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SINOPEC



Smart Energy Better Life

CHINA PETROCHEMICAL CORPORATION

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SINOPEC

CHINA PETROCHEMICAL CORPORATION ANNUAL REPORT 2022





SINOPEC

Supporting social progress
Improving people's well being
Building inspirational legacy

SINOPEC

Implementing the Guiding Principles of the 20th CPC National Congress



Sinopec takes it as the top political priority to study, publicize and implement the guiding principles of the 20th CPC National Congress, closely follows the instructions given by General Secretary Xi Jinping, and effectively coordinates work on all fronts to promote the implementation of the guiding principles of the 20th CPC National Congress throughout Sinopec.

We refined the theoretical system. With the Leading Party Member Group as the pacesetter, we conducted 8 thematic seminars on the report of the 20th CPC National Congress and the important speeches of General Secretary Xi Jinping made before and after the 20th CPC National Congress. A wave was set off to comprehensively study the essence of the guiding principles among all employees. After the convening of the 20th CPC National Congress, we immediately held an all-staff meeting to adopt a systematic action plan for the implementation work. A formal notice and supporting operation schedule were issued, clarifying 7 measures and 25 specific tasks, which were included in the Company's key supervisory items, inspection scope of the Leading Party Member Group, and party building work assessment. Party organizations at all levels conducted collective learning activities more than 20000 times and greatly increased the awareness among all employees to safeguard the "two affirmations" and ensure the "two upholds".

We carried out training and lectures. We organized learning and training programs, and 8 training sessions were held for the key management personnel to learn and implement the guiding principles of the 20th CPC National Congress. We pressed ahead with extensive publicity ac-

tivities, with the Leading Party Members taking the lead in giving over 20 lectures. 7 representatives who have attended the 20th CPC National Congress delivered 44 lectures. Party committee secretaries, Party branch secretaries, Party building experts and young cadres were mobilized to promote the guiding principles of the 20th CPC National Congress to the grassroots and the mass population. More than 1500 media outlets of Sinopec leveraged their strengths to give reports and have in-depth interpretation on these guiding principles. Great results were achieved with all these measures in place.

We ensured concrete implementation measures. We took the guiding principles of the 20th CPC National Congress as the guidance for planning our work and future development, and focused on transferring the major policies of the CPC Central Committee into specific actions and measures of Sinopec. The Leading Party Member Group held a special seminar on learning and implementing the guiding principles of the 20th CPC National Congress, and had in-depth discussions on the plan for 2023 and the coming future. At the work conference of Sinopec, they further studied these principles, made systematic arrangement for the key tasks of now and the near future, and clearly identified the new mission and tasks of Sinopec on the new journey. All employees were encouraged and inspired to confidently write a new chapter of Sinopec through a Chinese path to modernization and make greater contributions to building a socialist modern country and promoting the great rejuvenation of the Chinese nation.





SINOPEC

BUILDING A WORLD LEADING CLEAN ENERGY AND CHEMICAL COMPANY

VALUE CREATION

MARKET ORIENTATION

INNOVATION DRIVEN

GREEN AND CLEAN

OPEN COOPERATION

POOLING TALENTS

PEOPLE

METICULOUSNESS

BEING STRINGENT

RESPONSIBILITY

INNOVATION

ATTENDING TO DETAILS

INTEGRITY

WIN-WIN

LAYING SOLID BASE

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About Us



Members of the Board of Directors

Chairman: **Ma Yongsheng**

Director: **Zhao Dong**

Independent Directors:

Jiao Kaihe

Chen Yueming

Wu Xiandong

Chen Bi

Pan Zhengyi



Members of the Leading Party Member Group

Ma Yongsheng

Chairman, Secretary of the Leading Party Member Group

Zhao Dong

Director, President, Deputy Secretary of the Leading Party Member Group

Yu Baocai

Member of the Leading Party Member Group, Vice President

Jiang Liangping

Member of the Leading Party Member Group,
Leader of the Discipline Inspection and Supervision Team

Zhang Shaofeng

Member of the Leading Party Member Group, Chief Financial Officer

Li Yonglin

Member of the Leading Party Member Group, Vice President

Lv Lianggong

Member of the Leading Party Member Group, Vice President

Niu Shuanwen

Member of the Leading Party Member Group, Vice President

China Petrochemical Corporation (the Company) was established in July 1998 on the basis of the former China Petrochemical Corporation, a move by the central government to strategically restructure the petroleum and petrochemical industry. It was further incorporated as a limited liability corporation in August 2018. A super large petroleum and petrochemical group, the Company has a registered capital of 326.5 billion yuan with the chairman of the board of Sinopec Group serving as its legal representative. Headquartered in Beijing, it exercises the investor's rights to the related state assets owned by its full subsidiaries, controlled companies and share-holding companies, including receiving returns on assets, making major decisions and appointing managers. It operates, manages and supervises state assets according to related laws, and shoulders the corresponding responsibility of maintaining and increasing the value of state assets.

Principal businesses of the Company include industrial investment and investment management; petroleum and natural gas exploration, production, storage and transportation (including pipeline transportation), sales and comprehensive utilization; coal production, sales, storage and transportation; oil refining; storage, transportation, wholesale and retail of oil products; production, sales, storage, transportation of petrochemical products, gas-based chemicals, coal chemical products and other chemical products; production, sales, storage and transportation of new energy products such as hydrogen, solar, wind and geothermal energies; battery charging and swapping business for new energy vehicles and other related services; design, consulting, construction and installation of petroleum and petrochemical engineering projects; overhaul and maintenance of petroleum and petrochemical equipment; R&D, manufacturing and sales of electrical and mechanical equipment; production and sale of electricity, steam, water and industrial gas; research, development, application and consulting services of technology, e-commerce, information and alternative energy products; import& export, including import and export agency business of self-support products and commodities and technologies; foreign project contracting, bidding and purchasing; international storage and logistics business.

The Company is the largest oil and petrochemical products supplier and the second largest oil and gas producer in China, the largest refining company and the second largest chemical company in the world. Its total number of gas stations ranks the second place in the world. It ranked the 5th on Fortune's Global 500 List in 2022.

Message from the Chairman



Ma Yongsheng, Chairman

Thank you for your interest in reading our annual report and continued support to the Company.

2022 was an extremely extraordinary, difficult, and challenging year with complicated and severe environment, unfavorable situation beyond expectation and huge impact arriving one after another. Under the strong leadership of the CPC Central Committee with General Secretary Xi Jinping at its core, Sinopec took the study and implementation of the guiding principles of the 20th CPC National Congress as a strong driving force and used the important instructions given by General Secretary Xi Jinping during his inspection tour to Shengli Oilfield as the guidance. We fully carried out the strategy of being a world-leading company, pooled strength for high quality development, and ensured the Party's full and rigorous self-governance. By forging ahead with resolve, we achieved gratifying results and significant progress on all fronts, and made the grade with our all-out efforts during the politically-important year.

We solidly carried out the thematic action, strived to transform the strategic deployment of the 20th CPC National Congress and the instructions of General Secretary Xi Jinping into concrete actions for making new achievements. We focused on studying and implementing the guiding principles of the 20th CPC National Congress as well as the important instructions given by General Secretary Xi Jinping during his inspection tour to Shengli Oilfield, studied the key tasks for now and the coming future, pinpointed the new missions for Sinopec on the new journey, deployed high quality development action and mobilized all employees to strive for a new chapter of Sinopec through a Chinese path to modernization. We conducted the thematic action of "Bearing in mind the Instructions, Striving for New Achievements, and Celebrating the 20th National Congress of the CPC", grappled with 45 key tasks and worked as one to win the campaigns of enhancement in production and operation, breakthrough in scientific and technological innovation, completion of deepening reform action, pandemic prevention and control and guarantee of safe production. The Company's adaptability to changes and confidence to achieve favorable business growth were significantly boosted. We greatly increased the awareness to safeguard the "two affirmations" and ensure the "two upholds".

We firmly shouldered the three core responsibilities, marched towards a new journey of high-quality development with resolution and perseverance, and bore more fruitful results. We kept in mind the earnest instructions of "securing the fundamental supply of energy" from General Secretary Xi Jinping. We vigorously implemented the seven year campaign to boost domestic reserve and production, launched the "Deep Earth" Project, and promoted the construction of Shengli Jiyang Shale Oil National-level Demonstration Zone with high standards. Our domestic oil and gas production hit record high and Sinopec International Petroleum Exploration and Production Corporation made important progress in reducing losses. We spared no efforts to strengthen our dominant position in industries with strong advantages and accelerated the construction of world-class refining and chemical bases. Zhenhai Phase I and Jiujiang Aromatics projects were put into operation, and Hainan Ethylene project achieved mechanical completion, driving the Company's ethylene equity production capacity rising to world's No. 2. We actively integrated into the national innovation system, dedicated ourselves to the national strategic scientific and technological research, and accomplished the special projects of SASAC (State-owned Assets Supervision and Administration Commission of the State Council) and the dedicated projects of NEA (the National Energy Administration) for shoring up weaknesses ahead of schedule, with significant progress achieved in tackling a number of key and core technologies. We fulfilled all the tasks under the Three-Year Reform

Action for SOEs with high quality and was awarded the A-level assessment by SASAC and the title of "Demonstration Enterprise of SOE Corporate Governance". Facing various unexpected factors superimposed with risks and challenges, we calmly responded, made steady progress and worked diligently. In 2022, the Company achieved annual operating revenue of 3.37 trillion yuan, an increase of 20.7% year-on-year (the same below), a total profit of 120.47 billion yuan, an increase of 3.34%, and a net profit of 95.24 billion yuan, an increase of 8.19%, all reaching the best level in history and contributing to stabilizing the macroeconomic fundamentals.

We conscientiously undertook the missions of serving society and benefiting the people, and actively fulfilled our social responsibilities, highlighting the image of "a good company serving the public". We made every endeavor to obtain energy resources, continuously increased the natural gas supply during the heating season, and safeguarded a warm winter for billions of households. We actively explored the assistance model with central SOE characteristics for rural vitalization and won the evaluation as "good" for 5 consecutive years for targeted assistance programs. We successfully completed the mass production of the "Flying" torch, lit the main cauldron of the "Bird's Nest" with high-purity hydrogen, and won praise from all parties for providing high quality service to the Beijing Winter Olympics. We took the lead when facing difficult situations and emergencies such as fighting the pandemic and disaster relief and won awards for making significant contributions. We further carried out public welfare projects such as the "Spring Bud Service Station", "Drivers' Home", and "Love Station". We reduced rent to help small and medium-sized enterprises and individual businesses overcome difficulties, fully guaranteed the wages of migrant workers, and comprehensively settled the debts of private enterprises. A special program to boost Xinjiang's clothing industry was also acknowledged by SASAC. With the implementation of these creative, warm-hearted, and down-to-earth social welfare projects, Sinopec further manifested its image as "a good company serving the public".

We consistently, steadfastly, and comprehensively enforced the Party's full and rigorous self-governance, continuously improved the level of Party building work, and consolidated the political ecology featuring uprightness and entrepreneurship. We followed the general requirements for Party building and the organizational line of the Party in the new era, further enhanced the systematization, standardization, and institutionalization of Party building, and maintained the A-level assessment of the accountability mechanism for Party building work among central SOEs. We adhered to the principle of selecting the right person for the right position, strengthened the leadership team, and increased the appointment of outstanding young talents, achieving a historic high in personnel

selection satisfaction. Initial results were shown in the efforts to build a talent pool and an innovation highland for the energy and chemical industry. We insisted on innovating Party building work, kept on improving the quality of grassroots Party building work, and promoted the key role played by the Party during the critical periods throughout the Company's development. To promote the public image of the Company, we officially launched the second batch of education bases on the history of revolution and 10 social responsibility demonstration projects. The Company's brand value has been ranking No.1 in the energy and chemical industry for 6 year in a row, and its brand building capacity has been ranking No.1 among central SOEs for 2 consecutive years. We carried forward the "Three No Corruption" campaign, won good results in the special rectification efforts for correcting social conduct and discipline as well as fighting bureaucracy, and successfully reduced burdens for the grass-roots level.

The remarkable achievements were hard won, thanks to the dedication and concerted efforts of all the management and employees of the Company under the care and support of the Central Committee of the CPC with General Secretary Xi at its core, under the guidance of the authorities and friends from all walks of life, under the trust given by our clients and consumers and under the collaboration with partners from home and abroad. Hereby, on behalf of the Board of Directors, the management and all employees of the Company, I would like to express my heartfelt appreciation to all friends who have been supporting and helping Sinopec!

2023 marks the beginning for comprehensively implementing the guiding principles of the 20th National Congress of the CPC, a crucial year for the 14th Five Year Plan, and also the 40th anniversary of the establishment of Sinopec. We will rally closely around the Central Committee of the CPC with General Secretary Xi at its core, fully implement the guiding principles of the 20th CPC National Congress and the important instructions given by General Secretary Xi Jinping during his inspection tour to Shengli Oilfield. We will forge ahead and step up for the goal of building Sinopec into a company with powerful strength to provide strategic support, safeguard people's livelihood and stimulate spiritual inspiration. We will write a new chapter of Sinopec through a Chinese path to modernization with confidence, make greater contributions to advancing rejuvenation of the Chinese nation on all fronts and embrace the 40th anniversary of Sinopec with excellent results.

We will continue to strengthen cooperation with our partners and look forward to building a brighter tomorrow with you together!

馬永生

Message from the President



Zhao Dong, President

The domestic and international situation in 2022 underwent unexpected changes, leading to a decline in global economic growth momentum. We witnessed intensified geopolitical volatility, wide fluctuations in oil and gas prices, and a sharp decrease in market demand, all bringing unprecedented challenges to the Company's production and operation. In the face of severe and complex situations, we followed the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and focused on the thematic action of "Bearing in mind the Instructions, Striving for New Achievements, and Celebrating the 20th National Congress of the CPC". All-out efforts were made to stabilize the operation, expand the market, seek innovation, pursue development, promote reform, strengthen management, and prevent risks. In 2022, the Company recorded an annual operating revenue of 3.37 trillion yuan, an increase of 20.7% year-on-year (the same below), a total profit of 120.47 billion yuan, an increase of 3.34%, and a net profit of 95.24 billion yuan, an increase of 8.19%. We successfully met the "Two Profits and Four Rates" targets set by SASAC and recorded the best operating performance in history, staying ahead among the central SOEs.

We spared no effort to ensure operation, and the quality of production and operation was greatly enhanced. Under the seven-year E&P campaign domestically, the Company's proven oil reserve stood at more than 200 million tonnes and oil and gas production reached a historic high. The net profit and cash flow of the overseas upstream business both achieved the 20 billion target with the operating performance reaching the best level in recent years. In refining, we coordinated trade, storage and transportation as well and production, closely followed the market to optimize integrated operation, and fully demonstrated the resilience of the industrial chain. In chemicals, we optimized the structures of feedstock, unit and product. The proportion of three major synthetic materials and high value-added products of fine chemicals continued to increase, and the coal chemical business hosed a good momentum for better quality and profit. In marketing, we effectively responded to the pressure of a significant decline in market consumption, undertook all the allocated resources, and increased the proportion of centralized procurement, thus stabilizing the operation of the industrial chain and securing share. Favorable operating performances were obtained in refining products, chemicals, catalysts, oil field engineering and refining and chemical engineering.

We raced to cultivate opportunities and the pace for the adjustment of industrial structure was accelerated. We pressed ahead with key oil and gas production capacity construction projects. The Dongying crude oil depot was successfully relocated and put into operation, the megaton-scale CCUS project was commercialized and the construction of LNG terminals and gas storage facilities were progressing steadily. Zhenhai Base Phase I and Jiujiang Aromatics projects were put into operation. Hainan Ethylene project achieved mechanical completion and Gulei Refining and Chemical Integration Project was commercialized. We pushed up the progress of a batch of industrial chain extension and new chemical materials projects. The main part of the Xinjiang Kuqa Green Hydrogen Demonstration Project was completed, making Sinopec rank world's No. 1 in terms of the number of hydrogen refueling stations under construction and operation. Wind power, photovoltaic, geothermal, and other new energy businesses were gaining good momentum. We successfully established Sinopec Carbon Industry Technology Co., Ltd., China's first company with complete value chain for carbon industry. We sealed a 27-year LNG long-term agreement with Qatar, which was part of the achievements of the China-Arab States Summit, signed a package of cooperation agreements with INEOS, and successfully entered the oil product retail market of Thailand.

We strived for self-reliance and innovation, and the scientific and technological breakthroughs were constantly emerging. We promoted the national strategic scientific and

technological tasks with high quality. We built China's first localized 10000-tonne-scale 48K large tow carbon fiber production line and put it into operation. Our independently-developed rotary geo-steering drilling system reached the world's advanced level. We made significant breakthroughs in bottleneck technologies such as POE, PVA optical film, high-grade polybutene-1, helium extraction, and high-temperature heat transfer oil. We recorded progress in tackling core and key technologies in the exploration, development and engineering of ultra deep oil and gas, oil recovery enhancement of mature oilfields, integration of shale oil and gas geo-engineering, large-scale green hydrogen from green power, and direct cracking of crude oil to ethylene. We strengthened efforts in cut-through innovation mechanism from basic research to industrial application and became among the first batch of SOEs to develop original technology as well as the leader of the hydrogen industrial chain entrusted by SASAC. We actively promoted the implementation of dedicated action plan for digital transformation and took the lead in the industry's digital and intelligent development with more than 10 national pilot demonstration projects such as "Industrial Internet+" and artificial intelligence.

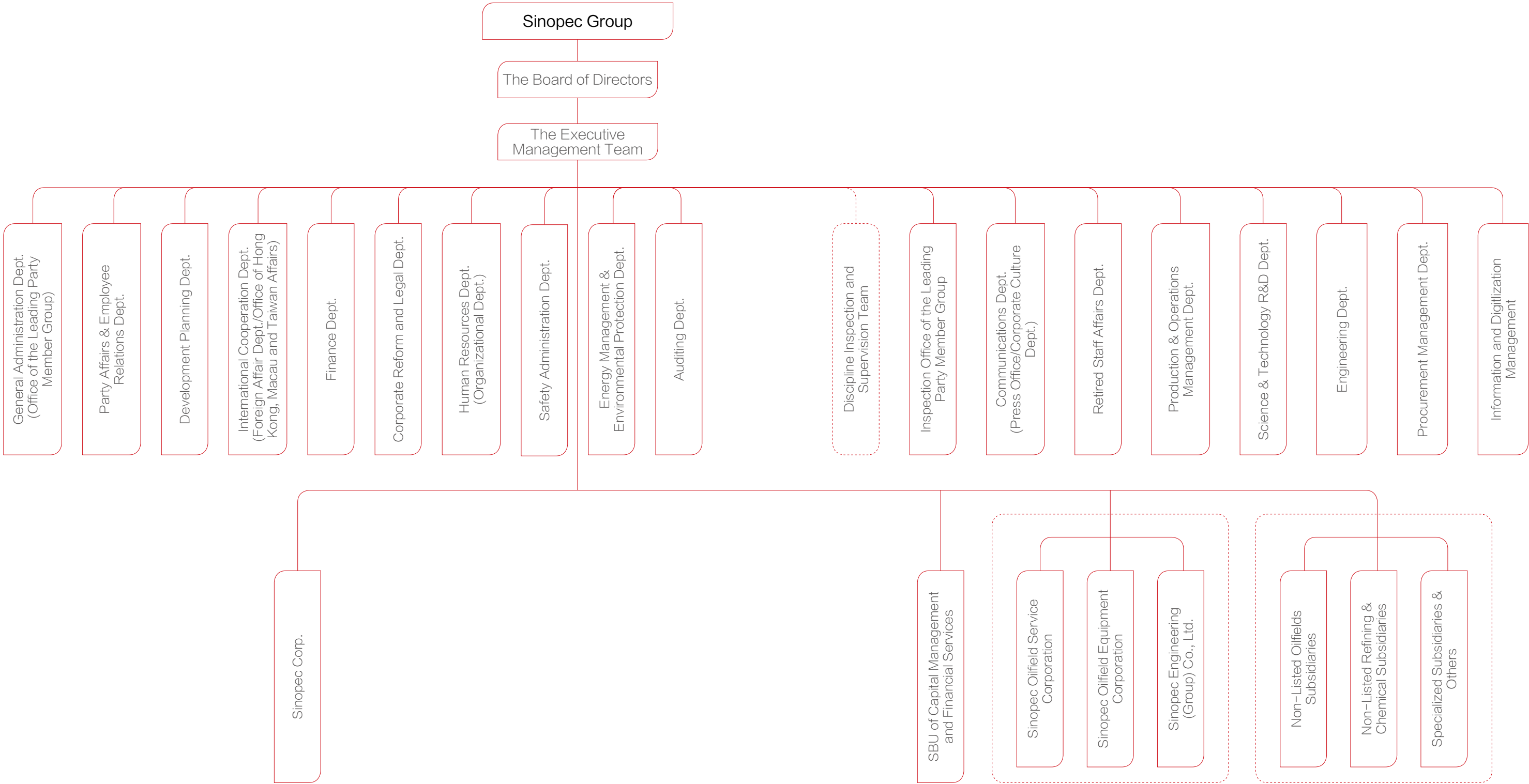
We took multiple measures to push forward reform, and the effectiveness of management continued to be demonstrated. We comprehensively completed the three-year action of deepening reform, and achieved remarkable results in key reform tasks. Sinopec EasyJoy Company, Sinopec Zhenhai Refining & Chemical Company, and Sinopec Oilfield Equipment Corporation were awarded as "Excellent Double Hundred Enterprises" and Sinopec Catalyst Company was awarded the benchmark of "Science and Technology Reform Demonstration Enterprise" for three consecutive years. We strived to ensure the set-up of the board of directors for all subsidiaries. The

tenure system of management members and contractual management were fully implemented, with 30 subsidiaries establishing a professional manager system. We accomplished the promotion campaign of benchmarking against world-leading peers, released the action plan for accelerating the building of a world-leading company, made substantial progress in constructing a strategic and intensive financial management and control system, and continuously deepened the reform of the auditing mechanism. All these efforts have effectively enhanced the management and governance of the Company. We cautiously responded to the impact of the Ukraine crisis, the recurrence of the pandemic, global inflation, oil price fluctuations, and other factors. We safeguarded the bottom line of avoiding systemic risks, and significantly improved our compliance management capabilities.

A new year unlocks new hope, and a new journey bears new dreams. We will adhere to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and thoroughly study and implement the guiding principles of the 20th CPC National Congress as well as the important instructions given by General Secretary Xi Jinping during his inspection tour to Shengli Oilfield. We will seize opportunities, forge ahead with vitality and strive for being a world-leading company. We will successfully accomplish the annual targets and tasks, make efforts for better business performance, and get ready to celebrate 40th anniversary of Sinopec with excellent results!

Organizational Structure

(As of 31 December 2022)



Financial Overview (As of 31 December 2022)

Balance Sheet

RMB: Millions

Item	2022	2021	2020	Item	2022	2021	2020
Current Assets				Current liabilities			
Cash at bank and in hand	230,343.11	271,061.34	206,269.99	Short-term loans	81,098.80	69,122.24	71,467.67
Financial assets held for trading	33,541.39	28,462.29	23,139.45	Bills payable	21,936.96	22,519.10	19,610.27
Accounts receivable	55,744.00	48,169.64	41,146.59	Accounts payable	288,920.96	251,277.72	208,302.10
Receivables Financing	5,589.25	8,427.88	11,475.20	Contract liabilities	157,231.68	150,022.24	146,754.11
Advance payments	23,670.89	22,889.09	19,450.11	Employees compensation payable	25,784.73	19,674.11	14,378.20
Other receivables	36,540.14	42,626.48	44,218.34	Taxes and fees payable	38,369.60	88,726.08	81,412.85
Inventories	308,917.29	262,595.44	229,617.07	Other payables	135,773.10	114,365.70	92,346.87
Contract assets	26,280.58	24,534.74	21,274.88	Current portion of non-current liabilities	75,830.15	49,318.49	39,993.74
Current portion of non-current assets	15,293.76	2,655.37	902.29	Other current liabilities	37,682.42	62,727.62	46,490.48
Other current assets	126,832.84	134,899.77	128,900.73	Total current liabilities	862,628.40	827,753.29	720,756.29
Total current assets	862,753.25	846,322.05	726,394.65	Non-current liabilities			
Non-current assets				Long-term loans	92,638.71	46,452.60	43,134.47
Other debt investment	5,755.99	6,801.01	9,132.91	Debentures payable	163,791.63	201,133.83	205,867.51
Long-term receivables	985.99	12,727.85	12,649.92	Long-term accounts payable	13,597.64	18,117.64	16,857.25
Long-term equity investment	233,539.71	200,676.86	181,061.16	Lease liabilities	25,213.41	23,382.95	23,168.20
Other equity instruments investment	24,496.37	12,839.34	12,930.96	Long-term employee compensation payable	1,731.69	1,957.01	2,047.80
Fixed Assets	593,115.43	570,452.47	546,827.57	Contingent liabilities	51,898.18	44,077.43	46,348.99
Oil and gas assets	163,533.98	132,138.15	136,942.40	Deferred tax liabilities	9,773.15	9,192.79	8,782.83
Construction in progress	217,816.18	173,719.01	149,461.53	Other non-current liabilities	9,014.50	12,377.47	11,143.24
Right-of-use assets	40,243.07	37,968.79	36,455.57	Total non-current liabilities	367,658.92	356,691.72	357,350.29
Intangible assets	146,714.15	145,462.24	139,516.21	Total liabilities	1,230,287.32	1,184,445.01	1,078,106.58
Goodwill	8,649.03	10,778.94	10,804.23	Shareholders' equity			
Long-term deferred expenses	19,766.56	17,102.58	15,991.86	Paid-in capital	326,423.92	326,093.75	325,547.22
Deferred tax assets	21,857.52	21,355.56	26,920.78	Capital reserve	62,651.64	55,989.61	55,813.12
Other non-current assets	204,118.54	229,738.64	235,130.06	Other comprehensive income	-6,119.97	-11,822.24	-22,589.58
Total non-current assets	1,680,592.53	1,571,761.42	1,513,825.15	Special reserve	3,013.05	2,761.07	2,278.25
				Surplus reserve	242,364.55	234,943.20	228,834.82
				Provision for general risks	2,816.91	2,303.82	2,040.77
				Retained profits	280,720.12	237,583.54	198,021.51
				Shareholders' equity attributed to equity shareholders of the Group	911,870.23	847,852.75	789,946.12
				Minority interests	401,188.23	385,785.71	372,167.10
				Total shareholders' equity	1,313,058.46	1,233,638.46	1,162,113.21
Total assets	2,543,345.78	2,418,083.47	2,240,219.80	Total liabilities and shareholders' equity	2,543,345.78	2,418,083.47	2,240,219.80

Note: Related items were adjusted according to the requirements for financial reporting issued by the Ministry of Finance in 2021.

Income Statement

RMB: Millions

Item	2022	2021	2020
Operating Income	3,366,865.58	2,789,498.71	2,142,332.42
Total operating expenses	3,272,326.15	2,665,562.10	2,100,708.66
Operating expenses	2,840,169.21	2,239,760.38	1,726,347.17
Taxes and surcharges	266,782.27	261,695.02	237,335.18
Selling expenses	58,433.08	57,637.52	53,234.72
Administrative expenses	74,990.46	75,246.96	57,461.27
R&D expenses	18,067.93	16,251.19	14,414.38
Exploration expenses	10,593.48	12,381.97	9,722.73
Financial expenses	3,289.71	2,589.05	2,193.22
Add: Other income	9,005.13	6,841.65	8,836.23
Investment gains	16,601.52	8,113.39	48,746.53
Change of fair value	-1,169.03	4,929.01	791.63
Credit impairment loss	3,007.30	-11,090.98	-3,064.96
Assets impairment loss	-10,162.19	-13,798.94	-30,655.51
Assest disposal gains	1,766.25	1,976.22	3,170.57
Operating profit	113,588.40	120,906.97	69,448.25
Add: Non-operating income	13,861.91	5,941.58	10,461.53
Less: Non-operating expenses	6,975.84	10,263.57	7,287.35
Total profit	120,474.47	116,584.98	72,622.43
Less: Income tax	25,235.61	28,557.78	10,572.19
Net profit	95,238.87	88,027.20	62,050.24
Less: Minority interests	30,278.75	34,385.84	19,234.54
Net profit attributable to equity shareholders of the Group	64,960.12	53,641.37	42,815.70

Note: Related items were adjusted according to the requirements for financial reporting issued by the Ministry of Finance in 2021.

Investment Overview

In 2022, the Capex throughout the year totaled 246.6 billion yuan (including 10.6 billion yuan of exploration expenses). Among it, 117.1 billion yuan was invested in oil and gas and new energy business segment, 42.9 billion yuan in refining and marketing segment, 74.9 billion yuan in chemical and materials segment, 4.7 billion yuan in capital and financial services segment, and 7 billion yuan in R&D, IT and others.

Continuous efforts were made to ensure resource supply and reserve in the oil and gas segment We fully implemented the Seven-Year Action Plan to step up exploration and development activities, accelerated the reserve growth and production ramp-up, exceeded the required investment for exploration and development and delivered beyond the targets in proved oil and gas reserves. The company continued to promote high-quality exploration, made a series of key breakthroughs in Jiyang Depression, Shunbei ultra-deep reservoir, Xihu Trough and other areas, and achieved the annual targets for proven, probable and possible reserves ahead of schedule. Economic result was continuously increased while large-scale hydrocarbon capacity was built. And a number of key projects were implemented with high efficiency in Tahe, West Junggar, Shunbei, West Sichuan, Xinchang, Fuling, Weirong and offshore areas. Steady progress was made in the construction of natural gas infrastructure, with gas storage facilities operational including Qingxi, Wei 11, Wen 13 West, and Bai 9. We increased effective input in overseas projects, and accelerated the progress to ramp up production capacity in Angola, Canada, Cameroon and other key regions. We promoted the development of hydrogen, clean electricity, geothermal residue heat utilization, bio-based fuels. The Kuqa Project in Xinjiang, the world's largest project producing green hydrogen by using solar energy from PV, progressed on fast track. The 600 MW offshore wind power project in Hainan and the 600 MW photovoltaic project in Yueyang were granted local construction quotas. We grew geothermal heating capacity by 10 million square meters, and recorded residue heat utilization of 40 million GJ/year.

Restructuring in refining and marketing segment was consolidated We focused on the construction for integrated refining clusters, and promoted 11-million-tonne refinery project in Zhenhai Refining and Chemical Company (ZRCC). Efforts were made to increase the yield of chemical feedstock. The refinery reconfiguration project was mechanically completed in Anqing Petrochemical Company. Equipment ordering started with the technology renovation project for production safety and environmental protection in Guangzhou. The refinery renovation project in Yangzi Petrochemical Company was progressing on schedule. We continuously promoted the adjustment to increase refining specialties and differentiated development. An array of such projects were stepped up and put into operation, including high-purity phase-change wax, food-grade white oil, low sulfur bunker fuel, lubricating base oil, needle coke raw material. We kicked off the jet fuel pipeline project in Luoyang, the construction of the commercial storage site and terminal in Lianyungang, built the purified hydrogen supply center in Maoming, developed 24 hydrogen refueling stations, 1,199 distributed photovoltaic stations and 1,019 EV battery charging and swapping stations. The marketing network continued to enjoy a leading position.

Production clusters and industrial layout in the chemical and material segment were accelerated The 1.2 million-tonne ethylene cracker in ZRCC and the aromatic project in

Jiujiang were fully put into production. Hainan ethylene project entered the preparation stage for production. The Phase-II refining and advanced synthetic materials project in ZRCC and the ethylene cracker in Nangang of Tianjin were well underway, We stepped up to develop advanced new materials, including polybutene-1 production in ZRCC, POE pilot plant in Maoming, VD21 in Beijing Research Institute of Chemical Industry, large-tow carbon fiber in Shanghai Petrochemical Company, mechanical completion of HNBR in Qilu Petrochemical Company, caprolactam unit relocation in Baling Petrochemical Company, and the construction of PTA unit in Yizheng Chemical Fiber Co., etc. We recorded breakthrough in the coal production capacity, with the added reserve of Ningxia Songxinhuang acreage achieving 7.24 million tonnes and the production capacity of Silver Star No. 2 coal mine hitting 400,000 tonnes per year.

Strategic layout of the capital and financial services segment was strengthened We focused on industrial direct investment, actively promoted the layout and extended the business value chain in lithium-ion-battery cathode materials, battery management system (BMS), high-performance specialty engineering plastics, carbon fiber composite materials, large-size and low-temperature refrigeration equipment, and invested in the advanced tech-companies such as Hebei Kuntian New Energy Co., Ltd., Shandong LIGOO Tech Co., Ltd., Qingdao Sanli New Material Co., Ltd., Langfang Feize Composites Tech Co., Ltd., and Beijing Sinoscience Fullcryo Technology Co.,Ltd. We unleashed the financial synergy and established Sinopec Industry-Finance Holdings Co., Ltd.

Investment in scientific and technological innovation was increased We rolled out "Science Reform Demonstration Initiative" for sci-tech research affiliates, over-fulfilled the first phase of the "1025 Special Project", and successfully started the second phase. We were ahead of schedule to shore up the areas of weakness as required by National Energy Administration. The rotary steerable drilling system reached the national advanced level. A number of breakthroughs were made in the technology "chock-hold" areas, such as helium extraction and high temperature heat-conducting oil. New progress has been made in core technologies, such as exploration and development of ultra-deep oil and gas reservoirs, enhanced oil recovery in brown fields, integrated shale oil and gas geology and engineering project, large-scale green hydrogen production based on renewable power, crude oil to ethylene technology, specialty rubber, high-end lubricating oil and grease, long-cycle safe production of high-acid gas fields, and typical hydrogen production technologies.

Investment demand for safety and environmental protection projects was ensured The relocation project of Dongying crude oil depots was operational. Deep-dive efforts were made in pollution control and prevention. Environmental protection activities were strengthened along the Yangtze River and Yellow River. The first "zero-waste company" demonstration pilot project was delivered on success. The action plan to achieve carbon emission peaking by 2030 was launched. The first meta-tonne CCUS demonstration project in China was put into operation. Sinopec Carbon Industry Technology Co., Ltd., the first domestic carbon carbon technology and investment unit, was established. And the company is leading the pack in the green and low carbon development.



Science and Technology Innovation

● Reform of Science and Technology System and Mechanism

● Major Technology Development and Commercialization

● Research and Development of New Energy and New Material Technologies

● Energy Efficiency Enhancement, Energy Saving and Emission Reduction Technologies

● Significant Achievements in Science and Technology Innovation

20 In 2022, the Company implemented the innovation-driven strategy, focused on seeking breakthrough in key and core technologies, continued to strengthen basic and cutting-edge research, and further promoted the reform of science and technology system and mechanism, so as to play a supporting role in implementing high-quality development action and building a world-leading company.

Reform of Science and Technology System and Mechanism

“Science Reform Demonstration Initiative” was carried forward. Sinopec Catalyst Co., Ltd. was again awarded the title of “Science Reform Demonstration Enterprise” by SASAC. Sinopec Beijing Research Institute of Chemical Industry was selected into the list for quality enhancement and scope expansion campaign. The basic research capability system was also strengthened. The first 6 projects that held open competition to select the best technology were launched. The “Seedling Program” was carried out to encourage exploration and supply of new areas, new processes and new technologies. Mechanism was set in place and reinforced to provide support and guarantee. We accelerated the construction of pilot zones in Tianjin etc. and built specialized scientific experimental bases. We sped up the digital transformation and data governance in science and technology, and further improved the management efficiency for the area. We established the Sinopec Science and Technology Association to set up an organizational management structure and carry out popularization of scientific knowledge related to Sinopec’s business scope.



Major Technology Development and Commercialization

Oil and gas exploration and development technology. The key technology for the exploration and development of ultra-deep fault-controlled and fractured-cavernous oil and gas reservoirs was continuously iterated to provide strong support for the engineering of Project Deep Earth No.1. The shale gas exploration of complex structure zone was integrated in the margin of southeastern Sichuan Basin, and the exploration of Cambrian new type shale gas in western Sichuan obtained major breakthrough for the first time in China, opening up a new front to scale up reserve in Sichuan and Chongqing Natural Gas Base as part of Project Deep Earth. We also developed a set of classification and evaluation standards for the “sweet spots” of continental shale oil in Jiyang Depression and Northern Jiangsu Basin, providing technical support for the mega-ton-scale production capacity construction in Jiyang Shale Oil National Demonstration Zone.

Refining technology. We successfully developed a complete set of low-sulfur heavy bunker fuel technology and obtained airworthiness certification for the independently-synthesized aviation engine lubricating oil. The independently-de-

veloped aerospace phase-change materials were applied to the support devices of Wentian lab module. We picked up pace to develop “fuel to specialty” products with multiple grades of special oil products commercialized.

Chemical and material technology. The industrial unit using the third generation aromatic technology was competed and put into operation, and the crude cracking gas to ethylbenzene/styrene unit was successfully started up. The high-grade polybutene-1 industrial demonstration unit achieved continuous and stable operation, and the hydrogenated nitrile rubber industrial unit produced on-spec products. The 10000-tonne synthetic high-temperature thermal oil industrial unit was operated at full capacity with products applied in the national energy storage demonstration project.

Public technology. We formed an intelligent safety control technology system for high acid gas fields and built a risk monitoring, warning, and control platform. We also successfully launched and operated the complete set of online real-time optimization (RTO) software for S-Zorb unit.





Research and Development of New Energy and New Material Technologies



Hydrogen energy. We stepped up efforts to seek technological breakthrough for the whole hydrogen energy chain. We developed a complete set of hydrogen purification technology for fuel cell vehicles, built a 3000 Nm³/h purification installation and a thousand-tonne level hydrogen supply master station, and formulated a set of standards and specifications for the design, construction, and operation for hydrogen refueling station and fuel-hydrogen combined station. We also successfully started up the independently-developed single-tank megawatt proton exchange membrane electrolyzed water hydrogen production unit.

Biomass energy. We completed the pilot production at scale for China's first 100,000 tonnes/year bio jet fuel production plant and won Asia's first global RSB biomass sustainable aviation fuel certification in Asia. China's first commercial cargo flight using sustainable aviation fuel made its debut international flight, marking the shift of China's self-developed bio jet fuel from large-scale production to large-scale application.

Biodegradable materials. We developed the process technology and product formula of biodegradable materials with independent intellectual property rights. Our PBAT has passed the evaluation by the Certification Center of the German Institute for Standardization (DIN), and obtained the certificate of PBAT biodegradable industrial compost and the product export permit to the EU.



Energy Efficiency Enhancement, Energy Saving and Emission Reduction Technologies

Energy efficiency enhancement. We made breakthrough in the chemical flooding technology for significantly enhancing oil recovery in high-temperature and high salt reservoirs, developed temperature-and-salt-resistant viscoelastic particle oil displacement agents, and conducted EOR pilot experiments using heterogeneous composite flooding in multiple mining areas with oil recovery remarkable going up.

Energy conservation and emission reduction. Sino-

pec's Qilu-Shengli Oilfield Megaton CCUS Project Million became officially operational. It is China's largest demonstration base covering the whole CCUS value chain and China's first megaton-scale CCUS project. We built China's first industrial demonstration unit with independent intellectual property rights for capturing CO₂ from flue gas using 50,000 Nm³/d membrane separation method, with CO₂ capture rate reaching the world's leading level.

Significant Achievements in Science and Technology Innovation

In 2022, the Company applied for more than 10,000 patents, of which 7,502 were granted, setting a record high and ranking 1st among central SOEs in terms of patent quality. We won 7 prizes for 23rd China Patent Awards and the *Ammoniation Method of Carbonyl Compounds* was awarded the Gold Prize. The Company became one of the first 3 pilot units appointed by the China National Intellectual Property Administration for the standardization of international innovation management system and intellectual property integration and gained the approval to build a national intellectual property operation center for green energy and chemical industry.





China Operations

Oil and Gas E&P

Refining Operations

Production & Operation of
Chemical Business

Product Marketing Services

Petroleum Engineering
Technology Services

Refining and Chemical
Engineering Services

New Energy Development
and Utilization

Key Projects Construction

Oil and Gas E&P

✎ In 2022, the newly added proved oil reserve was 202 million tonnes, the probable oil reserve was 262 million tonnes, and the possible reserve was 1.39 billion tonnes. The newly added proved natural gas reserve was 278.6 billion cubic meters, the probable reserve was 444.1 billion cubic meters, and the possible reserve was 808.5 billion cubic meters. The annual production of crude oil was 35.323 million tonnes, with an increase of 168,000 tonnes. The production of natural gas was 35.27 billion cubic meters, with an output of 1.39 billion cubic meters. The newly built crude oil production capacity was 3.144 million tonnes, up by 260,000 tonnes year-on-year. The natural gas production capacity was increased by 7.51 billion cubic meters (including coalbed methane), an increase of 680 million cubic meters.

Oil and gas exploration

We strengthened the integrated evaluation of oil and gas rich zones, comprehensively launched the “Deep Earth Project”, deepened the Sinopec-CNPC cooperation, and achieved 7 major breakthroughs, 12 important breakthroughs, and 15 new commercial discoveries, exceeding the annual reserve task.

Regarding oil exploration, major breakthrough was made in the Shunbei ultra deep condensate oil and gas reservoir in Tarim Basin, with 20 one thousand-tonne wells drilled and 2 new 100 million-tonne oil and gas rich zones in operation. The construction of the Shengli-Jiyang Shale Oil National Demonstration Zone was efficiently pushed forward, and significant breakthroughs were made in new types of shale oil in the Jiyang Depression, with an additional “probable + possible” reserve of 1.15 billion tonnes. Major breakthroughs were made in the new strata in the shale oil new area of North Jiangsu Ba-

sin and ultra-deep oil in the middle of the Junggar Basin. New discoveries were made in the “new strata, new region, and new type” oil exploration in the east, with more achievements in the exploration of Fuxing shale oil on the rise.

With regards to natural gas exploration, major breakthroughs were made in the exploration of deep shale gas in the complex formation belt at the rim of Southeast Sichuan Basin. We’ve established the trillion-cubic-meter resource position, and added proved reserve of 145.9 billion cubic meters in the Qijiang shale gas field. Cambrian shale gas exploration in western Sichuan Basin took the lead in achieving a major breakthrough, with a resource of 387.8 billion cubic meters. Significant breakthroughs were made in exploring the central anticline zone in the West Lake Depression of the East China Sea, with a resource of 549.5 billion cubic meters. New breakthroughs were made in Sichuan, Ordos, and Songliao basins, and the exploration achievements of shale gas in Hongxing Permian expanded.



Oilfield development

We seized the opportunity of high oil prices, continued to enhance the efficiency of crude oil production, actively mitigated the impact of ecological redline areas (ERAs) withdrawal, Covid-19, and other adverse factors, drove the production capacity to the maximum, and produced 35.323 million tonnes of crude oil throughout the year, with an increase of 168,000 tonnes.

We strengthened the integration of geological engineering, intensified technology application to tackle key problems, and efficiently pushed forward key production and construction projects such as Shunbei, Tahe, offshore, hard-to-produce reserves, shale oil, etc. The annual newly-built capacity reached 3.144 million tonnes, an increase of 260,000 tonnes, hitting a

Natural gas development

In conventional gas, we followed the principle of pursuing high yield and efficient development with few wells, testing plans and well location deployment in advance, and strengthening technological innovation and application, and made significant breakthroughs in the development of difficult to use reserves in the Xujiache Formation in western Sichuan. The large-scale construction of new areas such as Shunbei No. 2 Zone and West Sichuan Gas Field accelerated, and the stable production of major gas fields such as Puguang, Yuanba, and Daniudi was further consolidated. New production capacity of 4.55 billion cubic meters was built in 2022, an increase of 1.12 billion cubic meters. Gas production was 24.96 billion cubic meters, with an increase of 1.46 billion cubic meters.



new high since 2015.

We enhanced detailed reservoir characterization, deepened understanding of remaining oil, expanded the coverage of modeling and numerical modeling, increased basic investment in stable production, optimized the injection and production structure of water flooding reservoirs, strengthened the entire process thermal management of heavy oil reservoirs, raised the quality of water injection and gas injection in fractured and vuggy reservoirs, upscaled heterogeneous composite flooding, actively forged ahead with pilot tests of offshore binary flooding and high-temperature and high-salt-polymer flooding, and raised the oil field pressure by 0.3 percentage points, with a natural decline rate of 10.4%, down by 0.2 percentage points, maintaining a stable comprehensive water content.

In shale gas, we comprehensively pushed forward the stereoscopic development and adjustment of Fuling shale gas field, steadily carried forward the production capacity construction of Weirong, Nanchuan, Dongsheng, and Baima, proceeded with the deep shale gas development in north Yongchuan and Dingshan, Wulong Daozhen normal pressure shale gas field, Puguang Jurassic, Jingyan Qianwei Cambrian new formation shale gas evaluation and well cluster tests. In 2022, a new production capacity of 2.92 billion cubic meters was built, with a gas production capacity of 9.91 billion cubic meters.

In coal-bed methane, we continued to focus on adjusting and tapping the potential in the southern part of Yanchuan and rolling production. In 2022, we built a new production capacity of 46 million cubic meters and produced 400 million cubic meters of gas.

Refining Operations

Facing the changing situation heads-on and taking on responsibility

We overcame the adverse effects of high oil prices and frequent outbreaks of Covid-19, upgraded the quality of National VIB gasoline, fully increased the production and storage of diesel, and firmly met the task of “ensuring supply”. We raised the production of sulfur for fertilizer companies, ensuring the supply for farmers during spring plowing, summer harvest, sowing, and field management, and autumn and winter sowing. We built a “dual hydrogen source” guarantee system utilizing

New breakthroughs in specialized oil products and chemicals

Breakthroughs were made in the development of specialty oil products. Our self-developed technology in the lubricants business chain is constantly increasing. Sinopec’s synthetic aviation engine lubricating oil passed airworthiness certification, becoming the first domestic lubricating product to be applied commercially. The domestic substitution of independent additives such as PMA pour point depressant (T866) by Sinopec Research Institute of Petroleum Processing steadily advanced. Improvement was also made in producing specialty oil products. The 150BS base oil of Maoming Petrochemical Company met the HVI 1c standard requirements. Jingmen Petrochemical Company passed the food-grade white oil certification, and Jinling Petrochemical Company achieved industrial production and market application of high value-added heavy alkylbenzene.

Specialty chemical products manufacturing continued to mature. The needle coke products by Jinling Petrochemical

Yanshan and Tianjin Petrochemical Plants for the Winter Olympics, fuelling the torch of the Winter Olympics with clean hydrogen. We comprehensively carried out tax compliance self-examination of refined oil and self-marketing products, resolutely implemented national and government regulatory requirements, and safeguarded the consumers’ rights and interests. In 2022, 242 million tonnes of crude oil were processed, down by 5.1%. The yield of refined oil products increased by 0.6 percentage points, and that of light chemical feedstock decreased by 0.2 percentage points.

Company and Maoming Petrochemical Company reached the premium coke level after evaluation, and were applied to 450mm and 550mm high-power graphite electrodes and high-end lithium battery anode. Jinan and Qilu affiliates produced specialty coke for negative electrode materials and high-end low emission pre baked anode coke, achieving tailored production. Zhenhai bio-jet fuel obtained Asia’s first global RSB certification issued by the international certification agency SCS and China’s first bio-jet fuel airworthiness certification, realizing application in commercial flights both domestically and internationally. Jingmen Petrochemical Company made its first trial production of petroleum based commercial rocket kerosene, featuring low cost and good physical and chemical properties, and eliminating reliance on specialty oil. The modified asphalt was used for Hongqiao Airport, and the modified asphalt for the Chengdu Tianfu F1 track was developed. The odor-free and environmentally friendly asphalt was promoted and applied in multiple companies.



Production & Operation of Chemical Business

In 2022, the chemicals and materials business unit overcame difficulties and challenges such as rising raw material costs, continuous impact of the COVID-19, and supply-demand imbalance, focusing on optimization, structural adjustment, market expansion, and improving quality and efficiency.

Significant results in optimizing production and operation

Optimization of raw material structure. We fully coordinated refining and chemical business to address challenges for raw material supply and maximized the overall value of refining and chemical business. We adjusted and optimized the processing plans for heavy cracking materials in a timely manner based on the demand of the market for refined oil products.

Monitoring the market and adjusting product structure. We strengthened connection between production and sales, and optimized and adjusted production and sales plans. In

2022, the number of production and sales plan adjustment orders increased by 86.4%. We made efforts to increase production and efficiency of profitable products, fully utilized the load of highly profitable units, and strived to increase the production of profitable rubber products.

Budgets in place and strict cost control. We actively promoted strategic and intensive financial budget control, and comprehensively carried out the formulation of medium and long-term financial plans. We continued to focus on the 3-month rolling budgets, strictly controlled costs for non-production and outsourcing fees of key businesses, and actively promoted the implementation of national fiscal and tax preferential policies.

High-quality development of new materials

Synthetic resin. We strengthened product development, focused on improving market competitiveness and continuously adjusted and optimized product structure in combination with specific unit features, market demand and existing challenges.

Synthetic rubber. We promoted product mix optimization and adjustment, closely monitored market demand, leveraged our own technological advantages, and developed new products that met customers’ needs.

Synthetic fiber. We developed new products based on market demand, lead the high-end product market, and formed new profit growth points. Production process of three high-performance fiber was fine-tuned, and unit operation stability and product performance further improved.

Fine chemicals. We enhanced product development in key application fields, accelerated the development of high-end incremental business with incremental projects in smooth operation.

Progress Made in Coal Chemical Operation and Construction

Good Momentum of Profitability for Projects under Operation. Sinopec Great Wall Energy and Chemical (Ningxia) Co., Ltd. focused on upgrading the productivity of coal mines, calcium carbide furnace and BDO unit. The output of five main profitable products increased by 31.3%, and the total cost of chemical products per tonne decreased by 1064 yuan. The business volume and sales revenue both went up; Zhongtian Hechuang Company achieved growth in production, revenue, and profitability for coal and chemical products. Total cost of polyolefin products per tonne reduced by 389 yuan, and the proportion of new polyolefin products and special materials was up by 6.8%. Sales revenue and total profit both recorded new historical highs; Zhongan United Coal Chemical Co., Ltd. successfully completed its first overhaul and focused on exploring markets in neighboring regions. The proportion of new polyolefin products and special materials increased by 6%. In 2022, coal production hit a record high, with raw coal and commercial coal exceeding the planned production by 10% and 8%, respectively. The

production and total operating volume of major chemical products both surpassed the annual plan by 4%, and the consolidated sales revenue increased by 320 million yuan.

Active Promotion for Projects at the Planning Stage. Efforts were made in coordinating and promoting the planned layout of coal chemical industry under the 14th Five-Year Plan (2021-2025). Sinopec Great Wall Energy and Chemical (Guizhou) Co., Ltd. is progressing with the land preparation, general design optimization and research on product processing and application simultaneously for the PGA Project as scheduled; Dalu Coal to Olefin Project has reached common ground with the local government on allocating coal resources, accelerating the start of construction, and launching the decision-making process based the feasibility study; The Zhongtian Hechuang Green and Carbon Reduction Upgrade Project (Coal Chemical Coupled with Green Power and Green Hydrogen) has completed the feasibility study, started the decision-making process, and pressed forward with the feasibility study revision for phase III; Xinjiang East Junggar Project has launched the research on the adjustment and optimization of the construction plan.

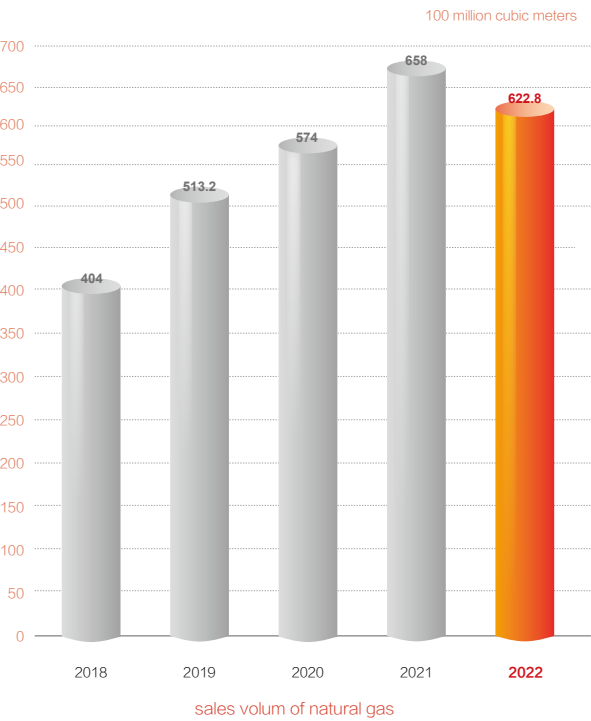
Product Marketing Services

Natural Gas

In 2022, our operating volume of natural gas was 62.28 billion cubic meters, a decrease of 5.4%, with sales registering 59.71 billion cubic meters, down by 8.4%, 7.6 percentage points lower than the national average.

We fully unleashed the effectiveness of natural gas sales system reform, opened up resource export channels, ensured smooth sales channels, and further strengthened the role of domestic gas as a “ballast”. We vigorously developed domestic third-party sourcing, formulated supporting assessment and incentive measures, achieved significant breakthroughs in resource outsourcing, and effectively replaced high priced imported resources. We seized the favorable time slot, strictly controlled the procurement quantity of spot, prudently carried out hedging, and effectively hedged high procurement risks. We optimized resource flow, market layout, and customer structure, strived to control quantity and increased efficiency, significantly increasing the number, scale, and share of high-end users and high-quality markets. Based on maximizing the value of Sinopec’s entire industry chain, we vigorously developed LNG terminal direct supply business, with LNG sales to end users reaching 51% of the total LNG sales. We fully leveraged its comprehensive advantages, actively cultivated and developed high-quality terminals, completed 20 projects related to end users and established 9 companies of end users throughout 2022, resulting in increasingly significant terminal benefits. We stuck to the principles of “one household, one approach” and “one region, one approach”, flexibly carried out business strategies such as sequential settlement, tiered pricing, summer winter linkage, and optimization of contract volume structure, and facilitated market-oriented pricing of natural gas.

We accelerated the implementation of storage and transportation facilities layout, and focused on pushing the implementation of a number of projects that laid a foundation, broke bottlenecks, and created benefits for the long run. We acquired the Guangdong Chaozhou Huaying LNG project and completed the handover. The Zhoushan Liheng LNG terminal was approved by the National Development and Reform Commission and Sinopec headquarters for feasibility study. The Zhangjiagang LNG transfer station in Jiangsu was approved by Sinopec headquarters for feasibility study. The Tianjin LNG Phase III



Stage I and II were approved by the government and Sinopec headquarters for feasibility study. The No. 5 and No. 6 storage tanks of Tianjin LNG Phase II were completed in advance and put into use before winter. The construction of the first 270,000 cubic meter LNG storage tank in Qingdao LNG Phase III started, and the second jetty project saw mechanical completion. The implementation of Yantai Longkou LNG and Guangxi LNG Phase III were accelerated as planned. The main gas source pipelines for the Shandong South Main Line, the South Section of the East Main Line, the Anhui Northeast Pipeline Main Line and the Anhui North Branch Line, and the eastern part of the Zhongyuan Gas Storage were completed. The northwest gas gathering terminal Lunnan pipeline was put into operation in advance. The CNG upload project of Tayu station and the main body of Dingshan shale gas export pipeline were both completed, opening a new channel for resource upload. The Jintan Gas Storage increased capacity by 448,000 cubic meters, and that for the Huangchang Gas Storage was 56,000 cubic meters, effectively improving peak shaving capacity.



Oil Products and EasyJoy Services

In 2022, the total sales volume of oil and gas was 213 million tonnes, down 5.5%; the sales volume of domestic refined oil products was 163 million tonnes, down 5.1%, and the retail volume was 107 million tonnes, down 6.5%. Sales volume of natural gas was 4.18 billion cubic metres, a decrease of 16.8%. operating revenue of EasyJoy was 38.1 billion yuan, an increase of 7.6%.

Oil and Gas Marketing and Services. The “100-day service improvement competition for petrol stations” was launched. Standardized customer service centres were built. A shared customer evaluation platform and a digital operation analysis platform for petrol stations were set up. Marketing was carried out with refueling cards and third-party cooperation. The “Thousand Stations Marketing” campaign was organized. X-Power Series marketing was continued. As a result of the above-mentioned measures, the retail competitiveness continued to improve. We insisted on market orientation and led market expectations, visited customers in depth, promoted digital marketing, promoted the “Sinopec Refueling” app and created a one-click oil delivery service, maximized sales and profit from direct sales and distribution. We carried out direct supply and designated allocation of internal natural gas resources, intensified the collective purchase of external resources, and built an LNG logistics system based on Sinopec Fuel Sales Company to enhance the ability to obtain natural gas resources. We updated strategic customer service, achieved multi-discipline cooperation with customers in industries such as logistics, electricity and construction, and developed marketing cooperation with mainstream banks at headquarter level to enhance customer service capabilities jointly. The Company promoted the completion of pilot projects in 24 municipalities in 10 provinces to build a “digital prosecution” and a cloud platform for intelligent monitoring of petrol stations, further purifying the market environment.

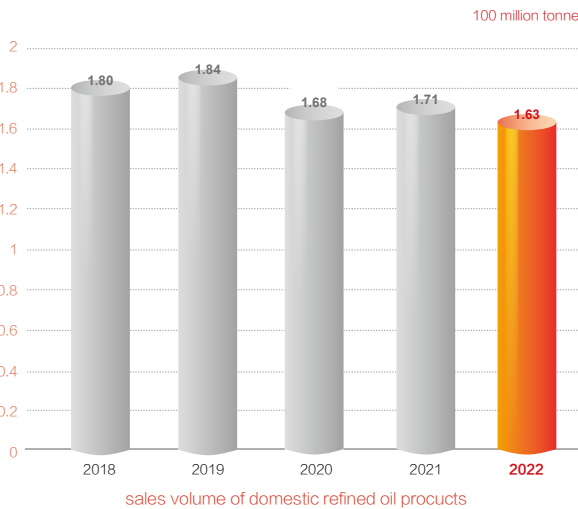
EasyJoy Service and Marketing. The Company systematically promoted marketing and achieved remarkable results in the New Year’s Goods Festival, Car Care Festival, Wine and Drinks Festival and EasyShare Festival, with sales at the EasyShare Festival reaching a record high of 3.86 billion yuan, an increase of 42%. The “Ten Billion Club” was further developed with 372 stores selling premium wine and wine sales increasing by 38.8%. We also strengthened the marketing of small and medium-sized packaging Great Wall lubricants, promoted the layout of exhaust fluid additive, seized the opportunity to replace coal-fired denitrification technology, developed the industrial urea market and consolidated our first-mover advantage in environmental protection products. We added the auto sales business with the focus on auto after-market consumption and achieved auto sales of 1 billion yuan, an increase of 60%. We created local specialties,



fresh food map and other special shops, livestreamed 27 times selling fresh food, and set up 145 special zones for outdoors products. We completed the investment promotion for the catering business and added 167 new catering projects. A total of 9,313 auto service projects were developed and 5,263 Internet connected car washing machines, creating the largest self-operated car wash service system in China. We expanded advertising business with 32,000 Internet connected electronic screens and implemented the “Easy Insurance” business to enhance the stickiness of car owners.

Marketing Network. We standardised and unified the new image of stations and shops, completed the renovation of 1,312 stations. The Company activated inventory of assets with unique plan for each station, and upgraded 293 inefficient, ineffective gasoline stations, reopening 72 and leasing 60. We optimised the layout of oil depots, shut down 11 oil depots, built, renovated and expanded seven oil depots with 500,000 cubic metres of storage capacity added, and intelligently renovated 49 depots. We focused on network growth, put 811 petrol stations into operation, increased the development of LNG networks in Northwest China, North China and other regions, and put 135 filling stations into operation. We enriched our online business and marketing, established online and platform-based management mechanisms, and built a nationwide unified membership operation system, with more than 140 million members in all channels, including more than 47 million equity members, and a gross merchandise volume (GMV) of 548.1 billion yuan.

New Energy Business Development. We accelerated the development of hydrogen energy business by developing 24 hydrogen refuelling stations for the year and making the total number reached 98, with a domestic network share of over 30%; hydrogen sales volume was 1,735 tonnes, with a market share of 40%, making Sinopec the company with the largest number of hydrogen refuelling stations built and operated in the world. The Company actively deployed charging and battery swapping network by developing 1,004 stations and making the total number reach 2,299, with over 11,000 charging spaces, over 170 million kW-h of charging and battery swapping operation, and serving 9.4 million vehicles. The “Photovoltaic+” initiative was vigorously promoted, with 1,199 photovoltaic stations developed in the year and 2,452 completed in total, with an installed capacity of 88 MW, generating more than 50 million kW-h of electricity and saving an average of about 20,000 yuan in electricity costs for a single station.





Fuel oil

Our annual operating volume of fuel oil reached 30.59 million tonnes.

New breakthrough in both quantity and efficiency was realized in bonded oil. We adhered to the philosophy of “expanding sales, controlling procurement, reducing inventory, pushing prices, and shifting peaks”, and achieved a linkage between physical and paper trading, leading to a stable upward trend in prices in the Asia Pacific region. We optimized the “full production and full sales” chain of petrochemical resources, implemented a three-month logistics inventory rolling plan, terminated the leasing of 264,000 cubic meters of storage, reduced 13% coastal freight through bidding, achieved 8 million tonnes of petrochemical low sulfur bunker fuel and “full production and full sales” of MGO, and contributed to the adjustment of Sinopec’s industrial structure. We completed the construction of 15 offshore mobile gas stations, created a service team for oil supply, and continuously improved service quality. The

annual operating volume of bonded oil reached 10.03 million tonnes, an increase of 3%, breaking 10 million tonne for the first time, and the market share reached 46%.

The quantity and quality of domestic trade scored new achievements. We made “visiting enterprises, providing services, expanding business, and creating benefits” a normal practice. The Zhoushan subsidiary, Zhejiang subsidiary, and Shanghai subsidiary have established an integrated domestic and foreign trade process. 197 end users were added for domestic trade ship refueling, and an integrated fuel support summary meeting was held with the maritime police to move forward the transfer of 8 stations on waters in Jiangsu and optimize the layout of Guangdong’s network, and started operation of Shanghai’s second on-water green comprehensive service area, improving the operation of on-water business. We completed the first domestic ship refueling of 90 tonnes of methanol, arousing strong interest. The annual domestic trade achieved a business volume of 7.4 million tonnes, including 1.82 million tonnes of ship refueling, up by 22%.

Other Refined Oil Products

The total sales volume of self-marketing refined products was 36.02 million tonnes. We managed to increase the total volume of self-operation, with the annual self-operating volume of 5.4 million tonnes, an increase of 42.5% year-on-year. We continued to build “specialties and new products”. Needle coke was successfully applied to high-end graphite electrodes and negative electrode materials. And clean asphalt was successfully applied to the Shanghai Songze road paving project. Product sales reached a new record high, with LPG and petroleum coke volumes exceeding 10 million tonnes in 2022.

The annual sales volume of lubricating grease were 1.271 million tonnes, maintaining a stable increase in market share and occupying the top position in the industry under the difficult situation of soaring costs and shrinking demand. We insisted on sci-tech guidance, achieved new breakthroughs in high-end support, obtained 106 authorized patents, 50 OEM certifica-

tions, accumulated more than 20,000 cases of lubricants application in key equipment, developed 88 new processes and technologies such as low-lithium grease thickening technology, and realized a technical value contribution of over 100 million yuan.



Chemical products

We fully served production subsidiaries and downstream customers. We dynamically evaluated the pandemic situation where the subsidiaries locate, tracked the load, inventory, and storage capacity of the subsidiaries in advance, scientifically allocated internal and external supply resources within Sinopec, and uniformly dispatched national logistics resources. None of the Sinopec subsidiaries reduced or stopped production due to raw material supply, product sales, and logistics difficulties, effectively ensuring the supply of raw materials to downstream customers and the smooth operation of the chemical industrial chain. We adhered to market orientation, accommodated customer needs, assisted the subsidiaries in dynamically optimizing production scheduling, increased production and marketable products, timely coordinated and dovetailed with downstream customers, made good product delivery arrangements, and ensured that the devices meeting customer needs were fully opened. We effectively responded to the emergencies related to industry production equipment, took a series of emergency measures, achieved resource rebalancing as quickly as possible, ensured the supply of core customer resources, and provided strong guarantees for the smooth resumption of work and production for the subsidiaries. We proactively served the supply of raw materials and sales of new products for new installations, and received full recognition from both Sinopec subsidiaries and non-Sinopec customers.

We built a standardized service system with customers at the core, carried out the construction of a standardized customer service system, improved the operational mechanism of customer service, and continuously improved customer satisfaction. We followed the philosophy of “customer-centric” and strengthened the transformation from “doing business within the stores” to “doing business as itinerant traders”. Through over 15,000 customers visits in various forms, we developed and served multiple production-centric customers, fully ensured the service needs of direct sales customers. By expanding high-quality channels for procurement and sales, we helped customers find high-quality resources, put their needs at first, and responded to their urgent needs, making every effort to reduce costs and create value for them. We deepened collaborative cooperation with strategic clients, implemented strategic cooperation project management, carefully designed a package of solutions for clients, and increased the supply of strategic clients against the downward trend.

We stuck to meticulous work, actively carried forward the promotion and application of new chemical materials. We comprehensively deepened strategic cooperation with companies of building materials, automotive materials, and new energy materials, strengthened the organic integration of new product research and development and downstream customer application development, collaborated with production subsidiaries and multiple strategic customers to jointly develop multiple specialized material brand products, effectively drove the new product development and market-oriented application. We actively created a cooperation alliance for waste plastic recycling industry, opened up green development markets such as degradable materials, and laid the foundation for further promoting green marketing. We collaborated with production subsidiaries and research institutions to establish a professional technical service and product support team, provided customers with high-quality application supporting services,



and accelerated connecting the “last mile” of products towards customers.

We actively implemented the concept of green and low-carbon development, strengthened the systematic research on directing green transformation in the chemical industry, advanced the layout of low-carbon and environmentally friendly chemical products, accelerated the market layout of industries such as photovoltaic, biodegradable, recycling, and automotive lightweight, guided our subsidiaries to produce green products, directed our research and development institutions to develop green products, led our customers to use green products, integrated green concepts into product marketing, and steered upstream production subsidiaries, downstream customers, and logistics service providers to jointly practice the green and low-carbon concept. We increased the proportion of railway and waterway transportation, vigorously developed multimodal transportation such as rail, highway, and waterway, and focused on facilitating the coordination of multiple transportation modes. We pushed the application of biodegradable and environmentally friendly plastics and recycled chemicals in logistics fields such as product packaging, extended green factory methods such as heavy trucks refueled by hydrogen and shared pallets, and actively created a low consumption, low emission, recyclable, and sustainable logistics operation system.

We pursued safe and stable operation, and maintained safe development of the chemical industrial chain. We followed the guidance of the “Compliance Management Strengthening Year” as a special action, made risk investigation a normal practice, and firmly adhered to the bottom line of no major risks. We facilitated the systematization of institutional construction, further strengthened the penetration of the institutional system, continuously carried forward the visualization of business processes, and fully utilized information technology to improve management efficiency and effectiveness. We deepened the operation of the HSE system, consolidated safety responsibilities at all levels, and conscientiously carried out the “Safety Production Month” and “Hundred Day Safety Action”, effectively ensuring the safe and stable operation of product sales.

Catalysts. We strengthened the domestication to replace imports. The domestic market share of PX adsorbent continued to increase. Domestically produced silver catalyst with high spatiotemporal yield replaced the imported one for the first time in Yangzi Petrochemical and Maoming Petrochemical, while the domestication of catalysts for boiling bed residue hydrogenation and high-end polyolefins continued to accelerate, further consolidating the dominant position in the domestic catalyst market.

Petroleum Engineering Technology Services

Breakthrough in the application of the “Matrix” rotating steering system. 9 core technologies and 4 innovation items have been developed, featuring high reliability, wide adaptation range, complementary logging and steering, accurate trajectory control, independent control and open compatibility, etc. The overall system has reached the international advanced level, among which the measurement accuracy of the steering bit and azimuth resistivity reached the international leading level. The system has been applied to 83 wells in Sichuan and Chongqing shale gas, Shengli Jiyang shale oil, Bohai Bay on-shore recovery of the offshore oil, and eastern complex structure wells, with a total cycle time of 8687.48 hours, a footage of 64,600 meters, a maximum drilling build-up rate of 11.5°/30 meters and a reservoir penetration rate of 96%. In the Shengli Fanye 102-HF well, the Company achieved the first “one-run drilling” for a shale oil well drilling casing and tubing. In the Jiaoye 70-S2HF well, new records for domestic rotary steering system were set, such as one-run drilling footage of 1,980 meters and a continuous trouble-free working time of 276 hours.

Significant improvements in the speed, efficiency, and quality of geophysical prospecting projects. In China, more than 2,160,000 shots were completed throughout the year, exceeding 2 million for the first time. The average daily efficiency of the Sinopec-market 2D and 3D seismic exploration projects was increased by 220%, and the rate of first-rate acquisition data was increased by 3.2 percentage points compared with the contract requirements. 3 projects in Taoerhe, North Taji and South Shizhu won the Group's Outstanding Project Awards. All completed 3D seismic projects were awarded as Outstanding Projects by the Party A. The advanced geological prospecting technology further supported high-quality exploration and development.

Increasingly mature deep well drilling supporting technologies. Through innovations and iterations, we formed a series of speed-up technologies for ultra-deep wells, including the pre-bent drilling tool combination anti-deviation technology in the Shunbei area, vertical drilling + screw drilling technology, “aggressively shaped tooth PDC bit + high-torque screw drilling tool” high-efficiency rock-breaking technology, and series of speed-up technologies, such as fine pressure control drilling technology in the southwest area, safe liner tubing technology for acid gas ultra-deep horizontal wells and anti-corrosion and anti-channeling cementing technology for ultra-deep acid gas reservoir. During the year, 172 ultra-deep wells were completed with an average well depth of 6,890.7 metres, an average mechanical drilling speed of 8.93 metres per hour and an average drilling cycle of 111.19 days, achieving good results in terms of speed and efficiency improvement. The Rentan 1 well set new records for the largest number of layers traversed by a 165.1mm diameter borehole and the longest open hole section in the North Block in Sichuan Basin; the Yuanshen 1 well set seven high records for Sinopec in the Sichuan Basin, including the deepest completed vertical depth and the deepest depth of casing with 476.25mm diameter.

Breakthroughs in shale oil and gas engineering supporting technologies. We achieved technology breakthroughs, field application and iterative upgrading for shale gas ultra-long horizontal section drilling, cementing technology, drilling stem

bi-directional twisting system control technology, horizontal infill well bypass technology, foam cement leak plugging process and shale oil coring drilling with long core barrel, high temperature resistant rotary steering tool selection, synthetic-based drilling fluid performance optimization and other key areas. Last year, we completed the drilling of 269 shale gas wells with footage of 1.4264 million meters, an average well depth of 5,222.05 meters, an average mechanical drilling speed of 9.33 meters per hour, and a drilling cycle of 73.27 days. 22 wells were completed in the Jiyang Shale Oil Project, with an average well depth of 5,754 meters, an average mechanical drilling speed of 9.87 meters per hour, and an average drilling cycle of 69 days, big increase in both quality and efficiency. Among them, the Jiaoye 18-S12HF well set a number of construction records, including the longest horizontal section (4,286m) and the longest horizontal section “one-run drilling” (4,225m) in China. The Niuye 1-3HF well set two records in Shengli Jiyang shale oilfield, including the deepest depth (6,200m) and the longest horizontal section (2,425.09m). A number of wells, including Fanye 105HF, Fengye 1-4HF, Niuye 1-3-501HF and Fanye 102-1HF, achieved one-run drilling for drilling, casing and tubing. Niuye 1-3-501HF set a new record for the shortest drilling and completion period (29.5 days) for a horizontal shale oil well in Shengli Jiyang.

Great improvement in downhole special operations and reservoir technology. The shale (oil) gas fracturing speed and efficiency improvement technology was iterated to V3.0 generation. The technology series of oil and gas tests for wells with high pressure, sulfur and dangerous potentials in key work areas such as Yuanba and Shunbei were continuously improved. The efficiency of fracturing in key areas of Northeast, Northwest, North China and Sichuan increased by 15.6%. The Fuling shale gas field's Jiaoye 12 platform expansion achieved three-dimensional development and set five records, including the largest scale of shale gas fracturing in China. The Shengli shale oil Fanye 1 well group set three records, including the most fracturing work volume in a single day in the eastern part of China. The Xinye 1 well, a key shale gas well in the southern Sichuan, achieved test gas production of 530,000 cubic metres per day after fracturing. Accumulative 20 high yielding oil wells with a daily production of 1,000 tonnes was tested successfully in Shunbei. The oil reservoir business built 520,000 tonnes of new crude oil production capacity and 700 million cubic metres of new natural gas production capacity in the year, promoting development of both conventional and unconventional oil and gas.

New progresses in drilling fluid technology. The high temperature resistant poly-sulphonate low friction drilling fluid system was successfully applied to the Shunbei 801 X well and the Shunbei 4-11H well, with the bottom temperature reaching 191°C, effectively ensuring the smooth completion of the 9,000m ultra-deep well. The anti-high temperature environmentally-friendly drilling fluid filter loss reduction agent has been applied to more than 200 wells, providing strong technology support for key wells such as Yuanshen 1, Xiantan 1 and Yuanba 701. The oil-based drilling fluids in West Sichuan solved the problems of well wall collapse, control of the rheology of high-density drilling fluids and sliding drilling pressure in the sand-mud interbed of the Shaximiao Formation in the

Zhongjiang work area in West Sichuan. The application of oil-based drilling fluid technology in the TKC3-2X well in the Tahe work area saved 20.37 days in drilling cycle, with a 36.38% cycle saving rate, setting a record for the shortest drilling cycle in a horizontal well in carboniferous clastic rock. The synthetic-based drilling fluid was applied to 14 wells in Shengli Shale Oilfield, resisting temperature of 200°C, reducing 82% of mud cake permeability and over 40% of solid waste.

Accelerated breakthroughs and industrialisation of logging and mud logging technologies. In MWD, the Company developed a series of three types of instruments, among which azimuth gamma and azimuth electromagnetic resistivity were applied in scale, and field testing of neutron density and gamma energy spectrum was accelerated. The application of azimuth resistivity logging in the Zaizhuang 139-Ping 25 well enabled precise control of the trajectory of the boundary detection and 100% reservoir penetration rate, successfully breaking through the “bottleneck” in the application of shallow and loose formations. In open hole logging, the temperature and pressure resistance and stability of imaging logging continued to improve. The 200°C/172 MPa cable push-type and lantern-type high-temperature electrical imaging logging technologies became mature, which were applied to 9 wells in northwest and southwest China. 200°C/206 MPa direct push storage series of logging instruments were applied in wells for 309 times. Among them, 61 times were in ultra-deep wells above 8,000m. The expected results were achieved in all field applications. In terms of logging technology, the temperature and pressure index of through bit storage logging were improved to 175°C/140 MPa, realizing “logging integration”. This technology was applied to 122 wells in total, speeding up by more than 40% in a single well, becoming the core tool for the logging of Shengli Jiyang shale oilfield. The tractor series continued to be completed, forming the 50 mm, 70 mm and 80 mm series, completing 409 times of well traction, and completing the first tractor through-tube logging in the Xin1-5H well. In terms of logging interpretation, a series of five types of complex reservoir logging and evaluation technologies were developed. Software module version 1.0 was developed based on the LogPlus platform. In terms of mud logging technology and equipment, high-end mud logging equipment was finalised and initially applied. 25 directional well, mud logging, steering integrated technology specifications and standards were written and completed. Key projects were accelerated, such as a Coriolis flow meter-based drilling fluid flow measurement device, a new type of rock debris weighing device manufacturing and a supporting borehole stability monitoring system, and development and testing for a prototype carbon isotope analyser. Milestone results were achieved for field tests and applications.

Innovation of surface engineering technologies and progresses in five major aspects. Important progress was made in science research and development. Three major national projects were undertaken. Two technologies were selected in the *Catalogue of Advanced and Applicable Technologies for the Conservation and Comprehensive Utilization of Mineral Resources* of the Ministry of Natural Resources of China. 2 CCUS technologies were shortlisted in the National Key Research and Development Program, namely “Biomass CCS Potential and Demonstration Feasibility” and “Development of key technology and equipment for carbon capture and mass transfer enhancement of flue gas for one million tonnes per year”. The first domestic mega-tonne coal-fired power plant flue gas carbon dioxide capture process package was developed

and implemented in the pipeline of Qilu Petrochemical-Shengli Oilfield mega-tonne CCUS demonstration project. The first upstream natural gas ethane recovery process package was completed to fill Sinopec's technology gap in the related field. Welding technologies such as TIG external root welding were innovated, which can achieve automatic welding on 30° steep slopes in mountainous areas, increasing welding efficiency by 2-3 times and achieving a 98.36% passing rate for welding. The application of BIM technology was vigorously promoted and applied on a large scale in projects such as the building of 1 billion cubic metres of natural gas production capacity in the No. 4 zone of Shunbei No. 2 area, the South Shandong Trunk Line and the construction of LNG tanks in Longkou, with an increase of 3%-11% in the overall efficiency of man and machine. Surface engineering technology development was sped up comprehensively from 5 major aspects. 13 upstream surface engineering management system documents were completed. The development results of long-distance pipelines, oil fields and gas fields containing sulphur were finalized. Progress was made in the modular construction consisting of “modular design, factory skidding and on-site assembly”, smart construction sites and digital twin construction. Such construction model was successfully put into practice in projects such as the Dongying Crude Oil Depot relocation project, which increased overall construction efficiency by 30%, shortened the construction period by 7 months, and optimized the number of on-site operators from 182 to 20, thus fully achieving the “five” conservation goals.

Faster IT development. The SICP applications were built around the major goal of “project management” to achieve the dynamic integration of all business management, promote information sharing and improve work efficiency. Based on twin technology, the first domestic digital twin system for real-time data-driven drilling and fracturing process conditions was implemented, providing a more realistic field perception for the decision making by the command centre. The “Well Site Integrated Decision Command Centre” system for the frontline, based on the SICP data centre's three-layer data model of “well - borehole - operation”, achieved the goal of assisting personnel from different expertise and positions to work together on a unified application platform. The construction of professional application systems such as well site seismic visualisation, equipment IoT and engineering anomaly warning provided a full range of application tools for multiple technical positions such as drilling, mud logging, directional and steering.

Accelerated iteration of core petroleum engineering equipment. Fixed assets investment was 4.6 billion yuan throughout the year. 41 drilling rigs were upgraded and revamped, including 5 newly purchased 8000m rigs, 8 newly purchased 7000m rigs and 63 sets of upgraded core equipment. The share of electric drilling rigs was increased to 56%. The share of grid electric drilling rigs was increased to 47%. The number of modern and enhanced drilling rigs reached 150, an increase of 12%, 5% and 15% respectively. The equipment structure was further optimized, providing better support.

Innovation of oil and gas equipment technology. 7,000m automated drilling rig was applied to the Yellow River drilling team 70183; the second generation of 5000 all-electric fracturing equipment was improved and upgraded, setting a record high fracturing efficiency of 7 sections/day in Shengli Jiyang shale oil and achieving excellent performance of 9 sections/day in the first shale oil demonstration well in northern Jiangsu. The National Energy Administration (NEA) “strengthen weaknesses” projects progressed steadily. The first 200,000 cubic metre high

sulphur gas compressor in China was successfully applied in the Puguang gas field. The world's first fully electric-driven automatic workover rig, 2500-type "one-button cementing" equipment, the first domestic electric-driven automatic coil tubing operation equipment and remote-controlled pressure operation equipment were successfully developed. 52 MPa gas storage compressor set the highest injection pressure record in China, and CO₂ re-injection compressor was successfully developed. New products such as highly reliable and long-life hybrid drill

bits, RSS matched diamond bits and high-torque screw drilling tools set the industry benchmark. The drilling bit and tool research and selection platform was put into operation, with 546 new high indexes. The first set of underwater wellhead for production wells in China was successfully applied. The development of digital intelligence technologies such as automated control of fracturing equipment and manifold, SOFELink Internet of Things were accelerated.

Refining and Chemical Engineering Services

In 2022, 1,192 engineering, consultancy, EPC and construction projects of various types were executed in domestic market. 879 new projects were started and 495 projects were completed.

Continued Improvement in Engineering Service Capabilities

The whole process management was strengthened and multiple measures were taken to improve the engineering efficiency and project execution. The Zhenhai Base Phase I and Jiujiang Petrochemical Aromatics Project were completed and put into operation; Hainan Petrochemical Ethylene Unit was delivered with high quality; Tianjin Nangang Ethylene Project

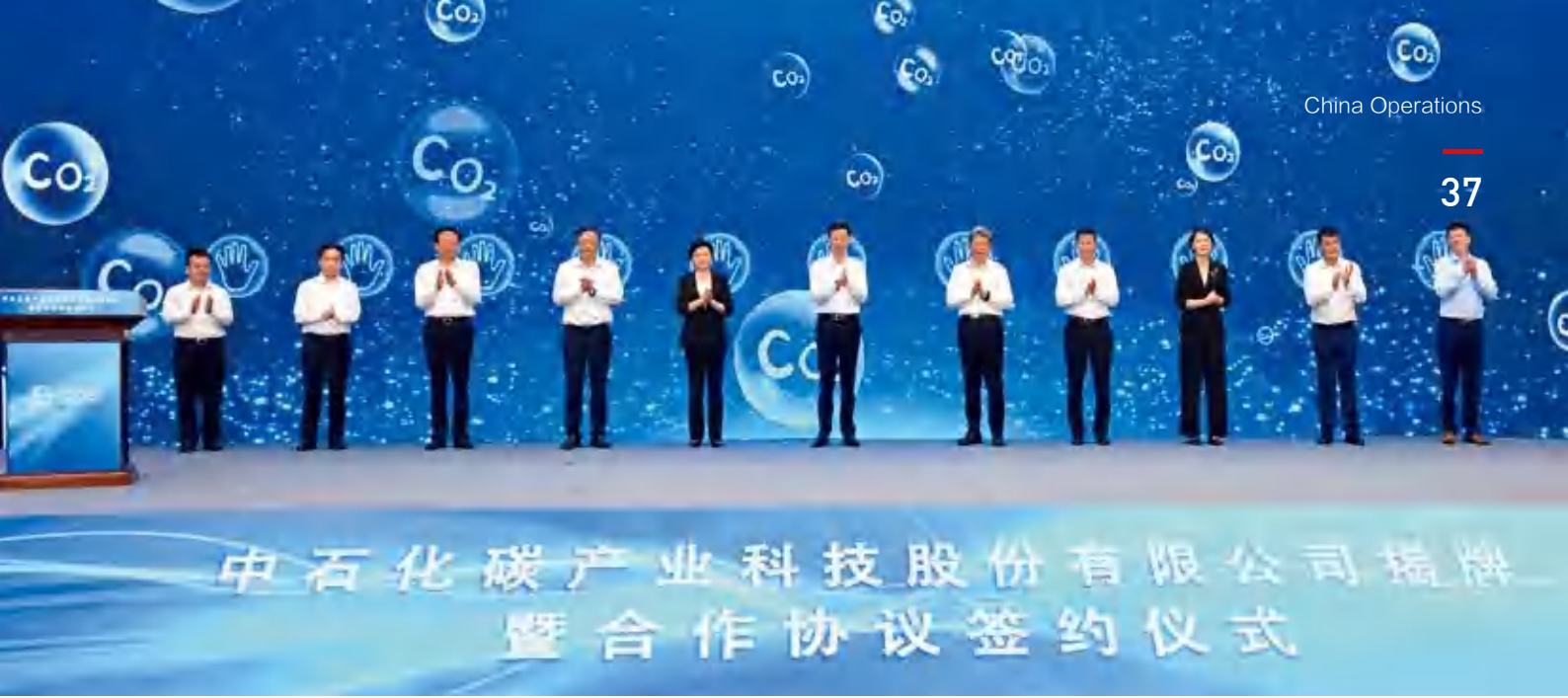
was accelerated; a number of projects such as Anqing Petrochemical Upgrading were vigorously promoted; Danzhou Base, Lianyungang Commercial Storage, LNG terminals in Tianjin, Guangxi and Longkou, Green Hydrogen in Kuqa Xinjiang and other projects were implemented rapidly. Non-Sinopec system projects such as the Huizhou Ethylene Project of Mobil, the upgrading of CNPC Jilin Petrochemical Co. and Yulong Petrochemical Co. were steadily implemented with the safety and quality of the projects generally under control.

New Breakthroughs in Technology Research

Promoting key science and technology research projects Seven technology research projects in new areas were completed and put into production, such as Zhenhai Refining and Chemical Co.'s high-spec poly-1-butene, Shanghai Petrochemical Co.'s large-tow carbon fiber (domestic production line), Fuling's high-purity helium extraction and Qilu Petrochemical's HNBR. Among them, the "Key Technology Project for Green Manufacturing of High-Spec Poly-1-butene Resin" produced qualified products and achieved continuous and stable production, making Sinopec the fourth global and first domestic producer of this product. The 24 national research projects, 31 "Ten Key Technologies" relating research projects and 20 Sinopec major research projects progressed smoothly. 8 projects, including "hydrogen purification for fuel vehicles" and "ethylene waste alkali oxidation", were completed. 8 projects such as "LCO conversion to BTX" and "150,000 tonnes/year ALL-PE package technology" were successfully integrated into the Ten Key Technologies Projects, maintaining a high degree of participation.

Focusing on dual carbon goals to prepare for transition The feasibility study on the in-depth coupling application of high-temperature gas-cooled reactor technology with the petrochemical industry was completed to promote carbon reduction from source in the petrochemical industry. Carbon sources in the petrochemical industry were researched to propose carbon neutral strategies and implementation pathways. R&D of relevant technologies from the source, process and end-use were carried out simultaneously.

Reaching a new level of digital engineering technology Digital delivery was fully applied on nearly 40 large-scale projects, laying an important foundation for future smart plant construction, comprehensively improving the construction efficiency and continuously enhancing delivery capabilities. The digital delivery of key projects such as the Hainan Refining & Chemical Ethylene Project and Baling Petrochemical Caprolactam Project was promoted with high quality. Breakthroughs were made in the engineering of smart plants such as Tianjin Nangang and Zhenhai Phase II. Application scenarios such as process optimization and equipment management were further expanded. The integrated digital twin value chain of plant construction and operation was extended. The refining and chemical engineering business segment application framework and implementation plan were improved. The operation and management platform was launched. The data service platform was deployed. The low-code development platform was built. Data governance and digital business integration began to bear fruit.



New Energy Development and Utilization

In accordance with the development goal of building "China's No. 1 hydrogen energy company", Sinopec has actively promoted the deployment and implementation of hydrogen energy planning, steadily promoted hydrogen energy transportation, made key breakthroughs in green hydrogen refining, continuously improved scientific and technological innovation, and promoted the construction of industry chain, while achieving leapfrog growth in supporting clean power, maintaining the leading position in the geothermal business which continued to develop steadily, and further strengthening the foundation of the overall new energy business. In 2022, the new energy business achieved an annual saving of about 4 million tonnes of standard coal and a carbon reduction of over 10 million tonnes.

Promoting hydrogen energy to become the industry leader

We steadily pushed forward the construction of hydrogen energy transportation. We completed the construction of hydrogen purification and filling facilities with a total capacity of 16,500 tonnes per year and supplied nearly 1,700 tonnes of high-purity hydrogen for fuel cells in 2022, an increase of 244%. 98 hydrogen refilling stations were built, with an annual hydrogen refilling volume of about 1,750 tonnes, an increase of 100%. During the Beijing 2022 Winter Olympic Games and Winter Paralympic Games, our green hydrogen lit the main torch at the opening ceremony of the Games. 87 tonnes of hydrogen were refilled for the event vehicles at the four Winter Olympic hydrogen refilling stations, and 8,689 vehicles were refilled, ensuring supply of hydrogen energy for the Beijing Winter Olympic Games.

Progress in the integrated project of "source, network, load, storage and hydrogen". The construction of the 20,000 tonne/year demonstration project of green power to green hydrogen in Kuqa, Xinjiang accelerated, and the 30,000 tonne/year integrated project of wind/PV to green hydrogen in Erdos was well prepared for full construction in 2023. The 100,000 tonne/year green power to green hydrogen project in Ulanqab progressed with the "Western Hydrogen to the East" well underway.

The first 30m³ (standard)/h PEM hydrogen production experimental plant and megawatt-level [200m³ (standard)/

h] PEM hydrogen production plant were put into operation at Yanshan Petrochemical. The skid-mounted methanol hydrogen production equipment was put on trial at Dalian hydrogen filling station, realizing semi-generation of Pt/C catalyst and achieving international leading level.

Promoting the hydrogen energy application industry chain. We undertook research on hydrogen energy industry chain development; held seminar to promote the construction of modern industry chain for hydrogen energy application and a forum on high-quality development, and signed cooperation agreements with eight organizations, including Baowu Clean Energy Company and FAW, on the construction of hydrogen energy industry chain to strengthen cooperation and create an industrial ecosystem.





Leapfrog growth in clean power

We actively planned and deployed a number of major projects of wind and PV power generation, promoting green power substitution in refining and chemical enterprises, with the total cumulative installed wind/PV power generation reaching 852 MW, nearly 2 times more than 2021. The annual self-generated green power exceeded 450 million kWh. The 120 MW PV project in Anlu of Hubei, 106 MW PV project in Shengli Oilfield and 112 MW PV project in Zhongyuan Oilfield started construction and it is expected that the projects will generate 570 million kWh of green electricity annually, which will not only cut energy bills, but also reduce carbon emission by nearly 400,000 tonnes per year. The total number of charging and battery swap stations reached 2,299, and the total number of gas stations with PV was 2,452.

Consolidating leadership position in geothermal

In 2022, we added over 10 million square meters of geothermal heating capacity and reached over 80 million square meters of cumulative geothermal heating and cooling capacity, with comprehensive utilization of waste heat of nearly 40 million GJ/year. We held a geothermal exhibition, and actively carried forward the preparation work for the 2023 World Geothermal Congress, enhancing our influence in the geothermal industry.

Leading the market in bio-fuels

In 2022, we sold approximately 13.07 million tonnes of ethanol gasoline (including 1.4 million tonnes of ethanol) and 340,000 tonnes of biodiesel.



Key Projects Construction

In 2022, 45 key projects were successfully implemented. Two oil and gas field surface projects, 34 refining and chemical units, two new energy facilities and four oil and gas storage and transmission facilities that were included in the annual commissioning plan were successfully put into operation or had the conditions for commissioning.

Oil and gas storage and transmission projects A number of large oil and gas field surface projects, crude oil commercial storage depots, underground gas storage depots and LNG terminals were completed and put into operation, better integrating oil and gas production, supply, storage and marketing. The Dongying Crude Oil Storage Relocation Project took only 10 months to achieve a high standard of mechanical completion. The Tianjin LNG Terminal Phase II, Shandong LNG Terminal Phase III, Longkou LNG Terminal, Guangxi LNG Terminal Phase III, Shandong Pipeline Network South (East) Trunk Line, Northeast Anhui Gas Pipeline, West Sichuan Gas Field Surface Engineering, Anqing and Danzhou Bases and other projects were implemented in an orderly manner.

Refining and chemical engineering The construction of “4+2” world-class refining and chemical bases were vigorously promoted. The Zhenhai Base Phase I was put into full operation, becoming the largest refining and chemical integration base in China. The Hainan Refining and Chemical Ethylene Project was completed and started commissioning, breaking through the entire process and achieving a first in Hainan’s ethylene industry, becoming a new “engine” for the development of Hainan free trade port. The Company’s ethylene capacity jumped to the second largest in the world. Jiujiang Petrochemical’s aromatics project was completed and put into operation, marking the successful application of Sinopec’s third-generation aromatics technology with independent intellectual property rights and world-leading level. The crude cracked gas to ethylbenzene/styrene project of Maoming Petrochemicals was completed and put into operation, marking the significant progress of the complete set of low-cost ethane cracked gas to styrene technology as part of the “Ten Key Technologies” project. The Tianjin Nangang Ethylene Project entered the installation stage as planned, while the Zhenhai Base Phase II, Anqing Petrochemical’s shift from refined oil products to chemicals, the upgrading of refining structures of Yangzi Petrochemical and Sinopec-SK Petrochemical, Baling Petrochemical’s caprolactam relocation, Hainan Baling SBC, Gulei Petrochemical’s EVA unit, Yizheng Chemical Fiber’s PTA and Chongqing SVW Chemical’s EVOH projects progressed smoothly.

New Energy, New Material, New Economy and science research auxiliary projects We actively integrated into the national innovation system and participated in the national strategic science and technology research with a number of key technologies and debottlenecking projects completed and put into operation. Qilu Petrochemical - Shengli Oilfield Mega-Tonne CCUS Project was put into operation, becoming China’s largest demonstration base for the whole CCUS value chain and playing an important leading role in promoting the construction of a low-cost, low-energy consumption, safe and reliable CCUS technology system and industry cluster in China. The successful start-up of the large-tow carbon fiber domestic production line in Shanghai marked the success of

Sinopec’s large-tow carbon fiber towards scale development and the domestication of key equipment, breaking through the restrictions of China’s carbon fiber production and equipment. The 1,000-tonne POE, 1-polybutene, PVA optical membrane and polystyrene pilot units were successfully started up and produced qualified products in one go. The world’s largest green hydrogen coupled coal chemical project was launched in Erdos, helping the Company to be the head of the hydrogen energy industry chain. The construction of projects such as Xinjiang Kuqa Green Hydrogen Demonstration, Tianjin Base of Beijing Research Institute of Chemical Industry and Catalyst Company, Shanghai Pudong Research Base and Sinopec Free Trade Building was accelerated.

Remarkable results in six key aspects In terms of standardized engineering, the series standardized engineering of LNG and West Sichuan gas field sour gas treatment unit was comprehensively promoted, fostering the implementation of the unified Sinopec engineering construction standards. In terms of factory-based prefabrication and modular construction, the Tianjin Nangang Ethylene Project and the Dongying Crude Oil Depot Relocation Project comprehensively implemented “one site, two factories” and “assembly, modular and skid-mounted” construction, realizing the innovation of “one site +N factory” innovation. On the creation of standardized construction sites, Jiujiang Petrochemical Aromatics and Dongying Crude Oil Depot relocation projects were implemented with the construction master plan to create conditions for safe and orderly and civilized construction. In terms of information technology and digital delivery, key projects comprehensively promoted the application of “two-dimensional code” technology in multiple scenes to achieve digital control in the whole process of engineering quality; multiple smart management and control measures were adopted such as smart safety helmets, smart lifting monitoring, personnel tracking, fall alarm prompt, “sky eyes + ground” video monitoring, etc.; we built smart site command centre, deepened BIM application, created digital twin factory, which all facilitated digital transition of the whole process of engineering construction.





International Operations

- Overseas Oil and Gas E&P
- Overseas Petroleum Engineering and Technical Services
- Overseas Refining and Chemical Joint Ventures and Cooperation
- Overseas Refining and Chemical Engineering Services
- International Trade
- International Joint Ventures and Cooperation within China
- Our Operations Outside China's Mainland

42 In 2022, faced with the severe and complicated external environment, Sinopec followed the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, the spirits of the 20th CPC National Congress, Xi Jinping Strategic Thought on Energy Security, and the Important Instructions during the inspection tour to Shengli Oilfield, firmly implemented the Party Central Committee’s policies on foreign affairs, shouldered responsibilities, strived to overcome difficulties, fixed on deepening international cooperation, and engaged in global market competition, prioritized markets along the BRI, improved global business layout, and took on fresh steps towards the international operations of Sinopec.

Overseas Oil and Gas E&P

As of the end of 2022, we had invested in 44 oil and gas exploration and development projects in 23 countries, forming an overall overseas oil and gas strategic layout that combined oil and gas, onshore and offshore, and conventional and unconventional diversification. Throughout the year, we completed 200 square kilometers of 3D seismic acquisition, 42 exploration and evaluation wells, and achieved 1 exploration breakthrough, 8 new exploration discoveries, and 2 new exploration progress in Angola, Egypt, and other regions. The newly added equity 2P reserves and 2C resources reached 9.16 million tonnes of oil equivalent, exceeding our annual targets. We focused on key production areas, strengthened efficient well location demon-

stration and engineering technology innovation, strived for early deployment, early production, and early effectiveness, with a newly built equity production capacity of 3.26 million tonnes, and the current production contribution of the new capacity of 1.59 million tonnes and a production contribution rate of 48.8%, significantly exceeding the annual target. We took the initiative to develop new projects, enhance communication with the governments, NOCs, and IOCs of resource-rich countries, expand cooperation opportunities, and accelerate the disposal of inefficient and ineffective assets, achieving substantial progress in key operational projects, and continuously optimizing the asset structure.

	2022	2021	2020	2019	2018
Overseas equity oil (10,000 tonnes)	2,699.57	2,829.00	2,838.76	3,379.41	3,339.32
Overseas equity gas (100 million m³)	98.39	99.55	102.09	106.75	111.20



Overseas Petroleum Engineering and Technical Services

We actively responded to the unfavorable conditions of Covid-19 outburst overseas, grasped the favorable conditions of relatively high international oil prices and the rebound of owner investment, meticulously worked and pressed forward, and brought the overall overseas business into a positive and upward development. By the end of 2022, we had carried out

petroleum engineering technical services in 35 countries, and 332 contracts with a contract value of 17.51 billion dollars were being. Throughout 2022, 74 new contracts were signed with a contract value of 2.32 billion US dollars, and 83 contracts were completed with a contract value of 1.93 billion US dollars, outperforming our plan.

Overseas Refining and Chemical Joint Ventures and Cooperation

We are engaged in investing in 8 refining and storage projects in 5 countries, with a total investment of approximately 11.771 billion US dollars. We have an overseas refining capacity of 7.5 million tonnes/year, a storage capacity of 1.36 million cubic meters, a lubricating oil capacity of 80,000 tonnes/year,

and a nitrile rubber capacity of 10,500 tonnes/year. The Amur Natural Gas Chemical Project under construction in Russia is a showcase of Sino-Russian petrochemical cooperation, with a designed production capacity of 2.3 million tonnes/year of polyethylene and 400,000 tonnes/year of polypropylene.

Overseas Refining and Chemical Engineering Services

We managed to cope with the impact of Covid-19 and the complex and ever-changing external market environment. The refining and chemical engineering sector has actively expanded its market, making new breakthroughs in the African and Middle Eastern markets, and steadily advancing the execution of other projects. As of the end of 2022, 70 refining and chemical engineering technical service projects had been carried out

in 16 countries, mainly covering design, EPC, and construction projects. 92 contracts were under execution with a contract amount of 6.08 billion US dollars. A total of 114 contracts have been executed, with a contract value of 6.805 billion US dollars. A total of 51 contracts have been completed, with a contract amount of 642 million US dollars and accumulated profit of 32 million US dollars.

International Trade

To ensure stable energy supply, we continued to strengthen strategic cooperation with oil producing countries and suppliers, and strived to obtain cost-effective crude oil resources from around the world. In 2022, the total international trade volume of oil and gas was 365 million tonnes (including carbon trading), a decrease of 36.12 million tonnes or 9%. The operating volume of crude oil was 294 million tonnes, a decrease of 29.42 million tonnes or 9.09%. Crude import was 203 million tonnes, a decrease of 4.53 million tonnes, down by 2.10%. The third-party trade volume in crude was 91 million tonnes. The operating volume of refined oil products was 50.55 million tonnes, a decrease of 60,000 tonnes, basically flat. Export of refined oil products was 23.46 million tonnes, an increase of 990,000 tonnes, up by 4.4%. The third-party trade volume in refined oil products was 24.82 million tonnes. The annual import of LNG was 15.67 million tonnes (equivalent to 22.4 billion cubic me-

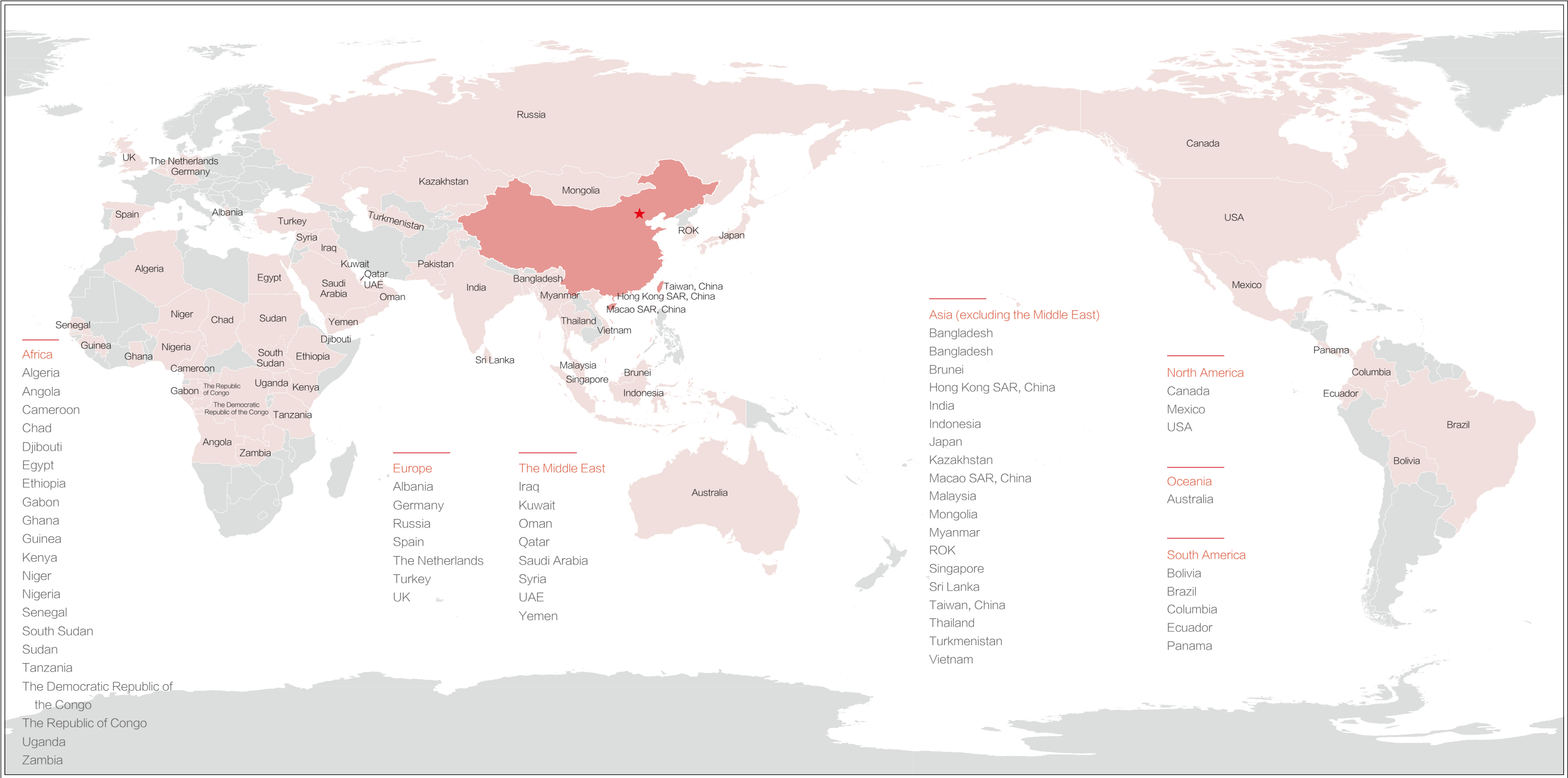
ters), a decrease of 2.42 million tonnes (equivalent to 3.5 billion cubic meters), down by 13.4%. Third-party trade in LNG was 2.25 million tonnes (equivalent to 3.5 billion cubic meters).

In 2022, the overseas trade volume of chemical products reached 6.54 billion US dollars, an increase of 56%. The total operating volume reached 5.688 million tonnes, up by 10%. The international trade in equipment, materials, other refining and sales by-products, and other chemical products reached 1.055 billion US dollars, a drop of 22.71%. The overseas sales (shipment) of catalysts amounted to 24,098 tonnes, registering 147.61 million US dollars, up by 86.58%, which hit a historic high and achieved an upward trend. The total overseas trade volume of lubricants in China was 317 million US dollars, with a total operating volume of 196,000 tonnes. In addition, the transaction amount of EPEC International Business Platform stood at 21.75 billion US dollars.

International Joint Ventures and Cooperation within China

In response to a wider opening up to the outside world and stabilizing foreign investment, we actively carried forward the implementation of key domestic international joint ventures and cooperation projects, and facilitated Sinopec’s chemical business to achieve differentiated development with higher added value. In 2022, we successfully acquired 50% equity of Ineos Ningbo ABS Company and established a joint venture. In addition, in order to upgrade the product structure of SECCO, optimize raw material supply, and improve management, we introduced strategic investors through joint venture cooperation, sold 50% of SECCO’s equity to Ineos, and established a joint venture.

To enhance green and low-carbon international cooperation, Sinopec signed an MoU for cooperation with Shell, BASF, and Baowu at the 5th China International Import Expo, and jointly launched China’s first open ten-million tonne CCUS project in East China. We carried out domestic oil and gas joint ventures such as the Shengli Chengdao West Exploration and Development Product Sharing Project and the Sanjiaobei Coalbed Methane Project, with a total of 10.4186 million tonnes of oil delivered in the cooperation blocks, of which the share of Chinese operators reached 4.9735 million tonnes. The cumulative gas production was 780 million cubic meters, of which the share of Chinese operators was 65.84 million cubic meters.



Corporate Management

● Corporate Reform and Law-based Governance

● Organization and HR Management

● Digital Transformation

● Audit and supervision

● Corporate Culture Cultivation

● Brand Building and Management

● Party Building



Corporate Reform and Law-based Governance

The “Three-Year Action Plan on Deepening Reform” was successfully concluded. We strengthened the leadership of the Party in improving corporate governance across the Group, including the two lists for implementing main responsibilities of the Party Group on significant matters and decision makings, the system where Chairman (Executive Director, Representative of the branch company) is also titled the Party Secretary, and the Board of Directors be set at subsidiaries. As a result, the company was rated as a demonstration enterprise of corporate governance by SASAC. The company made critical progress in market-oriented reforms, The tenure system of management members and contractual management were fully implemented. The more flexible mechanism on cadre appointment, overall payroll and employee recruitment was continuously deepened. The the handover of social functions of subsidiaries were basically finished, The “Science Reform Demonstration Initiative” for sci-tech research affiliates were rolled out across the board. Sinopec Catalyst Co., Ltd. has been rated the benchmark company by SASAC for two consecutive years. We improved the industrial structure, promoted clean and low-carbon energy transformation, and took new steps in supply-side structural reform. The “Double Hundred Action Plan” , The transformation of training centers and nursing homes into elderly care institutions and mixed-ownership reform were all pushed ahead in an orderly way. The effectiveness of Sinopec's reform in various fields continued to show.

The management improvement action of bench-marking with world-leading peers was wrapped up. We have accomplished all the listed work including 45 major tasks of the 8 bench-marked areas. Through continuous efforts in setting up and rolling out management benchmarks, we have seen 81 best-practice cases in various benchmark subsidiaries, grass-root units and project, so as to leverage their leading role. The action was was appraised by SASAC with 100 scores and the best practices were used for SASAC cadres training materials. The plan for accelerating the development of world-class enterprises was officially unveiled, with greater efforts were made to build new and modern State-owned enterprises. We made solid progress in “Three Basics Work”, namely.

Risk prevention and control were enhanced. We strengthened internal control, carried out "I diagnose internal control system" campaign, and integrated the achievements in Three-Year Reform Action for central SOEs and the requirements of corporate governance into the internal control system with specific authorization clearly defined. We carried out internal control inspection on 30 subsidiaries, with supervision and inspection on subsidiaries fully covered within three years. We beefed up business management and control with higher risks, the management on key staff, and management and control of financial derivatives, and strengthened monitoring and emergency response on day-to-day indicators. Testing the application of quantitative operational risks indicators system to enchanc risk prevention. No major systemic risk occurred in 2022.

An integrated pattern of law-based governance was built. We carried forward the concept of compliance, improved the operational mechanism, and built an integrated pattern of law-based governance based on institutional development, guided by risk control, with internal control system as the platform and compliance management as the key thrust, and legal

support as the guarantee. We standardized business process, improved system execution capability, promoted "essential compliance", so as to improve compliance management system across Sinopec. We named 2022 "Year of Strengthening Compliance Management" and took special measures to improve compliance in business operations. We investigated compliance risks and focused on trouble-shooting of key problems, with new achievements made in special rectification. We carried out a special campaign to crack down on fake products and related activities and safeguarded the legitimate rights and interests of enterprises. We launched legal compliance management information system and built an intelligent management platform for legal compliance.

Effective control of project legal services was ensured. We guaranteed legal services for the whole process of major projects, delivered the relevant verification, legal documentation and negotiations on quality. We standardized anti-trust compliance, clarified the responsibilities of all parties, and straightened out the procedures for anti-trust declaration. We updated the list of administrative permits and approval items for legal compliance verification, and strengthened the legal compliance verification for major investment projects concerning "dual carbon goals" and dual controls on high energy consumption and high emission, as well as the legal compliance guidelines for new energy projects. We carried out specific governance on contract signing, such irregular practices as contract re-signing and back-signing were reduced significantly. We included legal compliance and HSE management requirements into the contract terms, and improved contract management information integration based on big data and intelligence platform.

Substantial results have been made in reducing stocks and new dispute cases. We strengthened legal settlement of accounts receivables, adopted categorized approaches to reduce both accounts receivables and inventory. We formulated guidelines on the prevention and control of the legal risks regarding environmental compliance, the response to environmental penalties and legal rights protection of the enterprises along the Yangtze River and Yellow River. We properly responded to environmental lawsuits and administrative penalties, and effectively prevented and controlled environmental legal risks. Focusing on legal protection of intellectual property rights (IPR) and building a technology-leading company, we continued to promote the handling of the key IPR protection cases, carried out inspection on standardized IPR management, strengthened research on IPR legal risk prevention and control, and shifted IPR protection from passive rights maintenance to proactive protection.



Organization and HR Management

Senior management and professional staff cultivation The company explored to promote the integration of the Party's leadership into the corporate governance, made greater effort to make the Chairman (Executive Director, Representative of the branch company) of 27 subsidiaries also titled the Party Secretary, promoted the replacement of Party committees directly under the Group and Party committees in 25 subsidiaries, established or improved the reporting and joint review mechanism regarding the responsibility adjustment among the members of the leading Party group, and continued to accelerate the development of modern enterprise system with Chinese characteristics. The research report “Strengthening the Party's Leadership and Improving Corporate Governance in Grass-roots Enterprises Affiliated to Central State-owned Enterprises” won the second prize of Excellent Research Results of Organization Department of the CPC Central Committee. We set a clear principle of employing people devoted to hard work, performance and sense of responsibility. We selected cadres with responsible performance and outstanding achievements in urgent, challenging and arduous tasks such as tackling difficulties or concerning economic results, scientific and technological innovation, epidemic prevention and control and deepening reform. We promoted allocation of cadre resources throughout the whole group. In 2021, the cadre selection and promotion work was rated “good” by 96.8% employees, reaching another record high. We strengthened supervision on both job performance and cadre attributes, formulated and implemented Interim Measures for the Comprehensive As-

essment and Evaluation of Leading Bodies and Leading Personnel and Measures for Promoting the Scheme of Preparing for Both Promotion and Demotion. For five consecutive years, we achieved comprehensive, networked and standardized assessment on cadres across the Group, so as to ensure that they take responsibility under accurate assessment. Cultivation for young cadres was placed as a strategic project, which matters to our overall development, and plans were continuously pressed ahead, including the echelon training plan for leaders, and “The Three Hundred and Three Thousand Post Exchange” campaign. We fully implemented the “Three Year Action Plan on Deepening Reform”, continuously strengthened the allocation and management of external directors, established the boards of directors when needed in our subsidiaries, and had external directors take majority seats in all boards. On selection and appointment of cadres, we developed an IT based management and supervision system and completed the supervision, inspection and improvement of governance. The overall evaluation on the selection and appointment of cadres and that on strict supervision and management of cadres were rated “good” by 93.52% and 94.95% of employees, respectively, rising for four consecutive years and reaching a new record high. We had the senior management complete the reporting of related personal matters, and maintained 98.28% authenticity and validity in key inspections. We carried out follow-up check to rectify ill phenomenon of “making profits by taking advantage of the Company”, and conducted thorough examination and rectification regarding issues of “shadow companies”, “shadow

shareholders", irregular business behavior of the management leadership's family relatives, and illegal acquisition of overseas status. We issued *Administrative Measures for the Institutional Establishment under Sinopec (Trial Version)* to strengthen the optimal allocation of institutional establishment resources, and formulated *Management Measures for the Deliberative and Coordination Body of Sinopec Headquarters (Trial Version)* to streamline and standardize such institutions and reduce their total number by 35%. We issued a series of systems such as the Assessment and Evaluation Measures for External Directors of Sinopec Subsidiaries (Trial Version), established a management system for external directors. We set up the talent pool and organized training for external directors. The ratio of incompetent managers to quit and competitive managers to take up positions reached 7.15% and 65.85% respectively, both higher than the average level of central State-owned enterprises.

Employee team building, training, and development

We implemented the spirit of the Central Talent Work Conference and the Central SOEs Talent Work Conference, held the company talent work conference, and implemented the talent development plan both in the 14th five-year-plan period and in medium and long term period. We continued to provide channels for talent development, appointed chief scientists and chief engineers and technologists, and created more room for talent development. We improved the recruitment and management of experts, optimized and adjusted the number of positions, recruitment conditions, remuneration, assessment and evaluation of experts. By the end of 2022, we had employed 4,462 experts of various types and 1,501 senior and high-level technicians. We expedited selection and training of high-level talents, and a number of outstanding employees won national honorary titles. We stepped up young talent development and cooperated with Imperial College London to train 13 young scientific and technological doctorates. We optimized vocational competition mode to shift from "elite competition" to "all employee competition", with four national competitions and five corporate competitions held. We intensified efforts to introduce cutting-edge talents that are high-quality, sophisticated, and urgently needed but in short supply. We continuously promoted the "Double Hundred Plan", and introduced 74 advanced talents. We forged ahead with the efficient and optimal allocation of talents within the group, encouraged and supported talents to work in understaffed business units related with new projects, grass-roots front-line, or urgent, challenging and arduous tasks. In total, we have optimized the allocation of 1,323 talents within the group throughout the year. We carried out evaluation on innovation achievements in technical and professional talents. One hundred award-winning achievements were commended to further motivate skilled talents. We continued to strengthen the overall guidance and planning of talent development and training, improved the high-quality education and training system, promoted the training of various key talents, strengthened the Party school system, and guided subsidiaries to strengthen grassroots front-line training. We trained 5,732 key talents at the Headquarters throughout the year, and the time length for annual online training exceeded 55 million class hours. We brought in nearly 10,000 college graduates to boost employment in the

nation. The company was conferred by IACEE of UNESCO the 2022 Award for Corporate Leadership in Continuing Engineering Education for its successful practice in "Zhaoyang (Morning Suns) Young Talent Program", and the 2022 Excellence in Practice Award by the The Association for Talent Development (ATD) for International Project Manager Training Program.

Employee remuneration and performance assessment

We established an evaluation index system and self-evaluation model for market-oriented employment mechanism. We built up human resource pool to appoint the right people on the right positions and orderly personnel transfer in the market. We signed dual contracts of both labor contract and recruitment agreement, and explored market-oriented employment mechanisms in "Double Hundred" Subsidiaries and the sci-tech research affiliates of Science Reform Demonstration Initiative. We guided all the subsidiaries to formulate management measures and plans for professional employee development and recruitment. We designed new apprenticeship as a new way to train and introduce highly skilled employees. We actively organized personnel allocation, transformation for the employees of Sinopec Hubei Chemical Fertilizer Company after its relocation, and coordinated 18 organizations within and outside the province to offer recruitment in 838 positions. We launched a special campaign to address the issues of unpaid wages for rural migrant workers, with zero such cases of unpaid wages. We have improved the salary assessment management system, revised about 15 systems and detailed rules, including the assessment and remuneration of senior managers, the "1+3" assessment on the business performance of top management, the "1+6" medium and long term incentives, the reward mechanism for chairman and president in the subsidiaries, and the deepening of the reform of the internal distribution system. We carried out the business performance assessment with high quality. The company obtained A-level in the assessments for 2021 and for the tenure of 2019-2021, and was rated by SASAC "Company of Excellent Performance" and "Company of Outstanding Contribution in Sci-Tech Innovation", and it had been awarded "Advanced central SOEs in Assessment and Distribution Work" for 14 consecutive years. We improved the overall payroll determination mechanism to relate and adjust compensation with economic results, introduced in 2021 annual performance assessment the market benchmark in compensation, and formulated special incentive measures to award outstanding performance and profit-making contribution in 2022, with an aim to motivate subsidiaries for quality and economic growth. We improved the labor cost regulation mechanism and promoted subsidiaries to increase the labor cost input and output rate. We improved the incentive mechanism to encourage scientific and technological innovation, developed the medium and long term incentive mechanism, including excess profit sharing program in Sinopec ZRCC and Sinopec Catalyst Co., Ltd., the restricted stock incentives in Sinopec Oilfield Equipment Corp., and project profit sharing incentive in Sinopec Jiangnan Petroleum Engineering Co. We improved the overseas performance assessment and compensation mechanism, carried out internal survey and external observation and worked out the investigation and analysis report, which laid the foundation for optimizing overseas performance assessment and compensation management.

Digital Transformation

Building digital business into the cornerstone of for development

"Sinopec Smart Cloud" Industrial Internet platform. We built a service system with three centers of "service management and control, opening source and continuous delivery". 58 business components of 5 categories had been put on the shelves, which could provide more than 50 technical services of 11 categories, and more than 10,000 API services had been released.

Data service platform. More than 5,000 API data services had been formed, with headquarters and subsidiaries calling

863 million services throughout the year, creating a batch of typical data applications such as risk management, refining and petrochemical business and finance integration, financial price analysis, customer service analysis, and group production and operation.

Group level data centers. We built a remote data center in Hohhot, forming a "two locations, three centers" application backup model for the group's data center, with a cloud resource capacity of 470,000 cores and 69 PB. We also built a mixed cloud for state-owned assets and central enterprises, piloting a "one cloud, multi-cores" information and innovation resource pool, and setting up a ring network of Chaoyangmen, Shahe, and Hohhot data centers.

National level demonstration leading the upgrading of the petrochemical industry

We had undertaken a total of 12 national pilot and demonstration projects. The *digital twin intelligent ethylene* had been selected as one of the top ten artificial intelligence demonstration application scenarios by the Ministry of Science and Technology of China. The "Construction and Application of Artificial Intelligence Infrastructure" had been selected as a demonstration project by the National Development and Reform Commission. The "Sinopec Intelligent Cloud" had been selected by the

State owned Assets Supervision and Administration Commission of the State Council as a public cloud in the central enterprise industry. "Industrial Internet + safety production", "Industrial Internet + equipment", "5G infrastructure construction and application" and other projects had completed the pilot work. The *Guidelines for the Construction of Intelligent Manufacturing Standard System in the Petrochemical Industry (2022 Edition)* had been accepted by the Ministry of Industry and Information Technology of the People's Republic of China and officially released.

Digitalization and intelligence of business management reached a new level

We built a financial intelligent analysis and decision-making system, improved global treasury management functions, completed the online application of interest rate, exchange rate risk, and credit risk management, and accelerated the construction of a strategic and intensive financial control system. We improved and enhanced the integrated investment optimization

and control platform, and accurately supported the full lifecycle management of investment business. We built a big data platform for industry audit integration, established and used nearly a hundred audit models, supporting online management of the entire audit project process. Sinopec's "the Great Wall Chain" (block chain) had achieved cross-chains docking with the Guangzhou Internet Court, and the "Sinopec E-signing" electronic signing platform had been built and put into use. The contract signing and filing time had been shortened from 13.5 days to 3.25 days.

New achievements in the digitization of production and operation

The headquarters intelligent operation center deepened its application, supporting cross-business and cross-sector operation analysis, deepening model application, and assisting in sector collaborative optimization, revenue generation and efficiency creation. We promoted the application of safety and environmental protection, significantly reduced the rate of hazardous chemical transportation accidents, achieved visualized supervision of environmental emissions throughout the Company, covered 99 subsidiaries with a carbon asset system with each production unit monitored, shortened the inventory cycle by half, and enhanced the energy conservation and carbon reduction control capabilities of subsidiaries. The construction

of exploration and development data resource centers and exploration and development decision support systems in the oil and gas new energy field had been carried out, and three intelligent oil and gas fields, including Shengli Ocean, had been upgraded and expanded through pilot projects to fully launch their main functions. The refining and chemical industry had completed the main functions of six intelligent factories, including Guangzhou Petrochemical Company, and achieved good results in integrated planning and scheduling optimization, production and operation decision support, and emergency response speed. Sinopec had built a total of 15 intelligent factories. The number of oil product sales domains had completed the switching and launch of new fuel card systems for 8 subsidiaries. Beijing Sales Company and Hebei Sales Company provided on-board refueling and hydrogen refueling services for the Winter Olympics fleet.





Trade service platforms supported the development and growth of the new economy

Sinopec chememall platform had created a standard and distinctive application in the chemical industry, realized scanning and querying the quality inspection documents with 37 production subsidiaries, expanded the transaction mode, strengthened the information integration with suppliers and customer systems, strengthened the collaboration between upstream and downstream industrial chains, and realized the sales of chemical products sold by 21 production subsidiaries on the platform. EPEC platform continued to give full paly to enhance resource aggregation capabilities, and offered 7.84 million types of online products. 1,102 platform subsidiaries opened EPEC services, with a transaction amount of 557.8

Honors of Digital Transformation

The data service platform was awarded DAMA China’s Best data governance Excellent Product Award. The integrated investment optimization and control sharing platform won the Excellent Award at the 2022 IDC China Future Enterprise Award. Shengli Oilfield, Zhenhai Refining and Chemical Company, Zhongke Refining and Chemical Company, Hainan

billion yuan and an online payment volume of 117.8 billion yuan in 2022. The Easy Joy service platform promoted application scenarios such as “Easy Jet Mall”, one-click on board and one-click home delivery services, exploring an integrated online and offline shopping model for online ordering and store pickup, creating employee distribution applications, and continuously expanding new business growth points. The business travel platform built a business travel data cockpit and visualized services, improved travel management and reimbursement management, and achieved a high-quality, fast, green, and low-carbon travel experience for employees who travel without ticket collection, reservation without advance payment, and reimbursement without offering invoices, helping to save more than 57 million yuan in travel costs.

Refining and Chemical Company and other subsidiaries were rated as industrial internet pilot demonstration, digital pilot enterprises, and clean energy refining and chemical intelligent manufacturing demonstration plants by the Ministry of Industry and Information Technology. Sinopec’s practical achievements in promoting digital transformation won the first prize of the 29th National Enterprise Management Modernization Innovation Achievement Award.

Audit and supervision

In 2022, the audit departments at all levels of Sinopec adhered to the philosophies of “strengthening auditing through political requirements, orienting the work towards risk response, safeguarding the economy, and providing value-added services”, strived to “transition traditional hands-on experiences to digital, network, and intelligent auditing, reallocate audit resources from olive shape ones to dumbbell shape ones, alter post-audit to pre-audit and mid-audit, and integrate specialized auditing to the overall supervision, and better leverage supervision”, comprehensively fulfilled the “four functions”, i.e. to ensure the major policies and guidelines of the national government and CPC as well as crucial strategies of Sinopec imple-

mented, to oversee Sinopec carry out legal and compliance operations, to guarantee the high quality growth of Sinopec, and to carry forward clean and honest administration. We carried out 1,139 audit projects, including 243 economic responsibility audits, 231 fixed assets investment audits, 23 financial capital audits, 94 internal control audit evaluations, 23 equity investment project audits, 5 final account audits for IT project, and 1 liquidation audit. We conducted 519 special audits or audit investigations on financial risks, financial derivatives, overseas investment management, and the three-year action on deepening reform, effectively exerting the benefit of audit supervision.

Corporate Culture Cultivation

Core Values

Corporate Mission: Powering for a better living

Adhering to the human desire for a better life as the direction of enterprise development, we did our best to provide society with more advanced technology, higher quality products, and more thoughtful services; we complied with the sustainable development path of green and low-carbon, and built an industrial structure and production mode that was conducive to resource conservation and environmental protection; we sought win-win cooperation, continued to develop and grow, bringing blessings to all stakeholders and adding luster to a better life for humanity.

Corporate Vision: Building a world leading clean energy and chemical company

Consolidate energy base, firmly shouldered the three core responsibilities of ensuring national energy security, leading the high-quality development of China’s petrochemical industry, and assuming the national strategic scientific and technological strength; accelerated building the “one base, two wings, and three new growth points” industrial pattern, to provide strong strategic support, livelihood guarantee and spiritual appeal.

Corporate Values: Putting people first, Responsibility, Integrity, Meticulousness, Innovation, and Win-win

The corporate values of “putting people first, responsibility, integrity, meticulousness, innovation, and win-win” were the core values that all employees of Sinopec adhered to in building a world leading enterprise.

Putting people first-Keep people oriented, while developing Responsibility-Serving the country and the people, benefiting humanity

Integrity-Delivering promises and operate in compliance
Meticulousness-Fine and rigorous, ending in perfection
Innovation-Innovation leads and pursues excellence
Win-win-mutual benefit, and common development



Corporate way of doing things: strict, meticulous and practical

Being “strict, meticulous, and practical” was the corporate style that Sinopec strived to cultivate on the basis of adhering to and promoting the fine traditions of petroleum and petrochemical industry.

Strict: It meant “three honests and four stricts” and “being strict” came first. Strict requirements, strict organization, strict attitude, and strict discipline should be in place.

Meticulous: It meant “precision and rigor”. Always held a “magnifying glass” in your work, and meticulously controlled every node in the process, step by step.

Practical: It meant “seeking truth and pragmatism”. Persist in being an honest person, speaking the truth, and doing honest things. Work steadfastly, be a clean and honest person, calm down to seek development, and sink down to do things.

Inheriting the spirit of petroleum industry and promoting the tradition of petrochemicals sector

The corporate spirit of “Loving China, Revitalizing Petrochemical Industry” greatly inspired the enthusiasm of cadres and employees to strive for the revitalization of China’s petrochemical industry. Over the past 40 years, Sinopec had always inherited the petroleum spirit centered on hard and solid work, as well as the “three honests and four stricts” principles. We had promoted the tradition in petrochemical industry with the main connotation of “patriotism, precision and rigor, and seeking truth and pragmatism”. We adhered to the oath, worked hard, and played an important role in establishing and developing China’s modern petrochemical industry system.

To consolidate corporate culture and support enterprise development

The Guiding Committee for the Construction of Spiritual Civilization of Sinopec had been established, and the *Management Measures for Cultural Construction of Sinopec Enterprises* and *Publicity and Management Measures for the Model Selection* were revised and issued. The organizational and management system for cultural civilization construction had been further improved. We continued to promote the inheritance of the spirit of petroleum industry and the traditional education of petrochemical industry. We selected the second batch of 10 Sinopec red education bases, organized the selection of Sinopec’s excellent stories, guided cadres and employees to inherit the red gene and pass on the great spirits internally, and shaped and improved the image of “a good enterprise for the Party and the people” externally. We continuously promoted the selection of major advanced models, the memorial rooms of Academicians MIN Enze and CHEN Junwu were selected as national education bases, and ZHANG Weihua was selected as an outstanding volunteer for the “Four 100” national programs. The Company organized the selection of the “Top Ten Pacesetters” for spiritual civilization construction and the “Top Ten Projects” for excellent volunteer services, effectively playing a leading and exemplary role in leading major advanced models, and further stimulating the enthusiasm of cadres and employees to work with more dedication and creativity, which had condensed the positive energy to promote the high-quality development of the Company.

Brand Building and Management

In 2022, focusing on the soft power system characterized as “four in one”, i.e, nurturing the spirits through Party building, consolidating the foundation through management, inspiring the souls through culture, and adding value through brands, Sinopec realized the goal and requirement of adding value to the brands, enhanced strategic integration of brands, concentrated on the leading role of brand philosophy , developed the brand of Sinopec Group together with those of our subsidiaries, facilitated the increase in brand value, and improved the brand image. The brand value of Sinopec stood at 327.571 billion yuan, up by 18.98 billion yuan, ranking No.1 in the domestic energy and chemical industry and No.3 nationwide for 6 consecutive years. The brand value of Sinopec businesses raised substantially, among which, that of “Easyjoy” reached 19.753 billion yuan, up by 1.353 billion yuan, “Great Wall Lubricant” scoring 8.273 billion yuan, up by 23 million yuan, “Epec” hitting 10.674 billion yuan, up by 200 million yuan, and “Sinopec Oilfield Equipment Corporation” recording 643 million yuan, an increase of 63 million yuan.

The systemic construction of brands further improved. We updated and issued *Sinopec Brand Structure Management Methods*, and strived to lead the central enterprises. Sinopec has been awarded “No.1 Central Enterprise in Brand Construction” by SASAC two years in a roll.

The brand bench-marking initiative was launched. We developed corporate brand bench-marking system and platform for our own subsidiaries, and fostered quality growth in brand management. We completed the brand bench-marking for 131 subsidiaries from 6 dimensions including brand strategies, brand management, brand circulation, brand guarantee, specific brands, and accreditation by Sinopec Group, and formulated a bench-marking analysis report for all the subsidiaries. We also explored the improvement in indicators of bench-marking on the corporate level, so as to add the indicator of brand influence.

The brand image was promoted via internal and external media channels. We put much effort into China Brand Day, themed as “To Build a Quality Power, To Enjoy Chinese Brands”, and highlighted the brand commitment as “Clean Energy and Beautiful Life”. A signed article of Ma Yongsheng, Chairman of Sinopec Group, themed as *To Shoulder Responsibilities, To Contribute Brand Power* was published on People's Daily (special cover for China Brand Day). We planned and rolled out large-scale special series of reports titled as *Hundred Companies Talking About Empowering China Through Brands* on



the convergence media matrix of chinanews.com. We posted related contents and reports on “Chairman's View on Brands” on Sinopec's convergence media platforms as Fenjin Sinopec, Learningpower, Toutiao account, and Yidian news account, and joined hands with our subsidiaries to expand publicity, forming great impetus through synergy.

Brands were further integrated into the businesses. We selected and prioritized a batch of new energy and new material companies with specific industrial traits and innovative businesses, kicked off the second round of brand pilots (in Zhongyuan Oilfield, Yanshan Petrochemical Company, Sinopec Star Company, Chongqing Marketing Company, Zhejiang Marketing Company, and Sinopec Beijing Research Institute of Chemical Industry), enhanced the effects of demonstration projects, and fostered a sounding environment for brand construction. We pushed forward the creation of “Ecorigin”, the degradable material brand, assisted Sinopec Oilfield Service Corporation to integrate its brands, guided Baichuan Company to set up its brand of “Baichuanxingfu”, and engaged in building powerful service brands.

The logo standardization was further intensified. We completed the standard upgrading of pro bono logos, and classified their application into five categories as social benefits, environmental protection, rural revitalization, social services, and universal and others, specified logo utilization scenarios, defined the access standards and utilization rules, improved and refined graphical logos, and resolved the problems encountered by the companies occurred during rural revitalization.

Research results were summarized. We summed up the brand construction work, straightened out the brand work methodology and standard courseware with Sinopec features and models (i.e, specialties, characters, and self-owned, and modes, patterns, and models). We also initiated the course study on *The Strategies and Pathways for Sinopec Brand Value Increase*, explored the strategies and pathways for increasing brands with Sinopec characteristics.

Party Building

In 2022, adhering to the guidance of XI Jinping's Thought on Socialism with Chinese Characteristics for the New Era, the Company's party group deeply studied and implemented the spirit of the 20th CPC National Congress and the important instructions by General Secretary XI Jinping during his inspection to Shengli Oilfield, implemented the general requirements for Party building in the new era and the organizational line of the new era Party, consolidated and deepened the achievements of party history learning and education, and the implementation of the spirit of the National Party Building Association for State owned Enterprises. In accordance with the overall thinking of the Company's Party building work “1355”, guided by the theme action of “keeping in mind the instructions, making new accomplishments, creating new achievements, and welcoming, studying and implementing the 20th National Congress spirits”, we strived to promote a more solid, high-quality, and effective comprehensive and strict governance of the Party, providing strong guarantees for building Sinopec with strong strategic support, strong livelihood guarantee, and strong spiritual appeal.

Self-building of the Leading Party Member Group

Strengthening the Leading Party Member Group's Self-Building. The Leading Party Member Group took the lead in studying, publicising and implementing the guiding principles set out at the 20th Party Congress, resolutely implemented the important instructions given by General Secretary XI Jinping during his inspection on the Shengli Oilfield, and promoted 45 key tasks in 8 areas of the Campaign with the theme of of “remembering the mandate, making new achievements, and welcoming, studying and implementing the 20th Congress”. The Leading Party Member Group took the lead in implementing the “first agenda item” mechanism, strictly enforced the *Instructions for the Leading Party Member Group to thoroughly Implement General Secretary Xi Jinping's Important Instructions*, collectively studied 78 General Secretary XI Jinping's important speeches and instructions at 49 meetings. The central group of the Leading Party Member Group carried out 14 special studies to promote in-depth study, research and deployment, implementation, tracking and supervision, and report and feedback. The Leading Party Member Group took the lead in exercising full and rigorous Party self-governance, conscientiously implemented the main responsibilities, regularly studied and decided on major matters relating to Party building, and promoted the resolution of outstanding problems. Members of the Leading Party Member Group effectively fulfilled their “double responsibilities” through meetings, research, inspection and guidance, led the promotion of exercising full and rigorous Party self-governance. The Leading Party Member Group took the lead in implementing the central Party leadership's eight-point decision on improving conduct along with detailed rules for its implementation, inherited the spirit of oil

workers and carried forward the traditions, consolidated the results of the practical activities of “address practical matters for the masses”, implemented 18 practical projects for people's livelihood, and effectively solved the urgent, difficult and worrying problems of the staff.

Strengthening the leadership of the Party in improving corporate governance. Adhering to the “two consistent”, the Leading Party Member Group advanced the decisions on the list of major matters relating to the Party building and the integration of list of major business management matters to be studied and discussed by the Leading Party Member Group into internal control management, embedded the list of “three major and one important” decision-making matters, developed and built the headquarters decision-making information system to promote the list of decision-making authority, the processes of list and the informatization of processes. The study and discussion of major management matters were regarded as important aspects of the Leading Party Member Group's overall leadership responsibilities. All the motions submitted to the Board of Directors for consideration, such as the upgrading of refining and chemical subsidiaries and the carbon peak action plan, were passed and put into practice in an orderly and effective manner, so as to achieve unity between the leadership role played by the Leading Party Member Group and the fulfillment of duties by the Board of Directors and the management in accordance with laws and regulations. We strengthened the classified guidance for directly affiliated enterprises, focused on 30 key subsidiaries, established a “list-system” linkage mechanism, and promoted the effective linkage of “two lists” of the Party Committee with the internal control authority guidelines and the “three major and one important” decision-making system.



Work on Party-masses Relations

Implementing the 20th CPC National Congress Spirit with high quality. We successfully completed the recommendation of representatives to the 20th CPC National Congress and representatives of central enterprises in Beijing, and provided services to the representatives. Seven representatives from the Sinopec attended the Congress, and worker representative JIANG Zhiguang was elected as a member of the Congress presidium. We developed the *Key Measures for Preventing and Resolving Important Risks and Embracing the Opening of the Congress* with strict implementation. We made overall efforts to study and implement the work at the three levels of the Party, the League, the United Front Line, and the headquarters departments. We trained the members of the United Front, the advanced model workers, and the representatives of young employees. We set up special columns on the Party building platform, WeChat official account, and the office portal. We organized the Company's CPC National Congress representatives make extensive speeches at the grass-roots level, and conducted a collection of literary and artistic works on the theme of "learning and implementing spirit", and continuously promoted the learning. We implemented 13 key tasks and 64 specific measures of the Party Building Leading Group for the theme action, adjusted and improved tasks in a timely manner according to the spirit, and guided the learning and implementation of new measures and achievements in Party building.

Solid promotion of systematic management of party building. We innovatively adopted measures such as expert discussions on the assessment process and face-to-face feedback on the assessment results. We conscientiously organized and carried out the 2021 Party building assessment, and urged the Party committees of directly affiliated units to further shoulder their responsibilities. We successfully organized the first party committee secretary of a directly affiliated unit to conduct a review of party building work after the establishment of the new party group, with 17 party committee secretaries of directly affiliated units reporting their work in a centralized manner; the first meeting was held for the deputy secretary of the party committee of a directly affiliated unit to report their work, with 10 units reporting their work on-site and 20 units reporting their work in writing. We further improved the mechanism for exerting the role of the Party building work leadership group, and held

three meetings of the Party building work leadership group throughout the year, with 12 research topics. We developed and implemented the *Operating Measures for Quarterly Regular Meetings of Party Building Departments in Directly Affiliated Units (Trial)*, regularly reporting on the situation, exchanging experiences, and jointly answering and tackling outstanding problems, strengthening the overall coordination and daily supervision and guidance of Party building work.

Effectively promoting the integration and mutual promotion of party building work and production and operation. Focusing on combating the epidemic, ensuring the Winter Olympics, and ensuring safe production, we issued the *Notice on Fully Utilizing the Role of Party Organizations as Battle Fortresses and Party Members as Pioneers and Role Models, Further Strengthening Epidemic Prevention and Control Work* and the *Notice on Fully Utilizing the Role of Party Organizations and Party Members to Guarantee Services for the 2022 Winter Olympics and Paralympics in Beijing*. In May and June, when the Company was faced with the most severe production safety challenges, we carried out the Three Checks and Three Strengthens" theme Party day to promote safety in the entire system's Party branches, with Party leaders taking the lead in participating and promoting the key role of Party organizations at all levels during critical periods. We focused on serving as a national strategic scientific and technological force, drew on the experience of the "Investigation Report from Xunwu", organizing and conducted special research on the Party building work of scientific research units, formulated the "Several Opinions on Promoting the Deep Integration of Party building work and scientific and technological innovation in scientific research units", guided party organizations and Party members to fully play their role in the "bottleneck" key core technology research. We focused on party building and strengthened the "three bases", organized special research on grassroots party building work in refining and chemical subsidiaries, and promoted refining and chemical subsidiaries to improve their organic integration mechanism of party branch construction and "three bases" work based on actual conditions. We implemented the "Guiding Opinions on Deepening the Work of Party Building and Co-construction", guided subsidiaries to deepen and expand the "six models" according to local conditions.



Deepening the role of united front group work. We adhered to and strengthened the Party's leadership over united front and group work, highlighted political guidance, and strengthened our role in building the cohesion and contribution of the "Three Strong Sinopec". We implemented the spirit of the Central United Front Work Conference, held a symposium for united front representatives, deepened the implementation of the friendship and friendship system, and ensured that all Party leaders and directly-affiliated units complete the friendship and friendship process; we developed opinions on the construction and implementation of non-party representatives' suggestions and suggestions studios, named 13 studios in the first batch, officially launched the "Concentric Circle" cloud studio, and established a system of non-Party representatives' suggestions and suggestions studios covering upstream, midstream, and downstream. *The Measures for the Implementation of the Workers' Congress of Directly Affiliated Units* were formulated,

Ideological Work

Strengthening guidance. We formulated the *Implementation Opinions on Strengthening and Improving Ideological Work in the New Era*, ensuring that it was incorporated into the company's annual work, and assessed the results, turning "soft indicators" into "hard KPIs", and promoted the powerful and effective work results.

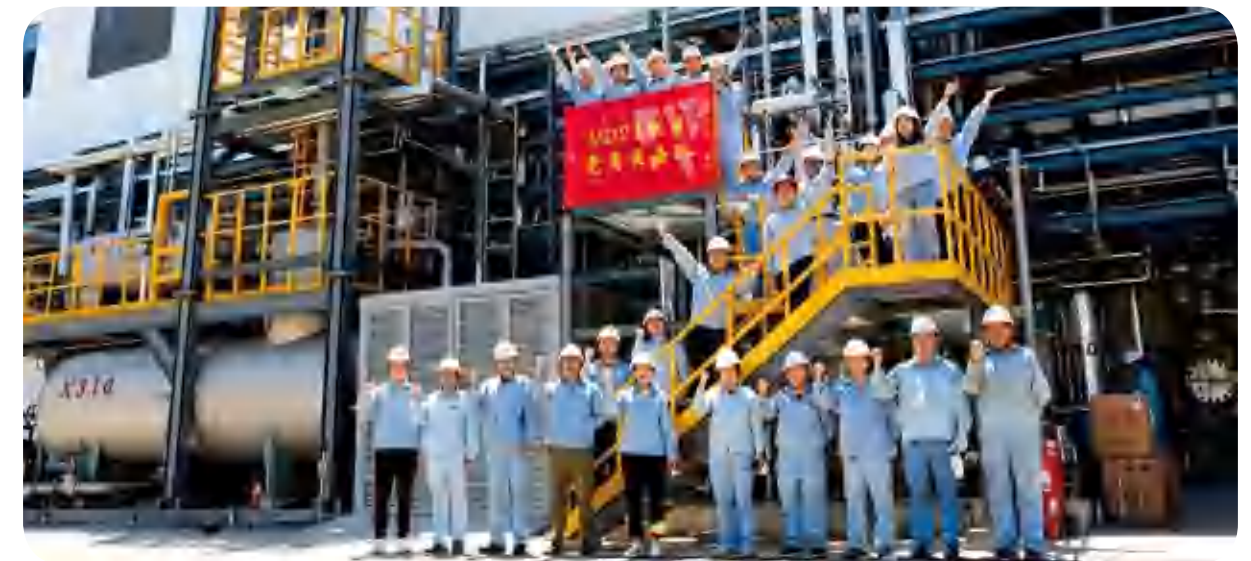
Strengthening education on the situation and tasks. We focused on communications and guidance of the themed "remembering the instructions, making new achievements, and celebrating the 20th Party Congress", issuing 40,000 copies of key notes on the education on the situation and tasks, organizing nearly 500 lectures, and exhibited 10 videos of model cases. In addition, there were more than 27,800 media reports, creating a great atmosphere for the solid promotion of the themed programme. In the face of adverse effects such as the drastic fluctuations in oil prices and the recurrence of epidemics, we strengthened the ideological education and guidance of employees in the transformation and development of difficult enterprises, enhanced the sense of responsibility and urgency, and helped the reform to advance smoothly.

Strengthening grassroots ideological work. Focusing on

a model worker and advanced collective commendation conference was held, the assistance and rescue of needy workers and the care and care of resident workers were strengthened. The labor competition for the relocation project of "Dongying Crude Oil Depot of Shengli Oilfield", "the 100-day competition for improving the service of gas stations", and the labor and skill competition with the theme of "building a Daqing in Xinjiang, popularizing the petroleum spirit and making new contributions to the new era" were conducted. One subsidiary won the National May Day Labor Award, 7 people were awarded the National May Day Labor Medal, 8 collectives were awarded the title of National Worker Pioneer. A series of activities, such as themed education practices and exhibitions, were held to celebrate the 100th anniversary of the founding of the Communist Youth League. 7 people were awarded the title of National Youth Position Expert, and one person was awarded the title of National Excellent Communist Youth League Cadre.

the fight against the epidemic, supporting the Winter Olympics and safety production, we carried out online surveys of 314,000 people and special survey on young workers, employees of specific enterprises along the Yangtze River and grassroots democratic administration, regularly investigated contradictions and disputes, and made good use of the internal education platform and Employee Assistance Programme (EAP) to effectively resolve risks related to stability. The internal education platform and EAP counseling services were very helpful during the peak of the COVID in Xinjiang, Shanghai, Beijing, Guangdong and other key areas, overcoming difficulties together and uniting for progress.

We cultivated a strong team. insisted on both education and practical training, and accelerated the building of an ideological work team that was mainly full-time, combined with both full-time and part-time, sufficient in number and with good quality. Strengthening the ideological work on the Internet, we gave full play to the advantages of the corporate designated APP platform, and realized theoretical education + public opinion guidance, situation analysis + knowledge popularization and psychological consultation + care, providing important support for innovative online ideological work.



Anti-Corruption

Focusing on “the country’s most fundamental interests”, we promoted the concretization, precision and regularity of political inspection. Focusing on the implementation of the important instructions on “securing the energy supply”, responding to the impact of the Russia-Ukraine conflict on China’s energy security, co-ordinating development and safety, co-ordinating pandemic prevention and control and production and operation, we strengthened political inspection. Especially in response to the once extremely serious situation of safety production, we promptly focused our supervision on safety production, forced strong management with strict supervision, promoted the integration and synergy of the “two responsibilities”, reversed the passive situation, upheld both Comrade Xi Jinping’s core position and the Central Committee’s authority and its centralized, unified leadership with practical actions.

The “three non-corruptions”(do not dare, are not able, and have no desire to be corrupt) were promoted as one. And we continuously cleared existing corruption and curbed the new one. The Company used the “four forms” precisely, improved the mechanism to tolerate mistakes and correct them, and did a good job in terms of the “second half” of the cases investigated and handled. The Company promoted education, rectification, and governance through the cases, and integrated severe punishment of corruption with deepening reform, improving systems, optimising governance, and advancing development, so as to give full play to the comprehensive effectiveness of punishment and deterrence, institutional restraint, and education and warning. The Company organised the “rectifying taking advantage of enterprises and promoting honest practice” anti-corruption education month campaign, held a system-wide warning education conference, and constantly enhanced the effectiveness of education, to create a strong atmosphere of integrity.

With the tasks of rectifying pointless formalities, bureaucratism, hedonism, and extravagance and fostering new conducts being advanced at the same time, the Company consistently improved Party conduct. Targeted at hedonism and extravagance, the Company seriously investigated and dealt with violations of the central Party leadership’s eight-point decision on improving conduct. Through special inspections, unannounced visits, level up control, notification and exposure,

Inspections by the Leading Party Member Group

Rectification after the Central Inspection continued to deepen and expand. The Company conscientiously implemented General Secretary Xi Jinping’s requirements on rectification through “four integration”, fully addressed the problems reflected from the 2019 central inspection. The synergy of rectification was further enhanced. The Company regularly convened meetings to study and convey the deployment requirements of the central inspection. Secretary of the Leading Party Member Group, the head of the discipline inspection team took the lead in fulfilling main responsibility and supervision responsibility, instructed and supervised the relevant subsidiaries on-site to promote the implementation of rectification measures. The Company continued to deepen and strengthen supervision, strict assessment, focus on key issues, and work on the permanent and long-term effect. Rectification measures were

reminders and warnings, etc., the Company constantly raised employees’ awareness and enhanced responsibility fulfillment. The Company seriously addressed formalism and bureaucracy, with a focus on the field of safety and environmental protection, adopted systematic policy, and carried out system-wide rectification. The Company encouraged headquarter departments and subsidiaries to carry out self inspection and rectification based on 10 common problems sorted out during the system-wide investigation, promoted good experience and practices, improved the safety and environmental protection incident investigation and accountability procedures, built a solid conduct protective screen for safety and environmental protection. The Company improved conduct greatly through promoting meeting discipline, released the burden of the subsidiaries, guided employees to inherit the spirit of oil workers and carry forward the tradition.

The Company deepened and expanded the “overall supervision” pattern, and constantly improved the supervision system. We strengthened the overall supervision of the Leading Party Member Group, convened regular meetings of the supervisory committee, built a closed-loop management of problem identification, rectification and implementation, supervision and spot-checking, and accountability, and continuously improved the effectiveness of “overall supervision”. The Company built and made good use of “overall supervision” information platform, improved the level of informatization for supervision, extended the “overall supervision” tentacles, brightened the “overall supervision” eyes. We strengthened the supervision of “heads” and the leadership teams, revised and improved the management rules for businesses run by relatives of leading personnel and political ecology evaluation system, and accurately carried out “portrait” evaluation. We strengthened the supervision of key projects, carried out seven special inspections on projects including the relocation of the Dongying Crude Oil Depot and the Green Hydrogen Project in Kuqa Xinjiang, guaranteed the efficient, safe and clean operation of the projects. The Company also promoted the special rectification of the problem of taking advantage of enterprises and the comprehensive management of “exercising strict financial discipline and legal compliance” to effectively improve the quality and effectiveness of supervision and establish the foundation of clean and compliant management.

further improved. The Company dynamically updated the central inspection and rectification ledger, continued to refine the list of problems, tasks and responsibilities. Based on the spirit of the Central Economic Work Conference and the requirements of the meeting of the heads of central enterprises, the Company added 7 rectification measures. The effect of rectification was further deepened. The “red, yellow and green lights” supervision mechanism and the “monthly tracking, quarterly analysis, half-yearly review and annual summary” mechanism were used to effectively strengthen process control and closed-loop management, focus on rectification matters that have been persistently deepened in the long term, regularly follow up and supervise the implementation of the rectification and improvement measures, and resolutely prevent the recurrence of the problems.

The quality and effectiveness of the Leading Party Member Group’s inspection continued to improve. The Leading

Party Member Group gave full play to the role of an integrated inspection supervision platform, continued to promote the integration of inspection and supervision into the general supervision pattern, and led the way in ensuring that the major decisions and deployments of the Party Central Committee and important work arrangements of the Leading Party Member Group were implemented. With prominent focuses and system interaction, the Company’s inspection was carried out in a combination of conventional, special, flexible and “look-back” inspections. Throughout the year, two rounds of inspections were carried out on 58 subsidiaries (headquarter departments). In the first round, 32 organisations were inspected, with the conventional inspection highlighting “ending well” and completing full coverage with high quality, the special inspection highlighting “solving difficult problems” and focusing on “guaranteeing energy supply” and “ecological protection of the Yellow River Basin”, the flexible inspections highlighting “short and quick”, focusing on the core functional responsibilities of headquarter departments and strengthening supervision in the financial sector to prevent and resolve risks, and the inspection “look back” highlighting “the effectiveness of the treatment”, focusing on responsibility implementation and results application to improve the effectiveness of the rectification. In the second round of inspection on 26 subsidiaries, the study and dissemination of the guiding principles set out at the 20th Party Congress were the focuses of supervision. The Company carried out special inspections on the implementation of the important instructions given by General Secretary Xi Jinping during his inspection on Shengli Oilfield, special inspections of safety production and flexible inspections of headquarter departments. We also worked to help build a firm line of defence for production safety. The Company carried out special production safety inspections on 104 subsidiaries by means of “online + offline”, to supervise the implementation of production safety responsibilities. Two special working groups were set up to carry out production safety supervision in the E&P and refining sectors, and to fully rely on the inspection teams to carry out “three-in-one” “look back” inspections of Shanghai Petrochemical and Baling Petrochemical, special inspection and supervision of safety production, and help Shanghai Petrochemical to resume work and production and incident investigation. The Company carried out special inspection of safety production for the Safety Supervision Department, Qilu Petrochemical and Maoming Petrochemical, and to supervise the guarding “three lines of defence” of safety production. Through the guidance from the upper levels to the lower ones and the shared solutions for the common problems, the Company continued to carry out well the second half of the inspection. The Secretary of the Leading Party Member Group presided over the inspection leading group meeting, listened to the inspection report with specific personnel, issues and problems pointed out, clarified rectification requirements, held a Leading Party Member Group meeting to listen to the inspection rectification report, guided the inspection from the management level. President took the lead to promote the deep integration of the rectification of problems reflected from the inspection with quality and efficiency improvement of production and operation. The head of the discipline inspection and supervision team went to a number of subsidiaries to supervise and promote the rectification. The Company’s leaders attended a total of 17 inspection feedback meetings and worked on site to promote the rectification of the relevant issues. The company did a good job in supervising the rectification, summarizing the rectification after each round of inspection, analyzing the common problems in the rectification



of the subsidiaries, and strengthening the guidance and supervision of the rectification by taking one example from another, and making every effort to push the inspected subsidiaries to fully fulfill the responsibility of rectification and refine the rectification measures.

The inspection work of the Party Committee continued to be effectively promoted. The level of standardisation continued to improve. 163 inspection teams were formed by the Party Committees of 66 directly affiliated organizations to carry out inspections of over 600 Party organisations. The Party Committee Inspection Workbook for Directly Affiliated Organizations was optimised and upgraded. 7 subsidiaries, including Henan Oilfield and Jiujiang Petrochemical, were instructed to carry out special inspections on production safety through on-site research and other means. Forty-eight subsidiaries, including Shengli Oilfield and Jinling Petrochemical, included the supervision of production safety in their inspections, and supervised more than 300 party organisations. The Company followed up and guided Jingmen Petrochemical and Sinopec-SK Petrochemical to promote cross-inspection, further solving the problem of supervision in a “acquaintance society”. SIPC, SSC and Unipet explored overseas online inspections to promote the continuous resolution of major risks and the high-quality development of overseas business. We continued to increase our support and guidance. We explored the development of an inspection expert service line to help and guide subsidiaries with slow progress in inspection work. “Online + offline” lessons were given to more than 10 subsidiaries, including Marketing Company and East China Oil and Gas Company, to promote the improvement of the teams’ capacity. The Company strengthened supervision of inspection and review of preparation materials, found the shortcomings of the work, carried out special counselling and improved the effectiveness of guidance. The role of the typical guide continued to be strengthened. The Company deepened the linkage between inspection and examination at different levels, promoted inspection and examination training as a whole, summarized the characteristic practices, innovative practices and effectiveness of inspection work, collected 117 inspection cases, submitted 13 typical cases to the Central Inspection Office, and compiled and distributed 37 excellent cases of inspection work of party committees of directly affiliated organisations. The Company carried out research and discussion on overseas inspection, asked for demand, advice and suggestions, promoted the exchange of experience, shared special practices and the common answers to the same questions. We promoted research on inspection subjects and the building of a teacher and course library, selected 20 excellent inspection courses by experts, and promoted the systematic improvement of the inspection quality.

Social Responsibility

● Employee Health and Safety

● Green and Low Carbon

● Social Welfare



Employee Health and Safety

Work Safety

Strengthening and promoting effective operation of the safety accountability system. Through carrying out work safety education and publicizing work safety laws, we further raised the safety awareness of all employees. The company's leadership signed safety responsibility agreements with the heads of relevant departments, business divisions and direct subordinate units, specifying the terms of accountability and responsibility. The company also implemented safety collateral for high-risk affiliates and organised HSE debriefing and evaluation for newly appointed leaders to promote safety responsibility. The training and certification of key HSE personnel were carried out to enhance their ability to fulfil responsibilities. Video conferences were held to promote HSE management system, share best practices and make up for shortcomings. We optimised the sub-committees of the HSE Committee, clarified the division of responsibilities among the headquarters departments in the management of system, and regularly carried out statistical analysis of indicators. We revised and improved the system audit rules, trained audit staff, organised special system audits and assistance to key affiliates, carried out on-site system audits to 82 enterprises, traced and analysed problems and promoted continuous improvement of safety management.

Enhancing risk control and hidden danger management to promote inherent safety. The company's nine major safety risks were downgraded or eliminated and 20 other major hidden risks were properly managed. We concluded the three-year special rectification action on work safety and completed the rectification of problems and hidden risks as scheduled. We promoted safety risk control and hidden danger management with 109 affiliates completed construction of "double prevention digital intelligence control platform" and 207 sets of risk checklists compiled and applied, realising online risk identification and assessment, hidden danger investigation and risk monitoring and early warning of major risk sources. We applied tailored monitoring to 405 sets of old facilities, carried out long-distance transmission pipelines risks evaluation and removed hidden risks, completed the construction of offshore petroleum safety risks monitoring and early warning system, and carried out the in-depth safety risk assessment of manned platforms and the safety assessment of the main structure of ageing platforms.



We organised special investigation and rectification of gas and lightning hazards for oil and gas storage facilities, and completed special investigation and treatment of high-risk sectors.

Adhering to problem orientation in strict control of safety risks in key areas. We revised the "7+1" direct operation safety management system and produced a warning film on high-risk work incidents. We carried out special rectification of contractor safety with "eight checks and eight rectifications". We implemented the requirements of the Safety Committee of the State Council and organised a company-wide safety inspection. Four safety inspection teams were set up and three rounds of inspections were completed for 51 affiliates. We focused on process control, alarm interlocking and operations control, and carried out random inspections. Before and after the National Holiday and the 20th CPC National Congress, 14 inspection teams were set up to conduct special safety inspections of 42 enterprises. Five offshore petroleum production safety inspections and safety check-ups and audits at four coal mines were conducted. From November 1, 2022 to February 8, 2023, with the theme of strengthening the "three basics", preventing risks and ensuring safety, a company-wide "100-day safety campaign" was launched, ensuring the overall stability of production and operation.

Strengthening emergency management and comprehensively improving emergency response. We organised cross-evaluation of emergency plans for 78 affiliates and an emergency drill in Yangzi Petrochemical Company, and comprehensively promoted the "135" principle of emergency response at the grassroots. We compiled the *Work Plan for Strengthening the Construction of Dedicated Fire Fighting Teams*, making comprehensive plan for enterprises in the next five years. A template of operating procedures for 15 types of typical equipment was compiled, and special assessments of fire safety and fire brigade standards were organised to strengthen the daily management of full-time fire brigades. Through actively participating in social rescue, 14 emergency rescue teams and three individuals were commended by the Ministry of Emergency Management.

Strengthening security management and fulfilling SOE's responsibilities. We promoted meeting key security and anti-terrorism prevention targets, with a total of 26,643 key targets at Level 1, Level 2 and Level 3 met in the enterprises' self-assessment. For the ninth consecutive year, we carried out clean-up and remediation of explosives for exploration in Xinjiang, with a total of 25,096 km of survey lines in 2022. The company organised in-depth geological hazard surveys for five enterprises in the southwest region, forming a "one map" for geological hazard risk zoning and a "one sheet" for risk management, and implemented engineering measures for all medium and high ground hazard risk points. We built a solid base of "three prevention" in security, clarified the high-risk operations that must be carried out to higher management, and completed the "four must not happens" work target. The security and stability during special periods such as the 20th CPC National Congress, the Two Sessions, the Winter Olympic Games, the Winter Paralympic Games and the 5th China International Import Expo were ensured.

Strengthening science and technology innovation to promote safety. Empowering work safety with information technology, digitization and AI, we accelerated the construction and application of the "Industrial Internet + Work Safety" project, and promoted the application of mature industrial apps and intelligent analysis models. We build a geo-hazard monitoring and early warning system to realise intelligent perception of the entire disaster chain, graded risk monitoring and early warning and efficient linkage response. Through building a smart site management platform, we were able to enhance intelligent control of construction site safety. Affiliates accelerated the deploy-

Overseas Security

In 2022, Sinopec implemented the Central Government's instruction of "epidemic prevention, economic stability and development safety" and adhered to the concept of "people-oriented, prevention-oriented and safe development" in its overseas security work. We continued to optimize and improve the management of overseas security, the prevention and control of overseas epidemics and the institutional mechanism for preventing and resolving overseas risks, and maintained zero fatalities in overseas security for 15 consecutive years.

We closely tracked the mutated strains of the COVID-19 and the development of the epidemic. We optimised and improved the normalised prevention and control plan for the epidemic outside China, taking into account the situation and the location. We strengthened the rolling stockpile of epidemic prevention and medical supplies, improved the control of the entire process of people returning to the country, and made every effort to avoid large scale outbreak, and constantly improved the scientific, precise and effective measures. We also actively promoted shift work for overseas employees through multiple channels to ensure the stability of the overseas workforce.

Focus on key issues and continued strengthening of

Employee Health

Strengthening the foundation of occupational health management. We formulated and issued *guidance on the implementation of noise overload hazard management*, shared typical experiences of enterprises, promoted noise management and improved employees' working environment. The "three simultaneous" sign-offs for occupational health professionals in key projects were carried out to achieve source control of occupational disease hazards. We organised 12 video training sessions for occupational health managers, compiled a manual on occupational health management practices, and conducted regular technical exchanges to enhance the quality and capability of the occupational health professional team. We also continued to carry out incoming inspection of personal protective equipment, promoted the flame-retardant anti-static uniform, improving individual protection.

Promoting the construction of healthy enterprises. We strengthened the management of non-production fatalities, standardised information reporting and investigation mechanism, systematically sorted out and analysed non-production fatalities, strengthened "one-person-one-solution" management for personnel at high risk posts, and implemented control measures. We continued with the health promotion pilot

ment of "toxic and harmful gas monitoring systems in restricted spaces", promoted the application of electronic work permits and intelligent identification technology for violations, and improved technical measures for operational safety. We completed the research and release of safety technology standards for new energy industries such as hydrogen, geothermal energy, solar energy and wind energy, and effectively controlled the safety risks of new energy businesses. By implementing robots substitution in high-risk operations, we improved the automation and intelligence of construction machinery.

overseas security management under the new situation. We paid high attention to the prevention of security risks in the context of the continued spread of epidemics overseas, focused on high-risk countries (regions) and key areas of security risks, strengthened overseas security inspections, and conducted emergency drills for emergencies; actively carried out overseas security training, continued to organise the Fast-lane Medical Consultation with doctors, strengthened the physical and mental health management of overseas employees, and improved the overseas public safety management system.

Continuously strengthening the physical and mental health of employees under the new situation. We strengthened the construction of overseas clinics and medical teams to enhance on-site medical protection capabilities. Chinese doctors were dispatched to project sites in Saudi Arabia and Kuwait to provide medical and health training, health check-ups and psychological counselling for Chinese employees, and to gain a comprehensive understanding of the equipment and medical emergency plans at project sites, so as to further improve the physical and mental health management of overseas employees. The construction of an information system for the management and service of the physical and mental health of overseas employees was continuously promoted.

projects and exploring new models of health management. We actively promoted the practice of healthy enterprise construction and participated in the National Healthy Enterprise Construction Excellence Awards, achieving excellent results and receiving commendation from the National Health Commission.

Strict and normalized epidemic control. In the face of the exceptionally severe situation where the Omicron strain continued to mutate and became more contagious, the company's epidemic prevention and control leading group fully and accurately implemented the national epidemic prevention and control strategy guidelines, kept the emergency prevention and control mechanism active at all times, guided the enterprises to adjust the prevention and control objectives and prevention and control strategies in a timely manner, co-ordinated the preparation of personnel, production operation, material supply, logistics services, and the disposal of abnormal personnel, and ensured that the work was carried out in a timely manner. The team also provided guidance to the enterprises in adjusting the prevention and control objectives and strategies in a timely manner, coordinating the preparation of personnel, production operation, supply of materials, logistic services, disposal of abnormal personnel and other work to ensure the stability of the supply chain.

Green and Low Carbon

✎ In 2022, the company thoroughly implemented Xi Jinping's thought on ecological civilization and his important speech made during his visit to Shengli Oilfield, resolutely implemented the major deployments of the Party Central Committee and the State Council on ecological civilization, promoted pollution prevention and control and the special action on ozone pollution prevention and control, comprehensively focused on ecological and environmental protection along the Yangtze River and Yellow River, fully promoted energy saving and carbon reduction actions. The Green Enterprise action plan became an important element in our high-quality development.

For the 12th consecutive year, the company was awarded the title of China's low-carbon role model. In addition, six subsidiaries were awarded "Energy Efficiency Leader" benchmark enterprise for the petroleum and chemical industry category, eight awarded the title of "Water Efficiency Leader" benchmark enterprise, four awarded the title of "Green Factory" in the petroleum and chemical industry, and one chemical product was named "Green Product" for the petroleum and chemical industry in 2022.

Dual Carbon Goals

Peaking carbon emission was pushed forward relentlessly. The *Peaking Carbon Emission Actions* were published and implemented, including actions to improve the supply capacity of clean and low-carbon energy, transform and upgrade the structure of the refining and chemical industry, optimize and adjust the energy structure, reduce energy consumption and pollution, recycle and efficiently utilize resources, support green and low-carbon science and technology innovation, improve green and low-carbon security capacity, and implement green and low-carbon actions for all employees. These actions would steadily promote carbon peaking. The carbon neutral pilot demonstrations were also rolled out with 27 projects completed, including the Jiaze carbon-neutral gas station in Changzhou of Jiangsu Province, the Lianshan carbon-neutral oil depot in Huidao of Liaoning Province, and the PX82 carbon-neutral well site in Pucheng of Zhongyuan Oilfield.

Stepping up greenhouse gas emission reduction. We continued to carry out CCUS research and development to promote China's CCUS industry. China's largest demonstration base for carbon capture, utilisation and storage, and the first million-tonne CCUS project in China, the Qilu-Shengli Oilfield million-tonne CCUS demonstration project was completed and put into operation in August. Oilfield enterprises continued to strengthen closed mixing transmission, vigorously implemented casing gas recovery, promoted the comprehensive use of flare gas, strengthened the recovery of remote scattered wells and other measures. The company

also actively implemented the recovery of flare gas, recovering about 834 million cubic meters of methane and reducing greenhouse gas emissions by about 12.5 million tonnes of carbon dioxide equivalent. We strengthened the centralised management of carbon trading, co-ordinated the surplus and deficit of emission control enterprises, prepared carbon trading plans and set up professional carbon trading teams, and completed carbon quota compliance tasks on schedule, with a carbon trading volume of 2.71 million tonnes and a trading value of 220 million yuan.

Improving carbon emission management. In September, Sinopec Carbon Industry Technology Co., Ltd. was inaugurated, focusing on technology research and development, carbon asset management and operation, and project equity investment to provide comprehensive solutions for the carbon industry market at home and abroad. We strengthened the system construction and standardization of carbon emission. Through applicability checks on the carbon emission management system, we enhanced the enforcement of the system; by carrying out data quality checks, we ensured data compliance; and in strictly reviewing the carbon emission of fixed asset investment projects we effectively controlled the incremental carbon emissions. We actively participated in the development of carbon emission standards for the industry. Leveraging on Sinopec's strengths and experience in research and development, we completed research on the carbon footprint of 16 products in 39 enterprises and compiled 4 "dual carbon" industry standards, making contributions to the conversion of industry practice into standard results.

Green Enterprise Initiative

Continuously promoting the quality and green growth of enterprises. Focusing on the new requirements of national ecological civilization construction, we comprehensively improved the evaluation index system, and systematically promoted the unevaluated enterprises to make up for their shortcomings and the evaluated enterprises to reach a new level. By the end of 2022, almost all affiliates had completed the green enterprise initiative, and 49 of the 102 evaluated were rated as A-level green enterprises.

Promoting green grassroots construction. In conjunction with the deployment of Sinopec's "Three Foundations", the green grassroots construction was deeply integrated with the grassroots Party building, the "Three Foundations" and the implementation of the HSE management system, creating a



strong green culture, enhancing the green behavior and green awareness of all employees, and promoting the green development concept to take root. By the end of 2022, a total of 19,900 grassroots units of Sinopec had completed the creation of green grassroots, with a completion rate of 65.4%.

Energy Management

Energy and water conservation targets were fully achieved. The comprehensive energy consumption per 10,000 yuan of output value decreased by 1.7%, and industrial water intake decreased by 1.1%, completing the annual target plan.

The "Energy Efficiency Enhancement" programme was effective. Energy-saving monitoring was carried out to verify the energy-saving effects of projects. We implemented 483 energy efficiency improvement projects, saving 950,000 tonnes of standard coal. The E&P segment promoted the energy efficiency improvement project for the integration of injection, extraction and transmission to improve the operational efficiency of the system and reduce electricity consumption. The refining segment vigorously implemented projects such as the efficient utilization of low-temperature residue heat, optimization of the amine liquid system and the hydrogen system, and continued to carry out efficiency improvement treatment of insulation and heating furnaces. The chemical industry segment carried out energy efficiency benchmarking of similar units and comprehensively implemented the standard coal consumption target for power supply and electricity saving in circulating water system. The oil products sales segment strengthened the man-

agement of electricity consumption in storage and transportation to reduce electricity consumption. In terms of equipment energy saving, the enterprise continued to strengthen the energy efficiency testing of heating furnaces, focusing on solving problems such as large fluctuations in furnace efficiency and oxygen content, large deviations in burner load and large heat loss in heating furnaces, and implemented measures such as air preheater reshaping and adaptability transformation of heating furnace nozzles to continuously improve the efficiency of heating furnace systems.

In-depth benchmarking work Active participation in energy efficiency "runner" activities. Qingdao Refining & Chemical and Guangzhou Petrochemical were awarded the "Leader" benchmark for energy efficiency in crude oil processing; Zhenhai Refining & Chemical was awarded the "Leader" benchmark for energy efficiency in ethylene production; Hainan Refining & Chemical was awarded the "Leader" for energy efficiency in paraxylene production; Zhongtian Refining & Chemical was awarded the "Leader" for energy efficiency in paraxylene production. Hainan Refining & Chemical was awarded the "Leader" in energy efficiency for paraxylene production; Zhongtian Hechuang Chemical Company and Zhongan Union were awarded the "Leader" in energy efficiency for coal-to-olefin pro-

duction. Jinling Petrochemical, Qingdao Refining & Chemical and Shijiazhuang Refining & Chemical were awarded the “Pacesetter” benchmark for water efficiency in crude oil processing; Maoming Petrochemical, China Han Petrochemical and Zhenhai Refining & Chemical were awarded the “Pacesetter” benchmark for water efficiency in ethylene production; and Zhongtianhechuang Chemical Company was awarded the “Pacesetter” benchmark for water efficiency in coal-to-olefin. The company was also awarded the “Leader” benchmark for water efficiency in coal-to-olefin production; Ningxia Nengchem was awarded the “Leader” benchmark for water efficiency in coal-to-methanol production.

New progress was made in water conservation and emission reduction. We continued to strengthen the management of water conservation, compiled the *Guidelines for Water Conservation in Sinopec's 14th Five-Year Plan*, formulated water conservation plans in accordance with “one plan for each enterprise” and urged enterprises to implement them, accelerated the transformation of water use to conservation and conservation, and continuously improved water efficiency. We will speed up the transformation of water consumption to conservation and intensive use, continuously improve water efficiency and build water-saving enterprises. Strengthen water conservation at source, carry out water balance tests and control leaks in pipeline networks, and reduce industrial water withdrawal. Strengthen end-use reuse, accelerate the construction of wastewater reuse projects, increase the load of wastewater treatment and reuse units, and increase the year-on-year rate of wastewater reuse. Continuing to promote non-conventional water resources in lieu of fresh water, with over 54 million cubic metres of non-conventional water resources replacing fresh water throughout the year.

Strengthen technology research and development and promotion Carry out scientific reform demonstration actions, optimize and improve the research direction and operation mechanism, bring into play the function of Sinopec's innovation platform, focus on energy-saving and carbon-reducing “neck” technology research, and improve the ability of independent

and collaborative innovation. The research and development of major key technologies and equipment for energy saving and emission reduction in coal power plants will be steadily promoted, and the technology of intelligent power plants and large-scale carbon dioxide capture and storage in coal-fired power plants will be focused on. Develop gas flue gas self-driven deep total heat recovery technology and high temperature heat pump energy mass deployment technology to enhance the capacity of deep waste heat recovery. Conduct technology exchanges, build technology exchange platforms and promote the integration and demonstration of key technology innovations. In oilfield enterprises, the focus is on promoting key technologies for the optimisation and control of oilfield energy, and short process treatment technologies for extracted fluids. In refining and chemical enterprises, the focus is on promoting the implementation of energy system optimisation, heating furnace efficiency improvement, turbine through-flow reform, high-efficiency injection state mass transfer tower tray, hydrogen resource management and integrated optimisation, wastewater reuse circulating water system and other energy and water saving complete sets of technologies.



Environmental Protection

Fully promote the implementation of the environmental protection elements of the HSE management system, fully play the role of the environmental protection sub-committee to co-ordinate and guide, and hold regular monthly and quarterly meetings to study and solve major issues. We optimised the monitoring indicators for environmental protection elements, conducted monthly follow-up monitoring, and organised the completion of 16 annual key tasks and basic research topics, including the revision of the rules for environmental protection audits of the system, to promote the implementation of the environmental protection content of the HSE management system and its implementation. Organised special audits of rain and sewage diversion and VOCs management in refining and chemical enterprises, and annual HSE management system audits, and carried out “five regressions” to trace the source of typical problems and improve them. Six energy and environmental management systems were revised, and 25 systems were evaluated and diagnosed for implementation by enterprises. Improve the construction of environmental protection standards system, organise the revision of one enterprise standard and complete the professional audit of seven first-class enterprise

standards.

Strengthened environmental protection compliance management in a comprehensive manner Strengthened the long-term mechanism of environmental protection compliance inspection, set up a mechanism for Sinopec's ecological environmental protection inspection, focused on the implementation of the environmental protection responsibility system and other 10 aspects, and completed special inspections of 30 key enterprises. Hired experts from the Environmental Engineering Assessment Centre of the Ministry of Ecology and Environment to conduct a comprehensive inspection and diagnosis of 7 units of emission permits. Conducted a special survey on the standardisation of automatic monitoring facilities for pollution sources, and conducted a comprehensive survey on 919 automatic monitoring facilities for emission outlets of 49 enterprises. The establishment of environmental protection technical service units “blacklist” mechanism, the organization of 26 enterprises to carry out verification of environmental protection compliance of construction projects, the completion of 33 projects energy saving and environmental protection special demonstration, construction projects gradually standardized environmental management.

Continuously and thoroughly fight the battle of pollution

prevention and control Scientifically coordinate the implementation of pollution prevention and control projects, highlight the precise, scientific and legal treatment of pollution, follow up and supervise the implementation of projects on a monthly basis, and ensure the implementation of the decision and deployment of the Party Central Committee and the State Council in Sinopec. Continuously promote the treatment of volatile organic compounds and odour remediation, grasp the special action of ozone pollution prevention and control to finish the sprint, and fully complete the 265 treatment tasks deployed by the “General Manager's Order No. 1”. Promote the management improvement of rainwater and sewage systems of refining and chemical enterprises in an orderly manner, and actively promote the strengthening of relevant shortcomings. We also steadily built a platform for the management of the entire process of hazardous waste and the sharing of information on the “one network” of solid waste between government and enterprises, and strengthened the standardised management of solid waste during the construction of construction projects, during the inspection and maintenance of refining and chemical enterprises, and during the construction of drilling wells. The standardized management of solid waste during construction projects, inspection and maintenance of refining and chemical enterprises and drilling, and the creation of demonstration projects such as Tianjin Ethylene and Hainan Refinery. Carry out special inspections of key supervisory enterprises to identify potential soil hazards and monitor them, and complete the declaration of 14 national soil source control projects and 5 pilot projects on control while production. Carry out special investigation and rectification of noise and radiation pollution prevention and control management to ensure that the requirements of the new noise law are in place and radiation safety is under control.

Resolutely implement nationally important ecosystem protection and restoration projects Carry out investigation and rectification of terminals, stations and warehouses, factory rainwater and sewage switching facilities, accident water collection and transfer facilities, emergency cut-off and monitoring facilities at external discharge points of enterprises along the river

Greening Management

Compulsory tree planting activities were carried out in an orderly manner through various forms of due diligence such as greening the surrounding areas, desert greening, greening the Yangtze River shoreline, protecting the ecology of the Yellow River, employee recognition of construction and adoption, and volunteer services, etc. Compulsory tree planting activities were actively carried out to continuously increase the participation rate and comprehensive due diligence rate. We planted 1,939,000 trees (including commutation) and achieved a 100% compulsory tree planting due diligence rate. 1,869,000 square metres of green areas were newly built and renovated, and the greening coverage rate of the built-up area of the enterprise was increased to 32.3%.

The company joined hands with the China Greening Foundation to set up the “Sinopec Sekhamba Ecological Demonstration Forest” project on the official website of the National Compulsory Tree Planting Network, with more than 154,000 people participating in the project and raising a total of RMB 6.75 million. In May, Sinopec launched the construction of the “Sino-

to ensure that not a single drop of oil or a single drop of over-standard sewage is discharged into the Yangtze River. Focus on the outstanding problems of 23 enterprises in the Yellow River basin, put forward rectification measures, form a task list and continue to track and promote. Pressing the responsibilities of all relevant enterprises and promoting the rectification of the problems of the Central Environmental Protection Warning Film with all efforts, all problems were cancelled as scheduled. Strictly control the energy assessment, environmental assessment, carbon assessment and water resources certification, and complete the relocation of the Dongying oil depot to a high standard in line with international and domestic advanced standards.

Continuously strengthened the identification and control of environmental risks, revised and released the *Technical Guide to the Assessment of the Risk Index of Environmental Emergencies*, conducted system-wide training on environmental risk identification and control, and implemented annual environmental risk assessment work plans and control measures to a high standard, with 30 of the 41 Level 1 risks downgraded at the beginning of the year. The company issued the *Guide for the Equipment of Emergency Supplies for Oil Spill Pollution in Enterprises (for Trial Implementation)*, which sets out specific control requirements in terms of oil spill pollution source control, surveillance monitoring and early warning, containment and protection, recovery and removal, etc. The company organised enterprises to further standardise the maintenance and use of various types of environmental emergency equipment, and scientifically equipped emergency supplies for oil spill pollution.

Actively play the role of energy and environmental services and guarantee Successfully complete the task of guaranteeing air quality during the Winter Olympic Games, the Winter Paralympic Games and special periods, and accept 424 on-site inspections by national and local ecological and environmental administrative departments, achieving “zero problems” and “zero notifications”. The Ministry of Ecology and Environment highly recognized our work.

pec Sekhamba Ecological Demonstration Forest” project, with 162,500 trees planted and 13.1 kilometres of fencing erected.

Conducting research on biomass resource utilisation Jointly with the Department of Ecology of the State Forestry and Grassland Administration and the Industrial Development Planning Institute, we conducted a research project on the development of forestry biomass resource utilisation industry, investigated information on China's forestry biomass resources reserves and the current situation of forestry biomass resource utilisation industry development, analysed existing forestry biomass resource utilisation technology, industrial policies, development plans and problems, explored forestry biomass To explore ways to utilize forestry biomass, and help the country explore mechanisms for realizing the value of forestry ecological products. Explore the industrialisation of jujube biomass energy. Preliminary analysis of the construction of jujube energy forests and the economics of the whole industrial chain of jujube fuel ethanol production, and research on the industrialisation of jujube biomass energy in terms of forestry carbon sinks, fuel ethanol production, jujube nucleated biomass charcoal and the economics of the whole industrial chain of jujube cultivation.

Social Welfare

In 2022, Sinopec implemented 270 donation projects and spent 506 million yuan. Among them, 295 million yuan was donated to poverty-stricken areas, 137 million yuan to disaster-stricken areas, 60.07 million yuan to public welfare relief and public welfare undertakings, and 13.68 million yuan to overseas areas.

Helping to revitalise the countryside with high quality

The company has been committed to implementing the spirit of General Secretary Xi Jinping's important instructions and instructions on rural revitalization, and continued to increase funds to ensure that the 8 targeted counties received 216 million yuan of funds in a timely manner, an increase of 20 million yuan from 2021, and provided resources to consolidate the achievements of poverty eradication. 70 directly affiliated units have overcome the impact of the epidemic and actively cooperated with local governments to accelerate the implementation of projects in the designated assisting areas, completing 142 rural revitalisation assistance projects throughout the year, with a total investment of 79.78 million yuan. 37 directly affiliated units carried out education support projects, investing 32.17 million yuan to improve teaching equipment and supporting facilities, enhancing teachers' professionalism and teaching standards, and successfully built a number of "schools at the doorstep".

Assisting disaster relief

In the face of the Xinjiang and Inner Mongolia epidemic and the Sichuan earthquake disaster, we were the first to address the call of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), standardised the approval procedures and donated 50 million yuan each to the Red Cross Society of Xinjiang Uyghur Autonomous Region and the Sichuan Charity Federation, and 30 million yuan to the Red Cross Society of Inner Mongolia Autonomous Region, which was highly commended. Facing the severe situation of epidemic outbreak in some areas, Shanghai Offshore Petroleum Bureau, Northeast Petroleum Bureau, Inner Mongolia Petroleum and other affiliates actively cooperated with local governments and made efforts to solve the problems of livelihood protection and epidemic prevention and control, which was fully recognized by local governments.

In August 2022, when the largest flood occurred in Panjin, Liaoning Province since hydrological records, Liaoning Petroleum, Yanshan Petrochemical, Tianjin Petrochemical and other affiliates organised to supply 4.5 tonnes of oil products to the disaster area, prepared more than 500 boxes (pieces) of drinking water, quick meals, epidemic prevention supplies and more than 150 kilograms of fruits and vegetables, and set up nine mobile toilets on site, which were praised by the National Safety Production Emergency Rescue Centre, the Liaoning Provincial Emergency Management Department and the Panjin Municipal Government.



Expanding influence of public welfare brands

We actively participated in social welfare projects and supported a number of public welfare projects with wide social impact, demonstrating Sinopec's good image as a "good enterprise for the Party and the people". The joint implementation of the "Spring Buds Cheering Station" public welfare project with China Children and Teenagers' Fund (CCTF), which precisely helped the growth and education of girls in Sinopec's targeted assisting areas, completing 11 projects and winning the full recognition of the All-China Women's Federation. We also supported the "Youth Creation" China Youth Carbon Neutral Innovation and Entrepreneurship Competition, the Li Siguang Geoscience Award and the 21st International Sedimentology Conference. For 11 years, we have supported the China Legal Aid Foundation's "1+1" voluntary legal aid initiative, benefiting more than 60,000 people in the less developed areas of central and western China.

"In 2022, 1,408 "Driver's Homes" and 1,895 "Love Stations" was built. We handed out 1000 Spring Festival service packages to truck drivers, expanding the service to include benefits of free lounge use, shower, laundry and water refill at more than 800 stations in Guangdong. By the end of 2022, the company had built a total of 3,586 "drivers' homes" and 5,415 "love stations" on main roads in 31 provinces and cities across China, providing free hot water and resting areas for outdoor workers, as well as small medicine kit, mobile phone charging and electric fans, making them feel at home.

"The station that cares". In view of the travel peak during the Spring Festival after three years' COVID impact, the company established 166 stations in Guangdong, Guangxi and Jiangxi providing free comprehensive services to more than 10 million person and 132,000 motorists, and mobilised 9480 volunteers. China Children and Teenagers' Fund (CCTF) joined hands with Sinopec "Spring Buds Cheering Station" project and delivered 3000 packages for kids of the truck drivers and motorists.

In 2022, Sinopec "Health Express" traveled to Hubei and Gansu and provided operations for 1995 cataract patients, sending brightness and hope to those needed families. By the end of 2022, we have donated 180 million yuan and traveled to 44 regions in 18 provinces, curing 52,000 cataract patients free of charge, and funding to build 23 centers for cataract treatment.



2022 Major Events

January

On January 10 Sinopec organized a meeting to consolidate and expand the results of Party history learning and education programmed and promote the establishment of a normalized and long-term institutional mechanism.

On January 20 as a national key project, Jiujiang Petrochemical's 890,000 tonne/year aromatics project using Sinopec's third generation technology saw mechanical completion.

On January 25 Sinopec's key exploratory well in the Shunbei oil and gas field hit high-yield flow, leading to a 100 million tonne-scale discovery.

February

On February 4 the hydrogen fuel produced by Sinopec Yanshan Petrochemical was used to lit the "Feiyang" torch for the Beijing 2022 Winter Olympics.

On February 11 Sinopec's digital finance platform was successfully connected to the People's Bank of China's digital RMB platform, the first central SOE to access the central bank's digital RMB business.

On February 28 Sinopec held a kick-off meeting on the theme of "Remembering the mandate, making new achievements, and celebrating the 20th National Congress" to promote the implementation of the important instructions of General Secretary Xi Jinping's visit to Shengli Oilfield.

March

On March 3 the State-owned Assets Supervision and Administration Commission of the State Council announced the list of the latest batch of "Double Hundred Enterprises", in which Sinopec Lubricant Company, Sinopec Oilfield Equipment Corporation, Easyjoy Company and ZRCC were listed.

On March 22 Sinopec Beijing Research Institute of Chemical Industry Co., Ltd. was selected as one of the "Science Reform Demonstration Enterprises" by the State-owned Assets Supervision and Administration Commission of the State Council.

April

On April 6 Sinopec's 1,000-tonne polystyrene pilot plant in Zhanjiang New Zhongmei Chemical Industries Co., Ltd. successfully started operation and produced qualified products, filling the gap of domestic polystyrene technology.

On April 8 the commendation meeting of the Beijing Winter Olympic and Paralympic Games was held at the Great Hall of the People. Sinopec Shanghai Petrochemical was awarded by the CPC Central Committee and the State Council as a collective for outstanding contribution.

On April 18 the Fourth Party Congress of China Petrochemical Corporation was held in Beijing, electing the Fourth Committee and the Disciplinary Inspection Committee.

On April 22 the Central Leading Group for Rural Work announced the results of the evaluation of the effectiveness of the central units in supporting rural development, and Sinopec was evaluated as "good" for the fifth consecutive year.

May

On May 17 Sinopec's self-designed 270,000 cubic meter LNG storage tank was successfully commissioned at the Qingdao LNG terminal, marking a breakthrough in the development and construction technology of China's oversized LNG storage tanks and ranking among global leaders.

On May 24 Han Zheng, member of the Standing Committee of the Political Bureau of the CPC Central Committee and Vice Premier of the State Council, visited Gulei Petrochemical in Fujian to know about the investment, construction and HSE of petrochemical enterprises in the region.

June

On June 2 Sinopec held a meeting of its leadership team and the Organization Department of the CPC Central Committee announced the decision of the Central Government on the appointment of Zhao Dong as President China Petrochemical Corporation.

On June 6 Sinopec Industrial and Finance Holding Company Limited was established in Shenzhen.

On June 9 Sinopec organized a seminar to study and implement the spirit of the Sixth Plenary Session of the 19th CPC Central Committee and the important instructions of General Secretary Xi Jinping's inspection to Shengli Oilfield, to promote the historical experience of the Party's century-long struggle and General Secretary Xi Jinping's ardent wishes into a powerful motivation for greater success.

On June 22 Sinopec held a Work Safety Conference to create a good environment for the victory of the 20th Party Congress.

On June 24 Sinopec released the "Sinopec Action Plan to Peak Carbon Emission by 2030".

On June 30 Sinopec was selected as the first company in "Zero Waste" pilot project in China.

July

On July 12 the registration of Qingdao Research Institute of Safety Engineering's Digital United Information Technology Co., Ltd. was completed, marking the important achievement of Sinopec in using capital and financial means to convert scientific and technological results.

On July 23 Sinopec and China Children and Teenagers' Fund launched the Spring Buds Assistance Programme in Beijing.

August

On August 9 the longest ethylene oxide pipeline in China was officially put into operation in Sinopec's ZRCC.

On August 10 Sinopec named the Shunbei Oil and Gas Field as the base for the "Deep Earth Project".

On August 12 Sinopec released its Annual Social Responsibility Report for 2021.

On August 26 Sinopec officially launched the construction of the national demonstration zone for shale oil in Jiyang.

On August 29 China's largest demonstration base for carbon capture, utilization and storage, and the first million-tonne CCUS project, Sinopec's Qilu Petrochemical-Shengli Oilfield CCUS Project, was officially operational.

September

On September 2 Sinopec announced the implementation of its medium and long-term hydrogen energy development strategy.

On September 5 according to the decision of the Central Organization Department, Lyu Liang-gong was appointed Vice President and member the Leading Party Member Group of China Petrochemical Corporation.

On September 5 a 6.8 magnitude earthquake hit Luding County, Ganzi Tibetan Autonomous Prefecture in Sichuan Province. Sinopec donated 50 million yuan to the earthquake-stricken areas, and Sinopec Southwest Petroleum Bureau, Sichuan Petroleum Sales Co., the Exploration Branch and other enterprises in Sichuan all joined to support the relief and post-disaster reconstruction.

On September 7 Sinopec held a conference on core technology work to promote the ability to originate innovation and key technologies.

On September 21 Sinopec, together with CNPC, SAIC Group, CATL and Shanghai International Automobile City, invested in the establishment of Shanghai Energiex, a smart and new energy technology company.

On September 22 Sinopec Carbon Industry Technology Co., Ltd, China's first carbon industry chain technology company, was established in Nanjing, Jiangsu Province.

October

On October 10 the first domestic production line of China's first 10,000 tonne 48K large tow carbon fiber project was put into operation at Sinopec Shanghai Petrochemical Carbon Fiber Industrial Base and produced qualified products, with quality reaching international advanced level.

On October 13 Sinopec held a seminar on the first anniversary of the implementation of the important instructions of General Secretary Xi Jinping's inspection to Shengli Oilfield to promote the study and implementation of the instructions.

On October 16 Yuexi County of Anhui Province, the targeted assistance county of Sinopec, was selected as one of the "2022 National Rural Revitalization Demonstration Counties" jointly released by the Ministry of Agriculture and Rural Affairs and the National Rural Revitalization Bureau.

On October 22 Mr. Zhao Dong, President and Deputy Secretary of the Leading Party Member Group, was elected an alternate member of the 20th Central Committee of the Communist Party of China at the 20th CPC National Congress.

On October 24 Sinopec held a meeting to study the spirit of the 20th CPC National Congress.

On October 26 Sinopec's new Dongying Crude Oil Depot in Shengli Oilfield was officially completed and put into operation.

On October 28 Sinopec held a video conference to mobilize and deploy the whole company to study and implement the spirit of the 20th CPC National Congress.

November

On November 21 Sinopec signed a 27-year long-term LNG sales and purchase agreement with QatarEnergy.

On November 30 the first helium purification plant developed by Sinopec was successfully started up at Chongqing Petroleum LNG plant at one shot, producing qualified and high purity helium.

On December 10 Sinopec's first self-developed megawatt-scale proton exchange membrane (PEM) electrolytic water hydrogen production plant was successfully started up at Yanshan Petrochemical, producing qualified high-purity hydrogen.

On December 19 the largest cross-strait petrochemical cooperation project, the Gulei Petrochemical Project in Zhangzhou of Fujian, was put into commercial operation. The project was jointly invested by Sinopec Fujian Refining and Chemical Co. and Dynamic Ever Investment Co.

On December 21-23 Sinopec's Leading Party Member Group held a seminar on studying and implementing the spirit of the 20th CPC National Congress to promote Sinopec's high-quality development and make new breakthroughs.

On December 25 China's single largest proton exchange membrane (PEM) electrolytic water to hydrogen plant was put into operation at Sinopec's Zhongyuan Oilfield.

On December 25 Sinopec and PetroChina completed the exchange of A-shares of state-owned shares of the two joint stock companies.

On December 28 Sinopec released a social responsibility report on the 10th anniversary of the exploration and development of the Fuling shale gas field.

On December 28 Sinopec made another breakthrough in its "Deep Earth Project" by completing drilling of Yuan Shen 1, an exploratory well in the Sichuan Basin, to a depth of 8866 meters, breaking the record of the deepest vertical well in the Sichuan Basin held by Ren Tan 1.

On December 29 Jiao Kaihe, Chen Yueming, Wu Xiandong, Chen Bi and Pan Zhengyi were appointed as external directors of Sinopec Group, while Zhang Yuqing, Wang Lili and Shi Huan were no longer external directors of the company.

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