

CHINA ENERGY UPDATES

General overview

In April in China,

- **Coal production** saw a **decrease of 2.9% year-on-year (YoY)**, totalling 370 million tonnes, whereas **imports increased by 11.3% YoY**, reaching 45.25 million tonnes.
- **Crude oil production rose by 1.3% YoY to 17.47 million tonnes**, while **imports** saw an **increase of 5.9% YoY**, amounting to 44.72 million tonnes.
- **Natural gas production** achieved a **3.2% YoY increase**, reaching 19.8 billion cubic meters, with **imports increasing by 15.1% YoY**, totalling 10.3 million tonnes.

Regulatory and policy updates

China released the draft of its long-awaited **Atomic Energy Law** for public consultation at the end of April, after it had been reviewed at the 9th meeting of the Standing Committee of the 14th National People's Congress. *'With the rapid development of the atomic energy industry, China has successively issued more than 10 major nuclear related laws and regulations, making specific provisions for nuclear safety, radioactive pollution prevention and control, and other specialised fields. However, lacking a comprehensive basic law impedes top-level design and better coordination between the development and safety of the atomic energy industry. Therefore, such a law is very necessary to promote the healthy and sustainable development of the industry,'* said ZHANG Kejian, deputy minister of the Ministry of the Industry and Information Technology and director of the National Atomic Energy Agency.

The draft clearly insists on **active, safe and orderly development of nuclear power** and supports the **peaceful use of atomic energy in industries, agriculture, biology, healthcare, and ecological environment protection**. The draft also clarifies that a **complete nuclear fuel cycle system** will be established, spent fuel will be recycled, and radioactive waste will be treated and disposed of appropriately. At the same time, the state will allow enterprises related to the nuclear fuel cycle industry to effectively use the capital market and gradually form a diversified investment mechanism for the nuclear fuel cycle industry. In addition, the draft clarifies the supervision and management system, aims to improve import and export management, and strictly enforces legal responsibilities.

By 2030, China is expected to overtake the US and France in terms of number of nuclear power units and installed capacity, and is set to become the world's largest nuclear power producer, according to China Nuclear Industry Association.

Coal industry updates

China's leading coal province (Shanxi) intends to **increase coal output starting from May 2024**, in a bid to stimulate the local economy, according to Caillian Press (CLS) which interviewed several listed companies and coal industry insiders in Shanxi. Currently, local coalmines are still waiting for specific policy updates, but there are already signs of increased activity following a slowdown earlier this year in the wake of several fatal accidents.

The Russian government has announced that it will cancel export tariffs on thermal coal and anthracite from 1 May to 31 August 2024. This decision is intended to support domestic coal industry enterprises. In the short term, this move will boost the competitiveness and volume of Russian coal exports to China. Based on the current rouble/CNY exchange rate, the cancellation of the export tariff could reduce import costs by CNY 44 per tonne for Chinese importers.

In 2023, approximately 21% of China's coal imports were from Russia. China is also **the number one buyer of Russian coal**, importing 102 million tonnes, representing almost 50% of Russia's total coal exports in 2023.

A report from the Global Energy Monitor found that China **added 47.4 GW coal capacity in 2023**, the highest net increase in operating coal capacity since 2016. This is rather alarming: for the Net Zero Emissions by 2050 Scenario to become reality, unabated coal-fired generation **must be eliminated by 2040**.

Oil and gas sector insights

China (China National Petroleum Corporation) and Russia (Gazprom) are now ready to move forward with the **Power of Siberia 2 Gas Pipeline Project**, on which the two sides reached an agreement in December 2023. **The contract will be signed shortly**, according to Alexander Novak, Russia's deputy prime minister and head of energy affairs, **speaking during Russian President Vladimir Putin's visit to China in May**.

This **2 600-kilometer pipeline will eventually carry 50 billion cubic meters of gas per year** from the Yamal region in northern Russia, a capacity that is slightly less than that of the damaged 55 bcm/yr Nord Stream 1 pipeline to Europe. Russia currently sends gas to China through the 3 000 kilometre Power of Siberia 1 pipeline. This began operating in 2019 and runs through Siberia into Heilongjiang, northeast China.

Hudong-Zhonghua Shipbuilding, a subsidiary of China State Shipbuilding Corporation (CSSC), delivered a **new 174 000-cubic meter large-scale liquefied natural gas (LNG) carrier** in May. According to China Shipbuilding Industry Association (CANSI), this is the company's first fifth-generation LNG carrier, and is the first in the new Changheng Series. The carrier will be used by China's energy giant China National Offshore Oil Corp. (CNOOC). Compared with ships from the previous generation ship, the new vessel has **lower comprehensive energy consumption and emits more than 10 tonnes less carbon emissions** during daily navigation; The entire ship is over 1 500 tonnes lighter than its predecessors, and each voyage can load an additional 800 cubic meters of LNG.

Two senior CNOOC executives were disciplined in April 2024, and on 6 May, **Qi Meisheng, the former deputy chief economist of state-owned China National Offshore Oil Corp. (CNOOC), and former party secretary and chairman of CNOOC Gas and Power Group Co. Ltd, was put under investigation**, according to China's Central Commission for Discipline Inspection and Supervision.

Born in 1968, Qi graduated with a bachelor's degree in Drilling Engineering from China University of Petroleum (East China) and has been working at CNOOC Systems since that time. In September 2023 he took up the post of party secretary and chairman of CNOOC Gas and Power Group Co. Ltd, a wholly-owned subsidiary of CNOOC Group, which operates and manages the group's natural gas and power generation business.

Electricity updates

The National Development and Reform Commission (NDRC) issued the **Basic Rules for the Operation of the Electricity Market** on 14 May 2024, which will **come into effect on 1 July 2024**. This is the first time in **more than 18 years** that China has revised this document (originally issued in 2005), also known as **Order No 10** of the State Electricity Regulatory Commission.

Since the launch of the new round of power market reform in 2015, China's power market construction has achieved positive results, but is still affected by issues such as inconsistent rules, local protection, and inter-provincial barriers to implementation in various regions, according to the NEA.

In the governmental policy-planning framework '1+N', this key 11-chapter 45-article document will represent the '1' of '1+N'. The most significant change from the original 2005 version is adding '**capacity trading**' to the transaction types in the electricity market, allowing buyers to pay for the output capacity provided by generator sets, energy storage, etc. that can reliably support the maximum load over a certain period of time in the future.

This means that the **top-level design of the national unified power market will build a capacity market**, providing an assured cost recovery space for new energy storage and power generation enterprises.

China's electricity use is expected to peak again this summer, reaching over 1.45 billion KW for peak load. The country is on track to use 9.8 trillion kWh of electricity in 2024, representing an increase of 6% YoY, according to NEA.

This upward trend has been a feature in China for several years. From 2021 to 2023, the peak load was 1.19 billion KW, 1.29 billion KW, 1.34 billion KW, marking 10.8%, 8.4%, and 4% YoY increase respectively.

The summer power crunch derives from a combination of factors: 1) more frequent extreme weather; 2) economic recovery after COVID; 3) the increasing level of electrification of power end use.

Clean energy updates

To promote the consumption of green electricity, the NEA called for comments on the '**Draft Rules for the Issue and Trading of Renewable Energy Green Electricity Certificates**' at the end of April. This document serves as an implementation guide to better regulate the green electricity certificate market.

According to the 'Rules', the green certificate is the only **way of validating the environmental attributes of renewable energy electricity in China**, and the only certificate that **recognises the production and consumption** of renewable energy electricity. For the time being, the certificate can only be **traded once and is valid for two years**.

The 'Rules' specify that the issue and trading of green certificates should adhere to the principles of 'unified issue, open trading, market competition, transparent information, and full traceability'. The issue should be organised by the government; the trading should be open to society; prices should be formed through market-oriented methods; information disclosure should be timely and accurate, and the data throughout the entire lifecycle should be true, trustworthy, tamper proof, and traceable.

In response to publication of the Draft Rules, **the average trading price fell to just CNY 0.26 per one certificate on 12 May**, a 99.4% decrease YoY. '*Such a sharp drop is an answer to the two-year validity period in the call-for-comment document, as those soon-to-be expired ones, which were issued before May 2022, will be considered expired when the Rules come into effect,*' said WU Jingwen, an independent researcher. '*Such a sudden drop in price in the short term is a normal reaction of the market to the "Rules", indicating the effectiveness of the mechanism. The setting of the validity period and the verification mechanism also provide clear supply expectations for the market, when combined with the dynamic adjustment mechanism of the tradable green certificate issue scope, it can ensure the balance of market supply and demand and reasonable circulation.*'

Two Chinese solar panel companies have withdrawn from bidding for Romanian PV projects due to a foreign subsidy investigation by the European Union, losing contracts estimated to be nearly CNY 3 billion.

The first consortium consists of the German subsidiary of Longi Green Energy (the world's largest solar panel manufacturer) and ENEVO Group from Romania, while the other consortium includes Shanghai Electric UK Co. Ltd and Shanghai Electric Hong Kong International Engineering Co. Ltd.

'The European Commission's unfair, opaque, and suspected discriminatory law enforcement investigations have forced involved Chinese enterprises to comply with this reality and withdraw from public procurement bidding. This not only causes huge losses to Chinese enterprises, but also hinders the green transformation process of the European side and EU member states themselves,' the China Chamber of Commerce told the EU.

On 14 May, the White House announced that President Biden had instructed the Office of the United States Trade Representative to **increase the tariff rate on Chinese PV products under the 301 investigation from 25% to 50%**.

This comes hot on the heels of a White House announcement [launching antidumping and countervailing measures on PV products from Cambodia, Malaysia, Thailand, and Vietnam, and on module imports. The tariff exemptions are to end on 6 June 2024.](#)

Chinese PV companies reacted calmly to the former announcement, assessing the impact would be very limited: in 2023 the export value of PV cells and modules from China to the United States was just USD 3.347 million USD and USD 13.147 million respectively, accounting for 0.1% and 0.03% respectively of overall PV product exports.

The second announcement has sparked more concerns. [Close to 20 PV companies](#) in China have established PV production in Southeast Asia through joint ventures, mergers and acquisitions, investments, and other means.

[Goldwind Technology has completed acquisition of its first overseas wind turbine manufacturing plant \(Camaçari General Assembly Plant\)](#) after signing an agreement with US energy giant General Electric (GE).

The deal marks an important step in Goldwind's global strategic layout. As the domestic price war for wind turbines intensifies, more and more companies are accelerating moves to grab overseas market. Brazil's Camaçari General Assembly Plant is expected to have mass production capacity for wind turbines by the end of 2024.

EU ENERGY UPDATES

International cooperation

EU and China agree to greater circular economy cooperation: On 25 April, the EU and China **agreed on a joint roadmap** for greater collaboration on the circular economy. The roadmap, which will be implemented throughout 2024 and **will be reviewed at the next High-Level Dialogue on Circular Economy**, when agreement will be reached on priorities and potential new activities to include in the roadmap. The roadmap focuses on plastics, including ongoing negotiations for a global plastics treaty, battery value chains, and remanufacturing. The EU and China have a mutual interest in promoting alternative pathways for development and prosperity that do not contribute to the depletion of the environment.

The circular economy is one of the central features of the EU's drive to achieve a zero-carbon economy by 2050 and is key to halting biodiversity loss and delivering zero pollution. China has developed specific legislation supporting its transition to a more circular economy.

On 28 April, **European Commissioner for Energy Kadri Simson and HRH the Minister of Energy of Saudi Arabia Abdulaziz bin Salman Al Saud held bilateral meetings to discuss energy and clean tech cooperation.** The talks focused on **accelerating private investment** into renewable energy, electricity interconnection, and **integration of renewables into the electricity grid.**

Both parties are exploring a Saudi-EU Memorandum of Understanding (MoU) on energy cooperation, aiming to conclude the MoU within the next few months. This MoU would strengthen bilateral ties and advance the goals of the Paris Agreement and the UAE Consensus reached at COP28.

On 6 May, European **Commissioner for Energy Kadri Simson and Ukraine's Energy Minister German Galushchenko discussed plans to strengthen the resilience of Ukraine's energy system** and prepare for the next heating season, with a focus on **restoring over 8 GW of lost power capacity and increasing generation by next winter.**

The EU will support Ukraine in rebuilding its energy infrastructure and provide financial assistance through the Ukraine Energy Support Fund. The meeting also addressed the termination of the contract for **Russian gas transit to Europe** and the **integration of Ukrainian energy markets** into the European market.

Clean energy updates

The European Solar Charter was issued on 15 April, setting **ambitious targets** for the EU to achieve at least **42.5% renewable energy by 2030**, with a stretch goal of 45%.

The charter outlines a strategy to accelerate the deployment of solar PV systems, aiming to install **30 GW of production capacity by 2030**. It also calls for the diversification of solar PV product sources and **supports European manufacturers by implementing non-price criteria in public procurement** and renewable energy auctions. Additionally, the charter promotes innovative solar energy deployment methods and includes plans to utilise EU funding and state aid frameworks to support new investments in the solar energy supply chain.

A review process is scheduled to assess the implementation of these commitments within a year.

On 2 May, **the European Investment Bank (EIB) and the EU Innovation Fund announced support for Eavor's innovative geothermal technology in Bavaria, Germany**, with a **EUR 45 million loan and a EUR 91.6 million grant**, respectively. The Eavor-Loop™ project in Geretsried, Bavaria, aims to provide **low-carbon heating** and electricity, with plans to start heat delivery in 2026. The total investment for the project is expected to reach EUR 350 million.

Renewable energy roll-out ahead of REPowerEU anniversary. On 17 May, President of the European Commission Ursula von der Leyen, Executive Vice-President Maroš Šefčovič and European Energy Commissioner Kadri Simson issued a [statement on the 2nd anniversary of the REPowerEU Plan](#).

The REPowerEU Plan was adopted by the European Commission in May 2022 to rapidly reduce the EU's dependence on Russian fossil fuels. Two years later, [the EU has achieved significant milestones](#), including reducing gas demand by 18% and saving 125 billion cubic meters of gas between August 2022 and March 2024.

Gas storage levels reached 59% capacity by April 2024. The EU has set a **binding target** of at least 42.5% renewables share by 2030, with an ambition to reach 45%. Additionally, the Commission plans to increase wind and solar power generation capacity to 510 GW and 592 GW, respectively, by 2030. Installed wind and solar capacity increased by 36% cumulatively between 2021 and 2023, saving approximately 24 billion cubic meters of gas.

The EU aims to **double the annual rate of heat pump deployment** to nearly 6 million units per year from 2025 onwards, and has mobilised **EUR 18 billion in investments for biogas and biomethane production**. The Recovery and Resilience Facility has channelled over EUR 184 billion towards energy-related measures, with a total of **approximately EUR 300 billion mobilised** for the implementation of the REPowerEU Plan.

Energy efficiency updates

On 22 April, [the European Commission launched the European Energy Efficiency Financing Coalition](#) to accelerate private investment in energy efficiency. This Coalition builds on the results of the Energy Efficiency Financial Institutions Group (EEFIG), created by the Commission and the United Nations Environment Programme Finance Initiative (UNEP FI) in 2013. It aims to create a long-term, viable funding framework for energy efficiency investments and involves EU countries, financial institutions, and the Commission.

The Coalition will operate at three levels: plenary meetings, an expert group, and national hubs, which will identify energy efficiency financing solutions in each Member State. It is expected to help EU countries and the Commission in the green transition, reduce the gap between available public financing and financial needs for energy efficiency investments, and scale up private investments.

EU Energy Smart Appliances Code of Conduct for interoperability launched. On 23 April, the Joint Research Centre and the European Commission's Directorate-General for Energy launched an EU Code of Conduct for the interoperability of Energy Smart Appliances (ESA). The first 10 manufacturers to commit to the Code of Conduct aim to develop interoperable connected products within a year, which will contribute to greater demand-side flexibility of households and help achieve a more stable and optimised power grid. The Code of Conduct covers a range of appliances with an energy label, including white goods (washing machines, tumble driers, washer-driers, dishwashers) and heating, ventilation, and air conditioning systems (including heat pumps and water heating), and defines common demand flexibility services and the information that needs to be exchanged to enable them.

On 25 April, [the European Investment Bank \(EIB\) granted a EUR 150 million loan to Helen Ltd, a leading Finnish energy company, to finance two renewable energy projects in Helsinki's urban heating sector](#).

This EUR 209 million investment, to which the EIB will contribute 72%, aims to install new heat pumps and replace coal with biomass pellets. The project supports Helen's goal of achieving carbon neutrality by 2030 and aligns with the EU's REPowerEU plan to reduce dependence on fossil fuel imports.

Gas and hydrogen updates

In April, the [European Hydrogen Bank](#) awarded the first EU-wide auction of nearly EUR 720 million under the Innovation Fund to seven renewable hydrogen projects in four European countries, with the winning bidders **planning to produce 1.58 million tonnes of renewable hydrogen** over ten years, avoiding more than 10 million tonnes of CO₂ emissions. The subsidy for each project ranges from EUR 8 million to EUR 245 million.

The Commission expects these projects to start producing renewable hydrogen within five years and continue receiving subsidies for up to ten years. Additionally, **Germany has made EUR 350 million available for projects** under the 'Auctions-as-a-service' mechanism. The Commission plans to launch a second European Hydrogen Bank auction by the end of 2024. The European Commission launched the European Hydrogen Bank in 2022 as a financing instrument designed to unlock private investments and accelerate the establishment of a full hydrogen value chain in Europe. The European Hydrogen Bank's website states that it is based on four pillars of action at EU level: domestic pillar, hydrogen bank auctions, international pillar, and transparency and coordination.

On 21 May, [the European Commission adopted the revised Decarbonised Gases and Hydrogen package](#), which includes revised gas market regulations and directives aimed at improving market access for renewable and low-carbon gases and hydrogen.

The package sets **a target for long-term contracts for unabated fossil gas** to extend no further than 2049, and includes specific targets for **renewable hydrogen produced at 10 million tonnes and 40GW of renewable hydrogen electrolyzers in the EU by 2030** respectively. It also introduces a **certification system for low-carbon gases**, defining low-carbon hydrogen as a fuel generating 70% greenhouse gas emissions savings compared to fossil fuels, with the exact methodology to be developed by the end of 2024 through a Delegated Act. The EU's 2021 factsheet on hydrogen and clean gases can be found [here](#).

Additionally, the legislation mandates that **hydrogen transmission network operators submit a 10-year Network Development Plan**, to be updated every two years, and establishes a separate EU-wide 10-Year Network Development Plan for hydrogen, to be managed by the newly formed European Network for Network Operators of Hydrogen (ENNOH).

Nuclear energy updates

On 26 April, [the European Commission approved a EUR 300 million French state aid measure to support Electricité de France's \(EDF\) subsidiary Nuward in researching and developing small modular nuclear reactors \(SMRs\)](#). This measure aims to develop processes for the design and construction of SMRs with a power output of up to 300 MW, contributing to the European industrial strategy and the European Green Deal.

The aid will take the form of a direct grant covering the R&D project until early 2027, focusing on sizing modules and components, validating their integration, and preparing safety demonstrations for regulatory approval.

On 30 April, [The European Commission approved a Czech support measure for the construction and operation of a new nuclear power plant in Dukovany, Czechia](#), with an electricity generation capacity of up to 1 200 MW. The plant is expected to commence trial operations in 2036 and commercial operations in 2038, with an operating lifetime of 60 years until 2096.

The support includes a 40-year power purchasing contract with a state-owned special purpose vehicle, a subsidised state loan, and a protection mechanism against unforeseen events. Czechia has committed to selling at least 70% of the power output on the open power exchange over the plant's lifetime.

Energy system integration updates

On 21 May, [the European Commission introduced a revised electricity market design](#), which includes promoting energy sharing agreements, Power Purchase Agreements (PPAs), and two-way contracts for difference.

Member States must ensure financial instruments are available to reduce PPA-related risks and use two-way contracts for difference for public support in renewables and low-carbon investments. The Commission can declare a regional or EU-wide electricity price crisis if average wholesale prices exceed EUR 180/MWh for at least six months or if retail prices rise by 70% for at least three months. The capacity payment mechanism's emission limit standard remains at 550 grams of CO₂ per kilowatt-hour and 350 kilograms of CO₂ per kilowatt of installed capacity annually.

New coal-fired power units are strictly limited from receiving capacity payments, with existing units that do not meet emission standards required to submit an extension application to the European Commission if they wish to extend capacity payments beyond July 2025, with a potential extension to December 2028.

Market-based capacity procurement must be open to all capacity resources, and for non-compliant coal-fired units awarded contracts, the maximum payment is one year.

Energy infrastructure updates

In April, [the European Commission launched a call for proposals for key cross-border EU energy infrastructure projects](#), offering up to **EUR 850 million** of funds from the EU budget.

Organised by the Climate, Infrastructure and Environment Executive Agency (CINEA), the **call is open to projects** on the recently approved list of Projects of Common Interest (PCIs) and Projects of Mutual Interest (PMIs).

For the first time, **new project categories such as offshore electricity grids and hydrogen projects are eligible** for support. The call, which covers funding for studies and construction works, will remain open until 22 October 2024, with results expected early next year. **An online information day was scheduled on 14 May 2024** to provide further details on the application and evaluation process.

Markets and consumers updates

On 25 April, [Eurostat reported a decrease in electricity and gas prices for EU households in the second half of 2023](#), following a surge in 2022. Average household electricity prices dropped to EUR 28.5 per 100 kWh from EUR 29.4 in the first half of 2023 and were slightly higher than the EUR 28.4 in the second half of 2022.

Gas prices also dipped to EUR 11.3 per 100 kWh from EUR 11.9 in the first half of 2023 and were slightly lower than the EUR 11.4 in the second half of 2022.

These changes reflect a **stabilisation and slight decrease in energy, supply, and network costs**, which remain high compared to pre-2022 levels.

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