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CHINA ENERGY POLICY

NEWSLETTER

China Energy Transformation Programme

1. China energy transition updates

China and the United States jointly released a statement on tackling climate change

On November 15, 2023, China and the United States jointly released the document the *Sunnylands Statement on Enhancing Cooperation to Address the Climate Crisis* (CNH: 关于加强合作应对气候危机的阳光之乡声明)[1], reaffirming their commitment to work jointly and together with other countries to address the climate crisis. The *Statement* points out that China and the United States remain committed to the effective implementation of the UNFCCC and the *Paris Agreement*, reflecting equity and the principle of common but differentiated responsibilities and respective capabilities, in light of different national circumstances, to achieve the *Paris Agreement*'s aim in accordance with its *Article 2* to hold the global average temperature increase to well below 2 degrees C and to pursue efforts to limit it to 1.5 degrees C, including efforts to keep 1.5 degrees C within reach.

China and the United States decide to operationalize the *Working Group on Enhancing Climate Action in the 2020s*, to engage in dialogue and cooperation to accelerate concrete climate actions in the 2020s. The Working Group will focus on the areas of cooperation that have been identified in the Joint Statement and the Joint Declaration, including on energy transition, methane, circular economy and resource efficiency, low-carbon and sustainable provinces/states & cities, and deforestation, as well as any agreed topics.

In terms of energy transition, both countries support the G20 Leaders Declaration to pursue efforts to triple renewable energy capacity globally by 2030 and intend to sufficiently accelerate renewable energy deployment in their respective economies through 2030 from 2020 levels so as to accelerate the substitution for coal, oil and gas generation, and thereby anticipate post-peaking meaningful absolute power sector emission reduction, in this critical decade of the 2020s. Both sides agree to restart the China-U.S. Energy Efficiency Forum to deepen policy exchanges on energy-saving and carbon-reducing solutions in key areas including industry, buildings, transportation, and equipment. China and the United States intend to recommence bilateral dialogues on energy policies and strategies, carry out exchanges on mutually

[1] "关于加强合作应对气候危机的阳光之乡声明," Ministry of Ecology and Environment, 15 November 2023, accessed at https://www.mee.gov.cn/ywdt/hjywnews/202311/t20231115_1056452.shtml.

agreed topics, and facilitate track II activities to enhance pragmatic cooperation. The two countries aim to advance at least 5 large-scale cooperative CCUS projects each by 2030, including from industrial and energy sources.

Interns of methane and other non-CO_2 GHG emissions, the two countries will implement their respective national methane action plans and intend to elaborate further measures, as appropriate. China and the United States, with the United Arab Emirates, invite countries to a Methane and Non-CO_2 Greenhouse Gases Summit at COP 28.

MEE releases methane emission control action plan

In 2007, the State Council clearly stated in the *China National Plan to Address Climate Change* that efforts should be made to control the growth rate of methane emissions. Since then, the *Work Plans for Controlling Greenhouse Gas Emissions* issued during the *12th Five-Year Plan* and *13th Five-Year Plan* periods (2011-2020) proposed specific measures. On November 7, 2023, 11 departments, including the Ministry of Ecology and Environment (MEE), the Ministry of Foreign Affairs (MoFA), and the National Development and Reform Commission (NDRC) jointly issued the *Methane Emission Control Action Plan* (CHN: 甲烷排放控制行动方案). This is China's first national policy document specifically for methane emission control, and it is the top-level design and deployment of methane emission control work. The *Methane Plan* clarifies for the first time the methane emission control targets and major tasks in key areas such as energy, agriculture, garbage, and sewage by 2030. Also, it requires strengthening methane monitoring, accounting, reporting, and verification systems.[2]

Data is the basis for improving methane emission control capabilities. The *Methane Plan* requires large emission sources such as coal mines, oil and gas fields, breeding farms, landfills, and sewage treatment plants to implement regular data reporting gradually. National and provincial regional methane emission data will also realise regular accounting. During the *14th Five-Year Plan* period (2021-2025), China will gradually establish a system for methane emission control policy, technology, and standards to effectively improve basic capabilities such as statistical accounting, monitoring, and supervision of methane emissions; during the *15th Five-Year Plan* period (2026-2030), the policy and technical system will be further improved, the accounting and supervision capabilities will witness significant improvement. In the energy field, the government encourages and guides coal enterprises to increase the extraction and utilisation of coal mine gas. By 2025, the annual utilisation of coal mine gas to reach 6 billion cubic meters; to promote the control of methane emissions from oil and gas field venting. By 2030, the gas collection rate of oil field-associated gas aims to reach an internationally advanced level.[3]

MEE releases China's 2022 annual report on climate change

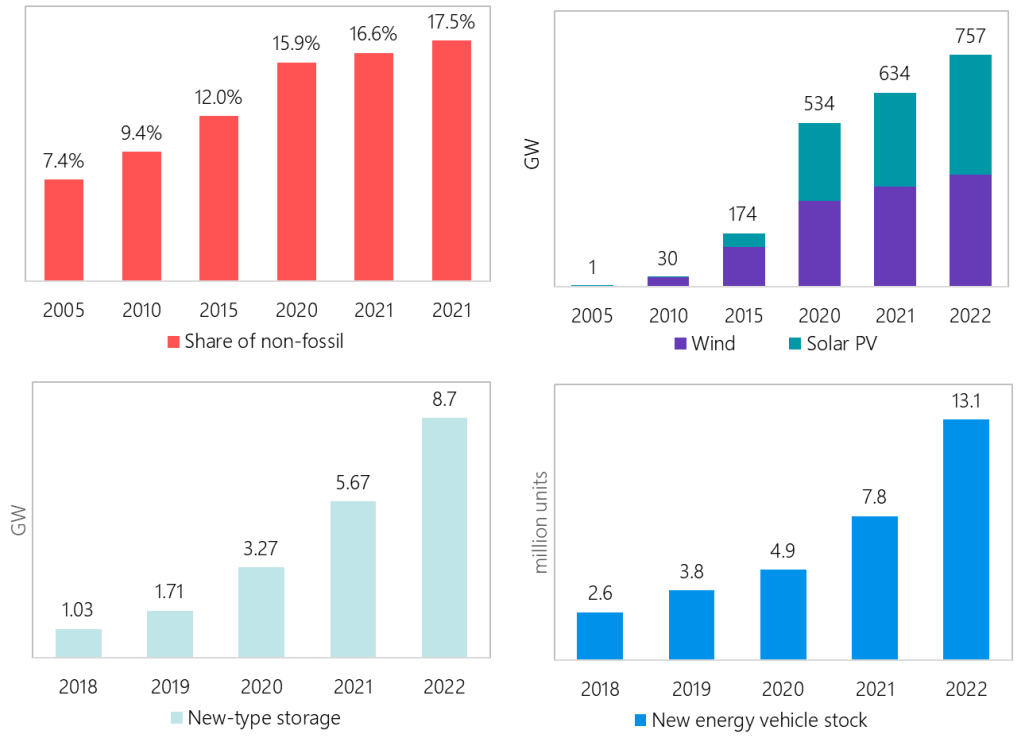
The MEE recently released the *2023 Annual Report on China's Policies and Actions to Address Climate Change* (CHN: 中国应对气候变化的政策与行动2023年度报告), summarising China's main achievements in addressing climate change in 2022 and reviewing new deployments and policy actions.[4] By the end of 2022:

- Carbon dioxide emissions per unit of GDP dropped by more than 51% compared with 2005
- Non-fossil energy accounted for 17.5% of total primary energy consumption
- The installed capacity of renewable energy power generation reached 1,213 GW, of which wind power and solar PV jointly exceeded 750 GW
- New-type energy storage installed capacity reached 8.7 GW, with an average energy storage time of 2.1 hours
- The number of new energy vehicles was 13.1 million, with more than 350 hydrogen refuelling stations

[2] "专家解读 | 推动我国甲烷排放控制迈上新台阶," Ministry of Ecology and Environment, 10 November 2023, accessed at https://www.mee.gov.cn/zcwj/zcjd/202311/t20231110_1055711.shtml.
[3] "甲烷排放控制行动方案," Ministry of Ecology and Environment, 7 November 2023, accessed at https://www.mee.gov.cn/xxgk2018/xxgk/xxgk03/202311/W020231107750707766959.pdf.
[4] "生态环境部发布《中国应对气候变化的政策与行动2023年度报告》," Ministry of Ecology and Environment, 27 October 2023, accessed at https://www.mee.gov.cn/ywgz/ydqhbh/wsqtkz/202310/t20231027_1044178.shtml.

2005-2022 The proportion of non-fossil energy in primary energy consumption (top left) and the cumulative installed capacity of wind power and solar PV (top right)

2018-2022 The cumulative installed capacity of new-type energy storage (bottom left) and the number of new energy vehicles (bottom right)



Note: The non-fossil fuel share is calculated by using the coal-substitution method.

Source: National Bureau of Statistics (NBS), National Energy Administration (NEA), China Energy Storage Alliance (CESA), Ministry of Ecology and Environment (MEE), accessed in November 2023

Regarding carbon market development, the national carbon market in China was launched in July 2021, covering more than 5 billion tons of carbon dioxide emissions annually. Its first compliance cycle (January 1, 2021 - December 31, 2021) has been completed, with 2,162 key emission units included, the compliance completion rate is 99.5%, and the transaction price raised steadily. The second compliance cycle (January 1, 2022 to December 31, 2023) has been fully launched. As of June 30, 2023, the cumulative transaction volume of national carbon emission allowances (CEA) reached 238 million tons, and the cumulative transaction amount of 10.9 billion RMB.

At the policy level, in June 2022, 17 ministries and commissions, including the MEE, jointly issued the *National Climate Change Adaptation Strategy 2035* (CHN: 国家适应气候变化战略2035), which particularly emphasised the need to strengthen climate change monitoring, early warning, and risk management, and made overall planning and deployment for climate change adaptation by 2035. In September 2022, the MEE issued the *Guidelines for Preparation of Provincial Action Plans for Adaptation to Climate Change* (CHN: 省级适应气候变化行动方案编制指南), which aims to guide, standardise, and strengthen provincial actions to adapt to climate change.

MEE introduces the development status of the national ETS

According to data recently released by the MEE, since the launch of the national carbon market in July 2021, the cumulative transaction volume of carbon emission allowances has reached 365 million tons, with a cumulative transaction volume of 19.537 billion RMB, and the carbon price has remained at 50-80 RMB/ton, maintaining steady but rising. Among them, 2,257 emission units in the power generation industry have been included in the second compliance period, covering annual carbon dioxide emissions of more than 4 billion tons. Recently, carbon prices have shown an upward trend and remain at around 80 RMB/ton, significantly higher than the weighted average prices in 2021 (44 RMB/ton) and 2022 (55 RMB/ton). The current price level reflects China's emission reduction costs, and the moderate rise in carbon prices also reflects its market attributes. For the national carbon market operation data and development in 2021 and 2022, please see the CET website.

In developing the national carbon market, the government carries out annual carbon emission accounting, reporting, and verification for the petrochemical, chemical, building materials, steel, nonferrous metals, papermaking, and civil aviation industries nationwide. It has collected data from more than 6,000 companies. At the same time, particular research was conducted on the allowance allocation methods and implementation paths for inclusion in the carbon market for the above seven industries. For the next step, the MEE will prioritise industries with high emission reduction potential and good data quality foundations in the national carbon market.[5]

China to implement coal power capacity price

The NDRC recently announced that starting from January 1, 2024, coal power units will implement a capacity price policy.[6] This policy applies to all compliant coal power units in operation, excluding coal-fired captive power plants and coal power units that fail to meet energy consumption, emissions, and flexibility requirements. In 2022, China's new energy accounted for 2/3 of the total new power generation, with volatile renewable energy generation such as wind power and solar PV continuing to increase. Coal power will still be the most important and low-cost flexible power source. At present, coal power enterprises can only obtain profits through electricity prices, and it is difficult to recover the costs entirely.

The coal power capacity price released this time is determined in a way that allows coal power units to recover a certain proportion of fixed costs. The fixed cost is a national unified 330 RMB/kW·year standard. According to the capacity price policy, from 2024 to 2025, the capacity price in most provinces is 30% of the fixed cost (100 RMB/kW·year). In areas with a high proportion of new energy and a large demand for coal power regulation, such as Yunnan, Guangxi, Qinghai, Sichuan, and Henan, the capacity price is 50% of the fixed cost (165 RMB/kW·year). In 2026, the capacity price standard in all provinces should be no less than 50% of the fixed cost (165 RMB/kW·year). If the coal power unit cannot provide regulating capacity as required by the declaration, the capacity price will be deducted according to the number of occurrences. If the coal power unit fails to meet the standard multiple times, the qualification for the capacity price will be revoked. Capacity prices are settled monthly and are shared by industrial and commercial users in proportion to their electricity consumption.

According to the interpretation of the NDRC, implementing capacity prices will not significantly impact user electricity prices in the short term. Despite the increase in capacity prices, as the amount of new energy participating in market transactions increases, electricity prices will decrease accordingly. Electricity prices for industrial and commercial users are expected to remain stable and slightly decrease. Residential and agricultural users still implement independent fixed electricity price policies.[7]

[5] "全国碳市场总体运行平稳 累计成交额超194亿元," Ministry of Ecology and Environment, 27 October 2023, accessed at https://baijiahao.baidu.com/s?id=1780901259435573300&wfr=spider&for=pc.
[6] "国家发展改革委 国家能源局关于建立煤电容量电价机制的通知, 发改价格〔2023〕1501号," National Development and Reform Commission, National Energy Administration, 8 November 2023, accessed at https://www.ndrc.gov.cn/xxgk/zcfb/tz/202311/t20231110_1361897_ext.html.
[7] "国家发展改革委有关负责同志就建立煤电容量电价机制答记者问," National Development and Reform Commission, 10 November 2023, accessed at https://www.ndrc.gov.cn/xxgk/jd/jd/202311/t20231110_1361904.html.

NDRC updates spot power market construction schedule

On October 12, 2023, the NDRC and the NEA jointly issued the *Notice on Further Accelerating the Construction of the Spot Power Market* (CHN: 关于进一步加快电力现货市场建设工作的通知), requiring the expansion of participants and coverage areas of the spot power market. To achieve the goal of full participation of new energy in market transactions by 2030, in areas with high installed capacity of distributed new energy, the government requires promoting distributed new energy grid-connected electricity to participate in market transactions; promoting the adoption of energy storage, virtual power plants (VPP) and load aggregators to participate in the spot power market and play an active role in peak shaving and valley filling and optimising power quality. The document also clarifies the development timetable for provincial, regional, and inter-provincial spot power markets.

- In terms of the regional power market, by the end of 2023, the southern regional spot power market should start a settlement trial operation, and to establish an integrated cooperation mechanism for the Yangtze River Delta power market; by the end of June 2024, strive to launch a simulated trial operation of the Beijing-Tianjin-Hebei power market.
- In terms of inter-provincial trading mechanisms, by the end of 2023, the inter-provincial spot power market should be able to carry out continuous settlement (currently in trial operation).[8]

Provincial spot power markets construction timetable

Time	Province	Target
By the end of 2023	Fujian	Carry out long-term settlement trial operations (30 days and above)
	Liaoning, Jiangsu, Anhui, Henan, Hubei, Hebei South Network, Jiangxi, Shaanxi	Strive to carry out long-term settlement trial operation
	Other regions (except Tibet)	Meet the conditions for settlement trial operation
By June 2024	Zhejiang	Start continuous settlement trial operation
N/A	Sichuan	Explore the market model and market mechanism to adapt to the seasonal connection of a high proportion of hydropower between wet and dry seasons

Source: NDRC and NEA, October 2023

[8] "国家发展改革委办公厅 国家能源局综合司关于进一步加快电力现货市场建设工作的通知，发改办体改〔2023〕813号," National Development and Reform Commission, 12 October 2023, accessed at https://www.ndrc.gov.cn/xxgk/zcfb/tz/202311/t20231101_1361704_ext.html.

3. Policy monitoring

2023-11-16

https://www.gov.cn/zhengce/zhengceku/202311/content_6913873.htm?dzb=true

China launches carbon peak pilot project

Notice on Issuing the National Carbon Peak Pilot Construction Plan, NDRC Environmental Resource [2023] No.1409

The government will select 100 typical cities and parks nationwide to carry out carbon peak pilot construction, focusing on breaking the bottlenecks faced by green and low-carbon development and accelerating transition by promoting pilot tasks, implementing key projects, and innovating policy mechanisms. By 2025, a low-carbon policy mechanism within the pilot scope will be established, and a batch of operable, replicable, and scalable innovative measures and reform experiences will be formed; by 2030, critical tasks, major projects, and essential reforms will be completed as scheduled, and relevant policy mechanism will also be fully established.

2023-10-19

https://www.mee.gov.cn/gzk/gz/202310/t20231020_1043695.shtml

MEE announces new version of CCER transaction management measures

Greenhouse Gas Voluntary Emission Reduction and Trading Management Measures (Trial), MEE, SAMR Order No.31

The *Greenhouse Gas Voluntary Emission Reduction and Trading Management Measures (Trial)* (CHN: 温室气体自愿减排交易管理办法（试行）) is one of the basic mechanisms of the CCER trading market and the primary basis for the design, implementation, approval, and emission reduction accounting and verification of CCER projects. The document clarifies the methodology for four types of CCER projects, including afforestation carbon sequestration, grid-connected CSP, grid-connected offshore wind power and mangrove cultivation, including applicable conditions for participating in CCER transactions, emission reduction accounting methods, monitoring methods, and approval with points to check. According to MEE's interpretation, the grid-connected CSP methodology applies to independent grid-connected CSP projects and the grid-connected CSP as part of the "CSP+" integrated project. The grid-connected offshore wind power generation methodology is suitable for grid-connected offshore wind power projects more than 30 kilometres offshore or with water depths greater than 30 metres.[9]

2023-10-10

https://www.ndrc.gov.cn/xxgk/zcfb/tz/202310/t20231025_1361500.html

NDRC supports the refining industry in developing green hydrogen and CCUS

Guiding Opinions on Promoting Green Innovation and High-quality Development of the Refining Industry, NDRC Energy [2023] No.1364

The government encourages oil refining companies to vigorously develop hydrogen production from renewable energy, build green hydrogen refining demonstration projects, and gradually reduce the amount of coal-based hydrogen production in the oil refining industry. At the same time, it supports the refining companies in accelerating the demonstration application of carbon dioxide capture, utilisation, and storage (CCUS). By 2030, green hydrogen refining and CCUS technology should complete industrialisation and large-scale demonstration and verification, and build several replicable green and low-carbon benchmark enterprises.

[9] "生态环境部发布4项温室气体自愿减排项目方法学," Ministry of Ecology and Environment, 31 October 2023, accessed at https://www.gov.cn/lianbo/bumen/202310/content_6912782.htm.

2023-10-08

https://www.gov.cn/zhengce/zhengceku/202310/content_6907977.htm

MoT encourages the optimisation of new energy bus charging price policies

Opinions on Promoting the Healthy and Sustainable Development of Urban Public Transportation, MoT Development [2023] No.144

The government encourages local governments to provide policy support for new energy urban bus charging. For example, based on implementing valley electricity prices for nighttime charging, valley electricity prices can be implemented during part of the daytime to guide new energy urban public vehicles to charge more during off-peak hours.

2023-10-07

http://zfxxgk.nea.gov.cn/2023-10/07/c_1310746973.htm

NEA exempts distributed wind power projects from power business licenses

Notice on Further Standardizing the Management of Power Business Licenses for Renewable Energy Power Generation Projects, NEA Development Qualifications and Rules [2023] No.67

Electricity enterprises must obtain a power business license before conducting the power generation, transmission, distribution, and electricity sales business. The procedures for applying for this certificate are complicated and time-consuming. To encourage the development of distributed power generation and renewable energy, in March 2020, the NEA included renewable energy power generation projects below 6 MW within the scope of power business license exemption. In recent years, the scale of installed distributed wind power capacity has continued to expand. Therefore, NEA recently included distributed wind power in the power business license exemption to encourage its industrial development. Distributed wind power refers to wind power projects located near a load centre with a total installed capacity of less than 50 MW and connected to a power grid below 110 kV or 66 kV.

2023-09-27

http://zfxxgk.nea.gov.cn/2023-09/27/c_1310745991.htm

NEA launches renewable energy pilot demonstration project

Notice on Organising Pilot Demonstrations for Renewable Energy Development, NEA New Energy Development [2023] No.66

The NEA aims to implement a batch of renewable energy demonstration projects with advanced technology, reasonable economic benefits, and good promotion prospects by the end of 2025. Demonstration projects include three categories: technological innovation, project development and construction, and high-proportion application. In the demonstration of wind power and solar PV project development and construction, NEA proposed projects including integrated solar PV and desertification control projects, small utility-scale solar PV and distributed solar PV projects along roads and railways, offshore solar PV projects, deep sea price-parity wind power projects of 1 GW and above, and offshore energy island projects (combining offshore wind power, hydrogen production, new-type energy storage, desalination, marine ranching, etc.) and integrated wind power and oil and gas field projects. Among high-proportion application projects, new energy demonstration projects are proposed (new energy power consumption accounts for more than 70%), that is, to carry out new energy direct power supply, coupling of wind-solar-hydrogen-and storage, flexible load in parks, enterprises, and public buildings; green energy demonstration park (100% of newly added energy consumption is met by renewable energy), that is, to conduct renewable energy consumption substitution in industrial parks.