

Summary of China's energy and power sector statistics in 2024

(China Energy Policy Newsletter – March Special Issue)

The *Summary of China's Energy and Power Sector Statistics* is one of the research results of the China Energy Transition (CET) programme. It is published annually as a March special issue of the *China Energy Policy Newsletter*. The *Summary* summarises the annual statistics of China's energy and power supply and consumption in the previous year, especially the development of wind power and solar PV. On this basis, the *Summary* describes the results of emerging technologies and market-based means such as new-type energy storage, new energy vehicles (NEVs) and power markets that support the realisation of the dual carbon goals. The data in the *Summary* are all statistical data based on the coal substitution method publicly released by government departments and relevant institutions. The *Summary (2024 version)* has added green hydrogen and green power market transaction data, briefly explains the energy consumption and power supply and demand forecasts for 2025, as well as the policy orientation of renewable energy. Please download the *Summary* for 2019-2023 from the [CET website](#).

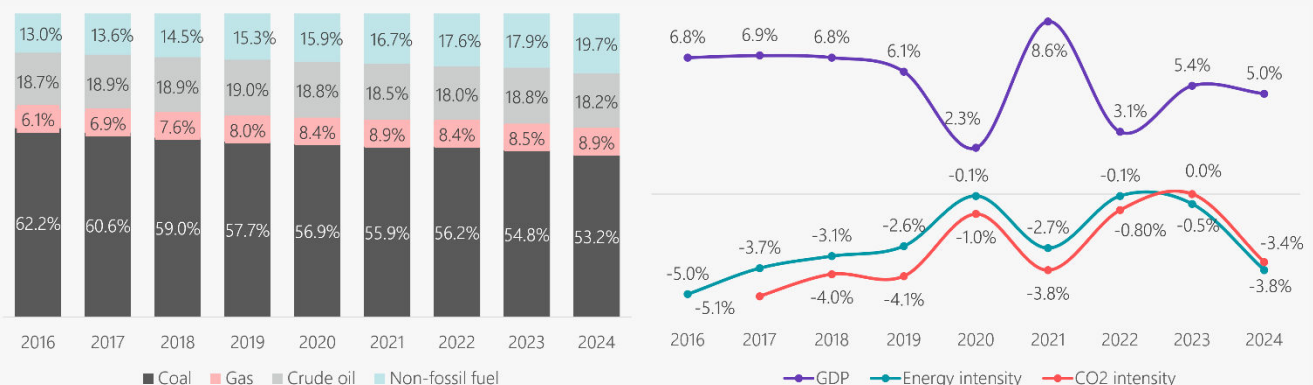
Non-fossil energy consumption accounted for more than crude oil for the first time

In 2024, China's GDP growth rate reached 5.0%, an increase of 0.2 percentage points year-on-year, and China's economic operation was stable and improved. The GDP growth rates of the secondary and tertiary industries exceeded 5%, respectively, and the proportion of the tertiary industry continued to increase (6.8%: 36.5%: 56.7%). The total primary energy consumption reached 5.96 billion tonnes of standard coal equivalent (tce), an increase of 4.3% year-on-year, 1.3 percentage points lower than in 2023. The growth of energy consumption slowed down. In 2024, raw coal consumption increased by 1.7% year-on-year, 3.9 percentage points lower than in 2023. Affected by the decline in cement and steel production, thermal coal consumption in the metallurgical and building materials industries decreased significantly, with a year-on-year decrease of 2.1% and 7.2%, respectively. The growth rate of natural gas consumption reached 7.3%, the same as in 2023; crude oil consumption decreased by 1.2%.

From the perspective of energy structure, the proportion of non-fossil energy has increased significantly. The proportion of coal and oil in primary energy consumption decreased by 1.6 and 0.6 percentage points, respectively, while non-fossil energy and natural gas increased by 1.8 and 0.4 percentage points, respectively. According to preliminary estimates, the proportion of non-fossil energy in primary energy consumption reached 19.7%, exceeding oil (18.2%) for the first time; the proportion of coal dropped to 53.2%. Energy intensity (-3.8%) and carbon intensity (-3.4%) continued to decline, China's energy transformation continued to deepen. [1][8][15][25][26]

” Non-fossil energy accounts for 19.7% of total primary energy consumption.

2016-2024 The primary energy consumption mix (left);
2016-2024 The annual growth rate of GDP, energy intensity and carbon dioxide 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 CO₂ emission per RMB 10,000 GDP.

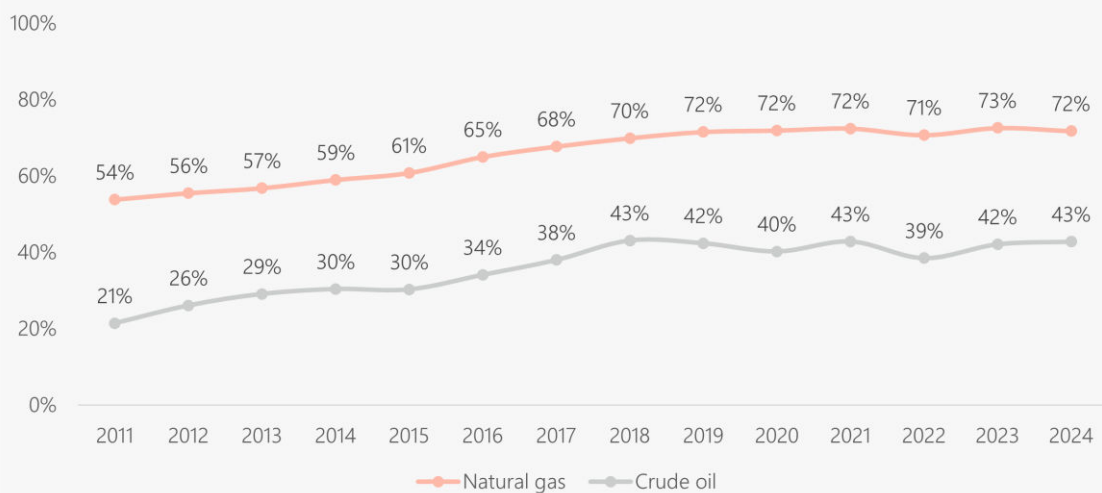
Source: National Bureau of Statistics (NBS), accessed in March 2025

Energy security and stable supply capacity steadily enhanced

China continues to increase energy production capacity and consolidate the foundation of energy security. In 2024, China's total primary energy production was 4.98 billion tce, a year-on-year increase of 4.6%, an increase of 1.9 percentage points from 2023. In terms of energy types, raw coal production increased by 3.4% year-on-year, production capacity continued to concentrate in the central and western regions, and the degree of intelligence continued to improve. Coal imports increased by 14.4% year-on-year, a decrease of more than 45 percentage points compared to 2023, the import growth rate narrowed significantly. Due to the overall loose supply of thermal coal, the average annual price of Bohai-Rim steam coal_(5500K) dropped for the second consecutive year, with a drop of over 10% in 2024.

The oil and gas industry continued to expand production. Crude oil production increased by 1.8% year-on-year, the annual production capacity closed to the 2015 historical peak, and offshore oil has become the main driving force. Natural gas production increased by 6.0% year-on-year, and the increase in production exceeded 10 billion cubic meters for eight consecutive years. Natural gas imports increased by 9.9% year-on-year, of which pipeline and liquefied natural gas imports increased by 13.6% and 10.4%, respectively. The country's external dependence on fossil energy has remained stable; energy prices have declined steadily. [1][11][30]

2016-2024 Import dependence on natural gas and crude oil



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

Source: NBS, accessed in March 2024

Significant increase in electricity consumption of residents, equipment manufacturing and charging and swapping services

China's total electricity consumption was 9,852 TWh in 2024, a year-on-year increase of 6.8%, basically the same as in 2023. In terms of industries, affected by the high temperature in summer, the growth rate of electricity consumption of urban and rural residents reached 10.5%, and the dispatchable peak load reached 1,450 GW, a record high. The electricity consumption in the primary, secondary and tertiary industries increased by 5%~10%, which slowed down compared to 2023. In terms of regions, all provinces in the country showed positive electricity consumption growth, among which the Central (6.9%), East (6.8%), West (7.5%), and Northeast (2.5%) regions showed the most significant year-on-year growth rates. Since the start of the 14th *Five-Year Plan* period (2021 -2025), the electrification rate has continued to increase. The annual electricity consumption of the primary, secondary and tertiary industries combined has increased by 29.5% compared with 2020, and the share of electricity in end-use energy consumption has increased from 25.5% to about 28%. [4][13]



Primary industry - The rural grid upgrade project promoted the continuous improvement of the electrification level of animal husbandry, fishery and agriculture, with electricity consumption increasing by 9.2%, 7.1% and 4.1% year-on-year, respectively.

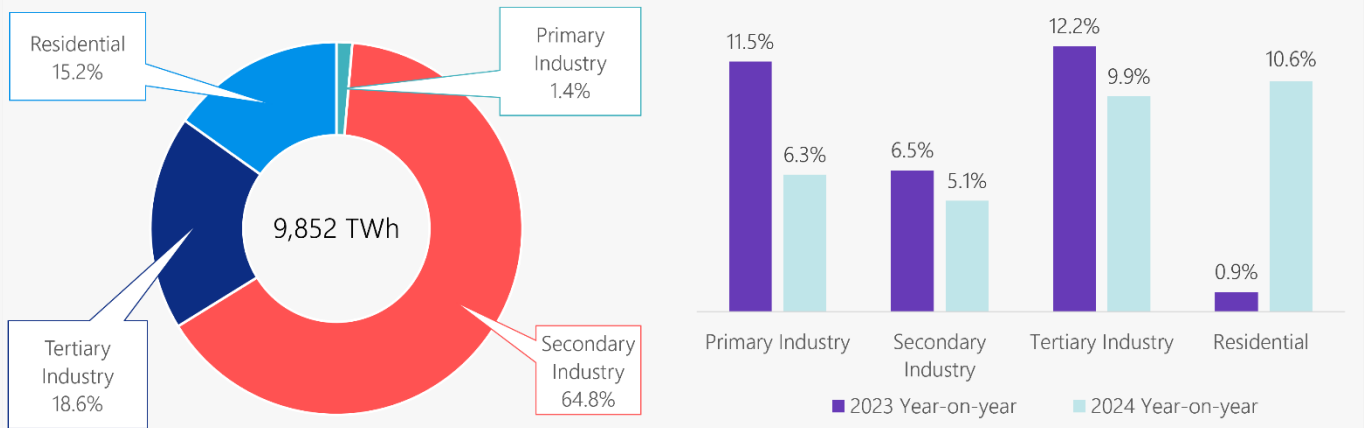


Secondary industry - Thanks to the large-scale equipment renewal and consumer goods trade-in ("two new") policy, the growth rate of electricity consumption in high-tech and equipment manufacturing industries continued to lead, reaching 10.3%, of which new energy vehicle manufacturing reached 34.3%; the electricity consumption of consumer goods manufacturing industry increased by 5.7% year-on-year. Among energy-intensive industries, the electricity consumption of ferrous metal smelting and non-metallic mineral products decreased by 1.0% and 2.4% year-on-year, respectively.



Tertiary industry - The electricity consumption of charging and swapping services maintained a high growth rate, reaching 50.9%. Driven by the development of the Internet, big data and cloud computing, the electricity consumption of the Internet and related service industries increased by 21.7% year-on-year.

2024 Total electricity consumption mix (left);
2023-2024 Year-on-year growth rate of electricity consumption by industry (right)



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



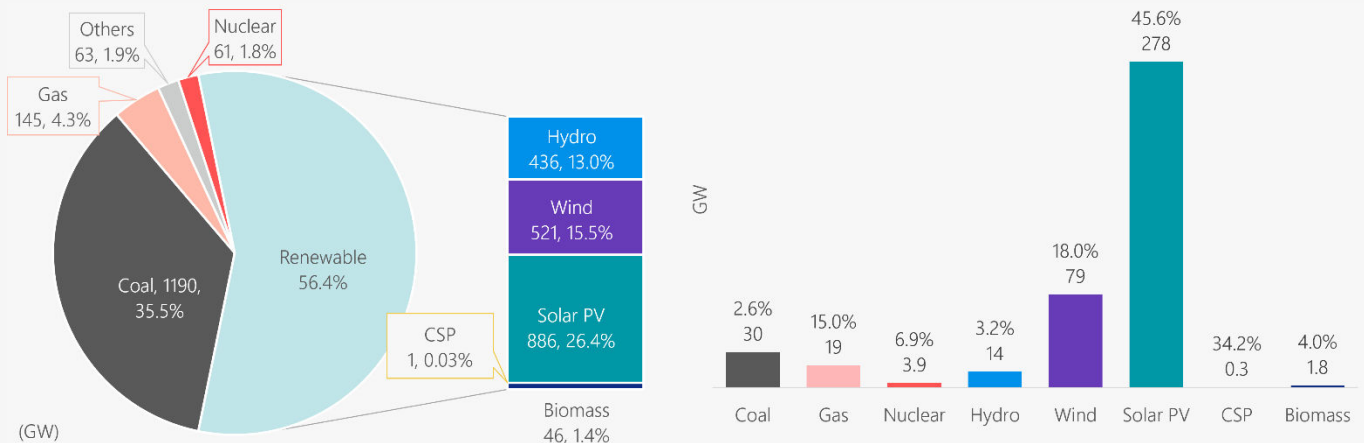
China has completed ahead of schedule the 2030 wind and solar power capacity target

By 2024, China's total installed power generation capacity reached 3,349 GW, a year-on-year increase of 14.6%, and the growth rate was 0.7 percentage points higher than that in 2023. Among them, the installed capacity of renewable power reached nearly 1,900 GW, accounting for 56.4% of the total. The green and low-carbon transformation of the power industry has achieved remarkable results. Wind power and solar PV were the main growing sources, with 357 GW jointly accounting for more than 80% of the newly installed capacity. By the end of 2024, the installed capacity of wind power and solar PV reached 1,406 GW, accounting for 42.0% of the total installed capacity and exceeding the target of 1,200 GW in 2030 six years ahead of schedule. In addition, nearly half of the three batches of large-scale wind and solar power base projects (232 GW) announced since the 14th Five-Year Plan period have been connected to the grid.

The newly installed capacity of coal power was 30 GW, which was 4 GW less than that in 2023. The total installed capacity of coal power reached 1,190 GW, and the proportion dropped to 35.5%, a decrease of 4.4 percentage points from 2023. Gas power and pumped hydro added 19 GW and 7.5 GW, respectively, reaching the first and second-highest levels in history. The regulation capacity of the power system has been further improved. [3][4][6][7][14]

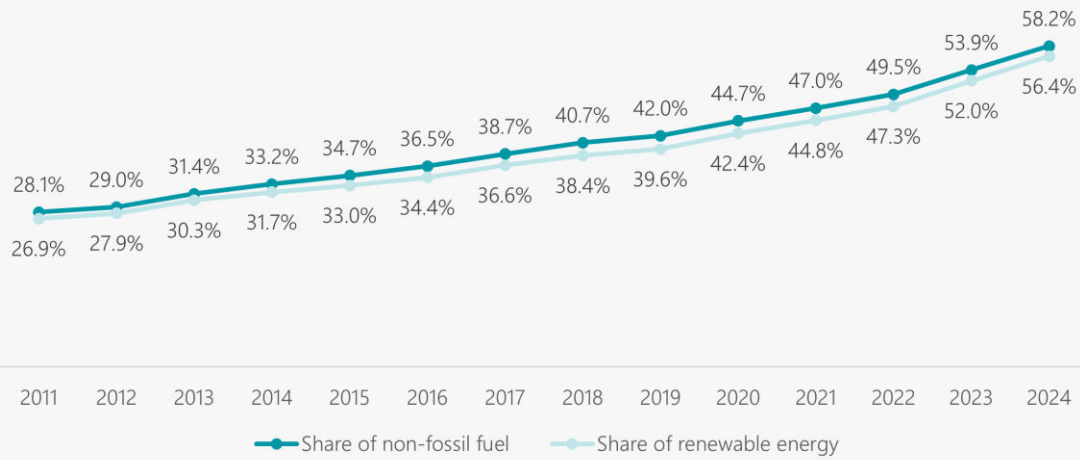
” Renewable energy accounted for 86% of newly added power generation capacity.

2024 Installed power generation capacity structure (left);
2024 Newly installed power generation capacity by technology and their year-on-year growth rate (right)



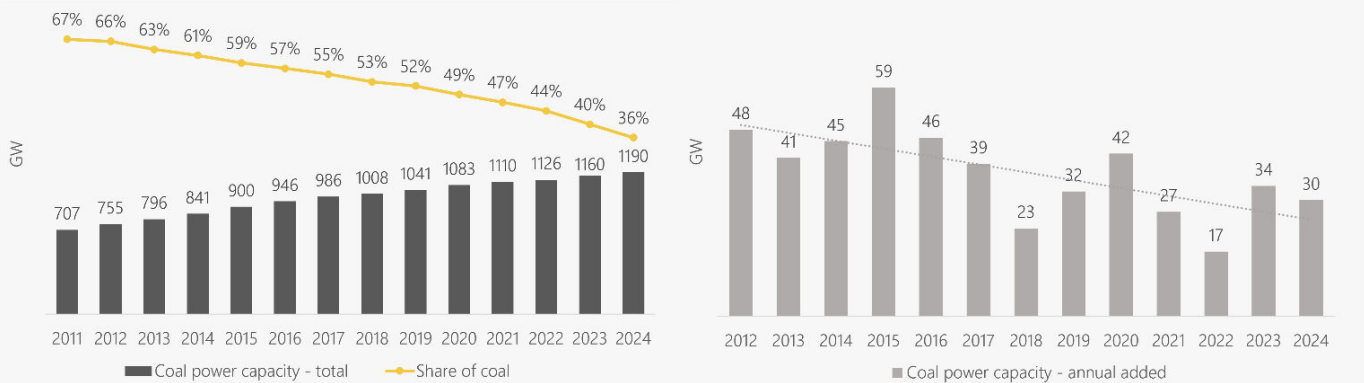
Source: CEC and NEA, accessed in March

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



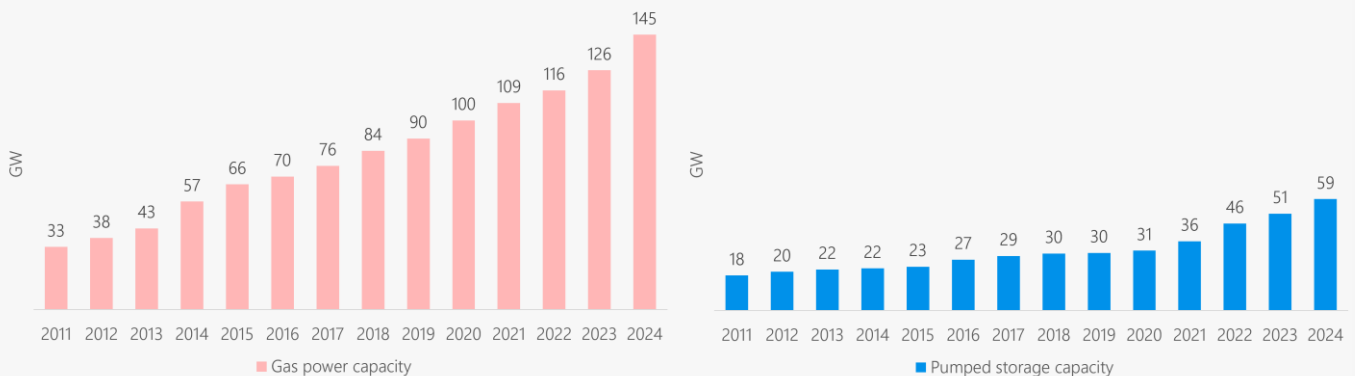
Source: Calculated based on CEC and NEA's data, accessed in March 2025

2011-2024 Total installed power generation capacity and share of coal (left); 2012-2024 Newly installed coal power capacity (right)



Source: CEC, accessed in March 2025

2011-2024 Total installed capacity of gas power (left) and pumped hydro (right)



Source: CEC and NEA, accessed in February 2025

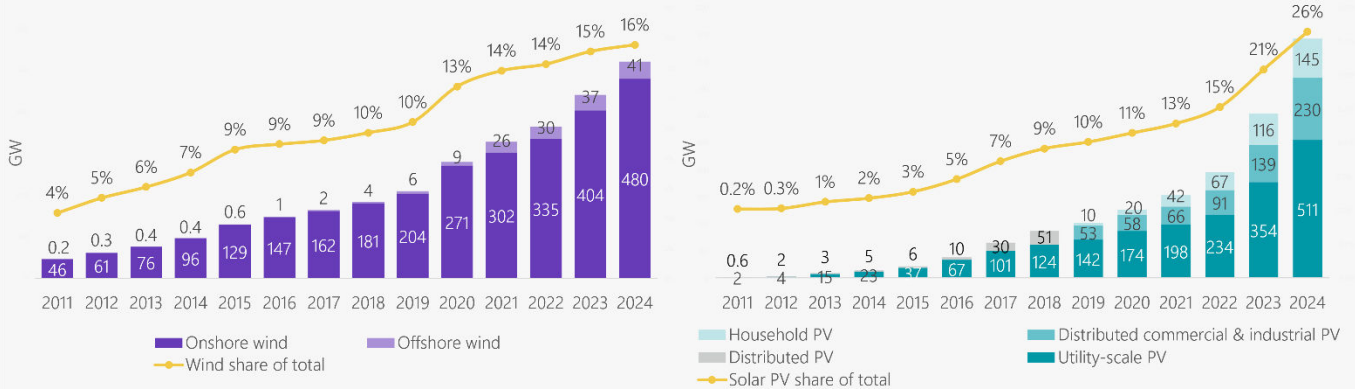
Solar PV - 2024 witnessed 278 GW of newly installed solar PV capacity, an increase of 61 GW from 2023. The development of utility-scale PV and distributed industrial and commercial PV further accelerated, with newly installed capacity reaching 159 GW (30% y-o-y) and 91 GW (89% y-o-y), respectively. Land use policies restricted household PV; its growth rate slowed, with a newly installed capacity of 29 GW (-40% y-o-y). In terms of regions, solar PV bases in the Northwest were connected to the grid on a large scale, as the result of Xinjiang and Inner Mongolia having the most utility-scale PV projects in operation, reaching 28 GW and 23 GW, respectively. In 2024, distributed industrial and commercial PV was still dominated by the eastern coastal areas, and household PV gradually shifted from the Northern to the southeast region. Among the regions, Jiangsu Province had the largest newly installed distributed PV capacity, reaching 18 GW, of which household PV accounted for nearly half. By the end of 2024, the total installed capacity of solar PV reached 886 GW, a year-on-year increase of 45.6%. Utility-scale PV, distributed industrial and commercial PV, and household PV reached 511 GW, 230 GW and 145 GW, respectively (58%: 26%: 16%). [2][7][28]





Wind power - The newly installed capacity of wind power was 79 GW, an increase of 3 GW from 2023, reaching a historical high. Among these, onshore wind power was 76 GW, and offshore wind power was 4 GW, steadily increasing from 2023. The newly installed wind power capacity in the Three Norths (North, Northwest, and Northeast regions) accounted for 75%. By the end of 2024, the total installed capacity of wind power reached 521 GW, an increase of 18.0% year-on-year. Onshore wind and offshore wind power reached 480 GW and 41 GW respectively (92%: 8%). Wind turbine technology continued to make breakthroughs. Onshore 10 MW wind turbines have become popular, the maximum capacity of offshore wind turbines has increased from 16 MW to 26 MW, and floating offshore wind power platforms have been put into operation one after another. [6][12][29]

2011-2024 Total installed capacity of wind power (left) and solar PV (right) and their share of total



Source: NEA, accessed in March 2025



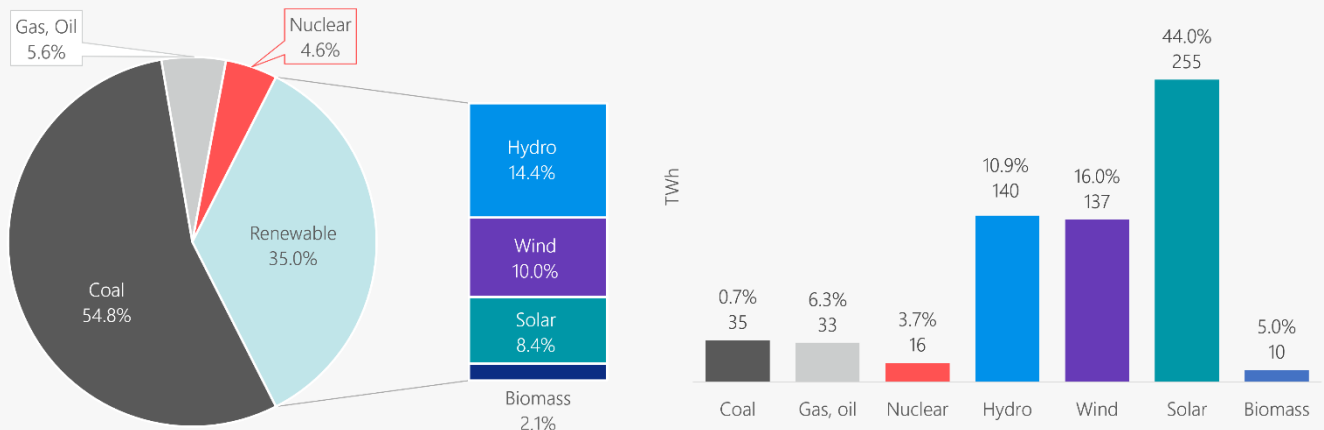
Renewable energy power generation steadily increased

In 2024, the total power generation was 9,880 TWh, a year-on-year increase of 6.4%, a decrease of 0.5 percentage points from 2023. Renewable energy power generation increased by 19.0% year-on-year, significantly higher than the growth rate of total power generation and electricity consumption and accounted for 35.1% of the total electricity consumption. Among which, wind and solar power generation totalled more than 1,800 TWh, a year-on-year increase of 27.3%, accounting for 18.5% of the total electricity consumption, which was basically the same as the tertiary industry's electricity consumption, and far exceeded urban and rural residential electricity consumption. The growth rate of coal power generation slowed down significantly, with a year-on-year increase of only 0.7%, and its share of the total dropped to 54.8%, a decrease of 3.1 percentage points from 2023. In 2024, the monthly output of hydropower and wind power fluctuated greatly, so coal power fully played the role of system regulation. [4][5][6]



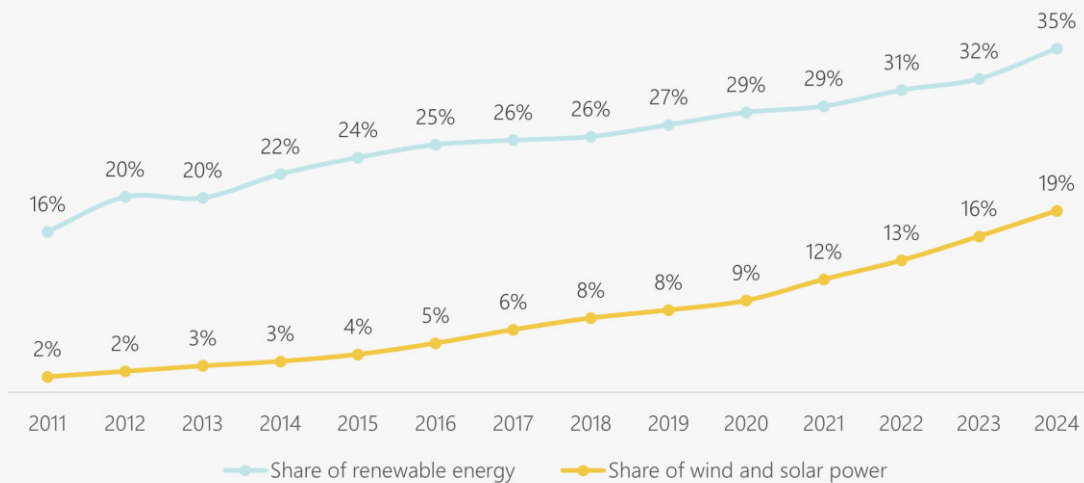
Renewable energy accounted for 86% of the incremental electricity consumption of the country.

2024 Total power generation mix (left);
2024 Incremental power generation by technology and year-on-year growth rate (right)



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

2011-2024 The share of renewable energy and share of wind and solar power in total electricity consumption

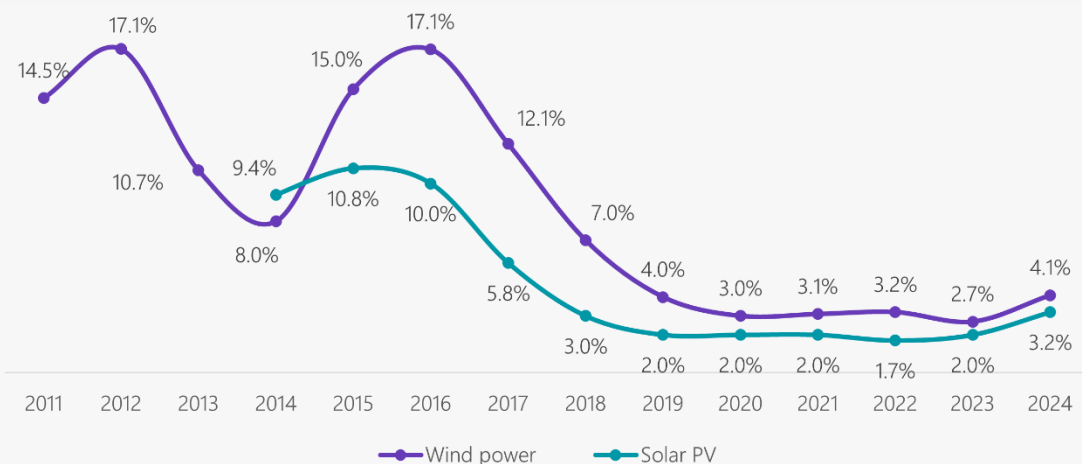


Source: CEC, NEA and NBS, accessed in March 2025

Since 2023, as the share of installed renewable power generation capacity in China exceeded 50%, electricity consumption pressure has increased. The average annual utilisation hours of power units in China have dropped by more than 100 hours for two consecutive years, with a year-on-year decrease in 2024 of 157 hours to 3,442 hours. By type of generation, affected by the better water inflow, hydropower increased by 219 hours, and nuclear power (+13 hours) remained stable. The large-scale grid connection of wind and solar base projects in the Three Norths gave rise to the utilisation hours of wind and solar power decreasing by 107 hours and 81 hours, respectively. Coal and gas power played more regulatory roles, and their utilisation hours were reduced by 76 hours and 62 hours, respectively. [4]

In April 2024, the government lowered the wind and solar utilisation rate bottom line for some provinces from 95% to 90%, implying an easing in the wind and solar curtailment control targets from 5% to 10%. In 2024, the national wind power utilisation rate was 95.9% (i.e. wind curtailment rate 4.1%), and the solar PV utilisation rate was 96.8% (i.e. solar curtailment rate 3.2%), showing an overall upward trend. Among the 31 provinces, except Tibet, the wind power and solar PV utilisation rates of Western Inner Mongolia, Shaanxi, Gansu, Qinghai and Xinjiang were below 95%, and the proportion of installed wind and solar capacity in all these provinces reached 40%-60%. [10]

2011-2024 Wind and solar power curtailment rates



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

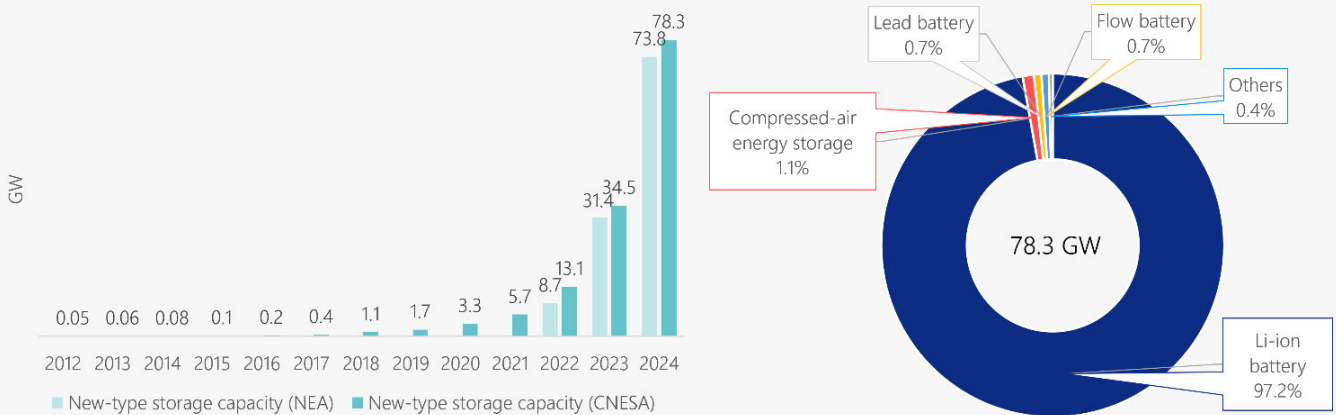


New-type energy storage showed a trend of centralised and large-scale development

In 2024, new-type energy storage maintained a rapid development trend, with total installed capacity doubling to 78 GW, of which the capacity on the power source and grid sides exceeded 74 GW. The average energy storage time was 2.3 hours, an increase of 0.2 hours year-on-year. The annual equivalent utilisation hours reached 1,000, and the power dispatch utilisation rate increased. The newly added projects were mainly independent energy storage power stations on the grid side (61.2%) and "thermal-wind-solar" supporting energy storage power stations on the power source side (31.6%). The development trend is becoming more centralised and large-scale.

From the technical perspective, by the end of 2024, projects with a single unit scale of 100 MW and above accounted for more than 60%, an increase of 10 percentage points year-on-year. The market share of lithium-ion batteries was still over 97%, and breakthroughs have been made in the research and construction of 100-megawatt sodium-ion batteries, gravity energy storage and flywheel energy storage power stations. The proportion of projects with energy storage duration of 2-4 hours reached 70%, and the number of projects with more than 4 hours has steadily increased. In terms of regions, the North (30.1%) and Northwest (25.4%) regions had the largest installed capacity, among which Inner Mongolia (10 GW), Xinjiang (8.6 GW) and Shandong (7.2 GW) ranked the top three. [11][16][27]

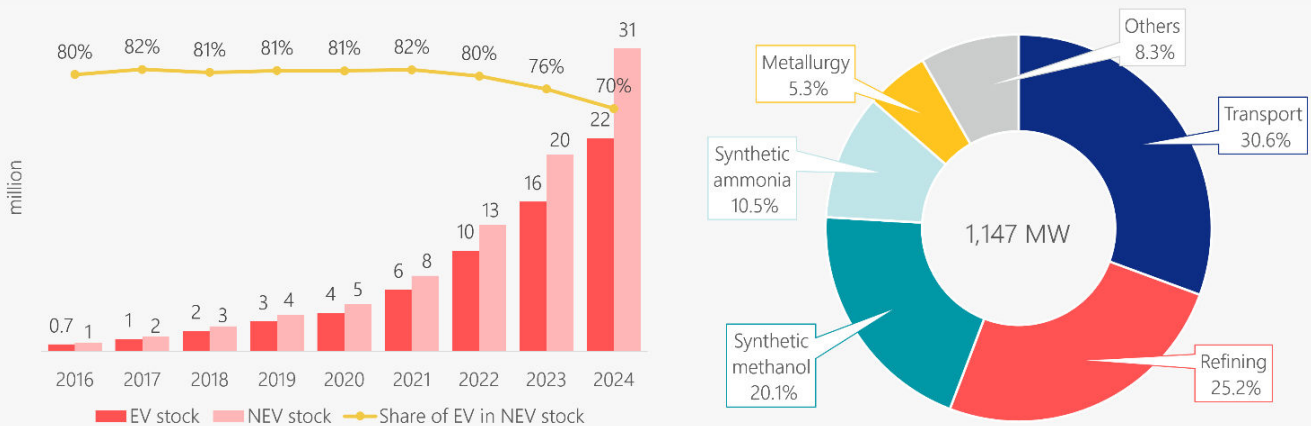
2011-2024 Total installed capacity of new-type energy storage (left);
2024 Total installed capacity structure of new-type of energy storage (right)



Source: The new-type storage capacity of NEA does not include end-use side projects. NEA and China Energy Storage Alliance (CESA), accessed in March 2025

In 2024, the NEV stock reached 31.4 million, a year-on-year increase of 53.8%, accounting for 8.9% of the total vehicle stock. Among them, electric vehicles (EVs) reached 22 million, accounting for 70% of the NEVs. Charging infrastructure increased by 49% year-on-year to 12.8 million units, covering 98% of the country's highway service areas. The installed capacity of green hydrogen production projects reached 1,147 MW, of which 80.4% used alkaline water electrolysis technology and 69.6% were solar PV-based hydrogen production. In terms of application, 30.6% of hydrogen was used in the transportation industry, and 392 hydrogen refuelling stations have been put into operation nationwide, with a supply capacity of 313,000 kg/day. [17][21][22][23]

2016-2024 The NEV and EV stocks and their share of total (left);
2024 The application distribution of green hydrogen production projects (right)



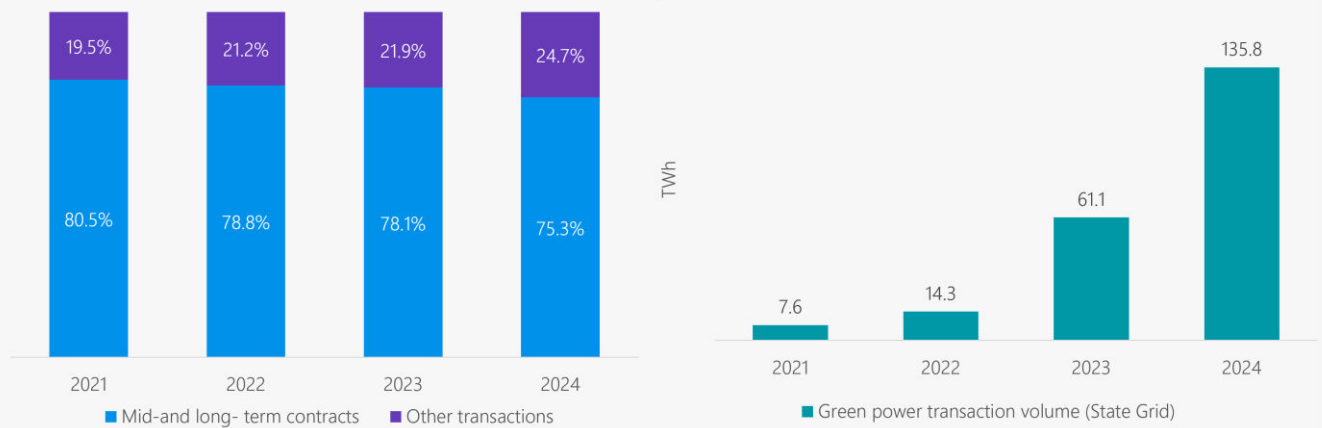
Source: Ministry of Public Security (MPS), China Association of Automobile Manufacturers (CAAM) and China Hydrogen Alliance (CHA), accessed in February 2025

The green power market conducted inter-provincial PPA for the first time

In 2024, the power market-oriented transaction volume reached 6,180 TWh, a year-on-year increase of 9.0%, accounting for 62.7% of the total electricity consumption. Among these, the share of medium- and long-term contracts was 75.3%, a year-on-year decrease of 2.8 percentage points, and the decline rate was significantly faster than that in 2022 and 2023. The construction of a multi-level power market system continued to advance. In 2024, the inter-provincial spot power market in the operating areas of the State Grid and Inner Mongolia Electric Power Company has been officially put into operation, forming a complete market system including inter-provincial medium- and long-term contracts, inter-provincial day-ahead and intraday transactions, and regional ancillary services. The Southern Regional Power Market completed the full-month settlement trial operation for the first time, showing that the market has the conditions for long-term settlement operation.

Since the launch of the green power trading pilot in September 2021, the green power transaction volume has continued to increase. By the end of 2024, the cumulative transaction volume in the State Grid operating area¹ reached 219 TWh, accounting for 3.5%, 6.5%, 28% and 62% in 2021, 2022, 2023 and 2024 respectively. Northern Hebei (23%), Zhejiang (10%) and Jiangsu (9%) ranked the top three. At the end of 2024, the Beijing Power Exchange Center completed the 2025 green power mid- and long-term contract transaction, and the inter-provincial and intra-provincial transaction volumes increased by more than 90% year-on-year, respectively. It is worth noting that the 2025 green power transaction included inter-provincial PPA for the first time, and one-year and multi-year PPAs accounted for more than 30% of the total inter-provincial green power transaction volume. [18][19][20]

2021-2024 The power market-oriented transaction volume structure (left);
2021-2024 The green power transaction volume in the State Grid operating area (right)



Source: CEC and Beijing Power Exchange Center, accessed in February 2025

¹ This excludes eastern Inner Mongolia, Guangdong, Guangxi, Yunnan, Guizhou, and Hainan provinces.



China Energy and Power Development Outlook 2025



China will achieve its 2025 non-fossil energy consumption target as scheduled

According to the forecast of Sinopec Economic and Development Research Institute, in 2025, China's total primary energy consumption will increase by 3.3% year-on-year to 6.16 billion tce. The proportion of coal and crude oil will further decline, while natural gas and non-fossil energy will continue to increase. The proportion of coal, crude oil, natural gas and non-fossil energy in primary energy consumption is expected to reach 52.5%, 17.2%, 9.2% and 21.1%, respectively, to achieve the 20% non-fossil energy consumption goal in 2025. [30]

According to the forecast by the China Electricity Council (CEC), in 2025, the national electricity demand will increase by about 6% to 10,400 TWh. The dispatchable peak load will increase by about 100 GW, and the power supply and demand will be in a tight balance in specific periods and regions. China's newly installed power generation capacity is expected to exceed 450 GW, of which wind power will further accelerate while solar PV will slow down. The newly installed wind power and solar PV capacity will reach about 120 GW and 210 GW, respectively. By the end of 2025, China's total installed power generation capacity is expected to reach 3,800 GW, an increase of about 14% year-on-year. Among that, the share of coal power will drop to one-third, renewable energy will increase from 56% to 59%, and the combined wind power and solar PV will increase from 42% to 46%. The pressure on renewable power consumption in some regions will be prominent. [4]

Wind power and solar PV installations maintained rapid growth

According to the Chinese Wind Energy Association (CWEA) forecast, wind power will maintain a growth rate of about 100-120 GW/year from 2025 to 2026, with onshore wind of 95-100 GW/year and offshore wind of 10-20 GW/year. According to the forecast of the China Photovoltaic Industry Association (CPIA), solar PV will maintain a growth rate of 215-235 GW/year from 2025 to 2026, and can reach 255-270 GW in an optimistic scenario. From 2027 to 2030, the construction of wind power and solar PV is expected to accelerate, with newly added wind power not exceeding 150 GW/year and newly added solar PV of 260-280 GW/year. In an optimistic scenario, solar PV will reach 300-340 GW/year. [14][28]

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



Source: The results of 2025E are calculated based on CEC's forecast, data from CEC and NEA, accessed in February 2025



New policy: Renewable energy to fully participate in the power market

In terms of renewable energy policy, in February 2025, the National Development and Reform Commission (NDRC) and the National Energy Administration (NEA) jointly issued the *Notice on Deepening the Market-oriented reform of New Energy Feed-in Tariff and Promoting High-quality Development of New Energy (NCRC Pricing [2025] No. 136)* (CHN: 关于深化新能源上网电价市场化改革 促进新能源高质量发展的通知, 发改价格〔2025〕136号), proposing that in principle, grid-connected renewable power generation should all make through power market transactions, and equipped with a sustainable price settlement mechanism (i.e. Contract for Difference based, CfD). It requires all provinces to issue specific implementation plans within 2025. It is expected that by 2024, the market-oriented transaction of renewable power generation would have exceeded 50% of total renewable power generation and will continue to increase. [31][32][33]

According to this document, the existing settlement mechanism of “mandatory purchase of a certain amount of renewable electricity by grids + fixed feed-in prices” will be replaced by a CfD-based mechanism, which can make a smooth policy transition for existing renewable power projects. Under the new settlement mechanism, the revenue generated by renewable power generation will be maintained while market-based transactions are carried out. It will primarily provide certain income expectations for new renewable power projects, thus stabilising investment scale. Other policy impacts are listed below:

01 Power generation cost

The full entry of renewable power generation into markets will better transmit price signals and help promote establishing a unified national power market system. For renewable power projects, to participate in power markets through either direct bidding or through the CfD-based mechanism, both are fair market-oriented competition, which will help to reduce their unreasonable non-technical costs and promote the sustainable and healthy development of the industry.

02 Wind and solar curtailment

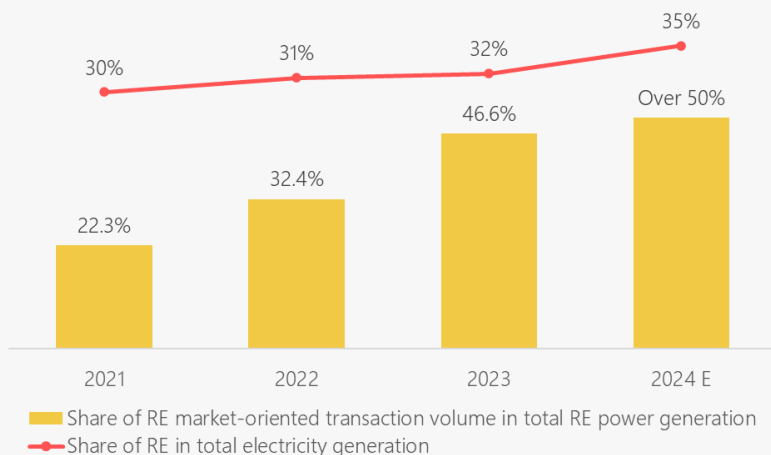
The policy document stipulates that unsuccessful bids for renewable power generation in the market will not be counted in the curtailment statistics and relevant assessments. On the one hand, the curtailment rate will not represent the actual amount of curtailment, but on the other hand, it is still an important boundary condition for project planning and layout by province.

03 Implementation plan

It is expected that each province's implementation plan will reflect local characteristics and have certain differences. That is, it should consider the current development status and future demand for renewable energy together with the progress of power market construction. All in all, policy coordination and transition are basic principles to adopt.

— Shi Jingli, Professor, Energy Research Institute of Chinese Academy of Macroeconomic Research

2021-2024E The share of renewable power market-oriented transaction volume in total renewable power generation, and share of renewable energy in total power generation



Source: Northwest Engineering Corporation Limited and Beijing Power Exchange Center, accessed in March 2025

Appendix – Summary of China's energy and power statistic data in 2024

	Amount	Year-on-year	Amount	Year-on-year
Energy consumption	Data		Reference	
Total (billion tce)	6.0	4.3%	[1]	[1]
Coal (billion tons)	4.8	1.7%	[1][25][26] calculated	[1]
Natural gas (billion m3)	431	7.3%	[1][25][26] calculated	[1]
Crude oil (million tons)	755	-1.2%	[1][25][26] calculated	[1]
Share of coal	53.2%	-1.6 pct	[1]	[1]
Share of gas and non-fossil fuel	19.7%	1.8 pct	[1][25][26] calculated	[8]
Energy production				
Total (billion tce)	5.0	4.6%	[1]	[1]
Raw coal (billion tons)	4.8	3.4%	[1]	[1]
Natural gas (billion m3)	246	6.0%	[1]	[1]
Crude oil (million tons)	213	1.8%	[1]	[1]
Energy import (million tons)				
Coal	543	14.4%	[1]	[1]
Natural gas	132	9.9%	[1]	[1]
Crude oil	553	-1.9%	[1]	[1]
Electricity consumption (TWh)				
Total	9852	6.8%	[4]	[4]
Primary Industry	136	6.3%	[4]	[4]
Secondary Industry	6387	5.1%	[4]	[4]
Tertiary Industry	1835	9.9%	[4]	[4]
Residential	1494	10.6%	[4]	[4]
Power installed capacity (GW)				
Total	3349	14.6%	[3]	[3]
Thermal *	1398	3.8%	[3][6] calculated	[3]
of which coal	1190	2.6%	[4]	[4]
of which natural gas	145	15.0%	[4][5] calculated	[4][5] calculated
of which oil, exhaust heat, surplus pressure and gases	63	13.4%	[3][4][6][5] calculated	[3][4][6][5] calculated
Nuclear	61	6.9%	[3]	[3]
Hydro	436	3.2%	[3]	[3]
of which pumped storage	59	14.7%	[4]	[4] calculated
Wind	521	18.0%	[3]	[3]
of which onshore wind	480	18.8%	[4]	[4][6] calculated
of which offshore wind	41	10.9%	[4]	[4][6] calculated
Solar PV	886	45.6%	[7]	[7] calculated
of which utility-scale PV	511	45.3%	[7]	[7] calculated
of which distributed PV	375	46.1%	[7]	[7] calculated
CSP	1.0	34.2%	[3][7] calculated	[3][7][9] calculated
Biomass	46	4.0%	[6]	[6]
New-type energy storage	78	127.0%	[16]	[16][27] calculated
Non-fossil fuel	1950	23.8%	[3]	[3]
Renewable energy	1889	25.0%	[3][6][7] calculated	[6]
Share of non-fossil fuel	58.2%	4.3 pct	[3] calculated	[3][5] calculated
Share of renewable energy	56.4%	4.4 pct	[3][6][7] calculated	[3][5][6][7] calculated
Power generation (TWh)				
Total	9880	6.4%	[6] calculated	[5][6] calculated
Thermal *	5971	1.2%	[1][6] calculated	[1][5][6] calculated
of which coal	5414	0.7%	[4][6] calculated	[4][5][6] calculated
of which natural gas, oil, exhaust heat, surplus pressure and gases	557	6.3%	[1][4][6] calculated	[1][4][5][6] calculated
Nuclear	451	3.7%	[1]	[1]
Hydro	1424	10.9%	[6]	[5][6] calculated
Wind	992	16.0%	[6]	[6]
Solar	834	44.0%	[6]	[6]
Biomass	208	5.0%	[6]	[6]
Non-fossil fuel	3909	15.4%	[1][6] calculated	[4]
Renewable energy	3458	19.0%	[6] calculated	[6]
Share of non-fossil fuel	39.6%	3.1 pct	[1][6] calculated	[1][5][6] calculated
Share of renewable energy	35.0%	3.2 pct	[6]	[5][6] calculated
Utilization hours (hours)				
National	3442	-157	[4]	[4]
Thermal	4400	-76	[4]	[4]
of which coal	4628	-62	[4]	[4]
Nuclear	7683	13	[4]	[4]
Hydro	3349	219	[4]	[4]
of which pumped storage	1217	40	[4]	[4]
Wind	2127	-107	[4]	[4]
Solar	1211	-81	[4]	[4]
Curtailement				
Wind	4.1%	1.4 pct	[10]	[1][24] calculated
Solar PV	3.2%	1.2 pct	[10]	[1][24] calculated

* The figure for thermal power is revised to reflect CEC's thermal power -biomass power, as CEC's thermal power data includes biomass.

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