



China Risun Group Limited
中國旭陽集團有限公司

(於開曼群島註冊成立的有限公司)
(Incorporated in the Cayman Islands with limited liability)
股份代號 Stock Code : 1907



2021

環境、社會及管治報告

Environmental, Social, and Governance Report



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概述 Overview

報告說明

Report Description

報告發佈周期

Report release cycle

本報告時間範圍為2021年1月1日至2021年12月31日，部分內容或超出此時間範圍。

The time scope of the report is from January 1, 2021 to December 31, 2021, and some contents may be beyond it.

報告組織範圍

Report organization scope

本報告內容涵蓋中國旭陽集團有限公司及所屬重要子公司相關數據。為便於表達，本報告中亦使用「本集團」、「集團」、「我們」等稱謂。

The report covers the relevant data of China Risun Group Limited and its major subsidiaries. For the convenience of expression, the report also uses the terms such as “this Group”, “the Group”, “We”, etc.

報告編製原則

Report compilation principle

本報告遵照香港聯合交易所有限公司（「聯交所」）發佈的《環境、社會及管治報告指引》進行編寫。

The report has been compiled in accordance with the Environmental, Social and Governance Reporting Guide issued by the Stock Exchange of Hong Kong Limited (“SEHK”).

ESG匯報原則

ESG reporting principle

重要性：本報告遵循聯交所重要性原則規定，在報告中披露董事會及ESG工作小組審議ESG事宜，利益相關方溝通、實質性議題識別過程及實質性議題矩陣，具體遵循情況詳見後文對應部分。

Importance: The report follows the SEHK’s principle of importance, and discloses the ESG issues reviewed by the Board of Directors and the ESG Working Group, stakeholders communication, substantive issues identification process and substantive issues matrix. For details of compliance, please refer to the corresponding part below.

量化：本報告中定量關鍵績效指標的統計標準、方法、假設及/或計算工具，以及轉換因素的來源，均在報告釋義中進行說明。

Quantification: The statistical standards, methods, assumptions and/or calculation tools of the quantitative key performance indicators in the report, as well as the sources of conversion factors, are explained in the notes of the report.

平衡：本報告不偏不倚地呈報本集團報告期內的表現，避免可能會不恰當地影響報告讀者決策或判斷的選擇、遺漏或呈報格式。

Balance: The report presents the performance of the Group in an impartial manner during the reporting period, avoiding the choice, omission or presentation format that may improperly affect the decision-making or judgment of its readers.

一致性：本報告披露數據所使用的統計方法均保持一致。

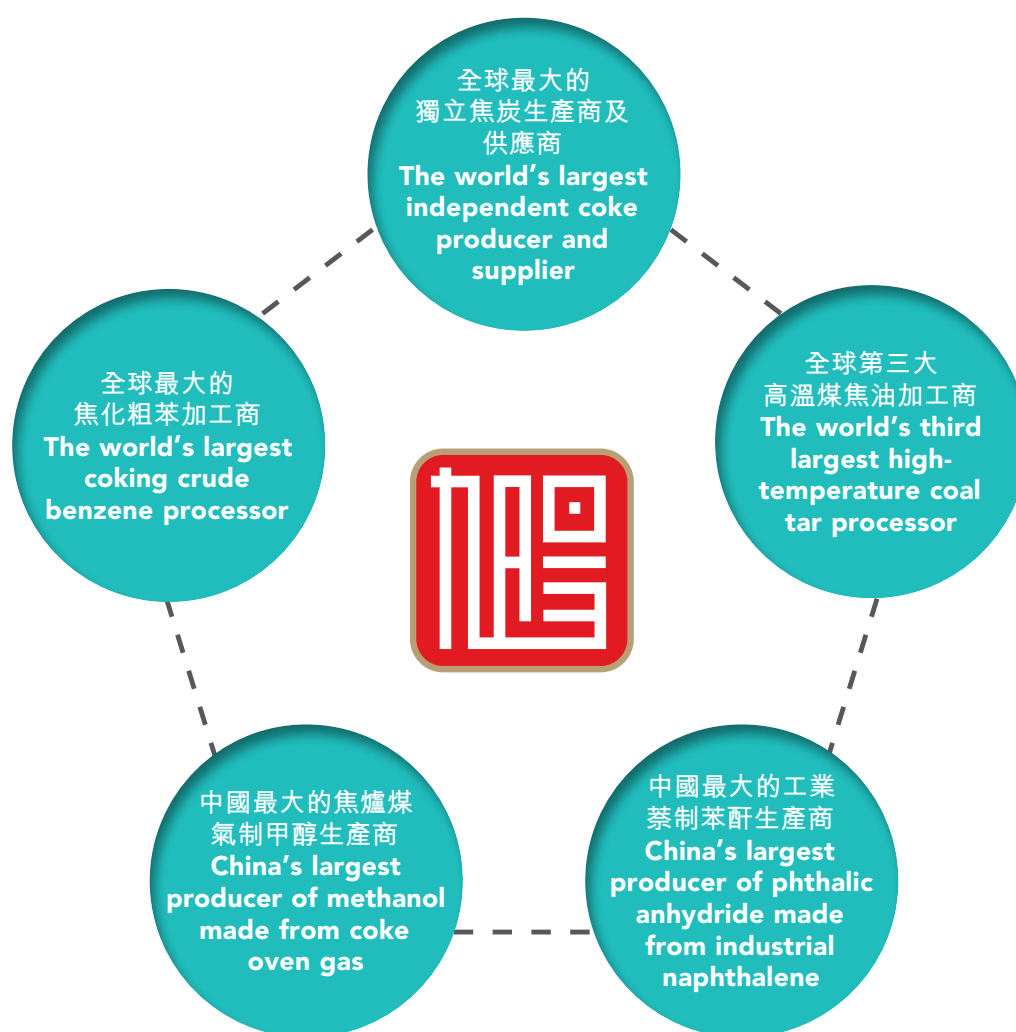
Consistency: The statistical methods used for data disclosure in the report are consistent.

關於旭陽

About Risun

中國旭陽集團有限公司(1907.HK)創立於1995年，總部設在北京。經過二十七年的發展，業已成為集焦炭、化工、運營管理服務、貿易等業務板塊協同發展的大型企業集團。旭陽集團擁有河北邢台、定州、樂亭、滄州，山東鄆城、東明，內蒙古呼和浩特、印尼蘇拉威西8個生產園區，並對河南海星化工(焦油)、山西金州化工(焦油)、內蒙古中盛科技(焦炭)、江西宏宇能源(焦炭)等企業提供運營管理服務。發展成為：

China Risun Group Limited (1907.HK) was founded in 1995 and headquartered in Beijing. Through 27 years of development, it has become a large enterprise group integrating coke, chemical, operation and management services, trade and other business sectors. Risun owns a total of 8 production bases in Hebei's Xingtai, Dingzhou, Leting, Cangzhou, Shandong's Yuncheng, Dongming, Inner Mongolia's Hohhot and Sulawesi, Indonesia, and provides operation and management services to enterprises such as Henan Haixing Chemical (tar), Shanxi Jinzhou Chemical (tar), Inner Mongolia Zhongsheng Technology (coke) and Jiangxi Hongyu Energy (coke). Currently Risun is:



註：此圖內容根據獨立全球諮詢公司弗若斯特沙利文(北京)諮詢有限公司上海分公司(弗若斯特沙利文)，按照2021年數據計算。

Note: This figure was calculated by Frost & Sullivan (Beijing) Inc., Shanghai Branch Co., ("Frost & Sullivan") an independent global consulting firm based on the data for 2021.

概述 Overview



* 按照幹基計算

* Calculated on a dry basis

註： 主要產品的產量包括自有產品及運營管理產品的產量。

Note: The production volume of major products includes the production volume of own products and the products under operation and management.

2021年，集團簽訂第一份位於河北定州建設及運營氫氣生產儲運和加氫站項目之戰略合作框架協議，完成收購於山東的六家焦炭及化工公司及恢復全面經營，並拓展焦炭運營管理服務至山西。

In 2021, the Group signed its first strategic cooperation framework agreement for the construction and operation of hydrogen production, storage, transportation and hydrogen re-fueling station project in Dingzhou, Hebei Province, completed the acquisition of six coke and chemical companies in Shandong and resumed operation, and expanded its coke operation and management services to Shanxi.

2019-2021年公司業績表現

Company performance in 2019-2021

表：中國旭陽集團2019年－2021年主要財務指標

Table: 2019-2021 Key Financial Indicators of China Risun Group

營業總收入 Total operating revenue	歸母淨利潤 Net income attributable to the parent company	EBITDA*
<div>384.3 2021</div> <div>197.8 2020</div> <div>188.4 2019</div>	<div>26.1 2021</div> <div>16.5 2020</div> <div>13.6 2019</div>	<div>54.5 2021</div> <div>32.2 2020</div> <div>28.5 2019</div>
億元人民幣 100 million RMB	億元人民幣 100 million RMB	億元人民幣 100 million RMB
總資產 Total assets	2020	2021
202	244.6	368.0
億元人民幣 100 million RMB	億元人民幣 100 million RMB	億元人民幣 100 million RMB

* 未計利息、稅項、折舊及攤銷前盈利

* Earnings before interest, tax, depreciation and amortization

董事會ESG管治聲明

ESG Statement of the board of directors

中國旭陽集團有限公司董事會承諾，本集團嚴格遵守香港聯合交易所《環境、社會及管治報告指引》的披露要求。

The board of directors of China Risun Group Limited undertakes that the Group strictly complies with the disclosure requirements set forth in the Environmental, Social and Governance Reporting Guide of the SEHK.

本集團管理層下設環境、社會及管治(ESG)工作小組，負責制定集團的ESG策略並監督ESG舉措的落實，監管ESG關鍵議題的承諾和表現，並審批本集團環境、社會及管治報告內的披露資料。本報告亦於2022年3月經環境、社會及管治工作小組、董事會審議後發佈。

The environmental, social, and governance (“ESG”) working group under the management of the Group is responsible for formulating the Group’s ESG strategy and overseeing the implementation of ESG measures, regulating the commitment and performance of key issues concerning ESG, and examining and approving disclosure information as contained in the Group’s environmental, social and governance report. This report will be published after being deliberated by the ESG working group and the board of directors in March 2022.

本集團董事會秘書部作為總牽頭及協調部門，負責日常ESG協調和落實，定期向董事會及高級管理層匯報，負責審議環境、社會及管治的風險。2021年本集團通過董事會審議環境、社會及管治的風險，管理層已向本集團董事會確認，於報告期內，本集團有關環境、社會及管治風險管理及內部監控系統有效。

The Secretary Department of the board of directors of the Group, as the general lead and coordination department, is responsible for the coordination and implementation of daily ESG and regular reporting to the board of directors and senior management, and is responsible for reviewing environmental, social and governance risks. In 2021, the Group reviewed the environmental, social and governance risks through the board of directors. The management team has confirmed to the Group’s Board of Directors that within the Reporting Period, the Group’s risks management and internal monitoring system concerning environment, society and governance is effective.

2022年，集團董事會將進一步完善ESG治理體系，推動集團ESG治理水平不斷提升。

In 2022, the Group’s board of directors will further improve the ESG governance system, and promote the continuous improvement of the Group’s ESG governance level.



董事長致辭

Messages from the Chairman

推動疫後經濟「綠色復蘇」、促進綠色低碳轉型發展已成為全球大勢所趨，需要各相關方齊心協力、共同應對。焦化行業的發展正處於高質量、現代化轉型升級的關鍵階段，挑戰複雜多變的同時，也蘊含着更大的機遇。作為全球最大的獨立焦炭生產商及供應商，2021年，我們繼續堅持「世界領先的能源化工公司—創新引領未來」的企業願景，把自身置身於全球產業鏈之中，大步邁進，在發展中堅持求新求變，攜手供應商、客戶、股東、員工、社區等相關方共同前行，走上可持續發展之路。

Advancing the “green recovery” of the economy after the epidemic and promoting green and low-carbon development have become a global trend, which requires the concerted efforts of all parties concerned. The development of the coking industry is at a critical stage of high-quality and modern transformation and upgrading, and while the challenges are complex and varied, there are also greater opportunities. As the world's largest independent coke producer and supplier, in 2021, we will continue to adhere to our corporate vision of “The World's Leading Energy Chemical Company – Innovation Leads to the Future”, place ourselves in the global industry chain, and make great strides to seek new and change in our development, work together with suppliers, customers, shareholders, employees, communities and other related parties to move forward together, and embark on the road of sustainable development.

綠色低碳。應對氣候變化、綠色低碳轉型已經成為可持續發展的核心議題。我們在多年堅持環保深度治理、大力開展節能減排的基礎上，發佈《旭陽集團碳達峰碳中和行動方案》，成立了碳達峰碳中和行動小組，集中優勢骨幹力量，通過「資源綜合利用+工藝技術改進+節能降耗+產業轉型+綠色供應鏈+清潔能源替代+二氧化碳捕集與利用」的路徑，實現自身及產業鏈的節能、降耗、減排，使旭陽成為行業碳達峰碳中和標桿企業。我們進一步緊抓氫能發展機遇，從定州旭陽氫能有限公司等相繼註冊成立，到與華北地區大型氫氣生產廠家簽訂戰略合作協議發展氫能產業、與中國大型能源氣體裝備製造商簽訂戰略合作協議……向清潔型能源公司轉型。我們發佈《旭陽集團氫能發展規劃》，立足自身優勢，對集團氫能產業的整體佈局發展做出系統規劃，以大力發展清潔能源助力綠色低碳循環發展。

Green and low-carbon. Coping with climate change and green and low-carbon transformation have become the core issues of sustainable development. On the basis of years of deep environmental protection treatment and energy saving and vigorously carrying out energy conservation and emission reduction, we released the Carbon Peaking and Carbon Neutrality Action Plan of Risun Group and set up the carbon peaking and carbon neutrality action group to focus our strengths and efforts on “comprehensive utilization of resources + process technology improvement + energy saving and consumption reduction + industrial transformation + green supply chain + clean energy substitution + carbon dioxide capture and utilization” to realize energy saving, consumption reduction and emission reduction for ourselves and the industrial chain, so as to make Risun become a carbon neutral benchmark enterprise in the industry. We further seized the opportunity of hydrogen energy development to realize the transformation to a clean energy company: from the successive incorporation of Dingzhou Risun Hydrogen Energy Co., Ltd. etc. to the signing of strategic cooperation agreements with large hydrogen gas manufacturers in North China on the development of hydrogen energy industry and the signing of strategic cooperation agreements with large energy gas equipment manufacturers in China... We released the Risun Group's Hydrogen Energy Development Plan for the purpose of making a systematic plan for the overall layout and development of the Group's hydrogen energy industry based on our own advantages, so as to vigorously develop clean energy to help green low-carbon cycle development.

創新驅動。我們始終以技術創新引領發展方向，從項目提出一直到小試、中試、工程實踐，形成了一個完整的創新鏈條。我們推行全員創新、全面創新、系統創新、協同創新，大力開展新產品、新工藝、新服務、新市場等開拓性研發，持續開展現有裝置擴能、工藝優化、節能降耗、安全環保等改進性研發，通過不斷推出研發創新成果，支撐和拉動企業裝置效能、生產效率、產品質量、服務水平等實現全方位提升，走出了一條創新引領、技術驅動的道路上。截至2021年末，我們已經累計獲得授權專利183項，獲得專有技術授權345項。

Innovation driven. We always lead the development direction with technological innovation, and have formed a complete innovation chain from project proposal to small-scale test, middle test and engineering practice. We promote all-involvement innovation, comprehensive innovation, systematic innovation and collaborative innovation, vigorously carry out pioneering R&D for new products, new processes, new services and new markets, continuously carry out improvement R&D for existing plant capacity expansion, process optimization, energy saving and consumption reduction, safety and environmental protection, etc., and by continuous launching R&D and innovation results, support and pull the enterprise to achieve all-round improvement in plant efficiency, production efficiency, product quality and service level, embarking an innovation-led and technology-driven path. By the end of 2021, we have obtained 183 authorized patents and 345 licenses of proprietary technologies.

轉型升級。2021年我們正式步入「六五發展」階段，不斷完善產品譜系，產業鏈覆蓋五大類50多種產品，並通過完善質量管理體系建設、加強質量控制點管理等舉措，提供更優質的產品。我們堅持「以客戶為中心、為客戶創造價值」的理念，從以生產為中心、到為以客戶為中心、再到以服務為中心，實現從製造型企業向服務型企業轉變，同時從同質化生產向定制化生產轉型，滿足客戶多樣化的需求。我們也在數字方向不斷進行突破，一方面，通過ERP、MES等實現工廠高度自動化；另一方面數字化與智能化融合，推動人均勞效、檢驗效率、廠內物流效率、數據分析及報表生成效率等大幅提升。

Transformation and upgrading. In 2021, we officially entered the “Sixth Five-year Development” stage to continuously improve the product spectrum (the industrial chain covers more than 50 kinds of products in five categories), and provide better quality products through various measures such as improving the construction of quality management system and strengthening the management of quality control points. We adhere to the concept of “taking customers as the center and creating value for customers”, changing our focus from production to customers and then to service, so as to transform from a manufacturing-oriented enterprise to a service-oriented enterprise, and from homogeneous production to customized production to meet the diversified needs of customers. We are also making breakthroughs in the digital direction. On the one hand, we have realized a high degree of factory automation through ERP and MES etc.; on the other hand, we promoted significant improvements in per capita labor efficiency, inspection efficiency, in-plant logistics efficiency, data analysis and report generation efficiency through the integration of digitalization and intelligence.

董事長致辭 Messages from the Chairman

安全為本。我們始終將安全放在第一位、將員工生命安全放在第一位，制定年度安全目標、指標，並以責任書的形式將年度目標、指標分解至各子公司，並建立了以主要負責人為核心的覆蓋各子公司、各層級、各部門、各類人員的全員崗位安全生產責任制，提高安全管理水平。我們不斷完善安全文化建設，通過宣傳安全法律法規等各類安全培訓，提升員工安全生產意識，實現安全發展。

Safety oriented. We always put safety in the first place and the safety of employees' lives in the first place, set annual safety targets and indicators, and decompose them to each subsidiary in the form of letter of responsibility, and establish a full post safety production responsibility system covering each subsidiary, each level, each department and each type of personnel with the main person in charge as the core, so as to improve the safety management level. We continually improve the construction of safety culture and enhance employees' awareness of safe production to achieve safe development by promoting various types of safety training such as the training on safety laws and regulations.

共享發展。我們堅持「共創一流環境，培養一流人才，成就一流事業」的理念，為員工提供平等的就業機會，不歧視任何基於性別、年齡等因素的歧視，並建立多層次、全方位的培訓管理體系，持續完善員工成長和晉升機制，打造包容與多元化的工作環境。我們努力建設可持續的夥伴關係，秉承「合作共贏、共同發展」的理念，推動綠色理念融入供應鏈，完善供應鏈責任環境和社會風險管理。我們積極支持社區可持續發展，圍繞疫情防控、災害救助、鄉村振興、消防安全等領域進行資助和支持，助力更和諧溫暖的社區建設。

Shared development. We insist on the concept of “creating a first-class environment, cultivating first-class talents, and achieving first-class career”, providing equal employment opportunities for employees without any discrimination based on gender, age and other factors, establishing a multi-level and comprehensive training management system, continuously improving the growth and promotion mechanism of employees, and creating an inclusive and diversified working environment. We strive to build sustainable partnerships, uphold the concept of “win-win cooperation and common development” to promote the integration of green concepts into the supply chain, and improve the supply chain responsibility environment and social risk management. We actively support the sustainable community development by providing funding and support in areas such as epidemic prevention and control, disaster relief, rural revitalization, and fire safety to help build a more harmonious and warm community.

2022年是「新願景、新征程、新跨越」的一年，我們將繼續堅持安全發展、綠色發展、低碳發展，大力開展節能減排，堅持科技研發和創新驅動，發展循環經濟，用先進製造的標準改造提升，推動設備智能+製造智能+運營智能，實現優質、高效、低耗、清潔、靈活、安全生產，為實現經濟、環境和社會效益的有機統一做出新的更大貢獻。

In 2022, the year of “New Vision, New Journey, New Leap”, we will continue to adhere to safe, green and low-carbon development, vigorously carry out energy saving and emission reduction, adhere to the concept of science and technology R&D and innovation-driven development, promote the development of circular economy, realize the transformation and upgrading with advanced manufacturing standards, promote equipment intelligence + manufacturing intelligence + operation intelligence to achieve high quality, high efficiency, low consumption, clean, flexible and safe production, so as to make new and greater contributions to the organic unity of economic, environmental and social benefits.



楊雪崗
Yang Xuegang
中國旭陽集團董事長
Chairman of China Risun Group





2021 年關鍵時刻 Key Moments in 2021

10

關鍵時刻
Key Moments

12

獎項與榮譽
Awards and Honors



2021 年關鍵時刻

Key Moments in 2021

綠色 Green

- 發佈《旭陽集團碳達峰碳中和行動方案》，包括各園區、各產業鏈碳減排、碳達峰、碳中和技術路線圖與時間表。

The Group released Risun Group's Action Plan for Carbon Peaking and Carbon Neutrality, including technical road maps and timetables of carbon emission reduction, carbon peaking and carbon neutrality for all bases and industrial chains.

- 利用化工生產初冷器餘熱回收，向市區供暖，供熱面已達到588萬平方米，在保民生的同時，年可節約標煤18.81萬噸/年，年減排二氧化碳約**48.90**萬噸/年。

The Group used the waste heat recovery of the primary cooler in chemical production to heat the urban area, with the heating area reaching 5.88 million square meters, which saves 188,100 tons of standard coal and reduces carbon dioxide emissions by about **489,000** tons per year.

- 焦化裝置通過回收焦爐上升管餘熱，年減排二氧化碳**4.49**萬噸。

The coking unit reduces carbon dioxide emissions by **44,900** tons per year by recovering waste heat from the rising pipe of coke oven.

- 累計投入1.91億元實施71項工藝技改項目，可節約水資源282.68萬立方米/年，折合減少二氧化碳排放量**31.48**萬噸/年。

The Group invested a total of RMB191 million to implement 71 process technological transformation projects, which may save 2.8268 million m³/year of water resources, equivalent to a reduction of **314,800** tons of carbon dioxide emissions per year.

- 投資2,670萬元實施30項節能技術改造項目，年節電2,820萬kWh、節約蒸汽4.46萬噸等，折合年減少二氧化碳排放**10.36**萬噸。

The Group invested RMB26.7 million to implement 30 energy-saving technological transformation projects, saving 28.2 million kWh of electricity and 44,600 tons of steam annually, equivalent to an annual reduction of **103,600** tons of carbon dioxide emissions.

- 累計投資34.91億元，實施121項環保提升項目，可減排顆粒物1,908噸/年、二氧化硫1,068噸/年、氮氧化物8,710噸/年，年減排二氧化碳**96**萬噸/年。

The Group invested a total of RMB3.491 billion to implement 121 environmental improvement projects, which may reduce emission by 1,908 tons of particulate matter, 1,068 tons of sulfur dioxide and 8,710 tons of nitrogen oxides, and **960,000** tons of carbon dioxide per year.

創新 Innovation

- 累計獲得授權專利183項，獲得專有技術授權345項。

A total of 183 patents and 345 proprietary technologies were granted.

- 2家省級工程技術研究中心、1家省級技術創新中心、1家省級重點實驗室、3家省級企業技術中心、2家省級新型研發機構、1家國家級檢測中心以及博士後科研工作站、院士專家工作站等研發平台。

2 provincial engineering technology research centers, 1 provincial technology innovation center, 1 provincial key laboratory, 3 provincial enterprise technology centers, 2 provincial new R&D institutions, 1 national testing center, 1 post-doctoral research center and 1 academician expert workstation.

2021 年關鍵時刻 Key Moments in 2021

- 發佈《旭陽集團氫能發展規劃》，從「雙碳背景下的氫能定位、氫能產業鏈及典型企業發展路徑、旭陽發展氫能的優勢、旭陽氫能發展規劃」四個部分，系統規劃集團氫能產業的整體佈局發展。

The Group released Risun Group's Hydrogen Energy Development Plan, systematically plan the overall layout and development of the Group's hydrogen energy industry from four aspects: hydrogen energy positioning under the background of carbon peaking and carbon neutrality, hydrogen energy industry chain and typical enterprise development path, advantages of Risun in developing hydrogen energy, and Risun's hydrogen energy development plan.

- 2021年氫氣潛力29.9億方/年，預計2025年氫氣潛力超過65億方/年，2030年氫氣潛力超過130億方/年，2030年可實現年減排二氧化碳**1090**萬噸。

In 2021, the hydrogen potential amounted to 2.99 billion m³/year. It is estimated that the hydrogen potential will exceed 6.5 billion m³/year in 2025 and 13 billion m³/year in 2030. By 2030, the annual carbon dioxide emission reduction will reach **10.9** million tons.

- NO_x、SO₂、顆粒物的年排放密度連續下降，環境績效持續改善。

The annual emission density of NO_x, SO₂ and particulate matter decreased continuously, and the environmental performance continued to improve.

- 邢台園區和定州園區火運比例均達到80%以上，實現年減排二氧化碳**4.55**萬噸。

The proportions of railway transportation in Xingtai Base and Dingzhou Base have both exceeded 80%, achieving an annual emission reduction of **45,500** tons of carbon dioxide.

- 邢台園區、定州園區煤焦運輸汽車部分100%採用LNG新能源物流車，累計減少二氧化碳排放**8,800**噸/年。

LNG new energy logistics vehicles are 100% used in the coal coke transport vehicles in Xingtai Base and Dingzhou Base, which has reduced the carbon dioxide emissions by **8,800** tons/year.



- 研發人員320¹人，包括行業知名專家、高級工程師、博士、博士後等。

There are 320¹ researchers and developers, including well-known experts, senior engineers, doctors, post-doctors, etc.

- 1 此數據為合營口徑，除全資子公司外，還包括中煤旭陽、旭陽中燃、旭陽偉山（印尼）、金牛旭陽。

This data covers all joint ventures, in addition to wholly-owned subsidiaries, it also includes China Coal Risun, Risun CHINA GAS, Risun Weishan (Indonesia) and Jinniu Risun.



2021 年關鍵時刻 Key Moments in 2021

High efficiency

- 推進自動化、信息化、工業互聯網和智能製造，累計投資9.7億元完成62個數字化項目，採用自動化設備和自控系統，實時收集生產數據、監控生產設備運行，實現生產、運營、管理效率行業領先，所有裝置自控率達到96%，其中焦化裝置自控投用率達到100%，煉焦設備自動化水平處於行業領先地位。

Promote automation, informatization, industrial Internet and intelligent manufacturing, with a total of RMB970 million invested to complete 62 digital projects, adopt automation equipment and automatic control system to collect production data and monitor the operation of production equipment in real time, and achieve an industry leading status in production, operation and management efficiency. The automatic control rate of all devices reaches 96%, among which the automatic commissioning rate of coking devices reaches 100%, and the automation level of coking equipment is in the leading position in the industry.

Sharing

- 在崗員工7,678人，全職員工勞動合同簽約率100%。

There are 7,678 employees and the labor contract signing rate of full-time employees is 100%.

- 受員工培訓總時長263,409.25小時，員工培訓總場次13,176次。

The total length of employee training is 263,409.25 hours, with 13,176 training sessions.

- 通過收購鄆城和東明園區，解決當地1,679名人員就業。

Through the acquisition of Yuncheng Base and Dongming Base, 1,679 jobs are provided for local people.

- 員工體檢率100%，職業病體檢覆蓋率100%。

The physical examination rate of employees is 100%, and the occupational disease physical examination coverage rate is 100%.

獎項與榮譽

Awards and Honors

集團

Risun Group



2021 年關鍵時刻 Key Moments in 2021

附屬及合營聯營公司

Subsidiaries, joint venture and associates



2021 年關鍵時刻 Key Moments in 2021



邢台旭陽化工有限公司
Xingtai Risun Chemical Co., Ltd.



邢台旭陽化工有限公司
Xingtai Risun Chemical Co., Ltd.



唐山旭陽化工有限公司
Tangshan Risun Chemical Co., Ltd.



唐山旭陽化工有限公司
Tangshan Risun Chemical Co., Ltd.



唐山旭陽芳烴產品有限公司
Tangshan Risun Aromatic Products Co., Ltd.



河北中煤旭陽能源有限公司
Hebei China Coal Risun Energy Co., Ltd.



邢台旭陽煤化工有限公司
Xingtai Risun Coal Chemical Co., Ltd.



邢台旭陽煤化工有限公司
Xingtai Risun Coal Chemical Co., Ltd.



邢台旭陽煤化工有限公司
Xingtai Risun Coal Chemical Co., Ltd.

2021 年關鍵時刻 Key Moments in 2021



邢台旭陽煤化工有限公司
Xingtai Risun Coal Chemical Co., Ltd.



邢台旭陽煤化工有限公司
Xingtai Risun Coal Chemical Co., Ltd.



定州天鷲新能源有限公司
Dingzhou Tianlu New Energy Co., Ltd.



旭陽煤化工集團有限公司
Risun Coal Chemical Group Co., Ltd.



山東洪達化工有限公司
Shandong Hongda Chemical Co., Ltd.



山東洪達化工有限公司
Shandong Hongda Chemical Co., Ltd.



河北金牛旭陽化工有限公司
Hebei Jinniu Risun Chemical Co., Ltd.



河北金牛旭陽化工有限公司
Hebei Jinniu Risun Chemical Co., Ltd.

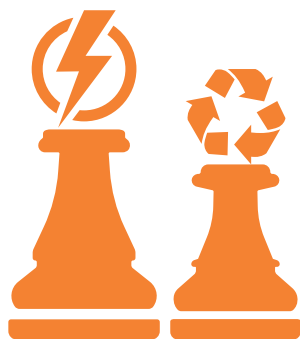


河北金牛旭陽化工有限公司
Hebei Jinniu Risun Chemical Co., Ltd.

发展京津冀氢能市场 打造旭阳氢能

河北第一批氢能产业重点项目





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利益相關方參與
Stakeholders Participation



可持續發展管理

Sustainable Development Management

本集團積極履行企業社會責任，通過建立以董事會為核心的社會責任管理體系、持續回應並滿足利益相關方要求等舉措，推動社會責任融入企業經營的方方面面。

The Group has actively fulfilled its corporate social responsibility and incorporated social responsibility into all aspects of business operations by establishing a social responsibility management system with the board of directors as the core and by continuously responding to and meeting the requirements of stakeholders.

公司治理

Corporate Governance

良好的公司治理是實現自身可持續發展的基礎。本集團持續完善公司治理制度，推動管理水平不斷提升，促進股東大會、董事會及其專門委員會、高級管理層、各職能部門組成的公司管治機構權責法定、權責透明、協調運轉、有效制衡。

Sound corporate governance is the foundation of realizing sustainable development. The Group has constantly improved its corporate governance system, enhanced its management level and promoted the legalization of powers and responsibilities, transparency of powers and responsibilities, coordinated operation and effective checks and balances of corporate governance institutions composed of shareholders' meeting, board of directors and its special committees, senior management and various functional departments.

公司治理架構

Corporate governance framework

董事會

Board of Directors

董事會對股東負責並有職責向股東大會報告工作。董事會負責召開股東大會，執行股東大會的決議案，決定本公司營運計劃及投資方案，制定年度財政預算方案、年終賬目、收益分派方案、資本增加或減少方案及其他資料，並決定本公司管理部門成立，決定主要高管、財務總監及其他高級管理層人員的委任或免職事宜，制定本公司基本管理制度及決定董事會專門委員會的成立事宜。報告期內，本公司合計召開14次董事會會議，公司董事積極參與有關香港上市公司董事須履行的義務及職責以及上市公司有關持續專業發展之上市合規義務的研討會。

The Board of Directors is responsible to shareholders and has the duty to report to the shareholders' meeting. The Board of Directors is responsible for convening the shareholders' meeting, implementing the resolutions of the shareholders' meeting, finalizing the company's operating plan and investment plan, formulating the annual financial budget plan, year-end accounts, income distribution plan, capital increase or decrease plan and other materials, deciding on the establishment of the company's management department, deciding on the appointment or dismissal of senior executives, chief financial officer and other senior management, formulating the company's basic management system and deciding on the establishment of the special committee of the board of directors. During the reporting period, the company held a total of 14 board meetings, and directors of the company actively participated in seminars on the duties and responsibilities of directors of the companies listed in Hong Kong and the listing compliance obligations of listed companies for sustainable professional development.

可持續發展管理 Sustainable Development Management

高級管理層 Senior Management

高級管理層負責具體執行董事會決議案及本公司的日常業務管理，包括制定(i)本公司的營運計劃及投資方案，(ii)內部管理部門成立計劃，(iii)本公司基本管理制度及(iv)本公司的具體規定。

The Senior Management is responsible for the specific implementation of the resolutions of the Board of Directors and the daily business management of the company, including formulating (i) the company's operating plan and investment plan, (ii) the internal management department establishment plan, (iii) the company's basic management system and (iv) the company's specific regulations.

董事會委員會 Board Committee

審核委員會：審核委員會的目的為協助董事會確保本公司的財務報告、風險管理及內部控制系統有效且符合上市規則，監督本公司財務報表的完整性，選擇本公司的外聘核數師並評估其獨立性及資格，並確保董事與本公司內部及外聘核數師之間的有效溝通。報告期內，審核委員會舉行5次會議。

Audit Committee: The purpose of the Audit Committee is to assist the Board of Directors in ensuring that the company's financial reports, risk management and internal control systems are effective and comply with the listing rules, supervising the integrity of the company's financial statements, selecting the company's external auditors and evaluating their independence and qualifications, and ensuring effective communication between directors and the company's internal and external auditors. During the reporting period, the Audit Committee held 5 meetings.

薪酬委員會：薪酬委員會的主要職責包括制定及審核本公司董事及高級管理層的薪酬政策及架構並就僱員福利安排向董事會提供建議。薪酬委員會亦負責釐定根據購股權計劃授出的購股權歸屬。報告期內，薪酬委員會舉行1次會議。

Remuneration Committee: The main responsibilities of the Remuneration Committee include formulating and reviewing the remuneration policy and structure of the directors and senior management of the company and providing suggestions to the Board of Directors on employee welfare arrangements. The Remuneration Committee is also responsible for determining the ownership of share options granted under the share option scheme. During the reporting period, the Remuneration Committee held 1 meeting.

提名委員會：提名委員會的主要職責包括至少每年檢討董事會的架構、規模、組成及多元化，並就任何擬作出之變動向董事會提供推薦建議，使之與本公司之企業策略相輔相成，評估獨立非執行董事的獨立性以確定其資格，以及就委任、重選及罷免董事以及董事繼任計劃向董事會提供建議。報告期內，提名委員會舉行1次會議。

Nomination Committee: The main responsibilities of the Nomination Committee include reviewing the structure, scale, composition and diversity of the Board of Directors at least annually, and making recommendations to the Board of Directors on any proposed changes to complement the company's corporate strategy, evaluating the independence of independent non-executive directors to determine their qualifications, and making recommendations to the Board of Directors on the appointment, re-election and dismissal of directors and the succession plan of directors. During the reporting period, the Nomination Committee held 1 meeting.

可持續發展管理

Sustainable Development Management

股東和投資者溝通

Shareholders and investors communication

有效與股東溝通對提升投資者關係及投資者瞭解本公司的業務及策略非常重要。本公司高度重視股東的意見及建議，積極組織及舉辦各類投資者關係活動與股東保持溝通，及時滿足各股東的合理需求。為提升有效溝通，本公司設有網站 <http://www.risun.com>，當中載有關本公司的業務營運及發展、財務資料、企業管治常規及其他資料的最新資料，可供公眾人士閱覽。報告期內，本公司合計召開1次股東大會。

Effective communication with shareholders is very important to improving relations with investors and investors' understanding of the company's business and strategy. The company attaches great importance to the opinions and suggestions of shareholders, actively organizes and carries out various investors-relations activities to maintain communication with shareholders and meet the reasonable needs of shareholders in a timely manner. In order to make communication more effective, the company has set up a website <http://www.risun.com>, which contains the latest information about the company's business operation and development, financial information, corporate governance practices and other materials open for the public. During the reporting period, the company held a total of 1 shareholders' meeting.

本公司認為，良好投資者關係有助於建立更穩固的股東基礎，因此，自上市起，本公司一直並將致力維持較高透明度，遵守上市規則並將及時向投資者提供全面、準確的資料，持續履行上市公司資料披露的責任。本公司通過公司官網、香港交易所網站、公司年報、公司公告、業績發佈會、股東大會、路演自願披露資料等方式加強與投資者之間的溝通，讓投資者了解企業策略及業務營運狀況。

The company believes that sound relations with investors are conducive to establishing a more stable shareholder base. Therefore, since its listing, the company has been and will be committed to maintaining high transparency, complying with the listing rules, providing comprehensive and accurate information to investors in a timely manner, and continuously fulfilling the responsibility of information disclosure as a listed company. The company strengthens communication with investors through the company's official website, HKEx website, annual reports, company announcements, results conferences, shareholders' meetings, road shows and voluntary disclosure of information, so that investors can better understand the strategy and business operation of the company.

董事會多元化

Diversity of the Board of Directors

董事會成員的多元化是集團提高競爭力、實現可持續發展的重要元素之一。我們積極採納董事會多元化政策，在選擇董事會人選時考慮多個因素，包括但不限於性別、技能、年齡、專業經驗、知識、文化及教育背景、種族及服務年期，以求實現董事會多元化。最終將按選定候選人的長處及將為董事會所作貢獻而作委任。董事局相信以唯才是用之原則委任董事將最有利於本公司繼續為其股東以至其他持份者服務。

Diversity of board members is one of the important elements for the Group to improve its competitiveness and achieve sustainable development. We actively adopt the board diversity policy, and will consider many factors, including but not limited to gender, skills, age, professional experience, expertise, cultural and educational background, race and length of service, in order to achieve diversity of the Board of Directors. In the end, the appointment will be made according to the strengths of the candidates and their contribution to the Board of Directors. The Board of Directors believes that the appointment of directors based on the principle that only the talented people can be appointed will be most beneficial for the company to continue to serve its shareholders and other stakeholders.

可持續發展管理 Sustainable Development Management

我們的董事具備不同知識及技能，包括整體管理及戰略發展、銷售及市場推廣、財務及會計、法律、諮詢及企業管治，並擁有焦炭行業經驗。我們的董事亦取得各種專業的學位，包括工商管理、煤化學、冶金工程、工業經濟管理、會計、統計、法律、國際貿易及化學工程。本公司有三名具不同行業背景的獨立非執行董事，佔董事會成員人數的三分之一。此外，董事會年齡範圍廣泛，由31歲至63歲不等。在九名董事中，只有楊雪崗先生與楊路先生有關聯。未來，我們將積極規劃和執行多元化與包容性方面的戰略，採取相應的措施來改善董事會成員背景、年齡、性別等多元性狀況，提高創新性的競爭力。

Our directors have rich knowledge and skills, including overall management and strategic development, sales and marketing, finance and accounting, law, consulting and corporate governance, and have experience in coke operation. They have also earned various professional degrees, including business administration, coal chemistry, metallurgical engineering, industrial economic management, accounting, statistics, law, international trade and chemical engineering. The company has three independent non-executive directors with different industry backgrounds, accounting for one third of the board members. In addition, the Board of Directors is of a wide range of ages, ranging from 31 to 63. Among the nine directors, only Mr. Yang Xuegang is related to Mr. Yang Lu. In the future, we will actively plan and implement diversified and inclusive strategies, and take corresponding measures to improve the diversity of our board members in terms of background, age and sex, and to enhance innovative competitiveness.



董事會年齡範圍

由 31 歲至 63 歲

the Board of Directors is of a wide
range of ages from 31 to 63

ESG 管理

ESG Management

本集團設立環境、社會及管治(ESG)工作小組。董事會及高級管理層對環境、社會及管治整體策略及匯報負責，並定期檢視ESG績效及信息披露，審議安全、環境、員工、投資等多項與ESG相關的議案，統一指導、決策並推動ESG目標落地；董事會秘書部作為總牽頭及協調部門，負責日常ESG協調和落實，定期向董事會及高級管理層匯報；總部各部門及各子(分)公司根據自身業務及職能，負責具體ESG工作落實，並在每年根據需要，配合提報ESG績效，進行年度ESG信息匯報與披露，提升透明運營。

The Group established an environmental, social, and governance (「ESG」) working group. The board of directors and senior management are responsible for the environmental, social, and governance strategy and report, periodically review the environmental, social, and governance information and performance, reviewing proposals about ESG such as safety, environment, employees, and investment, and direct, decide, and promote ESG work uniformly; the secretary department of the board of directors, as the leading and coordinating department, is responsible for daily ESG coordination and implementation, and periodically reports to the board of directors and senior management; departments of the headquarter and the subsidiaries (branches) are responsible for implementation of the ESG work according to their own businesses and functions, report the ESG performance and disclose and report the ESG information of each year when necessary, thus making operation more transparent.

可持續發展管理

Sustainable Development Management

合規與風險管理

Compliance and Risk Management

風險管理

Risk management

本集團構建了涵蓋外部、內部風險控制的全流程風控體系，外部風險控制包括了產、供、銷、人、財、物所涉及的外部政策、法律風險與客戶風險控制重要維度。集團成立風險控制委員會，不斷完善風控組織體系。

The Group has built a full-process risk control system covering both external and internal risk control. The external risk control includes the important dimensions of external policies, legal risks and customer risk control related to production, supply, sales, personnel, finance and materials. The Group has also set up a risk control committee to continuously improve its risk control organization system.

四級風控體系

4-level risk control system

分管副總裁 Sectorial vice president

根據高層對所負責區域業務了解情況提交風險報告
Submit the risk report based on the senior management's knowledge of the business in the responsible area

法務風控部 Dept. of Legal Affairs and Risk Control

了解客戶經營情況等內容，推動風險管理前置
Understand the customer's business information and carry out risk management in advance

集團各事業部及業務部門設專職或兼職風控專員 Full-time or part-time risk control specialists set up in all business departments of the Group

起草本部門的風控計劃並督促落實
Prepare the risk control plan of the department and supervise its implementation

業務員 Salesman

根據業務情況每月提交風險分析
Submit the risk analysis report on a monthly basis based on business condition

兩級法務體系

2-level legal affairs system

集團法務風控部
Dept. of Legal Affairs and Risk
Control of the Group

各園區法務風控部
Dept. of Legal Affairs and Risk
Control of each base



本集團設立了一套完整、全面的風險管理政策及措施，各營運部門識別及分析與其職能有關的風險，維持全面的風險記錄、編製風險緩解計劃、計量有關風險緩解計劃的有效性及報告風險管理情況。結合部門情況和實際業務需要，編製《業務風控風險點》手冊，做到主要風險點的全覆蓋。推動合同信息化平台落地，在客戶前期資質審核、合同簽訂、合同審核、合同履約管理、應收賬款的控制清收、訴訟的管理和合同分析方面進行全方位覆蓋，提升風控信息化水平。2021年共開展合同審核風險培訓35場次，參加培訓人員數超過500餘人。

共開展合同審核風險培訓 **35** 場次

a total of **35** training sessions on
contract

The Group has formulated a complete and comprehensive set of risk management policies and measures. Each operating department identifies and analyzes risks related to its functions, maintains comprehensive risk records, formulates risk mitigation plans, measures the effectiveness of relevant risk mitigation plans and gives reports on risk management. According to their actual condition and business needs, each department prepares the manual of Risk Points for Business Risk Control to fully cover the main risk points, promotes the establishment of the contract informatization platform, covering all aspects of customer pre-qualification review, contract signing, contract review, contract performance management, control and collection of accounts receivable, litigation management and contract analysis, and thus improving the informatization level of risk control. In 2021, there were a total of 35 training sessions on contract audit risk, involving more than 500 trainees.



參加培訓人員數超過 **500** 餘人

involving more than **500** trainees

廉潔經營

Operate with honesty and integrity

本集團嚴格遵守《中華人民共和國刑法》《中華人民共和國公司法》《關於禁止商業賄賂行為的暫行規定》及香港《防止賄賂條例》等防止賄賂、勒索、欺詐及洗黑錢的相關法律法規，認真落實反腐敗責任，通過完善監督體制、深化制度建設、升級風險防控等措施，開展多層次的反腐倡廉教育，反腐敗工作取得良好成效。

The Group strictly abides by the *Criminal Law of the People's Republic of China*, the *Company Law of the People's Republic of China*, the *Interim Provisions on the Prohibition of Commercial Bribery*, the *Prevention of Bribery Ordinance of Hong Kong* and other relevant laws and regulations formulated to prevent bribery, extortion, fraud and money laundering, earnestly implements its anti-corruption responsibility, and carries out anti-corruption education at various levels by improving its supervision system, deepening system construction, and upgrading risk prevention and control measures. So far, the Group has achieved satisfactory results in its anti-corruption efforts.

可持續發展管理 Sustainable Development Management

報告期內，本集團未知悉及收到發生商業賄賂、勒索、欺詐及洗黑錢等違法違紀案件的通知。

During the reporting period, the Group did not know or receive any notice of any violation of laws and regulations such as commercial bribery, extortion, fraud and money laundering.

完善反腐倡廉制度 Improve the anti-corruption system

制定並實施《廉潔自律制度》《紅線禁令制度》《往來禮品管理規定》《幹部重大活動備案制度》《員工違規違紀行為處理條例》《自查自糾管理辦法》及《全員舉報和建議制度》等制度，對工作流程、員工日常行為進行規範管理，為反貪污工作提供有力的制度保障。

The Group has formulated systems such as *Integrity and Self-discipline System*, *Red Line Prohibition System*, *Regulations on the Management of Reciprocal Gifts*, *Filing System for Major Events of Cadres*, *Regulations on Handling Employees' Violations of Rules and Disciplines*, *Management Measures for Self-examination and Self-correction*, and *System for Tip-off and Suggestions by Employees*, and put them into effect so as to standardize the management of work processes and daily behaviours of employees and provide reliable institutional guarantee for anti-corruption work.

建立檢舉監督機制 Establish a report and supervision mechanism

建立暢通的檢舉監督機制，提供郵件、電話、微信公眾號和面談溝通等舉報渠道；獲取舉報信息後，對舉報人進行保護；第一時間核實舉報信息，視情況進行調查或開展專項審計，如認定有貪腐等事實則根據內部審計制度相關規定進行處理。

The Group has created a smooth reporting and supervision mechanism, and provide tip-off channels such as email, telephone, WeChat official account and face-to-face communication. After obtaining the tip-off information is obtained, the Group will protect the whistleblower, check the information as soon as possible, investigate or conduct special audit based on the actual condition, and handle the personnel with the facts such as corruption according to the relevant regulations of the internal audit system.

集團及各子公司設有舉報電話及郵箱
The Group and its subsidiaries have tip-off phone numbers and email addresses.

官方微信設有「旭陽集團監察審計部
服務監督平台」
“Service Supervision Platform of Supervision and Audit Department of Risun Group” on official WeChat

主要舉報渠道 Main tip-off channels

集團及各子公司在醒目位置公示舉報
聯繫方式
The contact information of the Group and its subsidiaries for tip-off is shown in conspicuous positions.

集團及各子公司在關鍵崗位設有舉報
箱
The Group and its subsidiaries have tip-off boxes in key positions.

<p>簽署幹部、員工廉潔責任狀</p> <p>Signing of the integrity guarantee letter by cadres and employees</p>	<p>中層以上幹部及關鍵崗位員工統一簽署廉潔責任狀，與供應商及客戶簽訂陽光合作協議，在對內和對外的活動過程中遵循誠實守信、平等公正、遵紀守法、不謀私利、利益回避和信息保密等基本原則，嚴禁任何形式的賄賂、勒索、欺詐及洗黑錢行為。</p> <p>Middle-level cadres and above as well as employees in key posts are required to sign the honesty and integrity guarantee letter, sign sunshine cooperation agreements with suppliers and customers, and follow the basic principles of honesty and trustworthiness, equality and justice, law-abiding, no self-seeking, interest avoidance and information confidentiality in the internal and external activities. In addition, bribery, extortion, fraud and money laundering are strictly prohibited.</p>
<p>開展反貪腐教育活動</p> <p>Carry out anti-corruption educational activities</p>	<p>開展多頻次、全覆蓋的警示培訓活動，定期在員工大會、經辦會、專題會、晨會上進行警示教育，並定期在集團內發佈警示教育材料，加強警示培訓。</p> <p>The Group carries out full-coverage warning training activities frequently, gives warning education at staff meetings, day-to-day meetings, special meetings and morning meetings, and publishes warning education materials and strengthens warning training on a regular basis.</p>

表1：2021年度反貪污培訓績效

Table 1: Anti-corruption Training Performance in 2021

<p>開展反貪污培訓總時長</p> <p>Total hours of anti-corruption training</p> <p>152</p> <p>(小時) (Hours)</p>	<p>開展反貪污培訓總次數</p> <p>Total number of anti-corruption trainings</p> <p>152</p> <p>(次) (Times)</p>	<p>董事的反貪污培訓次數</p> <p>Number of anti-corruption trainings for directors</p> <p>12</p> <p>(次) (Times)</p>	<p>管理層的反貪污培訓次數</p> <p>Number of anti-corruption trainings for management</p> <p>108</p> <p>(次) (Times)</p>	<p>員工的反貪污培訓次數</p> <p>Number of anti-corruption trainings for employees</p> <p>32</p> <p>(次) (Times)</p>
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利益相關方參與

Stakeholders Participation

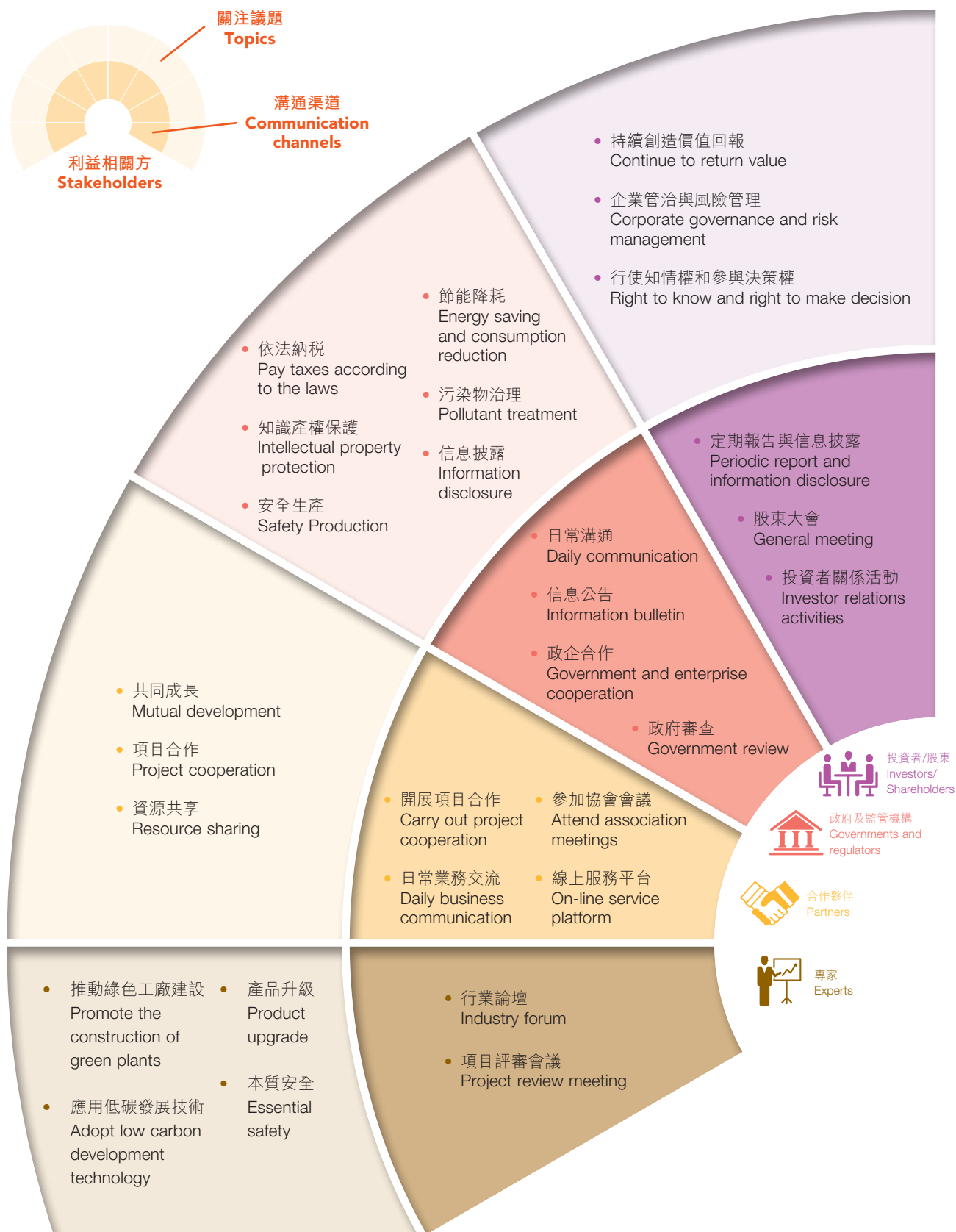
利益相關方溝通

Stakeholders communication

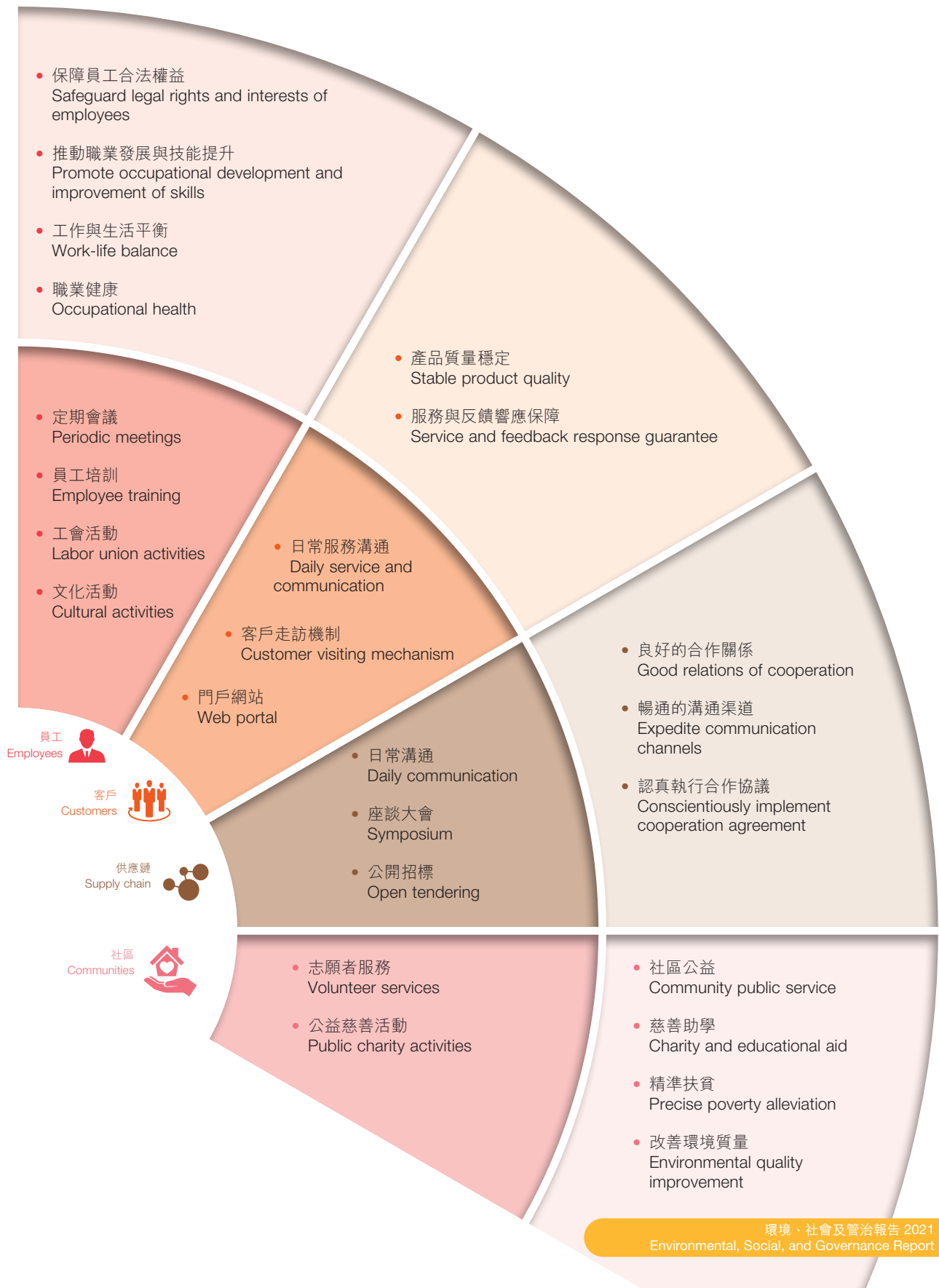
本集團在年度工作過程中持續保持與利益相關方的溝通，涉及股東、政府及監管機構、客戶、合作夥伴、員工、社區等，通過與利益相關方座談會等多元化溝通管道，持續聆聽利益相關方期望與要求，並針對利益相關方的意見及時做出回應。集團從可持續發展角度出發，整理並形成利益相關方溝通情況表，為集團重要性議題識別工作提供基礎。

The Group maintained communication with stakeholders (including shareholders, governments and regulatory authorities, customers, partners, employees, community, etc.) during the year, and listened to the demands and appeals of the stakeholders and made responses to the opinions of the stakeholders in a timely manner through diversified channels, including the forum with stakeholders. The Group collated and prepared stakeholders communication form from the perspective of sustainable development, and laid a foundation for identification of material topics of the Group.

可持續發展管理 Sustainable Development Management



可持續發展管理 Sustainable Development Management



可持續發展管理

Sustainable Development Management

重要性議題識別過程

Identification Process of Material Topics

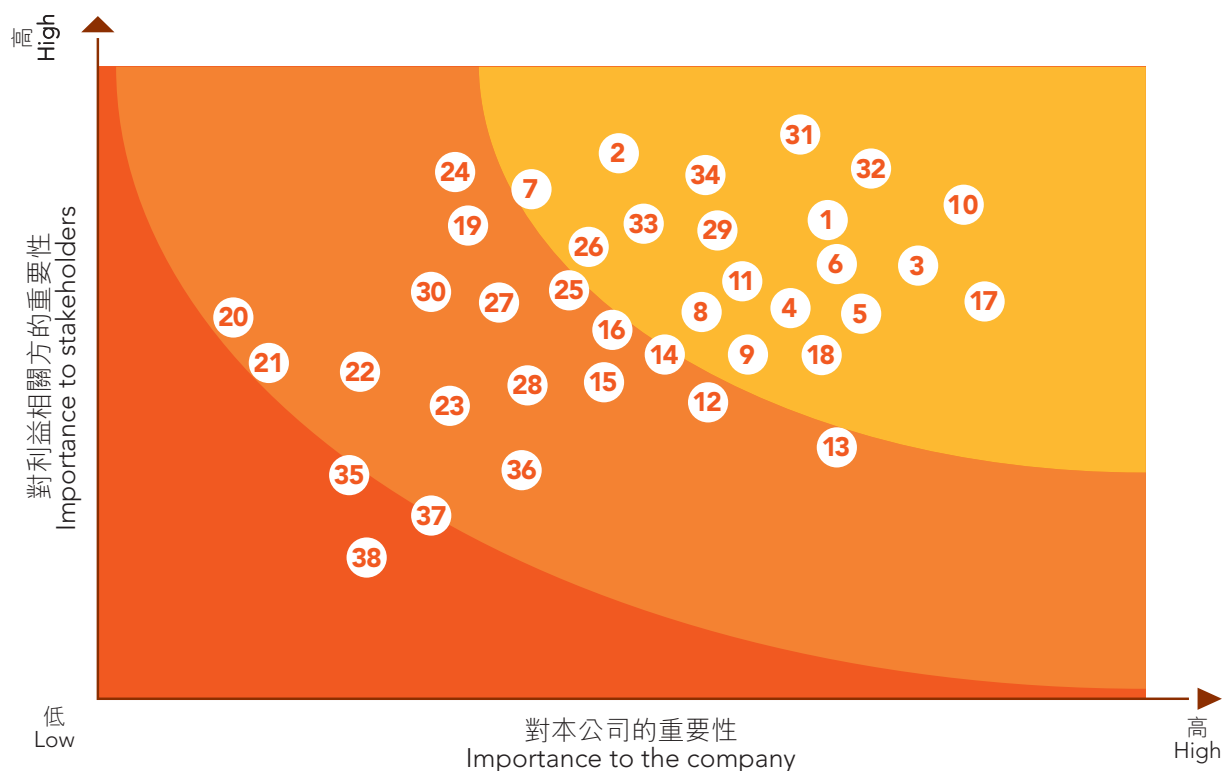
本集團依據香港聯合交易所有限公司證券上市規則附錄27《環境、社會及管治相關指引》等政策標準，針對相關環境、社會及管治議題，基於利益相關方溝通與自身發展實際情況，從議題對利益相關方的重要性及議題對集團發展的重要性兩個維度出發，分別進行評估、篩選並形成重要性議題矩陣，作為集團ESG的核心議題及披露依據。

With respect to topics concerning the environment, social, and governance, the Group, in accordance with Appendix 27 “Environmental, Social and Governance Reporting Guide” of the securities listing rules of Stock Exchange of Hong Kong Limited, and based on the stakeholder communication and practices of the Group, carried out evaluation and screening from the perspective of importance of the topics to the stakeholders and to the environment and society to form a matrix of material topics, as the focus of ESG of the Group and the basis of disclosure.



重要性議題識別結果

Results of Identification of Major Topics



高關注度議題

Topics of high concern

- | | |
|---|---|
| 7 碳達峰碳中和
Carbon peaking and carbon neutrality | 4 反腐敗
Anti-corruption |
| 26 客戶服務質量
Customer service quality | 18 安全生產事故
Safety production accidents |
| 8 環境目標
Environment objectives | 31 規範用工
Employment by laws and regulations |
| 9 發展清潔能源
Develop clean energy | 1 良好的業績
Good performance |
| 2 合規運營
Compliance operation | 5 ESG治理
ESG governance |
| 33 員工培訓與發展
Employee training and development | 6 利益相關方溝通
Stakeholder communication |
| 34 員工關愛與幫扶
Care for employees and support | 32 保障員工權益
Safeguard employees' rights and interests |
| 29 科技創新
Scientific and technological innovation | 3 公司治理
Corporate governance |
| 11 提高能源資源利用效率
Improve the efficiency of utilization of energy resources | 10 降低污染排放
Reduce pollution and emissions |
| | 17 職業健康安全措施
Occupational health and safety measures |

中關注度議題

Topics of medium concern

- | | |
|--|--|
| 20 公平採購
Fair procurement | 19 職業病發生率
Incidence rate of occupational diseases |
| 21 供應商HSE管理體系審核
Audit of HSE management system for suppliers | 15 安全生產投入
Safety production input |
| 22 供應鏈環境、社會風險管理
Environmental and social risk management in supply chain | 25 不合格產品處置
Disposal of unqualified products |
| 23 綠色採購
Green procurement | 16 職業健康安全培訓
Occupational health and safety training |
| 36 助力抗擊新冠疫情
Help fight the COVID-19 pandemic | 14 安全文化建設
Safety culture construction |
| 27 客戶權益保障
Safeguard customers' rights and interests | 12 降低碳排放、應對氣候變化
Reduce carbon emissions and cope with climate change |
| 28 知識產權
Intellectual property right | 13 環境及生物多樣性保護
Environmental and biodiversity protection |
| 30 平等僱傭
Employment equality | |
| 24 產品質量管理
Product quality management | |

低關注度議題

Topics of low concern

- | |
|---|
| 35 鄉村振興
Rural revitalization |
| 38 員工志願者活動
Volunteer activity among employees |
| 37 慈善捐贈
Charity and donations |





可持續發展實踐 Sustainable Development Practices

環境篇 Environment

32

[專題] 探索綠色低碳發展路徑為碳達峰碳中和貢獻力量

[Special topic] Explore the green and low-carbon development path to contribute to carbon peaking and carbon neutrality

36

環境管理

Environmental Management

40

應對氣候變化

Response to climate change

43

資源節約

Resource saving

49

排放管理

Emission management

社會篇 Society

58

健康與安全

Health and safety

67

優質產品

Quality products

75

供應鏈管理

Supply chain management

78

員工發展

Development of employees

89

社區公益

Community public service



可持續發展實踐

Sustainable Development Practices



環境篇 Environment

[專題]探索綠色低碳發展路徑為碳達峰碳中和貢獻力量

[Special topic] Explore the green and low-carbon development path to contribute to carbon peaking and carbon neutrality

1990年聯合國發表《聯合國氣候變化框架公約》以來，《京都議定書》《哥本哈根協議》與《巴黎協定》等一系列國際層面的框架協議將減碳行動擴展到了更多國家。全球範圍內正在加速形成「碳中和」共識。2020年9月「碳中和」正式成為中國的國家承諾，2021年成為了全球應對氣候變化、加速綠色轉型的關鍵一年。在這一年，我們深刻認識到，推動能源轉型、為碳達峰碳中和作出貢獻，是時代賦予我們的使命，更是我們未來的重要發展機遇。

Since the United Nations published the United Nations Framework Convention on Climate Change in 1990, a series of international framework agreements such as Kyoto Protocol, *The Copenhagen Agreement* and *The Paris Agreement* have extended carbon reduction actions to more countries. Countries around the world is quickly reaching a consensus on “carbon neutrality”. In September 2020, “carbon neutrality” officially became China’s national commitment, and 2021 became a crucial year for countries around the world to cope with climate change and accelerate the pace of green transformation. In this year, we deeply realized that promoting energy transformation and contributing to carbon peaking and carbon neutrality is the mission that the era has endowed us with, and it is also an important opportunity for our future development.

在過去，我們在綠色低碳實踐方面已經積累了多年的豐富經驗，通過一體化、園區化、循環經濟佈局、資源綜合利用，工藝升級、節能環保改造，綠色供應鏈、智能工廠、智慧園區建設以及發展綠色氫能等一系列強有力的行動、措施，有效降低溫室氣體排放。

Over the years, we have accumulated rich experience in green and low-carbon practices. Through a series of actions and measures such as integration, base building, circular economy layout, comprehensive utilization of resources, process upgrading, energy-saving and environment-friendly transformation, green supply chain, smart factories, smart base construction and development of green hydrogen energy, we have effectively reduced greenhouse gas emissions.

在2021年，作為頂尖的焦炭獨立生產商及供應商，我們主動對接「雙碳」目標，圍繞行業的發展特點和轉型方向，發揮集團的行業示範引領作用，率先探索綠色低碳發展路徑，進一步開展綠色低碳實踐，並帶動產業鏈協同減排，爭做焦化及化工行業碳中和先行者，為中國碳達峰碳中和貢獻力量。

In 2021, as the top independent coke producer and supplier, we made positive efforts to achieve the goal of “carbon peaking and carbon neutrality”, focused on the development characteristics and transformation direction of the industry, played the leading demonstration role in the industry, took the lead in exploring the green and low-carbon development path, further engaged in the green and low-carbon practices, and drove the industrial chain to reduce carbon emissions in a collaborative manner, striving to be the pioneer of carbon neutrality in coke and chemical industry, and contribute to carbon peaking and carbon neutrality in China.

謀劃「雙碳」路線圖

Formulate the road map for the “double carbon” goal

我們成立以董事長為首的「碳達峰、碳中和」行動小組，集中資源和力量，對全集團碳排放進行梳理，並正式發佈《旭陽集團碳達峰碳中和行動方案》，包括了各園區、各產業鏈碳減排、碳達峰、碳中和技術路線圖與時間表，推動全集團早日實現碳中和，打造行業碳中和示範園區及項目。

We set up the “carbon peaking and carbon neutrality” action group headed by the chairman, pooled resources and forces to reduce carbon emissions within the Group, and officially released the Carbon Peaking and Carbon Neutrality Action Plan of Risun Group, which included the technical road maps and timetables of carbon emission reduction, carbon peaking and carbon neutrality in all bases and industrial chains, so as to realize the goal of carbon neutrality as early as possible within the Group and build an industrial carbon neutrality demonstration bases and carry out other related projects.



圖：旭陽集團「碳中和」行動方案關鍵行動
 Figure: Key actions of the “Carbon Neutrality” Action Plan of Risun Group

推動一體化循環經濟

Promote integrated circular economy

為保障全流程的綠色低碳發展，我們通過成熟的「一體化、規模化、集約化、生態化、智能化」建設經驗以及「統一規劃發展、統一基礎設施、統一運營管理、統一能源管理、統一物流運輸、統一安全環保、統一研發創新」的園區管理標準，從園區的規劃、建設、管理、運營等全流程落實綠色低碳理念，不斷延鏈、補鏈、強鏈，推動產業鏈縱向一體化發展。

In order to ensure the green and low-carbon development throughout the process, we have implemented the concept of green and low-carbon from planning, construction, management and operation of the base through our mature experience of “integration, scale, intensification, ecology and intelligentization” and based on the base management standards of “unified planning and development, unified infrastructure, unified operation and management, unified energy management, unified logistics and transportation, unified safety and environmental protection, unified R&D and innovation”.

可持續發展實踐 Sustainable Development Practices

焦化+化工的產業發展模式，為我們帶來了協同一體化優勢、互補優勢和聯動優勢。在煉焦過程中，我們對回收的煤焦油、粗苯、焦爐煤氣副產品進行深加工及餘氣餘熱再利用，並不斷延伸產業鏈，由基礎化工產品延伸出高端化工產品，重點向石油化工、生物化工方向發展，形成了碳材料、醇氨、芳烴三條獨特的化工產業鏈，貫通上下游。在產業鏈之間，我們推動實現原料互供、產品互通、工藝互聯互通、公用介質互用，構建了完整的產業鏈條和循環經濟發展模式，有效助力了物質、能源最大化利用，促進環保效益、經濟效益、社會效益最大化。

The industrial development mode of coking + chemical has endowed us with the advantages of synergy & integration, complementing each other and linkage. During the coking process, we deeply processed the recycled coal tar, crude benzene and coke oven gas by-products and reused the residual heat, and continuously extended the industrial chain from basic chemical products to high-end chemical products, focusing on petrochemical and biochemical industries, forming three unique chemical industrial chains, i.e., carbon materials, alcohol ammonia and aromatic hydrocarbons, which run through the upstream and downstream. Between the industrial chains, we have promoted the mutual supply of raw materials, product intercommunication, process intercommunication and common media intercommunication, and built a complete industrial chain and a development model for circular economy, which has effectively helped maximize the utilization of materials and energy, and promoted the maximization of environmental protection benefits, economic benefits and social benefits.

推動綠色氫能發展

Promote the development of green hydrogen energy

氫能是一種來源廣泛、清潔無碳、靈活高效、應用場景豐富的二次能源，作為100%清潔能源國際能源署將其作為碳中和的重要措施之一。在各種制氫工藝中，焦爐煤氣制氫具有技術成熟、成本極具優勢、原料充足、對環境友好等優點。我們作為行業領先的獨立焦炭生產商及供應商，主動發揮氫能產業發展的獨特優勢，設立氫能事業部，成立氫能公司，正式發佈《旭陽集團氫能發展規劃》，按照一線（製—儲—運—加—用）、一網（輻射全國的智慧氫能供應網）、兩翼（技術+服務）、四階段的发展思路，以高純氫生產、加氫站示範項目為起點，本着「多方式、開放式、全方位」思想與同行業開展各類項目合作，搭建氫能運用場景，逐步深入氫能建築，天然氣摻氫、氫能冶金等領域，以氫能發展助力「雙碳」目標。

Hydrogen is a kind of secondary energy with wide sources which is clean, carbon-free, flexible and efficient, and can be applied in a variety of scenarios. As 100% clean energy, the International Energy Agency has listed it as one of the important measures to realize carbon neutrality. Among all kinds of hydrogen-producing processes, hydrogen production from coke oven gas has the advantages of mature technology, extremely low cost, abundant raw materials and environmental friendliness. As the leading independent coke producer and supplier in the industry, we, giving full play to the unique advantages of the development of hydrogen energy, have set up a hydrogen energy department and a hydrogen energy company, officially released *Risun Group's Hydrogen Energy Development Plan*, according to the development idea of one line (production—storage—transportation—refueling—use), one network (nationwide intelligent hydrogen energy supply network), two wings (technology+service) and four stages, taking the high-purity hydrogen production and hydrogen refueling station demonstration project as the starting point, and based on the idea of “multi-mode, open and all-round”, cooperate with the industry in various projects, build hydrogen energy application scenarios, and gradually penetrate into hydrogen energy construction, natural gas blending and hydrogen energy metallurgy, etc., so as to contribute to the realization of the “double carbon” goal through the development of hydrogen energy.

- **重大項目落地。**在定州園區，1,000公斤/天的電子級高純氫裝置已在2020年建成投產，2021年繼續推動12,000公斤/天的高純氫生產裝置等項目順利開工；在邢台園區氫氣潛力為每年5.72億Nm³，已建成年產400萬Nm³的製氫裝置一套，在建一套年產高純氫3,750萬Nm³、年產工業氫1.6億Nm³的氫能源示範引領項目。

Implementation of major projects. In Dingzhou Base, the 1,000 kg/day electronic-grade high-purity hydrogen plant was completed and put into operation in 2020, and in 2021, the 12,000 kg/day high-purity hydrogen production plant and other projects started construction as scheduled. The hydrogen potential in Xingtai Base reaches 572 million Nm³ of hydrogen every year, and a hydrogen production plant with an annual capacity of 4 million Nm³ has been completed, and a hydrogen energy demonstration project with an annual capacity of 37.5 million Nm³ of high-purity hydrogen and 160 million Nm³ of industrial hydrogen is under construction.

可持續發展實踐 Sustainable Development Practices

- **形成區域佈局。**我們的氫能廣泛分佈於華北、東北、華東等區域，現有氫氣潛力29.9億方/年，儲量大、範圍廣、多點呼應。

Form a regional layout. Our hydrogen energy is widely distributed in North China, Northeast China and East China, and the existing hydrogen resources are 2.99 billion m³/year, featuring large reserves, wide range and coordinated operation.

- **保障優質能源供應。**我們的高純氫產品質量穩定，合格率100%，產品純度99.999%以上。在煤焦化到高純氫過程中，製成低碳氫，在焦爐煤氣和工業氫到高純氫提純過程中，製成清潔氫，助力更好發揮氫能零碳能源屬性，推動下游行業深度脫碳。我們為2022年冬奧會提供了優質的氫能，截至2022年3月2日合計供應氫氣13車，折合減少碳排放約40,000噸。

Ensure high-quality energy supply. Our high-purity hydrogen products are of stable quality, with a qualified rate of 100% and a purity of 99.999% and above. In the process of coking coal to high-purity hydrogen, low-carbon hydrogen is made, and in the process of purifying coke oven gas and industrial hydrogen to high-purity hydrogen, clean hydrogen is made, which helps to give full play to the zero-carbon energy attribute of hydrogen energy and realize deep decarbonization in downstream industries. We have provided high quality hydrogen energy for the 2022 Winter Olympics, supplying a total of 13 trucks of hydrogen as of March 2, 2022, equivalent to reducing carbon emissions by about 40,000 tons.

推動綠色供應鏈建設

Promote the building of green supply chain

我們以「綠色」發展為引領，圍繞供應端、物流等端口，建立綠色供應體系，要求所有供應商綠色生產，積極擴大綠色供應鏈體系，促進資源利用高效化、環境影響最小化、鏈上企業綠色化。

Guided by “green” development, we have set up a green supply system around the supply end and logistics, requiring all suppliers to realize green production, actively expanding the green supply chain system, and promoting efficient resource utilization, minimizing environmental impact and greening all enterprises in the chain.

- **推進「公轉鐵」，提高火運比例。**不斷推進鐵路建設，推進物流運輸「公轉鐵」，已建成兩條鐵路專用線，在建兩條鐵路專用線，集團火運比例不斷提升。其中，邢台園區和定州園區火運比例均達到80%以上。同時火車裝卸系統實現全封閉，有效減少煤塵的排放。

Promote the transition from “highway to railway” and increase the proportion of railway transportation. We have constantly accelerated railway construction and promoted logistics transportation from “highway to railway”. So far, two special railway lines have been built, and another two are under construction. That is to say, the proportion of the Group’s railway transportation is on the rise. Among them, the proportions of railway transportation in Xingtai Base and Dingzhou Base have exceeded 80%. At the same time, the train loading and unloading system is fully closed, effectively reducing the emission of coal dust.



邢台園區和定州園區
火運比例均達到 **80%**

the proportion of fire transport
in Xingtai Base and Dingzhou Base
both reached more than **80%**

可持續發展實踐

Sustainable Development Practices

- **提高新能源汽車佔比。**要求集團供應鏈上的企業提高LNG車、電動車、氫能等新能源汽運車輛佔比，減少柴油、汽油等化石能源用量。邢台園區、定州園區的煤焦運輸汽車已經100%採用LNG新能源物流車，推動氫能重卡運輸落地並作為應用示範逐步推廣，減少了化石能源的使用。

Increase the proportion of new energy vehicles. Enterprises in the Group's supply chain are required to increase the proportion of new energy vehicles such as LNG vehicles, electric vehicles and new energy (including hydrogen energy) vehicles, and reduce the consumption of fossil energy such as diesel and gasoline. Xingtai Base and Dingzhou Base have adopted LNG new energy logistics vehicles as coal coke transport vehicles, realizing the transportation of hydrogen energy heavy trucks and gradually promoting its application as a demonstration project while reducing the use of fossil energy.

- **減少短倒損耗、損失。**嚴格控制焦炭的銷運產供環節，堅持所有園區焦炭零庫存，焦炭從產線直接到車，確保焦炭不落地，減少短倒；推動化工產品和備品備件實現零庫存，減少不必要的損耗。

Reduce short-distance consumption and loss. We strictly control the sales, transportation, production and supply of coke, insist on zero inventory of coke in all bases, and ensure that no coke falls to the ground from production line to loading into vehicles so as to reduce loss. We actively promote the realization of zero inventory of chemical products and spare parts to reduce unnecessary losses.



邢台園區、定州園區的
煤焦運輸汽車已經 **100%** 採用
LNG 新能源物流車

100% of the coal and coke
transport vehicles in Xingtai Base
and Dingzhou Base have adopted
LNG new energy logistics vehicles

環境管理

Environmental Management

集團認真貫徹嚴格遵守《中國人民共和國環境保護法》《中華人民共和國水污染防治法》《中華人民共和國大氣污染防治法》《中國人民共和國固體廢物污染環境防治法》《中華人民共和國環境保護稅法》《排污許可管理條例》《中華人民共和國節約能源法》《中華人民共和國清潔生產促進法》等國家資源節約和環境保護方針政策，積極踐行綠色低碳循環發展理念，遵循「遵紀守法、防治結合、節能降耗，持續改進」的環境方針，不斷完善環境管理體系和管理制度，針對建設項目、環境影響監測、突發環境事件等維度，推動環境保護責任從管理到實踐，並積極開展節能環保教育，提升全員環保意識，讓全員成為環境保護的責任人和踐行者，共同守護美麗家園。

The Group earnestly abides by the *Environmental Protection Law of the People's Republic of China*, the *Law of the People's Republic of China on Water Pollution Prevention and Control*, the *Law of the People's Republic of China on Water Pollution Prevention and Control*, the *Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste*, the *Environmental Protection Tax Law of the People's Republic of China*, the *Regulations on the Administration of Emission Permission*, the *Energy Conservation Law of the People's Republic of China*, the *Law of the People's Republic of China on the Promotion of Clean Production* and other national guidelines and policies for resource conservation and environmental protection. We actively implement the concept of green and low-carbon cycle development, follow the environmental guidelines of "abiding by law, combining prevention with control, saving energy and reducing consumption, and continuously improving", constantly improve the environmental management system and management regulations from the dimensions including projects under construction, environmental impact monitoring, environmental emergencies, promote the responsibility of environmental protection from management to practice, actively carry out educational activities on energy conservation and environmental protection, enhance the environmental protection awareness among employees, and encourage all employees to become the responsible persons and practitioners of environmental protection and jointly protect our beautiful homes.

<p>環境責任管理體系 Environmental responsibility management system</p>	<ul style="list-style-type: none"> • 建立完善的六級環保管控體系，在集團層面設置專門的環保管理委員會，在園區實行環保管理一體化，在各子公司建立環保管理委員會，推動班組環保管理縱向到底，實現每個人都是環保管理執行者，各層級崗位責任明確，目標清晰，並通過設立考核激勵機制確保體系運行持續改善。 <p>The Group established a sound six-level environmental protection management and control system. The Group set up a special environmental management committee; the base implemented the integration of environmental management; the Company established an environmental management committee; the team's environmental management was vertical to the end; everyone was an environmental management executor, and the posts at various levels had clear responsibilities with clear goals. The Group ensured continuous improvement of system operation through establishing the assessment and incentives mechanism</p>
<p>完善管理制度 Improve the management system</p>	<ul style="list-style-type: none"> • 制定並不斷完善《污染物排放管理制度》《環境監測管理辦法》《環保設施管理制度》《環保責任制度》《排污申報管理辦法》《固體廢物管理辦法》《重污染天氣應急響應「一廠一策」實施方案》等管理制度與辦法，形成環境管理制度體系。 <p>The Group formulated the <i>Pollutant Discharge Management System</i>, <i>Management Measures for the Environmental Monitoring</i>, <i>Management System for the Environmental Protection Facilities</i>, <i>Environmental Protection Responsibility System</i>, <i>Management Measures for the Pollution Discharge Declaration</i>, <i>Management Measures for Solid Waste</i>, <i>Implementation Plan of "One Plant, One Policy" for Emergency Response to Heavily Polluted Weather</i>, and other management systems and measures, thus forming its environmental management system.</p>
<p>建設項目環保管理 Environment-friendly management of projects under construction</p>	<ul style="list-style-type: none"> • 依照國家相關法律法規要求，進行環境影響評價，並嚴格執行環保「三同時」制度。 <p>The Group carried out environmental impact assessment in accordance with relevant national laws and regulations, and strictly implement the "three-item" system on environmental protection.</p> <ul style="list-style-type: none"> • 在施工場地揚塵管理遵循「業務負責、屬地管理、層層監督」的原則和「六個百分百、兩個禁止」的管控標準。 <p>In terms of dust management at the construction site, the Group follows the principle of "business responsibility, localized management, layer-by-layer supervision" and the control standard of "six 100% and two prohibitions".</p>

可持續發展實踐 Sustainable Development Practices

<p>環境監測管理 Environmental monitoring management</p>	<ul style="list-style-type: none"> 建立空中無人機監測、高空在線監測、抑塵高桿噴霧、地面走航車監測、手持VOCs檢測儀即時監測及內部環保執法隊檢查等「六位一體」環保監測體系，實現全時段全方位監控排放指標。 <p>Establish a “six-in-one” environmental monitoring system, such as aerial unmanned aerial vehicle monitoring, high-altitude online monitoring, dust suppression and high-pole spraying, ground vehicle monitoring, hand-held VOCs detector real-time monitoring and inspection by the internal environmental law enforcement team, so as to realize all-time and all-round monitoring of emission indicators.</p> <ul style="list-style-type: none"> 定期進行土壤、地下水環境、大氣環境的監測，緊密關注生產運營對周邊環境產生的影響。 <p>Regularly monitor the soil, groundwater environment and atmospheric environment, and keep a close eye on the impact of production and operation on the surrounding environment.</p>
<p>突發環境事件管理 Environmental emergency management</p>	<ul style="list-style-type: none"> 編製《突發環境事件應急預案》，對生產運行過程中因突發性事件或自然災害導致的環境污染事件及其它潛在環境風險進行識別評價，制定相應處置和預防措施。 <p>Prepare the <i>Emergency Plan for Unexpected Environmental Events</i>, identify and evaluate environmental pollution events and other potential environmental risks caused by unexpected events or natural disasters during production and operation, and work out proper disposal and preventive measures.</p>
<p>環境管理體系認證 Environmental management system certification</p>	<ul style="list-style-type: none"> 提倡按照國家有關環境管理體系認證的規定，積極推進ISO14000環境管理體系建立和認證，提高企業環保管理水平。 <p>Push on with the work on the establishment and certification of ISO14000 environmental management system according to the relevant national regulations on environmental management system certification so as to improve the environmental management level of the enterprise.</p> <ul style="list-style-type: none"> 2021年集團12家生產單位通過ISO14001環境管理體系認證，認證比例達到92%。 <p>In 2021, 12 production units of the Group passed the ISO14001 environmental management system certification, with a certification ratio reaching 92%.</p>

節能環保培訓

Energy conservation and environmental protection training

- 2021年開展72次節能環保教育培訓，共計培訓13,018人次。

In 2021, 72 educational training sessions on energy conservation and environmental protection were held, involving a total of 13,018 trainees.

- 組織中高層幹部及環保管理人員開展《環境法律風險防控專題培訓》等培訓，提高管理層管理能力，對特殊崗位人員進行輻射崗位專項培訓。

Middle and high-level cadres and environmental management personnel were organized to receive training such as “Special Training on Environmental Legal Risk Prevention and Control” so as to improve the management skills of the management. And special trainings were carried out for special posts such as radiation.

- 組織排污許可管理條例、固廢法及事故案例等專項培訓活動，參加當地生態環境局組織的環統系統填報等培訓。

Special training activities such as emission permission management regulations, solid waste law and accident cases were carried out, and employees were organized to attend the training such as reporting of environmental system organized by the local eco-environment bureau.

- 以“中國水周”“地球一小時”“全國節能宣傳周”和“全員節能創新”等活動為抓手，鼓勵和組織全員積極參與節能工作，強化全員節能意識和行動自覺。

Taking “China Water Week”, “One Hour on Earth”, “National Energy-saving Publicity Week” and “Energy-saving Innovation for All” as the starting point, the Group encouraged and organized employees to take an active part in energy-saving work so as to strengthen their energy-saving awareness and action consciousness.



可持續發展實踐 Sustainable Development Practices



河北旭陽開展環境突發事件應急演練
Hebei Risun carrying out drills for environmental emergencies



河北旭陽開展以「攜手增新綠共建好家園」為主題的植樹活動，
種下318棵樹苗
Hebei Risun planting a total of 318 seedlings in the tree-planting activity
themed “Join hands to make our homes beautiful”



鄆城旭陽舉行「6·5」世界環境日「人與自然和諧共生」主題簽名活動
Yuncheng Risun carrying out the theme signature activity on “June 5” World Environment Day – “Harmony between Man and Nature”

應對氣候變化

Response to climate change

全球氣候變化是人類面臨的最重大而緊迫的挑戰之一。集團高度重視生產運營過程中溫室氣體排放，主動參照氣候相關財務信息披露工作組(TCFD)建議，圍繞氣候變化帶來的實體風險和轉型風險，推動應對氣候變化融入公司治理、風險管理體系和日常運營，以實際行動為應對氣候變化作出貢獻。

Global climate change is one of the most significant and urgent challenges facing mankind. The Group attaches great importance to greenhouse gas emissions in the process of production and operation, actively refers to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), focuses on the physical risks and transformation risks brought by climate change, promotes the integration of climate change into corporate governance, risk management system and daily operations to contribute to climate change with practical actions.

氣候變化風險及機遇

Risks and opportunities of climate change

集團定期對焦炭和煤化工業務板塊進行氣候風險與基於的識別和評估。

The Group will regularly identify and evaluate the climate risks and opportunities for the coke and coal chemical business segments.

氣候變化可能給集團帶來的風險包括碳排放政策趨嚴的政策風險，供應商成本上升風險，極端天氣至生產設備及場所損失等。

The risks that climate change may bring to the Group include the risks from the tightening of carbon emission policy, the risk from the rising of supplier costs, the loss related to production equipment and places caused by extreme weather, etc.

氣候變化給綠色化清潔化的項目和園區帶來更多機會，給氫能等清潔能源的發展帶來更廣闊的市場和空間。在綠色轉型過程中節約資源、減少排放能更好節約成本、減少不必要的損失。

Climate change may bring more opportunities for green and clean projects and bases, and bring broader markets and space for the development of clean energy such as hydrogen energy. In the process of green transformation, saving resources and reducing emissions can better save costs and reduce unnecessary losses.

氣候變化風險治理 Governance of climate change

董事會對氣候變化的相關議題及工作負有監督管理職責，氣候變化相關議題由董事會秘書部負責牽頭和協調，形成應對氣候變化的相關行動計劃，並由相關部門、子公司進行落實。

The Board of Directors is responsible for the supervision and management of climate change related issues and work. The Secretary Department of the Board of Directors is responsible for leading and coordinating the climate change related issues, and preparing relevant action plans to deal with climate change, which shall be implemented by relevant departments and subsidiaries.

氣候變化的目標（2021-2025年） Targets of climate change (2021-2025)

與中國到2060年的國家碳中和目標相協調，逐步擴大焦爐煤氣制氫產能和節能減排項目的實施；積極推進碳捕集、碳利用，減少溫室氣體排放。

Coordinate with China's national carbon neutrality target by 2060, and gradually expand the capacity of coke oven to produce hydrogen with gas and the implementation of energy conservation and emission reduction projects; and actively promote carbon capture and utilization to reduce greenhouse gas emissions.

應對氣候變化戰略 Strategies to address climate change

圍繞目標全面分析、調查、核算集團在生產、運輸、辦公等全流程的碳排放來源，並形成相關的行動計劃，因地制宜逐步開展碳減排實踐。

Comprehensively analyze, investigate and calculate the carbon emission sources of the Group in the whole process of production, transportation and office, form relevant action plans, and gradually carry out carbon emission reduction practice according to local conditions.

應對氣候變化風險 Coping with the risks of climate change

- **開展碳減排專項行動：**對碳排放足跡進行跟蹤，通過資源綜合利用+工藝技術挖潛+節能降耗+產業轉型+綠色供應鏈+清潔能源替代+二氧化碳捕集與利用+工業互聯網+綠色生產生活等全生命周期減排。

Carry out special actions for carbon emission reduction: track the carbon emission footprint and reduce emission through the whole life cycle such as comprehensive utilization of resources + tapping the potential of process technology + energy saving and consumption reduction + industrial transformation + green supply chain + clean energy substitution + CO₂ capture and utilization + industrial internet + green production and living.

- **積極開展園區綠化：**在各園區持續開展綠化，在裸露土地上種植樹木或綠草，在建築設施、停車場、人行道、廣場周邊均種植大量植物，不僅維護簡單、耐候性強，同時有效降低了熱島效應，室外透水率遠高於30%。

Active greening of the base: continuously implement greening in each base, plant trees or green grass on bare land, and grow a large number of plants around building facilities, parking lots, sidewalks and squares, which are not only easy to maintain and weather-resistant, but also effectively reduce the heat island effect, achieving the outdoor permeability rate of much higher than 30%.

- **極端天氣應急管理：**制定發佈異常天氣《特種設備安全應急指南》《暴風雪極端災害天氣事故專項應急處置預案》《防洪預案》等，並積極組織應急演練，針對性地提高極端天氣響應能力和處置能力。

Emergency management of extreme weather: formulate and release the Special Equipment Safety Emergency Guide under Abnormal Weather, the Special Emergency Response Plan for Extreme Snowstorm Weather Accidents and the Flood Control Plan, and actively organize emergency drills to improve the response and handling capacity of extreme weather.

- **重污染天氣應急響應：**組建應急組織機構，統籌推動重污染天氣應急響應工作。

Emergency response in heavily polluted weather: establish an emergency organization to coordinate and promote the emergency response in heavily polluted weather.

- **嚴格落實無組織管控措施，**包括對施工區域全部加裝圍擋、對施工區域裸露地面、土堆、料堆進行全面苫蓋等，並在施工區域安裝PM10揚塵在線監測設備，有效減少揚塵。

Strictly implement the unorganized control measures, including installing fences in the construction area, covering the exposed ground, soil pile and material pile in the construction area, and installing PM10 dust online monitoring equipment in the construction area, so as to effectively reduce dust.

- **嚴把車輛准入關，**確保施工區域內作業的非道路移動車輛尾氣檢測全部合格，並按監管要求選用清潔能源車輛。

Strictly control vehicle access, ensure that all non road mobile vehicles operating in the construction area shall be subject to the exhaust gas detection, and select clean energy vehicles according to the regulatory requirements.

資源節約

Resource saving

焦化行業屬於典型的能源加工轉換類行業。集團始終致力於構建綠色節能企業，依托於完整的產業鏈，從生產的全流程、全工序統籌，多維並舉開展各種節能措施，推動原料、產品護衛依托、公用介質相互供應、能源充分利用，充分實現原料、產品、餘熱、餘壓、三廢的綜合利用。一方面，注重節能裝置和設備建設，投資建設了智慧能源管控中心、煙道氣餘熱回收、工業餘熱供暖、乾熄焦發電等大型節能項目，有效實現能效提升。另一方面，注重實際運行的精益控制，比如減少能源投入、注重餘熱餘能資源回收利用等，能夠有效提高能源利用效率，降低單位產品能耗，實現全產業鏈綠色、低碳、節能運營。

Coking industry is a typical energy processing and conversion industry. The Group has always been committed to building a green energy-saving enterprise. Relying on its complete industrial chain, the Group has coordinated the whole production processes and procedures, carried out various energy-saving measures in multiple dimensions, promoted the mutual complementation of raw materials and products, the mutual supply of public medias and the full utilization of energy, and fully realized the comprehensive utilization of raw materials, products, residual heat, residual pressure and three wastes. On the one hand, the Group emphasized on the construction of energy-saving devices and equipment and have invested in construction of large-scale energy-saving projects such as the smart energy control center, flue gas residual heat recycling, heating by industrial residual heat, dry coke power generation, effectively realizing the improvement of energy efficiency. the Group emphasized on the lean control of actual operation, such as reducing energy input, focusing on recycling and utilization of residual heat and energy resources, which may effectively improve energy utilization efficiency, reduce energy consumption per unit product, and realize the green, low-carbon and energy-saving operation of the whole industrial chain.

我們的目標：2021年－2025年 Our goals: 2021-2025



綜合能耗 Comprehensive energy consumption

焦炭板塊：工序能耗 < 115 千克標煤/噸。

Coke sector: process energy consumption < 115 kg standard coal/ton.

化工板塊：積極推進節能技改，各裝置間能源協同發展，提高能源利用率；優化用能結構，積極推進生物質燃料替代研究、試驗，推動能源結構優化。

Chemical industry sector: actively promote energy-saving technological transformation and coordinate the development of energy among various units to improve the energy utilization; optimize the energy consumption structure, actively promote the research and test of biomass fuel substitution, and promote the optimization of energy structure.

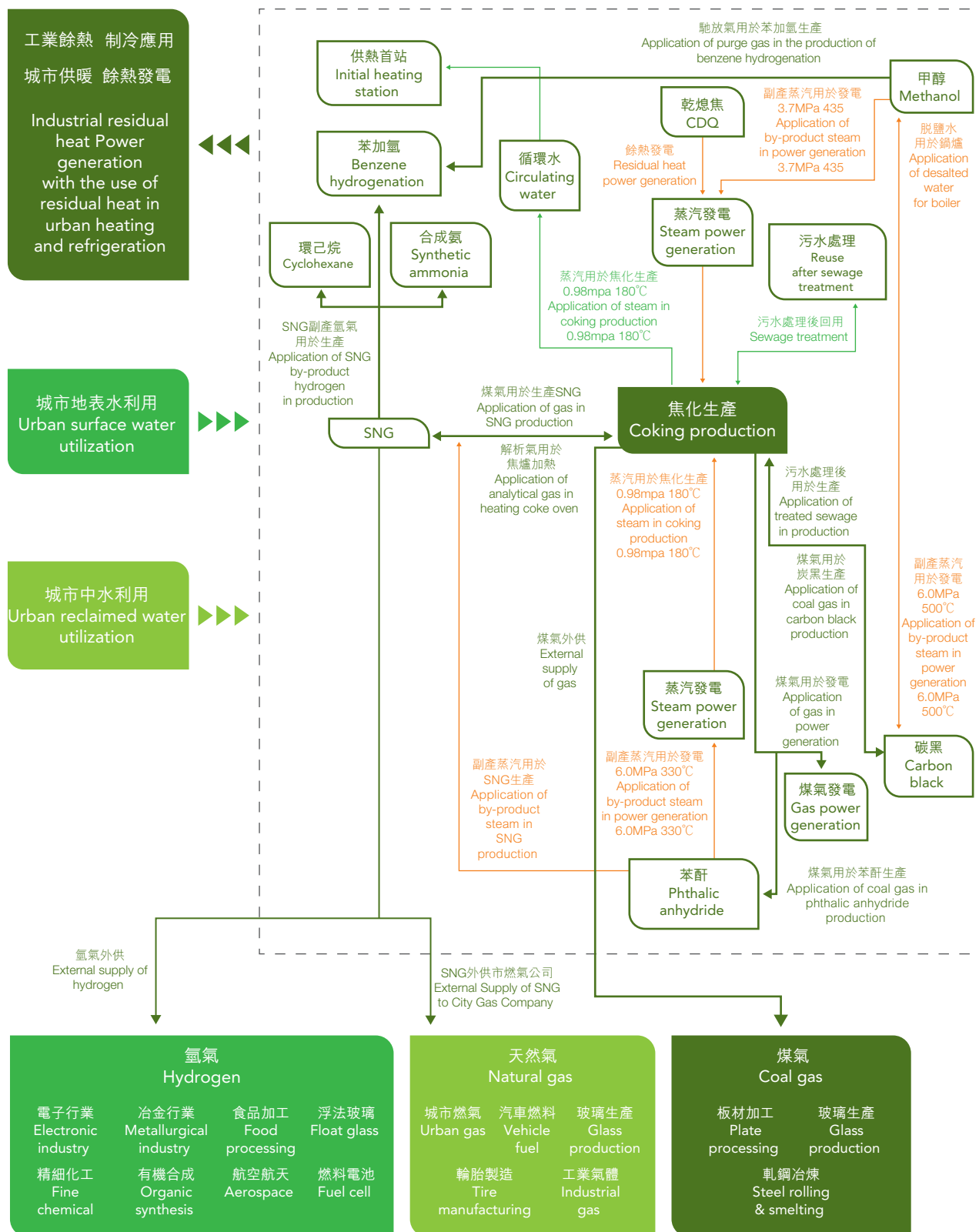


新鮮水消耗 Fresh water consumption

水循環利用率大於98%，推進水資源循環利用。

The water recycling rate is greater than 98%, and promote the recycling of water resources.

可持續發展實踐 Sustainable Development Practices



<p>資源節約管理 Resource saving management</p>	<ul style="list-style-type: none"> 成立專門的能源管理組織機構，健全各用能環節的節能管理制度，細化深化節能管理，做到用能有計劃、耗能有計量、統計有記錄、考核有定額。 <p>Establish a special energy management organization, improve the energy-saving management system of all energy consumption links, refine and deepen energy-saving management, so as to achieve planned energy consumption, measured energy consumption, recorded statistics and rated assessment.</p> <ul style="list-style-type: none"> 編製《能源管理制度》《能源消耗定額管理制度》《能源計量管理制度》。 <p>Prepare Energy Management System, Energy Consumption Quota Management System and Energy Measurement Management System.</p> <ul style="list-style-type: none"> 《用水管理規定》等，通過嚴密制度規範提升能源管理，科學引領生產活動組織，保證節能工作有效落地。 <p>Regulations on Water Management, etc., improve energy management through strict systems and norms, scientifically lead the organization of production activities, and ensure the effective implementation of energy conservation.</p>
<p>綠色生產 Green production</p>	<ul style="list-style-type: none"> 積極採用更加先進、更加環保的生產工藝，不斷對焦爐裝置進行升級改造，累計淘汰落後焦化產能410萬噸。 <p>Actively adopt more advanced and more environmentally friendly production processes, constantly upgrade and transform coke oven devices, and eliminate 4.1 million tons of backward coking capacity.</p> <ul style="list-style-type: none"> 在各園區開展多項節能技術改造項目，包括循環水泵節能改造、循環氨水泵節能改造項目等，逐步淘汰高耗能設備，提高設備的能源利用率，減少不必要的能源耗用。 <p>Carry out a number of energy-saving technical transformation projects in each base, including the energy-saving transformation of circulating water pump and the energy-saving transformation of circulating ammonia pump, phase out high energy-consuming equipment, improve the energy utilization rate of equipment and reduce unnecessary energy consumption.</p> <ul style="list-style-type: none"> 累計投入1.91億元，在各園區積極實施煙道氣餘熱利用、合成塔改造、蒸汽梯級利用、環己酮輕塔餘熱利用等71項工藝技改項目，通過工藝優化大幅減少生產過程中的能源消耗。 <p>Invested cumulatively RMB 191 million to actively implement 71 technological transformation projects in the bases, such as flue gas residual heat utilization, synthetic tower transformation, steam cascade utilization and cyclohexanone light tower residual heat utilization, so as to greatly reduce the energy consumption in the production process through process optimization.</p>

可持續發展實踐 Sustainable Development Practices

<p>綠色生產 Green production</p>	<ul style="list-style-type: none"> 在根據各園區實際情況，積極回收利用反滲透濃水、反洗水等，減少新鮮水的整體用量，並採用先進工藝對生化處理後的污水進行深度處理，處理後的水作為循環水系統補水再利用。 <p>According to the actual situation of each base, actively recycle the reverse osmosis concentrated water and backwashing water etc., reduce the overall consumption of fresh water, and use advanced technology to deeply treat the sewage after biochemical treatment. The treated water may be reused as make-up water for the circulating water system.</p>
<p>餘熱應用 Application of residual heat</p>	<ul style="list-style-type: none"> 發揮工業餘熱的價值，用於城市供暖、制冷、發電等多個場景。其中，我們利用化工生產初冷器餘熱回收，向市區供暖，供熱面已達到588萬平方米，在保民生的同時，年可節約標煤18.81萬噸/年，年減排二氧化碳約48.90萬噸/年。 <p>Give full play to the value of industrial residual heat for urban heating, refrigeration, power generation and other scenarios. Among them, we use the residual heat recycled from the primary cooler in chemical production to heat the urban area. The heating surface has reached 5.88 million square meters. While ensuring the people's livelihood, we can save 188,100 tons of standard coal per year and reduce about 489,000 tons of carbon dioxide per year.</p>
<p>綠色辦公 Green office</p>	<ul style="list-style-type: none"> 提倡節約用電，充分利用自然光照，杜絕「長明燈」，長時間離開辦公室注意關燈關空調，將路燈、照明等逐步更換為節能燈。 <p>Advocate saving electricity, making full use of natural light, eliminating "long-time lights", turning off lights and air conditioning when leaving the office for a long time, and gradually replacing the street lights and lighting with energy-saving lights.</p> <ul style="list-style-type: none"> 節約使用空調，空調溫度夏季不低於26℃，冬季不高於20℃。 <p>Reduce the use of air conditioner, and the temperature of air conditioner shall not be lower than 26℃ in summer and higher 20℃ in winter.</p> <ul style="list-style-type: none"> 提倡節約用紙，充分利用協同辦公系統，實行無紙化辦公。 <p>Advocate saving paper, making full use of collaborative office system and implementing paperless office.</p> <ul style="list-style-type: none"> 將辦公樓的水龍頭改為感應水龍頭。 <p>Change the faucets in the office building into inductive faucets.</p>

表 2：2019-2021 年度資源消耗績效
Table 2: Resource Consumption Performance of 2019-2021

資源種類 Category of Resources	單位 Unit	2021 年度 2021	2020 年度 2020	2019 年度 2019
煤炭 Coal	噸 (Ton)	6,125,817.36	6,356,672.00	6,022,081.00
柴油 Diesel	噸 (Ton)	985.52	1,384.40	1,287.21
汽油 Gasoline	噸 (Ton)	49.16	33.79	45.12
淨外購電力 Net purchased electricity	兆瓦時 (MWh)	540,488.87	734,136.13	942,565.85
淨外購熱力 Net purchased heat	吉焦 (GJ)	1,827,013.15	-246,502.01	-644,974.84
綜合能耗 Comprehensive energy consumption	噸標煤 (Ton of standard coal)	5,510,886.36	6,532,639.10	6,205,951.23
綜合能耗消耗密度 Comprehensive energy consumption density	噸標煤/萬元 (Ton of standard coal/RMB ten thousand)	1.94	3.77	3.51
新鮮水用水總量 Total fresh water consumption	萬噸 (Ten thousand tons)	1,711.36	1,573.31	1,060.70
新鮮水用水密度 Fresh water consumption density	噸/萬元 (Ton/RMB 10 thousand)	5.79	9.09	6.00

註： 1. 表中綜合能耗數據是按照《綜合能耗計算通則》核算得出；2. 表中能源消耗來自本集團生產統計台賬；3. 表中密度類數據是按用量除以營業收入核算得出；4. 此表2019年—2021年數據不包括新收購的山東鄆城園區和東明園區。

Notes: 1. The comprehensive energy consumption data in the table were calculated based on the General Rule for Calculation of Comprehensive Energy Consumption; 2. The energy consumption in the table was from the Group's production statistics account; 3. The density data in the table was calculated according to the energy consumption divided by the operating revenue; 4. The 2019-2021 data in this Table does not include the newly acquired Shandong Yuncheng Base and Dongming Base.

可持續發展實踐

Sustainable Development Practices

表3：2021年度山東鄆城園區和東明園區資源消耗績效

Table 3: 2021 Resource Consumption Performance of Shandong Yuncheng Base and Dongming Base

資源種類 Category of Resources	單位 Unit	2021年度 2021
煤炭 Coal	噸 (Ton)	1,835,870.80
柴油 Diesel	噸 (Ton)	548.05
汽油 Gasoline	噸 (Ton)	0.09
淨外購電力 Net purchased electricity	兆瓦時 (MWh)	260,769.34
淨外購熱力 Net purchased heat	吉焦 (GJ)	-559,759.10
綜合能耗 Comprehensive energy consumption	噸標煤 (Ton of standard coal)	4,964,284.39
綜合能耗消耗密度 Comprehensive energy consumption density	噸標煤/萬元 (Ton of standard coal/ RMB ten thousand)	6.03
新鮮水用水總量 Total fresh water consumption	萬噸 (Ten thousand tons)	868.37
新鮮水用水密度 Fresh water consumption density	噸/萬元 (Ton/RMB 10 thousand)	10.54

註： 1. 此表僅包括新收購的山東鄆城園區和東明園區，因此僅披露2021年數據；2. 此表中計算方法和表2相同；3. 淨外購熱力負值指園區合計向外出售的熱力。

Notes: 1. This Table only includes the newly acquired Shandong Yuncheng Base and Dongming Base, so only 2021 data is disclosed; 2. The calculation method in this Table is the same as in Table 2; 3. The negative value of net purchased heat refers to the heat sold by the bases in total.

排放管理

Emission management

作為獨立的焦化企業，我們深知保護生態環境的責任和義務。一直以來，我們積極響應節能減排的號召，不斷加大資金投入，固強補弱實施安全儀表控制系統、污水處理系統、鍋爐濕式電除塵、廢鹼焚燒爐煙氣達標等一系列深度環保提升項目，實現了污水、粉塵、煙氣SO₂、NO_x等超低排放，並在達到超低排放基礎上，創新突破環境治理技術，進一步推進向超超低排放邁進，打造更高標準、更高水平的生態園區、綠色工廠、潔淨生產線。

As an independent coking enterprise, we are well aware of the responsibility and obligation to protect the ecological environment. All along, we have actively responded to the call for energy saving and emission reduction, continuously increased capital investment to implement a series of in-depth environmental protection improvement projects such as safety instrument control system, sewage treatment system, boiler wet electrostatic precipitator and waste alkali incinerator flue gas standard, and achieved ultra-low emissions of sewage, dust, flue gas SO₂ and NO_x, and on the basis of reaching ultra-low emissions, innovated and broke through environmental treatment technologies, further advanced towards ultra-low emissions to build higher standard and higher level ecological bases, green factories and clean production lines.

我們的目標：2021年—2025年 Our goals: 2021-2025



污水排放
Sewage
discharge

焦炭板塊：進一步開展廢水深度處理，污水回收率達到80%以上。

Coke sector: further carry out advanced wastewater treatment to ensure that the wastewater recovery rate may reach more than 80%.

化工板塊：不斷推進廢水零排放技術的利用，減少廢水排放量，開展水平衡測試，統籌優化配置水資源。

Chemical industry sector: continuously promote the utilization of zero discharge technology of wastewater, reduce wastewater discharge, carry out water balance test, and comprehensively optimize the allocation of water resources.



污染物排放
Pollutant
emission

SO₂、NO_x、顆粒物等污染物排放濃度低於園區所在省份的超低排放標準的20%，所在省份無超低排放標準的園區低於國家超低排放標準的20%。

The emission concentration of SO₂, NO_x, particulate matters and other pollutants is lower than 20% of the ultra-low emission standard in the province where the base is located, and where there is no ultra-low emission standard in the province where the base is located, the emission concentration of the base is lower than 20% of the national ultra-low emission standard.



固體廢棄物
Solid waste

固廢100%合規處置或綜合利用。

All the solid waste is disposed of or comprehensively in accordance with relevant provisions.

可持續發展實踐

Sustainable Development Practices

廢水 Waste water	<ul style="list-style-type: none">深度處理：針對生產運營過程中產生的廢水，統一通過污水處理站進行處理。各園區的污水處理站均採用的先進處理工藝，確保經污水處理站淨化處理後的水質符合排放標準。 <p>Advanced treatment: the waste water generated in the production and operation process is uniformly treated through the sewage treatment station. The sewage treatment stations in each base adopts advanced treatment technology to ensure that the water quality after purification by the sewage treatment station meets the discharge standard.</p> <ul style="list-style-type: none">異味管理：在各園區升級優化污水處理異味處理設施，並採取密閉加廢氣處理措施對污水處理站異味進行治理，進一步降低污染物排放。 <p>Odor management: upgrade and optimize the sewage treatment odor treatment facilities in each base, and take closed and waste gas treatment measures to control the odor of the sewage treatment station, so as to further reduce the discharge of pollutants.</p> <ul style="list-style-type: none">應急管理：建設緊急污水池、事故污水池，分別用於暫存、收集裝置排放的高濃度廢水、事故狀態下廢水，確保了不達標廢水的及時處理，有效避免廢水對環境的污染。 <p>Emergency management: build emergency sewage tank and accident sewage tank, which are respectively used to temporarily store and collect the high concentration waste water discharged by the device and the waste water under accident conditions, so as to ensure the timely treatment of substandard waste water and effectively avoid the pollution of waste water to the environment.</p> <ul style="list-style-type: none">雨污分流：建設有初期雨水池、隔油池，嚴格實施雨污分流，避免含油污水對環境的污染，並通過物料的回收，並減少物料的損耗。 <p>Rain and sewage diversion: build initial rain water tank and oil separation tank, strictly implement the provisions on rain and sewage diversion, avoid environmental pollution caused by oily sewage, and reduce material loss through material recycling.</p>
廢氣 Exhaust gas	<ul style="list-style-type: none">升級改造：按照《大氣污染防治行動計劃實施方案》等要求，實施焦爐煙氣中低溫脫硫脫硝、煙氣「脫白」技術、焦爐煙氣超超低改造項目等環保提升項目，減少VOCs、氮氧化物、二氧化硫等污染物的排放。 <p>Upgrading and transformation: according to the requirements of the Implementation Scheme for the Air Pollution Prevention and Control Action Plan, etc., implement environmental protection improvement projects such as medium and low temperature desulfurization and denitration of coke oven flue gas, flue gas "dewhitening" technology and ultra-low transformation project of coke oven flue gas, so as to reduce the emission of VOCs, nitrogen oxides, sulfur dioxide and other pollutants.</p> <ul style="list-style-type: none">封閉管理：儲煤單元實施全封閉改造，同時對煤轉運、煤粉碎、裝煤、推焦、熄焦、篩焦、硫鉍乾燥等粉轉物料、產品的流轉環節安裝封閉、除塵設施減少煤塵、粉塵等顆粒物的逸散。 <p>Closed management: The coal storage unit was completely enclosed for transformation, and the enclosed dust removal facilities were installed for the intermediate links of powder materials and products such as coal transport, coal pulverizing, coal loading, coke pushing, coke quenching, coke screening, and ammoniumsulfur drying to reduce the release of particulate matters such as coal dust and dust.</p>

固廢 Solid waste	危險廢物 Hazardous waste	<ul style="list-style-type: none"> 減少排放：通過技改舉措，提高原輔料利用率，提高催化效率，延長廢舊催化劑的使用壽命，降低更換頻次。精心維護生產設施，杜絕各種廢物的跑冒滴漏。 <p>Reduce emissions: through technical transformation measures, improve the utilization rate of raw and auxiliary materials, improve the catalytic efficiency, prolong the service life of waste catalysts and reduce the replacement frequency. Carefully maintain the production facilities and put an end to the leakage of all kinds of waste.</p> <ul style="list-style-type: none"> 回收利用：化工生產車間產生的焦油渣、酸焦油、瀝青渣、剩餘污泥定期送往備煤系統摻入煉焦煤中綜合利用；脫硫廢液送至提鹽工段進行回收再利用，粗苯工段再生殘渣摻入焦油中綜合利用。 <p>Recycling: transport regularly the tar residue, acid tar, asphalt residue and surplus sludge produced in the chemical production workshop to the coal preparation system and mix them with coking coal for comprehensive utilization; transport the desulfurization waste liquid to the salt extraction section for recycling, and the regeneration residue of the crude benzene section is mixed into tar for comprehensive utilization.</p> <ul style="list-style-type: none"> 合規處置：建設專門的危險廢物暫存間，在該暫存間地面鋪設抗滲混凝土，混凝土層表面鋪設防滲層，建設防溢流地溝且配備滅火器，使其具備防雨、防風、防曬、防滲漏的功能，有效避免污染物洩漏污染環境。與具備危險廢物中處置單位的企業長期合作，確保危險廢物的及時轉移。 <p>Compliant disposal: build a special temporary storage room for hazardous waste, lay impermeable concrete on the ground of the temporary storage room, and lay impermeable layer on the surface of the concrete layer, and build an anti-overflow trench; the temporary storage room shall be equipped with fire extinguishers to enable them to have the functions of preventing rain, wind, sun and leakage, so as to effectively avoid pollutant leakage that may pollute the environment. Ensure the timely transfer of hazardous waste through long-term cooperation with enterprises with hazardous waste disposal units.</p>
	一般固廢 General solid waste	<ul style="list-style-type: none"> 減少排放：優化生產工藝，精心操作，提高鍋爐燃煤利用率，降低煤粉灰和爐渣產生量。在辦公場所鼓勵廢舊硒鼓重新裝墨後再利用。 <p>Reduce emissions: optimize the production process, and improve the utilization rate of boiler coal and reduce the production of pulverized coal ash and slag through careful operation. Encourage the reuse of waste toner cartridges after refilling ink in the office.</p> <ul style="list-style-type: none"> 回收利用：焦炭生產車間除塵設施產生的煤塵和焦塵定期返回煤場摻入煉焦煤中使用，實現綜合利用。 <p>Recycling: the coal dust and coke dust generated by the dust removal facilities in the coke production workshop are regularly returned to the coal yard and mixed with coking coal for comprehensive utilization.</p> <ul style="list-style-type: none"> 合規處置：一般固體廢物主要包括生活垃圾、粉煤灰、爐渣、污泥，其中生活垃圾交由當地城市環衛部門進行統一處置，粉煤灰、爐渣與第三方簽訂合作協議，進行綜合利用，實現廢物資源化；污泥交由第三方合規處置。 <p>Compliant disposal: general solid waste mainly includes domestic waste, fly ash, slag and sludge. Among them, the domestic waste is handed over to the local urban environmental sanitation department for unified disposal, and the fly ash and slag are comprehensively used under the cooperation agreement with a third party for comprehensive utilization and recycling of waste; the sludge is disposed of by a third party.</p>

可持續發展實踐

Sustainable Development Practices



案例
Case

向綠而行，低碳減排再升級

go greening and upgrade the reduction of low-carbon emission

中國焦化行業標桿中煤旭陽是旭陽集團邢台園區循環經濟的源頭，也是邢台旭陽經濟開發區的龍頭企業，其污染物的排放將影響着邢台市區的環境質量。在2020年和2021年，中煤旭陽下決心去產能、降單位能耗，着力實施了超超低減排改造，三項污染物排放值均降到了河北超低排放標準的零頭，2021年污染排放總量只有181噸，比2017年削減近九成。

China Coal Risun, the benchmark of China's coking industry, is the source of circular economy in Xingtai Base of Risun Group and the leading enterprise in Xingtai Risun Economic Development Zone, its pollutant emission will affect the environmental quality of Xingtai's urban area. In 2020 and 2021, China Coal Risun made up its mind to reduce production capacity and unit energy consumption, and focused on the implementation of ultra-low emission reduction transformation. The emission values of the three pollutants were reduced to a fraction of the ultra-low emission standard of Hebei, and its total pollution emission in 2021 was only 181 tons, nearly 90% lower than that in 2017.

經過全方位的改造升級後，從原料入廠到產品出廠全鏈條全封閉，徹底實現了「用煤不見煤、產焦不見焦」。走在乾淨整潔的廠區，聽不到機聲隆隆，看不到煤炭和焦炭的蹤影。工作人員介紹：「我們是全國重污染天氣重點行業績效分級A類企業。」

After the all-round transformation and upgrading, the whole chain from raw materials entering the factory to products leaving the factory is fully closed, and “coal is not seen in the use of coal and coke is not seen in the production of coke” is completely realized. Walking in the clean and tidy factory, no rumble of the machine can be heard and no trace of coal and coke can be seen. The employees said that: “we are rated A in the performance classification of the key industries with heavy pollution weather in China.”

在8號焦爐北側，兩座60多米高的脫硫塔巍然聳立。「這是全國首創的三合一脫硫超超低排放改造裝置，將所有焦爐的裝煤、推焦、乾熄焦三道工序的煙氣集中收集深度脫硫，將二氧化硫排放量降低了九成。」工作人員說，同時他們還在全封閉的火車翻車機廠房實現了無塵卸煤作業。

Two desulfurization towers, 60 meters high, stand on the north side of No. 8 coke oven. “This is China's first three-in-one desulfurization ultra-low emission transformation device, which collects the flue gas from the three processes of coal loading, coke pushing and coke dry quenching of all coke ovens for deep desulfurization, reducing sulfur dioxide emissions by 90 percent.”, the staff said. and at the same time, they also realized dust-free coal unloading in the fully enclosed train dumper workshop.

以上實踐，均是旭陽集團邢台園區實施的九大「超超低排放」項目的縮影。一直以來，集團始終堅持「環保優先、綠色發展，與城市共生共融」的理念，並在未來計劃實施脫硫資源綜合利用項目、深度處理濃鹽水資源化利用項目等一系列綠色低碳轉型升級項目，為保衛藍天碧水再立新功。

The above practices are the epitome of the nine “ultra-low emission” projects implemented in Xingtai Base of Risun Group. For a long time, the Group has always adhered to the concept of “environmental protection first, green development, symbiosis and integration with the city”, and plans to implement a series of green and low-carbon transformation and upgrading projects such as desulfurization resource comprehensive utilization project and advanced treatment concentrated brine recycling project in the future, so as to make new contributions to the protection of blue sky and clear water.

案例 Case

除塵改造減少污染物排放 reduce pollutant emission through dust removal transformation

2021年，河北旭陽對三四五期篩焦、裝車除塵進行技術改造，並於年末建設完成投產運行。項目實施完成後不僅提高裝置除塵效果還大大改善職工現場操作環境，同時除塵器出口氣體含塵濃度 $\leq 10\text{mg/m}^3$ 。

In 2021, Hebei Risun carried out technical transformation on coke screening, loading and dust removal of Phase III, Phase IV and Phase V, and completed the construction and put it into operation at the end of the year. After the completion of the project, it not only improved the dust removal effect of the unit, but also greatly improved the on-site operation environment of employees. At the same time, the dust concentration of the gas at the outlet of the dust collector is $\leq 10\text{mg/m}^3$.

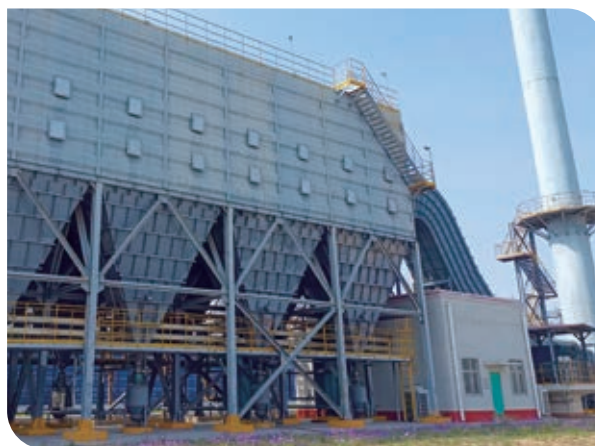


表4：2019-2021年排放物績效
Table 4: 2019-2021 Emission Performance

排放物種類 Category of Emission	單位 Unit	2021年 2021	2020年 2020	2019年 2019
SO ₂ 排放總量 Total SO ₂ emission	噸 (Ton)	255.84	252.81	239.05
SO ₂ 排放密度 SO ₂ emission density	千克/萬元 (kg/RMB 10 thousand)	0.09	0.15	0.14
NO _x 排放總量 Total NO _x emission	噸 (Ton)	879.19	1,090.06	1,242.54
NO _x 排放密度 NO _x emission density	千克/萬元 (kg/RMB 10 thousand)	0.31	0.63	0.70
顆粒物排放總量 Total particle emission	噸 (Ton)	151.15	129.97	183.39
顆粒物排放密度 Particle emission density	千克/萬元 (kg/RMB 10 thousand)	0.05	0.08	0.10
溫室氣體排放總量 Total emission of greenhouse gas	噸CO ₂ e (Ton of CO ₂ e)	2,940,373.23	2,800,743.44	2,576,379.76

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表4：2019-2021年排放物績效
Table 4: 2019-2021 Emission Performance

排放物種類 Category of Emission	單位 Unit	2021年 2021	2020年 2020	2019年 2019
溫室氣體直接排放量 Direct emissions of greenhouse gases	噸CO ₂ e (Ton of CO ₂ e)	2,423,810.34	2,305,227.12	1,986,369.87
溫室氣體間接排放量 Indirect emissions of greenhouse gases	噸CO ₂ e (Ton of CO ₂ e)	516,562.89	495,516.32	590,009.89
溫室氣體排放密度 Greenhouse gas emission density	噸CO ₂ e/萬元 (Ton of CO ₂ e/RMB 10 thousand)	1.04	1.62	1.46
污水排放總量 Total sewage discharge	噸 (Ton)	2,647,206.96	1,133,180.37	2,099,929.01
COD排放總量 Total COD discharge	噸 (Ton)	84.60	54.11	58.82
氨氮排放總量 Total ammonia nitrogen discharge	噸 (Ton)	6.18	3.04	3.86
污水排放密度 Sewage discharge density	噸/萬元 (Ton/RMB 10 thousand)	0.93	0.65	1.19
有害廢棄物產生量 Amount of hazardous waste	噸 (Ton)	49,544.30	51,347.01	51,423.88
有害廢棄物產生密度 Production density of hazardous wastes	噸/萬元 (Ton/RMB 10 thousand)	0.02	0.03	0.03
有害廢棄物處理率 Treatment rate of hazardous waste	% (%)	100.00	100	100
無害廢棄物產生量 Emission of harmless wastes	噸 (Ton)	164,969.29	133,378.32	137,432.87
無害廢棄物產生密度 Emission density of harmless wastes	噸/萬元 (Ton/RMB 10 thousand)	0.06	0.08	0.08
無害廢棄物處理率 Treatment rate of non-hazardous waste	% (%)	100.00	100	100

註： 1. 廢氣中SO₂、NO_x及顆粒物的排放數據根據本集團在線監測系統及自行監測統計核算得出；2. 溫室氣體排放量依據世界資源研究所(WRI)和世界可持續發展工商理事會(WBCSD)發佈的《溫室氣體核算體系－企業核算與報告標準》、政府間氣候變化專門委員會(IPCC)以及《中國獨立焦化企業溫室氣體排放核算方法與報告指南(試行)》核算得出，其中電力部分的溫室氣體排放因子參照生態環境部《企業溫室氣體排放核算方法與報告指南發電設施(2021年修訂版)》選取；3. 有害廢棄物產生量、污水排放量根據本集團生產系統統計台賬核算；4. COD、氨氮排放總量根據第三方監測報告核算得出；5. 無害廢棄物主要為生活垃圾，其排放總量按照0.5kg/人/天核算；6. 密度類數據按排放量/產生量除以營業收入核算得出；7. 此表2019年－2021年數據不包括新收購的山東鄆城園區和東明園區。

Note: 1. The emission data of SO₂, NO_x and particulate matters in the exhaust gas are calculated according to the on-line monitoring system and self-monitoring and statistics of the Group; 2. Greenhouse gas emissions are calculated according to the Greenhouse Gas Protocol-Enterprise Accounting and Reporting Standard issued by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD), the Intergovernmental Panel on Climate Change (IPCC), and the Guide for Calculating Method and Reporting of Greenhouse Gas Emissions of Independent Coking Enterprises of China (Tentative), among which the greenhouse gas emission factor with respect to power generation is selected according to the Guide for Calculating Method and Reporting of Greenhouse Gas Emissions: Power Generation Facilities (Revision 2021) issued by the Ministry of Ecological Environment; 3. The total amount of hazardous waste and sewage discharge are calculated according to the statistical account of the production system of the Group; 4. Total COD and ammonia nitrogen emissions are calculated according to the third-party monitoring report; 5. The nonhazardous waste is mainly domestic garbage, and the total amount of discharge is calculated based on 0.5kg/person/day; 6. The density data is calculated according to the emission/production divided by the operating revenue; 7. The 2019-2021 data in this Table does not include the newly acquired Shandong Yuncheng Base and Dongming Base.



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表5：2021年度山東鄆城園區和東明園區排放物績效
Table 5: 2021 Emissions Performance of Shandong Yuncheng Base and Dongming Base

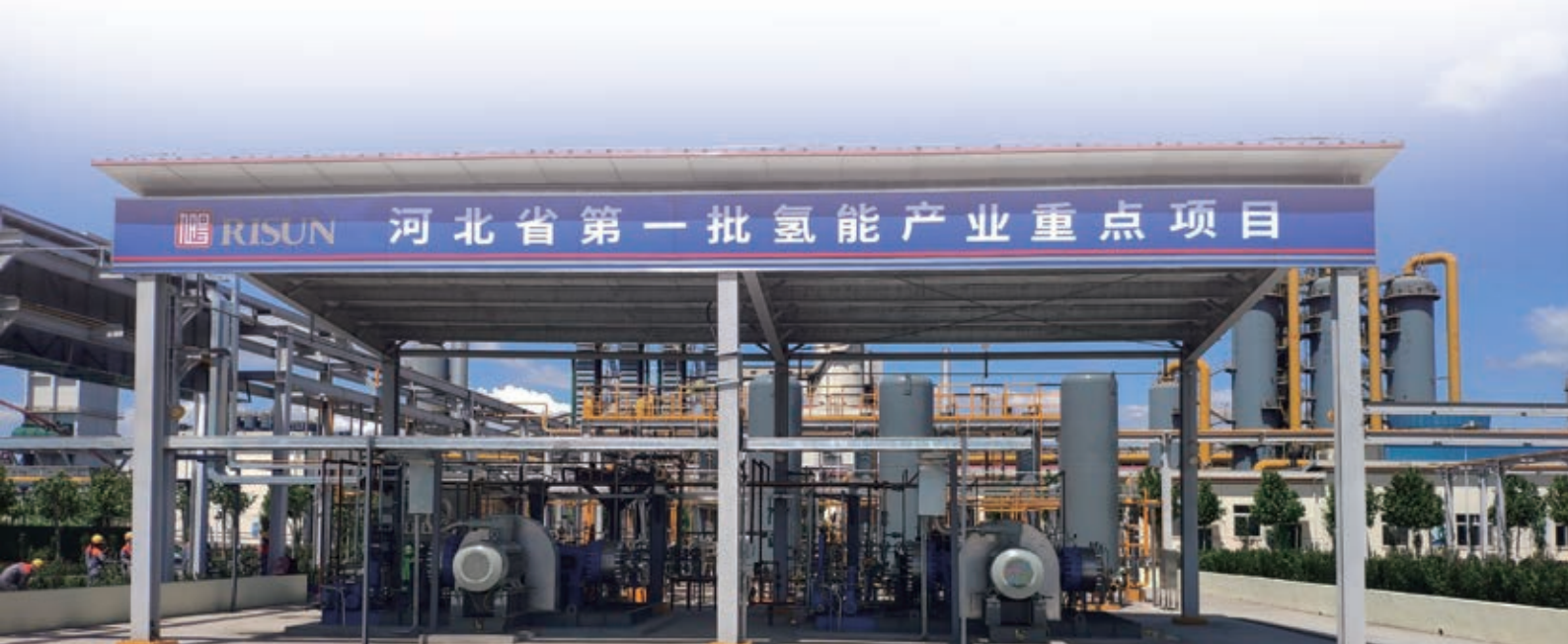
排放物種類	單位 Unit	2021年 2021
SO ₂ 排放總量 Total SO ₂ emission	噸 (Ton)	42.76
SO ₂ 排放密度 SO ₂ emission density	千克／萬元 (kg/RMB 10 thousand)	0.05
NO _x 排放總量 Total NO _x emission	噸 (Ton)	294.50
NO _x 排放密度 NO _x emission density	千克／萬元 (kg/RMB 10 thousand)	0.36
顆粒物排放總量 Total particle emission	噸 (Ton)	15.11
顆粒物排放密度 Particle emission density	千克／萬元 (kg/RMB 10 thousand)	0.02
溫室氣體排放總量 Total emission of greenhouse gas	噸CO ₂ e (Ton of CO ₂ e)	1,830,926.54
溫室氣體直接排放量 Direct emissions of greenhouse gases	噸CO ₂ e (Ton of CO ₂ e)	1,803,810.07
溫室氣體間接排放量 Indirect emissions of greenhouse gases	噸CO ₂ e (Ton of CO ₂ e)	27,116.47
溫室氣體排放密度 Greenhouse gas emission density	噸CO ₂ e／萬元 (Ton/RMB 10 thousand)	2.22
污水排放總量 Total sewage discharge	噸 (Ton)	2,707,628.00
COD排放總量 Total COD discharge	噸 (Ton)	318.10
氨氮排放總量 Total ammonia nitrogen discharge	噸 (Ton)	3.23
污水排放密度 Sewage discharge density	噸／萬元 (Ton/RMB 10 thousand)	3.29

表5：2021年度山東鄆城園區和東明園區排放物績效
Table 5: 2021 Emissions Performance of Shandong Yuncheng Base and Dongming Base

排放物種類	單位 Unit	2021年 2021
有害廢棄物產生量 Amount of hazardous waste	噸 (Ton)	196,005.83
有害廢棄物產生密度 Production density of hazardous wastes	噸／萬元 (Ton/RMB 10 thousand)	0.24
有害廢棄物處理率 Treatment rate of hazardous waste	%	100.00
無害廢棄物產生量 Emission of harmless wastes	噸 (Ton)	155,296.73
無害廢棄物產生密度 Emission density of harmless wastes	噸／萬元 (Ton/RMB 10 thousand)	0.19
無害廢棄物處理率 Treatment rate of non-hazardous waste	%	100.00

註： 1. 此表僅包括新收購的山東鄆城園區和東明園區，因此僅披露2021年數據；2. 此表中計算方法和表4相同。

Notes: 1. This Table only includes the newly acquired Shandong Yuncheng Base and Dongming Base, so only 2021 data are disclosed; 2. The calculation method in this Table is the same as that in Table 4.





社會篇 Society

健康與安全

Health and safety

安全生產

Safety production

安全是企業發展的生命線，是不可逾越紅線。本集團始終將安全放在第一位，將員工生命安全放在第一位，嚴格遵守《中華人民共和國安全生產法》《中華人民共和國安全生產許可證條例》《河北省安全生產條例》等有關法律法規，不斷夯實管理基礎，改進安全管理體系和制度體系，推動落實生產經營單位安全生產主體責任，深入推進安全生產風險分級管控和隱患排查治理雙重預防機制建設，提升安全風險防控水平，落地安全生產檢查，致力於搭建安全生產的長效機制，提高安全生產管理水平，打造本質安全型企業。

Safety is the lifeline of development of the Group and the impassable red line. The Group, always putting safety in the first place and the safety of employees' lives in the first place, stringently complying with laws and regulations, such as the Law of the People's Republic of China on Production Safety, the Regulation on Work Safety Permits of the People's Republic of China, and the Regulation on Production Safety of Hebei province, continued to reinforce the foundation for management, improved the safety management system and institutional system, promoted the implementation of the primary responsibility for safety production of the production and operation units, further promoted the construction of the double prevention mechanism of safety production risk control by ranking and elimination and handling of hidden dangers to improve the level of risk prevention and control, carried out safety production inspection, and dedicated to construct a long-term mechanism for safety production to improve the safety production management level and build the Group into an intrinsically safe enterprise.

報告期內，本集團在安全培訓、消防設施器材維護保養、安全措施項目、員工安全獎勵金等方面安全生產投入21,114.98萬元人民幣。除投產時間較短的唐山旭陽芳烴（苯乙烯項目公司）外，全部生產型子公司獲評國家安全生產標準化二級以上企業，安全生產形勢持續向好。

During the reporting period, the Group invested RMB 211.1498 million in safety production, such as safety training, maintenance of fire-fighting facilities and equipment, safety precautions, and safety bonus for employees. Except for Tangshan Risun Aromatics (styrene project company), which has been in production for a short time, all production subsidiaries were honored as enterprise of above grade II national work safety standardization. The situation of safety production continues to improve.

可持續發展實踐 Sustainable Development Practices

<p>推行安全目標管理 Carry out safety target management</p>	<ul style="list-style-type: none"> 制定年度安全目標、指標，並以責任書的形式將年度目標、指標分解至各子公司，各子公司圍繞安全生產的總目標層層分解落實，並定期對安全目標完成情況進行考核，規範管理。 <p>Formulate the annual safety objectives and indicators, and divide the annual goals and indicators to the subsidiaries in the form of responsibility letters. Each subsidiary divided and implemented the general objective of production safety layer by layer, and conducted regular assessment on the completion of safety objectives to standardize the management.</p>
<p>健全安全責任體制 Improve the safety responsibility system</p>	<ul style="list-style-type: none"> 成立安全生產委員會，建立了以主要負責人為核心的覆蓋各子公司、各層級、各部門、各類人員的全員崗位安全生產責任制，明確各崗位的責任人員、責任範圍、責任清單；並定期組織召開安全專題會議，協調解決各子公司安全生產過程中存在的問題。 <p>Set up the safety production committee and establish the safety production responsibility system for all posts of all subsidiaries, levels, departments, and employees with the responsible person as the core, specifying the responsible persons of all posts, scope of responsibility, list of responsibilities; and organize and hold safety meetings regularly to coordinate and solve the problems in the safety production process of each subsidiary company.</p> <ul style="list-style-type: none"> 建立覆蓋全體員工的安全責任考核機制，制定量化的考核指標和獎罰標準，夯實全員的安全生產責任意識。 <p>Establish a safety responsibility assessment mechanism covering all employees, and formulate quantitative assessment indicators and reward and punishment standards to consolidate the safety production responsibility consciousness of all employees.</p>
<p>風險排查及隱患治理 Risk investigation and hidden danger control</p>	<ul style="list-style-type: none"> 開展全員、全過程、全方位風險辨識評價活動，對「人、物、環、管」進行全面風險辨識評價，有效遏制安全生產事故的發生。開展風險管控動態評估活動。針對風險辨識結果，組織專題培訓與工程技術措施安全部署專題會。風險辨識評價工作的持續推進，做到動態循環管理，提高風險管控水平。 <p>Carry out all-staff, whole-process and all-round risk identification and evaluation activities to identify and evaluate comprehensively the risks in connection with "people, materials, environment and management", so as to effectively curb the occurrence of safety production accidents. Carry out dynamic evaluation on risk management and control. According to the risk identification results, organize special training and special meeting on safety deployment of engineering technical measures. Continuously promote the risk identification and evaluation, achieve dynamic circular management and improve the level of risk control.</p> <ul style="list-style-type: none"> 按照安全標準化要求，制定隱患排查計劃，並開展日常安全檢查、綜合性檢查、專業性檢查、節假日檢查、事故類比等檢查活動。按照《風險管控信息台賬》制定《隱患排查清單》，對較大、重大風險的管控措施進行重點檢查，從源頭治理隱患。通過循序漸進、持之以恆的隱患排查有效的保證「零事故」安全目標的實現。 <p>According to the requirements of safety standardization, formulate hidden danger investigation plan, and carry out daily safety inspection, comprehensive inspection, professional inspection, holiday inspection, accident analogy inspection etc. Prepare the Hidden Safety Hazard Inspection List according to the Risk Control Information Account, focus on the inspection of the control measures of large and major risks, and deal with the hidden dangers from the source. Through step-by-step and persistent hidden danger investigation, effectively ensure the realization of the safety goal of "zero accident".</p>

可持續發展實踐 Sustainable Development Practices

<p>生產安全事故應急體系建設</p> <p>Construction of emergency system for production safety accidents</p>	<ul style="list-style-type: none"> • 明確董事長為應急管理第一負責人，調度室為應急值班室，實行24小時值班制度，應急預案中成立以董事長為總指揮，各車間部門負責人為組長的應急小組，並明確各小組職責範圍。 <p>Make it clear that the chairman is the first person in charge of emergency management and the dispatching room is the emergency duty room. Implement the 24-hour duty system. According to the emergency plan, establish an emergency team with the chairman as the general commander and the heads of all workshop departments as the team leader, and clarify the scope of responsibilities of each team.</p> <ul style="list-style-type: none"> • 成立專職消防隊24小時備勤，出現應急情況第一時間到達現場進行應急處置。 <p>Set up a full-time fire brigade which may be available 24 hours a day and may arrive at the scene for emergency disposal in case of emergency.</p> <ul style="list-style-type: none"> • 根據應急預案編製導則進一步修訂完善《生產安全事故應急預案》。 <p>Further revise and improve the Emergency Plan for Production Safety Accident according to the guidelines for the preparation of emergency plan.</p> <ul style="list-style-type: none"> • 按照《2021年應急演練計劃》，定期開展多層級多形式應急演練活動，實現以練查備、以練促改、戰備結合。 <p>According to the 2021 Emergency Drill Plan, carry out multi-level and multi form emergency drill activities regularly to realize the goal of checking the preparedness through drill and urging the rectification through drill.</p>
<p>加強特殊作業管控</p> <p>Strengthen the management and control of special operations</p>	<ul style="list-style-type: none"> • 根據國家《化學品生產單位特殊作業安全規程》要求，繼續推行特殊作業許可證管理程序，不斷提高特殊作業管控力度，避免違規行為發生。 <p>According to the requirements of the Safety Code of Special Work in Chemical Manufactory, continue to implement the management procedures of special work permit, continuously improve the management and control of special operations, and avoid the occurrence of violations.</p> <ul style="list-style-type: none"> • 嚴控現場動火、受限作業頻次，加大「集中動火日」管理力度，嚴格執行監護人、審核人資格審查制度，強化責任落實，降低作業風險。 <p>Strictly control the frequency of on-site hot work and restricted operation, strengthen the management of “centralized hot work day”, strictly implement the qualification examination system for supervisors and reviewers, strengthen the implementation of responsibilities and reduce operation risks.</p> <ul style="list-style-type: none"> • 利用作業危害分析(JHA)的風險分析方法，開展特殊作業前風險分析評價，實現特殊作業風險的可知可控。 <p>Use the risk analysis method of job hazard analysis (JHA) to carry out risk analysis and evaluation before special operation, so as to realize the knowable and controllable risk of special operation.</p>

加強承包商安全管理 Strengthen the contractor safety management

- 推進外委施工「雙控」體系建設，構建風險分級管控與隱患排查治理雙重預防機制。
Promote the construction of “dual control” system for outsourced construction, and build a dual prevention mechanism of hierarchical risk control and hidden danger investigation and treatment.
- 發揮第三方HSE公司在項目建設期間的監管和服務作用，建立完善的項目建設安全管理規章制度。
Give full play to the supervision and service role of the third-party HSE company during the project construction, and establish perfect rules and regulations for project construction safety management.
- 將承包商納入基層單位管理，推動承包商責任主體意識建設，將承包商安全管理能力作為承包商准入的重要考評內容，形成成熟的承包商自主安全管理要求。
Bring the contractor into the management of grass-roots units, promote the construction of the Contractor's sense of responsibility, take the Contractor's safety management ability as an important factor for evaluating the contractor's access qualifications, and form mature requirements for the contractor's independent safety management.

安全教育

Safety education

安全教育是實現安全生產的關鍵環節。我們針對安全管理人員、特種作業人員、從業人員、新入職員工以及承包商等群體，分級分類開展安全培訓，並通過教材規範化、時間經常化、教師專業化、形式多樣化、對象全員化、考核獎懲化，豐富培訓和活動形式，推動「日分享、月培訓、季排名、年競賽」，以促進全員增強安全意識、提升安全技能，為安全生產、可持續發展保駕護航。

Safety education is the key link to realize safety production. We carry out safety training for safety management personnel, special operators, staff, new recruits and contractors etc. at different levels and categories, and enrich the forms of training and activities through standardization of teaching materials, regular time, specialization of teachers, diversification of forms, full participation of all employees, reward and punishment, and promote “daily sharing, monthly training, quarterly ranking and annual competition”, so as to promote all staff to enhance safety awareness and safety skills, and escort safe production and sustainable development.



可持續發展實踐

Sustainable Development Practices

分類開展培訓 Classified training	特種作業人員 Special operators	<ul style="list-style-type: none"> 對於從事特種作業人員和特種設備作業人員嚴格執行國家及地方政府有關部門規定，定期組織進行專業安全教育和操作技能培訓，取得特種作業操作資格證書後方可上崗，杜絕無證上崗。 <p>Strictly comply with the provisions of relevant departments of the national and local governments for special operators and operators of special equipment, regularly organize professional safety education and operation skills training. Only those obtain the qualification certificate of special operations can be employed to eliminate work without certificate.</p>
	中高層幹部及工程師 Middle and high-level cadres and engineers	<ul style="list-style-type: none"> 組織中高層幹部及工程師脫產安全培訓，夯實中高層幹部及工程師安全意識、提高安全技能。 <p>Organize off-duty safety training for middle and high-level cadres and engineers, consolidate the safety awareness of the middle and high-level cadres and engineers and improve their safety skills.</p>
	新員工 New recruits	<ul style="list-style-type: none"> 嚴格落實三級安全教育，開展安全法規、安全操作規程、安全警示案例等方面的培訓，並進行考核，考核不合格者不得上崗。 <p>Strictly implement the three-level safety education, carry out trainings on safety regulations, safety operation procedures, and safety warning cases, and carry out examination.</p>
	承包商 Contractors	<ul style="list-style-type: none"> 推行承包商負責人月度安全培訓，每月組織承包商項目經理、技術總工以及安全管理人員進行安全培訓。 <p>Carry out monthly safety training for the person in charge of the contractor, and organize the contractor's project manager, chief technical engineer and safety management personnel to participate in safety training every month.</p> <ul style="list-style-type: none"> 對承包商進行入廠安全培訓教育，並經考試合格方可作業。 <p>Carry out safety training and education for contractors on entry to the factory. The contractors cannot operate before passing the examination can operation.</p>

可持續發展實踐 Sustainable Development Practices

豐富培訓形式 Diversified training forms	警示教育 Warning education	<ul style="list-style-type: none"> 經常性的開展安全警示教育，重點學習同行業發生的生產安全事故案例，剖析事故原因、吸取事故教訓、嚴防類似事故。 <p>Regularly carry out safety warning education, focus on learning the cases of production safety accidents in the same industry, analyze the causes of the accidents, and draw lessons from the accidents to strictly prevent similar accidents.</p>
	線上學習 Online learning	<ul style="list-style-type: none"> 利用旭陽大學網絡學院的平台，持續開展每月一主題的安全法律法規及規範學習活動。 <p>Use the platform of Network College of Risun University to continuously carry out monthly safety laws, regulations and norms learning activities.</p>
	安全活動 Safety activities	<ul style="list-style-type: none"> 以安全生產月、百日安全無事故活動為載體，開展演講比賽、徵文、知識競賽、技能對抗賽評選「安全衛士」等多種形式的安全活動，營造人人講安全的文化氛圍。 <p>Carry out the speech contest, writing competition, knowledge contest and skill matches to elect the "safety guard", and other forms of safety activities through such carriers as safety production month and one hundred-day without accidents activities, to create the culture atmosphere of everyone talking about safety.</p>



邢台旭陽化工組織「四不傷害」安全承諾簽名活動
Xingtai Risun Chemical organized the signing activity for commitment on "no four types of harms"



邢台旭陽煤化工組織安全支持有獎答題活動
Xingtai Risun Coal Chemical organized safety support award-winning answer activity

可持續發展實踐 Sustainable Development Practices



滄州旭陽化工組織2021年消防宣傳月技能比武活動
Cangzhou Risun Chemical organized the skills competition in the Fire
Publicity Month 2021



唐山旭陽化工組織員工安全知識培訓及考試
Tangshan Risun Chemical organized staff safety knowledge training and
examination

表6：2021年安全方面的績效
Table 6: Safety Performance in 2021

指標名稱 Name of Indicator	單位 Unit	2021年度 2021
安全教育培訓次數 Frequency of safety education and training	次 (Times)	276
安全教育培訓人次 Number of persons participating in the safety education and training	人次 (Person)	68,406
安全應急演練次數 Frequency of safety emergency drills	次 (Times)	2,971
安全應急演練參與人次 Number of persons participating in the safety emergency drill	人次 (Person)	22,026

職業健康

Occupational health

本集團始終堅持「預防為主、防治結合」的方針，嚴格遵守《中華人民共和國安全生產法》、《中華人民共和國職業病防治法》等相關法律法規，不斷夯實職業健康安全管理体系，強化職業病危害防治措施，定期組織員工體檢，確保員工職業健康。

The Group, adhering to the guideline of 「focusing on prevention and combining prevention with control」 and stringently complying with relevant laws and regulations such as the Production Safety Law of the People's Republic of China and the Law of the People's Republic of China on Prevention and Control of Occupational Diseases, constantly strengthened the occupational health and safety management system, strengthened the occupational diseases prevention and control measures, and periodically organized physical examination for employees to ensure the occupational health of the employees.

可持續發展實踐 Sustainable Development Practices

報告期內，本集團未發生職業病病例，職業病體檢覆蓋率達到100%。

During the reporting period, the Group had no occupational disease. And all the employees of the Group participated in occupational disease physical examination.

<p>完善職業健康安全管理 制度 Improve the occupational health management system</p>	<ul style="list-style-type: none"> 制定《職業病危害警示與告知制度》《職業病危害項目申報制度》《職業病防治宣傳教育培訓制度》《職業病防護設施維護檢修制度》等多項管理制度，為職業健康安全管理奠定堅實基礎。 <p>Establish a number of management systems, such as the System of Warning and Informing of the Occupational Hazard, the Application System for Occupational Hazard Projects, the Occupational Disease Related Publicity, Education and Training System and the Maintenance and Service System of Occupational Disease Prevention Facilities, laying a solid foundation for occupational health and safety management.</p>
<p>健全職業健康安全管理 體系 Improve occupational health and safety management system</p>	<ul style="list-style-type: none"> 成立職業衛生管理機構，指定安全部為職業衛生管理機構，並任命職業衛生管理人員，分別明確具體職責。 <p>Establish an occupational health management organization, designate the safety department as the occupational health management organization, appoint occupational health management personnel and clarify their specific responsibilities respectively.</p> <ul style="list-style-type: none"> 每年初制定職業危害防治計劃與實施方案，推動整體職業健康安全管理水平提升。 <p>At the beginning of each year, formulate the occupational hazard prevention plan and implementation plan to promote the improvement of the overall occupational health and safety management level.</p>
<p>開展職業危害因素監測 與管理 Carry out monitoring and management of occupational hazard factors</p>	<ul style="list-style-type: none"> 定期委託專業第三方機構完成職業危害因素監測。 <p>Regularly entrust a professional third-party organization to complete the monitoring of occupational hazard factors.</p> <ul style="list-style-type: none"> 定期由專人負責作業場所職業危害日常監測，並記錄檢測結果。 <p>Designate a person to be responsible for the daily monitoring of occupational hazards in the workplace and for recording the test results.</p> <ul style="list-style-type: none"> 對工作場所可燃、有毒氣體報警器進行年度檢驗檢測。 <p>Carry out annual inspection and detection of combustible and toxic gas alarms in the workplace.</p>

可持續發展實踐 Sustainable Development Practices

<p>加強職業健康作業區域管理 Strengthen the management of occupational health operation area</p>	<ul style="list-style-type: none"> 在涉及職業病危害的區域醒目位置設置公告欄，公示職業病防治的規章制度、操作規程、職業病危害事故應急救援措施和工作場所職業病危害因素檢測結果。 <p>Set up a notice board in a conspicuous position in areas involving occupational disease hazards to publicize the rules for and regulations on occupational disease prevention and control, operating procedures, emergency rescue measures for occupational disease hazard accidents and the detection results of occupational disease hazard factors in the workplace;</p> <ul style="list-style-type: none"> 採用自動控制系統，並設置有緊急停車系統，在整個生產裝置區設置報警，並由專人定期進行巡檢。 <p>Adopt automatic control system, set emergency shutdown system, install alarms in the whole production unit area, and designate a person to be responsible for regular patrol inspection.</p>
<p>加強員工職業健康管理 Strengthen the employee occupational health management</p>	<ul style="list-style-type: none"> 制定《勞動防護用品發放標準》，定期為員工發放勞動防護用品；在可能造成職業病危害的工作場所，或因進行設備檢修而不得不接觸高濃（強）度有害物質時，為員工配發有效的個人防護用品。 <p>Formulate the Labor Protective Equipment Distribution Standards and regularly distribute labor protective equipment to employees; effective personal protective equipment shall be distributed to employees in workplaces that may cause occupational disease hazards, or when they have to contact high concentration (strong) harmful substances due to equipment maintenance.</p> <ul style="list-style-type: none"> 開展健康教育，普及防護知識，推動員工通過培訓要求，積極學習有關職業病防治的政策和法規、職業危害及其防護知識。 <p>Carry out health education, popularize protection knowledge, and promote employees to actively learn relevant policies and regulations on occupational disease prevention and control, occupational hazards and protection knowledge according to training requirements.</p> <ul style="list-style-type: none"> 定期組織相關崗位員工進行職業健康檢查，並及時將檢查結果書面告知員。 <p>Regularly organize the employees of relevant posts to accept occupational health examination, and timely inform them in writing of the examination results.</p> <ul style="list-style-type: none"> 規範員工職業健康監護檔案管理，確保所有資料齊全、真實有效、可查。 <p>Standardize the management of employees' occupational health monitoring files to ensure that all materials are complete, true, effective and verifiable.</p>

優質產品

Quality products

本集團嚴格遵守《中華人民共和國產品質量法》等法律法規，樹立「質量第一」的意識，深入開展全過程質量管理，提高產品和服務質量。我們堅持誠實守信原則，將煤化工等產品卷標按要求規範標識，保證信息真實準確；我們堅持「以市場為導向，以客戶為中心」的經營理念，加強品牌管理，主動了解客戶在採購和使用焦炭、化工產品過程中出現的問題，及時向客戶回饋解決方法，規範客戶數據管理，注重保護客戶隱私；我們推進企業產品的技術創新，並制定專利保護機制，促進產品性能與質量的不斷提升。我們全方位保障每個產品的交付品質，樹立良好品牌形象和市場聲譽，提升本集團在全國範圍內的競爭力。

The Group stringently complies with the laws and regulations such as the Law of the People's Republic of China on Product Quality and has established the awareness of 「quality first」 and carried out the whole-process quality management to improve the quality of products and services. We adhere to the principle of honesty and trustworthiness, and label the coal chemical products and other products according to the standard as required to ensure that the information is true and accurate; we adhere to the “Market-Oriented, Customer-Centric” business philosophy, strengthen brand management, take the initiative to find out the problems of customers in the purchase and use of coke and chemical product, timely feedback solutions to customers, standardize customer data management, and pay attention to the protection of customer privacy; we promote the technological innovation of enterprise products and formulate the patent protection mechanism to promote the continuous improvement of product performance and quality. We provide all-around assurance for the quality of each product delivered to establish a good brand image and market reputation, and increase the competitiveness of the Group in the country.

報告期內，本集團未收到與產品及服務相關的用戶重大投訴。

During the reporting period, the Group did not receive any significant complaints from customers concerning products and services.

保障產品質量

Guarantee product quality

本集團不斷完善質量管理體系，加強產品研發設計，嚴控原材料採購，實施標準化作業，實現全過程質量控制，使質量管理工作精益求精，焦炭及化工產品嚴格執行並滿足《冶金焦炭(GB/T1996-2017)》《煤焦油(YB/T5075-2010)》《粗苯YB/T5022-2016》《工業甲醇GB338-2011》《硫酸銨GB/T535-1995》《液體無水氨GB/T536-2017》等行業相關標準。

The Group continues to improve the quality management system, strengthens product research and development and design, strictly controls raw material procurement, implement standard operations, realizes whole-process quality control, and keeps improving the quality management work. The Group stringently executes and complies with relevant industrial standards for coke and chemical products, such as the Coke for Metallurgy (GB/T1996-2017), the Coal Tar (YB/T5075-2010), the Crude Benzene (YB/T5022-2016), the Industrial Methanol (GB338-2011), the Ammonium Sulfate (GB/T535-1995) and the Liquid Anhydrous Ammonia (GB/T536-2017).

報告期內，本集團焦炭及化工產品客戶滿意率達到100%，全部生產型企業獲得ISO9001質量管理體系認證。

During the reporting period, the customer satisfaction of coke and chemical products of the Group reached 100%, and all production enterprises have obtained the ISO9001 quality management system certification.

可持續發展實踐

Sustainable Development Practices

建立質量管理體系 Establish the quality management system

- 建立覆蓋各生產園區的質量管理體系並持續運行，明確了各生產園區、職能部門、項目經理及相關工作崗位的職能職責，規範並完善了產品質量控制，以全面改進產品工作質量，滿足客戶需求。

Set up and continuously operate the quality management system covering all production bases, define the functions and responsibilities of all production bases, functional departments, project managers and related posts, standardize and improve product quality control to comprehensively improve the product and work quality and meet customer needs.

完善質量管控考核制度 Improve the quality control and appraisal system

- 制定並完善《質量管理制度》《產品質量管控規定》《質量控制點及考核辦法》《不合格品控制程序》《質量事故管理辦法》等制度或管理辦法，以制度為保障，進一步推進質量提升。

Formulate and improve such systems or administrative measures as the Quality Management System, the Regulations on Product Quality Management and Control, the Quality Control Points and Appraisal Methods, the Non-conforming Products Control Procedure, and the Administrative Measures for Quality Accidents to further promote the quality improvement with the system as the guarantee.

加強質量預警管理 Strengthen quality early warning management

- 結合生產及原料、產品檢驗過程中出現的各類異常情況及異常信息，通過主動、及時公示預警和警示信息，快速啟動應急預案，避免質量損失的產生和質量問題的重複發。

In combination with various abnormal situations and abnormal information in the process of production, raw materials and product inspection, quickly start the emergency plan through active and timely publicity of early warning information, so as to avoid the occurrence of quality loss and repeated quality problems.

建立質量問題處理機制 Establish the quality problem handling mechanism

- 制定《事件調查、不符合及不合格品控制程序》《不合規品控制程序》等程序文件。

Formulate procedure documents such as the Control Procedures for Incident Investigation, Nonconformity and Nonconforming Product.

- 當生產品出現不合格情況時，及時溯源分析，並督促制定糾正措施並跟蹤落實，做到閉環管理。

In case of unqualified products, make traceability analysis in a timely manner and urge the formulation of corrective measures and follow up the implementation, so as to achieve closed-loop management.

開展顧客滿意度測評 Conduct customer satisfaction evaluation

- 定期針對主要產品開展顧客滿意情況調查，調查內容包括對產品質量滿意度、交付產品及時率、產品價格、服務及時性、有效性等。

Regularly conduct customer satisfaction surveys for major products. The survey content includes product quality satisfaction, product delivery timeliness rate, product prices, service timeliness, effectiveness, etc.

優質客戶服務

Quality customer service

本集團嚴格遵守《中華人民共和國消費者權益保護法》等相關法律法規，全面落實以客戶為中心，為客戶創造價值的理念，制定實施《客戶服務及對內要求細則》《客戶管理與溝通制度》等要求，定期調查了解客戶滿意度，及時了解客戶的營運和需求，完善客戶投訴機制，以提供更優質的產品和服務，更好滿足客戶要求。

The Group stringently complies with relevant laws and regulations such as the Law of the People's Republic of China on Protecting Consumers' Rights and Interests, fully implements the concept of customer-centered and creating value for customers, formulates and implements requirements including the Rules for Customer Service and Internal Requirements and the Customer Management and Communication System, regularly investigates and understands customer satisfaction, timely understands customers' operation and needs, and improve the customer complaint mechanism to provide better products and services and better meet customers' requirements.

加強客戶溝通 Strengthen customer communication	<ul style="list-style-type: none"> 靈活通過電話、實地走訪、電子郵件等方式和客戶進行溝通交流，明確溝通層級提供溝通效率，及時了解客戶對於產品質量、服務評價等方面的反饋。 <p>Flexibly communicate with customers through telephone, field visit, e-mail and other means, clarify the communication level to ensure the communication efficiency, and timely understand customers' feedback on product quality and service evaluation.</p>
開展客戶意見調查 Conduct survey on customers' opinions	<ul style="list-style-type: none"> 定期向客戶發放「客戶滿意度調查表」，對調查結果按客戶滿意程度或按客戶不滿意原因進行分類並解決。 <p>Regularly distribute "customer satisfaction questionnaire" to customers, classify and solve the survey results according to customer satisfaction degree or reasons for customer dissatisfaction.</p>
落實客戶意見建議 Implement customers' comments and suggestions	<ul style="list-style-type: none"> 及時由有關部門跟蹤落實客戶意見建議，制定改進和落實方案，限定落實時間，明確落實責任人和考核辦法，對於重大意見和建議的落實情況，建立後續跟蹤機制，並形成書面報告進行存檔。 <p>Relevant departments shall timely follow up the implementation of customers' comments and suggestions, formulate improvement and implementation plans, limit the implementation time, clarify the responsible person and assessment methods, establish a follow-up tracking mechanism for the implementation of major comments and suggestions, and form a written report for archiving.</p>
加強客戶投訴管理 Strengthen the customer complaint management	<ul style="list-style-type: none"> 建立客戶投訴管理制度，明確各部門職責，實現迅速處理客戶投訴事件，促進產品質量提高和售後服務的改善。 <p>Establish a customer complaint management system, clarify the responsibilities of each department, and quickly deal with customer complaints to promote the improvement of product quality and after-sales service.</p>

可持續發展實踐 Sustainable Development Practices

技術創新研發

Technological innovation and R&D

創新是轉型發展的重要驅動力。集團的發展走的是一條創新引領、技術驅動的道路，以「集團總工程師及集團生產技術部－各園區工程技術研究中心/技術創新中心－各生產公司生產技術部」的三級研發創新體系為基礎，形成了「從無到有」（新產品新工藝新技術開發）和「技改技措」（現有裝置持續優化升級）兩大類研發創新系統，構築起創意、小試、中試、產業化、工程設計全研發產業鏈，支撐和拉動企業裝置效能、生產效率、產品質量、服務水平等實現全方位提升。並在創新過程中，重視知識產權及專利保護，保護屬於集團的重要資產。

Innovation is an important driving force for transformation and development. The development of the Group is guided by innovation and driven by technology. Based on the three-level R & D innovation system of “the Group’s chief engineer and Production Technology Department—Engineering Technology Research Center of each base/Technology Innovation Center—Production Technology Department of each production company”, it has formed two types of R & D and innovation systems, namely “innovation from scratch” (development of new products, new processes and new technologies) and “technical transformation and technical measures” (continuous optimization and upgrading of existing devices), and built a full R & D industrial chain of creativity, small-scale test, middle test, industrialization and engineering design, so as to support and drive the enterprise to improve its device efficiency, production efficiency, product quality and service level in an all-round way. And in the process of innovation, the Group paid attention to intellectual property and patent protection to protect its important assets.

報告期內，本集團投入研發資金109,166.07萬元人民幣。本集團未發生涉及知識產權及品牌保護方面的糾紛、索賠與訴訟。

During the reporting period, the Group invested RMB 1,091.6607 million in R & D. The Group has no disputes, claims and litigation involving intellectual property rights and brand protection.



本集團投入研發資金

109,166.07 萬元人民幣

The Group invested RMB

1,091.6607 million in R & D





圖：旭陽創新之路
Figure: Innovation Road of Risun

可持續發展實踐

Sustainable Development Practices

知識產權保護 Intellectual property protection

- 嚴格遵守《中華人民共和國專利法》等有關規定，制定《專利管理制度》《專利撰寫申請制度》《知識產權管理制度》等制度，規範專利技術、專有技術管理，明確專利、專有技術申請渠道，促進科技創新發展的同時保護知識產權，構築自主創新的知識產權體系，更好保護技術優勢。

Strictly abide by the relevant laws and regulations such as Patent Law of the People's Republic of China, formulate such systems as the Patent Management System, the Patent Writing Application System and the Intellectual Property Management System, so as to standardize the management of patent technology and proprietary technology, clarify the application channels of patent and proprietary technology, and protect intellectual property rights while promoting the development of scientific and technological innovation, forming an intellectual property system of independent innovation to better protect technological advantages.

- 制定《保密管理制度》，對研發、技術引進、技術創新等方面的數據與信息的保密進行了規定，要求對生產、研發、設計、科技交流、技術引進中產生的秘密事項進行保密，並對其按照《檔案管理辦法》保管，維護信息安全。

Formulate the Confidentiality Management System to keep the data and information about research and development, technical import, and technical innovation confidential, requiring maintaining the confidentiality of secrets arising from the production, research and development, design, scientific exchange, and technological introduction and keep such secrets in accordance with the File Administrative Measures to maintain information security.

品牌保護 Brand protection

- 根據《公司法》《商標法》《廣告法》等國家有關法規，制定《旭陽視覺形象識別系統手冊》《品牌VI手冊》等相關手冊，對廣告、商標統一規劃和管理，不斷提升品牌價值，充分發揮市場營銷職能，使品牌管理和市場營銷工作更加科學化、規範化，保護企業、產品與服務信譽。

Formulate the Visual Image Recognition System Handbook and the Brand VI Manual and etc. for uniform planning and management of advertisements and trademarks in accordance with relevant national regulations such as the Company Law, the Trademark Law, and the Advertising Law of the People's Republic of China, so as to keep enhancing the brand value and give full play to the marketing functions to make brand management and marketing more scientific and standard and protect the enterprise, product and service reputations.

可持續發展實踐 Sustainable Development Practices

營造創新氛圍

Create an innovative atmosphere

- 規範技術創新工作，明確技術創新內容、職責、權限、流程、獎勵等有關內容，制定《技術創新獎勵管理制度》。

Standardize the work of technological innovation, clarify the contents, responsibilities, authorities, processes, rewards and other relevant contents of technological innovation, and formulate the Management System of Technological Innovation Rewards.

- 實施「科技興企」的重要決策，制訂《研發項目及人員管理制度》加強對研發項目的管理，使科技管理工作進一步規範化，有效促進「技術創新」工作的順利、高效進行。

Implement the important decision of “prospering the enterprise through science and technology”, formulate the Management System of R & D Projects and Personnel to strengthen the management of R & D projects, further standardize the scientific and technological management, and effectively promote the smooth and efficient progress of “technological innovation”.

加強產學研合作

Strengthen the industry-university-research cooperation

- 與華東理工大學、青島科技大學等知名院校合作開展尼龍彈性體管材應用開發、改性橡膠製品的開發等創新型研究，推動延申化工產品的應用。

Cooperate with East China University of Science and Technology, Qingdao University of Science and Technology and other well-known universities to carry out innovative research such as the application and development of nylon elastomer pipes and the development of modified rubber products, so as to promote the extension of the application of chemical products.

- 與多家業內領先企業開展合作，開展一體化新型高效重排反應器技術合作開發、尼龍6彈性體鞋材料開發等項目，共同推動技術創新。

Cooperate with a number of leading enterprises in the industry to carry out projects such as the technical cooperation and development of integrated new and efficient rearrangement reactor and the development of nylon 6 elastomer shoe materials, so as to jointly promote technological innovation.



可持續發展實踐 Sustainable Development Practices

案例 Case

創新成果轉化，助推綠色轉型

boost the green transformation with the transformation of innovative achievements

作為鋼鐵工業重要原料的焦炭，從焦爐推出的高溫焦炭（紅焦）需要在短時間內降溫，即熄焦。紅焦中蘊藏着大量熱能，熱能的回收利用對於節能減排大有好處。為探索一種能夠快速使高溫焦炭降溫，能源還能得到回收利用，同時設備投資低，污染物排放低的熄焦方法與裝置，旭陽邢台園區聯合天津大學合作「密閉汽化熄焦產業化技術研究與示範」項目。

Coke is as an important raw material in the iron and steel industry. The high-temperature coke (red coke) pushed from the coke oven needs to be cooled in a short time, that is, coke quenching. Red coke contains a lot of heat energy, while the recycling of heat energy is of great benefit to energy saving and emission reduction. In order to explore a coke quenching method and device that can quickly cool high-temperature coke, recycle energy, and can ensure the low cost of equipment and low pollutant emission, Risun Xingtai Base cooperates with Tianjin University in the “research and demonstration of closed vaporization coke quenching industrialization technology” project.

項目針對乾法熄焦與濕法熄焦存在的缺點，以熄焦蒸汽為研究對象，對其進行冷凝除塵，將除塵後不凝氣體加以處理，實現熄焦廢氣閉路循環，開發了密閉汽化熄焦技術，並在中煤旭陽進行了系統的熄焦試驗及工業化示範，形成了年產130萬噸焦炭產能示範裝置及配套工藝。密閉汽化熄焦技術兼具乾熄焦與濕熄焦優點，在維持熄焦低投資、低運行成本及保證焦炭質量與產量的同時，降低焦炭燒損，減少能耗與污染物排放，回收熄焦蒸汽餘熱再利用。該項目於2021年4月順利通過專家組驗收，並取得省級科技成果1項，申請發明專利1件、實用新型專利4件、授權實用新型專利3件，填補了國內外該領域技術空白。



Aiming at the shortcomings of dry coke quenching and wet coke quenching, the project takes the coke quenching steam as the research object, condenses and dedusts it, processes the non-condensable gas after dedusting, realizes the closed-circuit circulation of the waste gas from coke quenching, develops the closed vaporization coke quenching technology, and carries out the systematic coke quenching test and industrial demonstration in China Coal Risun, generates the demonstration plant with an annual coke production capacity of 1.3 million tons and supporting processes. The closed vaporization coke quenching technology has the advantages of both dry coke quenching and wet coke quenching. While maintaining the low investment in coke quenching and low operation cost and ensuring coke quality and output, it can reduce coke burning loss, reduce energy consumption and pollutant emission, recycle the residual heat of coke quenching steam. The project successfully passed the acceptance of the expert group in April 2021, and obtained one provincial scientific and technological achievement, applied for one invention patent, four utility model patents and three authorized utility model patents, filling the technical gap in this field at home and abroad.

供應鏈管理

Supply chain management

本集團致力於建設可持續的夥伴關係，秉承「合作共贏、共同發展」的理念，持續加強供應鏈責任管理，採取審慎的原則和嚴格的標準來選擇供貨商和承包商，不僅看重其產品質量、服務能力和企業信譽，更看重其履行社會責任的理念和行動，帶動供應商合作共贏、共建可持續且有競爭力的供應鏈。

The Group is committed to build sustainable partnerships, and adhering to the philosophy of “Win-Win Cooperation and Mutual Development”, continuously strengthens the supply chain responsibility management, adopts the principle of prudent and strict standard to select suppliers and contractors, we not only value their product quality, service ability and enterprise prestige, but also value their concept and actions of fulfilling social responsibility, so as to promote win-win cooperation with suppliers and build sustainable and competitive supply chains.

報告期內，集團合作的供應商共計1,827家。

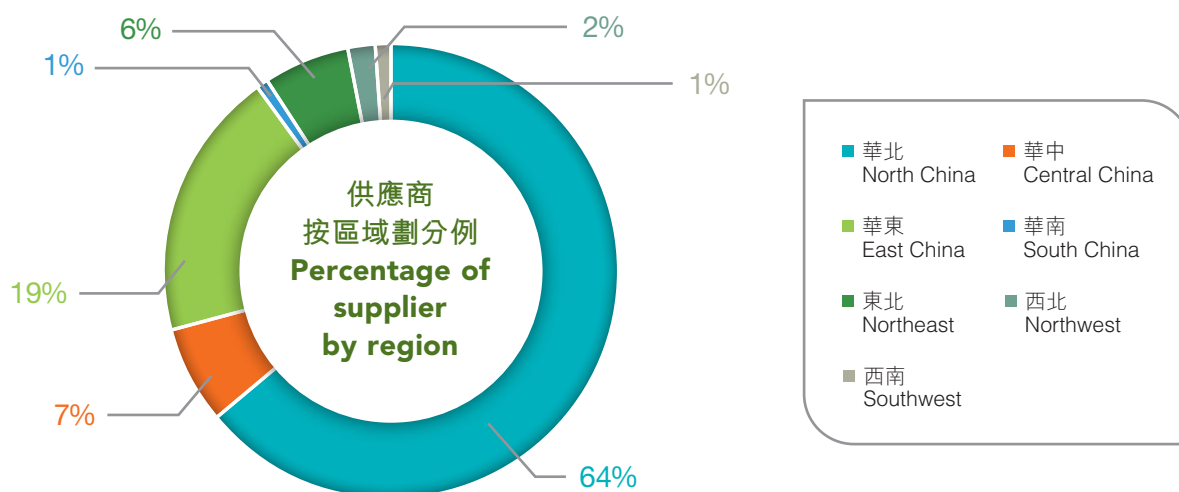
During the reporting period, the Group cooperated with a total of 1,827 suppliers.

<p>完善供應商管理制度 Improve supplier management system</p>	<ul style="list-style-type: none"> 制定《供應商管理辦法》，完善集團供應商市場准入和業績評估體系，對於供貨商的調查、引進、審批與維護，評估、篩選流程以及違規處罰等方面進行規範管理，營造公平、公正的合作環境。 <p>Formulated the Administrative Measures for Suppliers and improved the market access and performance evaluation system for suppliers of the Group to specify the introduction, approval and maintenance, assessment, screening process and punishment for violations of suppliers, so as to create a fair and just cooperation environment.</p>
<p>開展供應商考核評價 Conduct assessment and evaluation on suppliers</p>	<ul style="list-style-type: none"> 在入庫前針對供應商基本工商資質、主要生產設備與檢測設備先進水平、技術能力、生產工藝、質量與環境管理體系認證等方面進行考核，形成考察報告並歸檔管理。 <p>Before warehousing, verify the supplier's basic industrial and commercial qualification, advanced level of main production equipment and testing equipment, technical capacity, production process, quality and environmental management system certification, and prepare an investigation report and file it for record.</p> <ul style="list-style-type: none"> 在合作中定期組織供貨商年度評審，對供貨商根據技術指針、價格、質量、服務和節能環保等多方面綜合實力進行分級評價，根據評審結果優化供應商資源，並推動供應商能力不斷提升。 <p>During the cooperation, regularly organize the annual review of suppliers, conduct classified evaluation on the suppliers' comprehensive strength of technical indicators, price, quality, service, energy conservation and environmental protection, so as to optimize the supplier resources according to the review results and promote the continuous improvement of the suppliers' ability.</p>

可持續發展實踐 Sustainable Development Practices

加強公開透明高效採購 Strengthen open, transparent and efficient procurement	<ul style="list-style-type: none">推動各園區通過第三方採購平台實現全流程測試，從生產請購、網絡詢價、下單、網上付款等各環節實現全部表單自動化，促進公開透明、高效管理。 <p>Promote each base to realize the whole process test through the third-party procurement platform, realize the automation of all forms from production requisition, online inquiry, order placement, online payment and other links, and promote open, transparent and efficient management.</p>
搭建供應鏈金融平台 Build a supply chain finance platform	<ul style="list-style-type: none">梳理煤、焦、鋼產業鏈物品流通全過程，綜合分析供應鏈中的商流、物流、信息流和資金流，並對接資金機構的金融產品，借助集團核心企業的信用延伸，為鏈條上的各類交易主體對接上適合的金融產品，降低其融資成本，增強供應鏈的穩定性和競爭力。 <p>Sort out the whole process of circulation of coal, coke and steel industry chain, comprehensively analyze the commercial flow, logistics, information flow and capital flow in the supply chain, and connect with the financial products of capital institutions, and with the credit extension of the Group's core enterprises, connect with suitable financial products for various transaction subjects in the chain, so as to reduce their financing costs and enhancing the stability and competitiveness of the supply chain.</p> <ul style="list-style-type: none">推進供應鏈金融服務平台的建設，通過和外部優秀方案解決服務商的合作，打造旭陽供應鏈金融線上交易系統。吸引供應鏈各主體和資金提供方進駐平台進行業務合作，運用「金融超市」的理念，為各方提供基於區塊鏈技術的可信資產鏈，促進金融為產業服務。 <p>Promote the construction of financial service platform in the supply chain and build Risun's supply chain financial online transaction system through cooperation with external excellent solution service providers. Attract various supply chain entities and fund providers to enter the platform for business cooperation, and use the concept of "financial supermarket" to provide a credible asset chain based on blockchain technology to promote financial services for the industry.</p>

<p>加強供應鏈ESG風險管理 Strengthen the ESG risk management of supply chain</p>	<ul style="list-style-type: none"> 加強供應鏈廉潔管理，在業務合同中明確包括反貪腐的相關規定，並和供應商進一步簽訂《反商業賄賂協議書》，加強供應鏈反貪腐管理。 <p>Strengthen the integrity management of the supply chain, clearly include the relevant provisions of anti-corruption in the business contract, and further sign the Anti-commercial Bribery Agreement with suppliers to strengthen the anti-corruption management of the supply chain.</p> <ul style="list-style-type: none"> 將環境作為供應商篩選、評價的重要指標之一，在合作過程中加強監督與管理，推動供應商提升環境管理水平。 <p>Take the environment as one of the important indicators for supplier screening and evaluation, strengthen supervision and management in the process of cooperation, and promote suppliers to improve their environmental management level.</p> <ul style="list-style-type: none"> 關注供應鏈的勞工權益，要求承包商簽署《安全承諾書》並在其中要求承包商及時為承包商員工繳納保險等。 <p>Pay attention to the labor rights and interests in the supply chain, require the contractors to sign the Letter of Safety Commitment, and require the contractors to take out insurance for their employees in time.</p>
<p>優選節能環保產品及服務 Select energy-saving and environmental protection products and services</p>	<ul style="list-style-type: none"> 在供應商產品或服務的招採、驗收等環節明確提出環保和節能等方面的要求；對於新改擴建項目我們優先採用節能、環保的工藝及設備；定期監察使用單位新改擴建項目關於節能環保設備的採購及使用情況，對違規及不作為情況進行通報。 <p>Clearly put forward the requirements for environmental protection and energy saving in the bidding, procurement and acceptance of the supplier's products or services; for the new renovation and expansion projects, we give priority to the energy-saving, environmental protection technology and equipment; regularly monitor the procurement and use of energy-saving and environmental protection equipment in the new renovation and expansion projects of the users, and report the violations and omissions.</p>



可持續發展實踐

Sustainable Development Practices

員工發展

Development of employees

本集團嚴格遵守《中華人民共和國勞動法》《中華人民共和國勞動合同法》《中華人民共和國未成年人保護法》等國家法律法規，始終堅持平等僱傭原則，反對任何形式的童工與強制勞工。我們加強民主管理，通過員工大會等舉措，保障員工的知情權、參與權和監督權，並與員工簽訂正式勞動合同，在員工招聘、解僱、升職、工作時長、休假、薪酬福利、多樣性、防止歧視、平等機會等多方面充分保障員工權益，推動平等、多元化的員工團隊建設。

The Group strictly complies with the national laws and regulations such as the PRC Labor Law, the PRC Labor Contract Law, and the PRC Law on the Protection of Minors, always adheres to the principle of equal employment, and rejects child labor and forced labor in any form. We strengthen democratic management, and through the staff congress and other measures, guarantee the employees' right to know, to participate and to supervise, and sign formal labor contracts with employees to fully safeguard employees' rights and interests in terms of employee recruitment, dismissal, promotion, working hours, vacation, salary and benefits, diversity, prevention of discrimination, equal opportunities, etc., and promote the construction of equal and diversified employee team.

報告期內，本集團未發生使用童工及強制勞工等違規情況，也未發生因僱傭問題導致的訴訟事件。

During the reporting period, the Group did not break the rules for using child labor and forced labor, nor was involved in any litigation case due to employment matter.

平等與多元

Equality and diversification

我們注重員工多元化構成，從合規性、工作態度、績效和能力等方面評估專業人員的任職資格，保障所有員工享有平等的就業機會，不因任何基於性別、年齡等因素的歧視。我們採取多通道的招聘制度，招聘渠道包括校園招聘、社會招聘、內部招聘等。在招聘過程中，我們始終秉承公開、公正的原則，對所有應聘者一視同仁，多元化地選拔錄用各方面的優秀人才，不因性別、語言、地域、信仰、身體殘疾等差異實施差別化聘用，遵循同工同酬，打造包容與多元化的職場環境。

We paid high attention to the diversified composition of employees, assessed the qualifications of professional employees from the perspectives of compliance, working attitude, performance and competence, guaranteed all employees enjoyed equal employment opportunity, and eradicate the any discrimination based on gender and age. We adopted multichannel recruitment system, and the recruitment channels included the campus recruitment, social recruitment and internal recommendation. In the recruitment process, we always adhered to the principle of openness and fairness, treated all applicants equally, selected and recruited outstanding talents in various fields, employed them without discrimination based on gender, language, region, religion or physical disability, and followed the principle of equal pay for equal work to create an inclusive and diverse workplace environment.

工時、假期與薪酬福利 Working Hour, Holiday, Salary and Benefits

- 嚴格執行國家關於工時、假期的有關規定，並制定《請休假管理制度》，維護員工休息休假的權益，確保員工的休息日及法定節假日與國家勞動法規一致，提倡員工做到應休盡休，並給予一線員工在法定節假日之外的產假、年假等額外帶薪假期。

Stringently execute national provisions on working hour and holiday, formulated the Leave Management System to safeguard the right to rest and vocation of the employees, provide day off and statutory holidays in accordance with the national labor laws, advocate employees to have all holidays as far as possible, and provide front-line employees with paid leave other than statutory holidays such as maternity leave, sick leave, personal leave and annual leave.

- 制定《員工薪酬管理辦法》，涵蓋基本工資、績效工資、司齡工資、津補貼、獎金等的全面薪酬體系，並根據員工的職位等級、所在序列、所在業務線、所在地域等多方面因素為員工制定薪酬。

Formulate the Staff Compensation Management Measures, which covers a comprehensive remuneration system covering basic salary, performance salary, seniority salary, allowances, subsidies, etc. and determined salaries of the employees based on such factors as level, order, business line, and region of the employees.

- 為了吸引、保留和激勵人才，組織一年一次指定職業健康體檢，為員工保障基本健康；為員工發放春節福利、中秋節福利、用餐補助、交通補助、高溫補助、取暖補助、慰問金等福利。

To attract, retain and motivate talents, organize a designated occupational physical examination once a year to ensure the basic health of employees; and also provide employees with benefits of the two festivals (Spring Festival and Mid-Autumn Festival), meal subsidies, transportation subsidies, high temperature subsidies, heating subsidies, consolation payments and other benefits.

表7：2021年員工僱傭方面的績效

Table 7: Performance with respect to employment in 2021

指標名稱 Name of Indicator	單位 Unit	2021年度 2021
員工總數 Total number of employees	人 (Person)	7,678
合同員工總數 Total number of contract labors	人 (Person)	7,651
勞務派遣員工總數 Total number of outsourcing labors	人 (Person)	27
男性員工總數 Total number of male employees	人 (Person)	6,217
女性員工總數 Total number of female employees	人 (Person)	1,461

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高級職稱員工總數 Total number of employees with senior titles	人 (Person)	78
中級職稱員工總數 Total number of employees with medium titles	人 (Person)	497
初級職稱員工總數 Total number of employees with junior titles	人 (Person)	1,659
30歲以下員工總數 Total number of employees under 30 years old	人 (Person)	2,683
31-40歲員工總數 Total number of employees from 31 to 40 years old	人 (Person)	3,369
41-50歲員工總數 Total number of employees from 41 to 50 years old	人 (Person)	1,173
50歲以上員工總數 Total number of employees above 50 years old	人 (Person)	453
河北省內地區員工總數 Total number of employees from Hebei Province	人 (Person)	4,203
河北省以外地區員工總數 Total number of employees from regions outside Hebei Province	人 (Person)	3,475

表8：2021年員工流失方面的績效

Table 8: Performance with respect to turnover rate in 2021

指標名稱 Name of Indicator	單位 Unit	2021年度 2021
正式員工年度流失比率 Annual turnover rate of regular employees	%	13.57
其中男性員工流失比例 Turnover percentage of male employees	%	14.33
其中女性員工流失比例 Turnover percentage of female employees	%	10.34
其中河北省內員工流失比例 Turnover percentage of employees in Hebei Province	%	10.25
其中河北省外員工流失比例 Turnover percentage of employees outside Hebei Province	%	17.58

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其中30歲及以下員工流失比例 Turnover percentage of employees under 30 years old (inclusive)	(%) (%)	24.00
其中31-40歲員工流失比例 Turnover percentage of employees from 31 to 40 years old	(%) (%)	8.76
其中41-50歲員工流失比例 Turnover percentage of employees from 41 to 50 years old	(%) (%)	6.22
其中51歲以上員工流失比例 Turnover percentage of employees above 51 years old	(%) (%)	6.62

表9：2021年工傷方面的績效

Table 9: Performance with respect to work-related injuries in 2021

指標名稱 Name of Indicator	單位 Unit	2021年度 2021	2020年度 2020	2019年度 2019
因工傷死亡人數 Number of deaths due to work-related injuries	(人) (Person)	0	0	0
因工傷死亡比率 Death rate due to work-related injuries	(%) (%)	0	0	0
因工傷損失工作日數 Number of working days lost due to work-related injuries	(天) (Day)	0	\	\

學習與成長

Learning and growth

本集團始終堅持「共創一流環境，培養一流人才，成就一流事業」的理念，通過建立多層次、全方位的培訓管理體系，豐富培訓內容，創新培訓方式，努力將培訓學習貫穿於員工職業生涯全過程，滿足員工發展需求，為員工成長發展儲備知識和經驗，提升員工綜合素質，以匹配不同崗位的能力要求。我們持續完善員工成長和晉升機制，暢通員工成長發路徑，搭建公平公正的人才發展平台，激發員工實現自我價值、崗位價值和社會價值，努力建設一支高素質的人才隊伍。

The Group has always adhered to the philosophy of 「creating first-class environment, training first-class talents, and achieving first-class cause」, enriched the training contents and innovated the training methods by established a multi-level comprehensive training management system for the purpose of providing training and learning throughout the whole career path of the employees, so as to meet the needs of employees' development, reserving knowledge and experience for the growth and development of the employees and improving comprehensive quality of the employees to meet the changing job requirements. We continue to improve the employee development and promotion mechanism to provide a smooth path for the development of employees and build an equal and just talent development platform, so as to motivate employees to achieve self-value, post value and social value and build a high-quality talent team.

可持續發展實踐

Sustainable Development Practices

員工培訓 Employee training	提升管理層能力 Improve the ability of management	<ul style="list-style-type: none"> 針對新提職幹部定期實施角色轉換、管理能力提升、改善績效管理、團隊建設賦能等學習項目，使新提職幹部快速適應新崗位要求 <p>Regularly implement learning projects such as role transformation, management ability improvement, performance management improvement and team building empowerment for the newly promoted cadres, so as to make them quickly adapt to the requirements of new posts</p> <ul style="list-style-type: none"> 針對儲備幹部，從統一文化價值觀、提升一線管理技能、強化專業知識等方面開展學習培養，推動儲備幹部提升管理能力。 <p>Organize learning and training activities from the aspects of unifying cultural values, improving front-line management skills and strengthening professional knowledge for reserve cadres, so as to promote them to improve their management ability.</p>
		<ul style="list-style-type: none"> 持續推進班組長的培養和班組標準化、可視化管理工作，吸收先進的管理方法，積極推進班組建設，打牢生產體系的根基。 <p>Continuously promote the training of team leaders and the standardization and visual management of teams, and absorb advanced management methods to actively promote team construction and lay a solid foundation for the production system.</p>
	提升員工專業能力 Improve the professional ability of employees	<ul style="list-style-type: none"> 關鍵崗位實行操作技能認證制度並倡導一崗多能，推進全體一線操作員工崗位學習的氛圍，營造立足崗位成才的環境。 <p>For key posts, implement the operation skill certification system and advocate multiple abilities for one post, promote the on-the-job learning atmosphere of all front-line operators, and create an environment for success based on the post.</p> <ul style="list-style-type: none"> 根據業務和職能部門的需求，制定針對性的專業培訓方案，提高員工的專業能力。 <p>According to the needs of business and functional departments, formulate targeted professional training programs to improve the professional ability of employees.</p>
	助力新員工快速成長 Help new employees grow up quickly	<ul style="list-style-type: none"> 對社會招聘新員工開展關於安全培訓、集團情況、企業文化、辦公系統、財務制度等主要管理制度的培訓，使新員工能夠很快勝任崗位，提高工作效率，為今後的工作、管理打下良好基礎。 <p>Provide training on safety training, the information of the Group, corporate culture, office system, financial system and other major management systems for new employees recruited from society, so that new employees can quickly be competent for their posts, improve work efficiency, and lay a solid foundation for future work and management.</p> <ul style="list-style-type: none"> 對校園招聘新員工，本集團集中組織了大學生訓練營入職培訓、生產系統工作歷練、導師幫帶、大學生實習班組長訓練營等系列培訓，幫助新員工盡快適應工作環境。 <p>For recruiting new employees on campus, the Group organized a series of trainings such as college student training camp induction training, production system work experience, mentor assistance and guidance, and college student internship team leader training camps to help new employees adapt to the working environment as soon as possible.</p>

員工晉升 Employee promotion

- 制定《幹部管理辦法》《職級管理辦法》等管理制度，明確規範了幹部選拔、職級管理等方面的任職資格標準及管理要求及選拔、考評、輪崗、培養、淘汰等工作程序。

Formulate the Management Measures for Cadres and Management Measures for Class of Position and other management systems, clearly standardizing the qualification standards and management requirements for such aspects as the cadre selection and management of class of position, and the work procedures for selection, evaluation, job rotation, training and elimination.

- 實行管理序列、專業序列和技能序列的三大職業序列，員工可以依據員工職位職級體系，並結合自己的能力和意願，選擇適合自己職位的發展通道，拓展自身的職業發展空間。

Implement such three occupational sequences as the management sequence, professional sequence and skill sequence. The employees can choose a development path suitable for their post and expand their career plan according to the post grading system and based on their own abilities and wills.



集團2021年第一期高潛員工培訓班（唐山班）
The first high potential employee training class of the Group in 2021 (Tangshan)



邢台旭陽2021屆新任職工幹部培訓班
New cadre training class of Xingtai Risun in 2021



定州園區2021年大學生集訓營
College student training camp in Dingzhou Base in 2021

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表 10：2021 年度員工培訓績效
Table 10: Employee Training Performance of 2021

指標名稱 Name of Indicator	單位 Unit	2021 年 2021
受訓員工總場次 Total number of trainings	次 (Times)	13,176
受訓員工總人次 Number of employees trained	人次 (Person)	128,747
受訓員工百分比 Percentage of employees trained	%	85.51
男性員工受訓比例 Percentage of male employees trained	%	85.35
女性員工受訓比例 Percentage of female employees trained	%	87.50
高級職稱員工總數 Total number of employees with senior titles	%	81.25
中級職稱員工總數 Total number of employees with medium titles	%	81.25
初級職稱員工總數 Total number of employees with junior titles	%	87.50
員工培訓總時長 Total training hours of employees	小時 (Hour)	263,409.25
員工受訓平均時數 Average training time per employee	小時/人 (hour/person)	34.22
男性員工平均受訓時長 Average training time per male employee	小時/人 (hour/person)	34.39

表 10：2021 年度員工培訓績效
Table 10: Employee Training Performance of 2021

指標名稱 Name of Indicator	單位 Unit	2021 年 2021
女性員工平均受訓時長 Average training time per female employee	小時/人 (hour/person)	35.19
高級及以上員工受訓總時長 Total training hours of senior employees and above	小時 (Hour)	3,316.64
高級及以上員工受訓平均時數 Average training hours of senior employees and above	小時/人 (hour/person)	21.98
中級員工受訓總時長 Total training hours of middle-level employees	小時 (Hour)	18,614.00
中級員工受訓平均時數 Average training time per middle-level employee	小時/人 (hour/person)	27.07
初級員工受訓總時長 Total training hours of junior employees	小時 (Hour)	82,304.15
初級員工受訓平均時數 Average training time per junior employee	小時/人 (hour/person)	27.99

關愛與服務

Care and services

本集團踐行「對員工的責任是旭陽最大的責任」的企業文化，重視關心員工的工作與生活，重視人文關懷，積極主動的為員工解決實際困難，大力開展送溫暖活動，切實關心職工生活，組織豐富多彩的員工文體活動，開展體育健身、戶外素質拓展、節假日聯歡等形式多樣的文體活動，讓員工在旭陽感受到企業大家庭的溫暖和生活工作安全感。

The Group practices the corporate culture of “responsibility to employees is the greatest responsibility of Risun”, attaches great importance to and cares for the work and life of the employees and pays attention to humanistic care, actively solving practical difficulties of the employees, vigorously carrying out warmth projects, and caring about the life of the employees. The Group also organizes various recreational and sport activities, and carries out recreational and sport activities of various forms such as physical fitness, outdoor quality development, holiday parties, to make employees feel the warmth of the enterprise family and the sense of security in life and work in Risun.

傾聽員工心聲 Listen to employees	<ul style="list-style-type: none"> 通過員工民主生活會、座談會、員工大會等形式傾聽並解決員工在工作、生活中遇到的困難和問題，切實關心員工生活。 <p>Listen to and solve the difficulties and problems in work and life of the employees through the meeting of staff democratic life meeting, forum, staff meeting and other forms, and truly care about the life of the employees.</p>
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可持續發展實踐

Sustainable Development Practices

<p>關愛女性員工 Care for female employees</p>	<ul style="list-style-type: none"> 制定《女工保護管理制度》，減少和解決女職工在勞動和工作中因生理特點造成特殊困難，保護女職工的合法權益，保障女職工的身體健康。 <p>Formulate the Management System for the Protection of Female Employees to reduce and solve the special difficulties caused by the physiological characteristics of female employees in working, protect their legitimate rights and interests and ensure their health.</p> <ul style="list-style-type: none"> 在婦女節等節日組織開展「三八婦女節茶話會」等活動，並為員工發放精美禮品，了解女性員工需求，體現對員工的關懷。 <p>Organize and carry out “Women’s Day Tea Party” and other activities on women’s day, and distribute exquisite gifts to employees, understand the needs of female employees and show the Group’s care for employees.</p>
<p>關懷外派員工 Care for expatriate employees</p>	<ul style="list-style-type: none"> 制定實施《關愛外派員工家庭有關規定》，明確關愛責任主體和實施程序，向外派員工發放「關愛行動明白卡」，明確可以提供幫助的內容、關愛行動責任主體及相關負責人，為外派員工創建安全、健康、快樂的工作環境，解決外派員工家庭遇到的突發事件、困難及問題。 <p>Formulate and implement the Provisions on Caring for Expatriate Employees’ Families, clarify the responsible subjects and implementation procedures, issue “caring action card” to expatriate employees, clarify the contents regarding the assistance that can provided, the responsible subjects of caring action and relevant principals, create a safe, healthy and happy working environment for expatriate employees, and solve the emergencies, difficulties and problems encountered by expatriate employees’ families.</p>
<p>幫扶困難員工 Help employees with difficulties in life</p>	<ul style="list-style-type: none"> 在各子公司分別設立「旭陽員工互助分社」，完善困難員工幫扶機制，幫扶困難員工家庭子女上學、捐款救助員工重疾家屬等，及時救助與扶持困難員工。 <p>Set up a branch of Risun Employee Mutual Support Society in each subsidiary, improve the assistance mechanism for needy employees to help the children of poor employees to go to school, donate to help seriously ill family members of the employees, and timely rescue and support the needy employees.</p> <ul style="list-style-type: none"> 在重要節日慰問特困家庭員工以及堅守生產一線崗位員工，及時送去貼心溫暖。 <p>Visit employees of poor families and front-line workers on duty in important holidays.</p>
<p>豐富文體活動 Enrich cultural and sports activities</p>	<ul style="list-style-type: none"> 豐富職工的業餘生活，在重要節假日組織員工開展如迎新春聯歡會、元旦文藝晚會等聯歡活動，增強員工歸屬感和企業向心力。 <p>Enrich the amateur life of employees. In important holidays, organize employees to carry out party activities such as the Spring Festival Party and New Year’s Day Cultural Show, to enhance employees’ sense of belonging and enterprise centripetal force.</p> <ul style="list-style-type: none"> 定期組織登山活動、籃球、羽毛球、乒乓球比賽、籃球聯誼賽等體育活動，助力員工體質健康。 <p>Regularly organize mountaineering, basketball, badminton, table tennis, and basketball fellowship games and other sports activities to help employees’ physical health.</p> <ul style="list-style-type: none"> 組織夏日送清涼慰問活動彰顯旭陽集團企業文化，體現人文關懷。 <p>Organize condolence activity of bringing cool solace in the summer to highlight the corporate culture of Risun Group and reflect the humanistic care.</p>

可持續發展實踐 Sustainable Development Practices



唐山旭陽召開困難職工座談會，傾聽困難員工心聲
Tangshan Risun held a symposium to listen to the voices of needy employees



河北旭陽走訪慰問困難員工家庭並積極提供幫助
Hebei Risun visited the families of needy employees and actively provided help



東明旭陽為女員工發放三八婦女節日福利
Dongming Risun provided female employees with Women's Day benefits



鄆城旭陽組織召開三八婦女節茶話會活動
Yuncheng Risun organized the Women's Day Tea Party



東明旭陽舉行2021年「風雨同舟、旭陽同行」春節聯歡會
Dongming Risun held the 2021 Spring Festival Gala of "sailing in the same boat and walking with Risun"



唐山旭陽組織開展登景忠山戶外拓展活動
Tangshan Risun organized outdoor activities of climbing Jingzhong Mountain

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鄆城旭陽舉辦元宵節猜燈謎活動
Yuncheng Risun held Lantern Festival activities



河北旭陽開展第一屆「旭陽杯」乒乓球比賽
Hebei Risun launched the first "Risun Cup" table tennis competition



邢台園區組織慶祝建黨100周年系列活動
Xingtai Base organized a series of activities to celebrate the 100th anniversary of the founding of CPC



滄州旭陽開展「送清涼」慰問活動
Cangzhou Risun carried out consolation activities



定州園區迎新春聯歡會邀請印尼員工家屬進旭陽
Dingzhou Base invited Indonesian employees' families into Risun for Chinese New Year celebration



邢台園區組織對赴印尼員工家屬進行慰問
Xingtai Base organized condolences to the families of employees who went to Indonesia

案例 Case

組織愛心捐款，真情關愛困難員工 organize donations for needy employees

員工之間相互幫助和關愛是旭陽員工團隊精神的體現。2021年，河北旭陽了解到有兩位員工因病至困。河北旭陽在了解到相關情況之後，積極在園區發出倡議，號召大家伸出援助之手，捐出一份善款、獻出一份愛心。在發出倡議後，園區及1,619名員工共計捐款70,000元，並在第一時間將愛心款送到了患病員工家人手中，解決了燃眉之急。

Mutual help and care among employees is the embodiment of the team spirit of Risun's employees. In 2021, Hebei Risun learned that two employees encountered difficulties due to illness. After learning about the relevant situation, Hebei Risun actively issued an initiative in the base, calling on everyone to help them through donation. And then, the base and 1,619 employees donated RMB 70,000 in total, and sent the donations to the families of the sick employees at the first time.

其中一名患病員工的父親感激地說：「非常感旭陽領導和員工們的關心，也非常感謝大家的愛心捐款，衷心感謝你們無私的幫助，讓我的心里感到旭陽大家庭的溫暖和關愛，謝謝！」

The father of one of the sick employees said gratefully: "Thank you for your donations and your selfless help, which makes me feel the warmth and love of Risun family in my heart. Thank you!"



社區公益

Community public service

本集團始終遵循「取之社會，回報社會」的責任和理念，在各園區周邊的社區開展多樣化的志願活動，為建設更美好的社區貢獻份力量。同時為抗擊疫情出力，積極組織捐款捐物，為早日打贏疫情防控阻擊戰做出應有貢獻。

The Group always adheres to the responsibility and philosophy of 「taking from society and repaying society」, and carries out diversified voluntary activities in the communities around the bases to contribute to the construction of a better community. In the face of the epidemic, we actively organized donations of money and materials to make due contribution to winning the fight against the epidemic at an early date.

報告期內，本集團為防疫、救災、鄉村振興等領域捐款410.5萬元，彰顯責任與擔當。

During the reporting period, the Group donated RMB 4.105 million for epidemic prevention, disaster relief, rural revitalization and other fields, highlighting the sense of responsibility of the Group.

可持續發展實踐 Sustainable Development Practices

<p>疫情防控 Epidemic prevention and control</p>	<ul style="list-style-type: none"> 在新冠疫苗接種初期、醫護人員緊張時刻，自發派遣員工到相鄰村鎮組織村民有序接種新冠疫苗，加快了疫苗接種速度。 <p>At the initial stage of inoculation of COVID-19 vaccine and when there was a shortage of medical staff, spontaneously sent employees to the adjacent villages and towns to organize the villagers to inoculate Xinguan vaccine in an orderly manner, which accelerated the speed of vaccination.</p> <ul style="list-style-type: none"> 在疫情緊張時期，除園區進行全員核酸檢測外，也積極倡導廠區周圍村鎮居民分流來園區檢測，共築疫情防線。 <p>In the tense period of the epidemic, in addition to the nucleic acid detection of all employees in the bases, we also actively advocate the diversion of rural residents around the plant to the bases for detection, so as to build a defense line against the epidemic.</p> <ul style="list-style-type: none"> 2022年3月向香港仁濟抗疫基金捐款100萬元港幣。 <p>Donated HK\$1 million to the Hong Kong Yan Chai Anti-epidemic Fund in March 2022.</p>
<p>消防安全 Fire safety</p>	<ul style="list-style-type: none"> 各子公司均配備了專業的消防儲備力量，除負責園區安全以外，積極承擔社區的安全責任，在需要時聯動地方消防大隊出警，支持保障社區消防安全。 <p>Each subsidiary is equipped with a professional fire reserve force. In addition to being responsible for the safety of the bases, it actively undertakes the safety responsibility of the community, and links with the local fire brigade to send out police when necessary to support and ensure the fire safety of the community.</p>
<p>社區溫情 Community warmth</p>	<ul style="list-style-type: none"> 在「八一」建軍節等時點，各子公司紛紛走訪慰問周邊社區派出所和消防救援站，向民警和消防官兵送上了節日慰問品並致以親切的節日問候和美好祝願，營造「軍愛民，民擁軍，軍民魚水一家親」的良好社會氛圍。 <p>At the Army's Day and other time points, all subsidiaries visited the police stations and fire rescue stations in the surrounding communities, sent holiday offerings to the police and fire officers and soldiers, and extended cordial holiday greetings and best wishes to create a good social atmosphere of "the army loves the people, the people support the army, and the army and people are of one family".</p> <ul style="list-style-type: none"> 積極參加社區的「寸草心」敬老愛老活動等志願活動，為社區送去溫暖。 <p>Actively participate in voluntary activities of respecting the elderly in the community to send warmth to the community.</p>
<p>綠色環保 Going green and environmental protection</p>	<ul style="list-style-type: none"> 積極響應當地政府、社區的號召，組織員工參與義務植樹活動，為社區綠化貢獻一份社會力量 <p>Actively respond to the call of local government and community to organize employees to participate in voluntary tree planting activities, and contribute to the greening of the community</p>

可持續發展實踐 Sustainable Development Practices



定州園區特邀定州藍天救援隊到所屬公共區域進行公益專業消毒
Dingzhou Base specially invited Dingzhou Bluesky Rescue Team to carry out public welfare professional disinfection in its public area



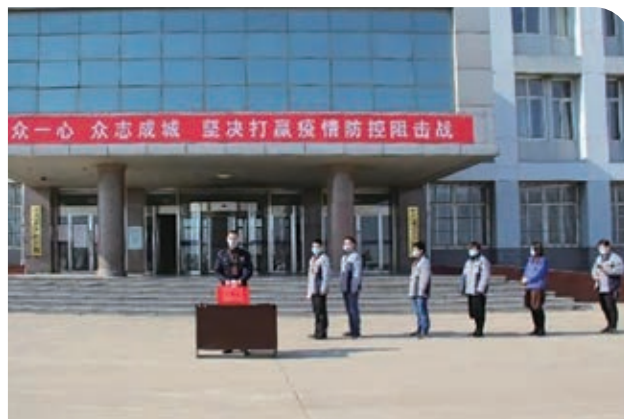
滄州旭陽慰問渤海新區邊防派出所官兵
Cangzhou Risun visited the officers and soldiers of the border police station in Bohai New Area



滄州旭陽組織員工參與義務植樹活動
Cangzhou Risun organized employees to participate in voluntary tree planting activities



邢台旭陽向襄都區特困人群和一線防控志願者捐贈愛心白菜包
Xingtai Risun donated caring cabbage bags to the extremely poor people and front-line prevention and control volunteers in Xiangdu District



河北旭陽開展疫情防控捐款活動
Hebei Risun carried out donation activities for epidemic prevention and control

滄州渤海新區管理委員會

Cangzhou Bohai New Area Management Committee

感謝信

Letter of Thanks

滄州旭陽化工有限公司：

Cangzhou Risun Chemical Co., Ltd.,

5月31日，南大港鼎睿石化火災事故發生後，在國家、省、市的高度重視和堅強領導下，在國家應急管理部、消防救援局、兄弟省區市消防救援人員、省應急管理廳及包括您單位在內的各級各部門的大力支持和無私幫助下，救援處置工作有序有效開展，大火於6月4日凌晨成功撲滅。期間，未發生次生事故、未發生人員傷亡，未發生環境污染問題，事故調查等後續工作正在推進中。

On May 31, after the occurrence of fire accident in Dingrui Chemical in Nandagang, under the leadership of the national, provincial and municipal governments, and with the supports of the various authorities and entities such as the Fire and Rescue Department under the Ministry of Emergency Management, fire emergency rescue workers from other provinces and cities, the Provincial Department of Emergency Management and Cangzhou Risun, the rescue work was orderly and effectively carried out, and the fire was successfully extinguished in the early hours of June 4. During the period, there was no secondary accident, no casualties, no environmental pollution problems, and the accident investigation and other follow-up work is advancing.

在事故救援處置的緊要關頭，您單位積極響應號召，充分發揮勇於擔當、敢於拼搏、甘於奉獻的精神，始終保持不畏艱險、攜手同心、共克時艱的工作作風，所有參與救援處置人員恪盡職守、忠誠履職、逆火而行，在事故處置方面給予了我們無私援助，為保障人民群眾生命財產安全做出了極大奉獻，體現了一方有難、八方支援的中華民族優良傳統，以及「愛新區、做貢獻、抗災情、建家園」的偉大情懷，表達了對渤海新區人民的深情厚誼，我們深受感動，向貴單位及參與火災事故救援處置的全體人員表示衷心感謝和崇高敬意！

At the critical point of accident rescue and disposal, Cangzhou Risun actively responded to the call, gave full play to the spirit of courage to take responsibility, courage to work hard and dedication, and always maintained the work style of being fearless of danger and difficulty, working together and overcoming difficulties, all personnel involved in rescue and disposal scrupulously and faithfully performed their duties, and gave us selfless assistance in accident disposal and made great contributions to ensuring the safety of people's lives and property, reflecting the fine tradition of the Chinese nation of "when disaster struck, help came from all sides" and the great feelings of "loving the new area, making contributions, fighting disasters and building homes", and expressing your deep friendship for the people of Bohai New Area. We are deeply moved, I would like to express my heartfelt thanks and high respect to Cangzhou Risun and all the personnel involved in the rescue and disposal of fire accidents !

滄州渤海新區作為省市重點打造的沿海經濟帶重要增長極和改革開放新高地，下一步，我們將繼續深入貫徹習近平新時代中國特色社會主義思想，堅決把思想和行動統一到黨中央決策部署和省市工作要求上來，堅定不移抓好包括事關人民生命財產安全、企業高質量發展的安全生產等各項工作，以此推進港產城融合高質量發展，努力建設創新新區、開放新區、品質新區、活力新區，以沿海經濟帶高質量跨越式發展的優異成績為建黨100周年獻禮！

Cangzhou Bohai New Area is an important growth pole of the coastal economic belt and a new highland of reform and opening up that the provinces and municipalities have focused on building. Going forward, we will continue to thoroughly implement Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, and resolutely unify our thoughts and actions into the decisions and arrangements of the CPC Central Committee and the work requirements of the provinces and municipalities, unswervingly focus on all work related to workplace safety that concerns the safety of people's lives and property and the high-quality development of enterprises, so as to promote the high-quality integrated development of the port, industry and city, strive to build an innovative, opening, high-quality and vigorous New Area, and present the 100th anniversary of the founding of CPC with the high-quality leapfrog development of the coastal economic belt !

滄州渤海新區管理委員會

Cangzhou Bohai New Area Management
Committee

2021年6月9日

June 9, 2021

滄州旭陽積極運用消防儲備力量進行事故救援，獲得政府部門和當地社區的感謝和認可

Cangzhou Risun actively used the fire reserve force to carry out accident rescue, which was thanked and recognized by government authorities and local communities





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港交所ESG指標索引

HKEX ESG index

序號	指標描述	披露情況	章節
A1排放物	<p>一般披露</p> <p>有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害廢棄物的產生等的：</p> <p>(a) 政策；</p> <p>(b) 遵守對發行人有重大影響的相關法律及規例的資料。</p> <p>註：廢氣排放包括氮氧化物、硫氧化物及其他受國家法律及規例規管的污染物。溫室氣體包括二氧化碳、甲烷、氧化亞氮、氫氟碳化合物、全氟化碳及六氟化硫。</p> <p>有害廢棄物指國家規例所界定者。</p>	披露	五、1.(5) 排放 管理
A1排放物	A1.1 排放物種類及相關排放數據。	披露	五、1.(5) 排放 管理
A1排放物	A1.2 直接（範圍1）及能源間接（範圍2）溫室氣體排放量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。	披露	五、1.(5) 排放 管理
A1排放物	A1.3 所產生有害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。	披露	五、1.(5) 排放 管理
A1排放物	A1.4 所產生無害廢棄物總量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。	披露	五、1.(5) 排放 管理
A1排放物	A1.5 描述所訂立的排放量目標及為達到這些目標所採取的步驟。	披露	五、1.(5) 排放 管理
A1排放物	A1.6 描述處理有害及無害廢棄物的方法，及描述所訂立的減廢目標及為達到這些目標所採取的步驟。	披露	五、1.(5) 排放 管理
A2資源使用	<p>一般披露</p> <p>有效使用資源（包括能源、水及其他原材料）的政策。</p> <p>註：資源可用於生產、儲存、運輸、樓宇、電子設備等。</p>	披露	五、1.(4) 資源 節約
A2資源使用	A2.1 按類型劃分的直接及/或間接能源（如電、氣或油）總耗量（以千個千瓦時計算）及密度（如以每產量單位、每項設施計算）。	披露	五、1.(4) 資源 節約

序號	指標描述	披露情況	章節
A2資源使用	A2.2 總耗水量及密度（如以每產量單位、每項設施計算）。	披露	五、1.(4) 資源 節約
A2資源使用	A2.3 描述所訂立的能源使用效益目標及為達到這些目標所採取的步驟。	披露	五、1.(4) 資源 節約
A2資源使用	A2.4 描述求取適用水源上可有任何問題，以及所訂立的用水效益目標及為達到這些目標所採取的步驟。	披露	五、1.(4) 資源 節約
A2資源使用	A2.5 製成品所用包裝材料的總量（以噸計算）及（如適用）每生產單位估量。	披露	五、1.(4) 資源 節約
A3環境及天然資源	一般披露 減低發行人對環境及天然資源造成重大影響的政策。	披露	五、1.(2) 環境 管理
A3環境及天然資源	A3.1 描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。	披露	五、1.(2) 環境 管理
A4氣候變化	一般披露： 識別及應對已經及可能會對發行人產生影響的重大氣候相關事宜的政策。	披露	五、1.(3) 應對氣 候變化
A4氣候變化	A4.1 描述已經及可能會對發行人產生影響的重大氣候相關事宜，及應對的行動。	披露	五、1.(3) 應對氣 候變化
B1僱傭	一般披露 有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的： (a) 政策； (b) 遵守對發行人有重大影響的相關法律及規例的資料。	披露	五、2.(4) 員工 發展
B1僱傭	B1.1 按性別、僱傭類型（如全職或兼職）、年齡組別及地區劃分的僱員總數。	披露	五、2.(4) 員工 發展
B1僱傭	B1.2 按性別、年齡組別及地區劃分的僱員流失比率。	披露	五、2.(4) 員工 發展

附錄 Appendix

序號	指標描述	披露情況	章節
B2健康與安全	<p>一般披露</p> <p>有關提供安全工作環境及保障僱員避免職業性危害的：</p> <p>(a) 政策；及</p> <p>(b) 遵守對發行人有重大影響的相關法律及規例的資料。</p>	披露	五、2.(1) 健康與安全
B2健康與安全	<p>B2.1</p> <p>過去三年（包括匯報年度）每年因工亡故的人數及比率。</p>	披露	五、2.(1) 健康與安全
B2健康與安全	<p>B2.2</p> <p>因工傷損失工作日數。</p>	披露	五、2.(1) 健康與安全
B2健康與安全	<p>B2.3</p> <p>描述所採納的職業健康與安全措施，以及相關執行及監察方法。</p>	披露	五、2.(1) 健康與安全
B3發展及培訓	<p>一般披露</p> <p>有關提升僱員履行工作職責的知識及技能的政策。描述培訓活動。</p> <p>註：培訓指職業培訓，可包括由僱主付費的內外部課程。</p>	披露	五、2.(4) 員工發展
B3發展及培訓	<p>B3.1</p> <p>按性別及僱員類別（如高級管理層、中級管理層等）劃分的受訓僱員百分比。</p>	披露	五、2.(4) 員工發展
B3發展及培訓	<p>B3.2</p> <p>按性別及僱員類別劃分，每名僱員完成受訓的平均時數。</p>	披露	五、2.(4) 員工發展
B4勞工準則	<p>一般披露</p> <p>有關防止童工或強制勞工的：</p> <p>(a) 政策；</p> <p>(b) 遵守對發行人有重大影響的相關法律及規例的資料。</p>	披露	五、2.(4) 員工發展
B4勞工準則	<p>B4.1</p> <p>描述檢討招聘慣例的措施以避免童工及強制勞工。</p>	披露	五、2.(4) 員工發展
B4勞工準則	<p>B4.2</p> <p>描述在發現違規情況時消除有關情況所採取的步驟。</p>	披露	五、2.(4) 員工發展

序號	指標描述	披露情況	章節
B5供應鏈管理	一般披露 管理供應鏈的環境及社會風險政策。	披露	五、2.(3) 供應鏈 管理
B5供應鏈管理	B5.1 按地區劃分的供應商數目。	披露	五、2.(3) 供應鏈 管理
B5供應鏈管理	B5.2 描述有關聘用供應商的慣例，向其執行有關慣例的供應商數目，以及相關執行及監察方法。	披露	五、2.(3) 供應鏈 管理
B5供應鏈管理	B5.3 描述有關識別供應鏈每個環節的環境及社會風險的慣例，以及相關執行及監察方法。	披露	五、2.(3) 供應鏈 管理
B5供應鏈管理	B5.4 描述在揀選供應商時促使多用環保產品及服務的慣例，以及相關執行及監察方法。	披露	五、2.(3) 供應鏈 管理
B6產品責任	一般披露 有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的： (a) 政策； (b) 遵守對發行人有重大影響的相關法律及規例的資料。	披露	五、2.(2) 優質 產品
B6產品責任	B6.1 已售或已運送產品總數中因安全與健康理由而須回收的百分比。	披露	五、2.(2) 優質 產品
B6產品責任	B6.2 接獲關於產品及服務的投訴數目以及應對方法。	披露	五、2.(2) 優質 產品
B6產品責任	B6.3 描述與維護及保障知識產權有關的慣例。	披露	五、2.(2) 優質 產品
B6產品責任	B6.4 描述質量檢定過程及產品回收程序。	披露	五、2.(2) 優質 產品
B6產品責任	B6.5 描述消費資料保障及私隱政策，以及相關執行及監察方法。	披露	五、2.(2) 優質 產品

附錄 Appendix

序號	指標描述	披露情況	章節
B7反貪污	一般披露 有關防止賄賂、勒索、欺詐及洗黑錢的： (a) 政策； (b) 遵守對發行人有重大影響的相關法律及規例的資料。	披露	四、3. 合規 與風險 管理
B7反貪污	B7.1 於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果。	披露	四、3. 合規 與風險 管理
B7反貪污	B7.2 描述防範措施及舉報程序，以及相關執行及監察方法。	披露	四、3. 合規 與風險 管理
B7反貪污	B7.3描述向董事及員工提供的反貪污培訓。	披露	四、3. 合規 與風險 管理
B8社區投資	一般披露 有關以社區參與來了解營運所在社區需要和確保其業務活動會考慮社區利益的政策。	披露	五、2.(5) 社區 公益
B8社區投資	B8.1 專注貢獻範疇（如教育、環境事宜、勞工需求、健康、文化、體育）。	披露	五、2.(5) 社區 公益
B8社區投資	B8.2 在專注範疇所動用資源（如金錢或時間）。	披露	五、2.(5) 社區 公益

Serial number	Description of index	Disclosure information	Chapter
A1 Emissions	<p>General Disclosure</p> <p>Information on:</p> <p>(a) the policies;</p> <p>(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.</p> <p>Note: Air emissions include NO_x, SO_x, and other pollutants regulated under national laws and regulations.</p> <p>Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.</p> <p>Hazardous wastes are those defined by national regulations.</p>	Disclosure	5.1 (5) Emission management
A1 Emissions	<p>A1.1</p> <p>The types of emissions and respective emissions data.</p>	Disclosure	5.1 (5) Emission management
A1 Emissions	<p>A1.2</p> <p>Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).</p>	Disclosure	5.1 (5) Emission management
A1 Emissions	<p>A1.3</p> <p>Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).</p>	Disclosure	5.1 (5) Emission management
A1 Emissions	<p>A1.4</p> <p>Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).</p>	Disclosure	5.1 (5) Emission management
A1 Emissions	<p>A1.5</p> <p>Description of emissions target(s) set and steps taken to achieve them.</p>	Disclosure	5.1 (5) Emission management
A1 Emissions	<p>A1.6</p> <p>Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.</p>	Disclosure	5.1 (5) Emission management

附錄 Appendix

Serial number	Description of index	Disclosure information	Chapter
A2 Use of Resources	General Disclosure Note: Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.	Disclosure	5.1 (4) Resource saving
A2 Use of Resources	A2.1 Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Disclosure	5.1 (4) Resource saving
A2 Use of Resources	A2.2. Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Disclosure	5.1 (4) Resource saving
A2 Use of Resources	A2.3 Description of energy use efficiency target(s) set and steps taken to achieve them.	Disclosure	5.1 (4) Resource saving
A2 Use of Resources	A2.4 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Disclosure	5.1 (4) Resource saving
A2 Use of Resources	A2.5 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Disclosure	5.1 (4) Resource saving
A3 The Environment and Natural Resources	General Disclosure Policies on minimising the issuer's significant impacts on the environment and natural resources.	Disclosure	5.1 (2) Environmental management
A3 The Environment and Natural Resources	A3.1 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Disclosure	5.1 (2) Environmental management
A4 Climate Change	General Disclosure: Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Disclosure	5.1. (3) Response to climate change
A4 Climate Change	A4.1. Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Disclosure	5.1. (3) Response to climate change

Serial number	Description of index	Disclosure information	Chapter
B1 Employment	General Disclosure Information on: (a) the policies; (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Disclosure	5.2 (4) Employee development
B1 Employment	B1.1 Total workforce by gender, employment type (for example, full-or part time), age group and geographical region.	Disclosure	5.2 (4) Employee development
B1 Employment	B1.2 Employee turnover rate by gender, age group and geographical region.	Disclosure	5.2 (4) Employee development
B2健康與安全	General Disclosure Information on: (a) the policies; (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Disclosure	5.2 (1) Health and safety
B2健康與安全	B2.1 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	Disclosure	5.2 (1) Health and safety
B2健康與安全	B2.2 Lost days due to work injury.	Disclosure	5.2 (1) Health and safety
B2健康與安全	B2.3 Description of occupational health and safety measures adopted, and how they are implemented and monitored.	Disclosure	5.2 (1) Health and safety

Serial number	Description of index	Disclosure information	Chapter
B3 Development and Training	General Disclosure Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. Note: Training refers to vocational training. It may include internal and external courses paid by the employer.	Disclosure	5.2 (4) Employee development
B3 Development and Training	B3.1 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Disclosure	5.2 (4) Employee development
B3 Development and Training	B3.2 The average training hours completed per employee by gender and employee category.	Disclosure	5.2 (4) Employee development
B4 Labour Standards	General Disclosure Information on: (a) the policies; (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Disclosure	5.2 (4) Employee development
B4 Labour Standards	B4.1 Description of measures to review employment practices to avoid child and forced labour.	Disclosure	5.2 (4) Employee development
B4 Labour Standards	B4.2 Description of steps taken to eliminate such practices when discovered.	Disclosure	5.2 (4) Employee development
B5 Supply Chain Management	General Disclosure Policies on managing environmental and social risks of the supply chain.	Disclosure	5.2 (3) Supply chain management
B5 Supply Chain Management	B5.1 Number of suppliers by geographical region.	Disclosure	5.2 (3) Supply chain management
B5 Supply Chain Management	B5.2 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Disclosure	5.2 (3) Supply chain management


Serial number	Description of index	Disclosure information	Chapter
B5 Supply Chain Management	B5.3 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Disclosure	5.2 (3) Supply chain management
B5 Supply Chain Management	B5.4 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Disclosure	5.2 (3) Supply chain management
B6 Product Responsibility	General Disclosure Information on: (a) the policies; (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Disclosure	5.2 (2) High-quality products
B6 Product Responsibility	B6.1 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Disclosure	5.2 (2) High-quality products
B6 Product Responsibility	B6.2 Number of products and service related complaints received and how they are dealt with.	Disclosure	5.2 (2) High-quality products
B6 Product Responsibility	B6.3 Description of practices relating to observing and protecting intellectual property rights.	Disclosure	5.2 (2) High-quality products
B6 Product Responsibility	B6.4 Description of quality assurance process and recall procedures.	Disclosure	5.2 (2) High-quality products
B6 Product Responsibility	B6.5 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Disclosure	5.2 (2) High-quality products
B7 Anti-corruption	General Disclosure Information on: (a) the policies; (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Disclosure	4.3. Compliance and risk management

附錄 Appendix

Serial number	Description of index	Disclosure information	Chapter
B7 Anti-corruption	B7.1 Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Disclosure	4.3. Compliance and risk management
B7 Anti-corruption	B7.2 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	Disclosure	4.3. Compliance and risk management
B7 Anti-corruption	B7.3 Description of anti-corruption training provided to directors and staff.	Disclosure	4.3. Compliance and risk management
B8 Community Investment	General Disclosure Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Disclosure	5.2 (5) Community public welfare
B8 Community Investment	B8.1 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Disclosure	5.2 (5) Community public welfare
B8 Community Investment	B8.2 在專注範疇所動用資源（如金錢或時間）。	Disclosure	5.2 (5) Community public welfare

對聯合國可持續發展目標的貢獻

Contributions to the United Nations Sustainable Development Goals









聯合國可持續發展目標 United Nations Sustainable Development Goals	章節 Chapter
<div>   </div>	五、2.(4)員工發展 5.2 (4) Employee development 五、2.(5)社區公益 5.2 (5) Community public welfare
<div>   </div>	五、2.(4)員工發展 5.2 (4) Employee development 五、2.(5)社區公益 5.2 (5) Community public welfare
<div>   </div>	五、1. (3)應對氣候變化 5.1. (3) Response to climate change 五、2. (1)健康與安全 5.2. (1) Health and safety 五、2.(5)社區公益 5.2 (5) Community public welfare
<div>   </div>	五、2. (4)員工發展 5.2. (4) Employee development 五、2.(5)社區公益 5.2 (5) Community public welfare
<div>   </div>	四、1. 公司治理 4.1. Corporate governance 五、2. (4)員工發展 5.2. (4) Employee development
<div>   </div>	五、1.(2)環境管理 5.1 (2) Environmental management 五、1. (4)資源節約 5.1. (4) Resource saving

附錄 Appendix

聯合國可持續發展目標 United Nations Sustainable Development Goals	章節 Chapter
 	<p>五、1. (1)[專題]探索綠色低碳發展路徑為 破達峰碳中和貢獻力量</p> <p>5.1. (1) [Special topic] Explore the green low-carbon development path to contribute to the carbon peaking and carbon neutrality</p> <p>五、1.(2)環境管理</p> <p>5.1 (2) Environmental management</p> <p>五、1. (3)應對氣候變化</p> <p>5.1. (3) Response to climate change</p> <p>五、1. (4)資源節約</p> <p>5.1. (4) Resource saving</p>
 	<p>四、1. 公司治理</p> <p>4.1. Corporate governance</p> <p>五、2. (4)員工發展</p> <p>5.2. (4) Employee development</p>
 	<p>三、2. 獎項與榮譽</p> <p>3.2. Awards and honors</p> <p>五、2.(2)優質產品</p> <p>5.2 (2) High-quality products</p>
 	<p>四、1. 公司治理</p> <p>4.1. Corporate governance</p> <p>五、2. (4)員工發展</p> <p>5.2. (4) Employee development</p>

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<div>   </div>	<p>五、2.(2)優質產品</p> <p>5.2 (2) High-quality products</p> <p>五、2.(3)供應鏈管理</p> <p>5.2 (3) Supply chain management</p>
<div>   </div>	<p>五、1.(2)環境管理</p> <p>5.1 (2) Environmental management</p> <p>五、1. (3)應對氣候變化</p> <p>5.1. (3) Response to climate change</p> <p>五、1. (4)資源節約</p> <p>5.1. (4) Resource saving</p>

附錄 Appendix

聯合國可持續發展目標 United Nations Sustainable Development Goals	章節 Chapter
 	<p>五、1.(2)環境管理</p> <p>5.1 (2) Environmental management</p> <p>五、1. (3)應對氣候變化</p> <p>5.1. (3) Response to climate change</p> <p>五、1. (4)資源節約</p> <p>5.1. (4) Resource saving</p> <p>五、1. (5)排放管理</p> <p>5.1. (5) Emission management</p>
 	<p>五、1.(2)環境管理</p> <p>5.1 (2) Environmental management</p> <p>五、1. (3)應對氣候變化</p> <p>5.1. (3) Response to climate change</p> <p>五、1. (4)資源節約</p> <p>5.1. (4) Resource saving</p> <p>五、1. (5)排放管理</p> <p>5.1. (5) Emission management</p>
 	<p>四、1. 公司治理</p> <p>4.1. Corporate governance</p> <p>五、2. (4)員工發展</p> <p>5.2. (4) Employee development</p>
 	<p>四、1. 公司治理</p> <p>4.1. Corporate governance</p> <p>四、4. 利益相關方參與</p> <p>4.4. Participation of stakeholders</p> <p>五、2.(2)優質產品</p> <p>5.2 (2) High-quality products</p>

獨立鑑證報告

Independent Assurance Report

Deloitte.

德勤

中國旭陽集團有限公司董事會（以下簡稱「董事會」）：

To the Board of Directors of China Risun Group Limited (the "Board of Directors"):

我們受中國旭陽集團有限公司（以下簡稱「中國旭陽」）董事會的委託，對中國旭陽編製的自2021年1月1日起至2021年12月31日止的2021年度ESG報告（以下簡稱「ESG報告」）進行有限保證鑑證。

We have been engaged by the Boards of Directors of China Risun Group Limited (hereafter 'China Risun') to perform a limited assurance engagement on the information disclosed in China Risun 2021 ESG Report (hereafter 'the ESG Report') for the financial period from 1 January 2021 to 31 December 2021.

董事會的責任

Responsibilities of the Board of Directors

董事會負責根據香港聯合交易所《環境、社會及管治報告指引》編製ESG報告，並對其中的表述（包括報告準則、報告局限性及報告所載的信息和認定）負責任。

The Board of Directors is responsible for preparing the 2021 ESG Report in accordance with Environmental, Social and Governance Reporting Guide issued by Hong Kong Stock Exchange, and its presentation (including reporting guidelines, limitations, reporting data and relevant identification procedures).

董事會負責確定ESG環境關鍵績效表現，負責建立和維護適當的ESG環境績效表現管理系統和用於生成ESG報告中披露的環境績效表現信息的內部控制系統，以及負責保留足夠的記錄。

The Board of Directors is also responsible for determining China Risun's objectives in respect of ESG environmental key performance and reporting, establishing and maintaining appropriate environmental performance management system and internal control system for obtaining environmental performance information in the report, and maintaining sufficient records.

我們的責任

Our Responsibilities

根據與中國旭陽的約定，我們負責實施有限保證鑑證工作（以下簡稱「鑑證工作」），對ESG報告中披露的2021年度環境關鍵績效指標實施有限保證鑑證程序，並對報告中披露的2021年度環境關鍵績效指標是否存在重大錯報進行評價。本鑑證報告僅為董事會編製，除此以外，並沒有其他責任。我們不會就我們的工作或本鑑證報告的內容，對任何第三方承擔任何責任。環境關鍵指標包括：

In accordance with the agreed terms with China Risun, we are responsible for performing a limited level of assurance engagement on the following selected data in the ESG Report, as well as evaluating whether there is any material misstatement of the environmental key performance indicators of 2021 disclosed in the ESG Report. Our work is only for the Board of Directors, and for no other purposes. We do not assume responsibility or accept liability to any other person or third party for our work or the contents of this report. The environmental key indicators including:

- 二氧化硫排放總量
- Total SO₂ emission

- 二氧化硫排放密度
- SO₂ emission density
- 氮氧化物排放總量
- Total NO_x emission
- 氮氧化物排放密度
- NO_x emission density
- 顆粒物排放總量
- Total particle emission
- 顆粒物排放密度
- Particle emission density
- 溫室氣體排放總量
- Total emission of greenhouse gas emission
- 溫室氣體直接排放量
- Total emission of greenhouse gas emission
- 溫室氣體間接排放量
- Indirect emissions of greenhouse gas emission
- 溫室氣體排放密度
- Greenhouse gas emission density
- 污水排放總量
- Total sewage discharge
- COD排放總量
- Total COD discharge
- 氨氮排放總量
- Total ammonia nitrogen discharge
- 污水排放密度
- Sewage discharge density
- 有害廢棄物產生量
- Generation of hazardous waste
- 有害廢棄物產生密度
- Density of hazardous waste generation
- 無害廢棄物產生量
- Generation of non-hazardous waste
- 無害廢棄物產生密度
- Density of non-hazardous waste generation
- 煤炭消耗量
- Coal consumption
- 柴油消耗量
- Diesel consumption
- 汽油消耗量
- Gasoline consumption
- 淨外購電力
- Net purchased electricity
- 淨外購熱力
- Net purchased heat
- 綜合能耗
- Comprehensive energy consumption
- 綜合能耗消耗密度
- Comprehensive energy consumption density

- 新鮮水用水總量
- Total fresh water consumption
- 新鮮水用水密度
- Fresh water consumption density

我們的獨立性和質量控制

Our Independence and Quality Control

我們遵守國際會計師職業道德準則理事會《國際會計師執業道德守則》(「Code of Ethics for Professional Accountants」)對獨立性和其他道德的要求。我們的質量控制採用《國際質量控制準則第一號》(「International Standard on Quality Control 1」)。

We conducted our engagement in accordance with the independence and other ethical requirements in the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants. We maintains a comprehensive system of quality control applying *International Standard on Quality Control 1*.

工作的基礎

Basis of Our Work

我們按照《國際鑑證業務準則第3000號：歷史財務信息審計或審閱以外的鑑證業務》(「International Standard on Assurance Engagements 3000」)執行鑑證工作。我們在策劃和執行鑑證工作時，均以取得一切我們認為必需的信息和解釋為目標，使我們能獲得充分的憑證作出結論。

We conducted our work in accordance with *International Standard on Assurance Engagements 3000: Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* issued by the International Federation of Accountants. We planned and performed our engagement to obtain all the information and evidence which we considered necessary to form conclusions.

工作程序、範圍及局限性

Procedures, Scopes and Limitations of Our Work

ESG報告鑑證工作的內容包括與主要負責ESG報告信息編製工作的人員進行詢問，並恰當地實施分析和其他證據收集程序。我們所實施的工作包括：

Our procedures performed included interviewing with China Risun's personnel responsible for collecting, compiling and reporting the information, analyzing the information obtained, and other procedures relevant to the collection of the appropriate evidences. Specifically we:

- 與中國旭陽確立2021年度ESG報告獨立有限鑑證工作所包括的環境關鍵績效指標及相關的評價標準；
- Establishing acknowledgement of Environmental key performance indicator regarding the 2021 ESG Report with China Risun to perform this limited assurance engagement.
- 與中國旭陽負責收集、整理和披露信息的管理層和員工進行訪談，根據香港聯合交易所《環境、社會及管治報告指引》檢查環境關鍵績效指標信息是否已反映在報告中，抽取中國旭陽總部層面相關原始文件與報告信息進行比對；
- Interviewing management and staff responsible for the Subject Matter Information, Assessing the inclusion of the Environmental key performance indicators in the ESG Report against requirements of the *Environmental, Social and Governance Reporting Guide* issued by Hong Kong Stock Exchange, and comparing the sampled original documents from Headquarter with the statements in the ESG Report.

附錄 Appendix

- 在考慮定量和風險分析的基礎上，抽取環境關鍵績效指標進行覆核，對選定的定州生產園區、滄州生產園區兩家生產園區開展鑑證工作。
- On the basis of quantitative and risk analysis, the environmental key performance indicators were selected for review, and the Dingzhou Production Base and Cangzhou Production Base were selected for verification.

有限保證鑑證為獲取有限保證而實施的程序旨在確認信息的可信性，該程序的範圍會小於為獲取合理保證所實施的程序的範圍。我們的工作和鑑證報告並不會就中國旭陽ESG報告管理系統和程序的有效性及其績效信息發表意見。

In a limited assurance engagement, the evidence gathering procedures are less in scope than a reasonable assurance engagement. Accordingly, we do not express an opinion on the effectiveness of any of the China Risun's management systems, business processes, and related financial performance data.

除 貴公司定州生產園區、滄州生產園區外，我們沒有對中國旭陽的其他分支機構及子公司實施上述鑑證工作，且不會訪問外部利益相關方。歷史比較數據也不在本次鑑證工作範圍內。同時，本次鑑證範圍不包括對ESG報告中披露的財務信息與數據。

We only performed above assurance work at Dingzhou Production Base and Cangzhou Production Base, not including any branches and subsidiaries, we did not interview with external stakeholders. Moreover, the scope of this work does not include historical comparative data and financial data.

結論

Our Conclusions

根據我們上述的鑑證工作，我們並沒有注意到任何重大事項，使我們相信中國旭陽根據標準編製的ESG報告中披露的ESG環境相關的關鍵績效指標存在重大錯報。

Based on our work performed, nothing has come to our attention that would lead us to believe that there is any material misstatement related to the Subject Matter in the ESG Report.

This is translation of the Chinese language version of the Independent Assurance Report. If there is any conflict between the Chinese and English version, the Chinese version will prevail.

德勤華永會計師事務所（特殊普通合夥）
Deloitte Touche Tohmatsu Certified Public Accountants LLP

2022年4月6日
6 April 2021

意見反饋

Feedback

感謝您閱讀本集團2021年《環境、社會及管治報告》。為了向您及其他利益相關方提供更有價值的信息，促進本集團提升環境、社會及管治的整體工作能力和水平，我們衷心歡迎您能夠對報告提出真知灼見，並通過以下方式反饋給我們：

Thank you for reading the Group's 2021 Environmental, Social, and Governance Report. In order to provide you and other stakeholders with more valuable information and to promote the Group's overall working ability and level of in environmental, social and governance efforts, we sincerely welcome your insightful comments on the report and give feedback to us through the following ways:

地址：北京市豐台區南四環西路188號總部基地5區4號樓

Address: Building 4, zone 5, Headquarters Base, No. 188, South Fourth Ring West Road, Fengtai District, Beijing

郵政編碼：100070

Postal Code: 100070

電郵：ir@risun.com

Email: ir@risun.com

1、 您屬於以下哪類利益相關方？

Which of the following types of stakeholders do you belong to?

- ☐ **A** 政府及監管機構
Government and regulatory agencies
- ☐ **B** 客戶
Customers
- ☐ **C** 投資者
Investors/shareholders
- ☐ **D** 供應鏈
Supply chain
- ☐ **E** 員工
Employees
- ☐ **F** 合作夥伴
Partners
- ☐ **G** 社區
Communities
- ☐ **H** 專家
Experts

附錄 Appendix

2、 您認為本報告是否完整覆蓋了您對本集團的期望？

Do you believe that this Report provides complete coverage of your expectations on the Group?

☐

A

是
Yes

☐

B

否，您認為您還有哪些期望在本報告中沒有反映？

No, what other expectations do you think are not reflected in this Report?

3、 您認為本集團是否很好地回應了您的期望？

Do you think the Group has responded well to your expectations?

☐

A

是
Yes

☐

B

否，您認為您的哪些期望沒有得到很好地回應？

No, what expectations do you think have not been well responded?

4、 您認為本報告的內容安排和版式設計是否方便閱讀？

Do you think the content arrangement and layout of this Report are easy to read?

☐

A

好
Excellent

☐

B

較好
Good

☐

C

一般
Not bad

☐

D

差
Poor

5、 您對本集團ESG工作和本報告還有哪些意見和建議？

Do you have any other comments and suggestions on the Group's ESG work and this Report?

再次感謝您的參與！

Thank you again for your participation!



China Risun Group Limited
中國旭陽集團有限公司