United States. Sector-wise, the electricity consumption growth rate in the primary industry increased from 6.3% to 9.9%, driven by the acceleration of agricultural electrification. Growth rate in the secondary industry declined from 5.1% to 3.7%, facing export pressures in the consumer goods manufacturing sector. Growth rates in the tertiary industry and in urban and rural residential areas were 8.2% and 6.3%, respectively, jointly accounting for 50% of the total increase in annual electricity consumption. The EV charging and battery swapping service industry, along with the information transmission, software, and IT service industry, propelled tertiary industry growth, while high summer temperatures and cold winters heightened electricity demand from urban and rural residents. Regionally, all provinces experienced growth, with the eastern region leading at 5.5%; the central, western, and northeastern regions each maintained stable growth rates around 4.4% to 4.9%. During the *14th Five-Year Plan* period, China's total electricity consumption grew at an average annual rate of 6.6%, 0.9 pp higher than at the end of the *13th Five-Year Plan* period (2020). The end-use electrification rate rose from 25.5% to over 28%. [1][3]

2025 Total electricity consumption mix (left);
2024-2025 Year-on-year growth rate of total electricity consumption by industry (right)



Source: China Electricity Council (CEC) and National Energy Administration (NEA), accessed in February 2025

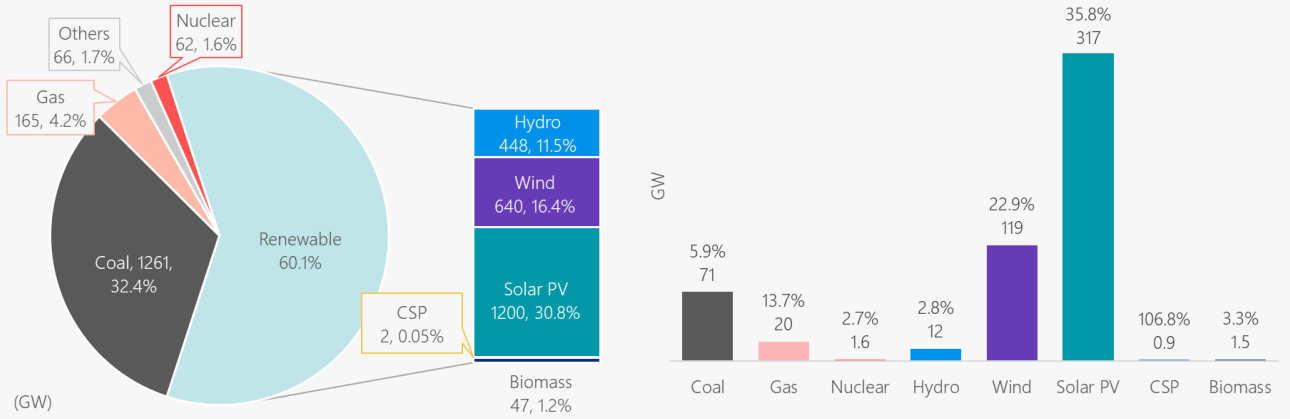
Newly installed wind and solar power capacity exceeds 400 GW

In 2025, total installed power generation capacity reached 3,891 GW, marking a 16.1% YoY increase, with the growth rate up 1.5 pp from 2024, thereby ensuring a solid foundation for power supply security. Renewable energy capacity stood at 2,337 GW, rising 24.0% YoY and accounting for 60.1% of total installed capacity, underscoring the deepening green transition in the power sector. Newly installed wind and solar power capacity reached a record high of 436 GW, accounting for over 80% of the total capacity added. By 2025, combined wind and solar capacity reached 1,840 GW, accounting for 47.0% of the total installed capacity. Newly installed coal power capacity was 71 GW, bringing the cumulative capacity to 1,260 GW, while its share of the total capacity declined from 35.5% to 32.4%.

The development of power system regulation capacity continued to accelerate, with gas power and pumped hydro adding 20 GW and 7.5 GW, respectively, reaching the same high as in 2024, with total installed capacities of 165 GW and 1.8 GW. Concentrated solar power (CSP) made a significant breakthrough, with nearly 1 GW added in 2025 - an increase of 107% YoY - bringing the total installed capacity to 1.8 GW. During the *14th Five-Year Plan* period, wind power and solar PV development maintained rapid growth, with total installed capacity surpassing that of thermal power and becoming the largest power source, and with an average annual increase of 260 GW. [2][3][4][19]

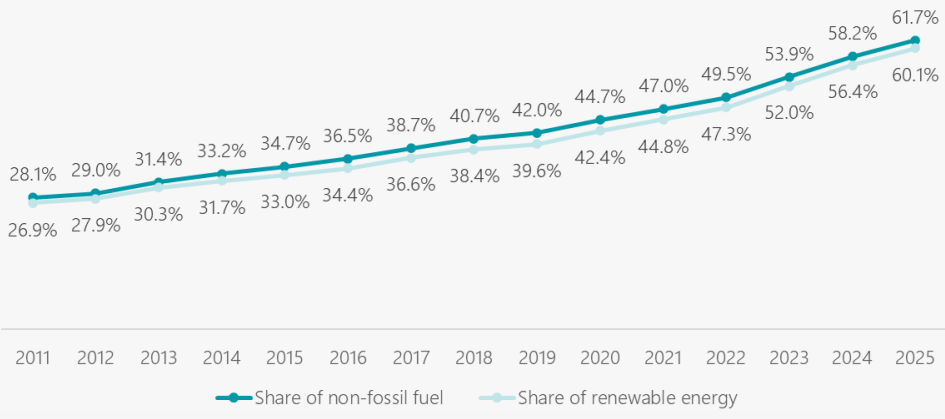
> *Renewable energy accounts for 83% of newly installed power generation capacity.*

2025 Total installed power generation capacity structure (left);
2025 Year-on-year growth rate of total installed power generation capacity and newly installed capacity by technology (right)



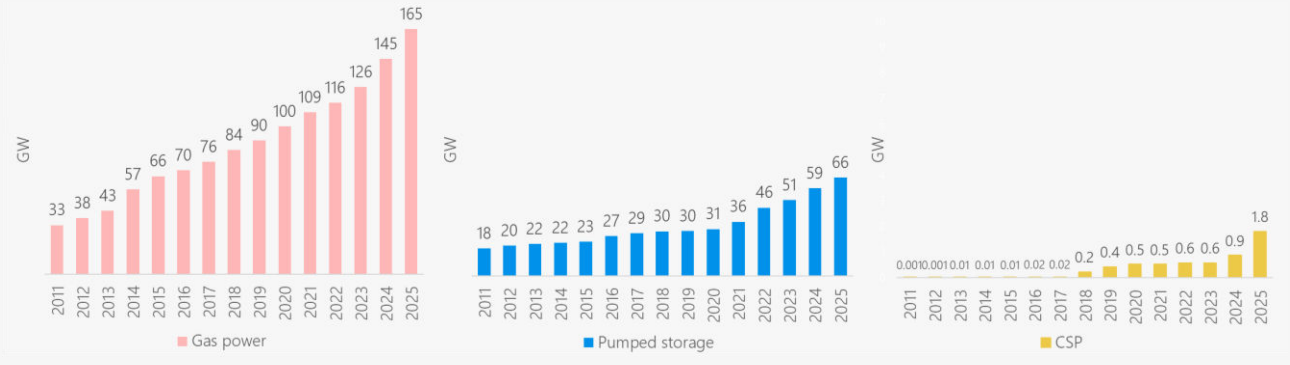
Source: China Electricity Council (CEC) and NEA, accessed in February 2026

2011-2024 Non-fossil energy and renewable energy share in total installed power generation capacity



Source: Calculated based on CEC and NEA's data, accessed in March 2025

2011-2025 Total installed capacity of gas power, pumped hydro, and CSP

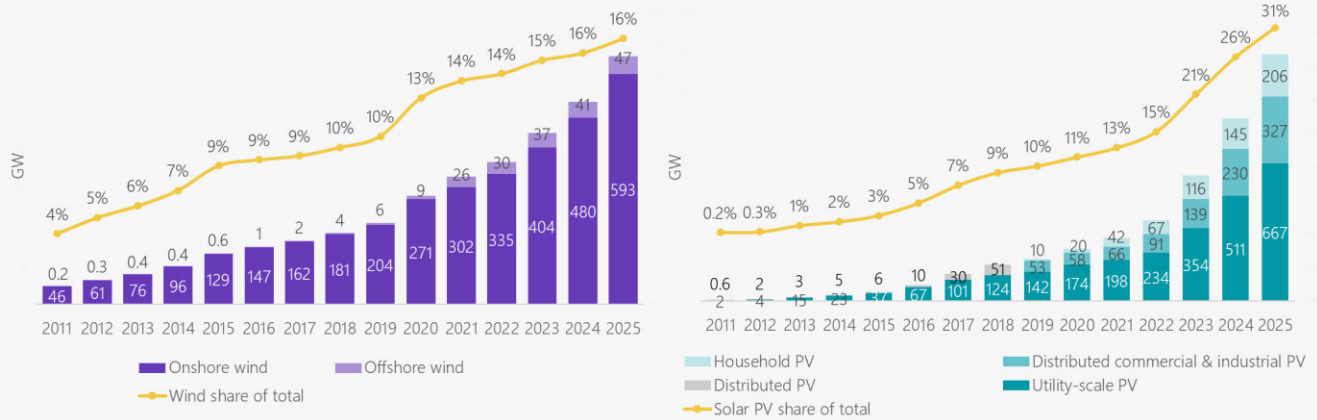


Source: China Solar Thermal Alliance (CSTA), CEC and NEA, accessed in February 2026

Solar PV - In 2025, China installed 317 GW of new solar PV capacity, rising by 39 GW from 2024. Utility-scale PV contributed 55.6%, while distributed PV made up 44.4%, with its expansion ongoing. New installations of utility-scale PV were 164 GW (5.1% YoY), roughly stable compared to 2024; new installations of distributed PV were 153 GW, up 35 GW from 2024. Among these, distributed industrial and commercial PV and household PV accounted for 107 GW (17.6% YoY) and 46 GW (58.6% YoY), respectively, with household PV growth accelerating. Regionally, most new utility-scale PV installations occurred in western China, with Xinjiang leading at 34 GW (21% of the total). Yunnan, Ningxia, and Inner Mongolia each exceeded 10 GW. Distributed PV new installations were mainly in eastern coastal and central China, with Jiangsu at the forefront, accounting for 18 GW (11% of the total), of which over 70% were industrial and commercial PV. Guangdong, Zhejiang, Henan, Anhui, and Shandong each exceeded 10 GW. By 2025, total solar PV capacity reached 1,200 GW, a 35.8% YoY increase. Utility-scale PV, distributed industrial and commercial PV, and household PV stood at 667 GW, 533 GW, and 327 GW, respectively, accounting for 56%, 27%, and 17% of the total. [5]

Wind power - In 2025, China installed 119 GW of new wind capacity, a 40 GW increase over 2024, with over 90% of it onshore. The new installations included 110 GW of onshore wind (45.1% YoY) and 7 GW of offshore wind (63.1% YoY). By 2025, China's total wind capacity reached 640 GW, up 22.9% from 2024. Among these, 593 GW was onshore wind and 47 GW offshore, representing 93% and 7% respectively. Inner Mongolia stood at 109 GW, or 17.0% of the national total, while Xinjiang reached 77 GW, accounting for 12.1%. [2][3][4][8]

2011-2025 Total installed wind power (left) and solar PV (right) capacity and their share of total

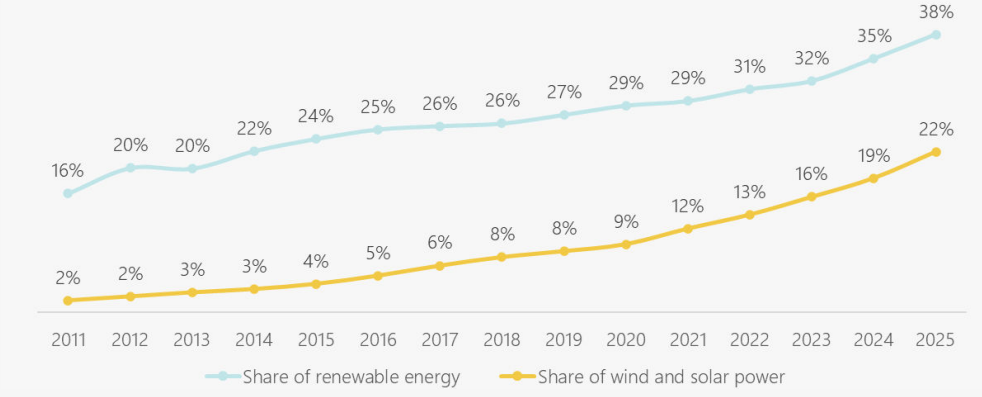


Source: NEA, accessed in March 2025

Coal power generation declines for the first time

In 2025, total electricity generation reached 10,420 TWh, marking a 5.2% YoY increase, with a growth rate 1.2 pp lower than in 2024. Renewable energy generation grew by 15.0%, contributing to 38.4% of total electricity consumption. The annual increase in renewable power generation covered the growth in total electricity consumption. Wind and solar power combined produced 2,300 TWh, an annual increase of 27.3%, and accounted for 22.2% of total electricity consumption. Coal power generation fell by 1.9% YoY, accounting for 51.1% of total electricity generation, down 3.7 pp from 2024, indicating efforts to expand coal capacity while reducing coal power generation. During the *14th Five-Year Plan* period, the share of wind and solar power in total electricity consumption increased by more than 12 pp, further enhancing the greenness of electricity use. [3][4][9]

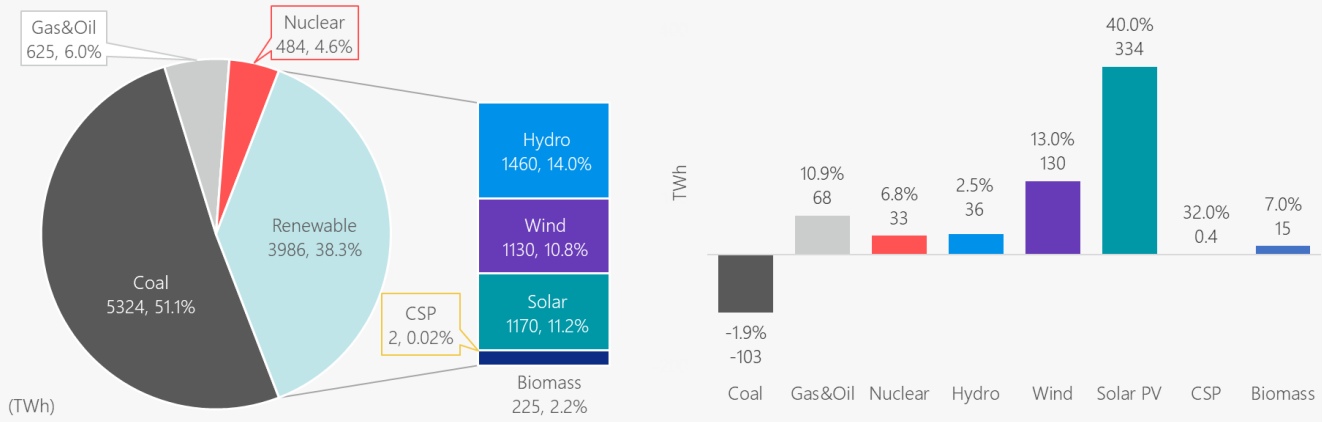
2011-2025 The share of renewable power, wind and solar power in total electricity consumption



Source: CEC, NEA and NBS, accessed in February 2026

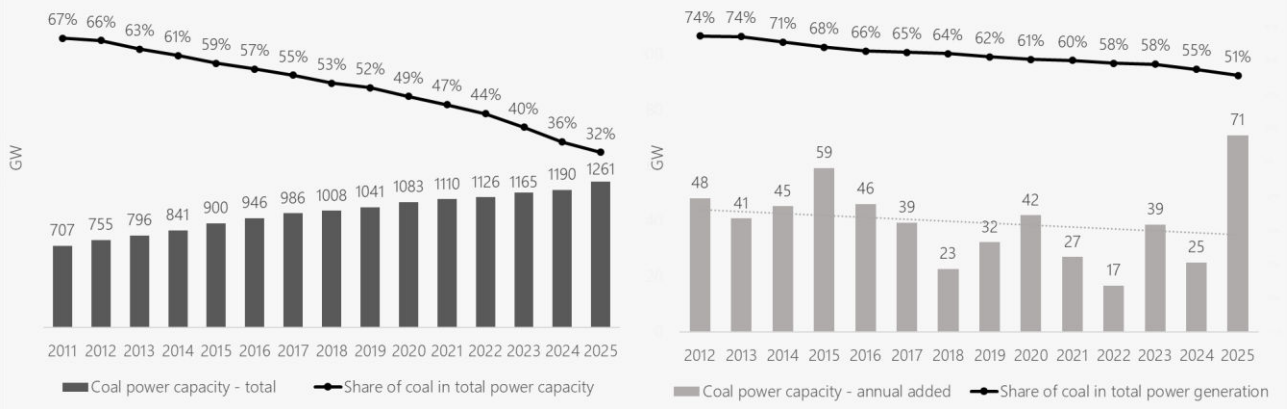
> *Nearly 4 out of every 10 kWh of total electricity consumption is powered by green energy sources.*

2024 Total power generation mix (left);
2024 Year-on-year growth rate of total power generation and incremental power generation by technology (right)



Source: NBS, CEC and NEA, accessed in March 2025

2011-2025 Total installed coal power capacity and its share of total (left);
2011-2025 Newly installed coal power capacity and the share of coal power generation (right)

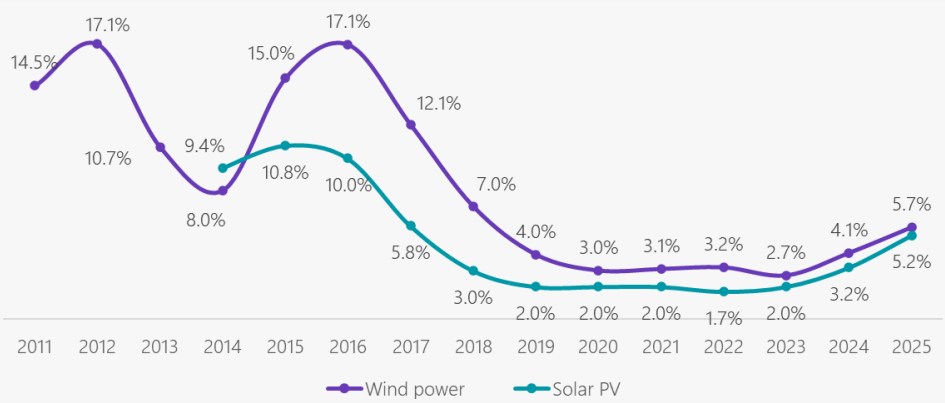


Source: CEC, accessed in February 2026

The wind and solar curtailment rates rise to around 5%

In 2025, renewable power made up 38.3% of China's power generation, with nearly 60% from variable renewable sources such as wind and solar power, further increasing pressure on power grid consumption. The national average full-load hours of power generation units over 6 MW fell by 312 hours YoY to 3,119 hours, doubling the reduction seen in 2024. Hydropower and nuclear power full-load hours remained stable, with slight increases of 12 and 126 hours, respectively, from 2024. Coal and gas power plants more frequently met power regulation requirements, leading to the largest annual decreases in full-load hours of 269 and 190, respectively. Wind and solar PV installations continued to grow rapidly, but overall power generation efficiency declined, with full-load hours falling by 143 and 113 hours, respectively. The wind and solar curtailment rates increased for the second consecutive year, with the national average wind curtailment rate reaching 5.7%, and the solar curtailment rate reaching 5.2% in 2025. In high-share wind and solar provinces, such as Inner Mongolia, Gansu, Qinghai, and Xinjiang, the average annual wind curtailment rate ranged from 6% to 9%, while the solar curtailment rate ranged from 7% to 17%. Notably, solar curtailment was more severe in Xinjiang and Qinghai, reaching 16.6% and 13.7%, respectively. [3][6]

2011-2024 Wind and solar power curtailment rates



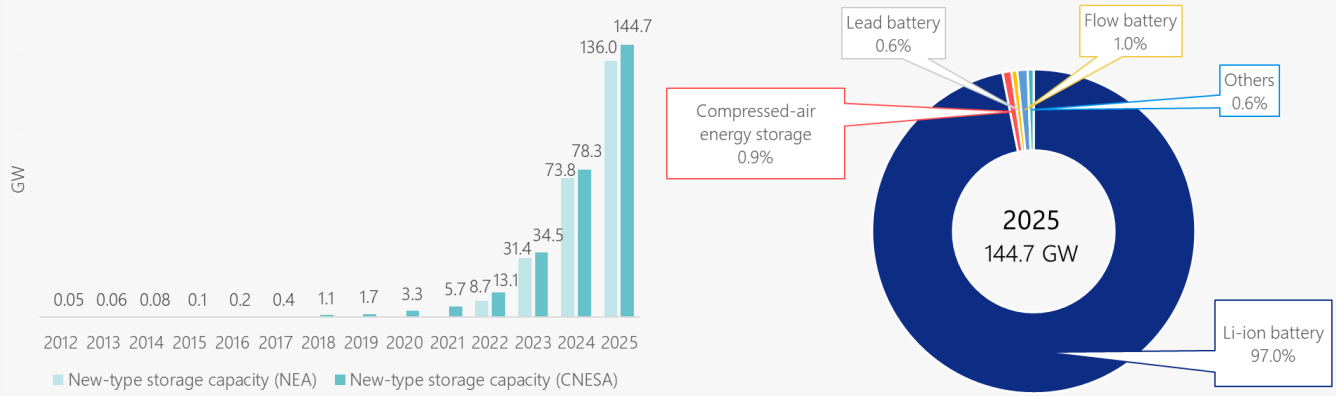
Source: NEA and Electric Power and Planning Engineering Institute (EPPEI), accessed in March 2025

New-type energy storage shows larger capacity and longer discharge duration trends

In 2025, China installed 66 GW of new-type energy storage capacity, roughly equal to the total capacity of pumped hydro. Power generation side contributed 26%, the grid side 63%, and the user side 9%. The focus remains on grid-side standalone battery stations. By 2025, operational new-type energy storage capacity totalled 145 GW, with an average duration of continuous discharge at rated power of 2.58 hours - a 0.28-hour YoY increase. Utilisation efficiency improved, with annual full-load hours reaching 1,195, up 300 hours from 2024. The trend toward larger capacity and longer storage durations continues, with over 70% of projects exceeding 100 MW and nearly 30% lasting 4 hours or more. Lithium-ion batteries still dominate, representing 97% of total capacity. The combined use of flow batteries and lithium batteries has become the new normal, with the share of flow battery capacity increasing by 0.6 pp to 1%, overtaking compressed air and lead-acid batteries for the first time. Regionally, Inner Mongolia, Xinjiang, and Shandong lead with 20 GW, 18 GW, and 11 GW, respectively. [7][9]

> *During the 14th Five-Year Plan period, the total installed capacity of new-type energy storage increased by more than 40 times.*

2012-2025 Total installed new-type energy storage capacity (left);
2025 Total installed new-type energy storage capacity structure (right)

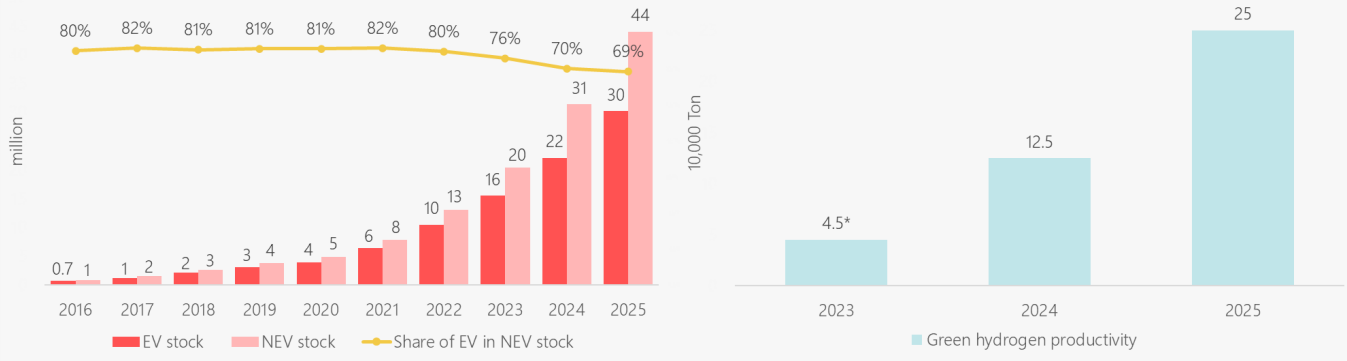


Source: The gap in capacity between CNESA and NEA's data is demand-side new-type storage capacity. The share by technology is calculated based on data published by NEA and China Energy Storage Alliance (CESA), accessed in February 2026

Green hydrogen productivity doubled

In 2025, the stock of new energy vehicles (NEVs) reached 43.97 million units, a 40% YoY increase and accounting for 12% of all vehicles. NEVs include plug-in hybrid vehicles, pure electric vehicles and fuel cell vehicles. Among these, pure electric vehicles numbered 30.22 million units by 2025, making up 69% of NEVs. The charging infrastructure grew by 57% annually, reaching 20.09 million units and is capable of supporting 40 million NEVs. Public charging points accounted for 23%, and private charging piles accounted for 77%. The hydrogen energy industry continued to expand rapidly, with renewable energy-based hydrogen productivity exceeding 250,000 tonnes per year - twice that of 2024 and surpassing the medium-term goals outlined in the *Medium- and Long-Term Development Plan for Hydrogen Energy Industry (2021-2035)*. By 2025, 631 hydrogen refuelling stations were in operation nationwide, a 25% of growth rate, while fuel cell vehicles reached 76.55 million units, a 50% rise from 2024. The industrial processes of hydrogen production, storage, transport, and application are gradually becoming more integrated. [9][10][11][12]

2016-2025 Stock of new energy vehicles, stock of pure electric vehicles and its share in NEVs (left);
2023-2025 Green hydrogen productivity (right)

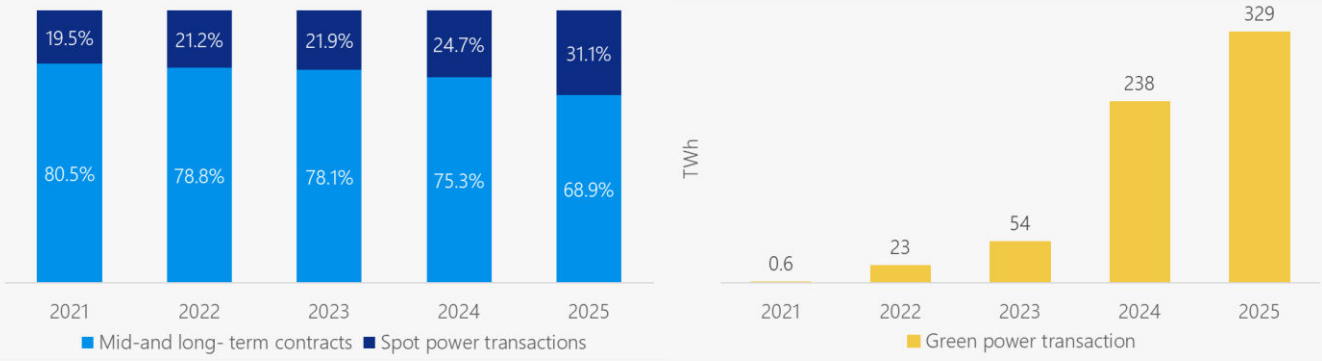


Source: * The data is estimated from Trend Bank's chart. Ministry of Public Security (MPS), China Association of Automobile Manufacturers (CAAM), Guochuang Hydrogen Energy (GCQN), Trend Bank and NEA, accessed in February 2026

The share of spot power transactions exceeds 30%

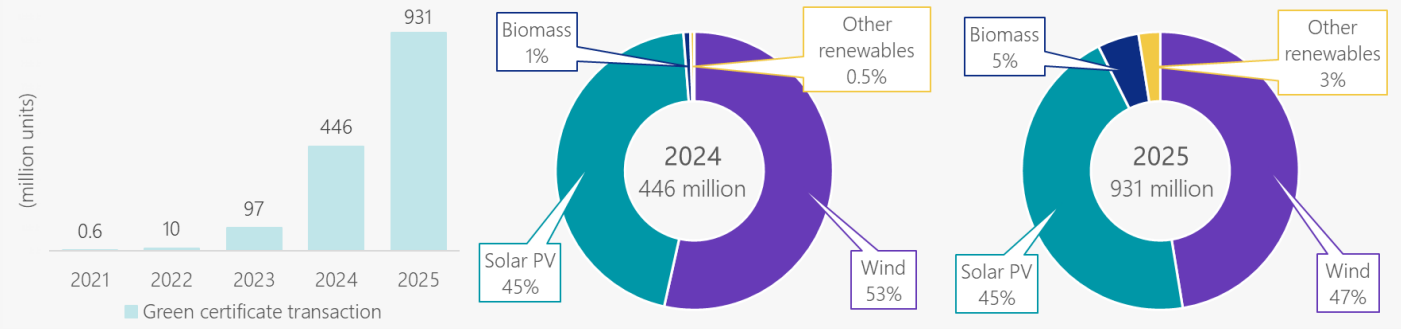
In 2025, the market-oriented power transaction volume reached 6,639 TWh, marking a 7.4% YoY increase and accounting for 64.0% of total electricity consumption. Spot power transactions made up 31.1%, up 6.4 pp from 2024, with rapid growth in their share. 28 provinces in China have established spot power markets, of which seven (Shanxi, Guangdong, Shandong, Gansu, West-Inner Mongolia, Hubei, and Zhejiang) have launched official runs, while the others are in settlement-trial operations. Green power transactions continued to grow in 2025, reaching 329 TWh, a 38.2% YoY increase, and China completed its first cross-TSO green power transaction. Additionally, 930 million green certificates were traded nationwide, doubling the 2024 figure. Wind and solar sources made up 92% of annual green power transaction volume, with an average green certificate price of RMB 5.12 (0.512 cents per kWh), considerably higher than in 2024. [13][14]

2021-2025 Market-oriented power transaction volume structure (left);
2021-2025 Green power transaction volume (right)



Source: CEC and NEA, accessed in February 2026

2021-2025 Total number of green certificates traded (left);
2024-2025 Total number of green certificates traded by technology (right)



Source: China Renewable Energy Engineering Institute (CREEI) and NEA, accessed in February 2026

Energy and Power Sector Development Outlook 2026

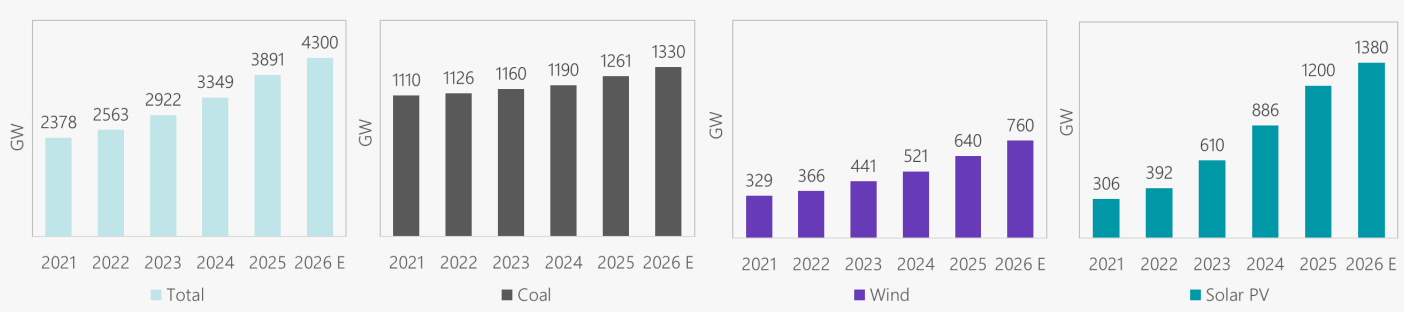
Energy self-sufficiency will continue to increase steadily

The Sinopec Economics and Development Research Institute forecasts that, in 2026, total primary energy consumption in China will reach 6.35 billion tce (2.9% YoY), with demand for raw materials in the chemical industry emerging as a new growth driver. Energy production is expected to be 5.37 billion tce (4.7% YoY), with coal supply shifting from loose to more balanced and imports declining further. Crude oil output will see slight growth, while natural gas production will sustain relatively rapid growth. The energy self-sufficiency rate is expected to reach 84.6%, a 0.2 pp increase from 2025. Overall, energy supply capacity will continue to strengthen. [22][23][24]

Solar PV new installations will slow down

According to the China Electricity Council, in 2026, China's electricity demand is expected to grow by about 5%-6% to reach 10,900-11,000 TWh. The peak load is expected to reach 1,570-1,630 GW. New power generation capacity in China is likely to exceed 400 GW, with over 300 GW from renewable power. The China Photovoltaic Industry Association forecasts 180-240 GW of new solar PV capacity, while the Chinese Wind Energy Association predicts around 120 GW of new wind capacity. By 2026, China's total installed capacity is expected to reach around 4,300 GW, a 10% increase from 2025. The share of coal power will decline to 31%, down 1.4 pp, while non-fossil fuels will account for about 63%, up 1.3 pp. [3][14][15]

2021-2025E The total installed power generation capacity by technology



Source: The results of 2026E are calculated based on the forecast of CEC, China Photovoltaic Industry Association (CPIA) and China Wind Power Association (CWPA), 2021-2025 data from CEC and NEA, accessed in February 2025

China to release the 15th Five-Year Plans for energy development

2026 marks the start of China's *15th Five-Year Plan* period (2026-2030). The country plans to expedite revisions to the *Electricity Law* and the *Renewable Energy Law*. In the first half of the year, five sub-plans related to energy development under the *15th Five-Year Plan* framework will be released, focusing on the new-type energy system, the power system, and renewable energy. These plans will set medium- and long-term goals and strategies to steer industry development. Specifically, in the renewable energy sector, the National Development and Reform Commission (NDRC) issued the *Guiding Opinions on Promoting Integrated Development of New Energy* in 2025. In 2026, the government will prioritise implementing this policy to foster a more diversified approach to new energy development.

The government will also publish the *Implementation Measures for the Minimum Share Target of Renewable Energy Consumption and the Renewable Power Consumption Mechanism*. Building upon the existing minimum binding targets for renewable power consumption by province, this will include minimum binding targets for renewable energy consumption by energy users. These targets will also extend to key energy-consuming industries, with the scope gradually expanding to cover both power and non-power sectors. Increasing end-use demand for green energy will drive the development of the entire renewable energy industry chain, including technological innovation, equipment manufacturing, project development and operation, and green energy consumption. [16][17][18][19]

The main contents of the *Integrated Development of New Energy* policy

Integrated multi-dimensional development of new energy	▪ New energy bases in desert and Gobi areas: Develop CSP and molten-salt energy storage as key flexible resources, reasonably control supportive coal power capacity, and explore on-site coupling of coal power and green ammonia co-generation. ▪ Integrated hydro-wind-solar power bases: Leverage hydropower's fast reaction feature in power system regulation and construct pumped hydro and new-type energy storage systems. ▪ Utility-scale new energy projects: Guide siting toward desert areas, subsidence zones in mining regions, and offshore areas; encourage co-development of wind power and solar PV projects; promote clustered, intensive development of offshore wind power plants. ▪ Distributed new energy projects: Deepen integration with transport, buildings, rural areas, islands, and other end-use scenarios.
Coordinated development of new energy and multiple industries	▪ Green manufacturing: Advance green retrofit of raw-material extraction, processing, key component manufacturing, and production processes for the new energy industry. ▪ New energy industrial parks: Construct point-to-point green power supply projects, generation-grid-load-storage integrated projects and zero-carbon parks. ▪ Optimal spatial layout for new energy and traditional Industries: Guide energy-intensive industries to relocate toward regions with abundant new energy resources and strong environmental carrying capacity, to achieve lower energy costs, reduced carbon footprints, and higher renewable energy consumption efficiency. ▪ Synergistic development between new energy and emerging industries: Coordinate planning of new energy bases and computing power facilities; promote data centre clusters near offshore wind bases; facilitate coordinated and cluster-based development of new materials, high-end equipment manufacturing, and energy-saving and environmental-protection industries with the new energy sector.
Diversified non-power utilisation of new energy	▪ Wind-solar-hydrogen-storage integration: Develop integrated systems that combine renewable power generation with hydrogen facilities; enhance coordinated control and self-balancing capabilities; and promote green hydrogen production under weak-grid connection or off-grid conditions. ▪ Hydrogen-based energy bases: Plan green hydrogen, ammonia, and methanol industries and related transport infrastructure; scale up hydrogen production in wind-solar-hydro bases; promote hydrogen-based energy applications in coal-chemical industry, metallurgy, and maritime transport sectors. ▪ New energy heating: Explore electric heating, heat pumps, PV-CSP integrated systems, and the cascade utilisation of geothermal energy to enhance the flexibility of heating systems.

Appendix – Summary of China's energy and power statistics in 2025

	Amount	Year-on-year	Amount	Year-on-year
Energy consumption	Data		Reference	
Total (billion tce)	6.2	3.5%	[20]	[20]
Coal (billion tons)	4.8	0.1%	[20][25] calculated	[20]
Natural gas (billion m3)	438	2.0%	[20][25] calculated	[20]
Crude oil (million tons)	775	3.6%	[20][25] calculated	[20]
Share of coal	51.4%	-1.8 pp	[20][25] calculated	[20]
Share of non-fossil fuel	21.7%	1.9 pp	[21]	[21][25] calculated
Energy production				
Total (billion tce)	5.1	3.6%	[20]	[20]
Raw coal (billion tons)	4.9	1.4%	[20]	[20]
Natural gas (billion m3)	262	6.3%	[20]	[20]
Crude oil (million tons)	216	1.5%	[20]	[20]
Energy import (million tons)				
Coal	490	-9.6%	[20]	[20]
Natural gas	128	-2.8%	[20]	[20]
Crude oil	578	4.4%	[20]	[20]
Electricity consumption (TWh)				
Total	10368	5.0%	[1]	[1]
Primary Industry	149	9.9%	[1]	[1]
Secondary Industry	6637	3.7%	[1]	[1]
Tertiary Industry	1994	8.2%	[1]	[1]
Residential	1588	6.3%	[1]	[1]
Power installed capacity (GW)				
Total	3891	16.1%	[2]	[2]
Thermal *	1492	6.7%	[2][4] calculated	[2][4][25] calculated
of which coal	1261	5.9%	[2][3] calculated	[2][3][25] calculated
of which natural gas	165	13.7%	[3][25] calculated	[3][25] calculated
of which oil, exhaust heat, surplus pressure	66	3.8%	[2][3][4] calculated	[2][3][4][25] calculated
Nuclear	62	2.7%	[2]	[2]
Hydro	448	2.8%	[4]	[4] calculated
of which conventional hydro	382	1.2%	[4]	[4] calculated
of which pumped storage	66	12.8%	[4]	[4] calculated
Wind	640	22.9%	[2]	[2]
of which onshore wind	593	22.8%	[2][3] calculated	[2][3][4] calculated
of which offshore wind	47	16.2%	[3]	[3][4] calculated
Solar	1202	35.4%	[2]	[2]
of which Solar PV	1200	35.8%	[5]	[5] calculated
of which utility-scale PV	667	32.5%	[5]	[5] calculated
of which distributed PV	533	40.3%	[5]	[5] calculated
of which distributed commercial and	327	48.6%	[5]	[5] calculated
of which household PV	206	28.7%	[5]	[5] calculated
of which CSP	2	106.8%	[4]	[4] calculated
Biomass	47	3.3%	[4]	[4] calculated
New-type energy storage **	145	84.8%	[7]	[7][25] calculated
Non-fossil fuel	2401	23.0%	[2][3] calculated	[3]
Renewable energy	2337	24.0%	[2][4] calculated	[4]
Share of non-fossil fuel	61.7%	3.5 pp	[3]	[3]
Share of renewable energy	60.1%	3.7 pp	[2][4] calculated	[2][4][25] calculated
Power generation (TWh)				
Total	10420	5.2%	[3]	[3][25] calculated
Thermal *	5950	-0.4%	[3] calculated	[3][25] calculated
of which coal	5324	-1.9%	[3]	[3]
of which natural gas, oil, exhaust heat,	625	10.9%	[3] calculated	[3][25] calculated
Nuclear	484	6.8%	[3][4] calculated	[3][4][25] calculated
Hydro	1460	2.5%	[4]	[4][25] calculated
Wind	1130	13.0%	[4]	[4]
Solar PV	1170	40.0%	[4]	[4]
CSP	2	32.0%	[4]	[4]
Biomass	225	7.0%	[4]	[4]
Non-fossil fuel	4470	14.1%	[3]	[3]
Renewable energy	3986	15.0%	[4]	[4]
Share of non-fossil fuel	42.9%	3.4 pp	[3]	[3]
Share of renewable energy	38.3%	3.3 pp	[3]	[3][25] calculated
Utilization hours (hours)				
National	3119	-312	[3]	[3]
Thermal	4147	-232	[3]	[3]
of which coal	4346	-269	[3]	[3]
of which natural gas	2187	-190	[3]	[3]
Nuclear	7809	126	[3]	[3]
Hydro	3367	12	[3]	[3]
Wind	1979	-148	[3]	[3]
Solar	1088	-113	[3]	[3]
Curtailment rate				
Wind	5.7%	1.6 pp	[6]	[6][10] calculated
Solar PV	5.2%	2.0 pp	[6]	[6][10] calculated

** The figure for thermal power is revised to reflect CEC's thermal power -biomass power, as CEC's thermal power data includes biomass.*
*** New-type storage capacity covers generation, grid and demand-side facilities.*

References

[1] "2025年全社会用电量同比增长5.0%," National Energy Administration, 17 January 2026, accessed at https://www.nea.gov.cn/20260121/715f79826488476a9162da7c8bd77c80/c.html.

[2] "国家能源局发布2025年全国电力统计数据," National Energy Administration, 29 January 2026, accessed at https://www.nea.gov.cn/20260129/6874f211acd0417eab7ac10c3061a7c2/c.html.

[3] "中电联发布2025-2026年度全国电力供需形势分析预测报告," China Electricity Council, 2 February 2026, accessed at https://cec.org.cn/detail/index.html?3-353833.

[4] "2025年可再生能源并网运行情况," National Energy Administration, 12 February 2026, accessed at https://www.nea.gov.cn/20260212/742b8c6a078347b0b39de676c05c5d58/c.html.

[5] "2025年光伏发电建设情况," National Energy Administration, 21 February 2026, accessed at https://www.nea.gov.cn/20260305/4216fa1274bd4b7f8da92090ba3999aa/c.html.

[6] "2025年全国新能源并网消纳情况," Electric Power Planning Research, Monitoring and Alarm Centre, 6 February 2026, accessed at https://mp.weixin.qq.com/s/0LJUhiavT3CHAKBDYLviWg.

[7] "新型储能行业2025年发展回顾及未来形势展望报告," China Energy Storage Industry Innovation Alliance, 10 February 2026, accessed at https://mp.weixin.qq.com/s/cP-zasrUlX0JVjn2QylhZA.

[8] "2025年中国电力版图," China Power Knowledge Pool, 14 February 2026, accessed at https://news.bjx.com.cn/html/20260214/1484425.shtml.

[9] "国家能源局新闻发布会文字实录," National Energy Administration, 30 January 2026, accessed at https://www.nea.gov.cn/20260130/b5b729cb7ad74723bcd614b663c75da6/c.html.

[10] "2025年全国机动车达4.69亿辆 驾驶人达5.59亿人," Ministry of Public Security, 26 January 2026, accessed at https://www.gov.cn/lianbo/202601/content_7056115.htm.

[11] "2025年我国新能源汽车产销量双超1600万辆," China Association of Automobile Manufactures, 14 January 2026, accessed at https://www.gov.cn/yaowen/liebiao/202601/content_7054738.htm.

[12] "2025年氢能产业发展回顾与展望," CNOOC Energy Economics Institute, 26 February 2026, accessed at https://mp.weixin.qq.com/s/D1RJk79ITtR6ZcYdasF-Aw.

[13] "2025年全国电力市场交易电量达6.6万亿千瓦时，同比增长7.4%," National Energy Administration, 23 January 2026, accessed at https://mp.weixin.qq.com/s/k5SW2OAiv0o58B3JQFCI2g.

[14] "王勃华：光伏行业"十四五"回顾与"十五五" 展望," China Photovoltaic Industry Association, 5 February 2026, accessed at https://baijiahao.baidu.com/s?id=1856258305791345020&wfr=spider&for=pc.

[15] "风电"十五五"：大叶片的安全与绿色之困！," China Wind Power Association, 27 February 2026, accessed at https://baijiahao.baidu.com/s?id=1858243216723325388&wfr=spider&for=pc.

[16] "国家能源局关于促进新能源集成融合发展的指导意见, 国能发新能〔2025〕93号," National Energy Administration, 31 October 2025, accessed at https://www.nea.gov.cn/20251112/79210278a3184efea9ccf2d546fdf1b7/c.html.

[17] "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（征求意见稿）," National Development and Reform Commission, 13 October 2025, accessed at https://yyglxxbsgw.ndrc.gov.cn/htmls/article/article.html?articleId=2c97d16b-93251263-0199-dd37c7dd-00c5#iframeHeight=806.

[18] "国家能源局新闻发布会："十五五"能源规划方面已形成5个分领域能源规划," National Energy Administration, 30 January 2026, accessed at https://mp.weixin.qq.com/s/_Yxdb8SmqBABOhP0xmkkUw.

[19] "能源开新局丨国家能源局新能源司司长李创军：推动"十五五"可再生能源扩量提质、可靠替代," National Energy Administration, 26 February 2026, accessed at https://mp.weixin.qq.com/s/gUn5s0cygwXISArJMvN0dg.

[20] "中华人民共和国2025年国民经济和社会发展统计公报," National Bureau of Statistics, 28 February 2026, accessed at https://www.gov.cn/lianbo/202602/content_7059980.htm.

[21] "李强作的政府工作报告（摘登）," the Chinese government, 5 March 2026, accessed at https://www.gov.cn/yaowen/liebiao/202603/content_7060692.htm.

[22] "2026年我国能源自给率预计提升至84.6%," Sinopec Economics & Development Research Institute, 3 February 2026, accessed at https://cn.chinadaily.com.cn/a/202602/03/WS6981dc53a310942cc499e1e6.html?ivk_sa=1023197a.

[23] "2025年煤炭供需分析及2026年市场展望," China Coal Industry Association, 28 February 2026, accessed at https://baijiahao.baidu.com/s?id=1858363852767377856&wfr=spider&for=pc.

[24] "报告显示：2025年我国油气产量4.2亿吨油当量创新高," Sinopec Economics & Development Research Institute, 5 February 2026, accessed at http://finance.people.com.cn/n1/2026/0205/c1004-40660307.html.

[25] "China Energy Policy Newsletter - March 2025," China Energy Transformation programme, 23 March 2025, accessed at https://www.cet.energy/2025/03/13/summary-of-chinas-energy-and-power-sector-statistics-in-2024/.