



# 2023 Annual Overview

China National Petroleum Corporation



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# About Us

China National Petroleum Corporation (CNPC) is an integrated international energy company with businesses covering oil, gas & new energies, refining, chemicals, marketing & new materials, support & services, as well as capital & finance etc.

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## ➊ Our Vision

To become a world-class integrated international energy company built to last.

## ➋ Our Strategies

Innovation Resources Market Internationalization Green & Low Carbon

## ➌ Our Values

Pursuing green development and providing reliable energy supply to fuel our customers' growth and power people's happy life.

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## Top Management



**Dai Houliang**

Chairman



**Hou Qijun**

Director & President



**Duan Liangwei**

Director



**Zhou Song**

Chief Financial  
Officer



**Huang Yongzhang**

Vice President & Chief  
HSE Supervisor



**Qian Chaoyang**

Chief Inspector of the  
Discipline Inspection  
and Supervision Office



**Ren Lixin**

Vice President



**Xie Jun**

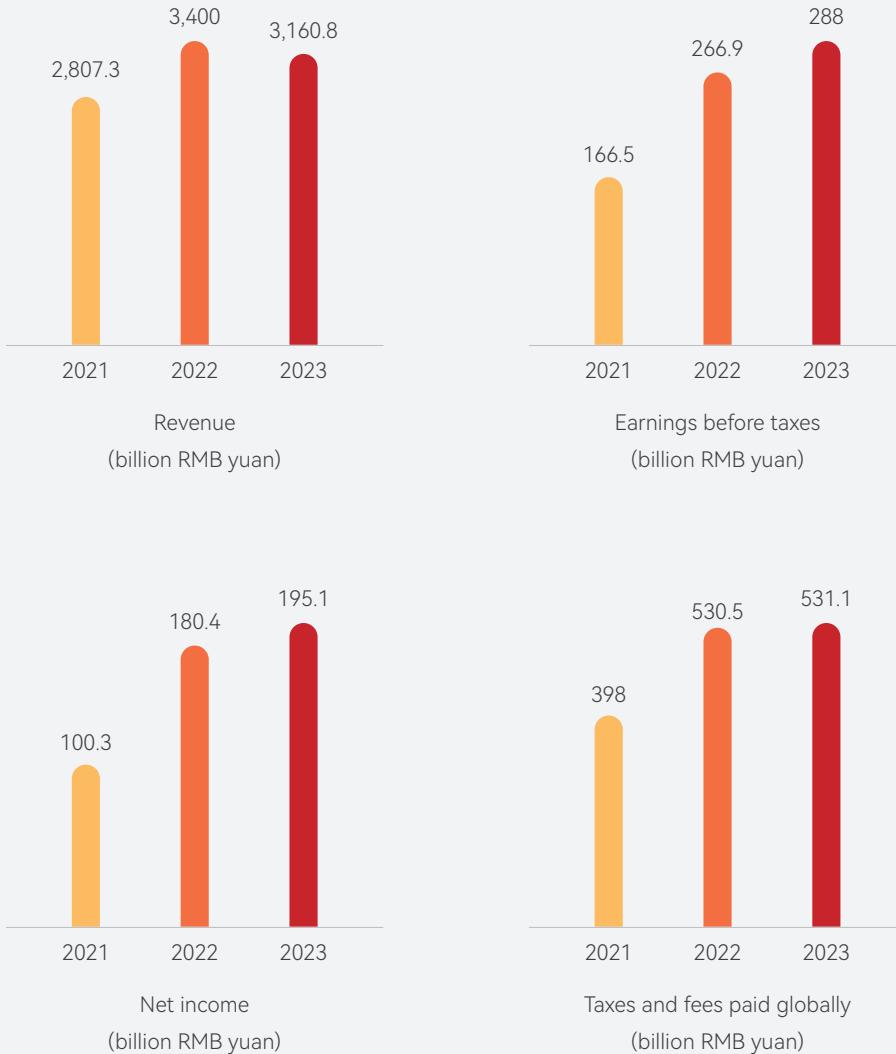
Vice President



**Zhang Daowei**

Vice President

# Financial Results





## Environment and Society

The Company has been committed to the principles of “people-oriented, quality-utmost, safety-first, and environment-prioritized” to achieve “zero accident, zero injury, zero pollution and zero defect”. We pay close attention to people's livelihood and social progress and strive for harmonious relationship between energy industry and the environment, as well as between enterprise and the community.

### Safe Operation and Environmental Protection

The Company implemented the 2023 Major Hazard Screening Program, Year of Safety Management Enhancement Program and the Special Campaign on Hazardous Chemicals to address tough issues in relation to well control, gas storage and key construction projects. Throughout the year, CNPC maintained a sound profile regarding safe production.

At CNPC, we make great efforts to reduce adverse impact on the environment and climate. We continued to improve resource utilization, promote green development, pollution control, energy conservation and emission reduction, so as to achieve the goals in the battle against pollution, and protect our blue skies, clear waters, and clean lands.

#### In 2023, the Company:



saved energy by **860,000** tons of coal equivalent



saved water by **8.54** million cubic meters

### Climate Change

Actions were taken in line with the *Paris Agreement* and the Chinese government's goals on carbon peaking and carbon neutrality. We doubled down on efforts to fulfill the Green Business Leader Initiative, and continued to improve the standard system of green business to enhance the management of carbon emissions and promote green and low-carbon transition.



In 2023, the Company was awarded Low-carbon Model by China News Weekly for the 12<sup>th</sup> consecutive year. It also received the title of “Top Runner of the Year for Industrial Carbon Peaking” from China Federation of Industrial Economics.

## Social Responsibility

At CNPC, we maintain a strong commitment to aligning our business growth with the sustainable development of the localities where we operate, with a focus on bolstering people's livelihood and social progress, supporting community agenda in various forms, and promoting harmonious socio-economic development of local communities.

### Domestically

At CNPC, in response to the United Nations' 2030 Agenda for Sustainable Development and the Chinese government's guidance on promoting rural revitalization, we leverage our resources and cater to local needs and conditions in the assisted areas to support the development in formerly impoverished areas and the comprehensive revitalization of rural areas.

At CNPC, we continue to support education through various student aid programs, including scholarships and grants.

At CNPC, we adhere to the principle of open-up and cooperation for mutual benefit and keep expanding our joint-venture cooperation with local partners across the upstream, midstream and downstream sectors, to achieve the city-based and industry-driven "city-industry integration".

### Internationally

At CNPC, we respect local cultures and customs where we operate, and are committed to building long-term and stable cooperative relationships with the host countries. Striving to be a good corporate citizen, we integrate our development into local socioeconomic growth and actively create socioeconomic value to promote local development and prosperity.



CNPC's efforts in rural revitalization: built a floral road in Hengfeng County, Jiangxi Province

## Technology and Innovation

Focusing on self-reliance in state-of-the-art technologies, we embrace innovation as the key driving force for development, promote the construction of incubators for home-grown technologies, and strengthen independent research and commercialization of core technologies to support high-quality development.

### Technological Innovation System

At CNPC, aiming at technological self-reliance and self-strengthening at higher levels and emphasizing the ability of independent innovation, we continue to deepen the reform of the framework for innovation governance and strengthen top-level design and overall planning to improve our technological innovation management system.

#### Reform of Innovation Governance Framework



Improve the top-level design for innovation governance



Improve the three-tiered system for technological innovation management



Maximize the role of the Science and Technology Committee



Build world-class research institutes and innovation-oriented enterprises



Issue the *Management Measures for Innovation-oriented Enterprises* and introduce a mechanism of regular evaluation and dynamic management

## Major R&D Achievements

At CNPC, we actively implement an innovation-driven strategy, focusing on major bottlenecks in key areas. Debottlenecking in core technologies and forward-looking, basic and strategic research are strengthened and commercialization of new technologies for productivity gains is accelerated, which achieved fruitful results in E&P, refining, petrochemicals and new materials, as well as low-carbon and new energies, as represented by the Top 10 Technological Achievements.

### Top 10 Technological Achievements in 2023

- ◆ Clay shale oil enrichment theory and key technical breakthroughs for the development of Gulong Shale Oil Demonstration Zone
- ◆ Deep coal-bed methane enrichment theory and key technological innovation for industrial development
- ◆ Amine deep regeneration technology for high-efficiency treatment of sulfurous natural gas
- ◆ A technology package for solution-based production of high-performance ethylene-octene copolymerized elastomer (POE)
- ◆ China's first technology package for PETG copolyester
- ◆ A novel technology for high-performance SSBR for tires
- ◆ Intelligent seismic operation system for high-efficiency seismic acquisition
- ◆ Domestic substitution of through-bit imaging and logging equipment and processing software for horizontal wells
- ◆ A major breakthrough in passive magnetic ranging technology
- ◆ A technology package for 1,000-cubic meter flexible-load, low-energy-consumption hydrogen production based on alkaline water electrolysis

## Digital Transformation and Intelligent Operation

At CNPC, digital transformation is a strategic measure to promote the modernization of corporate governance system and governance capabilities. The Digital Intelligence Research Institute was set up.

*The Guidelines for Digital Transformation* have been released, leveraging digital technologies such as cloud computing, Internet of Things, 5G, big data and artificial intelligence to support a digital, network-based and intelligent approach to business development. We promote in-depth integration of digital technologies into our products, services and processes along the oil and gas value chains, to facilitate a shift from the capacity-driven model to the innovation-driven model and create a new momentum and a strong growth engine for high-quality development.



## S&T Awards and Intellectual Properties



In 2023:

CNPC led the efforts to enact **3** new international standards, **2** advanced standards from overseas, and **6** relevant amendments.

CNPC received **1** silver prize and **7** excellence prizes of the 24<sup>th</sup> China Patent Award.

CNPC filed **10,071** patent applications and was granted **2,933** patents.

CNPC made it to the list of Boston Consulting Group's **50 Most Innovative Companies** for the first time.

## Annual Business Review

The overall synergy of the Company's four business segments in efficient coordination, resource sharing, integrated planning and overall profitability continued to build up. Oil and gas operations were running smoothly and efficiently across the industry chain. Main production indicators improved steadily, highlighting a number of major breakthroughs and discoveries in oil and gas explorations as well as record-high domestic production. Significant breakthroughs were made in strategic planning, transformation and upgrading of the Refining, Chemicals and New Materials business. Support & Services segment played an effective role and industry-finance integration added new depths.

### Oil, Gas & New Energies



#### Domestic Exploration and Production

Focused on risk exploration and preliminary prospecting, the Company's exploration activities in new fields and plays brought about 6 major breakthroughs and 11 important discoveries. Concentrated exploration in key regions and areas led to the identification of eight 100-million-ton and eight 100-billion-cubic-meter hydrocarbon plays. The total petroleum production hit a record high of 227.64 million tons of oil equivalent.

Domestic newly proven oil in place

**773.86** million tons

Domestic newly proven gas in place

**754.2** billion cubic meters

Domestic crude production

**105.8** million tons

Domestic natural gas production

**152.9** billion cubic meters





### Overseas Oil and Gas Operations

The Company continued to bolster its global operations in Central Asia–Russia, Middle East, Africa, the Americas, and Asia Pacific. By the end of 2023, the Company had a globalized oil and gas presence in 32 countries and regions around the world.

Overseas equity crude oil output

**78.551** million tons

Overseas equity gas output

**31.72** billion cubic meters

Overseas crude runs

**36.869** million tons



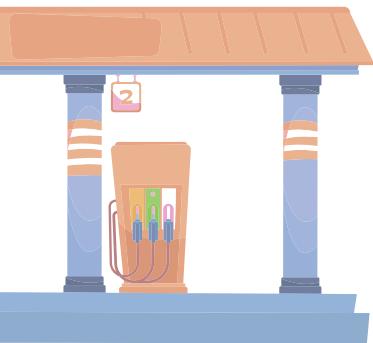
### Natural Gas Marketing

Driven by economic recovery and the trend of domestic and international gas prices, gas demand continued to pick up in 2023. Amid unexpected challenges posed by extreme weather, geopolitical conflicts and uncertainties in gas imports, the Company improved its market-oriented marketing system and strengthened market research to achieve steady growth in natural gas sales. The full-year domestic sales totaled 229.91 billion cubic meters, up by 5.6% year-on-year.



### New Energies

The Company further accelerated the capacity building of new energies business, which has reached 11.5 million tons of coal equivalent per annum. In 2023, the coverage of CNPC's geothermal heating services grew by 10.45 million m<sup>2</sup> and added up to more than 35 million m<sup>2</sup> in total. As of the end of 2023, CNPC's total installed capacity of wind and solar power generation has exceeded 5 million kilowatts. Throughout the year, CNPC's high-purity hydrogen capacity increased by 3,600 t/a to 6,600 t/a.



## Refining, Chemicals, Marketing & New Materials



Domestic crude runs  
**190.146** million tons

Domestic refined products output  
**123.21** million tons

Domestic sales of refined products  
**123.619** million tons



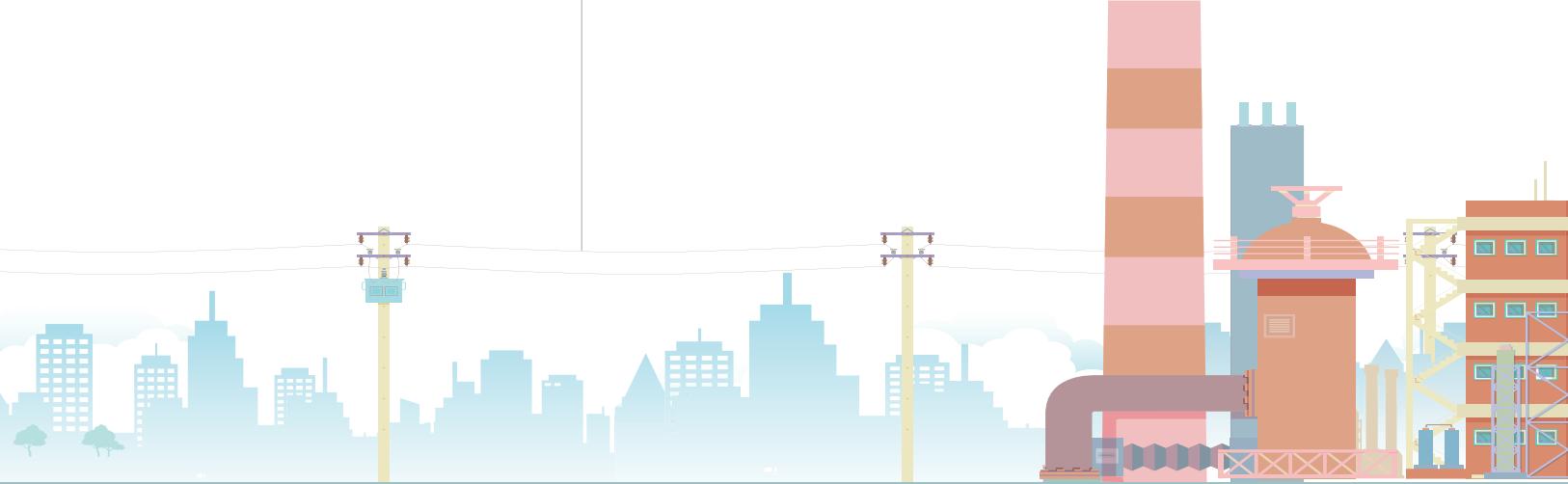
### Refining and Chemicals

The Company continued to optimize the product portfolio of refining and chemical operations, with a focus on increasing high-end, high-value products and maximizing profitability across the industry chain. By the end of 2023, the Company has eight large integrated refining and chemical complexes and fourteen 10 Mt/a refineries in China.



### Development and Application of New Materials

The Company continued to increase its efforts in the planning, R&D and capacity ramp-up for new materials. The full-year production of new materials was 1.37 million tons, up 60% year-on-year, marking significant progress in the new materials business.





## Marketing and Sales

In 2023, the Company strengthened market expansion, and bolstered the quality and efficiency of its marketing business to write new chapters for the high-quality development of marketing operations. The full-year domestic sales of refined products reached 123.619 million tons.

**22,755** service

As of the end of 2023, the Company operates a total of service stations across the country.

**36.83** billion in 2023.

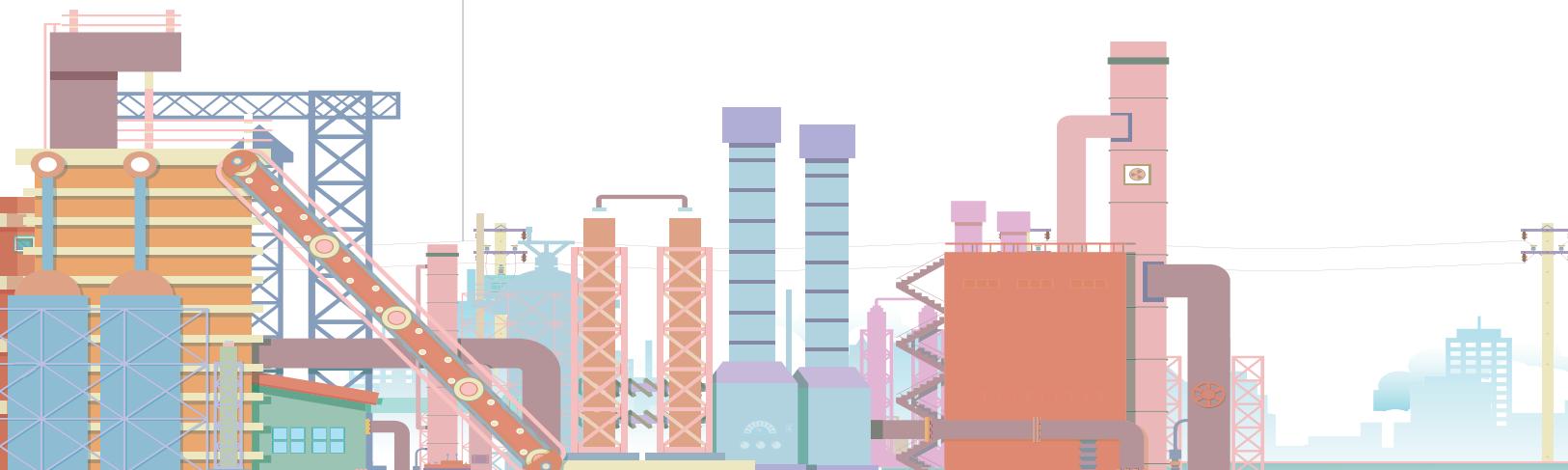


## International Trade

The Company's three international operation hubs for oil and gas trading continued to improve and a 3D marketing network connected by air, land and sea was put in place to build a world-class global energy trader.

**500** million tons with

The Company posted a trade volume of **280.4** billion in 2023.



## Support & Services



### Oilfield Services

In 2023, in line with the guidelines of "safety, compliance, efficiency and profitability", CNPC's oilfield service segment continued to deepen reforms, upgrade operation management, which improved its value creation capabilities, and facilitated the building of a modern engineering and technological system. A number of important and impactful wells, e.g., Shendi Take 1 ultra-deep well in the Tarim Basin, were drilled with high efficiency, demonstrating new endeavors in boosting reserve and production growth as well as strengthening strategic support.



### Engineering & Construction

Throughout the year 2023, China Petroleum Engineering Corporation performed 157 major projects in oil and gas field surface engineering, refining & petrochemicals, and storage & transportation, both at home and abroad. It ranked No. 4 on the ENR's Top 10 Global Oil and Gas Contractors List, and No. 31 on the ENR's Top 250 Global Contractors List (measured by revenue generated globally) in 2023.



### Energy Equipment Manufacturing

The Company deepened the reform of its equipment manufacturing management system and set up Kunlun Manufacturing (Equipment Manufacturing Business Department) to strengthen professional management and integrated planning, optimize lean manufacturing, and bolster R&D debottlenecking in core technology and key equipment, so as to move towards the mid and high end of the industry. The Company's supply chain and marketing network continued to improve, with a strong overseas presence in key oil and gas producing regions in Central Asia, Latin America, Middle East, Africa, and Asia Pacific. As of the end of 2023, the Company's energy equipment has been sold to more than 90 countries and regions around the world.

## Capital & Finance



Centered on the alignment of financial services with production needs, the Company's capital & finance business continued to innovate marketing model, strengthen fundamental management and improve risk management, so as to serve CNPC's core business with better performance.

### **About this Overview**

In this overview, the expressions “CNPC”, “the Company” and “we” are used for convenience where references are made to China National Petroleum Corporation. This overview is presented in Chinese, English, Russian, Spanish, and French. In case of any divergence of interpretation, the Chinese text shall prevail.

Recyclable paper is used to print this overview.



For more information, you can visit [www.cnpc.com.cn](http://www.cnpc.com.cn) or scan the QR code to browse or download the PDF version of 2023 Annual Report and 2023 Annual Overview.

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to fuel our customers' growth and power people's happy life**

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