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General overview ⁽¹⁾

China's energy sector exhibited **stable production and import levels in Q1**.

- **Coal** production saw a decrease of 4.1% year-on-year (YoY), totalling 1.11 billion tonnes, whereas imports increased by 13.9% YoY, reaching 120 million tonnes.
- **Crude oil** production rose by 2.3% YoY to 53.48 million tonnes, while imports saw a slight increase of 0.7% YoY, amounting to 140 million tonnes.
- **Natural gas** production experienced a 5.2% YoY increase, reaching 63.2 billion cubic meters, with imports increasing by 22.8% YoY, totalling 32.79 million tonnes.

Regulatory and policy updates ⁽²⁾

The **draft of the Energy Law** was submitted for review on 23 April, during the 9th meeting of the Standing Committee of the 14th National People's Congress. The draft covers eight key areas in **nine chapters** and 69 articles: 1) general principles; 2) adhering to the leadership of the Party; 3) enhancing the energy planning system; 4) refining the energy development and utilisation system; 5) bolstering the construction of the energy market system; 6) improving the energy reserve system and emergency response system; 7) advancing energy technology innovation; 8) enhancing supervision and management; and 9) defining legal responsibilities.

The draft Law aims to **refine the mechanisms for energy use** by addressing six aspects: a) defining the trajectory for adjusting the energy mix; b) supporting the prioritised development of renewable energy; c) promoting the rational, clean, and efficient use of fossil fuels; d) systematically advancing the replacement of fossil fuels with non-fossil energy sources, and high-carbon energy with low-carbon alternatives; e) mandating improvements in the cleanliness, efficiency, and intelligence of terminal energy consumption; and f) strengthening the construction and protection of energy infrastructure, fostering rural energy development.

National Energy Administration (NEA) news and updates ^(3,4,5)

SONG Hongkun was appointed **Deputy Administrator (Director) of the National Energy Administration (NEA)** at the end of March. According to NEA's website, he will oversee the General Department, Market Supervision Department, dispatched agencies of the NEA, Information Center, Office Service Center, and China Energy Media Group Co., Ltd. Mr. SONG had served as Director General of the Market Supervision Department of NEA since mid-2023. Prior to joining the NEA, he had an extensive career within the energy regulatory framework, including roles as a member of the Party Group and General Director at the Nanjing Electric Power Regulatory Office, and as Deputy Commissioner and Party Group Member at the Jiangsu Regulatory Office.

ZHANG Jianhua, Administrator (Director) of the NEA, authored an **op-ed in People's Daily** in April 2024, highlighting the need to synergise higher-quality energy development with an enhanced level of energy security. He emphasised energy security as the cornerstone of China's national ambition of rejuvenation and strengthening. According to Mr ZHANG, China must safely enhance the substitution of green energy while reinforcing the base-load role of fossil fuels. Moreover, he underlined the necessity for the energy foundation to become greener by accelerating the shift in the energy mix. Notably, by the end of 2023, the total installed capacity of renewable energy in China had reached 1 500 GW, surpassing installed coal capacity for the first time and accounting for over 50% of the total generation capacity.

NEA's '2024 Guiding Opinions on Energy Work' were released in March. The Opinions state that energy security continues to be a top priority and stress the importance of improved coordination across various areas: development and security; traditional and new energy types; action at national and local levels; and development, conservation, and use of energy.

Key points from the 'Opinions' include:

- Continuing to promote the substitution of clean energy in key areas.
- Accelerating the construction of a charging infrastructure network along cities, highways, and residential communities to deepen the electrification of the transport sector.
- Promoting sustainable clean heating developments in the northern region through methods like centralised heating via ultra-low emission cogeneration or renewable energy sources (geothermal, solar, biomass) and gradually developing various clean heating methods such as electricity, industrial waste heat, and nuclear energy.
- Advancing the construction of pilot counties for the rural energy revolution, accelerating the clean and low-carbon transition from local points to broader areas.
- Revising natural gas utilisation policies to enhance its role in the construction of new energy systems.
- Releasing the 'Green Energy and Low Carbon Transition Typical Case Collection' to encourage transition and development through exemplary cases.

Additional NEA Goals:

- Accelerating the development of new forms and models within the energy industry.
- Strengthening the tracking and evaluation of new energy storage pilot demonstration projects to promote advancements in the energy storage technology industry. Formulating policies to accelerate the high-quality development of the hydrogen energy industry, orderly promotion of hydrogen technology innovation and industrial development, and steady development of hydrogen energy pilot demonstrations with a focus on developing renewable energy hydrogen production and broadening hydrogen energy application scenarios.
- Steadily advancing the development of green and clean liquid fuels and methodically promoting the innovation and industrialisation of non-grain fuel ethanol technologies.
- Promoting the implementation of low-carbon and zero-carbon transitions in industrial parks, and advancing green and efficient energy supply and consumption models, such as comprehensive energy stations and integrated source network load storage.
- Exploring and implementing demonstration projects for new energy microgrids.

Coal industry update ^(6,7,8,9)

The '[2023 Annual Report on the Development of the Coal Industry](#)' published by the **China Coal Industry Association** indicates that, by the end of 2023, the number of coal mines in China had decreased to approximately 4 300. Of these, large-scale coal mines (annual output of >1.2 million tonnes), contributed over 85% to the national production; 81 coal mines boasted an annual capacity exceeding a million tonnes. Official statistics reveal that China produced a record 4.71 billion tonnes of coal in 2023, marking an annual increase of 3.4%. Coal imports also reached a new high at 474 million tonnes, reflecting a YoY increase of 61.8%.

ZHANG Hong, spokesperson for the China Coal Industry Association, commented: 'Through supply-side reforms, the coal industry has undergone significant changes and upgrades. In the past, China's coal production was primarily from small and medium-sized coal mines, but now, a large number of outdated production capacities have been eliminated through reforms. Previously, over 10 000 coal mines produced over 3 billion tonnes of coal annually, but now just over 4 000 coal mines produce more than 4 billion tonnes annually.'

In April, the NDRC and NEA jointly issued the '[Implementation Opinions on Setting Up a Coal Capacity Reserve Mechanism](#)' aimed at stabilising coal supply and prices during significant demand surges, particularly considering past power shortages during extreme winter or summer temperatures. This mechanism targets establishing a dispatchable coal capacity by 2027, and 300 million tonnes per year by 2030, which would equal 6.4% of China's 2023 coal output.

This system is designed to allow the NDRC and NEA to dispatch coal at a national level in emergency situations, effectively managing sudden surges in coal usage caused by extreme weather or geopolitical tensions. The



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concept dates to 2010, when the NDRC and MoF issued the 'Temporary Measures on Emergency Coal Reserve', authorising coal and power enterprises to set up reserves for national government dispatch when needed. In response to a spike in coal prices in 2021, [the NDRC demanded a coal reserve capacity of 120 million tonnes, which was increased to 200 million in 2022.](#)

Oil and gas sector insights ^(10,11,12,13)

Two [senior executives from China National Offshore Oil Corp. \(CNOOC\)](#), a state-owned oil giant, are currently [under investigation](#) by China's Central Commission for Discipline Inspection and Supervision. They are CHEN Ming, former full-time Deputy Leader of the Bohai Regional Coordination Working Group of the CNOOC Tianjin Branch, and FANG Zhi, former Vice President of CNOOC, who also led CNOOC's acquisition of Nexen in 2013 and subsequently became Nexen's Vice Chairman.

[Iran's oil exports have reached a six-year high](#), with [China the largest buyer](#), as reported by the Financial Times. The average export volume was about 1.56 million barrels per day during the first three months of 2024, the highest since the third quarter of 2018. This development has received minimal coverage in domestic media. To circumvent financial sanctions imposed by the United States, [China has engaged smaller banks, such as Kunlun Bank owned by PetroChina, to complete these transactions.](#)

On 12 April, the [China National Petroleum Corporation \(CNPC\)](#) signed [a series of oil cooperation agreements with Niger's](#) prime minister Ali Mahaman Lamine ZEINE, as announced by the Chinese Ministry of Foreign Affairs. The agreements, worth approximately USD 400 million, were signed in the presence of the Ambassador to Niger, JIANG Feng, and other officials from Niger. These deals are part of Niger's initiative to diversify its international partnerships following the severance of ties with France and the United States.

Electricity updates ^(14,15)

The [State Grid welcomed its 7th Chairman, ZHANG Zhigang](#), at the end of March, replacing previous Chairman XIN Bao'An, who reached his retirement age. Mr. ZHANG had been appointed as a Director, General Manager, and Deputy Secretary of the Party Group of State Grid in May 2021 and had, since September 2017, held the position of Deputy General Manager of State Grid. He had previously served as the Deputy Director of the State Grid Dispatching and Communication Centre.

Since its inception in 2002, State Grid has grown to become the largest power grid company in the world, boasting a registered capital of CNY 823 billion. The company plans to invest over CNY 500 billion in 2024.

[State Grid secured Brazil's largest transmission concession project](#) on 3 April, signing a franchise agreement in Brasilia with the Brazilian Electricity Regulatory Authority for the '[Brazil Northeast UHV Project](#)'. This project, the largest transmission concession and infrastructure project in Brazil's history, features a 5 million kW transmission capacity and is expected to be operational by 2029, with a franchise term of 30 years. State Grid independently won this project on 15 December, 2023, its third overseas UHV transmission project following the first and second phases of Brazil's 'Meilishan UHV transmission project'.

Clean energy updates

WIND ^(16,17)

According to a report from the [Chinese Wind Energy Association](#), [China exported a total of 3 665 MW of wind turbines in 2023](#), a 60% increase from the previous year. Six Chinese companies exported to 18 countries, with Goldwind and Envision Group leading the exports. [Uzbekistan, Egypt, South Africa, Laos and Chile were the top five destinations](#), collectively accounting for nearly 70% of the total exports. An industry expert noted that the high concentration of destinations is due to a mix of wind resource conditions, power grid infrastructure, and geopolitical factors.

NUCLEAR ⁽¹⁸⁾

The **China Nuclear Energy Association's 'China Nuclear Energy Development Report (2024) (blue book)'** indicates that China's nuclear investment reached a **record high of CNY 94.9 billion in 2023**, with five new units beginning construction. This surge in investment aligns with China's ongoing efforts to decarbonise its electricity generation system. From 2019 to 2023, China's nuclear investment escalated significantly, with CNY 33.5 billion in 2019, CNY 37.8 billion in 2020, CNY 53.8 billion in 2021, CNY 67.7 billion in 2022, and approvals for 10 units each year in 2022 and 2023. Currently, China operates 55 units with a capacity of 57 million kW and has 26 units under construction, totalling 30 million kW, ranking first worldwide. 'China now has the capacity to construct 40 units simultaneously,' stated ZHANG Tingke, chairman of the China Nuclear Energy Association.

HYDROGEN ^(19,20)

China, the world's largest producer of hydrogen, produced 35.33 million tons in 2022, accounting for over one-third of the global total.

During his second trip to China since taking office, **German Chancellor Olaf SCHOLZ visited Bosch Hydrogen Powertrain Systems in Chongqing**, a joint venture that manufactures vehicle hydrogen drives. Details of his visit are sparse, but he observed hydrogen and fuel cell powertrain solutions and witnessed the assembly of hydrogen fuel cell power modules. This visit underscores the competitiveness of German companies in the Chinese market, where over 5 000 German companies operate and where Germany has maintained its 'largest trading partner' status for many years.

In another development, **China's first hydrogen-powered urban train** completed a test at the end of March in Changchun, Jilin province, reaching speeds of 160 km/h. Developed by China's CRRC Changchun Railway Vehicles Co. Ltd, the train is equipped with a built-in hydrogen power system and an independently developed hydrogen-electric hybrid energy control system. 'Over the entire lifecycle of a hydrogen-powered train, carbon dioxide emissions can be reduced by approximately 50 000 tonnes, equivalent to the emissions from 50 000 cars driving 5 000 km simultaneously', explained WANG Jian, deputy director of the new Technology Research Department at the Engineering Research Centre of CRRC Changchun Railway Vehicles Co. Ltd. The test also verified the train's performance in extreme temperatures ranging from -25° Celsius to -35° Celsius, confirming that all indicators meet vehicle design requirements and international performance standards.

China Energy's first heavy-duty railway hydrogen refuelling station, located in Ejin Horo Banner, Ordos City, Inner Mongolia, has completed the hydrogenation commissioning of hydrogen-powered locomotives and achieved market operation capabilities. This station, a key project in Ordos City, is also the first of its kind in China. In recent years, the China Energy Group Hydrogen Technology Company has constructed and operated five hydrogen-refuelling stations and three hydrogen production plants, with a hydrogen production capacity of 22 000 standard cubic meters per hour and a hydrogen refuelling capacity of 6.5 tonnes per day.

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