



This report is printed
on recycled paper



SINOPEC



Smart Energy Better Life

CHINA PETROCHEMICAL CORPORATION

Add: No.22, Chaoyangmen North St., Chaoyang District, Beijing, 100728, China

Tel: 86-10-59960114 Fax: 86-10-59760111

<http://www.sinopecgroup.com>



SINOPEC

CHINA PETROCHEMICAL CORPORATION ANNUAL REPORT 2021

2021

ANNUAL
REPORT

CHINA PETROCHEMICAL CORPORATION





SINOPEC

LOVE FOR CHINA PROSPERITY FOR SINOPEC
TO PROVIDE ENERGY FOR BETTER LIFE

SINOPEC

Feature Story

Important Instructions Given by General Secretary Xi Jinping

On October 21st, 2021, General Secretary Xi Jinping paid an inspection visit to Sinopec Shengli Oilfield during his field trip to Shandong Province. He fondly reviewed the entrepreneurship history of China's petroleum industry, profoundly expounded the fundamental, directional and overall issues related to the development of the petroleum and petrochemical industry, and pointed out the forward direction as well as injected strong impetus for Sinopec to promote high-quality growth in the new development stage.

On the afternoon of the same day, General Secretary Xi visited the Shengli Oilfield Exploration and Development Research Institute to learn about the development history of Shengli Oilfield and the overall situation of the Institute. He went into the shale oil laboratory and carbon dioxide flooding laboratory and listened to the introduction to Shengli Oilfield's efforts in carrying out independent innovation, accelerating the application of key technologies and ensuring national energy security. General Secretary Xi stressed that addressing the core demands for oil and gas is a crucial task we are facing. We should step up efforts in exploration and development, consolidate the basis of domestic production and enhance our self reliance ability. We should pool resources to pursue breakthrough in key and core technologies, expedite clean and efficient energy growth and utilization, and improve the quality of energy supply, utilization efficiency and carbon

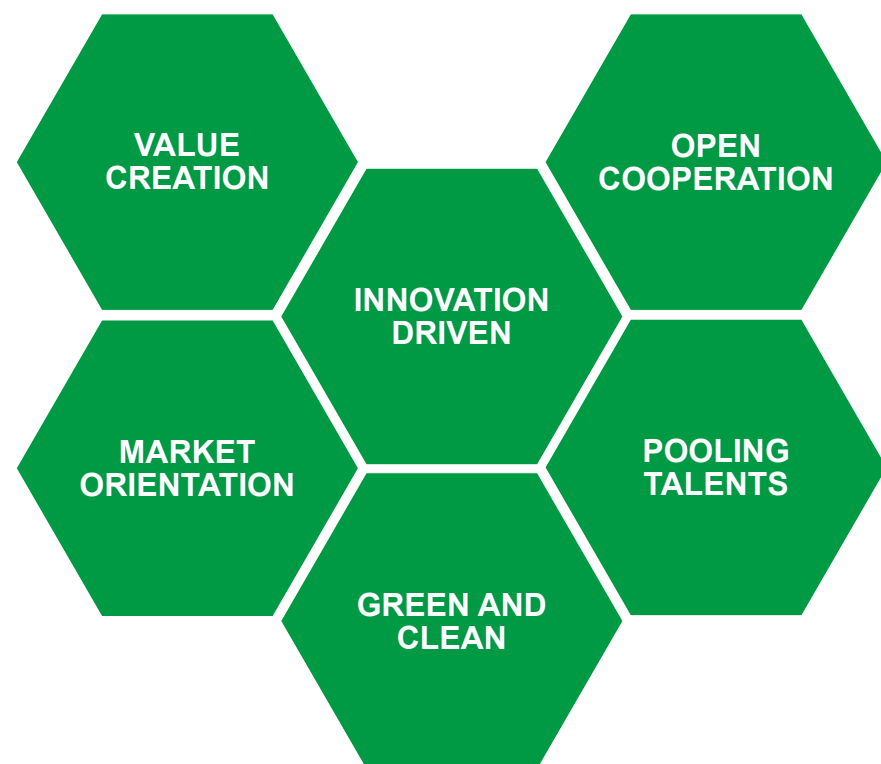
During His Inspection Tour to Shengli Oilfield

reduction. General Secretary Xi pointed out that oil is of great significance to our country. As a manufacturing powerhouse, the security of energy must be held in our own hands as China strives to develop its real economy. The oil industry has always been a pacesetter for the reform and development of China. We should continue to play the role as the pacesetter and make new achievements and record new highs in ensuring national energy security and guarding economic and social development.

After leaving the Research Institute, General Secretary Xi came to Block Lai 113 of Shengli Oilfield in Laizhou Bay, Dongying City to learn about the R&D and application of carbon dioxide capture, utilization and storage technology. He boarded the upper deck of the drilling platform, inspected the drilling automation equipment, entered the operation room and had a cordial exchange of views with the workers in operation. This year marks the 60th anniversary of the discovery of Shengli Oilfield. On behalf of the CPC Central Committee, General Secretary Xi expressed high respect to the oil workers who have made contributions to China's energy industry, and encouraged everyone to inherit and carry forward the revolutionary spirit and fine traditions of the veteran oil workers, always maintain the red heritage and fighting spirit of oil workers, and make greater contributions to the cause of socialist modernization.



BUILDING A WORLD LEADING CLEAN ENERGY AND CHEMICAL COMPANY



PEOPLE RESPONSIBILITY INTEGRITY METICULOUSNESS INNOVATION WIN-WIN



CONTENTS

About Us	02	International Operations	38
Message from the Chairman	04	Overseas Oil and Gas E&P	40
Message from the President	06	Overseas Petroleum Engineering Services	40
Organizational Structure	08	Overseas Refining and Chemical Cooperation	41
Financial Overview	10	Overseas Refining and Chemical Engineering Services	41
Investment Overview	13	International Cooperation within China	41
Science and Technology Innovation	14	International Trade	41
Reform of Science and Technology System and Mechanism	16	Our Operations Outside China's Mainland	42
Major Technology Development and Commercialization	17	Corporate Management	44
Research and Development for New Energy and New Material Technologies	18	Corporate Reform and Governance	46
Energy Efficiency Improvement and Energy Conservation and Emission Reduction Technology	19	Organization and HR Management	48
Significant Achievements in Science and Technology Innovation	19	Digital Transformation	50
China Operations	20	Audit and Supervision	52
Oil & Gas Exploration and Production	22	Corporate Culture	52
Refining Production and Operations	24	Brand Building and Management	53
Chemicals Production and Operation	25	Party Construction	54
Products Marketing and Service	28	Social Responsibility	60
Petroleum Engineering Technology Services	32	Safety and Employee Health	62
Refining and Chemical Engineering Services	34	Green and Low-carbon Development	65
New Energy Development and Utilization	35	Social Contribution	71
Major Projects Construction	37	Major Events	76
		Global Offices	78

About Us



Members of the Board of Directors

Chairman: **Ma Yongsheng**

Director: **Zhao Dong**

Independent Directors:

Zhang Yuqing

Wang Lili

Shi Huan

Chen Yueming

Wu Xiandong

Employee Director: **Yu Xizhi**



Members of the Leading Party Member Group

Ma Yongsheng

Secretary of the Leading Party Member Group, Chairman

Zhao Dong

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

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

Ling Yiqun

Member of the Leading Party Member Group, Vice President

Zhang Shaofeng

Member of the Leading Party Member Group, Chief Financial Officer

Li Yonglin

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; 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 2021.

Message from the Chairman



Ma Yongsheng, Chairman

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

2021 was a milestone in the history of the Communist Party of China (CPC) and our country. Under the strong leadership of the CPC Central Committee with General Secretary Xi Jinping at its core, the leadership teams and employees at all levels of the Company fully implemented the important instructions made by General Secretary Xi Jinping during his inspection tour to Shengli Oilfield, vigorously carried forward the strategy of building a world leading company, concentrated on promoting high-quality development, and remained committed to strengthening full and rigorous Party self-governance. We reached the best operating performance in history and made progress on all fronts, thus delivering remarkable results in this particular year that marked the start of the 14th Five-Year Plan period and celebration of the centenary of the CPC.

We firmly focused on the main tasks of celebrating the centenary of the CPC and promoting the CPC history learning

and education and gathered a strong momentum for upholding both the core position of General Secretary Xi Jinping on the Party Central Committee and in the Party and the guiding role of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and devoting ourselves to the rejuvenation of the Chinese nation. We held grand celebrations for the centenary of the Party by convening a celebration conference to promote high quality Party building activities, organized a series of themed exhibitions and built Ten Education Bases on the History of Revolution to vitalize Revolution spirits. We pressed ahead with the study and education of Party history throughout the year. Workshops, training sessions, public lectures, field surveys, and "Serve the People" campaign were carried out to help the whole Company gain a deeper understanding of the decisive significance of the establishment of both Comrade Xi Jinping's core position on the Party Central Committee and in the Party as a whole and the guiding role of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and become more conscious and determined in firmly upholding Comrade Xi Jinping's core position on the Party Central Committee and in the Party as a whole and upholding the Central Committee's authority and its centralized, unified leadership. We adhered to a pragmatic and innovative approach to integrate Party building into operation with grass-root system, political supervision, and team leadership all strengthened, thus comprehensively improving the quality of Party building.

We held fast to the political mission of fully implementing the important instructions made by General Secretary Xi Jinping during his inspection tour to Shengli Oilfield, and took it as an unrelenting pursuit to "making new contributions and creating new achievements" towards the new journey. After General Secretary Xi Jinping visited Shengli Oilfield and gave important instructions, the Leading Party Member Group of the Company immediately held meetings for making follow-up arrangements and discussions for exchanging views based on the actual situation. With a strong sense of political responsibility and historical mission, the Company identified 8 aspects and 25 specific tasks to implement the important instructions of General Secretary Xi Jinping. We launched and accelerated the relocation project of Dongying crude oil depot and a Company-wide conference was held to set off a wave of studying the important instructions and striving for new growth. "Making new contributions and creating new achievements" has become the common goal and motivation of leaders and employees of the Company in the new era. Through continuous learning, reflection, practice, and comprehension, the Company gained a more profound understanding on the overall picture and the future directions for development and reinforced the aspiration to inherit the revolution gene and shoulder greater responsibilities.

We closely followed the general requirement of making a good start for the 14th Five-Year Plan period and took solid steps towards high-quality development. We vigorously stepped up efforts in industrial transformation and upgrading, self-reliance in science and technology, as well as green and low-carbon growth. A number of oil and gas exploration breakthroughs were made including two 100 million tonnes oil discoveries for increasing reserve and production in Shunbei region; remarkable progress was recorded in developing overseas upstream projects and landing LNG mid and long-term deals; Zhenhai phase I and Gulei phase I were completed as scheduled, and Hainan ethylene, Jiujiang aromatics and other key projects were fully carried forward. We accomplished the special projects of SASAC (State-owned Assets Supervision and Administration Commission of the State Council) and the dedicated projects of NEA (National Energy Administration) for shoring up weaknesses ahead of schedule, with significant progress achieved in tackling a number of key and core technologies such as ultra deep oil and gas exploration and development and crude oil cracking to ethylene. We realized leapfrog growth in new energies by launching the construction of Kuqa green hydrogen project, achieving breakthrough in wind power business and rapidly advancing the million tonnes CCUS project of Qilu-Shengli. We deepened reform and tackled tough problems with 90% of the tasks under the Three-Year Reform Action for SOEs fulfilled. We continued to benchmark against world-leading peers with 3 subsidiaries and 2 projects selected by SASAC as models for SOEs. We remained committed to assuming the responsibility for ensuring the steady growth of the national economy and carried out regular measures to meet challenges and generate profits. Efforts were made to expand the market, adjust the structure, and focus on optimization. In 2021, the Company achieved annual operating revenue of 2.79 trillion yuan, an increase of 30.37% year-on-year (the same below), a total profit of 116.585 billion yuan, an increase of 60.54%, and a net profit of 88.027 billion yuan, an increase of 41.86%. All business segments recorded comprehensive profits, and the operating performance reached the best level in history, which greatly boosted the morale of all the employees and reserved potential energy for future growth.

We kept a firm hold on satisfying people's aspirations for a better life and actively fulfilled the social responsibilities as a central SOE. We took the lead among central SOEs in releasing the 14-Five-Year Plan to Vitalize the Rural Areas, pressed ahead with rural construction projects at a high level, issued a series of social responsibility reports on Sinopec's efforts in local areas, and spared no effort in targeted poverty alleviation and supporting the development of Tibet, Xinjiang, and Qinghai. We optimized the allocation and transportation of resources, made every effort to ensure natural gas supply, took multiple measures to alleviate

the phased shortage of diesel, and determined to ensure supply and avoid disruption in the oil and gas market. We actively facilitated the organization of the Beijing Winter Olympic and Paralympic Games, safeguarded the supply of hydrogen energy in an all-round way, created a three-dimensional image station for the Winter Olympics, carried out Winter-Olympics-related activities at multiple levels, and successfully lighted up the night sky of the Winter Olympics with the torch made from the carbon fiber produced by the Company. We leveraged all our strength in emergency rescue, flood control and disaster relief, and built the "Service Station that Cares" and the "Homes of Truck Drivers", contributing to the image of "a good company serving the Party and the people".

The remarkable results 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 cared, supported and helped Sinopec!

This year, the CPC will hold its 20th National Congress, which indicates great responsibilities for us to ensure good performance throughout the year. We will rally closely around the Central Committee of the CPC with General Secretary Xi at its core, follow the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and fully implement the guiding principles of the 19th CPC National Congress and all the plenary sessions of the 19th CPC Central Committee. We will unite as one, 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 make new achievements and record new highs in the new era towards the new journey, contribute to building China into a modern socialist country and embrace the coming of the 20th CPC National Congress with excellent results.

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

马永生

Message from the President



Zhao Dong, President

In 2021, the global pandemic situation turned for the better in fluctuation. The macro-economy gradually recovered, the market demand picked up rapidly, and the international oil price went upward sharply. Guided by Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and motivated by the celebration for the centenary of the CPC, the Company firmly seized the favorable business opportunities, fully implemented the important instructions made by General Secretary Xi Jinping during his inspection tour to Shengli Oilfield, vigorously carried forward the strategy of building a world leading company, and strived to optimize business, adjust structure, expand market, promote reform, pursue development and prevent risks. In 2021, the Company achieved the best operating performance in history with annual operating revenue of 2.79 trillion yuan, an increase of 30.37% year-on-year (the same below), a total profit of 116.585 billion yuan, an increase of 60.54%, and a net profit of 88.027 billion yuan, an increase of 41.86%. We got the 14th Five-Year Plan period off to a good start by delivering profits in all business segments.

We made it a mechanism to address key challenges and achieve good results, and the quality and efficiency of production and operation were significantly improved. Under the seven-year campaign domestically, major breakthroughs were made in oil and gas exploration and the scale of profitable production was continuously expanded, contributing to the steady increase of oil production and significant growth in natural gas output and sales. For overseas upstream business, we optimized investment arrangements, raised production and efficiency, and achieved the best operating results in recent years. In refining, we pressed ahead with expanding the total throughput and adjusting the structure, significantly enhanced the synergy of the industrial chain, and greatly reduced the cost of oil and gas procurement. In chemicals, we focused on ensuring high run rates for units of profitable products. The production of ethylene and PX went up considerably, the proportion of three major synthetic materials and high value-added products of fine chemicals continued to increase, and the coal chemical business achieved overall profit for the first time. We gave consideration to both quantity and price to guarantee profits in the marketing segment. We grew the business volume of refined oil products steadily while securing the top position in the domestic market share of low-sulfur bunker fuel. Favorable operating performances were obtained in refining products, chemicals, lubricants and catalysts.

We nurtured new opportunities on all fronts and made major breakthroughs in industrial transformation and upgrading. We accelerated major oil and gas production capacity construction projects. 7 crude oil commercial reserves and 7 underground gas storages were completed and put into operation, thus further securing oil and gas supply for the country. We paced up the construction of world-class refining and chemical bases with Zhenhai phase I and Gulei phase I projects completed as scheduled, boosting the Company's ethylene equity production capacity to the third place in the world. We pushed forward "oil to chemicals" and "oil to specialties" and sped up a number of refining structural adjustment projects, large-scale ethylene projects and projects that extended and supplemented the industrial chain. We recorded remarkable progress in developing overseas upstream projects and landing LNG mid and long-term deals, and the Sinopec-SABIC polycarbonate project was completed and put into operation. We moved up towards transforming to an integrated energy service provider of oil, gas, hydrogen, electricity and car services, successfully built a number of hydrogen supply centers in refineries and chemical plants, hydrogen refueling stations, charging and swapping stations and photovoltaic power stations, and steadily developed wind power, geothermal energy and other businesses. We fully leveraged the increasingly important role of capital incubators and saw accelerated growth in degradable materials, artificial intelligence as well as in EPEC, Chememall and

Easy Joy. Campaigns aimed for carbon peaking and carbon neutrality were carried out in an orderly manner, along with strengthened carbon asset management and improved green growth level.

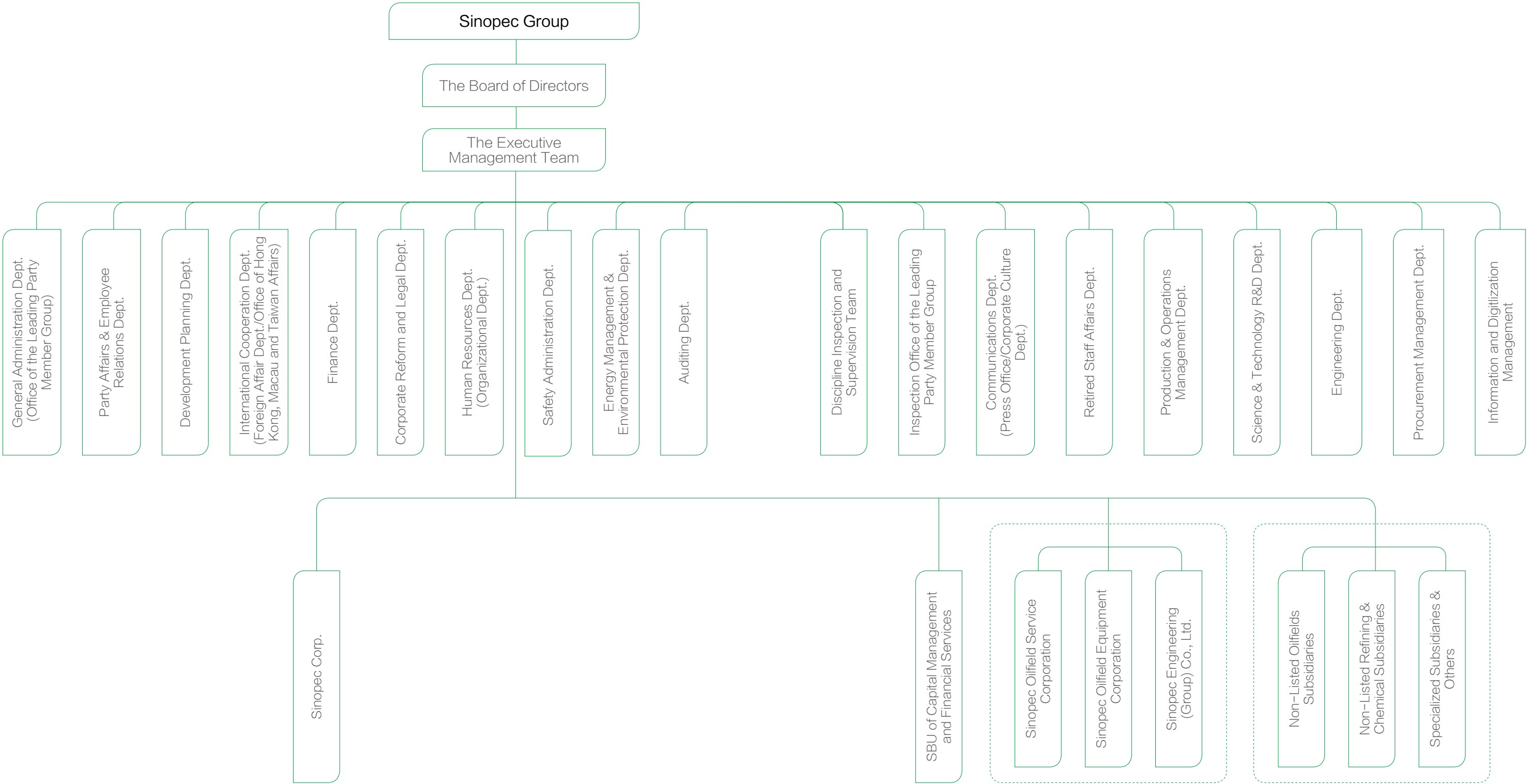
We pooled collective wisdom to tackle key sci-tech challenges and acted as a strong force for national strategic R&D. We further rolled out the "Science Reform Demonstration Initiative" for sci-tech research affiliates, explored mechanisms to encourage open competition and to bring together all relevant parties to undertake major sci-tech projects. We also completed the transferring of 8 research institutes from affiliates to market-oriented business entities and sped up building new types of research institutes and sci-tech incubators. With these efforts in place, the Company became among the first batch of SOEs entrusted by SASAC to develop original technology. Important progress was achieved in tackling a number of key and core technologies such as ultra deep oil and gas exploration and development and cracking crude oil to ethylene. The whole production process of PVA high-end optical membrane unit was completed. LAO / PAO and special heat transfer oil were produced to fill the domestic gap and the torch made by our carbon fiber composite material successfully lit up the Beijing Winter Olympic Games. We put Intelligent Operation Center into use, made progress in building intelligent production sites and "Sinopec Intelligent Cloud", carried forward vigorously the pilot projects such as "industrial Internet plus safety production", and brought the digital development up to new highs.

We stimulated vitality and growth momentum, and gave full play to the synergy of reform and management. Focusing on key and difficult areas of reform, we press ahead driven by demonstration projects and systemic optimization. The tenure system of management members and contractual management were fully implemented, the handover of social functions of subsidiaries basically finished, and 90% of the tasks under the Three-Year Reform Action for SOEs accomplished. We continued to benchmark against world-leading peers with 3 subsidiaries and 2 projects selected as models for SOEs. We took efforts to divest non-performing assets and non-core businesses, bringing the overall loss scale down to 5.5% at a record level. Concrete efforts were taken in risk and internal control, set-up of compliance management system, and the risk control of derivatives, equity participation and credits. Building on and fully utilizing a comprehensive HSE system, we promoted the three-year production safety campaign, kept prevention and control of pollutions, and remained steady in safe and clean production. We took solid measures in regular pandemic control and prevention to counter local outbreaks, adhered to the effective policy of preventing imported cases and domestic resurgences, and overseas public security remained stable.

The new era brings new challenges, and the new journey carries new hope. In 2022, the Company is faced with more unpromising external environment and formidable tasks for development. We will strictly implement the decisions and arrangements of the Party Central Committee and the State Council. Under the leadership of the Leading Party Member Group and the Board of Directors of the Company, we will promote high-quality development in an all-round way, accomplish the production and operation targets and tasks, and strive to create better business performance. We will make new achievements and record new highs in the new era towards the new journey and get ready to embrace the coming of the 20th CPC National Congress with excellent results.

Organizational Structure

(As of 31 December 2021)



Financial Overview

Balance Sheet

RMB: Millions

Item	2021	2020 (adjusted)	2020 (unadjusted)	2019	Item	2021	2020 (adjusted)	2020 (unadjusted)	2019
Current Assets					Current liabilities				
Cash at bank and in hand	271,061.34	206,269.99	206,269.99	151,408.96	Short-term loans	69,122.24	71,467.67	71,467.67	71,448.75
Financial assets held for trading	28,462.29	23,139.45	23,139.45	21,672.66	Bills payable	22,519.10	19,610.27	19,610.27	20,391.54
Accounts receivable	48,169.64	41,146.59	41,146.59	66,578.64	Accounts payable	251,277.72	208,302.10	208,302.10	240,175.75
Receivables Financing	8,427.88	11,475.20	11,475.20	10,068.89	Contract liabilities	150,022.24	146,754.11	146,754.11	148,226.19
Advance payments	22,889.09	19,450.11	19,453.21	21,086.68	Employees compensation payable	19,674.11	14,378.20	14,378.20	16,766.79
Other receivables	42,626.48	44,218.34	44,218.34	33,754.41	Taxes and fees payable	88,726.08	81,412.85	81,412.85	74,773.69
Inventories	262,595.44	229,617.07	229,617.07	250,573.61	Other payables	114,365.70	92,346.87	92,346.87	79,075.55
Contract assets	24,534.74	21,274.88	21,274.88	17,878.54	Current portion of non-current liabilities	49,318.49	39,993.74	39,944.52	56,254.64
Current portion of non-current assets	2,655.37	902.29	902.29	2,703.97	Other current liabilities	62,727.62	46,490.48	46,490.48	22,624.89
Other current assets	134,899.77	128,900.73	128,900.73	117,716.56	Total current liabilities	827,753.29	720,756.29	720,707.07	729,737.80
Total current assets	846,322.05	726,394.65	726,397.75	693,442.91	Non-current liabilities				
Non-current assets					Long-term loans	46,452.60	43,134.47	43,134.47	60,920.70
Other debt investment	6,801.01	9,132.91	9,132.91	3,192.84	Debentures payable	201,133.83	205,867.51	205,867.51	193,506.23
Long-term receivables	12,727.85	12,649.92	12,649.92	16,098.54	Long-term accounts payable	18,117.64	16,857.25	16,857.25	19,917.96
Long-term equity investment	200,676.86	181,061.16	181,061.16	145,422.12	Lease liabilities	23,382.95	23,168.20	22,958.12	20,383.35
Other equity instruments investment	12,839.34	12,930.96	12,930.96	9,727.18	Long-term employee compensation payable	1,957.01	2,047.80	2,047.80	2,287.20
Fixed Assets	570,452.47	546,827.57	546,827.57	576,329.97	Contingent liabilities	44,077.43	46,348.99	46,348.99	43,993.03
Oil and gas assets	132,138.15	136,942.40	136,942.40	140,426.41	Deferred tax liabilities	9,192.79	8,782.83	8,782.83	7,030.29
Construction in progress	173,719.01	149,461.53	149,461.53	191,973.29	Other non-current liabilities	12,377.47	11,143.24	11,143.24	15,176.82
Right-of-use assets	37,968.79	36,455.57	36,164.33	33,882.83	Total non-current liabilities	356,691.72	357,350.29	357,140.20	363,215.58
Intangible assets	145,462.24	139,516.21	139,516.21	134,632.50	Total liabilities	1,184,445.01	1,078,106.58	1,077,847.27	1,092,953.38
Goodwill	10,778.94	10,804.23	10,804.23	10,881.75	Shareholders' equity				
Long-term deferred expenses	17,102.58	15,991.86	16,020.69	14,965.79	Paid-in capital	326,093.75	325,547.22	325,547.22	325,547.22
Deferred tax assets	21,355.56	26,920.78	26,920.78	19,486.49	Capital reserve	55,989.61	55,813.12	55,813.12	51,946.56
Other non-current assets	229,738.64	235,130.06	235,130.06	221,256.77	Other comprehensive income	-11,822.24	-22,589.58	-22,589.58	-23,800.19
Total non-current assets	1,571,761.42	1,513,825.15	1,513,562.73	1,518,276.49	Special reserve	2,761.07	2,278.25	2,278.25	2,193.17
					Surplus reserve	234,943.20	228,834.82	228,834.82	223,498.74
					Provision for general risks	2,303.82	2,040.77	2,040.77	1,765.55
					Retained profits	237,583.54	198,021.51	198,021.51	169,350.11
					Shareholders' equity attributed to equity shareholders of the Group	847,852.75	789,946.12	789,946.12	750,501.16
					Minority interests	385,785.71	372,167.10	372,167.10	368,264.87
					Total shareholders' equity	1,233,638.46	1,162,113.21	1,162,113.21	1,118,766.03
Total assets	2,418,083.47	2,240,219.80	2,239,960.49	2,211,719.40	Total liabilities and shareholders' equity	2,418,083.47	2,240,219.80	2,239,960.49	2,211,719.40

Note: New lease standards were adopted across all subsidiaries of the Company since 1 January 2021 and related items were adjusted accordingly.

Income Statement

RMB: Millions

Item	2021	2020 (adjusted)	2020(unadjusted)	2019
Operating Income	2,789,498.71	2,142,332.42	2,142,332.42	3,003,416.84
Total operating expenses	2,665,562.10	2,100,708.66	2,100,708.66	2,915,046.78
Operating expenses	2,239,760.38	1,726,347.17	1,700,556.29	2,497,874.87
Taxes and surcharges	261,695.02	237,335.18	237,335.18	247,173.54
Selling expenses	57,637.52	53,234.72	64,323.00	63,553.43
Administrative expenses	75,246.96	57,461.27	72,163.87	79,575.67
R&D expenses	16,251.19	14,414.38	14,414.38	13,690.49
Exploration expenses	12,381.97	9,722.73	9,722.73	10,519.67
Financial expenses	2,589.05	2,193.22	2,193.22	2,659.10
Add: Other income	6,841.65	8,836.23	8,836.23	7,111.66
Investment gains	8,113.39	48,746.53	48,746.53	13,634.84
Change of fair value	4,929.01	791.63	791.63	-2,736.85
Credit impairment loss	-11,090.98	-3,064.96	-3,064.96	-1,991.62
Assets impairment loss	-13,798.94	-30,655.51	-30,655.51	-2,338.01
Assest disposal gains	1,976.22	3,170.57	3,170.57	-870.63
Operating profit	120,906.97	69,448.25	69,448.25	101,179.45
Add: Non-operating income	5,941.58	10,461.53	10,461.53	5,498.48
Less: Non-operating expenses	10,263.57	7,287.35	7,287.35	5,803.81
Total profit	116,584.98	72,622.43	72,622.43	100,874.12
Less: Income tax	28,557.78	10,572.19	10,572.19	21,773.05
Net profit	88,027.20	62,050.24	62,050.24	79,101.07
Less: Minority interests	34,385.84	19,234.54	19,234.54	32,170.88
Net profit attributable to equity shareholders of the Group	53,641.37	42,815.70	42,815.70	46,930.19

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

Investment Overview

In 2021, the Company followed the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, implemented the guiding principles of the Party's 19th National Congress and all plenary sessions of the 19th Party Central Committee and adhered to the important instructions given by General Secretary Xi during his visit to Shengli Oilfield. With the vision of building a world-leading clean energy and chemical company in mind, we focused on the industrial pattern of "One Foundation of Energy and Resources, Two Wings of Clean Fuels and Advanced Chemicals and Three Growth Drivers in New Energy, New Material and New Economy", made solid progress in major projects, optimized the investment management and risk control mechanisms, and achieved a successful start for the 14th five-year plan period.

The investment completed throughout the year was 225.5 billion yuan (including 12.5 billion yuan of profit and loss expenses). Among it, 96.1 billion yuan was invested in oil and gas and new energy business segment, 47.5 billion yuan in refining and marketing segment, 66.2 billion yuan in chemical and materials segment, 2.7 billion yuan in capital and finance segment, and 13 billion yuan in IT and others.

We made all-out efforts to ensure resource supply and reserve in the oil and gas segment Major discoveries were made in conventional oil and gas, with two new oil discoveries both at the 100 million tonnes level in Zone 4 and Zone 8 of Shunbei new area; among the major breakthroughs in shale oil and gas, we completed the plans for two national development demonstration zones of Jiyang shale oil in Shengli and Fuxing shale oil in Sichuan, and built new shale gas production sites in the Jiannan new strata in Sichuan Basin and Dongxi deep layer formation in Qijiang; production capacity construction was accelerated, with key projects in Western Sichuan, Shunbei, Weirong and Fuling progressing smoothly; significant progress was made in the construction of natural gas infrastructures with a number of gas storage depots and terminals such as Shengli Yong 21 and Qingdao LNG phase II completed and put into operation. Breakthroughs were made in the acquisition of new overseas projects, winning the bid for Mansuriya gas field in Iraq and block 28 in Angola, etc.

We further consolidated our competitive edge in refining and marketing segment We accelerated construction for integrated bases, and the refining throughput of Zhenhai Refining and Chemical Base Phase I was expanded from 23 million tonnes / year to 27 million tonnes / year upon completion; carried out efficient transformation of heavy oil in an orderly manner, Beihai refining restructuring was completed and put into operation, YPC refining and Anqing oil to chemicals projects kicked off; sped up product mix adjustment, produced qualified products from the high-end carbon material units of Jinling and Maoming, put the synthetic lubricate base oil and other units into operation in Maoming, and transformed a number of production units to increase bunker fuel production; put 7 commercial oil reserve depots in Yueyang, Fujian, Luoyang phase II and Maoming phase II etc. into operation; took substantial steps in transforming to a comprehensive energy service provider in fuel marketing business, and developed 1,022 comprehensive energy service stations, 160 CNG stations, 66 hydrogen refueling stations, 1,014 EV battery charging and swapping stations and 1,048 photovoltaic power stations.

We accelerated upgrading and transformation in the chemical and material segment We sped up the base construction, completed the four ethylene projects of Zhenhai Refining and Chemical phase I, Gulei Petrochemical phase I, Sinopec-SK Wuhan Petrochemical and Sinopec- SABIC Tianjin Petrochemical, started the construction of ethylene project in Nangang of Tianjin, and smoothly implemented the Amur natural gas chemical complex; gave full play to high-end new material construction, increased proportion of special and high-end products, completed the PVA optical film production facility of SVW Chemical, accomplished the functional transformation of SSBR (solution polymerized

styrene butadiene) of Yanshan Petrochemical and put it into production, pressed ahead with the 24 thousand tonnes/year precursor fiber and 12 thousand tonnes/year large tow carbon fiber projects in Shanghai Petrochemical, relocated the Guizhou Energy and Chemical PGA and Baling Petrochemical caprolactam projects, kicked off the construction of Yangpu SBCs, Yizheng Chemical Fiber PTA and Beijing Chemical Research Institute VD21 projects, and started ordering equipments for Hainan Refining and Chemical PBST, Qilu Petrochemical HNBR and SVW Chemical EVOH projects.

We strengthened the strategic layout of the capital and financial segment We focused on industrial direct investment in new energy, new materials, energy conservation and protection, big data and high-end intelligent manufacturing, explored opportunities in the fields of supply chain network services, solar monocrystalline silicon, hydrogen supply integration equipment, bio ethanol, carbon fiber composites and so on, and gave full play to the financial synergy by increasing the capital of the Insurance Brokerage Company and contributing to the second phase of Enze Fund.

We achieved leapfrog growth in new energy business The leading effect of hydrogen energy business was remarkable, we built 8 refining and chemical hydrogen supply centers in Yanshan Petrochemical, Tianjin Petrochemical, Guangzhou Petrochemical, Qingdao Refining and Chemical, Zhenhai Refining and Chemical, Hainan Refining and Chemical, Qilu Petrochemical and Shanghai Petrochemical, and commenced the Kuqa green power to green hydrogen demonstration project, the world's largest green hydrogen project under construction; The installed capacity of photovoltaic power generation doubled, the 36 MW project of Shengli Power Plant was completed and put into operation, and the 19 MW project of Beihai Refining and Chemical started construction; We made breakthrough in wind power business, the first 20 MW wind power project in Dali, Weinan was completed and put into operation, and the wind measurement of 1,200 MW project in Hainan was started; A number of geothermal projects were put into operation at an accelerated pace, with a newly-added heating capacity of 10 million square meters.

We increased investment in scientific and technological innovation, actively tackled challenges in key and core technologies and solved technological bottlenecking problems We made successful industrial tests for crude oil steam cracking in Tianjin and crude oil catalytic cracking in Yangzhou, attained breakthroughs in the exploration and development of continental shale oil in Jiyang depression and the carbon dioxide capture in the flue gas of the new generation coal-fired power plant, put into operation the first proton exchange membrane (PEM) electrolytic water hydrogen production demonstration station, stepped up the construction of Tianjin pilot base of Beijing Research Institute of Chemical Industry and Ningbo New Materials Research Institute, carried forward the Qilu-Shengli million-tonne CCUS demonstration project and the 1025 project, and accelerated launching a number of pilot projects such as YPC Petrochemical slurry HDPE, Maoming Petrochemical POE and Shanghai Petrochemical 100-tonne high-performance carbon fiber.

We ensured the investment demand for safety and environmental protection projects We vigorously promoted identification and elimination of potential safety hazards in production units and tank farms, and started the relocation of Dongying crude oil depots; accelerated the dedicated action of ozone pollution prevention and control, strengthened leakage detection and repair (LDAR), and carried out the comprehensive treatment of VOCs; comprehensively promoted the capacity building of solid waste supervision, disposal and utilization, and built two regional hazardous waste disposal centers; did well in protecting the ecological environment in the Yangtze and Yellow river basins and promoted the treatment of potential hazards in the water environment.

Science and Technology Innovation

- Reform of Science and Technology System and Mechanism
- Major Technology Development and Commercialization
- Research and Development for New Energy and New Material Technologies
- Energy Efficiency Improvement and Energy Conservation and Emission Reduction Technology
- Significant Achievements in Science and Technology Innovation



Reform of Science and Technology System and Mechanism

In 2021, closely focusing on the demand for industrial transformation and development, the Company took extensive measures to implement the innovation-driven development strategy, adhered to national orientations for promoting sci-tech innovation, centered on building the industrial pattern of One Foundation of Energy and Resources, Two Wings of Clean Fuels and Advanced Chemicals and Three Growth Drivers in New Energy, New Material and New Economy, pushed forward the overall deployment for sci-tech innovation, accelerated tackling challenges in key and core technologies, strengthened the research of basic and cutting-edge technologies, and deepened the reform of sci-tech system and mechanism, making substantial contributions to building a world-leading clean energy and chemical company.

We further rolled out the "Science Reform Demonstration Initiative" of directly affiliated research institutes. Beijing Research Institute of Chemical Industry and Qingdao Research Institute of Safety Engineering took the lead in transforming to market-oriented business entities with comprehensive supporting mechanism in place. To pursue breakthrough in key technologies such as high-speed transmission while drilling, we at Sinopec implemented an open competition mechanism to attract research teams inside and outside of Sinopec and

select the most competent one. We aimed at building new types of R&D institutions and established the Sinopec Carbon Fiber & Composite Joint Research Institute that fully utilized the synergy among "production, marketing, research and application". We promoted sci-tech incubators, established a company for incubating innovation projects in the fields such as "key safety equipment for highly-efficient fire and explosion prevention", and explored new incentive policies such as dividends for sci-tech companies.



Major Technology Development and Commercialization

Oil and gas exploration and development technology We continuously deepened understanding on the development law of the dominant lithofacies in continental shale series such as Jiyang depression and Subei basin, upgraded the technology for combined fracture network fracturing, so as to achieve a breakthrough in shale oil exploration in Eastern fault basin. We developed the core technology of high-precision seismic imaging into advanced commercial software, completed industrial test for the rotary steering system, and demonstrated the complete set of electric fracturing equipment in China's "13th Five-Year-Plan Period" Sci-tech Innovation Achievement Exhibition.

Refining technology Breakthroughs were made in the industrial application of catalytic cracking and hydro-desulfurization technology to produce more propylene and low sulfur fuel oil components.

New chemical material technology We successfully devel-

oped and realized the industrial application of the new gas-phase polyethylene BSG catalyst, made important progress in the key technology of medical protective polymer materials, and developed special materials for antibacterial melt-blown cloth for mask production.

Utility technology We achieved industrial application for the centralized treatment technology of VOCs waste gas in refineries and chemical plants and the wet oxidation technology of sulfur-containing waste alkali liquor compatible with ethylene. The second generation of leakage detection and repair technology was widely promoted for industrial application.

Basic research and cutting-edge technology The construction of industrial demonstration device was completed for the platinum carbon catalyst used in fuel cell, so is the industrial demonstration of microalgae de-NOX combined technology.



Research and Development for New Energy and New Material Technologies



Hydrogen energy We launched the major scientific and technological project of “hydrogen energy technology”, sought technical breakthrough of “green hydrogen” and “blue hydrogen” production, hydrogen storage and transportation, hydrogenation station, and started the construction of 10000 tonnes green hydrogen demonstration project in Kuqa. A complete set of high-quality hydrogen production technology for hydrogen fuel cell vehicles was implemented, and the product purity could reach more than 99.999%, meeting the national standards for high-purity hydrogen and hydrogen for fuel cell vehicles.

Biomass energy We made steady breakthrough in bio aviation coal production technology, bio diesel production technology and biomass microwave gasification to syngas technology.

Degradable materials We tackled challenges in PBST and PBAT technologies and realized the industrial production of degradable polyester PBAT. PCL products were successfully exhibited at the 34th CHINAPLAS, the International Exhibition on Plastics and Rubber Industries 2021.



Energy Efficiency Improvement and Energy Conservation and Emission Reduction Technology

Energy efficiency improvement Shengli Oilfield pioneered in developing technology to greatly enhance oil recovery in brown oilfields, which was fully affirmed by General Secretary Xi. Oilfield energy optimization management and control technology was promoted in many subsidiaries of Shengli Oilfield.

Energy conservation and emission reduction The million tonnes CCUS project of Qilu-Shengli was launched to build the

largest demonstration base of the whole industrial chain in China. The new generation of carbon dioxide capture technology for coal-fired flue gas was successfully applied in building China's largest carbon dioxide capture device for coal-fired flue gas with its energy consumption of capture and regeneration reaching the world-leading level.



Significant Achievements in Science and Technology Innovation

The Company applied for 9,338 patents in 2021 and was granted 5,844 patents. Among them, 7,533 invention patents were applied for and 4,085 were granted, with the patent quality ranking first among central SOEs. We won 7 National Science and Tech-

nology awards, and 1 First Prize and 3 Second Prizes of National Science and Technology Progress Award as project leaders, as well as 1 Gold Award, 4 Silver Awards and 11 Excellence Awards for Chinese Patent.



China Operations

An aerial photograph of an oil drilling rig in a rural landscape. The rig is a tall, lattice-structured derrick with a red flag at the top, situated in the center-left of the frame. It is surrounded by various industrial structures, including blue and white storage tanks, a large orange cylindrical tank, and several white modular buildings. A dirt road with a few vehicles, including a white van and a small car, leads towards the rig. The surrounding landscape is a patchwork of green and yellow agricultural fields. In the background, a hazy city skyline is visible under a bright, golden sunset sky with long, warm light rays.

- Oil & Gas Exploration and Production
- Refining Production and Operations
- Chemicals Production and Operation
- Products Marketing and Service
- Petroleum Engineering Technology Services
- Refining and Chemical Engineering Services
- New Energy Development and Utilization
- Major Projects Construction

Oil & Gas Exploration and Production

In 2021, 167 million tonnes of new proven oil reserves, 203 million tonnes of probable reserves, and 635 million tonnes of possible reserves were added. 268.1 billion cubic meters of proven reserves, 422.1 billion cubic meters of probable reserves, and 541 billion cubic meters of possible reserves of natural gas were added. The annual production of crude was 35.15 million tonnes, with an increase of 10,000 tonnes. The production of natural gas was 33.88 billion cubic meters, with an increase of 3.6 billion cubic meters. The newly-added crude production capacity in 2021 was 2.88 million tonnes, an increase of 346,000 tonnes. The newly-added natural gas production capacity was 6.83 billion cubic meters, an increase of 910 million cubic meters.

Oil & Gas Exploration

In oil and gas exploration, the Company achieved 4 major breakthroughs, 5 important breakthroughs, 9 new breakthroughs, and 16 new commercial discoveries, with proven oil and gas reserves exceeding the annual plan.

Oil exploration Breakthroughs were made in continental shale oil exploration. High-yield oil flows were tested in several strata in Jiyang, North Jiangsu, and Sichuan Fuxing, with newly added possible reserves of 490 million tonnes. The construction plan of the Jiyang Continental Fault Depression Lacustrine Shale Oil National Demonstration Zone passed the national review, opening up an important replacement area for increasing crude reserves and production. Several exploration wells in the Shunbei area of the Tarim Basin tested 1,000 tonnes of high-yield oil and gas flow, with major exploration breakthroughs in No. 4 and No. 8 fault zones, opening up 2 billion-tonne reserves. The cumulative proven reserves of the Shunbei oil and gas field exceeded 200 million tonnes oil equivalent. New discoveries were made in oil exploration in the “three new” areas of mature oilfields in the east.

Natural gas exploration The Company made a major breakthrough in the exploration of Permian shale gas in the Red Star area of West Hubei and East Chongqing in China, adding 105.1 billion cubic

meters of possible reserves and realizing the strategic plan of “moving out of the Silurian system”. 104.8 billion cubic meters of proven reserves were added in the Baima block in the Fuling shale gas field, bringing the Company’s cumulative proven shale gas reserves to over a trillion cubic meters. New breakthroughs were made in the exploration of marine and continental natural gas in Sichuan, Ordos, Songliao and offshore fields, and the exploration results of deep shale gas in Dingshan-Dongxi and normal pressure shale gas in Lintanchang and Yangchungu continued to expand, opening up new opportunities for increasing reserves and production.



Oilfield Development

The scale of crude oil capacity construction was further expanded and the natural decline rate and water cut remained stable.

Increment We carried out in-advance program preparation and well deployment, accelerated the construction of production capacity in Shunbei, Tahe, central Junggar, Shengli offshore and hard-to-recover reserves, and built new crude oil production capacity of 2.88 million tonnes for the year.

Natural Gas Development

Conventional gas We accelerated the production capacity building in Dongsheng, west Sichuan, Longfengshan and offshore fields, and paid close attention to the fine adjustment of the main gas fields such as Puguang, Yuanba and Daniudi, with new production capacity of 3.43 billion cubic meters for the year, an increase of 910 million cubic meters year-on-year. Gas production was 23.5 billion cubic meters, an increase of 2.06 billion cubic meters year-on-year. Investment in the construction of 1 billion cubic meters of production capacity continuously decreased.

Shale gas Full efforts were made to promote the three-di-

Existing fields management We increased input in production stabilization, refined reservoir characterization and modelling, deepened fine exploration, injection and extraction restructuring, integrated reservoir and process management, and implemented reservoir classification and management, resulting in a natural decline rate of 10.6% and a water cut of 90.7% for the year.

mensional development and adjustment of the Fuling shale gas field, and the construction of shale gas production capacity in Weirong, Yongchuan South and Nanchuan, with new shale gas production capacity of 3.4 billion cubic meters for the year, flat year-on-year. Gas production was 9.98 billion cubic meters, an increase of 1.53 billion cubic meters.

Coal-bed methane We continued to tap potential of coal-bed methane in South Yanchuan, producing 395 million cubic meters throughout the year.



Refining Production and Operations

Creating Profits through Integration of Production and Sales

We strengthened safe and stable production, flexibly adjusted plant loads, optimized product slate, secured market supply, and created profits through integration of production and sales. The annual crude throughput was 255 million tonnes, an increase of 7.0%, while the yield of refined oil products decreased by 2.0 percentage points and the yield of light chemical feedstock increased by 0.8 percentage point. The export structure of refined oil products was optimized in line with domestic market demand, with 14.68 million tonnes of refined oil products exported

throughout the year, a decrease of 9.9%. The production and supply of low-sulphur bunker fuel were stepped up, with production of 6.62 million tonnes in the year, an increase of 2.08 million tonnes, to promote the development of global green shipping. In the fourth quarter, the domestic diesel demand picked up sharply, and the Company responded quickly by strengthening safety, adding unit load, adjusting structure, increasing supply, and delivering products swiftly. As a result, we produced an additional 3.23 million tonnes of diesel to ensure the supply.

Optimizing the Industry and Fostering New Landscape

Through building the new industrial landscape of “one foundation, two wings, and three growth points”, we promoted the shift from oil products to chemicals and specialty products. Zhenhai Refining & Chemical refining old area ethylene feedstock adaptation upgrading project was fully completed and put into operation. Anqing Petrochemical refining shifting to chemicals project, Hainan Refining & Chemical ethylene supporting refining upgrading project started construction. Jinling Petrochemical,

Maoming Petrochemical high-end carbon materials projects applying proprietary technologies were put into operation. The layout of lubricant base oil base was consolidated. Maoming PAO plant was put into operation. Yanshan lubricant hydrogenation unit resumed production. High-temperature heat transfer oil unit of Jingmen Petrochemical was put into operation. An important breakthrough was made in the proprietary technology of high-end specialty products production.

Chemicals Production and Operation

Maintaining Stable Operation and Consolidating Foundation

In operation management The Company overcame difficulties amid tight coal supply, implemented energy supply guarantee measures to cope with regional power restrictions, with the utilization of cogeneration units better than the national average, carried out energy efficiency benchmarking and formulated energy conservation measures, achieving annual energy savings of 180,000 tonnes of standard coal, compiled a study report on the carbon peaking path for chemical subsidiaries by 2030, and made smooth

progress in the start-up of new plants, including the cracking plant for the 800,000 tonne/year ethylene project of Gulei Petrochemical, which was successfully put into operation on 17 August 2021.

In unit management the Company continued to promote the construction of the unit integrity management system, with 17 subsidiaries running the system online, the energy-saving upgrading of machinery and pumps in an orderly manner, and the online testing technology of the power system.

Continuously Overcoming Difficulties and Improving Profitability

The Company enhanced budget management We strengthened budget execution, helped subsidiaries analyze gaps, benchmarked and caught up with profitable subsidiaries, deepened the integration of business and finance, so that financial budgets were better aligned with the actual production and operation.

The Company continuously reduced costs and improved profitability We improved cost control of key businesses, and achieved remarkable results in tackling problems and improving profitability in 1,089 projects, with 12 controllable costs exceeding the annual budget and saving more than the annual plan.

The Company implemented operational restructuring The

restructuring of the production and operation businesses of 10 subsidiaries and 8 equity interests was completed through acquisition in cash, and the advantages of integrated operation were further revealed.

The Company actively sought policy support We made good use of tax policies such as R&D expenses deduction, comprehensive use of resources and three equipment credits.

The Company made good use of the electricity market trading policy We optimized annual agreements and monthly bidding programs and reduced electricity purchase costs by 690 million yuan in market-based transactions throughout the year.



Making Progress in Market Development

The Company continued to deepen production and sales synergy Insisting on “market-oriented and profitability-centered” principles, we kept an eye on market changes, gave full play to the synergy between production and marketing, quickly adjusted production and operation plans, and optimized resources according to the general plan, organized 366 production and marketing plan sessions throughout the year and adjusted 221 monthly orders for 1,422 items.

The Company continuously consolidated market leading position Adhering to the “customer-centric” business philosophy, we reinforced the “one subsidiary, one mechanism” approach, coordinated all parties to overcome the impact of COVID-19, focused on solving practical difficulties such as logistics and transportation,

Further Refining Management

The Company promoted first-class management improvement by benchmarking We formulated a benchmarking index system for the chemicals segment, released nine categories of benchmarking indexes and values for chemical units, selected benchmarking subsidiaries in the segment to play an exemplary and leading role, actively implemented the three-year action plan for the reform of state-owned enterprises, promoted the establishment of a sound market-oriented mechanism in some subsidiaries, constructed standardized water fields and completed the projects as planned.

The Company strengthened risk prevention and control We further clarified the division of internal responsibilities, carried out internal risk control tests on a regular basis, focused on prevention and resolution of major risks, identified problems and risks in key areas, strictly guarded the bottom line of no systemic risks, standardized business transactions between subsidiaries and restructured enterprises, carried out self-examination and self-correction, and conducted on-site supervision.

The Company promoted the construction of “three stan-

product loading and unloading, and customer visits, stabilized the supply chain, cleared the obstacles for subsidiaries, and improved the service to customers.

Chememall.com was launched and applied Adopting the implementation strategy of “piloting first, promoting later” and “launching as many as possible”, the Company completed the launch of its own chemical products on chememall.com in batches.

Logistics facilities were improved We upgraded product information system, piloted the three-dimensional warehouse for synthetic resins to realize intelligent product storage, promoted the use of shared pallets to mechanise and automate cargo handling operations. A total of 2.63 million shared pallets were used throughout the year.

dards” at the forefront The “three standards” were used to strengthen the “three bases” and the management foundation was continuously consolidated. The Company optimized outsourcing business. We intensified efforts in shifting “outsourcing to self-employment and machine to labour”, broke down and implemented the annual business outsourcing optimization and reduction plan, and strictly controlled the increase in expenses.

The Company promoted the management of property rights and equity We implemented responsibility for the registration and management of state-owned property rights, standardized asset (land) appraisal and filing work, reviewed 42 appraisal and filing projects, and actively promoted mixed ownership reform. The Company promoted the governance of loss-making subsidiaries. We carried out loss reduction and profit generation campaign on a regular basis. The number of loss-making subsidiaries and the total amount of losses were both reduced. The Company completed special reform tasks. The number of legal entities was reduced by 7, and 8 non-main business and non-advantageous projects were divested.



New Progress in Coal Chemical Operations and Construction

The Company achieved significant operation profitability In Sinopec Great Wall Energy and Chemical Co (Ningxia), Songxinzhuan coal mine was successfully put into operation. The chemical plant was overhauled, and the output and sales of major profitable products such as acetic acid, BDO and PTMEG increased significantly, creating profits for the first time since the start of operation. In Zhongtian Hechuang, coal mines realized high production, chemical units increased utilization and value-added products, and hit record-high profit. In Zhongan United Coal Chemical Company, the coal mine in Zhujixi achieved high production and reached the national coal mine safety production level 1 standard. The load of chemical unit was increased and product slate was optimized based on market demand. The profit target of the project was achieved. In 2021, the coal chemical segment achieved significant overall loss reduction and profitability of the three coal chemical projects in operation for the first time, with cumulative

coal production of 28.01 million tonnes, an increase of 26.1%. Production and total sales of major chemical products were 3.84 million tonnes and 3.19 million tonnes, an increase of 6.1% and 7.2%, respectively.

Substantial progress was made in project construction The Company completed the optimization, evaluation and approval of the feasibility study, general engineering drawings and site preparation plan for the Guizhou Energy and Chemical PGA project, started the general design and construction of temporary facilities on site, and site preparation. We continued to promote the research and acquisition of high-quality coal resources for the Dalu coal-to-olefin project, and completed the feasibility study. The Company achieved the capping of the main units of the Yizhuang Intelligent Manufacturing Base project, and started the completion and acceptance, internal installation and other work.



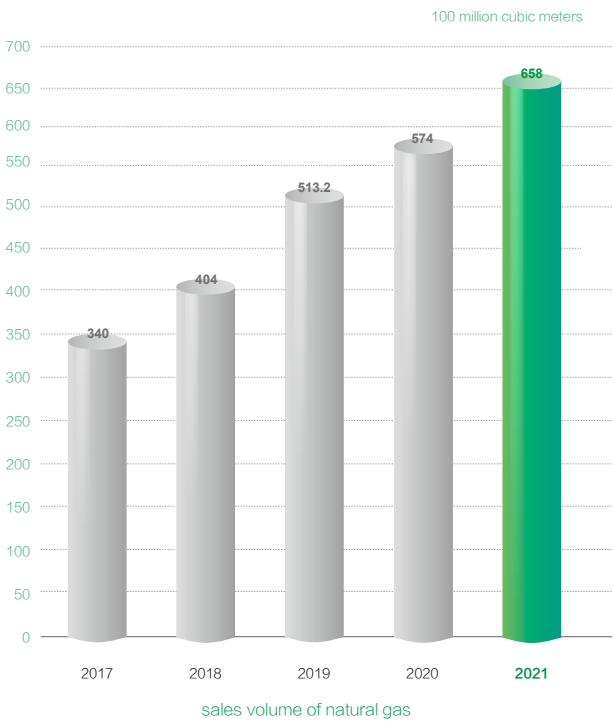
Products Marketing and Service

Natural Gas

In 2021, the natural gas business volume of the Company was 65.8 billion cubic meters, an increase of 14.9%.

On the basis of ensuring the full sale of all onshore gas production from gas fields, we strengthened corporate cooperation and increased the proportion of domestic gas supply. The Company optimized medium- and long-term LNG SPAs, controlled the pace of spot procurement, and prudently carried out hedging to reduce procurement costs. We dynamically optimized the market structure, natural gas and LNG ratios and resource flow, promoted pipeline gas sales at premium prices, and high-priced sales of LNG procured at high prices, and improved operating profits. The Qingdao LNG II was successfully put into operation. The Tianjin LNG II Terminal 2 was constructed and put into operation, and the construction of Yantai Longkou project and Guangxi Beihai LNG III were started in full swing. As a result, the resource loading and unloading capacity was significantly improved. The construction of gas transmission pipelines such as the main pipeline in South Shandong, the main pipeline in Northeast Anhui and the branch pipeline in North Anhui was ahead of schedule. The expansion of gas storage depots such as Wen 96, Jintan and Jiangnan was accelerated. The infrastructure construction supported and guaranteed the market development. 115 new customers were developed throughout the year. 20 end-use projects were successfully implemented, and the market coverage was extended to 25 provinces and municipalities nationwide, with sales in high-end markets in Shandong, Jiangsu, Zhejiang and Guangdong increasing significantly. Quality customer groups such as town gas, industrial direct supply and gas-fired power plants were further expanded. Ensuring stable supply in the heating season and during periods of

major events of the nation, the Company played a more prominent role in forming the national energy system and ensuring natural gas supply.



Refined Products and Easy Joy Convenience Store Services

The annual sales volume of domestic refined oil products reached 171 million tonnes, an increase of 2%, of which the retail sales volume was 114 million tonnes, an increase of 1%. The turnover of basic categories of Easy Joy services was 41.47 billion yuan, an increase of 8%.

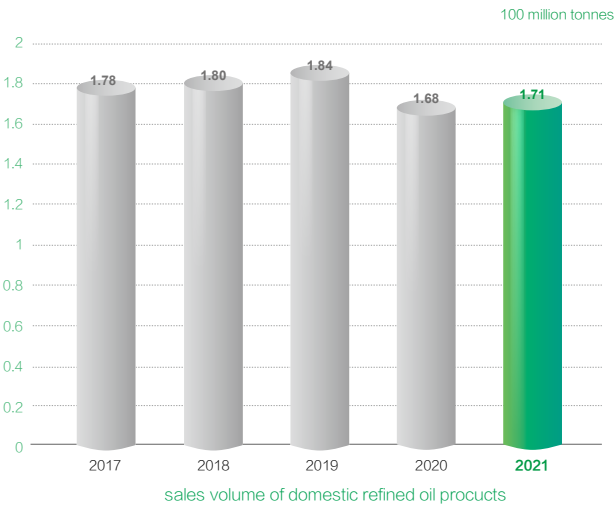
Refined oil products marketing and services The Company improved targeted retail competitiveness, implemented differentiated marketing strategies in different regions, vigorously promoted "X-Power 98" gasoline, implemented customer touch point management, streamlined the eight refueling steps to six, and launched new image of gas stations and new standards of employee uniforms, and continuously improved retail volume and profitability. The Company optimized the volume and pricing strategies by region and time period, seized the opportunity of market rectification and customer return, expanded direct distribution, promoted the implementation of the consumption tax policy at the national level for the import of three products: light cycle oil, mixed aromatics, and diluted asphalt, coordinated governments at all levels to fight against illegal activities to continuously improve market environment, set up a strategic customer management committee for the marketing system, reinforced strategic cooperation with leading companies in energy, logistics, automotive and other industries to leverage complementary advantages and achieve win-win cooperation.

Easy Joy services and marketing The Company promoted festival marketing, integrated elements such as the Winter Olympics and ASEAN, and created five major marketing themes such as the New Year's Day, the Car Maintenance Festival, and the Easy-to-Share Festival, redoubled efforts in the development and sales of Sinopec-brand products, and developed 8 new products. The sales of Sinopec-brand products were 11.12 billion yuan, an increase of 10%. A nationwide store supervision system was established to form a full-chain closed-loop management of standards, commodities, and marketing, which improved store operation and management quality. Easy Joy store retail sales increased by 8%. The Company expanded new service patterns. 1,010 new auto service projects were built, pushing the total number up to 8,993. The output increase of gasoline dispensers at stations with the car washing services was 1.6 percentage points higher than the national average. 150,000 pieces of billboards were placed, including 2,779 pieces of electronic screens of on fuel dispensers connected to the Internet. Advertising revenue increased by 12%. International and regional catering brands were introduced into another 12 and 236 stations respectively, driving the total number to 1,340. Operating revenue increased by 28%.

End-user marketing network development Focusing on both inventory and the increment, both rewards and punishments, the Company improved the whole-process management and control of the project. 1,022 new gas stations were put into operation, completing 126% of the plan. 1,740 gas stations were renovated with the priority of increasing volume and profit and the management of hidden dangers. The storage capacity of the oil depots was increased by 540,000 cubic meters. 14 de-bottleneck projects

were completed. The capacity was adjusted by 75,000 cubic meters. Keeping a close eye on the demand for LNG-powered heavy trucks, we formulated and improved the development plan for the seven north-south and nine east-west gas refueling corridors, constructed 201 more LNG refueling stations and put 160 into operation, set up an Internet Operation Center, improved the top-level design of the unified APP, membership system, and Easy Mall, and unified traffic entry. 17 companies have completed the integration and switching of self-built APPs. The registered members of the "Easy Joy Refueling" APP exceeded 30 million, and the registered customers of the "I want to buy oil" APP exceeded 110,000. Member rights and interests were unified, enabling cross-provincial deposit and exchange of points. The Company unified the marketing method, accelerated the promotion and application of one-click refueling, Easy Joy goods delivered to car, petrochemical wallet, electronic fuel card, etc. The number of members from all channels reached 220 million. The one-screen operation of the integrated business at the gas station level has been implemented, and the one-click settlement has covered more than 20,000 gas stations.

Construction of integrated energy stations The Company revised the construction standards for integrated energy stations. Focusing on the three major demonstration urban clusters approved by the state and commercial scenarios, we developed 66 hydrogen refueling stations, 54 of which were put into operation. Taking Beijing, Shanghai and other key cities as breakthrough points, the Company promoted the construction of battery charging and swapping stations, and cooperated with leading enterprises to build a total of 1,295 battery charging and swapping stations. We developed distributed photovoltaic power generation projects, a total of 1,253 plants with an installed capacity of 43.8 MW. The first carbon-neutral gas station and the first photovoltaic building-integrated gas station in China were built.



Fuel Oil



The annual sales of fuel oil were 30.15 million tonnes, an increase of 6%.

We achieved a new leap in domestic bonded bunker oil supply The Company won the battle to defend the market, with a 44% of domestic market share. The branding of “Marine Mobile Fueling Station” was launched, and a VR simulation training system for bunker fuel supply operations was developed, resulting in service improvement. The annual bonded oil sales were 9.7 million tonnes, an increase of 20%. Terminal distribution was 9.02 million tonnes, an increase of 27%. 11,500 ship deliveries were made, an increase of 15% year-on-year. The dispute rate dropped by 44% year-on-year.

We achieved new breakthroughs in domestic trade The Company visited subsidiaries on a regular basis, delivered services, expanded business and created profits. The Company implemented the “feedstock supply for products” model and business models such as “shore-based depot + distribution vessel”, “offshore station + Internet” and “skid-mounted station + custom-made”, and combined the marketing for fuels and lubricants. The first green integrated service area on water in China was put into operation. Shenggang and Haiming integrated refuelling stations were built. The first integrated energy station in Northeast China was constructed, including gasoline, diesel, gas, hydrogen, electricity and non-fuel services. Domestic trade volume for the year was 7.02 million tonnes, an increase of 28.6%.

Other Refined Products



The total sales of self-marketing refined oil products were 37.3 million tonnes. Under multiple pressures and challenges such as COVID-19 epidemic, extreme weather and fluctuating crude oil prices in a wide range, we achieved operating revenue of over 100 billion yuan for the first time by accurately analyzing and grasping market trends. New steps were taken in the field of high-end materials, and efforts were made to promote the Company's needle coke to the high-end anode material and graphite electrode markets. We successfully held a brand promotion event for the Donghai asphalt for the Winter Olympics, and our direct investment project was awarded the “Li Chun Award” for 2020-2021, with a brand value of 1.46 billion yuan.

The total annual sales of lubricants and greases reached 1.46 million tonnes, an increase of 11% and a record high. Adhering to technology leading development, we achieved new breakthroughs in high-end supporting facilities, obtained 33 authorized patents throughout the year, gained OEM certification and wrote 191 manuals, including 59 key achievements in category A. The overall market conversion rate reached 70.7% in the year, and 78 new high-end products were released, reaching the international level. 95 new process formulas were developed and 141 new raw materials were accessed, which strongly supported the operation and profit generation.

Chemicals

We made every effort to clear obstacles for subsidiaries and the supply of feedstocks for customers The Company implemented the tasks of ensuring stability on six key fronts and security in six key areas, made every effort to stabilize the industrial chain and smooth the supply chain, raised the awareness of in-advance service, carefully organized mutual supply, guaranteed supply, closely liaised with subsidiaries and customers, optimized cross-zone resource allocation, ensured the balance of feedstocks and products output during the unit maintenance and unexpected stoppages, kept an eye on the situation of COVID-19 prevention and control, improved the emergency service capability, quickly set up an emergency operation team, responded swiftly, took the lead, coordinated the deployment of internal and external resources, and timely helped subsidiaries and customers to cope with unexpected epidemic situations and solve logistics difficulties.

Adhering to the “customer-oriented” business philosophy, we did everything possible to create value for our customers The Company continued to enhance the service awareness and capability of all staff. The third-party customer satisfaction survey was higher than the industry average. For the first time, we held a seminar for the top three strategic customers in the industry with high specifications and standards. The Strategic Cooperation Department was established in Sinopec Chemical Commercial Holding Company Limited to provide strategic customers with all-round, full-process and 24-7 services from production and research to processing and application. The Company implemented the strategy of “one case per customer”, visited customers with production subsidiaries to provide a complete set of service solutions covering product quality, packaging and logistics, financial synergy, etc. We also provided customized services by leveraging the synergy of production, marketing and research, built a rapid response technology exchange mechanism to meet customers' individual needs, made full use of information systems to carry out big data analysis and profiling, collected and promptly addressed customer needs in a classified manner, improved the standardized service

level of the customer service center 95388 and received telephone and email enquiries with high efficiency.

We were fully committed to promoting innovation and development The Company responded to the market impact brought about by the rapid increase in production capacity, took the initiative to seek cooperation with our peers to maintain the sound development of the chemical industry chain. The MPRC working group was established to promote the replacement of imports and new product research and development, develop and promote new products such as synthetic resin and synthetic rubber, and continue to increase the proportion of special materials for new products of the three major synthetic materials. We focused on the development of new low-carbon and high-performance materials, completed a number of special research reports, made plans with details, actively explored the new chemical materials market, insisted on system optimization and brought into play integrated synergies to optimize operations.

The Company enhanced the efficiency and profitability of our services to subsidiaries and customers We adjusted and optimized internal organizational settings to further emphasize professional and refined management, organized the first marketing plan review and defence, prepared marketing plans with high standards, established the Petrochemical Trade & Technology Company, strengthened top-level design and professional management, promoted the digital transformation of business models, revitalized logistics assets within the system, leveraged in-plant railway advantage, increased the economic transportation capacity of railways and waterways, and saved costs for customers.

Catalyst products We focused on the substitution of imported agents and successfully completed the local substitution of Shanghai SECCO C_2/C_3 catalysts, Maoming Petrochemical highly selective silver catalysts and Yangzi Petrochemical metallocene catalysts, further consolidating the leading position in the domestic catalyst market.



Petroleum Engineering Technology Services

In 2021, we completed 1,487 kilometers of 2D seismic, 8,423 square kilometers of 3D seismic, 7.5 million meters of drilling footage, 266.92 million standard meters of logging, 8.95 million meters of mud logging, 4,264 well times of downhole operation, 1,582 layers for oil and gas testing. The average drilling cycle of well completed in major operation areas was shortened by 12.4%, with fracturing efficiency up by 24.5% and aging for complex fault down by 60.8%. We effectively built 21 demonstration projects and 7 gas storage depots. The Shunbei No. 5 integrated station was designed and delivered through digitization, with construction period shortened by 22% and labor reduced by 57%, fostering the first intelligent integration station covering life-cycle management.

New breakthroughs were made in geophysical prospecting acquisition technologies We developed the second generation I-Nodal seismic system, fostered geophysical exploration technologies such as nodal acquisition, broadband vibroseis acquisition with high efficiency, innovated approaches as source-driven stimulation, UAV aerial survey, and Beidou application, and finished efficient acquisition covering all geographies and terrains. Our annual acquisition workload exceeded 1 million shots, and the first-grade rate for information acquisition grew by 4.58% versus the requirements in the contract. By achieving leapfrog developments from cabled to cableless acquisition, we effectively reduced the field labor intensity and raised operational efficiency. The Rong County-Yibin 3D nodal acquisition project in Sichuan Province realized an average daily efficiency of 1,873 shots, with the highest number reaching 2,520 shots, hitting a record high for geophysics prospecting in mountains of Southern China. The large scale application of broadband vibroseis seismic technology facilitated the speed and efficiency improvement in Junggar Basin. We applied the effective “all nodal+vibroseis seismic” acquisition in the 3D project of Qian-1 Well in Xinjiang for the first time, making dual breakthroughs in the highest daily production and average daily production of seismic acquisition in the western operating areas.

New advances were forged in deep and ultra-deep supporting technologies We innovated and integrated the prime and fast drilling and completion technologies as “PDC/hybrid drilling bit with special shape gears” for ultra-deep wells, wellbore strengthening technologies as glucoside near oil-based drilling fluid system and thermoplastic wellbore strengthening drilling fluid system, composite acid fracturing technology of “slick water+mud acid+cross-linked acid+fracturing fluid”, and high temperature high pressure underground tool testing technology. By virtue of the upgrading in tools and equipment, we made breakthroughs in 9000 meter ultra-deep well. 4 ultra-deep wells deeper than 9,000 meters were drilled throughout 2021, among which, Shunbei 56X well (9,300 meters in depth) and Tashen 5 well (9,017 meters in depth) broke the records of onshore directional well and deepest vertical well in Asia respectively. Shunbei 8X-1 well (a drilling and completion depth of 8,396 meters and a drilling cycle of 127 days) upgraded the record of the shortest drilling cycle for deep well drilling within 8,000 meters of Sinopec.

New improvements were yielded in the engineering supporting technologies of shale oil and gas We studied and developed drilling and com-

pletion technological systems as drilling parameters optimization technology, high density oil-based drilling fluid system, resilient anti leakage and invasion mud system with retarder and accelerator and dual densities, and network fracturing improvement technology, pushing ahead with speed, efficiency, quality, and production. The technologies were applied in blocks as Fuling, Fuxing, Jiyang, and Baima, shortening the average drilling cycle by 11%, 34%, 35%, and 37% respectively. Shengye 9-6 HF well set a record of the longest horizontal section (3,601 meters). We gained high yield oil and gas flow through development and production in Jiaoye 11-Z1HF well, Dongye Deep 2 well, and major shale oil and gas wells as Fanyeping 1 well, Boyeping 5 well, Niuye 1-1HF, underpinning the steady growth in shale gas output of major production areas as Fuling and Baima, and the strategic breakthroughs in the three hundred-million-tonne shale oil replacement areas as Jiyang, north Jiangsu, and Fuxing of Sichuan Province.

New headway was made in the R&D of the rotary steering system We achieved breakthroughs in four technologies as steering head measurement and control and mutual communication of the Type I rotary steering system, and the technologies for core units and key modules are basically set. A total of 20 wells were tested with a drilling footage of 10,673 meters and circulation time of 1,832 hours. Our rotary steering system realized a well time of 310 hours in Pan 40-Xie 42 well, 240 hours of circulation, 1,535 meters of continuous trouble-free drilling footage, and “one-trip drilling for thousand meters”, a testament to the reliability and stability of the system. 8 modules were developed for Type II rotary steering system, making breakthroughs in 2 key technologies regarding dynamic measurement and vector control. This system was tested on site in Dongfeng 102 well and Dongfeng 8 well, with a well time of 273 hours, circulation time of 190.1 hours, and drilling footage of 880 meters, marking historic breakthroughs from the laboratories to the fields.

New achievements were scored in the R&D and industrial application of logging and mud logging technologies The MWD technology has achieved the first non-rotary measurement of formation boundaries in China. The high-temperature probe tube azimuth gamma prototype and the gamma-while-drilling spectroscopy and neutron density instrument prototypes were developed, paving the way for accurate prediction of reservoirs and effective digging of the remaining oil between the submerged edge and bottom water. We completed the R&D of 200°C/172MPa push-the-bit and lantern body

high temperature electrical imaging instruments, 200°C/206MPa direct-push storage array acoustic wave instrument assembly and supporting software development, 260°C/206MPa ultra-high temperature and high pressure conventional logging instrument and the design of 200°C/206MPa high temperature storage dipole shear wave remote detection instrument, and proceeded with the high temperature logging series. The direct-push storage logging technology has been applied for 360 well times, effectively solving the difficulties of logging in complicated well circumstances in Shunbei oilfield as high temperature and high pressure, well leakage, and overflow. The rate of conventional information acquisition grew from 62% at the beginning of development to 92% now. The large-scale application of technologies such as single-trip cable testing, tractor conveying perforation, and combined operation through modular pumping bridge and plug perforating are applied in large scale, and the average logging speed is increased by 46%.

Remarkable innovations were fostered in surface engineering The Key Technologies of Safe, Effective, and Intelligent Oil and Gas Long-distance Pipeline Construction and Application won the first prize of Technology Progress Award of Sinopec Group. A long-distance pipeline construction technology system based on super-large image loading through aerial survey, classifying tunnel rock grades through controllable source audio magnetotelluric, safety design and optimization for high-grade steel pipeline in complex conditions, water network and shallow sea pipeline construction and equipment application was formed, advancing pipeline design and operation quality and efficiency improvement in an all-round way. The design efficiency in digitized delivery and intelligent technology of pipeline engineering construction was raised by 30%, and whole-process digitized delivery was realized in the South Main Branch Project in Shandong Province. We have gained 11 nationally authorized patents of CCUS technology inventions. The CCUS key laboratory of Sinopec Group and the New Energy Technological R&D Center of Sinopec Oilfield Service Corporation (SSC) were approved. In China's largest coal-fired power plant flue gas CO₂ capture project, the 150 kta CO₂ capture project of Guohua Jinjie Power Plant, a new generation of CO₂ capture and energy-saving technology has been applied to achieve large scale, resource-based, integrated, and low-cost emission reduction of CO₂ capture and oil displacement storage. In the CCUS project of Qilu Petrochemical Plant and Shengli Oilfield, we applied the technologies of safe gathering and transmission, effective processing, waste water



and gas recycling and re-injection through CO₂ flooding fluid, and completed high quality design. We compiled 2 national standards, i.e., *The Design Standards for Natural Gas Liquefaction Plants and Liquefied Natural Gas (LNG) Production, Storage and Shipping*. The directional drilling crossing of the main channel of the Yellow River was pulled back at one time, setting a new record for long-distance (2,867.3 meters) directional drilling crossing of domestic oil and gas pipelines with a diameter of 1,016 mm. The process package as 50,000 to 600,000 cubic meter/year-natural gas liquefaction and 50,000 to 2 million cubic meter/year natural gas ethane recovery was developed, supporting the undertaking and construction of the ethane recovery project of Daniudi gas field.

Faster moves were made in IT application The unfolded project construction of SICP, the petroleum engineering cloud platform, the kickoff of the integrated system of wellbore business, the construction of well site digitized monitoring center, and the advancement in process engineering method and digital model R&D have provided strong IT application support in the interactions between on-site operation and laboratories, remote technical support, and ancillary decision. The digital and analog technology of drilling and downhole operation has been steadily advancing, providing sound simulation environment for operation improvement in “well plant” and overall development in the blocks.

More steps were made in the upgrading of core equipment 33 drilling rigs were upgraded, with 4 new 9,000-meter drilling rigs, 4 new 8,000-meter drilling rigs, 10 new 7,000-meter drilling rigs, and 52 sets of other core equipment and 14 modernized drilling rig with full-set casing automation upgraded. The ratio of electric drilling rig, enhanced modernized drilling rig, and the driving system for grid power drilling were raised to 47%, 28.5%, and 37% respectively, up by 5, 8 and 7 percentage points respectively. The structure of the equipment was improved, intensifying support in equipment.

Steady progress was achieved in oil and gas equipment R&D and manufacturing The “13th Five-Year” National Technology Major Project led by Sinopec passed the comprehensive performance evaluation with high scores, and the Type 5000 all-electric complete set of fracturing equipment was shown as a special landmark in the National “13th Five-Year” Technology Innovation Exhibition, enhancing the brand image of “Sinopec Oilfield Equipment”. The drilling bit and tool facilitated to refresh 70 engineering construction records, and completed the task of breaking technical challenges in Shunbei 56X well, the deepest directional well in Asia, and the Hua H100, the largest horizontal well platform in Asia, with the supporting rotary steering bits better than those of imported products. The pressure of the gas storage compressor reached 52 MPa, and resources were integrated to complete sets of equipment for 45 MPa hydrogen refueling stations. The digital workshop for downhole tools and the intelligent production line for movable elbows were put into operation. The upgrading and reconstruction of the steel pipe production line and the construction of the digital workshop for diamond drilling bits were steadily advanced, and the key manufacturing capabilities were further enhanced. The application of basic research and the integration of industrialization and IT application have been strengthened, and technologies such as super-hard rubber materials and fracturing pump molding have achieved leaps and bounds.

Refining and Chemical Engineering Services

✎ In 2021, 1,318 domestic engineering, consulting, EPC and construction projects of various types were executed. 1,079 new projects were started and 776 projects achieved mechanical completion.

Continuous Improvement of Engineering Service

The Company strengthened whole process management and took multiple measures to enhance engineering efficiency and project execution. The crude storage facility projects were completed and put into operation ahead of schedule. Zhenhai Base I and Gulei Refining and Chemical Integration project

were fully completed and put into operation. Sinopec-SK Petrochemical ethylene project, Maoming Petrochemical synthetic oil and high-end carbon projects were successfully started. The safety and quality of the projects were well under control.

New Technology Breakthroughs

The Company continued to increase efforts in technology research and development making progress in 38 national projects, 22 key technology innovation projects and 20 major special projects of the Company. The “PAO production technology development and industrial application” was successfully put into production, filling the gap of low viscosity fully synthetic high quality lubricant technology in China. The project of “R&D and industrial application of the one-million-tonne ethylene production package technology with complex feedstocks” won the first prize of the National Science and Technology Progress Award, making an important contribution to the Company’s core responsibility of “acting as a national strategic science and technology force”.

We strengthened the technology layout of new energy, new materials and new economy. The Company accelerated the development of technology for the whole industrial chain of hydrogen by undertaking 8 major hydrogen projects, including hydrogen liquefaction. We formed an integrated R&D layout for hydrogen production, storage, transportation and utilization. The world’s largest green hydrogen project - hydrogen production through PV

power in Kuqa, entered the engineering implementation phase. The Company continued to expand its technology development in new materials. The construction of a pilot plant for polyolefin elastomers at Maoming Petrochemical started. The mechanical completion of Tianjin Petrochemical CHP-process propylene oxide project applying proprietary technology was delivered, and the Shanghai Petrochemical low-cost large filament carbon fiber and Qilu Petrochemical special rubber projects progressed smoothly. A solid foundation for the Company’s new materials business was laid.

We expanded application of digital engineering technology. By implementing the “domain leader” accountability mechanism, we enhanced the top-level design of the refining and chemical engineering business in an orderly manner. Integrated engineering, digital delivery, integrated project management and visualized construction were comprehensively promoted. Nearly 30 digital delivery projects were implemented, and a new breakthrough was made in extending the application of engineering digital twin to smart plants.



New Energy Development and Utilization

✎ In 2021, Sinopec produced 500 tonnes of hydrogen for fuel cells, refueled 800 tonnes of hydrogen in hydrogen stations, generated 450 million kilowatt hours of clean power, provided heating area of 70 million square meters from clean energy, supplied new energy with 4.5 million tonnes of coal equivalent throughout the year, and reduced CO₂ emission by 12 million tonnes.

Boosting the Development of Hydrogen Across the Whole Value Chain

We reviewed and approved the specific plan on hydrogen development, identified the goals and pathways to the industrial development of hydrogen, put forward the goal of “leading with one thousand hydrogen refueling stations, demonstrating from mega-tonne green hydrogen development, striving to be No.1 hydrogen company through dual drivers, and reducing carbon by over tens of millions of tonnes”, and developed integrated hydrogen business with hydrogen transportation and green hydrogen refining as the core, so as to build a leading hydrogen company in China.

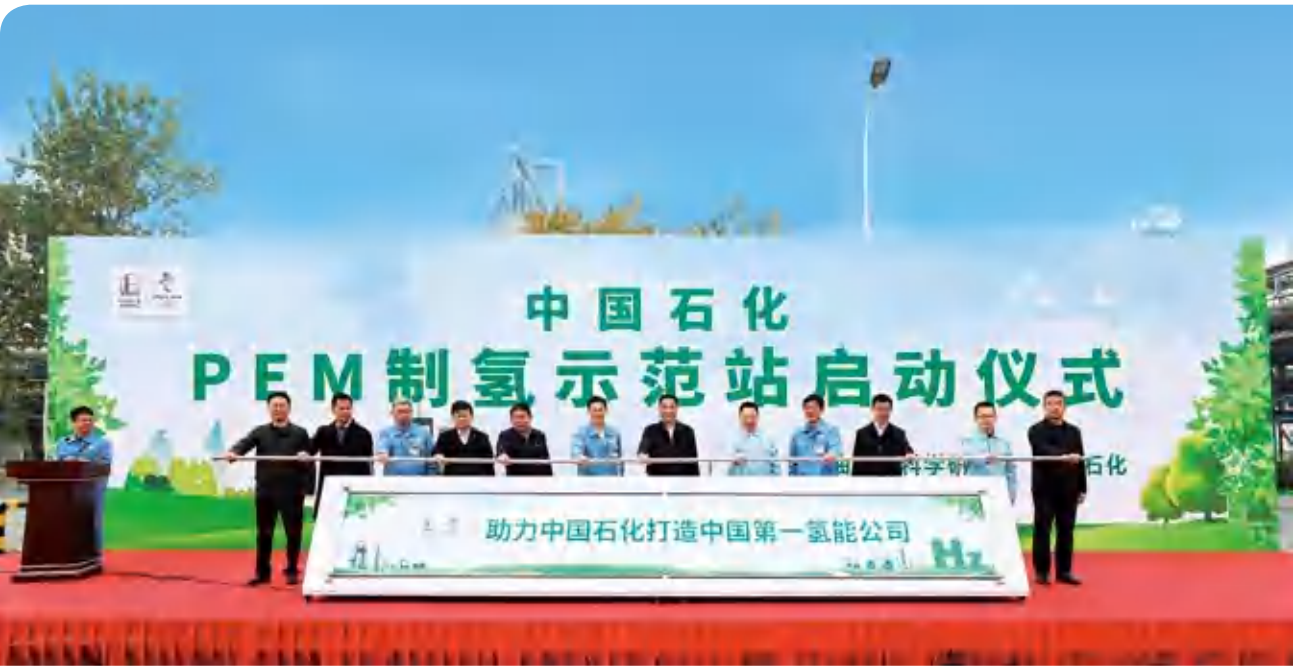
Hydrogen supply for fuel cell. 8 Sinopec subsidiaries, i.e., Yanshan Petrochemical Company, Tianjin Petrochemical Company, Shanghai Petrochemical Company, Shanghai Gaoqiao Petrochemical Company, Guangzhou Petrochemical Company, Hainan Refining & Chemical Company, Qilu Petrochemical Company, and Qingdao Refining & Chemical Company have established hydrogen purification and fueling facilities with a capacity of 12 kta. The cauldron of the Olympic Winter Games was lit by the hydrogen produced by Yanshan Petrochemical Company on the opening ceremony.

In hydrogen refueling station construction, 66

new stations were built, adding up to a total of 74 (including oil-hydrogen stations) with a daily hydrogen refueling capacity of 45 tonnes able to refuel hydrogen for 9,000 hydrogen fuel cell vehicles. We actively planned and served the integrated development plan for Beijing-Tianjin-Hebei region, and supported the construction and development of Xiong’an New Area. Sinopec Xiong’an New Energy Company was officially registered and established in Xiong’an New Area.

Adhering to the path of “integrated development of hydrogen and power, and carbon reduction through green hydrogen”, we vigorously pushed ahead with centralized wind power and PV development, carried out large renewable energy power generation-hydrogen production, storage, and utilization project, and drove forward the construction of the integrated project of “power source, grid, charge, and hydrogen storage”. The Xinjiang Kuqa demonstration project with 20,000-tonne green power to green hydrogen capacity officially started construction.

Related research has been carried out. The first PEM hydrogen production demonstration facility of 30 standard cubic meter/hour has been applied in Yanshan Petrochemical Company.





Leapfrog Developments Made in Clean Power



PV and wind power business was expanded, with a cumulative installed capacity of more than 300 MW of PV power generation. The first onshore 20 MW distributed wind power generation project of Dali County, Weinan of Shaanxi Province was put on grid and in operation. Major breakthroughs were made in the service station PV projects, with a cumulative of more than 1200 service stations with rooftop PV panels.

Geothermal

“Geothermal+” business We continuously proceeded with the geothermal business in “2+26” of northern China and 11 cities of the Fenwei Plain, actively conducted heating and cooling businesses in areas with cold winter and hot summer along the Yangtze River, made headway in demonstration projects of residual heating utilization in Yanshan Petrochemical Company, added clean energy heating capacity of more than 10 million square meters in 2021, and continued to lead the industry. We won the bid for the project of “560,000 square meters of franchising right for urban heating in 2021 of Anxin County”. 3.2 million square meters of the phase I of the Rongdong District construction project of Xiong'an New Area was put in operation, covering geothermal businesses of all three major counties in Xiong'an New Area. We

sped up the geothermal market development of Dongying and Binzhou of Shandong Province, and finished the construction of geothermal heating replace project of Chunliang Community. The geothermal development project of Xiong'an New Area was listed on the global promotion projects of IRENA. The sewage source heat pump heating project of Qinghe in Hebei Province, the mining area geothermal heating project of Jiangnan Oilfield in Qianjiang of Hubei Province, and the demonstration project of river source renewable energy station of the international commercial area in Binjiang of Hankou in Wuhan, were chosen in *The Typical Cases of National Renewable Energy Heating* compiled by the National Energy Administration, further raising the industrial influence.



Major Projects Construction

 In 2021, 42 major project clusters of the Company realized construction targets, and 2 oil and gas field surface engineering projects, 25 sets of refining units, and 7 sets of oil and gas storage facilities listed on annual production plan were put into operation or ready for operation.

About oil and gas storage engineering The commercial crude storage and gas storage depot project kicked off and attained projected goals. Four commercial storage projects including the one in Fujian realized mechanical completion ahead of schedule by the end of June 2021, ready for production. The surface engineering of five gas storage projects including Guxi achieved mechanical completion in advance, ready for gas injection. Shunbei No. 5, the first digital oil and gas transmission joint station finished construction and went into operation. Phase II of Shandong project was put into operation, significantly raising China's gas storage and peak shifting ability, and ensuring a steady supply of natural gas in the winter of Northern China. We swiftly carried out the important instructions put forward by General Secretary Xi Jinping during his inspection tour to Shengli Oilfield, and kicked off the relocation project of the Dongying crude depot through high standards comprehensively. The Jingzhou oil depot of Hubei was put into operation, and the Tunli oil depot of Guangxi realized mechanical completion.

About refining and chemical engineering A batch of world-class refining and chemical bases have been built as scheduled and the equity capacity of ethylene of Sinopec reached the third in the world. Gulei refining and chemical integrated project achieved high quality mechanical completion and commercial operation, marking the smooth start-up of the largest petrochemical cooperation project across the Taiwan straits. Zhenhai Base Phase I Project completed mechanical completion, hitting a record with the shortest construction cycle, highest domestic content, and the widest digital application in China, and building into China's largest refining and chemical base. The first train of the polycarbon-

ate project of Sinopec SABIC Tianjin Petrochemical Company started to produce on-spec products, and the second train was ready for delivery, fulfilling the annual construction target. The ethylene project of Hainan Refining and Chemical Company and the aromatics project of Sinopec Jiujiang Company were progressed as scheduled.

About projects related to new energy, new materials, and new economy, and R&D projects As the largest demonstration project across the whole industrial chain in China, the Qilu - Shengli mega-tonne CCUS project realized mechanical completion. The world largest PV to green hydrogen production project, the Xinjiang Kuqa Green Hydrogen Demonstration Project, the first in China, officially kicked off, rendering strong impetus to Sinopec in building China's No.1 hydrogen company. The synthetic lubricant base oil of Maoming Petrochemical Company realized mechanical completion and was on stream. Projects such as large-tow carbon fiber of Shanghai Petrochemical Company, pygas to produce ethylbenzene and styrene monomer and the pilot unit for 1 kta POE of pigs Maoming Petrochemical Company, and the Shanghai Pudong R&D center progressed well.

Remarkable achievements were made in engineering awards application and winning The coal to olefin project of Zhongan Lianhe won the Golden Award of National Premium Engineering of 2020 - 2021. The capacity construction project of Pai 612 Block of Chunfeng Oilfield in Shengli, the Phase I of Shandong LNG Project of Sinopec Natural Gas Company, the Phase I of Sinopec Catalyst Company's Dalian Base, and the 50 kta catalytic cracking catalyst joint production unit of Yunxi Base earned the National Quality Engineering Awards.

International Operations



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

Overseas Oil and Gas E&P

By the end of 2021, we had invested in 46 oil and gas E&P projects in 23 countries around the world, forming an overseas landscape of diversified oil and gas resources both onshore and offshore, and in both conventional and unconventional. We completed a workload of 1,799 square kilometers of 3D seismic acquisition and 28 exploration and appraisal wells, made 1 exploration breakthrough in Angola, 8 new discoveries in Egypt, and 1 exploration headway in Russia. Focusing on major capacity construction centers as deep sea and unconventional, we intensified comprehensive geological research, pushed ahead with the optimum and fast development of reserves, and completed equity capacity construction of 2.92 million tonnes, surpassing the pro-

jected target. We tapped into the development potential of mature oilfields, carried out refined reservoir characterization, compiled infill well and injection and extraction plan, strengthened application of innovative engineering technologies, and effectively reduced the natural decline rate of mature oilfields. Breakthroughs were made in new project development and low effective and ineffective asset management. We won the bid of Mansuriya gas field project in Iraq, signed the Block 28 of Angola, secured the expansion asset for Chutyrskoe oilfield of Russian UDM Company, ensured substantial progress in major operation projects, and continued to optimize asset structure.

	2021	2020	2019	2018	2017
overseas equity crude oil (10,000 tonnes)	2,829.00	2,838.76	3,379.41	3,339.32	3,431.56
overseas equity natural gas (100 million cubic meters)	99.55	102.09	106.75	111.20	114.54

Overseas Petroleum Engineering Services

We strived to expand markets, ensure stable operation, generate profits, and exercise stringent management. Over the year, we had a positive trend and overseas market achieved steady and sound growth. By the end of 2021, the contracts in execution

reached 339 with a value of USD 16.97 billion in 35 countries. The newly signed contract value stood at USD 2.02 billion, and that of completed contract was USD1.44 billion.



Overseas Refining and Chemical Cooperation

We invested in 8 refining and storage projects in 5 countries with a total investment of USD 11.77 billion. We owned overseas refining capacity of 7,500 kta, storage capacity of 1.36 million cu-

bic meters, lubricant production capacity of 80 kta, NBR production capacity of 10.5 kta.

Overseas Refining and Chemical Engineering Services

Remarkable results were made in overseas market development, and steady progress was achieved in project execution. By the end of 2021, 57 refining and chemical engineering projects had been in execution in 15 countries (105 contracts in total), with

a contract value of USD 5.99 billion. The completed contract value of the whole year was USD 684 million, and that of newly signed contract USD 1.545 billion (tax included).

International Cooperation within China

We signed an MOU with Ineos to carry forward a package of cooperation as introducing strategic investors into domestic refining and chemical assets. We expanded cooperation based on existing joint ventures. We signed the POSM II joint venture with LyondellBasell, and realized successful start-up by the end of 2021. The Phase 2.8 expansion project of BYC Company was approved, with TBA introduced to China for the first time, thus driving

the petrochemical industry towards high-end and differentiated development. We purchased 49% equity of Jiangyin Hengyang Chemical Storage Company held by CITIC Port Investment Company, leveraging the synergy, hence facilitating Sinopec Chemical Commercial Holding Co. to realize the strategic goal in storage and logistic network.

International Trade

We strengthened the strategic cooperation with oil producing countries and suppliers, and strived to gain highly cost-effective crude oil resources. In 2021, our international operation volume of oil and gas totaled 381 million tonnes, with crude oil of 342 million tonnes and oil products export of 14.68 million tonnes. We imported 20.75 million tonnes of LNG in 2021. We coordinated and improved LNG resources, raised resource guarantee capacity, and signed a 10-year 2 mmtpa LNG contract with Qatar Energy and a 20-year 4 mmtpa LNG contract with Venture Global, respectively.

In 2021, our overseas trading volume of chemicals reached USD 420 million, and operation volume was 5.4 million tonnes. The international trading volume of equipment, materials, other refining sales byproducts, and chemicals was USD 1.37 billion. The overseas trading volumes of catalyst and lubricant were USD 79.21 million and USD 314 million respectively, with the operation volume reaching 25,350 tonnes and 177,800 tonnes respectively. The transaction amount of Epec Global stood at USD 21 billion, an increase of 45%.



Our Operations Outside China's Mainland



Corporate Management

- Corporate Reform and Governance
- Organization and HR Management
- Digital Transformation
- Audit and Supervision
- Corporate Culture
- Brand Building and Management
- Party Construction



Corporate Reform and Governance

✎ In 2021, the Company studied and implemented the important statements regarding the reform and development of state-owned enterprises, guarding and diffusing major risks, and comprehensive rule of law proposed by General Secretary Xi Jinping, shouldered the “three major crucial responsibilities”, adhered to the general guideline of pursuing progress while ensuring stability, enhanced strategy-leading development, and delivered fruitful work in the three-year action plan on deepening reform, action on bench-marking management for improvement, major risk prevention and control, major legal management on contract projects, response in compliance cases, and conflict case handling, providing strong institutional guarantee and legal service support in the steady and high quality growth of the Company.

Significant strides have been made in major reform tasks We have pushed ahead with the three-year action plan for deepening reforms through all dimensions, making the general completion rate of the tasks over 90%. We have concentrated on key and difficult reforms, deepened the reform in three institutions, set up all eligible Board of Directors, comprehensively enhanced the setup of the boards of the affiliates and subsidiaries of the Company. The “double hundred action” and the “science and technology reform demonstration action” have intensified their role in driving development, improving the system and institutions for high quality development. The specific elimination of the Beijing offices or offices in other cities has been in place. The number of legal persons has been strictly reduced. The transformation of training and elderly care institutions and reform in elderly care have been pushed ahead in an orderly way, and we accordingly signed framework agreements with other central enterprises. Reform in the 533 collectively owned factories have come to a success, with all related staff smoothly relocated. The transfer in separation of “water, power, gas, heating, and realty management” and other social functions of the companies have jumped into conclusion, ensuring the steady handover of 814,000 retirees.

The enterprise management has been raised The action of bench-marking against world leading management has realized “highly efficient deployment, high standard implementation, and high quality advance”, with 45 major tasks of the 8 bench-marked areas orderly ahead, accomplishing the appraisal requirements of State-owned Assets Supervision and Administration Commission (SASAC) two months ahead of schedule. We have conducted the creation of benchmark, and seen 3 subsidiaries and 2 projects listed in the management benchmarks of SASAC. By digging and summarizing 64 experiences in management benchmarks, we have leveraged their leading role. The upgraded IT system of bench-marking has been developed, targeting at the “coordinates” and bench-marking through multiple dimensions. We have released the implementation opinions on deepening institutional construction to improve its execution, integrate and streamline the institutions, and cut 7% of redundant institutions within the headquarter, bringing the number of the institutions from more than 1200 at the beginning of the 13th Five-Year Plan period to 806. We have improved the management system of “primary construction, basic work, and basic skill training”, and carried out the construction of “QMS, EMS, and OHSAS”.



Starting from the compilation and application of the operation and management manual for primary posts, the “primary construction, basic work, and basic skill training” work has become more standardized and regulated.

The prevention and control for risk system has been enhanced We continuously carry out the effectiveness increase actions, maintain a regular revising system for internal control, integrate internal control with business training, and conduct training in internal risk control, legal compliance and risk cases warning education, remarkably enhancing the risk compliance awareness of all staff. We have revised and improved the comprehensive risk management system, carry out diagnosis and construction in major operation risks management, carried forward quantitative research in major operation risks, and strengthened business management and control with higher risks and the management on key staff. Risk management and control in major areas has been strengthened, and the risk management and control of financial derivatives has been comprehensively established and stringently implemented, so as to ensure constant surveillance as long as the market is on and the data is available. We have effectively responded to major operational risks, diffuse the risks accumulated in history, brought major risks under effective control, and guarded against the red line for systematic risks.

The underpinning role of legal compliance becomes more prominent We earnestly implement Xi Jinping Thought on Rule of Law, stress top-down design, formulate the Guideline on Law-based Governance of Sinopec During the Fourteenth Five-Year Plan and the Eighth Five-Year Plan for Legal Publicity and Education. By upholding the corporate legal culture of “law-abiding, compliance, fairness, and integrity”, we have continued to enhance legal publicity and education. We have upheld a corporate legal culture of “law-abiding, compliance, fairness, and integrity”, and continued to strengthen publicity and education on rule of law. The construction of compliance management system is carried forward comprehensively, the integrity compliance management manual is released, 8 sets of guidelines and regulations related to specific work on compliance management as corporate credit discipline management have been compiled, and organized more than 400,000 employees to participate in compliance study and make commitments through signing documents. The engineering of “empowering the company through talents” in legal compliance is conducted in an orderly way. Our team of lawyers, with 450 people in it, ranked among top in the central enterprises. The guiding and supporting ability of rule of law, the risk management and control ability, the guarantee for foreign affairs, the active right protection, and digitized management ability have continued to raise, further consolidating the legal foundation for building a world-leading clean energy and chemicals company.

The responsibility of the general legal counselor and the head of legal compliance institutions engaging in the decision-making and legal review for “the decision of major items, the appointment of main leaders, the investment decisions of major projects, and the utilization of large amount of funds” has been enhanced. Legal argumentation has been arranged, deployed, and operated in step with technological and economic argumentation, providing quality and effective legal services for major projects regarding reform

and reorganization, capital operation, capital investment cooperation, and financing guarantees. We actively grasp the ecological and environmental protection laws and regulations regarding “carbon emission peaking and carbon neutrality” both at home and abroad, and law execution and jurisdiction, safeguarding green and low-carbon development. We stick to the monthly check on foreign related legal compliance risks and zero-report system, make response based on “one plan for one country” and “one plan for one project”. We carry out specific governance on irregular questions such as contract re-signing, back-signing, unsigned contracts that should be signed, and contracts without paper version, with 980,000 contracts checked in total. The construction of contract management information system has been deepened, witnessing the first digital e-contract of block chain. We regulate commercial affair management, improve the construction of trademark registration system, and actively stand up for rights against fakes.

Substantial results have been made in “reducing stocks and new cases” in conflict resolve In 2021, the case closed by us avoided and recovered a loss of 17.22 billion yuan. The number of cases in process and the amount involved within Sinopec dropped by 26% and 19.5% respectively, and the number of backlogs and the amount of money involved have both decreased for three consecutive years. The number of new cases and the amount involved dropped by 9.8% and 75.1% respectively throughout the year. A number of major cases not dealt with long time ago were properly handled. Obvious effect has occurred in legal settlement of accounts receivables. The legal protection of intellectual property rights has been continuously strengthened, and many intellectual property cases such as MIP technology series disputes have been successfully handled. We properly respond to the environmental public interest litigation, and protect legal risk prevention and control for environmental protection. We actively participate in legal and litigation petitions to maintain stability.



Organization and HR Management

Senior management and professional staff cultivation

Fully implementing the organizational guideline and regulations of the CPC in the new era, we ensured selecting and utilizing talents in line with the requirements put forward by the CPC headed by Secretary General XI Jinping. We upheld the leadership by the Party and continued to build up our modern enterprises system. The Chairman (Executive Director, Representative of the branch company) was also titled the Party Secretary. We set up positions of Party executive deputy secretaries in five subsidiaries with large business scale and large number of Party members. In addition, we selected and appointed members of the Party Working Committee (Regional Party Committee) of eight overseas representative offices. Our efforts effectively ensured that the Party Committee took its leadership and played a leading role in guiding, managing the overall situation and promoting the implementation. We further implemented plans to improve the political qualities of the leading officials and provide educational training for the young employees to promote their ideological beliefs. The Company selected cadres with responsible performance and outstanding achievements in urgent, challenging and arduous tasks such as tackling difficulties and achieving results, scientific and technological innovation, epidemic prevention and control and deepening reform. We promoted allocation of cadre resources throughout the system, and further implemented the scheme of preparing for both promotion and demotion. Cultivation for young cadres was placed as a strategic project, which matters to our overall development, and plans were continuously pressed ahead or steadily carried out including “the three-step” plan, 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”, accelerating to build up a modern enterprise system with Chinese characteristics, fully promoting tenure system management of the executives. We established the boards of directors

when needed in our subsidiaries, and external directors took majority seats in all boards. We actively implemented the Central Committee’s deployment and requirements of the rural revitalization strategy. We selected 8 officials (including 2 first secretaries in villages) to serve temporary positions in 6 poverty-stricken counties for paired assistance, completed the candidate rotation for temporary deputy county mayors and the first secretaries in the village, and assessed our officials after their tenures. We continued to deepen the reporting mechanism of related personal matters, and maintained 100% authenticity and validity in key inspections. We focused on standardizing business behavior of our officials’ spouses, children and their spouses, took the lead in introducing measures among the state-owned entities to establish a long-term mechanism. More efforts were made to rectify ill phenomenon of “making profits by taking advantage of the Company”, and self-examination were conducted among 22,992 mid-level officials regarding issues of “shadow companies” and “shadow shareholders”. We established a working mechanism combining mutual inspection and self-inspection, and carried out inspection on 48 subsidiaries. We optimized the structure of middle-level teams, reducing the average age from the highest nearly 50 to 46.5, and achieved the “1-3-2” (1/6 below 40 years old, 3/6 40-50 years old, 2/6 above 50 years old) goal ahead of schedule. We firmly applied elimination scheme to refine mid-level officials, 5.09% of which were eliminated for incompetence in the whole year, a historic breakthrough. The Company attended and exchanged experience at the conference held by the Organization Department of the CPC Central Committee, strengthening the supervision of cadre selection and appointment and the rectification and promotion of the inspection of personnel selection and appointment, and our *Analysis Report on Cadre Supervision of Sinopec since the 18th CPC National Congress*, the only achievement report regarding cadre supervision, won the third prize of the statistical analysis report on



selected topics of organizational work in 2021.

Employee team building, training, and development We established a leading group for talent at Party Group level. The talent development plan was in preparation for the periods of the 14th five-year plan and the next 15 years. We revised and improved *measures for the management of Sinopec experts*, set up the position of Group Chief Scientist, and selected and hired 3 Group Chief Scientists for the first time. We also newly hired 10 Group Chief Experts, 71 Group Senior Experts and 49 Skill Masters. The Company expedited selection and training of high-level talents. Two persons were elected academicians of the Chinese Academy of Engineering; one was selected as the leader of scientific and technological innovation in the Sixth Batch of national “ten thousand talents plan”; one won the 17th LI Siguang Geoscience Award; one was rated as a national master of engineering survey and design. 8 candidates were selected into the national overseas high-level talent introduction plan, and the number of candidates ranked in the forefront among central SOEs; 80 people won the title of “outstanding contribution expert of Sinopec” and 99 won the Young Scientific and Technological Talent Award of MIN Enze. We accelerated to build up a contingent of young talents and sent 7 students to Imperial College for doctorates. We implemented *Interim Provisions on the Administration of Professional Title Evaluation* issued by the Ministry of Human Resources and Social Security, revising and improving four policy documents, including *the Regulations on the Management of Professional Title Evaluation of Sinopec*. We organized vocational skill competitions at national and Group level. Throughout the year, 20 people were selected into the “Double Hundred Plan”, and first batch of 264 super technicians was produced. 1 employee won the China skills award, 20 won the title of national technical expert, and 20 famous petrochemical craftsmen and 200 technical experts of Sinopec were commended. A leading group for education and training of the Company was established to innovate and improve our education and training system. The headquarters trained 5,122 key talents throughout the year. We improved the capability of our Party training schools, deepening the application of Sinopec Network College, and improving the intelligent and accurate level of training. The annual network training exceeded 50 million class hours. We implemented the central government’s deployment on stabilizing employment and introduced nearly 10,000 college graduates. Mechanisms including “the theoretical seminar” and “political counselor assistance” were published as typical cases in *the Study Times* and *the Work Briefing of the SASAC Branch of the Party School of the CPC Central Committee*. The training practice of professional and technical personnel on oil refining technology won the ATD excellent practice award and the second prize of scientific and technological progress of the Company.

Labor remuneration and performance evaluation We decomposed the total employment planning objectives of the 14th five-year plan, revised *Management Measures for the Annual Employment Plan*, established an annual adjustment mechanism for employment quota during the planning period, and gave greater policy support to those subsidiaries with excellent labor management. We completed the revision of 22 new labor quota standards of the Group, guided subsidiaries to adjust and optimize their

organizations, teams and personnel structures, and continuously improved management level to properly position and staff our employees. We also formulated *the Recommendations on Accelerating the Construction of Market-oriented Employment Mechanism*, establishing market-based staffing mechanism with labor contract management as the key and post management as the basis. We carried out the incentive work for the optimal allocation of human resources, and encouraged 268 projects for the optimal allocation of human resources in 2021. We promoted the integration of industry and education, and explored the joint-cultivating pilot model with universities and colleges, setting up a new enterprise apprenticeship system at school. We reformed the total salary determination mechanism, issued *the Total Salary Management Measures*, continued to carry out double benchmarking for performance and remuneration market, and improved the salary determination mechanism of “profit linkage and efficiency regulation”. We implemented separate payroll management for key core technology research teams and national innovation platforms. *The Opinions on Strengthening the Construction of Incentive and Guarantee Mechanism for Scientific and Technological Innovation* was issued to systematically build an incentive and guarantee mechanism for scientific and technological innovation from five dimensions, including performance assessment and wage support, aiming at key links such as scientific and technological breakthrough, original innovation and achievement application. We enhanced medium and long-term incentive system, studied and formulated medium and long-term incentive guidance, supporting implementation rules and operation templates. We implemented the reform of overseas distribution system and improved the level of overseas salary management. We improved performance appraisal management methods, focusing on promoting high-quality development of enterprises, to better implement Group development strategy, strengthen the classified and differentiated appraisal, and optimize the appraisal indicators and evaluation system. We also comprehensively optimized the general manager reward management, clarified the scope, optimized conditions and standardized procedures, and strengthened the positive incentive effect on enterprise innovation and profitability. In 2021, the Company was awarded “A” class in business performance assessment of the heads of the central SOEs by SASAC of the State Council, and was awarded the title of advanced unit in assessment and distribution.

Overall planning of the reform on labor, HR and distribution systems In strict accordance with the deployment requirements of *the Three-year Action Implementation Plan for Deepening Reform of Sinopec Group (2020-2022)*, we benchmarked the reform-deepening supervision system of SASAC of the State Council and Sinopec Group, checked with the work account, clarified the responsible subjects one by one and incorporated them into the supervision of key tasks of Departments, built a key work supervision system within the Departments and a key work supervision information platform for all units of the whole system, further compacted the responsibility, and realized the guided operation. We organized the three-year action reform-deepening and special promotion meeting on labor, HR and distribution system reforms, and formulated and issued *the Evaluation Measures for the Reforms on Labor, HR, and Distribution Systems (trial)*.



Digital Transformation

Based on the new development stage, we implemented the new development concept, focused on improving quality, profitability and upgrading, made overall planning, and worked out integrated layout of information development and digital transformation. We strived to shape new industrial competitive advantages, created new drivers of high-quality development, and achieved a good start for the 14th five-year plan. We carried out “Research on Sinopec’s Digital Transformation Strategy”, prepared “Sinopec’s Digital Development Plan for the 14th Five-Year Plan”, and made arrangements for “432 project”, opening a new chapter for our information and digitization development.

Information Management Reform Stimulated New Vitality

We established new operation system of “Sinopec smart cloud” platform to support information construction and cloud platform application. We set up a unified information standard system framework and application mechanism, and further improved our operational system of streamlining administration, delegating power and improving services. We appointed region leaders organizing construction and application of informatization projects in different regions, and formed a new pattern of “business ori-

ented, technology overall planning and collaborative promotion”. Sinopec Data Governance Committee was established for improving structure of data governance. We established a data service operation system, and a total of 67,000 data models was formed on the data service platform to support data application in various fields such as the corporate financial analysis, risk prevention and control, customer service and so on.

Digital Integration on Business Management was Promoted to A New Level

We promoted platform 2.0 of Sinopec Party building, with an average daily volume of more than 450,000 visits, supporting the improvement of corporate party building quality. We improved the risk management system and enhanced the risk control ability of finance, financial derivatives, currency derivatives and other businesses. We built big supervision and data audit platforms, connecting and sharing data resources such as internal control, audit and supervision, and supporting online supervision

and remote audit. We comprehensively localized our new document system and realized the unified document handling at all levels of the Company for the first time. We built corporate consortium block-chain, the Great Wall chain, which was applied in engineering, contraction, archiving and other fields. We also set up an integrated corporate financial index system to unify statement caliber, logic and submission process of affiliated enterprises.



New Breakthroughs Achieved in Intelligent Production and Operation Upgrading

The intelligent operation center of the headquarters was completed and put into operation, realizing four functions of collaborative optimization, monitoring and early warning, dispatching command and integrated display, integrating 44 sets of source systems, monitoring the price trend and output trend of 242 types of bulk commodities sold in refining and chemical industry, and dynamically calculating daily benefits of each segment. We realized the sharing of production and operation data across business segments, supported the dynamic and optimal allocation of crude oil and refined oil products, and improved the level of Group operation management and the collaborative efficiency creation ability of the industrial chain. We also enhanced the digital upgrading of safety, environmental protection and energy management, realizing the risk monitoring and early warning of major hazard sources, dangerous chemical transport vehicles and ships, and improving our energy consumption optimization and carbon asset management level. We accelerated the cloud transformation of PCS EPBP

and EPCP in the oil and gas exploration and development, realizing cloud application of exploration intelligent decision-making, and improving the multi-disciplinary and remote collaboration efficiency by more than 30%. In refining and chemicals, main functions construction of smart plants was completed, and intelligent functions of in-and-out of factory were put into online application. In marketing, we completed station level integrated transformation and upgrading, and comprehensively popularized new application of “one-click refueling” in “Sinopec wallet”. In refining and chemical engineering, new mode of digital delivery was applied and copied in major projects such as Zhongke refining and chemical and Gulei petrochemical projects. The Company participated and achieved breakthroughs in national demonstration projects such as “industrial internet plus safety production”, and “5G infrastructure construction and application”. We achieved full 5G coverage network of main installations in 10 production subsidiaries, and receiving and sending efficiency of unmanned warehouse increased by 50%.

The Development of Customer Service Platform Reached A New Level

The three e-commerce platforms of EPEC, Easy Joy and E-Commerce supported market and sales expansion, enhanced cross-border integration, and promoted the development and growth of new economy and new businesses. Among them, the Easy Joy platform achieved integrated connection with 1,631 enterprises, with a best record transaction volume of 512.1 billion yuan, up by 14.3%. E-Commerce platform expanded new trading modes such as contractual, spot and bidding transactions, with a total annual delivery of 52.38 million tonnes and a turnover of 448.8 billion yuan, increased by 40%. We established a financial

technology service platform and launched more than 10 internet insurance products such as health and property insurance, and the pilot application of digital RMB was also was put on trial. We perfected business travel platform, realizing on-line core functions such as direct purchase of train tickets, hotel and shared-vehicles, and providing all-process convenience to our employees. We also optimized the shared service platform and promoted intelligent application, realizing situational reimbursement in 213 subsidiaries in China, and improved efficiency by 40%.

Audit and Supervision

In 2021, the Company established an audit center to strengthen the Party's centralized and unified leadership over audit work, laying a solid foundation for audit transformation, upgrading and high-quality development. Throughout the year, 1,075 audit projects were carried out, including 271 economic responsibility audits, 189 fixed asset investment project audits, 30 financial capital audits, 74 risk internal control audits and 21 joint venture and

cooperation project audits. In addition, 490 special audits or audit investigations were carried out to clean up the accounts owed to private small and medium-sized enterprises, and follow up poverty alleviation fund policies, R&D investment, fund management, implementation and effectiveness of three-year actions of overseas loss making institutions (projects) and state-owned enterprise reform.

Corporate Culture

Adhering to the corporate mission of “providing energy for a better life.” We put people first, emphasized attachment to our country, and adhered to the sense of a community with a shared future for mankind, taking people's yearning for a better life as the growth direction of the Company, and striving to provide more advanced technology, higher quality products and more considerate services to help sustain social development. We persisted in green and clean sustainable development, and built a clean, low-carbon, safe and efficient modern energy system to contribute to the construction of ecological civilization. We adopted win-win cooperation format to bring benefits to all stakeholders while achieving high-quality development.

Taking “building a world-leading clean energy and chemical company” as the corporate vision We practiced the new development concept of “innovation, coordination, green, openness and sharing growth”, resolutely shouldered the three core responsibilities of ensuring national energy security, leading the high-quality development of China's petrochemical industry and acting as the national strategic scientific and technological force. We accelerated to build the development pattern of “One Foundation of energy and resources, Two Wings of clean fuels and advanced chemicals, and Three Growth Engines in new energy, new materials and new economy”, and vigorously implemented the development strategy of value leading, market-oriented, innovation driven, green and clean, open cooperation and talent strengthening enterprises, so as to build the Company into a world-leading clean energy chemical company in three steps.

Sticking to the corporate value of “people-oriented, responsibility, integrity, refinement, innovation and win-win” We regarded the value as the basic criterion for all employees in building a world leading enterprise, and as the principle and standard that the Company must adhere to in operation and management.

Cultivating the “strictness, meticulousness, and concreteness” corporate working style We inherited the core spirits of the petroleum industry featuring “hard work” and “three honests and four stricts”, carried forward the traditions of the petrochemical industry and featuring patriotic, truth-seeking and pragmatic, and rigorous spirits, and strived to incorporate these spirits into the operation and management.

Strengthening corporate culture for future development According to the Company's special corporate culture construc-

tion plan based on “14th five-year plan” and the promoting action plan for benchmarking first-class management, focusing on culture and civilization cultivation and outstanding cases selection, we popularized and revised our related regulations, continued to improve the top-level design, gradually deepened the construction of special culture, promoted the organic integration of corporate culture with business development and operation management, and the foundation of cultural management became increasingly solid, providing cultural guidance and support for the Company to become a world-leading enterprise.

Continuing to build corporate culture bases We continued to build a number of traditional culture and education bases with strong social strength and influence, including three national industrial heritage bases, such as Nanjing Yongli Chemical Industry Company, meritorious well of Shengli Oilfield and Beijing Research Institute of Chemical Industry, 5 industrial heritage bases of central enterprises such as the former site of the headquarters of 57 oil-field, and 3 patriotism education bases of central enterprises such as exhibition hall of Zhenhai Refining and Chemical Company, 6 central enterprises' revolution history resources network exhibition projects, including Guangdong Petroleum History and Culture Museum, and the first batch of 10 companies' education bases for the history of revolution.



Brand Building and Management

In 2021, the Company accelerated the construction of a four-in-one soft power system of “Party building casting the soul, management laying the foundation, culture moistening the heart and brand creating value”. We continuously strengthened strategic planning to polish our brand, making Group brand and business brand develop in coordination, and our brand realized continuous appreciation. Sinopec's brand value was 26.40 billion USD, ranking 58th in the world (2021 ranking by Brand Finance), ranking the third in “China brand value information evaluation” and the first in the energy and chemical industry, with a brand value of 308.59 billion yuan.

Displaying brand images of central SOEs with high quality on Chinese Brands Day We joined hands with our sub brands to participate in the Chinese Brand Day with the theme of “Chinese brands shared by the world & dual circulation development pattern leading new consumption”, and presented the Company's achievements regarding brand development for 38 years since its establishment, while providing cleaner, higher-end and more diversified energy and chemical products to the society and continuously meeting people's needs towards a better life. The brand value proposition of “innovation leads the future of the industry, responsibility creates and enjoys a better life” and the brand commitment of “clean energy and better life” are deeply rooted in the hearts of the people, and we were accepted by millions of households with the image of a good enterprise and a responsible international large company.

Promoting brand reputation while popularizing Beijing Winter Olympics As an official partner for both summer and winter Beijing Olympics, we strictly adhered to the requirements of “green Olympics, shared Olympics, open Olympics and clean Olympics” put forward by General Secretary Xi Jinping. The Company advocated the concept of “clean energy powering for the Winter Olympics”, providing clean energy guarantee for the Winter Olympics infrastructure construction and event operation, and improved the brand reputation through offline Winter Olympics marketing and promotion activities from different perspectives in various ways.

Creating well-known sub-brands Through innovative layout of the whole industrial chain, we continued to build high-quality sub-brands with hard core technology, and lighted up people's beautiful new life with highly concentrated scientific and technological content. “Easy Joy” created a comprehensive service ecosystem of “better people, cars and life”, with a brand value of 18.4 billion yuan; “EPEC” made procurement more professional, with a brand value of 10.4 billion yuan; “Great Wall Lubricant” brought “aerospace grade lubrication protection”, with brand value reaching 8.7 billion yuan; “Donghai brand asphalt” expanded its business and lead the future to realize a brand value of 1.46 billion yuan; “Sinopec Machinery” forges state-level heavy equipment to support energy development, with a brand value of 580 million yuan.



Party Construction

✎ In 2021, the Leading Party Member Group of Sinopec followed the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, complied with the general requirement of Party building and organizational guideline of the CPC in the new era, and acted under the guidance of General Secretary Xi Jinping when visiting the Shengli Oilfield in Dongying city, East China's Shandong province. Under the guidance of the work seminar on Party building and the general plan for the "Innovation Year of central SOEs in Party building", Sinopec upheld the overall principles of "1355" for Party building, and delivered first-tier performance among central SOEs in terms of the quality of Party building, so as to engage high quality Party building to lead and secure high quality development.

Self-Construction of the Leading Party Group

Strictly implementing the "first topic" mechanism, The Leading Party Group collectively studied important speeches and important instructions of the General Secretary Xi Jinping 55 times and 101 times respectively throughout the year. The theoretical learning center group of the Leading Party Group carried out special study 18 times, formulated guidance on building an important position for practicing socialism with Chinese characteristics in the new era, and promoted the integration of learning, reflection and application, and knowledge, faith and practice. The Party Group took the lead in carrying out the study of Party history, deeply studied the spirit of the 6th Plenary Session of the 19th CPC Central Committee and the spirits of the important speech by General Secretary Xi Jinping on 1st July, promoted the implementation of 20 key projects of the Party Group "I do practical things for the masses", and drove the whole Company to form an upsurge of learning Party history, understanding ideas, doing practical things and opening a new situation. Our Group Party comprehensively studied and implemented the important instructions by General Secretary Xi Jinping during his inspection visit to Shengli Oilfield, instantly carried out three special seminars, systematically planned ideas and measures, and formed 25 specific measures in 8 aspects. They also held general meeting across the Group to enhance implementation, guiding the cadres and employees to move forward firmly in the direction guided by the General Secretary Xi Jinping, so as to defend the "two establishments" and practice the "two upholds" with practical actions. We revised working rules of the Leading Party Group

and the implementation list of main responsibilities of the Party Group for comprehensively and strictly administering the Party, further clarified the functional orientation and scope of responsibilities of the Party Group, giving better play to the role of steering, managing the overall situation and promoting implementation, and promoting the in-depth development of comprehensively and strictly administering the Party.

Party's leadership was strengthened while improving corporate governance. Adhering to the "two consistencies" and *the Opinions on Strengthening the Party's Leadership in Improving Corporate Governance in Central Enterprises*, we clarified the list of 28 tasks, promoted the improvement of 18 systems and mechanisms at the Group level, guided subsidiaries to improve 4 systems and mechanisms, and took 6 other work measures. We revised articles of association of the Group, improving the working rules and supporting systems of the three governance bodies including the Party Group, the board of directors and the management level, forming a "1+3+n" system, and ensuring that the leadership role of the Party Group was aligned with the performance of duties by the board of directors and the management level according to laws and regulations. We formulated the implementation opinions of directly affiliated enterprises on strengthening the leadership of the Party in improving corporate governance, guided the enterprises to formulate a list of "one enterprise, one policy", and promoted the enterprise Party committee to perform the responsibility of checking and orienting major matters.



Party and Employee Relation Work

Celebrating the 100th anniversary of the founding of the Party On celebrating the 100th anniversary of the founding of the Communist Party of China (CPC), Sinopec organized an array of activities, including watching the ceremony of celebrating the centenary of CPC founding and General Secretary Xi Jinping's speech, visiting the museum for the exhibition on the history of CPC themed "staying true to the founding mission", recommending individuals and units as the candidates for the national honour of outstanding Party members, exemplary Party workers, and advanced grass-root-level Party organizations, awarding commemorative medals to those who have been Party members for 50 years or more and have consistently performed well in their roles, paying visits on July 1st 2021 to the homes of Party members who received various forms of honor and commendation, those who live in difficulties, the veterans, as well as the families of the revolutionary martyrs and Party members who died on duty, sending representatives to attend the centenary celebration ceremony, organizing oath-taking ceremony for new Party members, and engaging employees through theme campaigns to strive for entrepreneurship and make suggestions for and contributions to the development of Sinopec. In commemoration of the centenary celebration, the Company held various forms of events such as seminars, theme exhibitions, employee talent shows of art, calligraphy and photo-taking as well as literature work publications, hosting the 6th awarding ceremony of "Outstanding Employees Touching Sinopec" and communicating the public with the stories of model employees. Through interviews and campaigns, we called on each Party member and grass-root Party organizations to fully fulfill their role as a model, organized one-day event for Youth League organization to carry on the good legacy and virtue of CPC and pooled all strengths together among the youth employees, such as story-telling of the home towns and writing a letter to the revolutionary martyrs. Nearly 6,000 mass-culture activities such as cultural galas, literature shows, and story-sharing workshops were held to highlight the tradition of CPC and spread positive energy.

Forging ahead with Party history learning and education Through the campaign of "doing practical work for the people", Sinopec launched 20 key projects for public well-being and did 3161 practical things at the Headquarters and among subsidiaries, with the internal satisfaction of 98.25% and the random rating by the 2nd Steering Group on central SOE Party history learning and education achieving "Good". We set up the party history learning and education column on Sinopec Party building online platform where published the latest essential points of CPC Central Committee, the Leading Party Member Group's instruction and the new development of the Company and its subsidiaries. The platform published 1738 pieces of information in 2021 and the page view reached 260 million person-times. We issued the Notice on Work Plan of Sinopec HQ. Party History Learning and Education, disseminated to all the Party members the designated books including the book on Party history stories shared by Xi Jinping, and focused on the study of the 'Four History', i.e., the history of the CPC, the history of China, the history of Economic Reform and Opening, and the history of socialist development.

Deepening systematic management of Party building We implemented *the Instructions on Strengthening Party Leadership in Corporate Governance of Central SOEs and published the Work Rules of the Party Working Committee of Sinopec Subsidiaries*. We conducted follow-up checks on implementing the spirit of the Meeting on the Work of Party-Building of SOEs, and presented a report on the achievement of Party-building, a documentary on Party-building, a piece of news report for external communication and an innovation forum with results announcement. On the Party-building work exhibition hosted by SASAC, 22 groups of Sinopec exhibition contents were selected. We formulated Sinopec's work system and specification on Party building and made innovative effort in Party-building assessment through thorough planning and organization, checks and verification, with strong emphasis on precise assessment and careful evaluation. We organized Party Committee secretaries at all levels to conduct review of Party building. The officers from Party-Building Bureau of SASAC were present at the meeting and gave high praise to the work of Sinopec. Sinopec was among the first-tier central SOEs to formulate the Guidance on Deepening Joint Party-Building Work which summarized 6 models on the practice of joint Party-building. We set up Sinopec Party-building institute to research and innovate on the subject of Party building. *The research report on Leveraging the Assessment as the Guidance to Integrate Party Building with Production and Operation* was granted the 1st prize of Chinese SOEs in Party building.



Innovating grass-root Party building Sinopec promoted *Party Branch Building Standardization Manual*, named 200 demonstration sites, carried out classification and grading, and organized demonstration trips for the Party-building experts and outstanding Party branch secretaries. The Company formulated *Management Measures for Basic Skills Training of Sinopec Grassroots Party Branch Secretaries*, and organized pilot training examinations. We improved the quality of Party members' coverage in grass-root production and working teams, explored the possibility of setting up the Party branch at the service station with 10,000-tonnes pump volume per year, and increased the proportion of the primary-level Party members to 86%. The Company held the meeting to promote innovation and quality improvement in grass-root Party building, and shared 100 best-practice cases about the innovation in grass-root Party building. We carefully organized the campaign titled "the Party flag flies high in the grassroots level", effectively engaged the role of Party branch as the fighting bastion and the vanguard role of model Party members. The research on Party building in the mixed-ownership enterprises has been listed as a sub-subject of special research by Organization Department of the CPC Central Committee and an extended research project of SASAC Party Committee of the State Council. We developed 3 subsystems of United Front, Labor Union and League members and the youth, put online Sinopec Party-building platform 2.0, and completed the layout of Party building across Sinopec online platform. The Company hired Party-building specialists and senior experts, and set up the job position of chief Party-building expert at the group level, further broadening the channels for the growth of Party cadres. We carried out follow-up check to strengthen the

work style and code of conduct at the Headquarters, and further implemented 9 measures to improve the work style and code of conduct at the Headquarters.

Focusing on the united front, the masses and youth league Sinopec strengthened the Party's leadership over united front work, the masses and youth league, promoted the joint development of employees and the company, and created a harmonious and stable environment for reform and development. The Company implemented the regulations on the work of the united front, set up the United Front Work Department of the Leading Party Members Group, introduced a system for senior Party-member executives to networking and interacting with each other, opened the Cloud studio called "Concentric Circle", and expanded the channels for people outside the Party to make suggestions. We issued *the Opinions on "Being A Good Master, Contribute to A New Era with First-Class Performance" Labor Contest*, held the meeting to promote the labor contest among 10,000 service stations in over 100 sites, the press release featuring "Drivers' Home" and "Service Stations of Love", as well as the labor contest for ZRCC Phase-1 project. The above-mentioned 3 contests were listed the national flagship labor and skill contests, in which 7 employees were granted "May 1st Labor Medals", 3 subsidiaries were awarded the National May 1st Labor Model Certificates, and 14 Sinopec organizations obtained the title of National Pioneer Working Teams. We issued the Implementation Plan of Making Party-building Lead League Team Building of the company, held two training courses of young Marxist project. One employee won the May 4th Medal of Chinese Youth, and 11 collectives won the title of the 20th National Youth Civilization Unit.



Ideological and Political Work

Forging the soul with solid theories The Party Group took the in-depth study and implementation of Xi Jinping's thought of socialism with Chinese characteristics in the new era as its primary political task, focused on three core responsibilities of ensuring national energy security, leading the high-quality development of China's petrochemical industry, and acting as a national strategic scientific and technological force, clearly put forward the objectives, paths and measures to build Sinopec into an important position for practicing Xi Jinping's thought on socialism with Chinese characteristics in the new era, and built 9 positions such as the pioneer position of "two upholds" and the energy security guarantee position, with the systematization, practice, achievement and normalization of "learning, reflection, practice, and comprehension". We promoted the study and education of party history with high standards and high quality, diversified ways of learning, strengthened the belief of "to love China and revitalize petrochemical industry", and adhered to the mission of "powering for a better life", so as to further clarify the strategic objectives and practical path of building a world leading enterprise, and demonstrate the political character of loyalty to the Party with practical actions.

Ideological guidance The Party Group took the lead in enhancing the main responsibility of ideological and political work, comprehensively built up the dynamic ideological guidance and control system of employees in the three dimensions of "Online + offline", "head-office + grass-roots" and "domestic + overseas", and lead cadres and employees to seek for benchmarks, ideas and methods from the spirit of General Secretary Xi Jinping's important speeches and instructions. In promoting high-quality development of the Company, we educated and guided cadres and employees to deepen their understanding of the forward-looking layout of new energy business, and further converged ideological views. Confronted with the major political task of poverty alleviation, we held the belief of victory, maintained the sprint state, stimulated consumption, and made achievements. We helped Dongxiang and other designated poverty alleviation areas in Gansu Province get rid of poverty.

Focusing on education to enhance the roots We closely followed the Company's major decisions and arrangements, focused on the three-year action of state-owned enterprise reform and other key tasks, strengthened analysis on dynamic situation

and policy publicity and interpretation, and promoted the spread and transmission of the voice of the Party Group. We also closely carried forward the fine tradition of petroleum and petrochemical industry, improved the "seven mechanisms" of recruitment evaluation, entry education, node ceremony, training contents, manual guidance, role models and annual assessment, and guided cadres and employees to always maintain the lofty ambition of "devoting to petroleum industry for our motherland" and gather the positive energy of "powering for a better life". We closely followed the actual needs of cadres and employees, innovated the way of ideological education. We provided "psychological hotline services against the epidemic" and "free clinic", and held virtual Spring Festival Gala with overseas employees themed "to power together", which further gathered and triggered our joint efforts for entrepreneurship.

Lead by the power of examples Taking the celebration of the 100th anniversary of the founding of the CPC as the theme, we carried out the "top ten red education bases of Sinopec", held the "lecturing meeting of Daqing spirit and iron man spirit" and the role model report meeting of "passing on the petroleum spirit and vowing to win double victories", and led cadres and employees to draw spiritual strength from the red culture. We organized activities learning from MIN Enze, the "most respected striver" and CHEN Junwu, the "model of the times". We selected spiritual civilization pacesetters in 4 consecutive years and picked up "moving Sinopec" figures in 6 years in a row, from which the patriotism and enterprise awareness of cadres and employees was continuously strengthened.

Combining efforts for publicity We actively integrated internal and external resources, strengthened theme publicity and positive publicity, and showed excellent image of "good enterprise of the Party and the people". With "Internet+" as an important carrier of ideological and political work, we innovatively set up a Wechat platform named "the Fighting Sinopec" to put ideological and political work online and into our hearts. With building an all-media public opinion field as the carrier, we consolidated and expanded the influence of mainstream public opinions. More than 1,300 official new media accounts developed in coordination with conventional media, forming an all media matrix of "internal + external" and "domestic + overseas" linkage.





Anti-Corruption

Strengthen political supervision and serving as the pillar of the nation Sizing up the overall situation of the Communist Party of China and the whole nation, focusing on the core responsibility of the Company, Sinopec engaged in regular and specific work to strengthen political supervision. The Company deepened political supervision with the focus on the areas of following the guidance of Xi Jiping's instructions during his visit to Shengli Oilfield, applying the new development philosophy, tackling problems in core technological research that hindered the country's development, and implementing Sinopec's 14th Five-Year Plan as well as hydrogen development, with an aim to firmly uphold Comrade Xi Jinping's core position on the Party Central Committee and in the Party as a whole and uphold the Central Committee's authority and its centralized, unified leadership and that closely follow the Party Central Committee with Comrade Xi Jinping at its core in thinking, stance, and action.

Promoting the "three don'ts" in a solid and effective manner and focusing on reducing stocks and curbing increment Sinopec always maintained a tough stance with zero-tolerance against corruption. The Company accurately used the four forms of oversight, discipline enforcement and accountability, improved and fully used the fault tolerance and correction mechanism, so as to create entrepreneurship and encourage employees to take up more responsibilities. The Company carried out anti-corruption monthly campaign, disclosed and reported typical cases in violations of discipline and law and promoted case-based education, case-based reform, and case-based governance.

Continuing to oppose the "Four Forms of Decadence" (formalism, bureaucratism, hedonism, and extravagance), establishing new standards, and making continuous progress in promoting ethical standards Sinopec strengthened supervision and inspection by sending notice and warnings at the key milestones and carrying out special inspections and thorough investigations. The Company strictly investigated and dealt with violations of the "Eight-Point Regulation of the CPC Central Committee", and took formalism and bureaucratism as the priority of supervision. We have continuously promoted the special rectification on formalism and bureaucratism in the area of environmental protection for 3 years running, made in-depth analysis on ethical issues behind the safety and environmental incidents, and reversed the tough situation in work safety. We deepened the ethical development at the Headquarters, kept meetings and documents minimized, and consolidated and further reduced the burden at the grass-root level.

Leveraging overall supervision and improving its integration Sinopec earnestly carried out monthly and quarterly supervision committee meetings, deepened the efforts to the key supervision tasks, including the supervision on the top leaders and senior management teams, rectification of the issues such as tunneling the public interests into private and establishing the system to address illegal operation and investment accountability. The Company reinforced the special supervision and inspection on key projects to ensure the delivery with high integrity and efficiency, improved IT application in overall supervision by building the specialized information platform and promoted business transparency underpinned by big data application.

Inspection Work

In 2021, the discipline inspection organization of Sinopec earnestly studied and was guided by the important discussions on inspection work and spirit of the important speech by General Secretary Xi Jinping during his visit to Shengli Oilfield, highlighted supervision priorities, innovated its ways and methods, and continued to promote the high-quality and full-coverage discipline inspection by the Leading Party Member Group as well as the standardized full-coverage discipline inspection by the Party Committee. The function of discipline inspections as a blade through corruption and misconduct was fully demonstrated to supervise the development of inspection and promote its further improvement. As the only representative of central SOEs, Sinopec shared its typical practice and experience on the 2021 National Inspection Work Conference.

Deepening effectiveness of the central inspection and rectification Sinopec earnestly implemented the requirements of General Secretary Xi Jinping on the "Integration in Four Dimensions" to make rectification, and fulfilled the inspection and rectification tasks required by Central Committee of CPC as well as the Leading Party Member Group. Integrating rectification. The Company firmly established the awareness that a big picture should be drawn for integrated rectification to give full play to the effect of coordinated rectification. We made an overall review on all the problems and issues discovered in the discipline inspections by CPCCC and the Leading Party Member Group, the party building assessment, the State audit as well as internal and external audits, and promoted coordinated rectification at the Headquarters and in the directly affiliated institutions to ensure thorough rectification and maximize the effectiveness of rectification. Making steady progress through classification. In accordance with the layout of the rectification work, the Company promptly summarized the experience and practices, focused on providing assistance and support, and promoted the comprehensive deepening and overall improvement of inspection and rectification work. Making breakthroughs in key areas. The Company made good use of the "red, yellow and green lights" oversight mechanism to ensure rectification matters properly addressed and resolved.

Making full-coverage and high-quality inspection by Leading Party Member Group To resolutely fulfill Sinopec's "three core responsibilities", the Company coordinated supervision resources, actively promoted inspection and supervision into the "overall supervision", and ensured that the major decisions and policies of the CPC Central Committee and Leading Party Member Group of the Company were implemented effectively. Making regular inspections on key subsidiaries. With focus on the "four implementations", 3 news + 1 high (the new development stage, new development concept, new development pattern, and high-quality development), safeguarding of national energy security, the implementation of the 14th Five-Year Plan, the supervision on the top leaders and the senior leadership as well as the work style and code of conduct, the Company carried out inspections in two rounds on 30 Sinopec subsidiaries and affiliates. In the mean-

time, the Company performed "dual responsibility" and sent 10 steering teams to guide and supervise the party history study and education campaign across Sinopec. Making special inspections targeting key areas. For the first time, the Company conducted special inspections in the field of science and technology to identify the bottlenecks and outstanding issues at different levels and in different categories, so as to win the battle of securing key and core technologies. We carried out special inspections in the field of ecological and environmental protection to identify the prominent problems in the implementation of responsibilities and in the institutional mechanisms. Carrying out thematic research to support decision-makings. With a focus on promoting the sound and stepwise development of the hydrogen industry, the Company published *Reflections on Strengthening Political Supervision in Delivering Carbon Peaking and Neutrality Targets* on the briefing journal of the Policy Research Office of the CPC Central Committee. A number of thematic research results supported the decision-making by the Leading Party Member Group. Applying inspection results more effectively. The Company linked the results of inspection to the optimization and adjustment of senior management team, the performance assessment and risk prevention and control so as to strengthen management. We held meetings for the purpose of mobilization, warning and education, and made public the major problems found in the previous round of inspections and the typical cases of discipline violations, so as to strengthen the political oversight and act as effective deterrence.

Fully standardizing Party committee inspection The Company strengthened supervision network to form a work pattern of unified leadership, top-down implementation, internal coordination, system integration, and efficient collaboration. Further standardizing inspection. The Company issued *the Manual of Inspection Work by Party Committees of Directly Affiliates* to define the work procedures, inspection methods and key points of supervision, so as to provide guidance for standardizing inspection by Party Committees. We strictly implemented the filing system of inspection work, navigated the Party Committees in correct political orientation, and promoted the inspection work of Party Committees with high quality. Providing assistance and guidance. We carried out special research and surveys on inspection work in different business segments and regions, and organized workshops and discussions. We opened an online column in the internal website to share best practice and experience. We drew inspection experience and guided Shengli Oilfield to work out "18 Methods of Inspection" and magnified the typical guiding effect. We guided some specialized subsidiaries to deepen level-skipping inspection and pilot cross-inspection, and provided one-to-one assistance and guidance to the late-starter and less experienced units. Strengthening the training of inspection officers. The Company sent the inspection officers of the Party Committee to attend group training, and for the first time, included the heads of inspection institutions in the training for inspection of the Leading Party Member Group, so as to achieve full coverage of the training for the backbone of inspection officers.

Social Responsibility

- Safety and Employee Health
- Green and Low-carbon Development
- Social Contribution



Safety and Employee Health

Work Safety and Security

Establish systematic thinking and promote scientific treatment The Company issued the President's Order No. 2 and *the HSE Management System Manual* to clarify the fundamental policies for systematic, standardized and science-based HSE management. Nine specialized sub-committees have been set up at the Headquarters level to integrate systematic requirements into production and operation as well as specialized management. A working mechanism for systematic operation has been established. The Company organized trial review on the HSE management system of the affiliated enterprises to improve the applicability, adequacy and effectiveness of HSE management system. We established the mechanism of "connecting safety management with the responsibility of top leaders", and implemented the safety assurance system by top leaders among the high-risk enterprises. We carried out HSE review and performance ability assessment on the new top leaders of enterprises, organized seminars and training for the senior leaders in charge HSE in the affiliated enterprises, and consolidated the safety responsibilities of top leaders and senior executives in charge of HSE work. We implemented *Work Safety Law* while ensuring the work safety responsibility system among all personnel, carried out training for key HSE positions, and improved their ability to be aware of and fulfill responsibilities.

Strengthening institutional development, managing risks and controlling hidden hazards The Company deepened efforts to establish a double-prevention mechanism of multi-tier safety risk control and potential hazards check, and addressed key issues through a three-year campaign to improve work safety. We promoted the application of PHAMS platform, the risk checklist for typical equipment and facility, as well as the risk analysis tools such as HAZOP and JSA. We evaluated the safety risks in the pipe racks and discharge parts of the unit and carried out risk analysis on process equipment and typical operations in hydrogen refueling stations. We conducted risk self-assessment for large oil and gas storage bases, organized experts to assess the overall offshore risks, and rectified the problems in a timely manner. We launched several campaigns to ensure work safety through five inspections and five strict measures and achieved 100-day safety without accidents. We checked and rectified the potential hazards, corrected violations of rules and regulations, and made every effort to lay a solid foundation for safety work.

Vigorously implementing rules and regulations and strictly controlling key links We amended the Management Measures for Contractor Management, defined the primary responsibility units for QHSE approval of major contractors, and explored to establish the self-management mechanism by contractors. We carried out research and discussion on work permits, revised the direct system featuring "7+1" work links, promoted the application of electronic work order, and standardized work permit management. We formulated energy isolation, anaerobic operations and other urgently needed systems, and implemented reporting management on high-risk operations. We strengthened abnormal production information management by integrating such information as fire alarm, major hazards and other abnormal information. We estab-

lished information management platform for accident, incident and abnormal information to trace and analyze small anomalies, small fluctuations and small incidents in the production process, and improved the information sharing mechanism for abnormal production. We organized special inspections on the work safety of key enterprises and reviewed their rectification measures and effects, provided third-party safety diagnosis and technical services for offshore platforms, conducted safety audits for coal mines, and organized experts to conduct special supervision on on-site work and mining safety.

Strengthening emergency preparedness and enhancing comprehensive response capabilities The Company revised the company-level emergency plan, and established a precaution system of "1 overall plan +10 special plans". We organized group-level emergency drills to improve the emergency handling capacity to address major dangerous situations in high-sulfur gathering and transportation pipelines. We implemented the "135" principle of emergency response, and established a mechanism for spot checks on grass-root emergency response drills. We launched a special project to control geological disasters in Sichuan and Chongqing, and checked the safety of pipelines involving water bodies. We actively participated in social rescue, and were recognized by State government departments and agencies as well as local governments. The Puguang Team of National Hazardous Chemical Rescue was awarded the first Advanced Collective of National Emergency Management System.

Strengthening public safety and security management We strengthened safety and security protection during special periods through special actions, implemented the management measures on dangerous chemical processes and products under special supervision as well as the measures during special operations and special periods. We established a joint prevention and control mechanism, and rigorously achieved the goal of "4 musts" regarding unsafe or insecure issues. We strengthened checks and handling of disasters and dangerous situations, effectively responded to the implications such as major floods and typhoons in Henan and Shanxi provinces, and cleared the explosive remnants left over from exploration in Xinjiang. We strengthened security management of oil and gas infrastructure and reduced oil-related cases by 90%.

Strengthening sci-tech application to safety management and improving the level of intrinsic safety Sinopec forged ahead with the pilot program of Industrial Internet plus workplace safety, optimized and upgraded the safety management information system, and established an information-based supervision platform for the transportation of hazardous chemicals. We developed 5G infrastructure and its applications, coordinated IT development in the field of safety supervision, conducted data safety governance, and promoted digital transformation in work safety. We carried out independent research in advanced flame-retardant fabric, developed technology standard for the flame-retardant and anti-static clothing at workplace. The technology was verified as Sinopec proprietary technology.

Overseas Security

Preventing and controlling the epidemic at overseas The Company timely adjusted prevention and control priorities, redoubled prevention and control efforts, optimized prevention and control measures, strictly implemented the "3345" work policy, strengthened the overseas epidemic prevention and control system covering supply guarantee, emergency response, and extended risks prevention, shifts of personnel, and stability of the workforce, paid close attention to key links such as forefront and remote prevention and control and vaccination of cross-border mobile personnel, carried out strict video inspection and supervision, coordinated the epidemic prevention and control and business development. No infection in clusters have occurred in the company's overseas projects, and the COVID-19 vaccination coverage of overseas Chinese employees has been basically achieved. The shift and leaves of overseas employees have been ensured through the organization of charter flights, joint charter flights, commercial flights, etc. to ensure the smooth operation of international projects.

Doing a good job in overseas public security work under the new situation Sinopec continuously revised the overseas public security management system, conducted in-depth overseas public security risk assessment, actively organized overseas

public security training, timely expanded medical insurance to cover COVID-19, provided remote "speedy diagnose through interrogation" services, so as to strengthen the physical and mental health management of overseas employees. We continued to promote safety risk inspection and emergency response capacity building, strengthened risk information collection, analysis and judgment, and coordinated the country risk warnings and safety risk pre-warnings. The Company maintained the record of "zero deaths" in overseas public security for 14 consecutive years.

Vigorously promoting the physical and mental health management of overseas employees Sinopec strengthened overseas health care and emergency response system. The Company urged the overseas institutions to check item by item the status of the medical apparatus and facilities according to the regulations of SASAC and the Company, expedited the upgrading and refurbishment of medical rooms, and supplied Chinese medical workers for the key projects in key countries. We thoroughly screened the underlying medical conditions of the overseas employees, gave priority to repatriate the return of the employees under such conditions or with severe diseases, and established the physical and mental health management and service platform for overseas employees.



Employee Health

Consolidating the foundation of occupational health management The Company addressed the excessive noise at workplaces, compiled the guidance on the control and treatment of noises and hazards, and summarized and popularized the experience of the subsidiaries in this regard. We organized seminars and training for occupational health management personnel as well as virtual training for all employees, and launched *Occupational Disease Prevention and Control Law* Publicity Week and the campaign to enhance the awareness and ability of occupational health protection among employees. We also carried out quality inspection on labor protection products, and the satisfaction of the products and employees continued to increase.

Promoting employee health management The Company actively carried out pilot health promotion projects and pilot studies on health intervention measures to improve collective health management. We followed up the analysis of new cases of non-production-related deaths and worked out health management improvement measures. We guided our subsidiaries to identify and control the health safety risks among employees under high risks, and encouraged the subsidiaries to put in place emergency rescue equipment at workplace, including more than 1,000 AED units.

Tightening and normalizing epidemic prevention and control The Company coordinated epidemic prevention and control both at home and abroad, carried out the screening on the employees involved across the board, and strictly and meticulously implemented the State requirements on epidemic prevention and control measures. We actively fulfilled the responsibilities of central SOEs to ensure the supply of epidemic prevention and control materials, and served the overall situation of epidemic prevention and control across the nation. We progressed full vaccination for all the employees under adequate health conditions.

Strengthening institutional support The Company set up the Working Committee on Mental Health (EAP) with the framework of the mental health service system in place. We implemented *the Guidance on EAP Development and the Opinions on Implementing Overseas EAP Work*, and integrated EAP work into the Company's HSE management system. Paying close attention to team management. The Company built EAP work team at all levels, and organized EAP training courses for Party organization at the grassroots level in different segments. We organized the successive EAP backbone trainees for the personnel in the fields of safety management, overseas management, discipline inspection and supervision, and petition stability, with a total of 1,335 people joining the training. Building platforms. The Company fully leveraged "Xinfu Consulting" section on Sinopec internal online communication platform which covered all-employee subscriptions, where all the employees and their families had access to one-to-one psychological consultation appointment. We made good use of "24-hour staff online psychological consultation" and "overseas staff online psychological consultation", held online EAP courses to help employees with a toolkit of mental adjustment, and carried out "Xinfu Express" EAP front-line activities to deliver psychological services to the most needy enterprises and people. Throughout the year 8,565 person-times consulted through the "Xinfu Consulting" plat-

form and "Xinfu Express" was hailed as "a train of happiness that was difficult for passengers to leave". Focusing on publicity, communication and cultural integration. The company integrated EAP with publicity, internal communication and corporate culture and progressed them in parallel. We made efforts to take the questions and dispel the doubts of employees to create a harmonious and stable atmosphere. We integrated safety management with EAP to hold training courses for employees to improve safety awareness and mental health, as well as special training courses on safety management and EAP training for overseas employees, promoted the experience and practice of "managing employee mental health in six essential dimensions", and shifted from "post-intervention" to "prevention in advance", which allowed the managerial people to know how to manage an organization while improving employee's mental health. Improving crisis response. The Company compiled and distributed to the whole company the mental health books such as *Psychological Battle against Pandemic and Psychological Adjustment and Reconstruction* to popularize the science and knowledge of epidemic prevention. We engaged EAP volunteer service teams to provide group or one-to-one consultation services for the employees under quarantine and overseas employees through online and offline modes both in China and overseas.



Green and Low-carbon Development

✎ In 2021, the Company implemented Xi Jinping's Thought on Ecological Civilization and related guidance and requirement, pressed ahead all work with the aim of reaching carbon peak and carbon neutrality goals, and carried forward the green and clean development strategy based on its HSE system. We continued with the improving energy efficiency plan, constantly intensified emission management, doubled effort in pollution control and ozone protection, safeguarded the eco-environment along the Yellow River and Yangtze River, and provided strong support for the Company's high quality development.

We were awarded titles of "2021 China Environment CSR Enterprise" and "2021 Outstanding Environmental Contribution Enterprise", and won the title of "China Low-carbon Development Pioneer" for the 11th year in a row.

Green Enterprise Campaign

Promoting green enterprise campaign among all subsidiaries We completed the mid-term evaluation for the green enterprise campaign, adjusted and optimized 6 action targets, and deployed 27 tasks. We carried out results review and onsite services to participating enterprises and granted the "Sinopec Green Enterprise" title to 32 subsidiaries including Northeast Oil & Gas Company. Four subsidiaries including Guangzhou Petrochemical Company, Changling Refining and Chemical Company, Tahe Refining and Chemical Company and Sinopec Shanghai Leader Catalyst Company won the title of national green factory.

Categorizing the participating subsidiaries We introduced categorization criteria for participating subsidiaries' green development results, issued *Guidance on Green Enterprise Evaluation (2021 edition)*, and conducted review of 75 subsidiaries for their categorization.

Pushing forward the green construction at grassroots We encouraged all subsidiaries to establish detailed green construction plan, process and evaluation criteria. Engineering and R&D segments are urged to set up green engineering companies and institutes. At the end of 2021, we had a total of 14,500 grassroots organizations completed green construction, accounting for 50.2% of the total.





Energy Management

Meeting targets of energy and water saving Energy intensity dropped by 1.4% and energy saving was equivalent to 2 million tonnes of coal. Industrial fresh water usage was down by 1.1% and water saved amounted to 10 million cubic meters.

Remarkable energy efficiency improvement 544 projects for improving energy efficiency were conducted, resulting in 967,000 tonnes of coal equivalent saved. The E&P segment promoted the energy efficiency integration of injection, extraction and transmission to reduce electricity use. The refining segment intensified low temperature residue heat reuse, amine liquid and hydrogen system optimization, and constantly pushed forward the insulation and heating furnace improvement. The chemical segment benchmarked energy efficiency performance among same-type facilities, made sure that national requirement for power generation units and unit coal equivalent consumption were met in addition to saving electricity for water circulation. The marketing segment strengthened electricity management in storage and transmission to reduce electricity consumption.

Deepening benchmarking We actively participated in the Energy Efficiency Lead program. Qingdao and Guangzhou subsidiaries were awarded the Lead company title for crude processing category. Zhenhai and Maoming subsidiaries won the tile for ethylene production category, and Hainan Refining and Chemical

Company won the title for PX production. Additionally, Qingdao, Zhenhai and Tianjin won water saving Lead title for refining business, Maoming and Zhenhai won this title for ethylene production. Zhongtian Hechuang won the title for water saving among coal to olefin businesses.

New progress in water saving and emission reduction We strengthened water saving from the very beginning, conducted water balance test and leakage detection to reduce water usage. We intensified recycle and sped up the facilities construction to reuse sewage water, and increased utilization of discharge water treatment and reuse facilities. We further replaced fresh water with unconventional water such as reclaimed water, desalinated sea water, mining wells water, rain etc.

Intensified R&D effort Mature and applicable new processes, technologies and equipment were commercialized at a faster pace. Oilfield subsidiaries applied technologies that integrated regional energy efficiency improvement, reuse residue heat from discharge water and centralized power supply for oil and gas wells. At refining and chemical subsidiaries, energy system optimization, heating furnace efficiency improvement, gas turbine internal alteration and heat preservation revamp etc. were carried out. In marketing subsidiaries, technologies for PV power generation were rolled out.

Environmental Protection

Constant HSE management system improvement We amended *the HSE Management System Manual*, rewrote 9 regulations regarding environmental protection and established an environmental protection management system based on 16 regulations. A committee for environmental protection was set up to formulate a mechanism to monitor and evaluate environmental indicators and assess the effectiveness of the system. We aligned the HSE documents with environment regulations and policies, ensuring that business lines were also responsible for environmental protection. We compiled detailed procedures and criteria for environmental performance evaluation and sent 35 teams to 93 subsidiaries for evaluation of system compatibility and effectiveness, identifying the current situation as well as future focus areas.

Continued battle over pollution We made sure that *the Sinopec Ozone Protection Program* was well implemented through VOCs and NOx management. We also issued *the Sinopec Environmental Protection Performance Elevation Plan 2021-2023*, compiled *technical requirements for storage tanks VOCs management* and pushed forward relevant work. Water pollution prevention and control was continued with outfall management further intensified and waste water online monitoring further emphasized. We issued *guidance on management of rainfall and sewage water in refining and chemical factories*, constantly improving diversion of rain and

sewage water, accelerated the sealing of sewage water pipeline network to prevent discharging water that exceeding specs. We regularly evaluated the prevention and control measures for water pollution and increased emergency storage capacity for waste water. Emergency response policies and materials back-up were further strengthened drill was carried out on a regular basis with the aid of video surveillance, oil spill monitoring and emergency shut down. Soil pollution prevention and control was deepened. We put in place soil and underground water pollution prevention and control measures and conducted risks identification and rectification. Thorough investigation and risk evaluation were carried out for soil and underground water and relevant remediation plan was made. We completed clean-up of historic solid waste landfill and decommissioned sites and started pilot projects for underground water pollution control. Increased effort was made for R&D regarding underground polluted water rectification and advanced equipment. Database was set up for soil and underground water monitoring purpose. We applied categorized management of land used by subsidiaries and organized solid waste management programs. All subsidiaries strictly abided by *the new laws on solid waste*, *the Company's regulations on hazardous waste management and regulations on general industrial solid waste and environmental protection*. They constantly standardized management of hazard-

ous waste, industrial solid waste, construction waste and residential trash. We pushed forward the progress of building regional hazardous waste treatment center and identification institution and strived to build a zero-waste company. Effort was also made to reduce total volume of solid waste, recycle and detoxify solid waste, and decrease landfill volume. Work was also done to identify features of biochemical sludge and pyrolysis ash from oil-based rock cuttings, deepen green procurement and packaging practices and roll out the application of oil sludge drying technology.

Continuously improved capability of risk management and emergency response We focused on downgrading environmental risks through effective measures, reduced Level I risks by 51% and there were no corporate-level environmental pollution or ecological damages in 2021. We intensified major environmental risks and hidden peril management with senior executives participation mechanism. Policies and regulations were issued and some major potential environmental risks were treated and downgraded. 12 major environmental risks and 8 hidden risks for environmental pollution were properly managed and downgraded. Rules and regulations framework was further enhanced and checking mechanism was standardized for full and thorough investigation and scheduled rectification.

All-out effort in protecting the ecology along the Yellow River and the Yangtze River We made sure that such work was well coordinated by convening 5 special conferences involving subsidiaries along the two rivers on detailed action plans. We is-

sued guidance for those subsidiaries with clearly defined targets and called on them to compile work programs. Each and every subsidiary was asked to formulate its own plan for saving water and cutting emission. Rectification for existing problems was accelerated by convening meetings and making on-site inspections. Special monitoring and supervision on sewage water risks along the two rivers was conducted and proposed 218 pieces of advice for improvement addressing 169 problems. We also arranged risks checking regarding solid waste sites within 1 kilometer along the Yangtze River and solid waste sites and production facilities within 10 kilometers along the Yellow River, completed the cleaning-up of some existing sites and kicked off the monitoring of drilling site solid along the Yellow River.

Ecological protection during major events To ensure a smooth CPC centenary celebration, we had a special program to control hazardous waste and radiation at 15 subsidiaries in Beijing, Tianjin and Hebei. To service the Beijing Winter Olympics, we provided clean and low-carbon energy such as hydrogen and natural gas while controlled emission by subsidiaries in Beijing, Tianjin, Hebei and neighbouring regions. We made sure that *the 2021-2022 Air Pollution Control Program* target could be met, asking subsidiaries in the “2+26” regions and in cities in Fenwei Plain, north Hebei, north Shanxi, east and south Shandong, and south Henan to set up relevant tasks lists and make response plans. 10 subsidiaries in the regions carried out performance improving programs and 2 of them were given A-class certification.



Fighting Climate Change

Concrete work towards meeting the dual carbon goals We pushed forward in-depth study on *Sinopec's leading role in the energy and chemical industry to meet carbon peak emission and carbon neutrality goals*, and issued guidance with 37 specific items of action covering 13 aspects. We also completed the first ship of carbon-neutral oil transaction. For carbon-neutral stations, Jiaze Station in Changzhou of Jiangsu and Liuhua Station in Baise of Guangxi passed independent verification.

Consolidating emission management We issued or revised several policy documents on corporate emission management, carbon trading, and fixed assets investment carbon emission evaluation to enhance related work. We took stock of carbon emissions and had third-party verification for the year 2021. We practiced strict carbon emission checks and controlled incremental emissions. The carbon assets management information system was constantly improved so as to make information reporting by subsidiaries more efficient and support production units-level carbon emission evaluation and verification. Such work laid a solid foundation for formulating emission control measures.

Proactive CO₂ capture and utilization measure Refining and chemical subsidiaries continued to recycle and reuse high concentration CO₂ from hydrogen and synthetic ammonia facilities, and captured 1.52 million tonnes of CO₂. Oilfield subsidiaries held

CCUS mining site experiments with 31 tonnes of CO₂ injected and increased 89,000 tonnes of crude production. The Qilu-Shengli one million tonne CCUS pilot project was started and accumulated engineering experiences and technical data for large scale CO₂ utilization.

Strengthened methane emission management Together with CNPC, CNOOC, we initiated the alliance on methane emission control by Chinese oil and gas companies and released an advocacy paper, setting up a platform for communication and enhanced capability and R&D for the industry's methane emission management. We conducted pilot projects to monitor methane emission, vented casing gas, comprehensively reused and recycled flare gas, and promoted recycle at remote wells. In 2021, we captured 717 million cubic meters of methane, and reduced GHG emission equivalent to 10.75 million tonnes of CO₂.

Coordinated management of carbon trading We coordinated the emission quota balance situation of subsidiaries, made carbon trading plans and unified management of carbon trading. Through negotiation, CCER swapping and internal allocation, carbon trading was conducted and carbon quota was fulfilled with a trading volume of 9.7 million tonnes of carbon worth of 414 million yuan.



Afforestation Work



Numerous activities to commemorate the 40th anniversary of national voluntary tree-planting campaign Themed around the 40th anniversary designed by the National Greening Commission and the Company's "Planting Trees to Help Meet Dual Carbon Goals" program, we organized a series of events on March 12 National Tree Planting Day, June 5 World Environment Day, August 25 National Low Carbon Day, the CPC Centenary and December 12 when NPC's issued the resolution on launching a nationwide voluntary tree-planting campaign.

Strategic cooperation agreement with the National Forestry and Grassland Administration (NFGA) We signed a comprehensive strategic cooperation agreement with NFGA to foster higher level cooperation in exploring path for meeting dual carbon goals, boosting carbon sink capability, and promoting voluntary tree planting, in a bid for greater contribution to meeting the national goals and building a beautiful China.



Social Contribution

Sinopec Lifeline Express

In 2021, Sinopec Lifeline Express traveled to Henan, Qinghai and Shandong to cure 2,808 cataract patients.

As of the end of 2021, Sinopec Lifeline Express had provided free operations to around 50,000 cataract patients in 41 poverty-stricken areas in 18 provinces or autonomous regions. In addition, Sinopec donated medical equipment to 23 cataract treatment centers.



The Gas Station that Cares: A Better Road Home

In 2021, entering into the ninth year of "The Gas Station that Cares: A Better Road Home" program, Sinopec continued to focus on better service while meeting pandemic control requirements. Services at 238 stations in Guangdong, Guangxi, Hunan, Jiangxi and Guizhou were provided in a timely and orderly manner. We focused on the needs of the families of those could not go back home during the Chinese New Year and provided 1,000 free delivery services for them. We increased 110 stations that provided services to truck drivers during the Spring Festival and services were extended from 45 days to 365 days.



“Sinopec Gas Stations of Love • Sanitation Workers’ Lounges”

We issued guidance on construction and operation of the “Sinopec Gas Stations of Love” program, focusing on improving working and living conditions of workers of various sectors, leveraging our network and resources, and building the stations with a “7+X” approach, i.e., 7 must-have items including drinking-water

dispenser, fridge, microwave oven, sofa, electric fan or air conditioner, first-aid kit, cellphone charger. The “X” meant items that the stations could add according to local needs. As of the end of 2021, there had been 3,520 such stations, accounting for 44% of the total target for 2021-2025.



Drivers Home

This program was also further elevated with standards unified and services improved, providing food and shower spaces to cargo drivers. The “2+7+X” model include 2 fundamental services of refueling and convenience store, 7 added services of parking, refreshing, food and beverages, water refilling, shower, clothes

washing and clothes drying, and the X refers to auto aid and other services as needed. As the end of 2021, there had been 2,178 such stations covering all 31 provinces, municipalities and autonomous regions.



Promoting Rural Revitalization



Sinopec headquarters carried out programs to help Dongxiang of Gansu, Yuepuhu of Xinjiang, Yuexi and Yingshang of Anhui, Fenghuang and Luxi of Hunan, focusing on revitalization through industry development, talents cultivation, ecological improvement, cultural and education development. We donated 140 million yuan for the programs, provided training to 37,524 people and spent 1.04 billion yuan on specialty goods consumption to help those areas. In addition, we provided 51.54 million yuan to fund Tibet and Qinghai development. 60 subsidiaries conducted assisting programs in 610 villages, sending 925 people in 349 working groups to the villages.

We donated 320 million yuan to build more than 200 schools and provided more than 20 million yuan to fund more than 20,000 students. We also sponsored Beijing winter camps and Winter Olympics camps for more than 2,300 students from the villages.

Sinopec Open Day

In 2021, themed around smart energy, Party centenary and the Company’s green development strategy, we held a total of 678 open day activities involving 33 million participants, including 130

online activities with 31 million participants and 548 onsite activities with 27,000 participants.



Youth Volunteer Service

Sinopec Youth Volunteer Team was established in March 2021, and consequently our subsidiaries set up youth volunteer teams, calling on young employees to register on the national volunteer platform. Youth volunteers took part in various activities including rural revitalization, Winter Olympics, community services, public welfare program and COVID-19 prevention and control. As of December 2021, a total of 1,422 youth volunteer organizations had been established with 79,000 young employees registered as volunteers and total service hours over 13 million.



Ensuring Energy Supply

During national major events such as the Two Sessions, the Party centenary, and the sixth plenary session of the 19th CPC Central Committee, we mobilized resources, maintained steady operation of facilities, optimized inventory, and ensure supply in the market. Measures included opening green lanes for vehicles servicing major events or carrying fuels and daily necessities.

At Spring farm work period and agricultural peak seasons, we made preparations and well deployed resources to ensure supply of fuels for agriculture.

In line with the venue construction and road construction plan of Beijing Organizing Committee for the 2022 Winter Olympics, we completed and operated 49 petrol stations, 29 CNG stations, 4 hydrogen stations and 200 Easy Joy licensed stores for Olympics merchandise. We ensured supply of fuels and services to the Olympics, and promoted our brands through issuing Winter Olympics edition of fuel cards, x-power fuel and shopping festival. We also held a public benefit activity themed cheering for the Winter Olympics.



Disaster Relief

In July 2021, storms hit Henan, Hebei and Shanxi, Typhoon Cempaka swept Yulin in Guangxi and Typhoon In-Fa landed in Taizhou of Zhejiang. To help fight the strong rain fall and storm disaster in related regions, we activated emergency response plan

and deployed fuels and items supply. We also donated 50 million yuan to Henan Charity General Federation for flood disaster relief and reconstruction in Zhengzhou.



Other Public Welfare Program

We started a sponsor program to support adolescence and kids in Hong Kong in poor families to provide study assistance and learning courses.





Clean Energy for the Winter Olympics

—Sinopec Serving and Supporting the Olympic and Paralympic Winter Games Beijing 2022

✎ Sinopec has thoroughly implemented the series of important instructions from President Xi Jinping on the preparation of the Winter Olympics, vigorously carried forward the spirit of the Beijing Winter Olympics, practiced a green, inclusive, open and clean approach to hosting the Olympic and Paralympic Winter Games, proposed the theme of “Clean Energy for the Winter Olympics”, earnestly fulfilled its sponsorship obligations, fully implemented its sponsorship rights and interests, and supported the Olympic Winter Games Beijing 2022 with practical actions.

Supplying Clean Energy for a Green Olympics

As an enterprise that partnered with both the 2008 and 2022 Olympic Games, Sinopec strictly follows the requirements of “Green Olympics” put forward by President Xi Jinping, and was fully committed to green and clean development, continuously providing clean energy for the construction of Winter Olympics infrastructure and events, and empowering a “Green Winter Olympics”.

Integrated energy services In order to ensure oil and gas supply during the Winter Olympic Games, Sinopec’s Beijing Petroleum Co. deployed 30 oil products supply stations, 5 gas refueling stations and 3 hydrogen refueling stations in Beijing, and Hebei Petroleum Co. deployed 19 oil products stations and 1 hydrogen refueling station in Hebei. Tianjin Petrochemical Co. successfully developed and produced “-50” low freezing point diesel, which was used for emergency power generation at the Olympic venues. Zhongyuan Oilfield Power Supply Service Centre provided temporary power supply technical services to 21 Winter Olympic venues, including the National Alpine Skiing Centre and the National Speed Skating Oval for more than 100 days, making every effort to guarantee power supply.

Clean oil products supply In November 2020, Sinopec launched a new generation of environmentally friendly high-spec gasoline — “X-Power” series, which could effectively remove and inhibit carbon deposits and buildup and take care of car engines.



In December 2021, more than 500 service stations and 5 oil depots were in service with the higher quality Beijing 6B gasoline and diesel in Beijing, 55 days ahead of schedule, with a total of 33 times of refueling and approximately 45,000 liters of fuel supplied as of 17 February 2022. The Great Wall Lubricant launched a series of lubricant products for new energy vehicles and a series of lubricant-related products such as GB6 motor oil with environment-friendly formula, etc., shaping the leading position of Great Wall Lubricant’s new energy products and new technologies in a multi-dimensional manner, serving a “Green Winter Olympics” and helping achieve carbon peaking and neutrality goals.

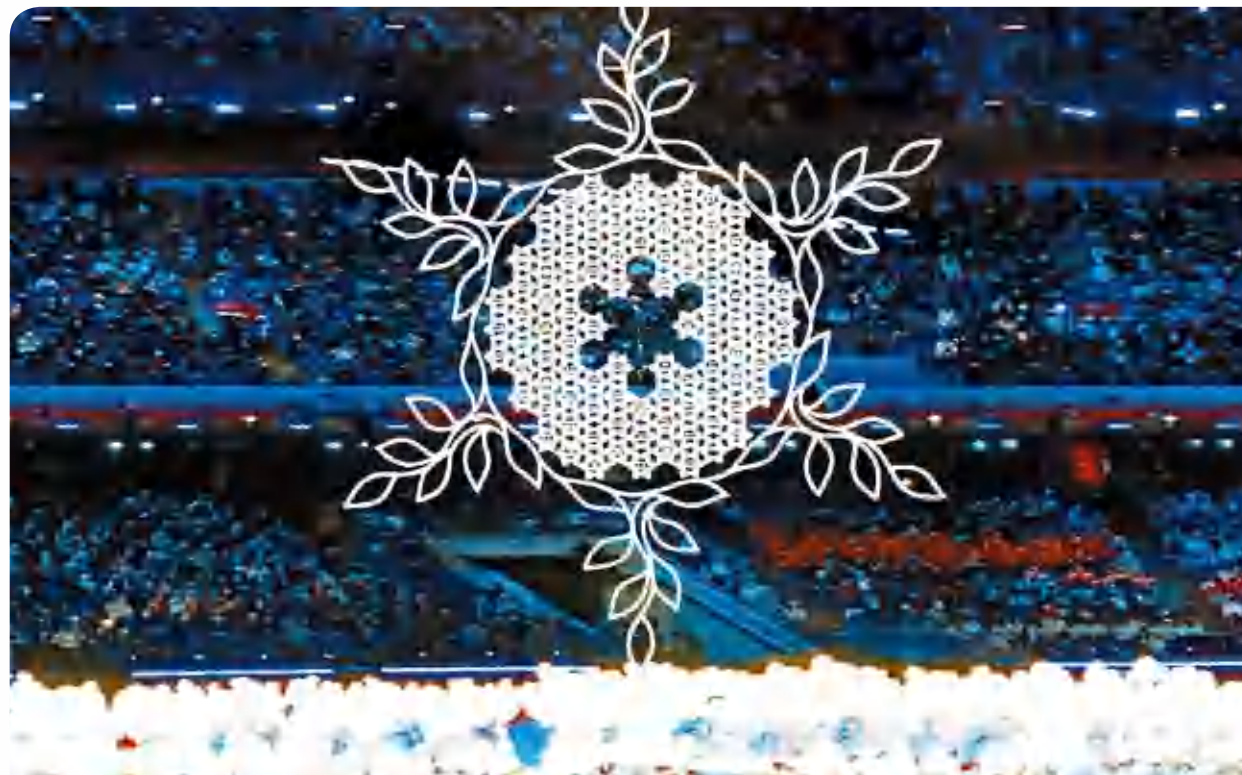
Hydrogen supply In March 2020, Sinopec Yanshan’s Beijing Winter Olympic Games hydrogen supply project was put into operation, with a hydrogen purity of 99.999%. 197 trucks and 45.9 tonnes of hydrogen were delivered from January 25 to February 20, 2022, ensuring hydrogen supply to the main cauldron and hydrogen refueling stations. In September 2021, Sinopec launched the full-scale hydrogen service in Beijing, and officially put into operation of 4 hydrogen stations, namely, Beijing Qingyuan Street Hydrogen Refueling Station, Beijing Wangquanying Hydrogen Refueling Station, Beijing Yanhua Xinglong Gasoline-Hydrogen Combined Station and Hebei Chongli Xiwanzi Hydrogen Refueling Station, which served a total of more than 9,000 vehicles for the Winter Olympic Games.



New Materials R&D to Contribute to the Technology Aspect of the Olympics

Sinopec made active contributions as the official oil and gas partner of the Beijing 2022 Winter Olympic and Paralympic Games, and explored new materials by leveraging The its strengths in the main businesses.

Shanghai Petrochemical Co. led the research and development and mass production of the Winter Olympic torch, achieved the world’s first carbon fiber composite material for the Olympic torch shell, which can be used normally in a hydrogen burning environment above 800 degrees Celsius. Yizheng Chemical Fiber Co. developed and produced a variety of functional polyester staple fibers, which were used in the uniforms of the staff and volunteers of the Winter Olympic Games, as well as the ski suits and medal uniforms of some Chinese Winter Olympic athletes. As a result, the uniforms were 40% lighter while keeping athletes warm. Beijing Petroleum Co. donated 100,000 biodegradable plastic bags to the town of Zhang Shanying, the site of the Yanqing Competition Zone, to be used for services at the venues and for the people’s daily needs, reducing plastic pollution during the Games. The “Donghai” asphalt was paved to the important transportation projects for the Winter Olympics, such as the Daxing-Yanqing Expressway, Daxing Airport Expressway and Beijing-Chongli Expressway.



Promoting Winter Olympics Culture to Support Hosting an Open Olympics

Sinopec actively responded to the call of the CPC Central Committee to “drive 300 million people to participate in winter sports”, and was committed to spreading the culture of the Beijing 2022 Winter Olympic Games, popularizing winter sports knowledge, promoting winter sports and carrying forward the Olympic spirit.

Building Winter Olympics theme stations In 2021, Sinopec joined hands with Panasonic to build the first Winter Olympics demonstration shop. 50 stations around the competition venues in Beijing, Yanqing and Chongli were transformed into Winter Olympics theme stations to create a Winter Olympics atmosphere. Over 2.6 million “Winter Olympics commemorative refueling cards” were issued. More than 200 retail shops were built through Easy Joy convenience stores to sell Winter Olympics licensed goods, including Winter Olympics licensed commemorative badges, stationery and bags, etc. Through these measures, Sinopec promoted the Winter Olympics culture, attracted public attention to winter sports and promoted the development of the industry. The Great Wall Lubricant teamed up with Bridgestone to unveil the first Winter Olympics theme store for car maintenance.

Carrying out Winter Olympics themed activities In July 2021, Sinopec and the Beijing Winter Olympics Organizing Committee jointly organized the Beijing Winter Olympics Partner Club Activity with the theme of “Powering for the Brilliant” in Beijing, where seven “Clean Power Teams” made a debut, and the Clean Power Team song “Winter Dreams” was released. The event also included the Honorary Team Leader Award Ceremony and the launching of the “Easy Joy Ice and Snow Carnival PLUS” program to spread winter sports culture and empower a “Green Winter Olympics”.

Spreading the culture of the Winter Olympics through multiple platforms In September 2021, the Sinopec Fuxing Hao Winter Olympic high-speed train G2481 departed from Beijing North Station for the first time, incorporating plenty of Olympic and Sinopec elements in the carriage. In January 2022, the Olympic Culture Exhibition was held at Sinopec’s headquarters. On 3 January, Sinopec placed advertisements on Beijing Subway lines 2, 5, 6 and 10, and placed advertisements for sub-brand products used in Winter Olympics on 338 buses in Beijing.



Innovative Charity Activities to Share the Olympic Passion

Sinopec combined education support with sports events, and innovated Winter Olympic charity activities, dedicated to helping children in poor areas learn Olympics knowledge, feel the charm of the Olympics, and realize Olympic dreams.

In May 2021, Sinopec’s “Light Up Hope” Beijing Experience Camp was officially opened in Beijing Shougang Park. The camp lasted for 5 days and 35 young campers from Dongxiang County in Gansu and Bangor County in Tibet came to Beijing to experience winter sports, visit the Winter Olympics Exhibition Hall and the scenic spots, feel on their own the “Dual Olympic City” and start the journey of fulfilling their dreams. In December, the first sponsorship showcase for the Beijing Winter Olympic flame was held in Beijing. Sinopec celebrated through a video link with eight schools which were built with support and assistance of Sinopec in Fenghuang County in Hunan, Dongxiang County in Gansu and Bangor County in Tibet,

bringing a valuable display of the Winter Olympic flame to the children, driving more children to participate in the Winter Olympics, experience the culture and pass on the Olympic spirit.





Sinopec's Service for the Olympic Winter Games

2018

On July 20
Sinopec became an official partner of the Beijing Olympic Winter Games. Sinopec and CNPC became the official oil and gas partners of the Olympic and Paralympic Winter Games Beijing 2022, ranking among the highest level of sponsors of the Beijing Winter Olympic Organizing Committee's market development programme.

2019

On March 26
Sinopec constructed Yanshan Petrochemical Co.'s hydrogen supply project for the Beijing Winter Olympic Games. The project would produce high-purity hydrogen using the variable pressure adsorption method to provide clean and safe energy for 2,000 hydrogen batteries for the Winter Olympic Games.

In May
Sinopec Donghai asphalt was paved for major transportation projects for the Winter Olympic Games. Sinopec took on the asphalt paving project of Beijing Winter Olympic Games Beijing-Chongli Expressway, and the "Donghai" asphalt was used at the international race track and the Winter Olympics venues.

2020

On August 8
Sinopec and China Unicom became the new rotating chairs. On the 12th anniversary of the opening of the 2008 Olympic Games, the Beijing 2022 Winter Olympic Games Partners Club Conference was held in Beijing. Zhang Jiandong, Vice Mayor of Beijing and Executive Vice Chairman of the Beijing Organizing Committee for the 2022 Olympic and Paralympic Winter Games, presented the plaques to the new rotating chairs, Sinopec and China Unicom.

On November 20
Sinopec and the Beijing Organizing Committee for the 2022 Olympic and Paralympic Winter Games jointly organized the "Clean Energy for the Winter Olympics" event. Sinopec started the "Clean Power Team" campaign, launched the new "X-Power 98" gasoline, and released the first Winter Olympic commemorative refueling card and album. Sinopec's subsidiary Great Wall Lubricant Co. and Marketing Co., Ltd. were awarded the "Official Lubricant of Beijing Winter Olympic Games" and "Beijing Winter Olympic Games Licensed Retailer".

2021

On February 4
the Beijing Winter Olympic and Paralympic torch "Feiyang" was unveiled. The body of the torch is made of carbon fiber composite material developed by Sinopec Shanghai Petrochemical Co., which could be used in a hydrogen burning environment above 800 degrees Celsius.

In May
Sinopec launched the "Light Up Hope" charity event. The young campers learnt by heart the Olympic spirit, which symbolizes peace, friendship, equality, harmony, tolerance, light and hope, through their visit.

On July 16
Sinopec released its new song "Winter Dream" for the Winter Olympics. The "Powering for Brilliant" event was launched. The "Easy Joy Ice and Snow Carnival PLUS" program was unveiled and the new song "Winter Dreams" for the Winter Olympics was released.

On September 9
Sinopec Beijing Winter Olympic Hydrogen Service was fully launched. Sinopec officially put into operation 4 hydrogen stations to serve the Winter Olympic Games, namely Beijing Qingyuan Street Hydrogen Refueling Station, Beijing Wangquanying Hydrogen Refueling Station, Beijing Yanhua Xinglong Gasoline-Hydrogen Combined Station and Hebei Chongli Xiwanzi Hydrogen Refueling Station.

2022

On September 14
Sinopec Beijing Petroleum Co. promoted a Green Winter Olympics. Beijing Petroleum Co. donated 100,000 biodegradable plastic bags to the town of Zhangshanying, the site of the Yanqing Competition Zone, to be used for services at the venues and for the people's daily needs.

On December 7
the first sponsorship showcase for the Beijing Winter Olympic flame was held in Beijing. Audience at Sinopec headquarters watched the Olympic flames, Beijing Winter Olympics flame lanterns, torches and torchbearers' uniforms together with the sub-venues through a video link. The sub-venues were set up in the eight schools in areas aided by Sinopec.

On December 10
Sinopec Zhongyuan Oilfield Power Supply Service Center provided electricity for the Beijing Winter Olympics venues. Technical services were provided to 21 Winter Olympic venues, including the National Alpine Skiing Centre and the National Speed Skating Oval for more than 100 days.

On December 14
Sinopec Yizheng Chemical Fiber Co. supported the 2022 Beijing Winter Olympics through "Warm Core". 70% of the "warm core" of the security police's cold-proof clothing for the Beijing 2022 Winter Olympic and Paralympic Games is made of functional polyester staple fibers developed and produced by Sinopec Yizheng Chemical Fiber Co., providing "warmth" for the staff.

On December 17
Sinopec completed 50 Winter Olympic Theme Stations. Renovations of 50 Winter Olympic Theme Stations were all completed in mid-December, integrating value-added services such as hydrogen refueling, photovoltaic power generation, convenience store, ETC payment and Easy Joy coffee.

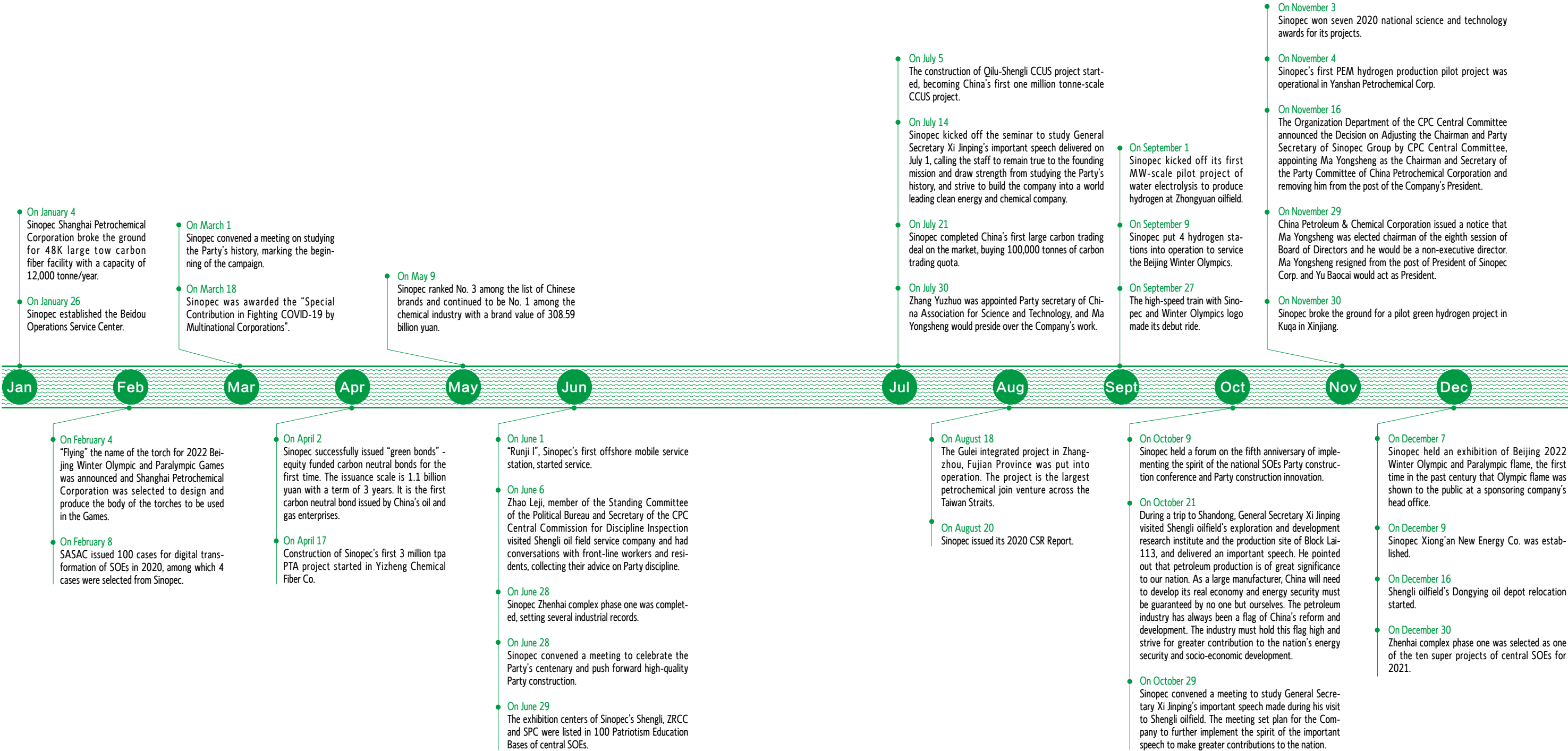
On December 28
Yanqing Taiping Jingzhang Service Station of Sinopec Beijing Petroleum Co. provided refueling services for the logistics vehicles of the 2022 Beijing Winter Olympic test events. As the designated refueling station for the logistics vehicles of the Winter Olympic test events, the Station is dedicated to servicing logistics vehicles.

On January 6
Chongli Winter Olympic hydrogen refueling station, the first domestic hydrogen testing laboratory, was put into operation. 13 typical indicators of fuel cell hydrogen were tested, which would provide strong technical support to ensure the safety and reliable quality of hydrogen for the Winter Olympics.

On January 27
1,200 torches which were developed and produced mainly by Sinopec Shanghai Petrochemical Co. were delivered to the Beijing Winter Olympic Organizing Committee. Shanghai Petrochemical Co. took the lead in the research and development and mass production of the torches for the Winter Olympic Games. For the first time in the world, carbon fiber material was used in the shell of the Olympic torches, which meets the requirement of a hydrogen burning environment above 800 degrees Celsius.

On April 8
The Beijing 2022 Winter Olympics and Paralympics review and awards ceremony was held in the Great Hall of the People in Beijing. Sinopec Shanghai Petrochemical Company Limited was awarded the title of Outstanding Contribution.

Major Events



Global Offices

Sinopec Hong Kong Office

Tel: 00852-28633463
Fax: 00852-25989366
Add: 20/F Office Tower, Convention Plaza 1 Harbour Road
Wanchai, Hong Kong

Sinopec America, Inc.

Tel: 001-713-544-8888
Fax: 001-713-544-8878
Add: 3050 Post Oak Blvd, Suite 800, Houston, Texas, 77056, USA

Sinopec Middle East Office

Tel: 00971-4-4252272
Fax: 00971-4-4252280
Add: Level 5, Building No.4, Emaar Square, Sheikh Zayed Road,
Dubai, U.A.E

Branch of Sinopec (Saudi Arabia)

Tel: 00966-13-8576167
Fax: Not Available
Add: Building 14, Euro Village Compound, Prince Sultan Road,
Qurtoba, Al Khobar 34236, Eastern Province, Kingdom of
Saudi Arabia

Sinopec Central and South America Representative Ltda

Tel: 0055-21-38508217
Fax: Not Available
Add: Botafogo Beach, 228, Room 702, Botafogo, Rio de Janeiro-
RJ., Brazil. Post Code : 22250-906

Representative office of Sinopec in Russia and Central Asia

Tel: 007-495-6685567, 007-495-7855198
Fax: 007-495-6685567
Add: 123317, Russia, Moscow, Presnenskaya nab., 12, Business-
Center "Moscow-City", Federation Tower "East", 56th
Floor, office 21

Representative office of Sinopec in Russia and Central Asia (Almaty office)

Tel: 007-727-3111710
Fax: 007-727-3111712
Add: BOSTANDYK DISTRICT, BAYKADAMOVA STREET,
BUILDING 2B, ALMATY, Kazakhstan, 050059

Sinopec (Southeast Asia) Pte. Ltd.

Tel: 0065-69705855、62261095、68202592
Fax: 0065-68202590
Add: 9 Raffles Place#41-02, Republic Plaza Singapore 048619

Sinopec Europe Office

Tel: 0049-69-66909427
Fax: 0049-69-66909422
Add: Messe Turm 31th, Friedrich-Ebert-Anlage 49, D-60308
Frankfurt am main, Germany

Sinopec U.K. Office

Tel: 0044-7787227516
Fax: Not Available
Add: Room319,33 Cavendish Square, London W1G 0PW, UK

Sinopec Africa Office

Tel: 0020-1552668819
Fax: Not Available
Add: Plot no.202- Sector 2- City Center- New Cairo- Cairo
Governorate 11477 Egypt