Supporting social progress
Improving people's well being
Building inspirational legacy
Implementing the Guiding Principles of the 20th CPC National Congress

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

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

We carried out training and lectures. We organized learning and training programs, and 8 training sessions were held for the key management personnel to learn and implement the guiding principles of the 20th CPC National Congress. We pressed ahead with extensive publicity activities, with the Leading Party Members taking the lead in giving over 20 lectures. 7 representatives who have attended the 20th CPC National Congress delivered 44 lectures. Party committee secretaries, Party branch secretaries, Party building experts and young cadres were mobilized to promote the guiding principles of the 20th CPC National Congress to the grassroots and the mass population. More than 1500 media outlets of Sinopec leveraged their strengths to give reports and have in-depth interpretation on these guiding principles. Great results were achieved with all these measures in place.

We ensured concrete implementation measures. We took the guiding principles of the 20th CPC National Congress as the guidance for planning our work and future development, and focused on transferring the major policies of the CPC Central Committee into specific actions and measures of Sinopec. The Leading Party Member Group held a special seminar on learning and implementing the guiding principles of the 20th CPC National Congress, and had in-depth discussions on the plan for 2023 and the coming future. At the work conference of Sinopec, they further studied these principles, made systematic arrangement for the key tasks of now and the near future, and clearly identified the new mission and tasks of Sinopec on the new journey. All employees were encouraged and inspired to confidently write a new chapter of Sinopec through a Chinese path to modernization and make greater contributions to building a socialist modern country and promoting the great rejuvenation of the Chinese nation.
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 and transportation of petrochemical products, gas-based chemicals, coal chemical products and other chemical products; production, sales, storage and transportation of new energy products such as hydrogen, solar, wind and geothermal energies; battery charging and swapping business for new energy vehicles and other related services; design, consulting, construction and installation of petroleum and petrochemical engineering projects; overhaul and maintenance of petroleum and petrochemical equipment; R&D, manufacturing and sales of electrical and mechanical equipment; production and sale of electricity, steam, water and industrial gas; research, development, application and consulting services of technology, e-commerce, information and alternative energy products; import&export, including import and export agency business of self-support products and commodities and technologies; foreign project contracting, bidding and purchasing; international storage and logistics business.

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

Ma Yongsheng, Chairman

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

2022 was an extremely extraordinary, difficult, and challenging year. Under the strong leadership of the CPC Central Committee with General Secretary Xi Jinping at its core, Sinopec worked hard to achieve excellent results. We kept in mind the earnest instructions of “securing the fundamental supply of energy” from General Secretary Xi Jinping, and we made steady progress and worked diligently. In 2022, the Company achieved annual operating revenue of 3.37 trillion yuan, an increase of 20.7% year-on-year (the same below), a total profit of 120.41 trillion yuan, an increase of 3.34%, and a net profit of 56.24 billion yuan, an increase of 8.19%, all reaching the best level in history and contributing to stabilizing the macroeconomic fundamentals.

We conscientiously undertook the missions of serving society and benefiting the people, and actively fulfilled our social responsibilities, highlighting the image of “a good company serving the public”. We made every endeavor to obtain energy resources, continuously increased the natural gas supply during the heating season, and safeguarded a warm winter for billions of households. We actively explored the assistance model with central SOEs characteristics for rural revitalization and won the evaluation as “good” for 5 consecutive years for targeted assistance programs. We successfully completed the mass production of the “Flying” torch. We successfully built the first mass production of the “Bird’s Nest” with high-purity hydrogen, and won praise from all parties for providing high quality service to the Beijing Winter Olympics. We took the lead when facing difficult situations and emergencies such as fighting the pandemic and disaster relief and won awards for making significant contributions. We further carried out public welfare projects such as the “Spring Bud Service Station”, “Dreamer Home”, and “Love Station”. We reduced rent to help small and medium-sized enterprises. A special program to settle the debts of private enterprises. A special program to settle the debts of private enterprises. A special program to settle the debts of private enterprises.

We consistently, steadfastly, and comprehensively enforced the Party’s full and rigorous self-governance, consolidated the level of Party building work, and consolidated the political ecology featuring uprightness and integrity. We continued the thematic action of “Bearing in mind the earnest instructions of General Secretary Xi Jinping into concrete actions for making new achievements”, and the Party building work among central SOEs. We adhered to the principle of selecting the right person for the right position, strengthened Party building and the organizational line of the Party in the new era, further enhanced the systematization, standardization, and institutionalization of Party building, and maintained the A-level assessment of the accountability mechanism for Party building work among central SOEs. We adhered to the principle of selecting the right person for the right position, strengthened the leadership team, and increased the appointment of outstanding young talents, achieving a historic high in personnel selection satisfaction. Initial results were shown in the efforts to build a talent pool and an innovation highland for the energy and chemical industry. We insisted on innovating Party building work, kept on improving the quality of grassroots Party building work, and promoted the key role played by the Party during the critical periods throughout the Company’s development. To promote the public image of the Company, we officially launched the second batch of education bases on the history of revolution and 10 social responsibility demonstration projects. The Company’s brand value has been ranking No.1 in the energy and chemical industry for 6 year in a row, and its brand building capacity has been ranking No.1 among central SOEs for 2 consecutive years. We carried forward the “Three No Corruption” campaign, won good results in the special rectification efforts for correcting social conduct and discipline as well as fighting bureaucracy, and successfully reduced burdens for the grass-roots level.

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

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

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

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

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

We strived for self-reliance and innovation, and the scientific and technological breakthroughs were constantly emerging. We promoted the national strategic scientific and technological tasks with high quality. We built China’s first localised 10,000-tonne-scale 49K low carbon fiber production line and put it into operation. Our independently-developed rotary geo-steering drilling system reached the world’s advanced level. We made significant breakthroughs in bottleneck technologies such as POE, PMMA optical film, high-grade polybutene-1, helium extraction, and high-temperature heat transfer oil. We recorded progress in tackling core and key technologies in the exploration, development and engineering of ultra deep oil and gas, oil recovery enhancement of mature oilfields, Integration of shale oil and gas geo-engineering, large-scale green hydrogen from green power, and direct cracking of crude oil to ethylene. We strengthened efforts in cut-through innovation mechanism from basic research to industrial application and became among the first batch of SOEs to develop original technology as well as the leader of the hydrogen industrial chain entrusted by SASAC. We actively promoted the implementation of dedicated action plan for digital transformation and took the lead in the industry’s digital and intelligent development with more than 10 national pilot demonstration projects such as “Industrial Internet+” and artificial intelligence.

We took multiple measures to push forward reform, and the effectiveness of management continued to be demonstrated. We comprehensively completed the three-year action of deepening reform, and achieved remarkable results in key reform tasks. Sinopec EasyJet Company, Sinopec Zhenhai Refining & Chemical Company, and Sinopec Oilfield Equipment Corporation were awarded as “Excellent Double Hundred Enterprises” and Sinopec Catalyst Company was awarded the benchmark of “Science and Technology Reform Demonstration Enterprise” for three consecutive years. We strived to ensure the setup-up of the board of directors for all subsidiaries. The tenue system of management members and contractual management were fully implemented, with 30 subsidiaries establishing a professional manager system. We accomplished the promotion campaign of benchmarking against world-leading peers, released the action plan for accelerating the building of a world-leading company, made substantial progress in constructing a strategic and intensive financial management and control system, and continuously deepened the reform of the auditing mechanism. All these efforts have effectively enhanced the management and governance of the Company. We cautiously responded to the impact of the Ukraine crisis, the recurrence of the pandemic, global inflation, oil price fluctuations, and other factors. We safeguarded the bottom line of avoiding systemic risks, and significantly improved our compliance management capabilities.

A new year unlocks new hope, and a new journey bears new dreams. We will adhere to the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and thoroughly study and implement the guiding principles of the 20th CPC National Congress as well as the important instructions given by General Secretary Xi Jinping during his inspection tour to Shengli Oilfield. We will seize opportunities, forge ahead with vitality and strive for being a world-leading company. We will successfully accomplish the annual targets and tasks, make efforts for better business performance, and get ready to celebrate 40th anniversary of Sinopec with excellent results!
Organizational Structure
(As of 31 December 2022)
## Financial Overview

(As of 31 December 2022)

### Balance Sheet

<table>
<thead>
<tr>
<th>Item</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash at bank and in hand</td>
<td>230,343.11</td>
<td>271,001.34</td>
<td>205,269.99</td>
</tr>
<tr>
<td>Financial assets held for trading</td>
<td>33,541.39</td>
<td>28,462.29</td>
<td>23,139.45</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>55,744.00</td>
<td>48,169.64</td>
<td>41,146.59</td>
</tr>
<tr>
<td>Receivables Financing</td>
<td>5,589.25</td>
<td>8,427.88</td>
<td>11,475.20</td>
</tr>
<tr>
<td>Advance payments</td>
<td>23,670.89</td>
<td>22,889.09</td>
<td>19,450.11</td>
</tr>
<tr>
<td>Other receivables</td>
<td>36,540.14</td>
<td>42,026.48</td>
<td>44,218.34</td>
</tr>
<tr>
<td>Inventories</td>
<td>306,917.29</td>
<td>262,595.44</td>
<td>229,617.07</td>
</tr>
<tr>
<td>Contract assets</td>
<td>26,280.58</td>
<td>24,534.74</td>
<td>21,274.88</td>
</tr>
<tr>
<td>Current portion of non-current assets</td>
<td>15,293.76</td>
<td>9,955.37</td>
<td>902.29</td>
</tr>
<tr>
<td>Current assets</td>
<td>1,571,761.42</td>
<td>1,513,825.15</td>
<td>1,420,219.80</td>
</tr>
<tr>
<td>Total current assets</td>
<td>856,753.25</td>
<td>846,322.05</td>
<td>726,304.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-current assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other current assets</td>
<td>126,832.84</td>
<td>134,899.77</td>
<td>128,000.73</td>
</tr>
<tr>
<td>Total current assets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1,698,592.53</td>
<td>1,648,724.92</td>
<td>1,548,220.53</td>
</tr>
</tbody>
</table>

### Current Liabilities

<table>
<thead>
<tr>
<th>Item</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term loans</td>
<td>81,098.80</td>
<td>69,122.24</td>
<td>71,457.67</td>
</tr>
<tr>
<td>Bills payable</td>
<td>21,936.96</td>
<td>22,519.10</td>
<td>19,610.27</td>
</tr>
<tr>
<td>Accounts payable</td>
<td>288,920.90</td>
<td>251,277.72</td>
<td>208,302.10</td>
</tr>
<tr>
<td>Contract liabilities</td>
<td>157,231.68</td>
<td>150,022.24</td>
<td>146,754.11</td>
</tr>
<tr>
<td>Employees compensation payable</td>
<td>25,784.73</td>
<td>19,674.11</td>
<td>14,378.20</td>
</tr>
<tr>
<td>Taxes and fees payable</td>
<td>38,369.60</td>
<td>88,726.08</td>
<td>81,412.85</td>
</tr>
<tr>
<td>Other payables</td>
<td>135,773.10</td>
<td>114,365.70</td>
<td>92,345.87</td>
</tr>
<tr>
<td>Current portion of non-current liabilities</td>
<td>75,630.15</td>
<td>40,318.49</td>
<td>30,953.74</td>
</tr>
<tr>
<td>Other current liabilities</td>
<td>37,682.42</td>
<td>62,727.62</td>
<td>46,490.48</td>
</tr>
<tr>
<td>Total current liabilities</td>
<td>862,628.40</td>
<td>827,753.29</td>
<td>720,756.20</td>
</tr>
</tbody>
</table>

### Non-current Liabilities

<table>
<thead>
<tr>
<th>Item</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term loans</td>
<td>92,638.71</td>
<td>46,452.60</td>
<td>43,134.47</td>
</tr>
<tr>
<td>Debentures payable</td>
<td>163,791.63</td>
<td>201,133.83</td>
<td>205,857.51</td>
</tr>
<tr>
<td>Long-term accounts payable</td>
<td>13,597.64</td>
<td>18,117.64</td>
<td>16,857.25</td>
</tr>
<tr>
<td>Lease liabilities</td>
<td>25,213.41</td>
<td>23,362.95</td>
<td>23,168.20</td>
</tr>
<tr>
<td>Long-term employee compensation payable</td>
<td>1,731.69</td>
<td>1,967.61</td>
<td>2,047.80</td>
</tr>
<tr>
<td>Contingent liabilities</td>
<td>51,898.18</td>
<td>44,077.43</td>
<td>46,348.99</td>
</tr>
<tr>
<td>Deferred tax liabilities</td>
<td>9,773.15</td>
<td>9,192.79</td>
<td>8,782.83</td>
</tr>
<tr>
<td>Other non-current liabilities</td>
<td>9,014.50</td>
<td>12,377.47</td>
<td>11,143.24</td>
</tr>
<tr>
<td>Total non-current liabilities</td>
<td>367,658.92</td>
<td>356,691.72</td>
<td>357,350.29</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>1,230,287.32</td>
<td>1,184,445.01</td>
<td>1,078,105.58</td>
</tr>
</tbody>
</table>

### Shareholders’ equity

<table>
<thead>
<tr>
<th>Item</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid-in capital</td>
<td>326,423.92</td>
<td>326,003.75</td>
<td>326,547.22</td>
</tr>
<tr>
<td>Capital reserve</td>
<td>52,551.54</td>
<td>55,086.61</td>
<td>56,913.12</td>
</tr>
<tr>
<td>Other comprehensive income</td>
<td>-6,119.97</td>
<td>-11,822.24</td>
<td>-22,589.58</td>
</tr>
<tr>
<td>Special reserve</td>
<td>3,013.05</td>
<td>2,761.07</td>
<td>2,278.25</td>
</tr>
<tr>
<td>Surplus reserve</td>
<td>242,364.55</td>
<td>234,943.20</td>
<td>228,834.82</td>
</tr>
<tr>
<td>Provision for general risks</td>
<td>2,816.91</td>
<td>2,303.82</td>
<td>2,040.77</td>
</tr>
<tr>
<td>Retained profits</td>
<td>280,720.12</td>
<td>237,583.54</td>
<td>198,021.51</td>
</tr>
<tr>
<td>Shareholders’ equity allocated to shareholders of the Group</td>
<td>911,870.23</td>
<td>847,852.75</td>
<td>789,946.12</td>
</tr>
<tr>
<td>Minority interests</td>
<td>401,188.23</td>
<td>385,785.71</td>
<td>372,167.10</td>
</tr>
<tr>
<td>Total shareholders’ equity</td>
<td>1,313,058.46</td>
<td>1,233,038.46</td>
<td>1,162,113.21</td>
</tr>
<tr>
<td>Total liabilities and shareholders’ equity</td>
<td>2,543,345.78</td>
<td>2,418,083.47</td>
<td>2,240,219.80</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Item</th>
<th>2022</th>
<th>2021</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Income</td>
<td>3,366,865.58</td>
<td>2,789,498.71</td>
<td>2,142,383.42</td>
</tr>
<tr>
<td>Total operating expenses</td>
<td>3,272,326.15</td>
<td>2,665,662.10</td>
<td>2,100,708.66</td>
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<tr>
<td>Operating expenses</td>
<td>2,840,169.21</td>
<td>2,239,708.38</td>
<td>1,726,347.17</td>
</tr>
<tr>
<td>Taxes and surcharges</td>
<td>266,782.27</td>
<td>261,695.02</td>
<td>237,353.18</td>
</tr>
<tr>
<td>Selling expenses</td>
<td>58,433.08</td>
<td>57,637.52</td>
<td>53,234.72</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>74,940.46</td>
<td>75,246.96</td>
<td>57,461.27</td>
</tr>
<tr>
<td>R&amp;D expenses</td>
<td>18,067.93</td>
<td>16,251.19</td>
<td>14,414.38</td>
</tr>
<tr>
<td>Exploration expenses</td>
<td>10,593.48</td>
<td>12,381.97</td>
<td>9,722.73</td>
</tr>
<tr>
<td>Financial expenses</td>
<td>3,289.71</td>
<td>2,589.05</td>
<td>2,193.22</td>
</tr>
<tr>
<td>Add: Other income</td>
<td>9,005.13</td>
<td>6,841.05</td>
<td>8,836.23</td>
</tr>
<tr>
<td>Investment gains</td>
<td>16,601.52</td>
<td>8,113.39</td>
<td>48,745.73</td>
</tr>
<tr>
<td>Change of fair value</td>
<td>-1,169.03</td>
<td>4,020.91</td>
<td>791.63</td>
</tr>
<tr>
<td>Credit impairment loss</td>
<td>3,007.30</td>
<td>-11,000.98</td>
<td>-3,094.96</td>
</tr>
<tr>
<td>Assets impairment loss</td>
<td>-10,162.19</td>
<td>-13,708.94</td>
<td>-30,655.51</td>
</tr>
<tr>
<td>Asset disposal gains</td>
<td>1,766.25</td>
<td>1,976.22</td>
<td>3,170.57</td>
</tr>
<tr>
<td>Operating profit</td>
<td>113,588.40</td>
<td>120,906.97</td>
<td>69,448.25</td>
</tr>
<tr>
<td>Add: Non-operating income</td>
<td>13,861.91</td>
<td>5,941.58</td>
<td>10,461.53</td>
</tr>
<tr>
<td>Less: Non-operating expenses</td>
<td>6,975.84</td>
<td>10,263.57</td>
<td>7,287.39</td>
</tr>
<tr>
<td>Total profit</td>
<td>120,474.47</td>
<td>110,564.98</td>
<td>72,622.43</td>
</tr>
<tr>
<td>Less: Income tax</td>
<td>25,235.61</td>
<td>26,557.78</td>
<td>10,572.19</td>
</tr>
<tr>
<td>Net profit</td>
<td>95,238.87</td>
<td>88,007.20</td>
<td>62,050.24</td>
</tr>
<tr>
<td>Less: Minority interests</td>
<td>30,278.75</td>
<td>34,380.84</td>
<td>19,234.54</td>
</tr>
<tr>
<td>Net profit attributable to equity shareholders of the Group</td>
<td>64,960.12</td>
<td>53,641.37</td>
<td>42,815.70</td>
</tr>
</tbody>
</table>

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

In 2022, the company achieved its target of producing 246.6 billion yuan in operating income (including 186.9 billion yuan in exploration expenses). Among them, 117.1 billion yuan was invested in oil and gas and new energy business segments, 43.9 billion yuan in refining and marketing segments, 74.9 billion yuan in chemical and materials segments, and 7 billion yuan in R&D, IT, and other segments. Continuous efforts were made to ensure supply and reserve in the oil and gas segment. We fully implemented the Seven-Year Action Plan to step up exploration and development activities, accelerated the reserve growth and production ramp-up, exceeded the required investment for exploration and development and delivered beyond the targets in proven oil and gas reserves. The company continued to promote high-quality exploration, made series of key breakthroughs in Jiangyin Depression, Shurhui ultra-deep reservoir, Xihu Trough and other areas, and achieved the annual targets for proven, probable and possible reserves ahead of schedule. Economic result was continuously increased while large-scale hydrocarbon facilities were built. A number of key projects were implemented with high efficiency in Taihe, West Jiangsu, Shurhui, West Sichuan, Xinhuan, Fuling, Weikong and offshore areas. Steady progress was made in the construction of natural gas infrastructure, with gas storage facilities operational including Qigong, Wei 11, Wan 13 West, and Bai 9. We increased effective injection in overseas projects, and accelerated the progress to ramp up production capacity in Angola, Canada, Cameroon, and other key regions. We promoted the development of hydrogen, clean electricity, geothermal residue heat utilization, bio-based fuels. The Kuqa Project in Xinjiang, the world's largest project producing green hydrogen by solar energy from PV, progressed on fast track. The 600MW offshore wind power project in Hainan and the 800MW photovoltaic project in Yuyuan were granted local construction quotas. We grew geothermal heating capacity by 10 million square meters, and recorded reserve heat utilization of 61GJyear.

Restructuring in refining and marketing segment was consolidated. We focused on the construction for integrated refineries, and promoted 11 million-tonne refinery project in Zhenhai Refining and Chemical Company (ZRCC). Efforts were made to increase the yield of chemical feedstock. The refinery construction project was mechanically completed in Anqing Petrochemical Company. Equipment ordering started with the technology renovation project for product safety and environmental protection in Guangzhou. The refinery renovation project in Yangt Petrochemical Company was progressing on schedule. We continuously promoted the adjustment to increase refining specialties and differentiated development. An array of such projects were stepped up and put into operation, including high-purity phase-change wax, food-grade white oil, low sulfur bunker fuel, lubricating base oil, needle coke raw material. We kicked off the jet fuel pipeline project in Luoyang, the construction of the commercial storage site and terminal in Lianyungang, built the purified hydrogen supply center in Maoming, developed the aromatic project in ZRCC and the ethylene cracker in Nangang of Tianjin were well underway. We stepped up to develop advanced new materials, including polybutene-1 production in ZRCC, PDE pilot plant in Maoming, VD21 in Beijing Research Institute of Chemical Industry, large-scale carbon fiber in Shanghai Petrochemical Company, mechanical completion of HNB inGui Petrochemical Company, captiocomit unit relocation in Baling Petrochemical Company, and the construction of F3A unit in Yizheng Chemical Fiber Co., etc. We recorded breakthrough in the coal production capacity, with the added reserve of Ningxia Songxinzhuang acreage achieving 7.24 million tonnes and the production capacity of Silver Star No. 2 coal mine hitting 400,000 tonnes per year.

Strategic layout of the capital and financial services segment was strengthened. We focused on industrial direct investment, actively promoted the layout and extended the business value chain in lithium-ion-battery cathode materials, battery management system (BMS), high-performance special engineering plastics, carbon fiber composite materials, large-size and low-temperature refrigeration equipment, and invested in the advanced technology companies such as Henan Kuntian New Energy Co., Ltd., Shandong USDO Tech Co., Ltd., Dqingao Sartei New Material Co., Ltd., Langfang Feize Composites Tech Co., Ltd., and Beijing Sinosience Fulcroy Technology Co., Ltd. We unleashed the financial industry and established Sinopic Industry-Finance Holdings Co., Ltd.

In investment in scientific and technological innovation was increased. We rolled out “Science Reform Innovation Initiative” for sci-tech research institutions, oversulfuted the first phase of the “9025 Special Project”, and successfully started the second phase. We were ahead of schedule to show up the areas of weakness as required by National Energy Administration. The rotary steamable drift system reached the national advanced level. A number of breakthroughs were made in the technology “check-fold” areas, such as helium extraction and high temperature heat-conducting oil. New progress has been made in core technologies, such as exploration and development of ultra deep oil and gas reservoirs, enhanced oil recovery in brown fields, integrated shale oil and gas geology and engineering project, large-scale green hydrogen projects based on renewable power, crude oil to ethylene technology, specialty rubber high-end lubricating oil and grease, long-cycle safe production of high-acid gas fields, and typical hydrogen production technologies.

Investment demand for safety and environmental protection projects was ensured. The relocation project of Dahongping crude oil depot was operational. Deep-div activities were made in pollution control and prevention. Environmental protection activities were strengthened along the Yangtze River and Yellow River. The first "zero-waste company" demonstration project pilot project was delivered on success. The action plan to achieve carbon emission peaking by 2030 was launched. The first 246.6 billion-yuan investment project in China was put into operation. Sinopic Carbon Industry Technology Co., Ltd., the first domestic carbon carbon technology and investment unit, was established. And the company is leading the pack in the green and low carbon development.
Science and Technology Innovation

- Reform of Science and Technology System and Mechanism
- Major Technology Development and Commercialization
- Research and Development of New Energy and New Material Technologies
- Energy Efficiency Enhancement, Energy Saving and Emission Reduction Technologies
- Significant Achievements in Science and Technology Innovation
In 2022, the Company implemented the innovation-driven strategy, focused on seeking breakthroughs in key and core technologies, continued to strengthen basic and cutting-edge research, and further promoted the reform of science and technology system and mechanisms, so as to play a supporting role in implementing high-quality development action and building a world-leading company.

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

Reform of Science and Technology System and Mechanism

Major Technology Development and Commercialization

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

Refining technology. We successfully developed a complete set of low-sulfur heavy bunker fuel technology and obtained airworthiness certification for the independently-synthesized aviation engine lubricating oil. The independently-developed aerospace phase-change materials were applied to the support devices of Wentian lab module. We picked up pace to develop "fuel to specialty" products with multiple grades of special oil products commercialized. Chemical and material technology. The industrial unit using the third generation aromatic technology was completed and put into operation, and the crude cracking gas to ethylene unit was successfully started up. The high-grade polybutene-1 industrial demonstration unit achieved continuous and stable operation, and the hydrogenated nitrile rubber industrial unit produced on-spec products. The 10000-tonne synthetic high-temperature thermal oil industrial unit was operated at full capacity with products applied in the national energy storage demonstration project.

Public technology. We formed an intelligent safety control technology system for high acid gas fields and built a risk monitoring, warning, and control platform. We also successfully launched and operated the complete set of online real-time optimization (RTO) software for S-Zorb unit.
Energy efficiency enhancement. We made breakthrough in the chemical flooding technology for significantly enhancing oil recovery in high-temperature and high salt reservoirs, developed temperature-and-salt-resistant viscoelastic particle oil displacement agents, and conducted EOR pilot experiments using heterogeneous composite flooding in multiple mining areas with oil recovery remarkable going up.

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

Significant Achievements in Science and Technology Innovation

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

Research and Development of New Energy and New Material Technologies

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

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

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

- Oil and Gas E&P
- Refining Operations
- Production & Operation of Chemical Business
- Product Marketing Services
- Petroleum Engineering Technology Services
- Refining and Chemical Engineering Services
- New Energy Development and Utilization
- Key Projects Construction
Oil and Gas E&P

In 2022, the newly added proved oil reserve was 202 million tonnes, the probable oil reserve was 262 million tonnes, and the possible reserve was 1.20 billion tonnes. The newly added proved natural gas reserve was 278.6 billion cubic meters, the probable reserve was 444.1 billion cubic meters, and the possible reserve was 808.5 billion cubic meters. The annual production of crude oil was 35.323 million tonnes, with an increase of 168,000 tonnes. The production of natural gas was 35.27 billion cubic meters, with an output of 1.39 billion cubic meters. The newly built crude oil production capacity was 3.144 million tonnes, up by 260,000 tonnes year-on-year. The natural gas production capacity was increased by 7.51 billion cubic meters (including coalbed methane), an increase of 680 million cubic meters.

Oil and gas exploration

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

Regarding oil exploration, major breakthrough was made in the Shunbei ultra deep condensate oil and gas reservoir in Tarim Basin, with 20 one thousand-tonne wells drilled and 2 new 100 million-tonne oil and gas rich zones in operation. The construction of the Shengli-Jiyang Shale Oil National Demonstration Zone was efficiently pushed forward, and significant construction of the Shengli-Jiyang Shale Oil National Demonstration Zone was efficiently pushed forward, with a resource of 387.8 billion cubic meters. Significant breakthroughs were made in exploring the central anticline zone in the West Lake Depression of the East China Sea, with a resource of 549.5 billion cubic meters. New breakthroughs were made in the new strata in the shale oil new area of North Jiangsu Basin. New discoveries were made in the “new strata, new region, and new type” oil exploration in the east, with more achievements in the exploration of fuyang shale oil on the rise.

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

Oilfield development

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

We strengthened the integration of geological engineering, intensified technology application to tackle key problems, and efficiently pushed forward key production and construction projects such as Shunbei, Tahe, offshore, hard-to-produce reserves, shale oil, etc. The annual newly-built capacity reached 3.144 million tonnes, an increase of 260,000 tonnes, hitting a new high since 2015. We enhanced detailed reservoir characterization, deepened understanding of remaining oil, expanded the coverage of modeling and numerical modeling, increased basic investment in stable production, optimized the injection and production structure of water flooding reservoirs, strengthened the entire process thermal management of heavy oil reservoirs, raised the quality of water injection and gas injection in fractured and vuggy reservoirs, upscaled heterogeneous composite flooding, actively forged ahead with pilot tests of offshore binary flooding and high-temperature and high-salt-polymer flooding, and raised the oil field pressure by 0.3 percentage points, with a natural decline rate of 10.4%, down by 0.2 percentage points, maintaining a stable comprehensive water content.

Natural gas development

In conventional gas, we followed the principle of pursuing high yield and efficient development with few wells, testing plans and well location deployment in advance, and strengthening technological innovation and application, and made significant breakthroughs in the development of difficult-to-use reserves in the Xiuhaie Formation in western Sichuan. The large-scale construction of new areas such as Shunbei No. 2 Zone and West Sichuan Gas Field accelerated, and the stable production of major gas fields such as Puguang, Yantai, and Daniud was further consolidated. New production capacity of 4.55 billion cubic meters was built in 2022, an increase of 1.12 billion cubic meters. Gas production was 24.96 billion cubic meters, with an increase of 3.144 million tonnes, hitting a new high since 2015. We enhanced detailed reservoir characterization, deepened understanding of remaining oil, expanded the coverage of modeling and numerical modeling, increased basic investment in stable production, optimized the injection and production structure of water flooding reservoirs, strengthened the entire process thermal management of heavy oil reservoirs, raised the quality of water injection and gas injection in fractured and vuggy reservoirs, upscaled heterogeneous composite flooding, actively forged ahead with pilot tests of offshore binary flooding and high-temperature and high-salt-polymer flooding, and raised the oil field pressure by 0.3 percentage points, with a natural decline rate of 10.4%, down by 0.2 percentage points, maintaining a stable comprehensive water content.

In shale gas, we comprehensively pushed forward the stereoscopic development and adjustment of Fuling shale gas field, steadily carried forward the production capacity construction of Weirong, Nanchuan, Dongsheng, and Baima, proceeded with the deep shale gas development in north Yongchuan and Dingshan, Wulong Dazhimen normal pressure shale gas field, Puguang Jurassic, Jingu civilian Cambrian new formation shale gas evaluation and well cluster tests. In 2022, a new production capacity of 2.52 billion cubic meters was built, with a gas production capacity of 9.91 billion cubic meters.

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

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

New breakthroughs in specialized oil products and chemicals

Breakthroughs were made in the development of specialty oil products. Our self-developed technology in the lubricants business chain is constantly increasing. Sinopec’s synthetic aviation engine lubricating oil passed airworthiness certification, becoming the first domestic lubricating product to be applied commercially. The domestic substitution of independent additives such as PMA pour point depressant (T986) by Sinopec Research Institute of Petroleum Processing steadily advanced. Improvement was also made in producing specialty products. The 150BS base oil of Maoming Petrochemical Company met the HVI 90 standard requirements. Jinmen Petrochemical Company made its first trial production of petroleum based commercial rocket kerosene, featuring low cost and good physical and chemical properties, and eliminating reliance on specialty oil. The modified asphalt was used for Hongqiai Airport, and the modified asphalt for the Chengdu Tianfu F1 track was developed. The odor-free and environmentally friendly asphalt was promoted and applied in multiple companies.

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

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

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Production & Operation of Chemical Business

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

Significant results in optimizing production and operation

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

High-quality development of new materials

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

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

Progress Made in Coal Chemical Operation and Construction

Good Momentum of Profitability for Projects under Operation. Sinopec Great Wall Energy and Chemical (Ningxia) Co., Ltd. focused on upgrading the productivity of coal mines, calcium carbide furnace and BDO unit. The output of five main profitable products increased by 31.3%, and the total cost of chemical products per tonne decreased by 1064 yuan. The business volume and sales revenue both went up; Zhongtian Hechuang Company achieved growth in production, revenue, and profitability for coal and chemical products. Total cost of polylactic products per tonne reduced by 386 yuan, and the proportion of new polylactic products and special materials was up by 6.8%. Sales revenue and total profit both recorded new historical highs; Zhongtian United Coal Chemical Co., Ltd. successfully completed its first overhaul and focused on exploring markets in neighboring regions. The proportion of new polylactic products and special materials increased by 6%. In 2022, coal production hit a record high, with raw coal and commercial coal exceeding the planned production by 10% and 8%, respectively.
Natural Gas

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

We fully unleashed the effectiveness of natural gas sales system reform, opened up resource export channels, ensured smooth sales channels, and further strengthened the role of domestic gas as a “ballast”. We vigorously developed domestic third-party sourcing, formulated supporting assessment and incentive measures, achieved significant breakthroughs in resource subourcing, and effectively replaced high priced imported resources. We seized the favorable time slot, strictly controlled the procurement quantity of spot, prudently carried out hedging, and effectively hedged high procurement risks.

We optimized resource flow, market layout, and customer structure, strived to control quantity and increased efficiency, significantly increasing the number, scale, and share of high-end users and high-quality markets. Based on maximizing the value of Sinopec’s entire industry chain, we vigorously developed LNG terminal direct supply business, with LNG sales to end users reaching 91% of the total LNG sales. We fully leveraged its comprehensive advantages, actively cultivated and developed high-quality terminals, completed 20 projects related to end users and established 9 companies of end users throughout 2022, resulting in increasingly significant terminal benefits. We stuck to the principles of “one household, one approach” and “one region, one approach”, flexibly carried out business strategies such as sequential settlement, tiered pricing, summer winter linkage, and optimization of contract volume structure, and facilitated market-oriented pricing of natural gas.

We accelerated the implementation of storage and transportation facilities layout, and focused on pushing the implementation of a number of projects that laid a foundation, broke bottlenecks, and created benefits for the long run. We acquired the Guangdong Chaozhou Huaying LNG project and completed the handover. The Zhoushan Luhuan LNG terminal was approved by the National Development and Reform Commission and Sinopec headquarters for feasibility study. The Tianjin LNG Phase III Stage I and II were approved by the government and Sinopec headquarters for feasibility study. The No. 5 and No. 6 storage tanks of Tianjin LNG Phase II were completed in advance and put into use before winter. The construction of the first 270,000 cubic meter LNG storage tank in Qingdao LNG Phase III started, and the second jetty project saw mechanical completion. The implementation of Yantai Longkou LNG and Guangxi LNG Phase III were accelerated as planned. The main gas source pipelines for the Shandong South Main Line, the South Section of the East Main Line, the Anhui Northeast Pipeline Main Line and the Anhui North Branch Line, and the eastern part of the Zhongguan Gas Storage were completed. The northwest gas gathering terminal Lunnan pipeline was put into operation in advance. The CNG upload project of Taiyuan station and the main body of Qingshan shell gas export pipeline were both completed, opening a new channel for resource upload. The Jinan Gas Storage increased capacity by 448,000 cubic meters, and that for the Huangcun Gas Storage was 56,000 cubic meters, effectively improving peak shaving capacity.

Oil Products and EasyJoy Services

In 2022, the total sales volume of oil and gas was 213 million tonnes, down 5.5%; the sales volume of domestic refined oil products was 163 million tonnes, down 5.1%, and the retail volume was 107 million tonnes, down 6.5%. Sales volume of natural gas was 4.18 billion cubic metres, a decrease of 16.8%. Operating revenue of EasyJoy was 36.1 billion yuan, an increase of 7.6%.

Oil and Gas Marketing and Services. The “100-day service improvement competition for petrol stations” was launched. Standardized customer service centres were built. A shared customer evaluation platform and a digital operation analysis platform for petrol stations were set up. Marketing was carried out with refunding cards and third-party cooperation. The “Thousand Stations Marketing” campaign was organized. XPower Series marketing was continued. As a result of the above-mentioned measures, the retail competitiveness continued to improve. We insisted on market orientation and led market expectations, effectively hedged high procurement risks. We insisted on market orientation and led market expectations, effectively hedged high procurement risks.

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Fuel oil

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

New breakthrough in both quantity and efficiency was realized in the production of fuel oil. We continued to strengthen the philosophy of "expanding sales, controlling procurement, reducing inventory, pushing prices, and shifting peaks", and achieved a linkage between physical and paper trading, leading to a stable upward trend in prices in the Asia Pacific region. We optimized the "full production and full sales" chain of petrochemical resources, implemented a three-month logistics inventory rolling plan, and optimized the allocation of 364,000 cubic meters of storage, reduced 13% coastal freight through bidding, achieved 8 million tonnes of petrochemical low-sulfur bunker fuel and "full production and full sales" of MGO, and contributed to the adjustment of Sinopec's industrial structure. We completed the construction of 15 offshore mobile gas stations, created a service team for oil supply, and continuously improved service quality. The annual operating volume of bonded oil reached 10.03 million tonnes, an increase of 3%, breaking 10 million tonnes for the first time, and the market share reached 40%.

The quantity and quality of domestic trade scored new achievements. We made "visiting enterprises, providing services, expanding business, and creating benefits" a normal practice. The Zhenhai subsidiary, Zhejiang subsidiary, and Shanghai subsidiary have established an integrated domestic and foreign trade process. 197 and users were added for domestic trade fuel oil refueling, and an integrated fuel support summary meeting was held with the maritime police to move forward the transfer of 8 stations on waters in Jangsu, and optimize the layout of Guangdong's network, and started operation of Shanghai's second on-water green comprehensive service area, improving the operation of on-water business. We completed the first domestic ship refueling of 30 tonnes of methanol, arousing strong interest. The annual domestic trade achieved a business volume of 7.4 million tonnes, including 1.52 million tonnes of ship refueling, up by 24%.

Other Refined Oil Products

The total sales volume of self-marketing refined products was 36.02 million tonnes. We managed to increase the total volume of self-operation, with the annual self-operation volume of 5.4 million tonnes, an increase of 42.5% year-on-year. We continued to build "specialties and new products". Needle coke was successfully applied to high-end graphite electrodes and multiple specialized material brand products, effectively driven the promotion and application of new chemical materials. We comprehensively deepened strategic cooperation with companies of building materials, automotive materials, and new energy materials, strengthened the organic integration of new product research and development and downstream customer application development, collaborated with production subsidiaries and multiple strategic customers to jointly develop multiple specialized material brand products, effectively drove the new product development and market-oriented application. We actively created a cooperation alliance for waste plastic recycling industry, opened up green development markets such as degradable materials, and laid the foundation for further promoting green marketing. We collaborated with production subsidiaries and research institutions to establish a professional technical service and product support team, provided customers with high-quality application supporting services, and accelerated connecting the "last mile" of products towards customers.

Chemical products

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

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

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

Catalysts

We strengthened the domestication to replace imports. The domestic market share of PX adsorbent continued to increase. Domestically produced silver catalyst with high selectivity/intermetallic yield replaced the imported one for the first time in Yanggij Petrochemical and Maoming Petrochemical, while the domestication of catalysts for boiling bed residue hydrotreatment and high-end polyolefins continued to accelerate, further consolidating the dominant position in the domestic catalyst market.
In the Jiaoye 18-S12HF well, we completed the drilling of 269 shale gas wells with footage of 1.4264 million meters, an average well depth of 5,222.05 meters, an average mechanical drilling speed of 9.33 meters per hour, and a drilling cycle of 73.27 days. 22 wells were completed in the Shengli Shale Oilfield, with an average depth of 6,890.7 meters, an average mechanical drilling speed of 9.87 meters per hour, and an average drilling cycle of 69 days, big increase in both quality and efficiency. Among them, the Jiaoye 18-52HF well set a number of construction records, including the longest horizontal section (4,268m) and the longest horizontal section “one-run drilling” (4,225m) in China. The Niuye 1-3HF and Niuye 1-3-501HF wells achieved one-run drilling for drilling, casing and tubing. Niuye 1-3-501HF set a new record for the shortest drilling and completion period (29.5 days) for a horizontal shale oil well in Shengli Jiyang.

Great improvement in downhole special operations and reservoir technology. The shale oil fracturing speed and efficiency improvement technology was iterated to V3.0 generation. The technology series of oil and gas tests for wells with high pressure, under water and anti-corrosion in key areas such as Yuanba and Shubeli were continuously improved. The efficiency of fracturing in key areas of Northeast, Northwest, North China and Sichuan increased by 11.6%. The Billboard shale gas field, Jiaoye 12 platform expansion achieved three-dimensional development and set five records, including the largest scale of shale gas fracturing in China. The Shengli shale oil well 118 well group set three records, including the most fracturing work volume in a single day in the eastern part of China. The Xinyi 1 well, a key shale gas well in the southern Shengli oilfield, achieved last gas production of 50.500 cubic meters per day after fracturing. Accumulative 20 high yielding wells with a daily production of 1,000 tonnes was tested successfully in Shunbei. The oil reservoir business built 520,000 tonnes of new crude by 63 sets of upgraded core equipment.

New progresses in drilling fluid technology. The high temperature resistant poly-sulphonate low friction drilling fluid system was successfully applied in the Roian 1 well and the Shunbei 4-1HF well, with the bottom temperature reaching 191°C, effectively ensuring the smooth completion of the 9,000m ultra-deep drilling. Anti-high temperature environment-friendly drilling fluid filter loss reduction agent has been applied to more than 200 wells, providing strong technology support for the Shengli Jiyang shale oilfield. The Xianbei 1X and Yuanba 701. The oil-based drilling fluids in West Sichuan solved the problems of well wall collapse, control of the technology of highly-dense drilling fluids and drilling drilling pressure in the sand-mud interbed of the Shahezi Formation in the Zhongjiang area west in West Sichuan. The application of oil-based drilling fluid technology in the THK-3X2 well in the Tahe work area saved 20.37 days in drilling cycle, with a 36.38% increase. In 2022, we set a record for the shortest drilling cycle in a horizontal well in carboniferous clastic rock. The synthet- ic-based drilling fluid was applied to 14 wells in Shengli Shale Oilfield, resisting temperature of 207°C, reducing 82% of mud cake permeability and over 40% of solid wastes.

Breakthroughs in application of digital twin technology. In MWD, the Com- pany developed a series of three types of instruments, among which azimuth gamma and azimuth electromagnetic resistivity were applied to 409 wells, neutron density and low resistivity gamma energy spectrum was accelerated. The application of azimuth resistivity logging in the Zaihaizhuang 138-H5 well analyzed the reservoirs by the boundary detection and 100% reservoir penetration rate, successfully breaking through the “bottleneck” in the application of shallow and loose formations. In open hole logging, the temperature and pressure stability and resistance stability of imaging logging continued to improve. The 2020/172 MPa cable push-type and lantern-type high-temperature electric imaging logging technologies became mature, which were applied to 9 wells in northwest and southwest China. 2010/260 MPa direct push storage series of logging instruments were applied in wells for 359 times. Among them, 61 times were in ultra-deep wells above 8,000m. The ex- pected results were achieved in all field applications. In terms of logging technology, the temperature and pressure index of thermal logging and “logging integration” were realized “logging integration” technology. This technology was applied to 122 wells in total, speeding up by more than 40% in a single well, becoming one of the core logs of Shengli Jiyang shale oil field. The tractor series continued to be completed, forming the 50 mm, 70 mm and 80 mm series, completing 409, 70 and 80 mm series, respectively. The Jiaoye 18-S12HF well was successfully drilled from tubing logging in the X161-H5 well. In terms of logging interpretation, a series of five types of complex reservoir logging and evaluation technologies were developed. Software module version 1.0 was developed based on the LogPlus platform. In terms of mud logging technology and equipment, high-mud mud logging equipment was finalised and initially applied. The digital directional well, mud logging, steering integrated technology specifications and standards were written and completed. Key project projects, such as a mod- eled fluid flow-based drilling fluid flow measurement device, a new type of rock deb- riss detecting device and a supporting borehole stability monitoring system during development and testing for a practical core analysis analog. Mirestone results were achieved for field tests and applications.

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Continued Improvement in Engineering Service Capabilities

The whole process management was strengthened and multiple measures were taken to improve the engineering efficiency and project execution. The Zhenhai Base Phase I and Jiujiang Petrochemical Aromatics Project were completed and put into operation, with 546 new high-indexes. The first set of underground wellhead for production wells in China was successfully applied. The development of digital intelligence technologies such as automated control of fracturing equipment and manifolds, SCOFEA’s Internet of Things were accelerated.

New Breakthroughs in Technology Research

Promoting key science and technology research projects, Seven technology research projects in new areas were completed and put into production, such as Zhenhai Refining and Chemical Co.’s high-spec poly-1,4-butene, Shanghai Petrochemical Co.’s large-tow carbon fiber (domestic production line), Fulig’s high-purity helium extraction and Qing Petrochemical’s HNBR. Among them, the “Key Technology Project for Green Manufacturing of High-Spec Poly-1,4-Butene Resin” produced qualified products and achieved continuous and stable production, making Sinopec the fourth global and first domestic producer of this product. The 24 national research projects, 31 “Ten Key Technologies” relating research projects and 20 Sinopec major research projects progressed smoothly. 8 projects, including “hydrogen purification for fuel vehicles” and “ethylene waste alkaline oxidation”, were completed. 8 projects as “SCCO conversion to BTX” and “150,000 tonnes/year AL-PPE package technology” were successfully integrated into the Ten Key Technologies Projects, maintaining a high degree of participation.

Focusing on dual carbon goals to prepare for transition, the feasibility study on the in-depth coupling application of high-temperature gas-cooled reactor technology with the petrochemical industry was completed to promote carbon reduction from source in the petrochemical industry. Carbon sources in the petrochemical industry were researched to propose carbon reduction and transformation projects such as the Huizhou Ethylene Project of Mobite, the upgrading of CNPC Jilin Petrochemical Co. and Yulong Petrochemical Co., and Petrochemical Ethylene Unit was delivered with high quality. Tianjin Nangang Ethylene Project was accelerated; a number of projects such as Anqing Petrochemical Upgrading were vigorously promoted, Danzhou Base, Lianyungang Commercial Storage, LNG terminals in Tianjin, Guanwei and Longkou, Green Hydrogen in Kuqa Xinjiang and other projects were implemented rapidly. Non-Sinopec system projects such as the Hudong Zhonghua Ethylene Project of Modis, the upgrading of CNPC Jilin Petrochemical Co. and Yulong Petrochemical Co. were steadily implemented with the safety and quality of the projects generally under control.

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

Promoting hydrogen energy to become the industry leader

We steadily pushed forward the construction of hydrogen energy transportation. We completed the construction of hydrogen purification and filling facilities with a total capacity of 16,500 tonnes per year and supplied nearly 1,700 tonnes of high-purity hydrogen for fuel cells in 2022, an increase of 244%. 98 hydrogen refilling stations were built, with an annual hydrogen refilling volume of about 1,750 tonnes, an increase of 100%. During the Beijing 2022 Winter Olympic Games and Winter Paralympic Games, our green hydrogen lit the main torch at the opening ceremony of the Games. 87 tonnes of hydrogen were refilled for the event vehicles at the four Winter Olympic hydrogen refilling stations, and 8,695 vehicles were refilled, ensuring supply of hydrogen energy for the Beijing Winter Olympic Games.

Progress in the integrated project of “source, network, load, storage and hydrogen”. The construction of the 20,000 tonne/year demonstration project of green power to green hydrogen in Kuqa, Xinjiang accelerated, and the 30,000 tonne/year integrated project of wind/PV to green hydrogen in Erdos was well prepared for full construction in 2023. The 105,000 tonne/year green power to green hydrogen project in Lanzhou was completed and put into operation with the “Western Hydrogen to the East” well underway. The first 30m (standard)PEM hydrogen production experimental plant and megawatt-level [200m^3 (standard)] PEM hydrogen production plant were put into operation at Yanshan Petrochemical. The skid-mounted methanol production equipment was put on trial at DaLian hydrogen filling station, realizing semi-generation of PEC catalyst and achieving international leading level.

Promoting the hydrogen energy application industry chain. We undertook research on hydrogen energy industry chain development; held seminar to promote the construction of modern industry chain for hydrogen energy application and a forum on high-quality development, and signed cooperation agreements with eight organizations, including Baowu Clean Energy Company and PAW, on the construction of hydrogen energy industry chain to strengthen cooperation and create an industrial ecosystem.
In 2022, we added over 10 million square meters of geothermal heating capacity and reached over 80 million square meters of comprehensive geothermal heating and cooling capacity, with comprehensive utilization of waste heat of nearly 40 million GJ/year. We held a geothermal exhibition, and actively carried forward the preparation work for the 2023 World Geothermal Congress, enhancing our influence in the geothermal industry.

**Consolidating leadership position in geothermal**

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

**Leading the market in bio-fuels**

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

**Leapfrog growth in clean power**

We actively planned and deployed a number of major projects of wind and PV power generation, promoting green power substitution in refining and chemical enterprises, with the total cumulative installed wind/PV power generation reaching 852 MW, nearly 2 times more than 2021. The annual self-generated green power exceeded 450 million kWh. The 120 MW PV project in Anlu of Hubei, 106 MW PV project in Shengli Oilfield and green power exceeded 450 million kWh. The 120 MW PV project in Anlu of Hubei, 106 MW PV project in Shengli Oilfield and green power exceeded 450 million kWh.

**Key Projects Construction**

**Oil and gas storage and transmission projects** A number of large oil and gas field surface projects, crude oil commercial storage depots, underground gas storage depots and LNG terminals were completed and put into operation, better integrating oil and gas production, supply, storage and marketing.

The Dongying Crude Oil Storage Relocation Project took only 10 months to achieve a high standard of mechanical completion. The Tianjin LNG Terminal Phase II, Shanghai LNG Terminal Phase III, Longkou LNG Terminal, Guangxi LNG Terminal, Shanghai Pipeline Network South (East) Trunk Line, Northeast Arnhul Gas Pipelines, West Sichuan Gas Field Surface Engineering, Aning and Dazhou Basens and other projects were implemented in an orderly manner.

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

New Energy, New Material, New Economy and science research auxiliary projects We actively integrated into the national innovation system and participated in the national strategic science and technology research with a number of key technologies and bottleneck projects completed and put into operation. Qili Petrochemical - Shengli Oilfield Mega-Tonne CCUS Project was put into operation, becoming China’s largest demonstration base for the whole CCUS value chain and playing an important leading role in promoting the construction of a low-cost, low-energy consumption, safe and reliable CCUS technology system and industry cluster in China. The successful start-up of the large-scale carbon fiber domestic production line in Shanghai marked the success of Sinopec’s large-scale carbon fiber towards scale development and the domesticization of key equipment, breaking through the restrictions of China’s carbon fiber production and equipment. The 1,000-tonne POE, 1-polybutene, PVA optical membrane and polyethylene pilot units were successfully started up and produced qualified products in one go. The world’s largest green hydrogen coupled coal chemical project was launched in Erdos, helping the Company to be the head of the hydrogen energy industry chain. The construction of projects such as Xinjiang Kuqa Green Hydrogen Demonstration, Tianjin Base of Beijing Research Institute of Chemical Industry and Catalyst Company. Shanghai Pudong Research Base and Sinopec Free Trade Building was accelerated.

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

- Overseas Oil and Gas E&P
- Overseas Petroleum Engineering and Technical Services
- Overseas Refining and Chemical Joint Ventures and Cooperation
- Overseas Refining and Chemical Engineering Services
- International Trade
- International Joint Ventures and Cooperation within China
- Our Operations Outside China’s Mainland
As of the end of 2022, we had invested in 44 oil and gas exploration and development projects in 23 countries, forming an overall overseas oil and gas strategic layout that combined oil and gas, onshore and offshore, and conventional and unconventional diversification. Throughout the year, we completed 200 square kilometers of 3D seismic acquisition, 42 exploration and evaluation wells, and achieved 1 exploration breakthrough, 8 new exploration discoveries, and 2 new exploration progress evaluation wells, and achieved 1 exploration breakthrough, 111.20 square kilometers of 3D seismic acquisition, 42 exploration and development projects in 23 countries, forming a relatively rich exploration and development product portfolio, which mainly covers design, EPC, and construction services, and engaged in global market competition, prioritized markets along the BRI, improved global business layout, and took on fresh steps towards the international operations of Sinopec.

Overseas Oil and Gas E&P

As of 2022, the Overseas Oil and Gas Exploration and Development Co., Ltd. (hereinafter referred to as “Sinopec International”) operated and controlled 17 blocks, held 13 blocks, and shared 11 blocks in 23 countries. The total holding interest of the newly discovered areas was 3.26 million tonnes, exceeding our annual target. We took the initiative to develop new projects, enhance communication with the governments, NOCs, and IOCs of resource-rich countries, expand cooperation opportunities, and accelerate the disposal of inefficient and ineffective assets, achieving substantial progress in key operational projects, and continuously optimizing the asset structure.

<table>
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<tr>
<th>Year</th>
<th>Overseas equity oil (10,000 tonnes)</th>
<th>Overseas equity gas (100 million m³)</th>
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<tr>
<td>2022</td>
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Overseas Petroleum Engineering and Technical Services

We actively responded to the unfavorable conditions of Covid-19 outbreak overseas, grasped the favorable conditions of relatively high international oil prices and the rebound of oil prices in the second half of 2022, and realized the rebirth of the global oil and gas industry. In 2022, the number of new contracts signed reached 111.20 million US dollars, up by 10.0%. The overseas trade volume of chemical products reached 6.805 billion US dollars, up by 10.0%. The international trade in equipment, materials, other refining and sales by-products, and other chemical products reached 1.93 billion US dollars, up by 10.0%. The overseas sales (shipment) of catalysts amounted to 17.711 billion US dollars and accumulated profit of 32.111 billion US dollars.

Overseas Refining and Chemical Joint Ventures and Cooperation

We are engaged in investing in 8 refining and storage projects in 5 countries, with a total investment of approximately 11.771 billion US dollars. We have an overseas refining capacity of 7.5 million tonnes/year, a storage capacity of 3.36 million cubic meters, and a lubricating oil capacity of 80,000 tonnes/year.

Overseas Refining and Chemical Engineering Services

We managed to cope with the impact of Covid-19 and the complex and ever-changing external market environment. The refining and chemical engineering sector has actively expanded its market, making new breakthroughs in the African and Middle Eastern markets, and steadily advancing the execution of other projects. As of the end of 2022, 70 refining and chemical engineering technical service projects had been carried out in 16 countries, mainly covering design, EPC, and construction projects. 92 contracts were under execution with a contract amount of 6.08 billion US dollars. A total of 114 contracts have been executed, with a contract value of 6.805 billion US dollars. A total of 51 contracts have been completed, with a contract amount of 642 million US dollars and accumulated profit of 32 million US dollars.

International Trade

To ensure stable energy supply, we continued to strengthen strategic cooperation with oil producing countries and suppliers, and strived to obtain cost-effective crude oil resources from around the world. In 2022, the total international trade volume of oil and gas was 366 million tonnes (including carbon trading), a decrease of 36.12 million tonnes or 9%. The operating volume of crude oil was 294 million tonnes, a decrease of 29.42 million tonnes or 9.05%. Crude oil import was 203 million tonnes, a decrease of 4.3 million tonnes, down by 2.10%. The third-party trade volume in crude oil was 91 million tonnes. The operating volume of refined oil products was 50.55 million tonnes, a decrease of 60,000 tonnes, basically flat. Export of refined oil products was 23.46 million tonnes, an increase of 990,000 tonnes, up by 4.4%. The third-party trade volume in refined oil products was 24.82 million tonnes. The annual import of LNG was 15.67 million tonnes (equivalent to 22.4 billion cubic meters), a decrease of 2.42 million tonnes (equivalent to 3.5 billion cubic meters), down by 13.4%. Third-party trade in LPG was 2.26 million tonnes (equivalent to 3.5 billion cubic meters). In 2022, the overseas trade volume of chemical products reached 6.54 billion US dollars, an increase of 56%. The total operating volume reached 5.688 million tonnes, up by 10.0%. The international trade in equipment, materials, other refining and sales by-products, and other chemical products reached 1.056 billion US dollars, a drop of 22.71%. The overseas sales (shipment) of catalysts amounted to 24.098 tonnes, registering 147.61 million US dollars, up by 86.58%, which hit a historic high and achieved an upward trend. The total overseas trade volume of lubricants in China was 317 million US dollars, with a total operating volume of 196,000 tonnes. In addition, the transaction amount of EPEC International Business Platform stood at 21.75 billion US dollars.

International Joint Ventures and Cooperation within China

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

To enhance green and low-carbon international cooperation, Sinopec signed a MoU for cooperation with Shell, BAIF, and Baoao at the 5th China International Import Expo, and jointly launched China’s first open ten-million tonne CCUS project in East China. We carried out domestic oil and gas joint ventures such as the Shengli Chengdao West Exploration and Development Product Sharing Project and the Sanjiangao Coalbed Methane Project, with a total of 10.416 million tonnes of oil discovered in the cooperation blocks, of which the share of EPE operators reached 4.973 million tonnes. The cumulative gas production was 786 million cubic meters, of which the share of Chinese operators was 65.84 million cubic meters.
Corporate Management

- Corporate Reform and Law-based Governance
- Organization and HR Management
- Digital Transformation
- Audit and supervision
- Corporate Culture Cultivation
- Brand Building and Management
- Party Building
Corporate Reform and Law-based Governance

The “Three-Year Action Plan on Deepening Reform” was successfully concluded. We strengthened the leadership of the Party in improving corporate governance across the Group, including the two lists for implementing main responsibilities of the Party Group on significant matters and decision makings, the system where Executive (Director, Representative of the company) is also the Party Secretary, and the Board of Directors be set at subsidiaries. As a result, the company was rated as a demonstration enterprise of corporate governance by SASAC. The company made critical progress in market-oriented reforms, the tenure system of management members and contractual management were fully implemented. The more flexible mechanism on cadre appointment, overall pay-roll and employee recruitment was continuously deepened. The handover of social functions of subsidiaries were basically finished. The “Science Reform Demonstration Initiative” for scientific research affiliates were rolled out across the board. Sinopec Catalyst Co., Ltd. has been rated the benchmark company by SASAC for two consecutive years. We improved the industrial structure, promoted clean and low-carbon energy transformation, and took new steps in supply-side structural reform. The “Double carbon-goals” and dual controls on high-energy consumption and high emission, as well as the legal compliance guidelines for new energy projects. We carried out specific governance on contract signing, such irregular practices as contract re-signing and back-signing were reduced significantly. We included legal compliance and HSE management requirements into the contract terms, and improved contract management information integration based on big data and intelligence platform.

Substantial results have been made in reducing stocks and new dispute cases. We strengthened legal settlement of accounts receivables, adopted categorized approaches to reduce both accounts receivables and inventory. We formulated guidance on the prevention and control of the legal risks regarding environmental compliance, the response to environmental penalties and legal rights protection of the enterprises along the Yangtze River and Yellow River. We properly responded to environmental compliance verification, and strengthened the legal compliance verification for major investment projects concerning “dual carbon-goals” and dual controls on high energy consumption and high emission, as well as the legal compliance guidelines for new energy projects. We carried out specific governance on contract signing, such irregular practices as contract re-signing and back-signing were reduced significantly. We included legal compliance and HSE management requirements into the contract terms, and improved contract management information integration based on big data and intelligence platform.

Senior management and professional staff cultivation

The company explored to promote the integration of the Party’s leadership into the corporate governance, made greater effort to make the Chairman (Executive Director, Representative of the branch company) of 27 subsidiaries also titled the Party Secretary, promoted the replacement of Party committees directly under the Group and Party committees in 26 subsidiaries, established or improved the reporting and joint review mechanism regarding the responsibility adjustment among the members of the leading Party group, and continued to accelerate the development of modern enterprise system with Chinese characteristics. The research report “Strengthening the Party’s Leadership and Improving Corporate Governance in Grass-roots Enterprises Affiliated to Central State-owned Enterprises” won the second prize of Excellent Research Results of Organization Department of the CPC Central Committee. We set a clear principle of employing people devoted to hard work, performance and sense of responsibility. We selected cadres with responsible performance and outstanding achievements in urgent, challenging and arduous tasks such as tackling difficulties or concerning economic results, scientific and technological innovation, epidemic prevention and control and deepening reform. We promoted allocation of cadre resources throughout the whole group. In 2021, the cadre selection and promotion work was rated “good” by 96.8% employees, reaching another record high. We strengthened supervision on both job performance and cadre attributes, formulated and implemented Interim Measures for the Comprehensive Assessment and Evaluation of Leading Bodies and Leading Personnel and Measures for Promoting the Scheme of Preparing for Both Promotion and Demotion. For five consecutive years, we achieved comprehensive networked and standardized assessment on cadres across the Group, so as to ensure that they take responsibility under accurate assessment. Cultivation for young cadres was placed as a strategic project, which matters to our overall development, and plans were continuously pressed ahead, including the echelon training plan for leaders, and “The Three Hundred and Three Thousand Post Exchange” campaign. We fully implemented the “Three Year Action Plan on Deepening Reform”, continuously strengthened the allocation and management of external directors, established the boards of directors when needed in our subsidiaries, and had external directors take majority seats in all boards. On selection and appointment of cadres, we developed an IT-based management and supervision system and completed the supervision, inspection and improvement of governance. The overall evaluation on the selection and appointment of cadres and on strict supervision and management of cadres were rated “good” by 93.52% and 94.95% of employees, respectively, rising for four consecutive years and reaching a new record high. We had the senior management complete the reporting of related personal matters, and maintained 98.28% authenticity and validity in key inspections. We carried out follow-up check to rectify all phenomenon of “making profits by taking advantage of the Company”, and conducted thorough examination and rectification regarding issues of “shadow companies”, “shadow
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Corporate Management

National level demonstration leading the upgrading of the petrochemical industry

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

Digital Transformation

Building digital business into the cornerstone of development

"Sinopac Smart Cloud" industrial internet platform. We built a basic system with three centers of "service management and control, opening source and continuous delivery", 58 business components of 5 categories had been put on the shelves, which could be shared by about 50 technical services. The cloud for state-owned assets and central enterprises, piloting a "one cloud, multi-core" innovation and information resource pool, and setting up a ring network of Chasyangmen, Shaha, and Hohot data centers.

Digitalization and intelligence of business management reached a new level

We built a financial intelligence analysis and decision-making system, improved global treasury management functions, completed the online application of interest rate, exchange rate risk, and credit risk management, accelerated the construction of a strategic and intensive financial control system. We improved and enhanced the integrated investment optimization and control platform, and accurately supported the full lifecycle management of investment business. We built a big data platform for industry audit integration, established and used nearly a hundred audit models, supporting online management of the entire audit project process. Sinopac's "the Great Wall Chain" had been accepted by the Ministry of Industry and Information Technology of the People's Republic of China and officially released.

New achievements in the digitization of production and operation

The headquarters intelligent operation center deepened its application, supporting cross-business and cross-sector operation analysis, deepening model application, and assisting in sector collaborative optimization, revenue generation and efficiency creation. We promoted the application of safety and environmental protection, significantly reduced the rate of hazardous chemical transportation accidents, achieved visualized supervision of environmental emissions throughout the Company, covered 99 subsidiaries with a carbon asset system with each production unit monitored, shortened the inventory cycle by half, and enhanced the energy conservation and carbon reduction control capabilities of subsidiaries. The construction of exploration and development data resource centers and exploration and development decision support systems in the oil and gas new energy field had been carried out, and three intelligent oil and gas fields, including Shengli Chaoan, had been upgraded and expanded through pilot projects to fully launch their main functions. The refining and chemical industry had completed the main functions of six intelligent factories, including Guangzhou Petrochemical Company, and achieved good results in integrated planning and scheduling optimization, new products and operations, and operation and maintenance response speed. Sinopac had built a total of 15 intelligent factories. The number of oil product sales domains had completed the switching and landing in 92 card system for subsidiaries. Beijing Sales Company and Hebei Sales Company provided on-board refueling and hydrogen refueling services for the Winter Olympics fleet.
Trade service platforms supported the development and growth of the new economy

Sinopec chememall platform had created a standard and distinctive application in the chemical industry, realized scanning and querying the quality inspection documents with 37 production subsidiaries, expanded the transaction mode, strengthened the information integration with suppliers and customer systems, strengthened the collaboration between upstream and downstream industrial chains, and realized the sales of chemical products sold by 21 production subsidiaries on the platform. EPEC platform continued to give full play to enhance resource aggregation capabilities, and offered 7.84 million types of online products. 1,102 platform subsidiaries opened EPEC services, with a transaction amount of 557 billion yuan and an online payment volume of 117.8 billion yuan in 2022. The Easy Joy service platform promoted application scenarios such as “Easy Jet Mall”, one-click on board and one-click home delivery services, exploring an integrated online and offline shopping model for online ordering and store pickup, creating employee distribution applications, and continuously expanding new business growth points. The business travel platform built a business travel data cockpit and visualized services, improved travel management and reimbursement management, and achieved a high-quality, fast, green, and low-carbon travel experience for employees who travel without ticket collection, reservation without advance payment, and reimbursement without offering invoices, helping to save more than 57 million yuan in travel costs.

Honors of Digital Transformation

The data service platform was awarded DAMA China’s Best data governance Excellent Product Award. The integrat-ed investment optimization and control sharing platform won the Excellent Award at the 2022 IDC China Future Enterprise Award. Shengli Oilfield, Zhenhai Refining and Chemical Com-pany, Zhongke Refining and Chemical Company, Hainan Refining and Chemical Company and other subsidiaries were rated as Industrial Internet pilot demonstration, digital pilot en-terprises, and clean energy refining and chemical intelligent manufacturing demonstration plants by the Ministry of Industry and Information Technology. Sinopec’s practical achievements in promoting digital transformation won the first prize of the 25th National Enterprise Management Modernization Innovation Achievement Award.

Audit and supervision

In 2022, the audit departments at all levels of Sinopec adhered to the philosophies of “strengthening auditing through digital, network, and intelligent auditing, realizing audit resources from oxide shape ones to dumbbell shape ones, after post-audit to pre-audit and mid-audit, and integrate specialized auditing services to the overall supervision and better leverage supervision”, comprehensively fulfilled the “four functions”, i.e., to ensure the major policies and guidelines of the national govern-ment and CPC as well as crucial strategies of Sinopec imple-mented, to oversee Sinopec carry out legal and compliance op-erations, to guarantee the high quality growth of Sinopec, and to carry forward clean and honest administration. We carried out 1,139 audit projects, including 243 economic responsibility audits, 231 fixed assets investment audits, 23 financial capital audits, 94 internal control audit evaluations, 23 equity invest-ment project audits, 5 final account audits for IT project, and 1 liquidation audit. We conducted 519 special audits or audit investigations on financial risks, financial derivatives, overseas investment management, and the three-year action on deepen-ing reform, effectively exerting the benefit of audit supervision.

Corporate Culture Cultivation

Core Values

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

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

Corporate Values: Putting people first, Responsibility, Integrity, Meticulousness, Innovation, and Win-win
The corporate values of “putting people first, responsibility, integrity, meticulousness, innovation, and win-win” were the core values that all employees of Sinopec adhered to in building a world-leading enterprise.

Putting people first
Putting people first, oriental, while developing responsibility-serving the country and the people, benefitting humanity.

Integrity: Delivering promises and operate in compliance with the law and regulations
Win-win mutual benefit, and common development
In 2022, focusing on the soft power system characterized as “four in one”, i.e., nurturing the spirits through Party building, consolidating the foundation through management, inspiring the souls through culture, and adding value through brands, Sinopec realized the goal and requirement of adding value to the brands, enhanced strategic integration of brands, concentrated on the leading role of brand philosophy, developed the brand of Sinopec Group together with those of our subsidiaries, facilitated the increase in brand value, and improved the brand image. The brand value of Sinopec Group reached 327.571 billion yuan, up by 18.98 billion yuan, ranking No.1 in the domestic energy and chemical industry and No.3 nationwide for the consecutive years. The brand value of Sinopec businesses raised substantially, among which, that of “Easyjoy” reached 10.753 billion yuan, up by 1.353 billion yuan; “Great Wall Lubricant” scoring 8.273 billion yuan, up by 23 million yuan; “Epsen” hitting 10.874 billion yuan, up by 200 million yuan; and “Sinopec Oilfield Equipment Corporation” recording 643 million yuan, an increase of 63 million yuan.

The systemic construction of brands further improved. We updated and issued Sinopec Brand Structure Management Methods, and strived to lead the central enterprises. Sinopec has been awarded “1st Central Enterprise in Brand Construction” by SABAC two years in a row.

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

The brand image was promoted via internal and external media channels. We put much effort into China Brand Day, themed as “To Build a Quality Power; To Enjoy Chinese Brands”, and highlighted the brand commitment as “Clean Energy and Beautiful Life”. A signed article of Ma Yongsheng, Chairman of Sinopec Group, was published on People’s Daily (special cover for China Brand Day). We planned and rolled out large-scale special series of reports titled as Hundred Companies Talking About Empowering China Through Brands on the convergence media matrix of chinanews.com. We posted related contents and reports on “Chairman’s View on Brands” on Sinopec’s convergence media platforms as Fenjin Sinopec, Learningpower, Toutiao account, and “Yidian news account”, and joined hands with our subsidiaries to expand publicity, forming great impetus through synergy.

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

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

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

In 2022, adhering to the guidance of XI Jinping’s Thought on Socialism with Chinese Characteristics for the New Era, the Company’s party group deeply studied and implemented the spirit of the 20th CPC National Congress and the important instructions by General Secretary XI Jinping during his inspection to Shengli Oilfield, implemented the general requirements for Party building in the new era and the organizational line of the new era Party, consolidated and sharpened the achievements of party history learning and education, and the implementation of the spirit of the National Party Building Association for State owned Enterprises. In accordance with the overall thinking of the Company’s Party building work “1350”, guided by the theme action of “keeping in mind the instructions, making new accomplishments, creating new achievements, and welcoming, studying and implementing the 20th National Congress spirits”, we strived to promote a more solid, high-quality, and effective comprehensive and strict governance of the Party, providing strong guarantees for building Sinopec with strong strategic support, strong livelihood guarantee, and strong spiritual appeal.

Self-Building of the Leading Party Member Group

Strengthening the Leading Party Member Group’s Self-Building. The Leading Party Member Group took the lead in studying, publicizing and implementing the guiding principles set out at the 20th Party Congress, resolutely implemented the important instructions given by General Secretary XI Jinping during his inspection on the Shengli Oilfield, and promoted 45 key tasks in 8 areas of the Campaign with the theme of “remembering the mandate, making new achievements, and welcoming, studying and implementing the 20th Congress”. The Leading Party Member Group took the lead in implementing the "first agenda item" mechanism, strictly followed the important instructions for the Leading Party Member Group to thoroughly implement General Secretary XI Jinping’s Important instructions, collectively studied 78 General Secretary XI Jinping’s important speeches and instructions at 49 meetings. The central group of the Leading Party Member Group carried out 14 special studies to promote in-depth study, research and deployment, implementation, tracking and feedback. The Leading Party Member Group took the lead in exercising the "first agenda item" mechanism, strictly followed the important instructions for the Leading Party Member Group to thoroughly implement General Secretary XI Jinping’s Important instructions, collectively studied 78 General Secretary XI Jinping’s important speeches and instructions at 49 meetings. The central group of the Leading Party Member Group, and the leading role played by the Leading Party Member Group and the fulfillment of duties by the Board of Directors and the management in accordance with laws and regulations. We strengthened the classified guidance for directly affiliated enterprises, focused on 30 key subsidiaries, established a "fast-system" linkage mechanism, and promoted the effective linkage of "two lists" of the Party Committee with the internal control authority guidelines and the "three major and one important" decision-making system.
Work on Party-masses Relations

Implementing the 20th CPC National Congress Spirit with high quality. We successfully compiled the recommendation of representatives to the 20th CPC National Congress and representatives of central enterprises in Beijing, and provided services to the representatives. Seven representatives from the Sinopac attended the Congress, and worker representative JIAN Zhiguang was elected as a member of the Congress committee. We developed the Key Measures for Preventing and Mitigating Important Risks and the Opening of the Congress with strict implementation. We made overall efforts to study and implement the work at the three levels of the Party, the League, the United Front Line, and the headquarters departments. We trained the members of the United Front, the advanced model workers, and the representatives of young employees. We set up special columns on the Party building platform, WeChat official account, and the office portal. We organized the Company’s CPC National Congress representatives to make extensive speeches at the grass-roots level, and guided the learning and implementation of new measures and achievements in Party building. Solid promotion of systematic management of party building. We innovatively adopted measures such as expert discussions on the assessment process and face-to-face feedback on the assessment results. We conscientiously organized and conducted education and learning assessment, and urged the Party committees of directly affiliated units to further shoulder their responsibilities. We successfully organized the first party committee secretary of a directly affiliated unit to conduct a review of party building work after the establishment of the new party group, with 17 party committee secretaries of directly affiliated units reporting their work in a centralized manner; the first meeting was held for the deputy secretary of the party committee of a directly affiliated unit to report their work, with 10 units reporting their work on-site and 20 units reporting their work in writing. We further improved the mechanism for ensuring the role of the Party building work leadership group, and held three meetings of the Party building work leadership group throughout the year, with 12 research topics. We developed and implemented the Operating Measures for Quarterly Regular Meetings of Party Building Departments in Directly Affiliated Units (Trial), regularly reporting on the situation, exchanging experiences, and jointly answering and tackling outstanding problems, strengthening the overall coordination and daily supervision and guidance of Party building work. Effectively promoting the integration and mutual promotion of party building work and production and operation. Focusing on combating the epidemic, ensuring the Winter Olympics, and ensuring safe production, we issued the Notice on Fully Utilizing the Role of Party Organizations as Battle Fortresses and Party Members as Pioneers and Role Models, Further Strengthening Epidemic Prevention and Control Work and the Notice on Fully Utilizing the Role of Party Organizations and Party Members to Guarantee Services for the 2022 Winter Olympics and Paralympics in Beijing. In May and June, when the Company was faced with the most severe production safety challenges, we carried out the Three Checks and Three Strengthenings’ theme Party day to promote safety in the entire system’s Party branches, with Party leaders taking the lead in participating and promoting the key role of Party organizations at all levels during critical periods. We focused on serving as a national strategic scientific and technological force, drew on the experience of the “Investigation Report from Xunwu”, organizing and conducted special research on the Party building work of scientific research units, formulated the “Several Opinions on Promoting the Deep Integration of Party building work and scientific and technological innovation in scientific research units”, guided party organizations and Party members to fully play their role in the “bottleneck” key core technology research. We focused on party building and strengthened the “three bases”, organized special research on grassroots party building work in refining and chemical subsidiaries, and promoted refining and chemical subsidiaries to improve their organic integration mechanism of party branch construction and “three bases” work based on actual conditions. We implemented the “Guiding Opinions on Deepening the Work of Party Building and Co-construction”, guided subsidiaries to deepen and expand the “six models” according to local conditions.

Deepening the role of united front group work. We adhered to and strengthened the Party’s leadership over united front group work, highlighted political guidance, and strengthened our role in building cohesion and contribution of the “Three Strong Sinopac”. We implemented the spirit of the Central United Front Work Conference, held a symposium for united front representatives, deepened the implementation of the friendship and friendship system, and ensured that all Party leaders and directly-affiliated units complete the friendship and friendship process; we developed opinions on the construction and implementation of non-party representatives’ suggestions and suggestions studies, named 13 studios in the first batch, officially launched the “Concentric Circle” cloud studio, and established a system of non-Party representatives’ suggestions and suggestions studies studios covering upstream, midstream, and downstream. The Measures for the implementation of the Workers’ Congress of Directly-Affiliated Units were formulated, and a model worker and advanced collective commendation conference was held, the assistance and rescue of needy workers and the care and care of residents workers were strengthened. The labor competition for the relocation project of “Dongying Crude Oil Depot of Shengli Oilfield”, the “100-day competition for improving the service of gas stations”, and the labor and skill competition with the theme of “building a Dasheng in Xinyang, popularizing the petroleum spirit and making new contributions to the new era” were conducted. One subsidiary won the National May Day Labor Award, 7 people were awarded the National May Day Labor Medal, 8 collectives were awarded the title of National Model Worker Pioneer. A series of activities, such as themed education practices and exhibitions, were held to celebrate the 100th anniversary of the founding of the Communist Youth League. 7 people were awarded the title of National Youth Position Expert, and one person was awarded the title of National Excellent Communist Youth League Cadre.

Ideological Work

Strengthening guidance. We formulated the implementation Opinions on Strengthening and Improving Ideological Work in the New Era, ensuring that it was incorporated into the company’s annual work, and assessed the results, turning “soft indicators” into “hard KPIs”, and promoted the powerful and effective work results. Strengthening education on the situation and tasks. We focused on communications and guidance of the themed commemoration of the instructions, making new achievements, and celebrating the 20th Party Congress, issuing 40,000 copies of key roles on the education on the situation and tasks, organizing nearly 800 lectures, and exhibited 10 videos of model cases. In addition, there were more than 27,800 media reports, creating a great atmosphere for the solid promotion of the themed programme. In the face of adverse effects such as the drastic fluctuations in oil prices and the recurrence of epidemics, we strengthened the ideological education and guidance of employees in the transformation and development of difficult enterprises, enhanced the sense of responsibility and urgency, and helped the reform to advance smoothly. Strengthening grassroots ideological work. Focusing on the fight against the epidemic, supporting the Winter Olympics and safety production, we carried out online surveys of 314,000 people and special survey on young workers, employees of specific enterprises along the Yangtze River and grassroots democractic administration, regularly investigated contradictions and disputes, and made good use of the internal education platform and Employee Assistance Programme (EAP) to effectively resolve risks related to stability. The internal education platform and EAP counseling services were very helpful during the peak of the COVID in Xinyang, Shanghai, Beijing, Guangdong and other key areas, overcoming difficulties together and unifying for progress. We cultivated a strong team. Based on both education and practical training, and accelerated the building of an ideological work team that was mainly full-time, combined with both full-time and part-time, sufficient in number and with good quality. Strengthening the ideological work on the Internet, we gave full play to the advantages of the corporate designated APP platform, and realized theoretical education + public opinion guidance, situation analysis + knowledge popularization and psychological consultation + care, providing important support for innovative online ideological work.

Strengthening ideological work. We focused on the promotion of ideology and ideological work, adhering to and strengthening the Party’s leadership over ideological work, highlighting political guidance, and strengthening the role in building cohesion and contribution of the “Three Strong Sinopac”. We implemented the spirit of the Central United Front Work Conference, held a symposium for united front representatives, deepened the implementation of the friendship and friendship system, and ensured that all Party leaders and directly-affiliated units complete the friendship and friendship process; we developed opinions on the construction and implementation of non-party representatives’ suggestions and suggestions studies, named 13 studios in the first batch, officially launched the “Concentric Circle” cloud studio, and established a system of non-Party representatives’ suggestions and suggestions studies studios covering upstream, midstream, and downstream. The Measures for the implementation of the Workers’ Congress of Directly-Affiliated Units were formulated, and a model worker and advanced collective commendation conference was held, the assistance and rescue of needy workers and the care and care of residents workers were strengthened. The labor competition for the relocation project of “Dongying Crude Oil Depot of Shengli Oilfield”, the “100-day competition for improving the service of gas stations”, and the labor and skill competition with the theme of “building a Dasheng in Xinyang, popularizing the petroleum spirit and making new contributions to the new era” were conducted. One subsidiary won the National May Day Labor Award, 7 people were awarded the National May Day Labor Medal, 8 collectives were awarded the title of National Model Worker Pioneer. A series of activities, such as themed education practices and exhibitions, were held to celebrate the 100th anniversary of the founding of the Communist Youth League. 7 people were awarded the title of National Youth Position Expert, and one person was awarded the title of National Excellent Communist Youth League Cadre.
Anti-Corruption

Focusing on “the country’s most fundamental interests”, with the rectification of formalities, precision supervision and regulation of political inspection. Focusing on the implementation of the important instructions on “securing the energy supply”, rectification inspection and supervision were strengthened. The response to the Ukraine conflict on China’s energy security, coordinating development and social stability, coordinating pandemic prevention and control and production, and operation, we strengthened political inspection. Especially in response to the once extremely serious situation of safety production, we promptly focused our supervision on safety production, forced strong management with strict supervision, promoted the implementation and supervision of the “two responsibilities”, reversed the passive situation, upheld both Comrade Xi Jinping’s core position and the Central Committee’s authority, and fully fulfilled the responsibility of rectification and refinement. The three non-corruptions”(do not dare, are not able, and have no desire to be corrupt) were promoted as one. And we continuously cleared existing corruption and cured the new one. The Company used the “four forms” precisely, improved the mechanism to tolerate mistakes and correct them, and did a good job in terms of the “second half” of the cases investigated and handled. The Company promoted education, rectification, and governance through the cases, and continuously strengthened the corruption with deepening reform, improving systems, optimising governance, and advancing development, so as to give full play to the comprehensive effectiveness of punishment and deterrence, institutional restraint, and education and warning. The Company organised the “rectifying taking advantage of enterprises and promoting corporate spirit” special month campaign, held a system-wide warning education conference, and constantly strengthened the effectiveness of education, to create a strong atmosphere of integrity.

Inspections by the Leading Party Member Group

Rectification after the Central Inspection continued to deepen and expand. The Company consciously implemented General Secretary Xi Jinping’s requirements on rectification through “four integration”, fully addressed the problems reflected from the 2019 central inspection. The synergy of the rectification of the discipline inspection team took the lead in fulfilling main responsibility and supervision responsibility, instructed and supervised the relevant subsidiaries on the implementation of the inspection and rectification measures. The Company continued to deepen and strengthen supervision, strict assessment, focus on key issues, and work on the permanent and long-term effect. Rectification measures were

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

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

Party Member Group gave full play to the role of an integrated inspection supervision platform, continued to promote the inte-

gration of inspection and supervision into the general supervi-

sion work, with a focus on the fields of safety and the major decisions and major liaisons of the Party Group and departments of the Party Central Committee and important work arrangements of the Leading Party Member Group were implemented. With prominent features of headquarter departments and subsidiaries, the Company’s inspection was carried out in a combination of conventional, special, flexible and “look-back” inspections. Through regional inspections, project inspections and “online + offline” inspections highlighting “short and quick”, focusing on the core functional responsibilities of headquarter departments and strengthening supervision in the financial sector to prevent and resolve issues, and the inspection “look-back” highlighting the effectiveness of the treatment, focusing on responsibility implementa-

tion and results application to improve the effectiveness of the rectification. In the second round of inspection on 26 subsidi-

aries, the study and dissemination of the guiding principles set out at the 20th Party Congress were the focus of supervision.

The Company carried out special inspections on the implemen-

tation of the important instructions given by General Secretary Xi Jinping during his inspection on Shengli Oilfield, special in-

pections were carried out to rectify the discipline and discipline of the supervisory committees, and to supervise the guarding “three non-corruptions” (do not dare, are not able, and have no desire to be corrupt) in the”three non-corruptions”(do not dare, are not able, and have no desire to be corrupt) in the

fourth round of inspection. The inspection feedback meetings of the Company’s leaders attended a total of 17 inspection feedback meetings of the Company’s leaders attended a total of 17 inspection feedback meetings, and 356 works meeting points were used to effectively strengthen process control and closed-loop management. The Company encouraged headquarter departments and subsidiaries to promote the implementation of rectification, summarizing the rectification after each round of
dispatching the important prevailing situations and the problems reflected from the inspection with quality and efficiency.

The Company promoted the special rectification of key projects, carried out seven special inspections on key projects, the rectification of the “rectifying taking advantage of enterprises and promoting corporate spirit” anti-corruption education month campaign, the “rectifying taking advantage of enterprises and promoting corporate spirit” anti-corruption education month campaign, and the rectification of the “second half” of the cases investigated and handled. The Company deepened and expanded the “overall supervision” pattern, and constantly improved the super-

visory system. We strengthened the overall supervision of the Leading Party Member Group, convened regular meetings of the supervisory committee, built a closed-loop management of problem identification, rectification and im-

plementation, supervision and spot-checking, and accountabil-

ity, and continuously improved the effectiveness of “overall supervision”. The Company built and made good use of “overall supervision” information platform, improved the level of informatization for supervision, extended the “overall supervision” territories, tightened the “overall supervision” inspection of the grassroots. We strengthened the super-

vision of key projects, carried out seven special inspections on projects, including the relocation of the Daying crude Oil Depot and the Green Hydrogen Project in Wuji Xingjiang, the efficiency and clean and safe operation of the projects. The Company also promoted the special rectifica-

tion of the problem of taking advantage of enterprises and the comprehensive management of “exercising strict finan-

cial discipline and accounting discipline” to further improve the quality and effectiveness of supervision and establish the foundation of clean and compliant management.
Social Responsibility

- Employee Health and Safety
- Green and Low Carbon
- Social Welfare
We organised special investigation and rectification of gas and lightning hazards for oil and gas storage facilities, and completed special investigation and treatment of high-risk factors.

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

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

Strengthening security management and fulfilling SOE’s responsibilities. We strengthened key security and anti-terrorism prevention targets, with a total of 26,643 key targets at Level 1, Level 2 and Level 3 met in the enterprises’ self-assessment. For the ninth consecutive year, we carried out clean-up and remediation of pollution and environmental hazards, completed construction of offshore petroleum safety risks monitoring and early warning system, and carried out the in-depth safety risk assessment of manned platforms and the safety assessment of the main structure of all platforms.

Strengthening science and technology innovation to promote safety. Empowering work safety with information technology digitization and AI, we accelerated the construction and application of the intelligence improvement “Work Safety” project, and promoted the application of mature industrial apps and intelligent analysis models. We build a geo-hazard monitoring and early warning system to realize intelligent perception of the entire disaster chain, graduated risk monitoring and early warning and efficient Image response. Through building a safe site management system, we comprehensively enhance intelligent control of construction site safety. Affiliates accelerated the deployment of overseas security management under the new situation. We paid high attention to the prevention of security risks in the context of the continued spread of epidemics overseas, focused on high-risk countries (regions) and key areas of security risks, strengthened overseas security inspections, and conducted emergency drills for emergencies; actively carried out overseas security training, continued to organise the Fast-lane Medical Consultation with doctors, strengthened the physical and mental health management of overseas employees, and improved the overseas purchase of safety equipment.

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

Employee Health

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

Strengthening the foundation of healthy enterprises. We strengthened the management of non-production fatalities, standardised information reporting and investigation mechanism, systematically carried out on-site non-production fatality investigation, strengthened “one-person-one-solution” management for personnel at high risk posts, and implemented control measures. We continued with the health promotion pilot projects and exploring new models of health management. We actively promoted the preparation of enterprise construction and participated in the National Healthy Enterprise Construction Excellence Awards, achieving excellent results in the following commendation from the National Health Commission.

Strict and normalised epidemic control. In the face of the exceptionally severe situation where the Omicron strain continued to mutate and became more contagious, the company’s epidemic prevention and control leading group fully and accurately implemented the national epidemic prevention and control strategy guidelines, kept the epidemic prevention and control mechanism active at all times, guided the enterprises to adjust the prevention and control objectives and prevention and control strategies in a timely manner, co-ordinated the preparation of personnel, production operation, material supply, logistics services, and the disposal of abnormal personnel, and ensured that the work was carried out in a timely manner. The team also provided guidance to the enterprises in adjusting the prevention and control objectives and strategies in a timely manner, coordinating the preparation of personnel, production operation, supply of materials, logistics service, disposal of abnormal personnel and other work to ensure the safety of the supply chain.
In 2022, the company thoroughly implemented Xi Jinping’s thought on ecological civilization and his important speeches made during his visit to Shengli Oilfield, resolutely implemented the major deployments of the Party Central Committee and the State Council on ecological civilization, promoted pollution prevention and control and the special action on coarse pollution prevention and control, comprehensively focused on ecological and environmental protection along the Yangtze River and Yellow River, fully promoted energy swing and carbon reduction actions. The Green Enterprise action plan became an important element in our high-quality development.

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

Dual Carbon Goals
Peaking carbon emission was pushed forward relentlessly. The Peaking Carbon Emission Actions were published and implemented, including actions to improve the supply capacity of clean and low-carbon energy, transform and upgrade the structure of the refining and chemical industry, optimize and adjust the energy structure, reduce energy consumption and pollution, recycle and efficiently utilize resources, support green and low-carbon science and technology innovation, improve green and low-carbon security capacity, and implement green and low-carbon actions for all employees. These actions would steadily promote carbon peaking. The carbon neutral pilot demonstrations were also rolled out with 27 projects completed, including the Jiaze carbon-neutral gas station in Changzhou of Jiangsu Province, the Lianshan carbon-neutral oil depot in Huhezuo of Liaoning Province, and the PX62 carbon-neutral wet site in Pucheng of Zhanguang Oilfield.

Stepping up greenhouse gas emission reduction. We continued to carry out CCUS research and development to promote China’s CCUS industry. China’s largest demonstration base for carbon capture, utilisation and storage, and the first million-tonne CCUS project in China, the Qiu-Shengli Oilfield million-tonne CCUS demonstration project was completed and put into operation in August. Oilfield enterprises continued to strengthen closed-circuit transmission, vigorously implemented casing gas recovery, promoted the comprehensive use of flare gas, strengthened the recovery of remote scattered wells and other measures. The company also actively implemented the recovery of flare gas, recovering about 834 million cubic meters of methane and reducing greenhouse gas emissions by about 12.5 million tonnes of carbon dioxide equivalent. We strengthened the centralised management of carbon trading, co-ordinated the surplus and deficit of emission control enterprises, prepared carbon trading plans and set up professional carbon trading teams, and completed carbon quota compliance tasks on schedule, with a carbon trading volume of 2.71 million tonnes and a trading value of 220 million yuan.

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

Green Enterprise Initiative
Continuously promoting the quality and green growth of enterprises. Focusing on the new requirements of national ecological civilization construction, we comprehensively improved the evaluation index system, and systematically promoted the unqualified enterprises to make up for their shortcomings and the evaluated enterprises to reach a new level. By the end of 2022, almost all affiliates had completed the green enterprise initiative, and 49 of the 100 evaluated were rated as A-level green enterprises.

Promoting green grassroots construction. In conjunction with the deployment of Sinopec’s “Three Foundations”, the green grassroots construction was deeply integrated with the grassroots Party building, the “Three Foundations” and the implementation of the HSE management system, creating a strong green culture, enhancing the green behavior and green awareness of all employees, and promoting the green development concept to take root. By the end of 2022, a total of 19,990 grassroots units of Sinopec had completed the creation of green grassroot, with a completion rate of 65.4%.

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

The “Energy Efficiency Enhancement” programme was effective. Energy-saving monitoring was carried out to verify the energy-saving effects of projects. We implemented 463 energy efficiency improvement projects, saving 995,000 tonnes of standard coal. The E&P segment promoted the energy efficiency improvement project for the integration of injection, ex- traction and transmission; improved the operational efficiency of the system and reduced electricity consumption. The refining segment vigorously implemented projects such as the efficient utilisation of low-temperature residue heat, optimization of the crude liquid system and the hydrogen system, and continued to carry out efficiency improvement treatment of insulation and heating furnaces. The chemical industry segment carried out energy efficiency benchmarking of similar units and comprehensively implemented the standard coal consumption target for power supply and electricity saving in circulating water system. The oil products sales segment strengthened the man-agemen
t of electricity consumption in storage and transporta-
tion to reduce electricity consumption. In terms of equipment energy saving, the enterprise continued to strengthen the energy efficiency testing of heating furnaces, focusing on solving problems such as large fluctuations in furnace efficiency and oxygen content, large deviations in burner load and large heat loss in heating furnaces, and implemented measures such as air preheater reshaping and adaptability transformation of heating furnace nozzles to continuously improve the efficiency of heating furnace systems.

In-depth benchmarking work. Active participation in en-
ergy efficiency “runner” activities. Qingdao Refining & Chem-ical and Guangzhou Petrochemical were awarded the “Leader” benchmark for energy efficiency in crude oil processing; Zhan-
hai Refining & Chemical was awarded the “Leader” benchmark for energy efficiency in paraxylene production; Hangai Refining & Chemical was awarded the “Leader” for energy efficiency in paraxylene production; Zhongtian Refining & Chemical was awarded the “Leader” for energy efficiency in paraxylene production; and Zhongtian Hechuang Chemical Company and Zhongnan Union were awarded the “Leader” in energy efficiency for coal-to-xylene pro-


Environmental Protection

Fully promote the implementation of the environmental protection responsibilities of the whole industrial chain, fully play the role of the environmental protection sub-committee to coordinate and guide, and hold regular monthly and quarterly meetings to study and discuss important issues. We optimised the monitoring indicators for environmental protection elements, conducted monthly follow-up monitoring, and organised the completion of 16 annual key tasks and basic research topics, including the evaluation of the pollution of the China Henan Petroleum and Zhenhai Refining & Chemical enterprises, and implemented the participation of the environmental protection content of the HSE management system and its promotion. Strengthened the long-term mechanism of environmental protection compliance inspection, set up a mechanism for Sinopec's ecological environmental protection inspection, focused on the implementation of emission reduction, the environmental protection responsibility system, and other 10 aspects, and completed special inspections of 30 key enterprises. Hired experts from the Environmental Engineering Assessment Centre of the Ministry of Ecology and Environment to conduct a comprehensive inspection and diagnosis of 7 units of emission permits. Conducted a special survey on the standardisation of automatic monitoring facilities for pollution sources, and conducted a comprehensive survey on 919 automatic monitoring facilities for emission outlets of 49 enterprises. The establishment of environmental protection technical service units "blacklist" mechanism, the organisation of 26 enterprises to carry out verification of environmental protection compliance of construction projects, the completion of 33 projects, energy saving and environmental protection special demonstration, construction projects gradually standardized environmental management.

Greening Management

Compulsory tree planting activities were carried out in an orderly manner through various forms of due diligence such as greening the surrounding areas, desert greening, greening the Yangtze River shoreline, protecting the ecology of the Yellow River, and greening the grassland. In 2022, we conducted 2,075,920 trees (including afforestation) and achieved a 100% compulsion tree planting due diligence rate, 1,869,000 square meters (involving drainage), and the greening coverage rate of the built-up area of the enterprise was increased to 53%.

The company continued to cooperate with the China Greening Foundation to set up the "Sinopec Sekhamba Ecological Demonstration Forest" project, with 162,600 trees planted and 13,116 kilometers of fencing erected. Conducted research on the industrialisation of forest biomass energy and actively work with the Department of Ecology of the State Forestry and Grassland Administration and the Industrial Development Planning Office of the Shaanxi Grassland Administration to promote the development of forest biomass energy utilisation. Investigated information on China's forest biomass resources and the current situation of forest biomass resource utilisation industry development, analysed existing forest biomass resource utilisation technology, industrial policies, development plans and problems, explored forest biomass to explore ways to utilise forest biomass, and help the country explore mechanisms for realising the value of forestry ecological products. Explore the industrialisation of jujube biomass energy. Preliminary analysis of the construction of jujube energy foresting and the economics of the whole industrial chain of jujube fuel ethanol production, and research on the industrialisation of jujube biomass and the demonstration project of jujube biomass energy production, jujube nucleated biomass charcoal and the economics of the whole industrial chain of jujube cultivation.

to ensure that not a single drop of oil or a single drop of over-standard wastewater is discharged into the Yangtze River. Focus on the outstanding problems of 23 enterprises in the Sinopec Yangtze River basin, put forward a task list and continue to track and promote. Pressing the responsibilities of all relevant enterprises and promoting the total network. The Yangtze River Environment Protection Planning Project, under the supervision and coordination of Sinopec's Environment Protection Warning Film with all efforts, all problems were cancelled as scheduled. Strictly control the energy assessment, environmental assessment, carbon assessment and water resources certification, and complete the relocation of the Dongying oil depot to a high standard in line with international standards and domestic advanced standards.

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

Actively play the role of energy and environmental services and guarantee. Successfully complete the task of guaranteeing air quality during the Winter Olympic Games, Paralympic Games and special periods, and accept 404 on-site inspections by national and local ecological and environmental administrative departments, achieving "zero problems" and "zero notifications". The Ministry of Ecology and Environment highly recognized our work.
Expanding influence of public welfare brands

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

In 2022, 1,408 “Driver’s Homes” and 1,895 “Love Stations” was built. We handing out 1,001 Spring Festival service packages to truck drivers, expanding the service to include benefits of free lounge use, shower, laundry and water refill at more than 400 stations in Guangdong. By the end of 2022, the company had built a total of 3,586 “drivers’ homes” and 5,415 “love stations” on main roads in 31 provinces and cities across China, providing free hot water and resting areas for outdoor workers, as well as small medicine kit, mobile phone charging and electric fans, making them feel at home.

The station that cares.

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

Helping to revitalise the countryside with high quality

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

Assisting disaster relief

In the face of the Xinjiang and Inner Mongolia epidemic and the Sichuan earthquake disaster, we were the first to address the call of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC), standardised the approval procedures and donated 55 million yuan each to the Red Cross Society of Xinjiang Uyghur Autonomous Region and the Sichuan Charity Federation, and 30 million yuan to the Red Cross Society of Inner Mongolia Autonomous Region, which was highly commended. Facing the severe situation of epidemic outbreak in some areas, Shanghai Offshore Petroleum Bureau, Northeast Petroleum Bureau, Inner Mongolia Petroleum and other affiliates actively cooperated with local governments and made efforts to solve the problems of livelihood protection and epidemic prevention and control, which was fully recognised by local governments.

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

**January**

- **January 10**: Sinopec organized a meeting to consolidate and expand the results of Party history learning and education program and promote the establishment of a normalization and long-term institutional mechanism.

**February**

- **February 4**: Sinopec's hydrogen fuel production technology was successfully implemented in the Qinzhou New Chemical Industry Park. The company's R&D team, led by Mr. Zhao Yiping, was selected as the first carbon industry smart and new energy technology innovation project in China.

**March**

- **March 4**: The state-owned Assets Supervision and Administration Committee of the State Council announced the list of the latest batch of "Double Hundred Enterprise", in which Sinopec Subsidiary Company, Sinopec Equipment Corporation, Easypoxy Company, and ZRCC were listed.

- **March 18**: Sinopec Beijing Research Institute of Chemical Industry Co., Ltd. was selected as one of the "Science Reform Demonstration Enterprises" by the State-owned Assets Supervision and Administration Commission of the State Council.

- **March 21**: Sinopec held a kickoff meeting on the theme of "Remembering the Shanghai's making new achievements, and celebrating the 20th National Congress" to promote the implementation of the important instructions of General Secretary Xi Jinping and the Organization Department of the Central Committee of the Communist Party of China regarding Party Construction.

**April**

- **April 6**: Sinopec's 1,000-tonne polystyrene pilot plant in Zhejiang successfully started operation, and produced qualified products. The company's R&D team, led by Mr. Zhao Yiping, was evaluated as "good" for the 5th consecutive year.

- **April 17**: Sinopec's newly designed 270,000 cubic meter LNG storage tank was successfully commissioned at the Qingdao LNG terminal, marking a breakthrough in the development and construction technology of China's overseas LNG storage tanks and setting a new standard for global leaders.

**May**

- **May 17**: Sinopec announced the completion of its "Deep Earth Project" on the 10th anniversary of the exploration and development of the Qingdao natural gas field.

**June**

- **June 2**: Sinopec held a meeting of its leadership team to announce the appointment of Mr. Zhang Lu as President of China Petrochemical Corporation.

- **June 6**: Sinopec's Digital Finance Holding Company Limited was established in Shanghai, Petrochemical was used to connect to the People's Bank of China's digital RMB, becoming a powerful motivation for the company's digital finance work.

- **June 9**: Sinopec's Leading Party Member Group held an inspection to Shengli Oilfield to promote the study and implementation of the company's leading party member group construction.

- **June 10**: Sinopec's new Dongying Carbon Fiber Industrial Demonstration Project was put into operation at Sinopec's Qingdao LNG terminal, filling the gap in the domestic production line of high-purity hydrogen.

**July**

- **July 12**: The electric storage project of Shengli Oilfield's Digital (Expanded) Information Technology Co., Ltd. was completed and put into operation in Sinopec's 2022. Sinopec announced the implementation of its medium and long-term hydrogen energy development strategy.

- **July 25**: Sinopec and the Chinese Children's and Teenagers' Fund launched the "Spring Buds Assistance Program" in Beijing.

**August**

- **August 5**: A breakthrough in the development and construction technology of China's first 10,000-tonne/year aromatics project was successfully started up at Yanchang Petrochemical, producing qualified high-quality hydrogen.

**September**

- **September 10**: Sinopec organized a seminar to study and implement the spirit of the 20th CPC National Congress. The company's Leading Party Member Group held an inspection to Shengli Oilfield to promote the study and implementation of the company's leading party member group construction.

- **September 19**: Sinopec's largest demonstration base for carbon capture, utilization and storage, and the first 10,000-tonne CO2 project, Sinopec's Qihao Petrochemical Shen-gi Carbon Fiber 2 Project, was officially completed.

**October**

- **October 8**: Sinopec's "Science Reform Demonstration Enterprises" project was completed and put into operation in Sinopec's 2022. Sinopec announced the implementation of its medium and long-term hydrogen energy development strategy.

- **October 10**: Sinopec's leading party member group was awarded by the CPC and the State Council for its "Contribution.

- **October 25**: Sinopec's new Dongying Carbon Fiber Industrial Demonstration Project was put into operation at Sinopec's Qingdao LNG terminal, filling the gap in the domestic production line of high-purity hydrogen.

**November**

- **November 21**: Sinopec signed a 27-year full-term LNG purchase agreement with QF Energy.

**December**

- **December 10**: Sinopec's first self-developed mega-scale proton exchange membrane (PEM) electrolytic water splitting pilot plant was successfully started up in Zhejiang, becoming the world's first commercial operation. The project was jointly invested by Sinopec, the state-owned Assets Supervision and Administration Committee of China Petrochemical Corporation, and Zhejiang River Valley Project in Zhejiang, filling the gap in the domestic production line of high-purity hydrogen.

- **December 23-24**: Sinopec's Leading Party Member Group held a meeting to study and implement the spirit of the 20th CPC National Congress to promote Sinopec's high-quality development and make new breakthroughs.

- **December 30**: Sinopec's newly established exchange membrane (PEM) electrolytic water splitting pilot plant was put into operation.

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