



華潤燃氣控股有限公司 China Resources Gas Group Limited

(於百慕達註冊成立之有限公司)
(Incorporated in Bermuda with limited liability)

股份代號 stock code : 1193

2024

環境、社會及管治報告
Environmental, Social
and Governance Report



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報告導讀 About This Report

報告目的

本報告為華潤燃氣控股有限公司及其區域公司發佈的第八份獨立《環境、社會及管治報告》。

本着公開、透明的原則，華潤燃氣以全面且客觀的方式向社會各界人士匯報本集團過去一年中在環境管理、社會責任及集團管治議題上的策略和承諾，同時通過數據披露詳細展示本集團在相關範圍的表現及績效考核。

本報告以中文和英文發佈，如有內容不一致，請以中文版為準。同時，報告已上載至香港聯合交易所（聯交所）及本集團網站www.crcgas.com。我們期待您通過本報告更好地了解我們，並提出寶貴意見。

REPORTING PURPOSE

This report is the eighth standalone Environmental, Social and Governance Report published by China Resources Gas Group Limited and its regional companies.

CR Gas reports its strategies and commitments on the topics of environmental management, social responsibility and group governance in the past year in a comprehensive and objective manner to all levels of society in the principles of being open and transparent, while disclosing and displaying in details the Group's performance and performance appraisal in the relevant areas through data.

This report is published in both Chinese and English. In case of any inconsistency, the Chinese version prevails. Meanwhile, the report has been uploaded to the website of The Stock Exchange of Hong Kong Limited (the Stock Exchange) and the Group's website at www.crcgas.com. We look forward to your valuable feedback as you get to know us better through this report.





稱謂說明

為便於表述，報告中的「華潤燃氣」「(本)集團」「(本)公司」「我們」均指代「華潤燃氣控股有限公司及其區域公司」。

APPELLATION STATEMENT

For the convenience of presentation, the “CR Gas”, the “Group”, the “Company”, “we”, “us” or “our” in this report all refer to “China Resources Gas Group Limited and its regional companies”.

報告範圍

本報告涵蓋本集團的核心業務，在2024年1月1日至2024年12月31日（統稱「本年度」或「年內」）的環境、社會及管治表現，個別部分內容超出上述範圍。本報告覆蓋本集團所有業務，包括城市燃氣業務、綜合服務、綜合能源（分佈式能源、分佈式光伏、交通充能）業務，和營運地點。

REPORTING SCOPE

This report covers the environmental, social and governance performance of the core business of the Group during the period from 1st January 2024 to 31st December 2024 (the “Year”), with contents of certain sections exceeding the above timeframe. This report covers all business activities, including the city gas business, integrated services, integrated energy (distributed energy, distributed photovoltaic and transport charging) business and operational locations of the Group.

報告標準

本報告根據香港聯合交易所有限公司（統稱「聯交所」）《主板上市規則》附錄C2《環境、社會及管治報告守則》進行編制，依照「不遵守就解釋」條文規定，並以其載列的四項匯報原則：重要性、量化、平衡及一致性，作為披露的基礎。

REPORTING STANDARDS

In compliance with the “comply or explain” provisions as stipulated in the Environmental, Social and Governance Reporting Code in Appendix C2 of the Main Board Listing Rules of The Stock Exchange of Hong Kong Limited (the “Stock Exchange”), this report has made disclosure based on four reporting principles, namely materiality, quantitative, balance and consistency, as set out in the Code.

報告審批

董事會負責領導、決策及監督在環境、社會及管治方面的措施、政策及程序，並於2025年3月28日審核通過此份ESG報告的發佈。

APPROVAL OF THE REPORT

The Board is responsible for leadership, decision-making and supervision of the measures, policies and processes in environmental, social and governance aspects, and reviewed and approved the issuance of this ESG report on March 28th, 2025.





關於華潤燃氣 About CR Gas

集團介紹

華潤燃氣成立於2007年7月，2008年10月底在香港上市（股票代碼：1193.HK），是中國華潤集團有限公司旗下的城市燃氣投資運營平台，主要在中國內地投資經營與大眾生活息息相關的城市燃氣業務。集團總部位於深圳，並在中國多個城市設有分支機構和子公司，是中國最大的城市燃氣運營商之一。華潤燃氣主要經營業務包括天然氣購買及銷售、管道設施建設及運營、車船用氣、冷熱電綜合能源、車輛加氫、車輛充電、燃氣綜合服務等。截至2024年12月31日，集團層面註冊城市燃氣項目數量達到276個，遍佈全國25個省份，其中包括15個省會城市，76個地級市。

GROUP PROFILE

CR Gas was established in July 2007 and listed in Hong Kong (stock code: 1193.HK) at the end of October 2008. It is the city gas investment and operation platform under China Resources (Holdings) Co., Ltd., mainly investing in and operating city gas business closely related to people's life in the Chinese mainland. Headquartered in Shenzhen, with branches and subsidiaries in many cities in China, the Group is one of the largest city gas operators in China. The principal businesses of CR Gas include the purchases and sales of natural gas, the construction and operation of pipeline facilities, gas for vehicles and vessels, integrated cooling, heating and power energy, vehicle hydrogen refueling, vehicle charging, and integrated gas services, etc. As of 31st December 2024, the number of registered city gas projects at the Group level reached 276, spanning across 25 provinces, including 15 provincial capital cities, and 76 prefecture-level cities.



2024年華潤燃氣天然氣分銷版圖

NATURAL GAS DISTRIBUTION NETWORK OF CR GAS, 2024



企業文化
CORPORATE CULTURE

企業基因
DNA

為中華民族偉大復興而立心
Determined to realize the great rejuvenation of the Chinese nation

為創造人民幸福生活而立命
Pursue to create a happy life for the people

為實現國家經濟繁榮而立身
Strive for the economic prosperity for the country

使命
Mission

促進綠色發展 共創美好生活
Embrace green development and build a beautiful life together

願景
Vision

成為大眾信賴和喜愛的
世界一流能源服務企業
Become a world-leading energy service enterprise trusted and preferred by the public

價值觀
Value

誠實守信 Integrity
業績導向 Performance-Oriented
以人為本 People-Oriented
合作共贏 Win-Win Collaboration

企業精神
Spirit

以身許國的奉獻精神
Dedicated oneself to the cause of the country

敢為人先的創新精神
Be the pioneer to be innovative

篤定前行的堅守精神
To forge ahead with perseverance

自強不息的奮鬥精神
Exert constantly for the betterment

願景
VISION

使命
MISSION

價值觀
VALUE

企業基因
DNA

組織氛圍
ATMOSPHERE

企業精神
SPIRIT

組織氛圍
Atmosphere

真誠
Sincerity

團結
Solidarity

開放
Open-mindedness

進取
Proactivity

榮譽表彰獎項

HONoured RECOGNITIONS AND AWARDS

華潤燃氣
CHINA
RESOURCES GAS



2024香港綠色企業大獎「連續獲獎機構（5年或以上）」
Hong Kong Green Awards 2024 – “Sustained Performance Companies (5 years Consecutive Excellence)”



2024香港綠色企業大獎「超卓環保安全健康獎－金獎」
Hong Kong Green Awards 2024 – “Environmental, Health and Safety Award” – Gold



評選為「安永可持續發展年度最佳獎項2024優秀案例」
Selected as “EY Sustainability Excellence Awards 2024 – Best Case of the Year”



福州華潤燃氣
Fuzhou CR Gas



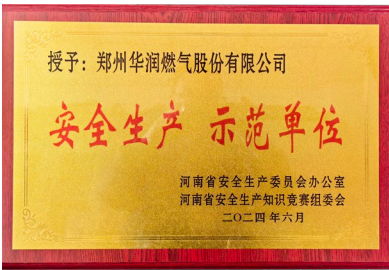
2024年度全國燃氣行業安全先進班組
Advanced Team in Safety in the Nationwide Gas Industry of 2024

大連華潤燃氣
Dalian CR Gas



2024大連夏季達沃斯論壇籌辦工作優秀集體
Outstanding Organizing Group for 2024 Dalian Summer Davos Forum

鄭州華潤燃氣
Zhengzhou CR Gas



安全生產示範單位
Production Safety Demonstration Unit



2024年度華夏建設科學技術獎三等獎
The Third Prize of the Huaxia Construction Science and Technology Award 2024

業務回顧

主要業務

華潤燃氣主要從事下游城市燃氣分銷業務，綜合能源業務以及燃氣綜合服務等。華潤燃氣的業務戰略佈局遍及中國各地，主要位於經濟較發達、人口稠密的地區和天然氣儲量豐富的地區。

華潤燃氣全力發展天然氣供應業務，向工業、商業、居民客戶及天然氣汽車供應天然氣，並推動綜合能源、綜合服務業務快速發展。2024年公司完成天然氣銷售399.1億立方米，鋪設管網長度達7,518公里，建設廠站共218座，新開發工商業用戶5.3萬戶，新開發居民用戶269.3萬戶，其中：新房接駁用戶211.7萬戶，舊房接駁用戶57.6萬戶。

BUSINESS REVIEW

Primary Business

CR Gas is principally engaged in downstream city gas distribution business, integrated energy business and integrated gas services. Its operations are strategically located across China, mainly in areas which are economically more developed and densely populated and those with rich reserves of natural gas.

CR Gas has made every effort to develop its natural gas supply business, pipeline natural gas to industrial, commercial and residential customers as well as natural gas vehicles, and promoted the rapid development of integrated energy and integrated service business. In 2024, the Company sold a total of 39.91 billion cubic metres of natural gas, the length of the pipeline network reached 7,518 kilometers, a total of 218 stations were built, new industrial and commercial users reached 0.053 million, and new residential users reached 2.693 million. In particular, new house connection users and existing house connection users reached 2.117 million and 0.576 million.



2024年

公司共銷售天然氣

399.1 億立方米

The Company sold a total of 39.91 billion cubic metres of natural gas

新開發工商業用戶

5.3 萬戶

New industrial and commercial users reached 0.053 million

新開發居民用戶

269.3 萬戶

New residential users reached 2.693 million

其中：新房接駁用戶

211.7 萬戶

In particular, new house connection users, existing house connection users reached 2.117 million and 0.576 million

舊房接駁用戶

57.6 萬戶



低碳業務擴展

近年，國家整體經濟轉型向低碳發展，清潔能源的需求極速增長。為響應國家的低碳發展戰略，我們依託規模優勢，以分佈式光伏為主賽道，輔以分佈式能源、交通充電等賽道，發力「兩佈一充」業務，加快建立綜合能源業務核心能力，積累強有力的品牌優勢，打造具有華潤燃氣特色的綜合能源業務。依託智慧能源管理平台，以綠電光伏、節能管控為切入點，改造用戶用能結構，實現智能化管控，挖掘能源數據價值。報告期內，我們持續聚焦「兩佈一充」，貼近城市各類用戶優勢，業務規模保持良好增速。全年能源銷售量37.4億千瓦時，同比增加27.2%。

Low-carbon Business Development

In recent years, the state's overall economy has shifted to low-carbon development, with a significant increase in the demand for clean energy. In response to the state's low-carbon development strategy, we have relied on our scale advantage to focus on the "distributed photovoltaic, distributed energy and transport charging" business by taking distributed photovoltaic as the main track, and the distributed energy, transport charging as supplement, so as to accelerate the establishment of the core competence of the integrated energy business, and to accumulate a strong brand advantage, to build a comprehensive energy business with the characteristics of CR Gas. With the use of smart energy management platform, taking green power photovoltaic and energy saving control as the starting point to reform customer's energy usage structures, achieve intelligent management and exploit the value of energy data. During the Reporting Period, we continued to focus on "distributed photovoltaic, distributed energy and transport charging" business path, and maintained a good growth in business scale by sticking to the advantages of various users in the city. The energy sales volume reached 3.74 billion kWh for the year, representing a year-on-year increase of 27.2%.



主席致辭 Message From The Chairman



回望2024年，面對複雜的外部環境，華潤燃氣保持開拓進取，以高質量發展為主要任務，扛起大國民生的責任使命，持續把ESG理念融入企業改革發展和生產經營全過程，努力為集團高質量可持續發展做出貢獻，實現企業經濟、社會和環境效益的有機統一。

Looking back on 2024, in the face of the complex external environment, CR Gas persisted in forging ahead by pinpointing high-quality development, shouldering the responsibility and mission of heightening people's livelihood while continuously integrating the ESG concept into the entire process of corporate reform and development, production and operation, striving to make contributions to the high-quality sustainable development of the Group so as to achieve the organic integration of corporate economic, social and environmental benefits.





誠信合規，共謀良性發展

我們將企業治理視為高質量發展的基石，持續強化風險管控與商業道德建設，持續完善ESG管治架構，以體系化思維推動可持續發展，為企業的穩健前行築牢根基。2024年，我們持續完善ESG治理架構，將「企業管治委員會」更名為「ESG委員會」，將ESG事項提升至董事會層級審議，確保ESG議題深度融入公司戰略決策與業務運營。此外我們全面優化供應鏈廉潔合規管理體系，同步更新合規條款並擴大簽署範圍，確保全球供應鏈合規統一。

INTEGRITY AND COMPLIANCE, JOINING HANDS TO FOSTER A SOUND DEVELOPMENT

Regarding corporate governance as the cornerstone of high-quality development, we continuously boost risk management and control and business ethics development by constantly improving the ESG governance structure while promoting sustainable development with systematic thinking, with a view to laying a solid foundation for the stable development of the enterprise. In 2024, we further improved our ESG governance structure by renaming the “Corporate Governance Committee” to “ESG Committee” and elevating ESG issues to the Board level for consideration in a bid to ensure that ESG issues are deeply integrated into the Company’s strategic decision-making and business operations. In addition, we optimized the integrity and compliance management system of the supply chain in an all-around way, updated the compliance clauses simultaneously and expanded the scope of agreement signing, so as to set the seal on the unified compliance of the global supply chain.

責任擔當，不負使命初心

我們持續精進產品品質和服務質量，創新智慧產品和服務模式，以「智慧燃氣」賦能城市公共安全，努力成為值得社會信任與託付的責任企業。2024年，我們重點推進氣合網商城、燃氣管家APP、智能化無人值守場站等智數化項目建設，通過接入高精準檢測設備等技術手段，形成覆蓋全業務鏈的燃氣安全運營數字化平台一體化解決方案，推進燃氣經營源頭管控和使用末端安全治理，切實築牢燃氣安全「防火牆」。

TAKING RESPONSIBILITY AND LIVING UP TO THE ORIGINAL ASPIRATIONS OF THE MISSION

We continued to refine product quality and service quality, being innovative in smart products and service models. By empowering urban public safety with “smart gas”, we strive to become a responsible enterprise that earns the trust and entrustment of society. In 2024, we focused on promoting the construction of intelligent digitalization projects such as Qihewang Mall, Gas Butler APP, and intelligent unattended stations. Through the access to high-accuracy detection equipment and other technical means, we developed an integrated solution for gas safety operation digital platform covering the whole business chain, promoted the source control of gas operation and safety governance at the end of use, and effectively built a solid “firewall” of gas safety.





聚焦「雙碳」，堅定綠色發展

我們積極響應國家「雙碳」戰略，充分利用城市燃氣主業的渠道優勢和用戶資源優勢，擇優選取分佈式光伏、分佈式能源和交通充能的業務賽道，不斷提升綜合能源方案解決能力。公司累計簽約裝機規模4吉瓦，累計投運裝機規模3.1吉瓦，其中，分佈式能源2.6吉瓦，分佈式光伏94.7兆瓦，交通充能415兆瓦。2024年全年充電售電量近3億度，相比燃油車減少14萬噸二氧化碳排放。

眾志成城，創造價值動力

我們始終秉持以人為本的核心理念，與員工、客戶攜手共創美好未來。在人才發展方面，我們持續優化人才培養體系，實現人才成長與企業發展的良性互動。2024年，華潤燃氣學習平台註冊用戶達36,897人，月均活躍用戶達117,687人次，全年開展培訓項目281個，為員工職業發展提供有力支撐。在客戶服務方面，我們以「服務質量提升年」為抓手，在微網廳業務辦理系統等渠道全面推行滿意度評價機制，及時傾聽客戶需求，有效解決客戶問題。2024年，華潤燃氣客戶滿意度得分達96.62分，超額完成92分的年度目標。

徵程萬里闊，奮鬥正當時。2025年是「十四五」收官之年，也是「十五五」的謀劃之年，站在新的徵程、新的起點，我們將繼續秉承「促進綠色發展，共創美好生活」的使命，錨定「成為大眾信賴和喜愛的世界一流能源服務企業」的願景，不斷提升企業的核心競爭力與社會影響力。我們將與各方攜手共進，共同書寫可持續發展的新篇章，為創造更加美好的未來而不懈努力。

FOCUSING ON “DUAL CARBON” AND FIRMLY PURSUING GREEN DEVELOPMENT

Taking the initiative to respond to the national “dual-carbon” strategy, we made full use of the channel advantages and user resource advantages of our city gas business, selecting the distributed photovoltaic, distributed energy and transportation charging business tracks on a selective basis, and continuously improved the solution capability of integrated energy solutions. The Company's cumulative contracted installed capacity was 4GW, and the cumulative installed capacity of 3.1GW was put into operation, including 2.6GW of distributed energy, 94.7MW of distributed photovoltaic, and 415MW of transportation charging. In 2024, nearly 300 million kWh of electricity was sold for charging, reducing carbon dioxide emissions by 140,000 tonnes compared with that of fuel vehicles.

UNITED TOGETHER TO CREATE VALUE IMPETUS

We always adhere to the core philosophy of people-oriented, working hand-in-hand with employees and customers to create a brilliant future. In terms of talent development, we continued to optimize the talent training system to achieve a positive interaction between talent growth and corporate development. In 2024, the number of registered users of CR Gas' learning platform reached 36,897, and the average monthly active users reached 117,687. A total of 281 training programs were launched throughout the year, providing strong support for employees' career development. In terms of customer service, we took the “Year of Service Quality Enhancement” as the foundation for fully implementing the satisfaction evaluation mechanism in channels including the processing system of the WeChat business platform, taking note of customers' needs in a timely manner so as to solve their problems effectively. In 2024, CR Gas achieved a customer satisfaction score of 96.62 points, outperforming the annual target of 92 points.

We will forge ahead along the onward journey. The year 2025 is the final year of the “14th Five-Year Plan” and the planning year of the “15th Five-Year Plan”. Standing at a new journey and a new starting point, we will continue to adhere to the mission of “promoting green development and creating a better life”. Anchoring the vision of “becoming a world-class energy service enterprise trusted and loved by the public”, we will continue to enhance the core competitiveness and social influence of the enterprise. We will join hands with all parties, embarking on a new journey together in terms of sustainable development and making unremitting efforts to create a better future.



董事會聲明 Board Statement

華潤燃氣將ESG管理融入公司運營，積極開展氣候治理工作，持續優化可持續發展管理體系，構建高效運作的ESG管治架構。我們嚴格遵循香港聯交所《環境、社會及管治報告守則》，並做出如下聲明：

董事會對ESG事宜的監管

董事會對ESG事宜承擔最終責任，全面負責ESG戰略的制定、決策與推進，並監督戰略執行情況。

董事會下設ESG委員會，負責就公司ESG事宜向董事會提出建議，包括ESG願景、目標、策略及架構，同時監督、審閱及評估公司ESG願景、策略及架構的發展與實施，評估公司ESG治理效果及影響。

董事會的ESG方針及策略

董事會重視ESG相關風險和機遇所帶來的潛在影響，定期與利益相關方溝通，識別、管理重要性議題，並建立ESG議題庫。董事會結合ESG風險管控的重點領域設置適當和有效的ESG風險管理和內部監督機制，定期檢查和監督ESG工作完成情況，持續改進和提升ESG管理水平。

董事會按照ESG相關目標檢討進度

在公司ESG議題庫基礎上，華潤燃氣制定了針對ESG事宜的定性定量指標，覆蓋公司治理、產品質量、安全生產、社區關係、環境保護、應對氣候變化、人力資本、供應鏈管理和行業合作等方面，並定期檢查進度，確保建立完善的ESG管理和內部監督機制，推動ESG理念自上而下高效落實，形成協同工作機制。經董事會授權，華潤燃氣開展了2024年ESG信息收集和披露工作，並在本報告中詳細披露了公司2024年ESG工作的進展與成效。本報告經過董事會審議發佈。

CR Gas integrates ESG management into its operations, proactively carries out climate governance, continuously optimizes its sustainable development management system and builds an efficient ESG governance structure. We strictly follow the Hong Kong Stock Exchange's Environmental, Social and Governance Reporting Code and make the following statement:

THE BOARD'S OVERSIGHT OF ESG ISSUES

The Board of Directors assumes the ultimate responsibility for ESG matters, fully responsible for the formulation, decision-making and promotion of ESG strategies, and oversees the implementation of strategies.

The ESG Committee has been established under the Board to make recommendations to the Board on ESG matters, including the ESG vision, objectives, strategies and framework, while monitoring, reviewing and evaluating the development and implementation of the Company's ESG vision, strategies and framework, and assessing the Company's ESG governance effectiveness and impact.

THE BOARD'S ESG POLICY AND STRATEGY

The Board attaches great importance to the potential impacts brought about by ESG-related risks and opportunities, communicates with stakeholders on a regular basis, identifies and manages material issues, and establishes a database of ESG issues. The Board has set up appropriate and effective ESG risk management and internal supervision mechanisms in light of the key areas of ESG risk management and control, regularly evaluates and monitors the ESG performance, and continuously improves and enhances the level of ESG management.

THE BOARD REVIEWS PROGRESS AGAINST ESG TARGETS

On the basis of the Company's ESG issues database, CR Gas has formulated qualitative and quantitative indicators for ESG issues, covering corporate governance, product quality, production safety, community relations, environmental protection, response to climate change, human capital, supply chain management and industry cooperation, etc. The Company also conducts regular checks on progress to ensure the establishment of a sound ESG management and internal supervision mechanism, and to promote the efficient and effective implementation of ESG concepts from the top to the bottom. We also regularly check the progress to ensure that a comprehensive ESG management and internal supervision mechanism is in place to promote the efficient top-down implementation of ESG concepts and to form a collaborative working mechanism. As authorised by the Board, CR Gas has collected and disclosed ESG information for 2024, disclosing in detail the progress and effectiveness of ESG performance in 2024 in this report. This report has been published, after consideration by the Board of Directors.



築牢合規根基

健全長效發展機制

Consolidating the Foundation for
**Compliance to Build a Sound
Mechanism for Long-term
Development**



SDGs



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES




16 PEACE, JUSTICE AND STRONG INSTITUTIONS





華潤燃氣將企業治理視為高質量發展的基石，持續強化風險管控與商業道德建設。同時，公司持續完善ESG管治架構，以體系化思維推動可持續發展，為企業的穩健前行築牢根基，助力高質量發展邁向新台階。

CR Gas regards corporate governance as the cornerstone of high-quality development and continues to strengthen risk management and control and business ethics. At the same time, the Company continues to improve its ESG governance structure and promote sustainable development with systematic thinking, so as to build a solid foundation for the Company's steady progress and take its high-quality development to a new level.



2024 責任績效 2024 Responsibility Performance

營業收入

1,026.76 億港元

Operating income of HK\$102.676 billion

利潤總額

77.46 億港元

Total profit of HK\$7.746 billion

新申請專利數

45 個

45 new patents





築牢合規根基，健全長效發展機制

Consolidating the Foundation for Compliance to Build a Sound Mechanism for Long-term Development

1.1 合規經營

華潤燃氣致力於完善公司治理架構，強化合規風險管控，堅守商業道德準則，為企業的穩健與可持續發展夯實基礎。

公司治理

董事會事務管理

華潤燃氣持續優化企業管治體系，股東大會、董事會及高級管理層依據《公司章程》嚴格履行職責，確保權力行使與義務履行規範有序。董事會下設審計與風險管理委員會、薪酬委員會、提名委員會、環境、社會及管治委員會，通過充分發揮其決策監督、風險防控與治理優化職能，系統推進合規體系建設，保障戰略執行精準度與經營風險可控性，高效推進公司治理工作。

2024年，華潤燃氣對多項關鍵治理與合規制度進行了修訂，包括《華潤燃氣控股有限公司權責運行手冊（2024版）》《華潤燃氣控股有限公司「三重一大」決策事項清單（2024版）》《華潤燃氣控股有限公司黨委前置研究討論重大經營事項清單（2024版）》《華潤燃氣董事會及董事會授權決策事項清單（2024版）》等，進一步完善公司治理架構，釐清黨委、董事會和經理層的權責邊界，為建設現代化一流能源服務企業提供堅強治理保障。

1.1 COMPLIANCE OPERATION

CR Gas is committed to improving its corporate governance structure, strengthening compliance risk management and control and adhering to business ethics, thus strengthening a solid foundation for the sound and sustainable development of the Company.

Corporate Governance

Management of Board Affairs

CR Gas has continued to optimize its corporate governance system. The general meeting of shareholders, the Board of Directors and the senior management strictly perform their duties in accordance with the Articles of Association to ensure that the exercise of powers and the fulfillment of obligations are standardized and orderly. Audit and Risk Management Committee, Remuneration Committee, Nomination Committee and ESG Committee, have been established under the Board of Directors to systematically promote the construction of a compliance system, ensure the accuracy of strategic execution and the controllability of operational risks, and efficiently promote corporate governance by fully utilizing their decision-making and supervisory, risk prevention and control, and governance optimization functions.

In 2024, CR Gas revised various key governance and compliance policies, including the Operation Manual for Powers and Responsibilities of China Resources Gas Group Limited (2024 Revision), the List of "Three Major and One Significant" Decision-making Items of China Resources Gas Group Limited (2024 Revision), the List of Significant Operational Items for The Party Committee's Studying and Discussion in Advance of China Resources Gas Group Limited (2024 Revision), and the List of Decision-making Matters Authorized by the Board of Directors and the Board of Directors of CR Gas (2024 Revision), to further improve the corporate governance structure, clarify the boundaries of the powers and responsibilities of the Party Committee, the Board of Directors and the management, and to provide strong governance guarantee for the construction of a first-class modernized energy service enterprise.

關鍵績效

Key Performance

- 2024年度召開董事會會議11次、委員會會議13次；各董事會會議平均出席率92.86%，委員會會議平均出席率96.08%
- 11 Board meetings and 13 committee meetings were held in 2024; the average attendance rate of each Board meeting was 92.86% and the average attendance rate of committee meetings was 96.08%



董事會多元化

華潤燃氣充分認識到董事會區域多元化的重要性，並將其視為維持企業競爭優勢的重要因素。

本公司制定《企業管治手冊》，其中包含《董事會成員多元化政策》，在確保董事會整體運作所需的技能與經驗平衡的前提下，我們注重吸納具備不同技能、地區及行業經驗、背景、性別等特質的成員。集團提名委員會每年至少進行一次董事會成員構成檢討，並從性別、年齡、文化及教育背景、地區及行業經驗技能等多元化角度，向董事會提出董事委任或連任的建議，最終決策將基於候選人的綜合優勢及其對董事會的潛在貢獻進行綜合評估後確定。集團董事會的組成情況（包括性別、年齡、學歷、服務任期等信息）將每年在《企業管治報告》中披露。

Board Diversity

CR Gas recognizes the importance of regional diversity on its Board of Directors and considers it as a key factor in maintaining its competitive advantage.

The Company has formulated the Corporate Governance Manual, which includes Policies on Diversity of the Board of Directors. Under the premise of ensuring a balance of skills and experience required for the overall operation of the Board, we emphasize the inclusion of members with different skills, regional and industrial experience, backgrounds, gender and other attributes. The Nomination Committee of the Group conducts a review on the members composition of the Board at least once a year and makes recommendations to the Board on the appointment or re-election of directors from diversified perspectives such as gender, age, cultural and educational background, regional and industrial experience and skills, etc. The final decision will be based on a comprehensive assessment of the candidates' overall strengths and their potential contribution to the Board. The composition of the Board of Directors of the Group (including information such as gender, age, academic qualifications and term of service) will be disclosed annually in the Corporate Governance Report.

關鍵績效

Key Performance

- 報告期內，集團董事會有2名女性董事，佔比14.3%
- During the reporting period, there were 2 female directors on the Board of the Group, representing 14.3% of the total number of directors

合規風控管理

華潤燃氣構建了一體化風險防範體系，強化內控審計監督，持續優化流程舉措，確保各類風險得到有效管控，為公司穩健發展提供堅實保障。

Compliance and Risk Control Management

CR Gas has established an integrated risk prevention system, strengthened internal control, audit and supervision, and continued to optimize processes and measures to ensure that all types of risks are effectively managed and controlled, so as to provide a solid guarantee for the sound development of the Company.



風險管理機制

華潤燃氣依據《華潤燃氣控股有限公司法律、合規、內控及風險一體化管理制度》，以「強內控、促合規、防風險」為目標，構建了以風險管理為導向，法律、合規、內控與風險管理職能協同運作的一體化風險防控體系。

集團董事會作為一體化管理的最高決策機構，統籌全局，並在總部、大區及區域公司層面設立風控委員會，由各單位負責人擔任主任，部門負責人擔任委員，秘書處負責具體落實工作。此外，總部、大區及區域公司各部室均設立風控合規官，與法律及風控部門共同組成合規風控工作組，定期召開會議，強化風險防範機制。

2024年，我們聚焦風險與合規的關鍵領域，新增或修訂了多項管理制度，包括《反壟斷合規管理辦法》《反壟斷合規管理規範運作指引》《合規管理制度》《董事、監事、高級管理人員履職合規風險防範指引》以及《防止利益衝突管理辦法》，進一步完善了集團合規制度體系，明確了各項管理要求，有效防範和化解潛在風險，為集團的持續健康穩定發展提供了有力支持。

Risk Management Mechanism

With the objective of “strengthening internal control, promoting compliance and preventing risks”, and in accordance with the Integrated Management Policy for Law, Compliance, Internal Control and Risk Management of China Resources Gas Group Limited, CR Gas has established a risk management oriented integrated risk prevention system with synergies among the four functions of law, compliance, internal control and risk management.

The Board of Directors of the Group is the highest decision-making body for the integrated management and coordinates the overall situation. We have established the Risk Control Committee at the levels of headquarters, major regions and regional companies, with the heads of each unit serving as the director, department heads serving as members, and the secretariat responsible for implementing the specific work of the Risk Control Committee. In addition, we have established the position of Risk Control and Compliance Officer at the levels of headquarters, major regions and regional companies, who formed a compliance and risk control working group with the legal and risk control departments to strengthen risk prevention and control through regular meetings.

In 2024, focusing on the key areas of risk and compliance, we added or revised various management measures, including the Measures for Anti-monopoly Compliance Management, Guidelines for the Standardized Operation of Anti-monopoly Compliance Management, Compliance Management System, Compliance Risk Prevention Guidelines for Directors, Supervisors, and Senior Management in the Performance of their Duties, and Administrative Measures for Preventing Conflict of Interest, which have further improved the Group's compliance system and clarified the management requirements, effectively prevented and resolved potential risks, and provided strong support for the Group's sustainable, healthy and stable development.



風險管理

2024年，圍繞燃氣行業業務價值鏈和戰略目標，華潤燃氣初步搭建了風險監測框架及指標庫，梳理出6個燃氣主業價值鏈主要環節和25個關鍵節點，選定45個監測指標納入指標庫，並通過案例宣貫、風險提示、新法解讀等方式，提升各單位風險防範意識，保障風險防控工作的質量與效率。

Risk Management

In 2024, focusing on the business value chain and strategic objectives of the gas industry, CR Gas initially set up a risk monitoring framework and indicator database, sorted out 6 major links and 25 key nodes in the value chain of the gas industry, and selected 45 monitoring indicators to be included in the indicator database. In addition, CR Gas enhanced the awareness of risk prevention of each unit through case studies, risk alert, and interpretation of the new law, so as to safeguard the quality and efficiency of the risk prevention and control.

華潤燃氣風險管理流程 CR Gas Risk Management Process	
識別與評估 Identification and evaluation	<p>華潤燃氣依據全面風險庫，於每年年初梳理年度重大風險並提出防控建議，經總部法律合規部匯總及總部風控委員會決議後，形成年度公司級風險清單。根據不同風險類型，綜合採取針對性防範措施，避免對同一風險的重複跟進。</p> <p>Based on CR Gas's comprehensive risk pool, at the beginning of each year, we identify major risks for the year and put forward prevention and control suggestions, form a company-level risk list for the year after being summarized by the Legal and Compliance Department of headquarters and resolved by the Headquarters Risk Control Committee. CR Gas adopts comprehensive measures to guard against risks based on different risk types to avoid repeated follow-up of same risk.</p>
監測與預警 Monitoring and alert	<p>結合年初風險評估結果，華潤燃氣科學設置風險量化監測指標，建立健全重大經營風險季度監測機制，確保新增重大風險及時上報並採取防控措施，實現風險的早預防、早發現、早處置。</p> <p>Based on the risk assessment results at the beginning of the year, CR Gas set quantitative risk monitoring indicators in a scientific way, establishing and improving quarterly monitoring mechanism of major operating risks, ensuring to report new major risks in a timely manner, and taking prevention and control measures to achieve early prevention, early detection and early disposal of risks.</p>
監督與整改 Supervision and rectification	<p>針對識別出的重大風險流程與環節，華潤燃氣通過發送風險提示函等方式進行風險提示，督促整改發現的內部控制缺陷，切實防範相關風險。</p> <p>For processes and stages with significant risks identified, CR Gas would inform risks by such means as sending a risk alert letter, supervise the rectification of internal control deficiencies identified, and take effective measures to prevent relevant risks.</p>
總結與改進 Review and improvement	<p>總部法律合規部每年撰寫風險管理及內部控制工作報告，向公司審核委員會匯報。針對具有典型性、普遍性的風險事件，深入分析原因，研究並制定相應管理措施。</p> <p>The Legal and Compliance Department of headquarters prepares an annual risk management and internal control report and reports to the Audit Committee of the Company. It conducts in-depth analysis of the causes of typical and common risk events and studies corresponding management measures.</p>



本年度，華潤燃氣遵循國資委及華潤集團的指引，組織開展2024年公司級重大風險評估工作，綜合管理團隊與總部各職能業務部門意見，評選出6項重大風險作為年度風險管理重點，按季度跟蹤風險動態與應對措施執行情況，同時推進重大風險的常態化管理和專項重點應對工作。

During the year, CR Gas followed the guidelines of the State-owned Assets Supervision and Administration Commission and China Resources Group to organize the assessment of major risks at the Company-level in 2024. After consolidating the opinions of the management team and various functional business departments at the headquarters, six major risks were selected as the annual risk management priorities, and the risk dynamics and implementation of countermeasures were tracked on a quarterly basis, while the regularized management of the major risks and the special key countermeasures were also taken.

2024 年公司級重大風險 Major Risks at Company-Level in 2024	
1	安全生產風險 Production Safety Risk
2	反壟斷風險 Anti-monopoly Risk
3	宏觀環境及行業政策風險 Macroeconomic Environment and Industry Policy Risk
4	順價風險 Cost Pass-through Risk
5	特許經營權風險 Franchise Risk
6	應收賬款回收風險 Accounts Receivable Recovery Risk



內控審計監督

華潤燃氣嚴格遵循《黨政主要領導幹部和國有企事業單位主要領導人員經濟責任審計規定》《審計署關於內部審計工作的規定》等法律法規，持續健全內部審計制度體系，新增及修訂總部層面制度及指引11項。審計管理建設方面，我們建立審計中心管理模式，有效保障「上審下」審計監督工作的組織原則，落實華潤集團對業務單元二級審計職能的強管控要求，推動總部與審計中心兩級審計職能在計劃管理、質量管控、資源調配方面的一體化運作。

本年度，華潤燃氣聚焦經營管理中的關鍵問題，開展運營管理審計、經濟責任審計及專項審計等多元化審計工作，覆蓋包括反腐敗在內的商業道德、風險管理、資金管控等7個方面的內容。根據國資委及華潤集團要求，公司每年度更新《華潤燃氣經濟責任審計中長期規劃》，設定了五年內實現所有區域子企業內部審計全覆蓋的目標。本年度，華潤燃氣共完成區域公司審計項目計劃26項，到期整改率達100%，並在區域公司經濟責任審計過程中同步推進下屬企業審計工作。

2024年，華潤燃氣在華潤集團審計職能線評優評先中榮獲先進審計單位稱號。

Audit and Supervision of Internal Control

CR Gas strictly abides by the laws and regulations such as the Regulations on the Audit of Economic Responsibilities of Leading Cadres of the Party and Political and Major Leaders of State-owned Enterprises and Institutions and the Regulations on the Audit Office on Internal Audit. CR Gas continues to improve its internal audit system by adding and revising 11 systems and guidelines at the headquarter level. In terms of audit management, we have established an audit center management model to effectively safeguard the organizational principle of “subordinates reviewed by superiors” audit supervision, implement the requirements of China Resources Group for strong control of the secondary audit function in business units, and promote the integrated operation of audit functions at the headquarters and audit centers levels in terms of project management, quality control and resource allocation.

During the year, CR Gas focused on key issues in operation and management, and launched diversified audits, including operation and management audits, economic responsibility audits and special audits, covering 7 aspects including anti-corruption, business ethics, risk management and capital management. In accordance with the requirements of the State-owned Assets Supervision and Administration Commission and China Resources Group, the Company updates the Medium and Long-Term Plan for Economic Responsibility Audit of CR Gas on an annual basis, and sets the target of achieving full coverage of internal audits of all regional subsidiaries within five years. During the year, CR Gas completed a total of 26 audit projects for regional companies, with a 100% rectification rate by the due date, and synchronized the audit of its subsidiaries in the course of the economic responsibility audits of regional companies.

In 2024, CR Gas was awarded the title of Advanced Audit Unit in the Evaluation on Audit Functionality of China Resources Group.



商業道德管理

華潤燃氣持續完善商業道德體系，構建高效的反腐治理架構，實施廉潔管理舉措，強化舉報人保護機制，並持續開展商業道德宣導與培訓，確保各環節有效銜接，強化公司商業道德水平。

反腐治理架構

本公司構建了「大監督」體系，由華潤燃氣黨委統一領導，其下設立「大監督」工作領導小組，紀委辦公室承擔領導小組的日常事務，聚焦黨風廉政建設和反腐敗工作等關鍵領域，全面落實各項管理措施。

廉潔管理

華潤燃氣本年度修訂了《反壟斷合規管理辦法》《防止利益衝突管理辦法》等政策文件。我們以「零容忍」態度堅決打擊腐敗行為，聚焦氣源採購、工程建設、物資採購、招投標、商業銷售等重點領域和關鍵環節，加大問題線索處置力度。我們強化制度剛性，對濫用職權、以權謀私的行為堅決查處，對履責不力行為依紀嚴肅追責問責，加強廉潔情況審查力度。本年度，我們印發《華潤燃氣黨委關於加強對「一把手」和領導班子監督的實施辦法》，對新任大區負責人及區域公司負責人開展任前廉潔談話，對多家區域公司負責人進行工作提醒和溝通交流。

Business Ethics Management

CR Gas continues to improve its business ethics system, establish an efficient anti-corruption governance structure, implement integrity management initiatives, strengthen the whistleblower protection mechanism, and continue to develop business ethics education and training, thereby ensuring the effective connection in all links to improve the business ethics level of the Company.

Anti-corruption Governance Structure

The Company has established a “comprehensive supervision” system under the unified leadership of the CR Gas Party Committee, under which a “comprehensive supervision” system leading group has been set up, with the Discipline Inspection Commission Office being responsible for the leadership of its daily affairs, focusing on key areas such as improving Party conduct, building integrity and anti-corruption, and implementing various management measures in all aspects.

Integrity Management

During the year, CR Gas revised the Compliance Management Measures on Anti-trust and Management Measures for Prevention of Conflicts of Interest and other policy documents. We are determined to combat corruption with a “zero tolerance” attitude, focusing on key areas and critical processes such as gas source procurement, engineering construction, material procurement, tender and bidding, commercial sales, etc., and stepping up efforts on the disposal of questions and clues. We have strengthened the rigidity of the system, resolutely investigated and dealt with abuse of authority and abuse of power for personal gain, seriously pursued responsibility and accountability for failure to fulfill responsibilities in accordance with the rules, and strengthened the efforts to examine the integrity of the Company. During the year, we issued the Implementation Measures of the Party Committee of CR Gas on Strengthening Supervision of the “Top Management” and the Management Team, held pre-appointment integrity talks for newly appointed regional leaders and leaders of regional companies, and carried out work reminders and communication exchanges with leaders of various regional companies.



我們健全反舞弊防控機制與舉報受理程序，將經理人廉潔從業表現納入履職考評體系，通過審計現場公示《審計公告》及監督舉報渠道，深化構建審計監督與紀檢監察協同聯動機制，着力完善信息共享、結果共用、重要事項共同實施、整改問責、共同落實等協同工作機制。我們將在5年內對所有區域公司經理人開展經濟責任審計工作，促進反腐倡廉和權力的規範運行。

華潤燃氣將廉潔要求納入供應商管理，對違規違紀供應商加強管理，通過列入「黑名單」等方式推動採購規範化建設。同時，我們要求所有供應商簽署《廉潔合規承諾書》《陽光宣言》，並將反腐敗要求傳遞給其員工及合作夥伴（相關內容請參閱「規範供應鏈管理」章節）。

報告期內，集團發現並嚴肅處理了3起貪污腐敗事件，目前相關案件均已依法結案，涉案人員受到法律嚴懲。未來，集團將進一步強化風險防控體系，堅決杜絕此類事件再次發生。

We have improved the anti-fraud prevention and control mechanism and report acceptance procedures, incorporated the integrity performance of managers into the performance appraisal system, publicized the Audit Announcement and supervisory reporting channels at the audit site, deepened the establishment of a coordinated mechanism for audit supervision and disciplinary supervision, and made efforts to improve the coordinated working mechanism for information sharing, common use of results, joint implementation of important issues, rectification and accountability, and joint implementation. Within five years, we will launch economic responsibility audits for all managers of regional companies to promote anti-corruption and the standardized operation of power.

CR Gas has incorporated integrity requirements into supplier management, strengthened the management of suppliers who violate discipline, and promoted the standardization of procurement through the inclusion of suppliers on the "blacklist". At the same time, we require all suppliers to sign the Integrity and Compliance Commitment and the Transparency Declaration, and pass on the anti-corruption requirements to their employees and partners (for details, please refer to the section on "Regulating Supply Chain Management").

During the reporting period, the Group detected and seriously dealt with three cases of corruption, all of which have been closed and the people involved have been punished in accordance with the law. In the future, the Group will further strengthen its risk prevention and control system to prevent the recurrence of such incidents.

關鍵績效

Key Performance

- 報告期內，集團未發生反壟斷處罰
- During the reporting period, the Group did not incur any anti-monopoly punishment

舉報人保護

華潤燃氣制定並發佈《合規工作投訴舉報管理指引》《華潤燃氣控股有限公司紀律審查保密工作規定》等多項內部制度，明確貪腐違規事件的舉報與處置流程，為舉報人保護提供政策支持。

- 舉報渠道暢通：我們開通了舉報熱線、郵箱及信件郵寄地址，確保舉報渠道暢通無阻，保障舉報人能夠在保密環境下通過多種方式舉報違規行為。
- 舉報信息保密：所有參與舉報處理的工作人員均需嚴格遵守國家法律法規及公司內部保密制度，簽署保密協議，並將舉報材料作為機密文件進行管理，確保舉報信息的絕對保密。
- 嚴禁打擊報復：公司對任何形式的打擊報復行為持零容忍態度，將為舉報人提供必要的法律支持與保護，切實維護舉報人的合法權益。

Whistleblower Protection

CR Gas has issued internal policies such as the Guidelines for Complaint Reporting and Management of Compliance Work and Disciplinary Review Confidentiality Regulations of China Resources Gas Group Limited to standardize the reporting and handling process of corrupt and non-complying practices and provide the necessary policy basis for the protection of whistleblowers.

- Smooth reporting channels: We have opened a whistle-blowing hotline, a mailbox, and a mailing address in place for reporting channels are unobstructed to ensure that whistleblowers can confidentially report violations through various means.
- Ensure information confidentiality: All staff involved in the handling of reports are required to strictly abide by national laws and the Company's internal confidentiality requirements and sign a confidentiality agreement and whistle-blowing materials and records will be managed as confidential documents to ensure that the contents of the report are strictly kept confidential.
- Strictly prohibits retaliations: The Company has a zero-tolerance attitude towards any form of retaliation. We will provide necessary legal support and protection for the whistleblower and practically safeguard the whistleblower's legitimate rights and interests.



商業道德培訓

華潤燃氣面向含兼職人員在內的全體僱員及承包商開展商業道德培訓，通過定期發送廉潔提醒、組織廉潔教育和警示案例研討等方式，強化員工廉潔自律意識，營造清正廉潔的工作環境。本年度，我們召開兩次專題黨委會和一次黨風廉政建設和反腐敗工作會議，研究部署黨風廉政建設和反腐敗工作，聽取情況分析報告，總結工作成效，傳達廉政精神，並研究部署下一步工作重點。同時，我們召開「以案促改」專題民主生活會和警示教育大會，通報監督執紀整體情況，深度剖析18個典型違紀違法案例，組織關鍵崗位職工實施情境教育，深化以案促改、以案促治。報告期內，公司針對董事、高層管理人員及全體員工實施廉潔教育，累計培訓時長1,088小時，覆蓋16,539人。

Business Ethics Training

CR Gas provides business ethics training to all employees (including part-time employees) and contractors, and strengthens employees' awareness of integrity and self-discipline and creates a clean and integrity working environment through regular integrity reminders, organizing integrity education, warning case studies and other activities. During the year, we convened two special Party Committees and one working meeting on Party integrity building and anti-corruption, to study and deploy Party integrity building and anti-corruption, listened to situation analysis reports, summarized the effectiveness of our work, conveyed the spirit of integrity and study and deploy our working focus in the next stage. At the same time, we convened a special democratic life meeting and a warning education meeting on "promoting reform through cases", reported the overall situation of supervision and enforcement of discipline, analyze 18 typical cases of disciplinary violations in depth, and organized staff in key positions to implement situational education, so as to deepen the promotion of reform and governance through cases. During the reporting period, the Company implemented integrity education for the directors, senior managements and all employees, with a total of 1,088 hours of training covering total attendances amounting to 16,539.

關鍵績效

Key Performance

報告期內，

During the reporting period,

- 各區域公司累計講授廉政黨課601餘次，覆蓋16,539人
- Regional companies have held more than 601 Party courses on integrity, covering 16,539 attendances
- 組織觀看警示教育片、廉潔微電影等333次，覆蓋14,628人
- Organized 333 viewings of educational films and micro-films on integrity, covering 14,628 attendances
- 開展系列家庭助廉活動，覆蓋6,800餘人
- Launched a series of family corruption prevention activities, covering more than 6,800 attendances
- 開展廉政談話487次，覆蓋9,914人
- Conducted 487 integrity talks covering 9,914 attendances

案例：華潤燃氣召開反腐敗警示教育大會 Case Study: CR Gas Convened the Anti-Corruption Warning Education Conference

2024年8月26日，華潤燃氣召開2024年反腐敗警示教育大會，播放了華潤集團警示教育片《強化黨紀教育 縱深推進反腐》，並通報了華潤燃氣紀委查處的違紀違法典型案例。華潤燃氣黨委書記、董事局主席楊平講授了題為「以學紀知紀明紀促遵紀守紀執紀，為華潤燃氣高質量發展保駕護航」的紀律黨課。華潤燃氣管理團隊成員、總部各部室資深主管及以上人員、各大區紀檢專員、各企業黨組織書記、紀委書記等共計3,600餘人通過現場及視頻方式參會。

On August 26, 2024, CR Gas convened the 2024 Anti-Corruption Warning Education Conference, in which the warning education film of China Resources Group "Strengthening Education on Party Discipline and Deepening Anti-Corruption" was shown, and typical cases of disciplinary violations investigated by the discipline committee of CR Gas were notified. Mr. Yang Ping, Secretary of the Party Committee and Chairman of the Board of Directors of CR Gas, gave the Party lesson on discipline titled "Promoting compliance with discipline and enforcing discipline by learning and understanding discipline to escort the high-quality development of CR Gas". More than 3,600 attendances, including members of the management team of CR Gas, senior leaders and above of various departments of the headquarters, discipline inspectors from major regions, Party organization secretaries of enterprises, discipline committee secretaries, etc., participated in the meeting via on-site and video.



圖：2024年警示教育大會
Picture: 2024 Warning Education Conference



1.2 可持續發展管理

華潤燃氣持續完善可持續發展管理架構，通過健全利益相關方參與機制，暢通多元主體對話溝通渠道，將社會責任履行深度融入運營全流程，以治理效能升級保障企業高質量發展。

ESG管理體系

ESG理念

華潤燃氣貫徹華潤集團「十四五」戰略，以「促進綠色發展 共創美好生活」為使命，聚焦清潔能源解決方案與安全服務升級。我們通過構建ESG治理體系，將「誠實守信、業績導向、以人為本、合作共贏」核心價值觀貫穿運營全鏈條，聯動員工、客戶、夥伴共建低碳服務生態，加速向「治理－環境－社會協同驅動的世界一流能源服務商」轉型。

ESG戰略

華潤燃氣結合城市燃氣核心業務與「1+2+N」戰略方向，制定與企業願景和價值觀相契合的ESG戰略，通過識別管理關鍵可持續發展議題，推動ESG理念與經營深度融合，實現經濟、環境與社會效益協調發展。公司持續優化ESG管理機制，明確部門職責，強化議題識別、評估與管理，通過與利益相關方常態化溝通提升管理水平，確保ESG工作高效運行，攜手推進可持續發展目標實現。

ESG管治架構

為確保ESG戰略的有效落地，華潤燃氣通過持續優化ESG治理架構，構建起以董事會為核心的頂層管理體系。該體系通過明確各部門職責分工，實現了從ESG戰略決策、過程管理到具體執行的全流程貫通。

1.2 SUSTAINABLE DEVELOPMENT MANAGEMENT

CR Gas has continued to improve its sustainable development management structure. It has integrated the fulfillment of its social responsibility into the entire operation process by improving the stakeholder participation mechanism and facilitating the dialogue and communication channels among multiple stakeholders, so as to guarantee the high-quality development of the enterprise through the upgrading of its governance effectiveness.

ESG Management System

ESG Concepts

In line with China Resources Group's "14th Five-Year Plan" strategy and with the mission of "embrace green development and build a beautiful life together", CR Gas focuses on clean energy solutions and security service upgrades. Through the establishment of an ESG governance system, we have integrated our core values of "integrity, performance-oriented, people-oriented, win-win collaboration" throughout the entire operation chain. We have built a low-carbon service ecosystem by linking up our employees, customers and partners, so as to accelerate the transformation into a "world-class energy service provider driven by governance-environment-society synergies".

ESG Strategies

Combining the core business of gas in the cities and the "1+2+N" strategic direction, CR Gas has formulated an ESG strategy in line with its corporate vision and values, and promoted the in-depth integration of ESG concepts and operations through the identification and management of key sustainable development issues, with a view to realizing the coordinated development of economic, environmental and social benefits. The Company continues to optimize the ESG management mechanism, clarify departmental responsibilities, strengthen the identification, assessment and management of issues, and enhance management level through regular communication with stakeholders to ensure the efficient operation of ESG work, and work together to promote the realization of sustainable development goals.

ESG Governance Structure

In order to ensure the effective implementation of the ESG strategy, CR Gas has established a top management system with the Board of Directors as the core by continuously optimizing the ESG governance structure. The system realized the coherence of the whole process of decision-making, process management and concrete implementation of the ESG strategy by clarifying the responsibilities of various departments.



本年度，華潤燃氣根據香港聯交所《企業管治守則》《環境、社會及管治報告守則》，公司進一步完善董事會ESG治理工作，將「企業管治委員會」更名為「ESG委員會」，並完善管理職責，以回應ESG監管要求、提升董事會在ESG事項上的決策水平。

- 董事會：作為ESG戰略的核心領導層，負責戰略規劃與決策，定期審議ESG委員會提交的政策、治理、戰略、規劃、報告及目標設定與完成情況匯報，確保ESG管理的頂層設計與監督落實。
- ESG委員會：董事會下設ESG委員會，負責指導及制定本公司的ESG願景、目標、策略及架構，審閱本公司ESG願景、策略及架構的發展與實施，審議、批准並授權發佈華潤燃氣ESG年度報告、重要性議題及相關信息披露，定期向董事會匯報工作情況，履行ESG事宜的領導監督責任。
- ESG跨部門工作小組：由安全管理部牽頭，協同辦公室、營運部、人力資源部、財務部等部門，共同推進ESG規劃與管理工作。該小組定期向ESG委員會匯報工作進展，保障各項任務有序推進。
- 相關部門：各職能部門及區域公司負責執行ESG跨部門工作小組的決策與工作計劃，將ESG理念融入日常運營，確保ESG戰略在基層的有效落地。

During the year, in accordance with the Hong Kong Stock Exchange's Corporate Governance Code and Environmental, Social and Governance Reporting Code, CR Gas further improved the ESG governance of the Board of Directors by changing the name of the "Corporate Governance Committee" to the "ESG Committee", and improving the management responsibilities to respond to ESG regulatory requirements and enhance the Board's decision-making level on ESG issues.

- The Board: As the core leadership of ESG strategy, the Board is responsible for strategic planning and decision-making, regularly reviewing the policies, governance, strategies, plans, reports, and reports on target setting and achievement submitted by the ESG Committee and ensuring the implementation of the top-level design and supervision of ESG management.
- The ESG Committee: The ESG Committee established under the Board is responsible for guiding and formulating the Company's ESG vision, objectives, strategies and framework, reviewing the development and implementation of the Company's ESG vision, strategies and framework, considering, approving and authorizing the release of CR Gas' ESG Annual Report, material issues and related information disclosure, reporting the work situation to the Board on a regular basis, and performing the leadership and supervision responsibilities on ESG matters.
- The inter-departmental ESG working group: led by the Safety Management Department to promote ESG planning and management by coordinating with departments including the Office, Operation Department, Human Resources Department and Finance Department. The group regularly reports work progress to the ESG Committee, to ensure that all tasks are carried out in an orderly manner.
- Related departments: all functional departments and regional companies are responsible for implementing decisions and carrying out working plans of the inter-departmental ESG working group, integrating ESG concepts into daily operations to ensure the effective implementation of ESG strategies at the grassroots level.



利益相關方溝通 Communication with stakeholders		
利益相關方 Stakeholder	期望與訴求 Expectations and Aspirations	華潤燃氣的回應 Response from CR Gas
政府與監管部門 Government and regulatory bodies	公司治理和合規 Corporate governance and compliance 商業道德與反腐敗 Business ethics and anti-corruption 保障安全穩定供氣 Ensuring safe and stable gas supply 綠色低碳發展 Green and low-carbon development	建立健全風控管理組織 Established a sound risk management structure 開展安全文化建設 Carried out safety culture development 深化安全管理體系建設 Deepened development of safety management systems 環保指標滿足國家標準 Met national standards on environmental protection indicators
股東與投資者 Shareholders and investors	獲取投資回報 Obtaining investment returns 信息公開透明 Information disclosure and transparency 保障股東權益 Protection of shareholders' rights 降低經營風險 Reducing operational risks	建立完善科學的決策與監督機制 Established and improved scientific decision-making and supervision mechanism 做好公開、透明的信息披露 Made open and transparent information disclosure 組織不同類型的股東活動 Hosted activities for different types of shareholders 加強風險管控，開展內部審計 Strengthened risk management and conducted internal audit
客戶 Customers	產品質量管理與客戶服務 Product quality management and customer services 客戶健康與安全 Customer health and safety 信息安全與客戶隱私保護 Information security and protection of customer privacy 保護知識產權 Protecting intellectual property rights 技術和自主創新 Technology and self-dependent innovation	產品質量控制 Product quality control 制定完善的服務目標 Set comprehensive service targets 保護客戶隱私 Protected customer privacy 滿意度調查 Satisfaction survey 開通多元化繳費通道 Opened up diversified payment channels



利益相關方溝通
Communication with stakeholders

利益相關方 Stakeholder	期望與訴求 Expectations and Aspirations	華潤燃氣的回應 Response from CR Gas
員工 Employees	員工權益保障 Protecting employees' rights and interests 員工培訓與發展 Employee training and development 職業健康和安全 Occupational health and safety 平等僱傭機會 Equal employment opportunities 員工滿意度 Employee satisfaction 防止童工或強制勞工 Prohibiting employment of child labour or forced labour	依法簽訂勞動合同 Signed labour contracts in accordance with the law 積極開展各類培訓 Proactively conducted various types of training sessions 完善人才晉升與薪酬機制 Improved talent promotion and remuneration mechanism 加強職業健康與安全管理 Strengthened occupational health and safety 推行多樣化的員工福利 Implemented diversified employee benefits
供應商及合作夥伴 Suppliers and partners	誠信履約 Performance with integrity 供應鏈管理 Supply chain management 共贏發展 Win-win development	依法履行合同 Performed contracts in accordance with the law 規範供應鏈管理 Regulated supply chain management 參加行業交流活動 Participated in industry exchange activities
社區與公眾 Community and the public	扶弱助困 Poverty alleviation 捐資助學 Donations to schools 志願服務 Volunteer services	支持鄉村振興戰略 Supported rural revival strategy 支持教育事業發展 Supported educational development 鼓勵員工參加志願服務 Encouraged employees to participate in volunteer services
環境 Environment	清潔能源使用 Using clean energy 減少溫室氣體排放 Reducing greenhouse gas emission 加強生物多樣性保護 Strengthening biodiversity preservation 應對氣候變化 Addressing climate change 資源與能源節約 Saving resources and energy 提升資源使用效益 Enhancing efficiency in the use of resources 加強廢棄物管理 Strengthening waste management 水資源使用及效益 Water resources use and efficiency	發展新能源 Developed new energy 污染物達標排放 Discharged pollutants discharge under certain standards 推進煤改氣項目 Promoted coal-to-gas projects 倡導綠色辦公 Advocated green office 加強環境信息披露 Strengthened environmental information disclosure



重大性分析

重大性分析流程

華潤燃氣緊密結合公司業務實際以及國內外同行業ESG實踐，定期審閱更新與自身匹配的ESG議題，構建了華潤燃氣可持續發展重要性議題庫。同時，公司適時向各利益相關方發佈調查問卷，邀請其對當前的可持續發展議題重要性進行評估排序。本年度，在2023年重大性議題分析結果的基礎上，我們根據行業發展和同行關注點的變化情況，對2024年度可持續發展議題庫進行了調整與更新，對議題按照重要性進行了排序，並形成了重大性矩陣，為本年度ESG報告的編制提供了核心依據。

Materiality Analysis

Materiality Analysis Process

In close consideration of the Company's actual business operations and the ESG practices of domestic and foreign peers, CR Gas regularly reviews and updates ESG issues that match its own needs, and has formulated a pool of material issues for the sustainable development of CR Gas. Meanwhile, the Company issued a questionnaire to all stakeholders in a timely manner, inviting them to evaluate and rank the importance of current sustainable development issues. During the year, based on the results of the 2023 material issues analysis, we adjusted and updated the pool of issues for the sustainable development for 2024 according to the development of the industry and the changes in the focus of peers, ranked the importance of sustainable development issues, and formed a materiality matrix, which provided the core basis for the preparation of this year's ESG Report.

華潤燃氣重要性議題列表
Material Issues of CR Gas

環境 Environment	生物多樣性保護
	Biodiversity preservation
	資源與能源節約
	Saving resources and energy
	提升資源使用效益
	Enhancing efficiency in the use of resources
	水資源使用及效益
	Water resources use and efficiency
	廢棄物管理
	Waste management
	應對氣候變化
	Addressing climate change
	減少溫室氣體排放
	Reducing greenhouse gas emissions
	清潔能源使用
	Using clean energy

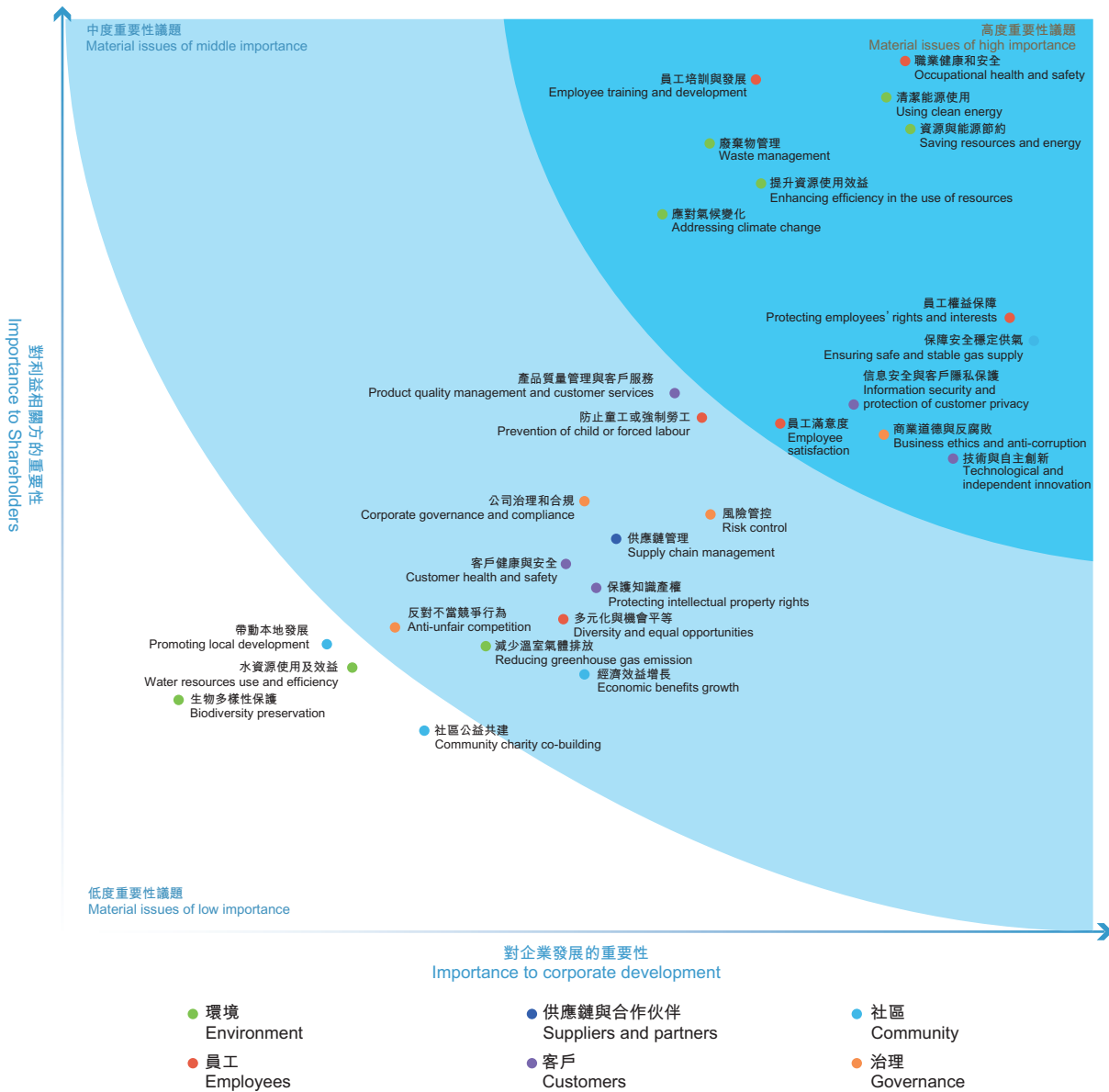


華潤燃氣重要性議題列表
Material Issues of CR Gas

員工 Employees	員工權益保障 Protecting employees' rights and interests 多元化與機會平等 Diversity and equal opportunities 防止童工或強制勞工 Prevention of child or forced labour 職業健康和安全 Occupational health and safety 員工培訓與發展 Employee training and development 員工滿意度 Employee satisfaction
供應鏈與合作夥伴 Supply chain and partners	供應鏈管理 Supply chain management 保障安全穩定供氣 Ensuring safe and stable gas supply
客戶 Customers	技術和自主創新 Technological and independent innovation 保護知識產權 Protecting intellectual property rights 產品質量管理與客戶服務 Product quality management and customer services 客戶健康與安全 Customer health and safety 信息安全與客戶隱私保護 Information security and protection of customer privacy
社區 Community	經濟效益增長 Economic benefits growth 帶動本地發展 Promoting local development 社區公益共建 Community charity co-building
治理 Governance	公司治理和合規 Corporate governance and compliance 風險管控 Risk control 商業道德與反腐敗 Business ethics and anti-Corruption 反對不當競爭行為 Anti-unfair competition



2024年重大性議題矩陣圖
2024 Material Issues Matrix



踐行服務承諾

品質鑄就卓越

Fulfilling Service Commitments,
Quality Creates Excellence



SDGs



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



17 PARTNERSHIPS
FOR THE GOALS





華潤燃氣積極踐行「以客戶為導向」的服務承諾，持續精進產品品質和服務質量，創新智慧產品和服務模式，用卓越品質鑄就可持續發展之路。

CR Gas actively fulfills its service commitment of “customer-oriented”, continuously improves product and service quality, innovates intelligent products and service models, and builds a sustainable development path with excellent quality.

2024 責任績效

2024 Responsibility Performance

累計對50餘類集中聯合採購物資開展第三方送檢，重要物資類別送檢覆蓋率

100%，已取得 **159** 份檢測報告，產品合格率 **97.5%**

A total of more than 50 types of centralized joint procurement materials were subject to third-party inspection, with 100% coverage of major important materials categories and 159 inspection reports were obtained, with a 97.5% product pass rate

客戶滿意度 **96.62** 分

Customer satisfaction
score: 96.62



2

踐行服務承諾，品質鑄就卓越

Fulfilling Service Commitments, Quality Creates Excellence

2.1 匠心智造

華潤燃氣堅持質量至上原則，建立完善的質量管理體系，嚴格把控產品質量，積極開展技術創新和數字化轉型，推動產品智造升級。

產品質量把控

華潤燃氣嚴格遵循《天然氣》(GB 17820-2018)、《城鎮燃氣設計規範》(GB 50028-2020)等國家質量相關標準，制定《工程建設管理指引》《華潤燃氣工程質量檢查工作指引》《華潤燃氣工程管理問責制度》等內部制度，規範質量管理和質量檢定流程。我們持續完善組織架構，由工程管理中心負責質量管理、施工和檢測服務，並對區域企業進行工程質量監管，有效提升燃氣質量管理水平。

2024年，潤智科技有限公司獲得ISO 9001質量管理體系認證。

2.1 INTELLIGENT MANUFACTURING WITH INGENUITY

CR Gas upholds the principle of quality first, establishes a comprehensive quality management system, strictly controls product quality, actively carries out technological innovation and digital transformation, and promotes the upgrading of product intelligent manufacturing.

Product Quality Control

CR Gas strictly complies with relevant national quality standards including Natural Gas (GB 17820-2018) and Urban Gas Design Code (GB 50028-2020), formulates internal policies including Guidelines on Project Construction Management, Guidelines for Quality Inspection Work of CR Gas and Project Management Accountability System of CR Gas, to regulate the quality management and quality verification process. We continue to improve our organizational structure, with the Project Management Centre being responsible for quality management, construction and inspection services, and supervision over the project quality of regional enterprises is carried out, so as to effectively improve the gas quality management.

In 2024, Runzhi Technology Co., Ltd. obtained the ISO 9001 quality management system certification.



圖：潤智科技有限公司ISO 9001質量管理體系認證

Picture: ISO 9001 Quality Management System Certification of Runzhi Technology Co., Ltd.



標準化質量管控

華潤燃氣持續推進質量管理標準化建設，制定全過程管理制度和流程，包含《華潤燃氣地上燃氣工程設計安裝指引》《華潤燃氣工程施工作業手冊》《電子化竣工資料標準化手冊（試行）》等，實現方案設計、建設施工、物資選用、竣工驗收等全流程規範化管理。2024年，我們結合國家、行業標準及公司實際應用情況，修訂《華潤燃氣控股有限公司技術標準體系表（2024版）》《燃氣工程管材及管件選用規範》《常見工程通用圖集》，新增技術標準161項，統一工程建設和技術材料應用的通用做法，形成標準規範，推動常規工程標準化、高端工程統一化、質量監督常態化，以確保燃氣項目本質安全。

智能化工程管理

華潤燃氣建立並完善工程管理信息化系統，通過14道工序，對工程項目方案設計、施工監理、施工進度、質量安全等進行全過程管理，在每個環節錄入最新的國家法規和質量安全標準，通過項目移動應用平台支撐項目質量與安全的現場檢查，確保數據真實有效。2024年，我們專項優化工程管理信息化系統，明確各層級管理責任，完善信息化檢查抓手，細化監督考核標準。

Standardized Quality Control

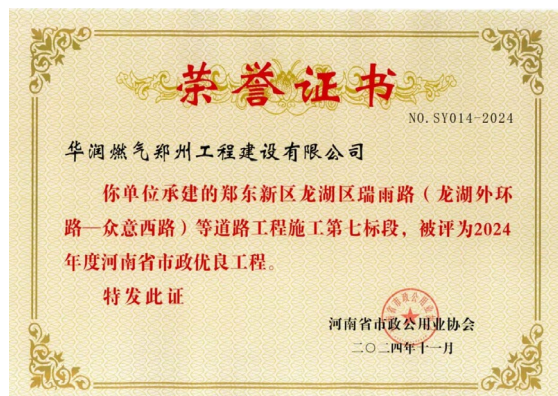
CR Gas continues to promote the standardization of quality management by formulating full-process management systems and procedures, including Guidelines for Design and Installation of Above-ground Gas Engineering Works of CR Gas, Engineering Construction Operation Manual of CR Gas, Manual for Standardization of Electronic As-built Documents (Trial), etc., to achieve standardized management of the entire process, including scheme design, construction, material selection, and completion acceptance. In 2024, we revised the Technical Standard System of China Resources Gas Group Limited (2024 Edition), the Specifications for Selection of Pipes and Fittings for Gas Engineering, and the General Atlas for Common Projects based on national and industrial standards and the Company's actual application. 161 new technical standards were added to unify the general practices of engineering construction and application of technical materials to form standard specifications, which promotes the standardization of conventional projects, the unification of high-end projects, and the normalization of quality supervision to ensure the intrinsic safety of gas projects.

Intelligent Project Management

CR Gas establishes and improves project management information system, implements the whole-process management covering project design, construction supervision, construction progress, quality and safety, etc. through 14 processes. The latest national regulations and quality and safety standards are entered into every aspect, and the on-site inspection of project quality and safety is supported through the project mobile application platform to ensure the authenticity and effectiveness of the data. In 2024, we specially optimized the project management information system, clearly defined the management responsibilities of all levels, improved the informatization inspection focus, and refined the supervision and assessment standards.

2024年11月，由華潤燃氣鄭州工程公司承建的道路工程施工第七標段，被河南省市政公用業協會評為2024年河南市政優良工程。

In November 2024, the seventh bidding section of road engineering construction undertaken by Zhengzhou Gas Engineering Construction Co., Ltd. was awarded as 2024 Henan Municipal Excellent Project by Municipality and Utility Association of Henan Province.



圖：2024年河南市政優良工程

Picture: Henan Municipal Excellent Project in 2024

常態化質量檢測

我們建立華潤燃氣質檢研發中心，負責新產品質量檢查、飛行檢查、產品合規性管理（風險管控）及不良品管理。華潤燃氣質檢研發中心已通過國家級CNAS實驗室認證，目前主要開展百尊廚電燃熱產品的品質檢測工作，包括能效、燃氣氣密性、電氣安全測試、可靠性性能測試等230餘個檢測項目。

Normalized Quality Inspection

We established the Appliance Quality Testing and R&D Center of CR Gas to be responsible for new product quality inspections, unannounced inspections, product compliance management (risk control) and defective product management. The Appliance Quality Testing and R&D Center of CR Gas has passed the national CNAS laboratory certification. Currently, it mainly carries out the quality testing of PERCEN kitchen appliances and heaters products, including more than 230 testing items such as energy efficiency, gas tightness, electrical safety test, reliability performance test.



圖：國家級CNAS實驗室認證證書

Picture: National CNAS Laboratory Accreditation Certificate



案例：華潤燃氣質量專項培訓 Case Study: CR Gas Specialized Quality Training

華潤燃氣工程管理中心定期組織質量培訓，覆蓋施工工藝技術培訓、老舊改施工培訓、質量安全管理體系宣貫、技術規範及驗收標準宣貫等內容。

The Project Management Center of CR Gas regularly organizes quality training, covering such topics as construction technology training, old-neighborhood renovation construction training, publicity and implementation of quality and safety management system, publicity and implementation of technical specifications and acceptance criteria, etc.



圖：質量專項培訓
Picture: Specialized Quality Training

數智賦能發展

華潤燃氣將創新作為引領發展的第一動力，以創新驅動數字化轉型，推動數字技術與燃氣業務的深度融合。2024年，華潤燃氣研發投入33,419.15萬元港幣，相比同期增長2,953.8萬元港幣，通過科技賦能智慧燃氣發展，並實現關鍵環節數字化覆蓋率78%的目標。

研發創新機制

華潤燃氣持續完善科技創新組織架構與制度體系，組建智數發展與科技創新委員會統籌科技創新工作，制定內部科技項目管理制度，規範管理項目來源、項目管控、知識產權管理、激勵、容錯等內容。2024年，集團修訂《科技項目管理辦法》、《科技項目立項管理指引》、《科技項目預算編制指引》，下屬潤智科技有限公司修訂《技術委員會管理辦法》、《信息化項目管理制度》、《信息化項目立項管理辦法》，進一步完善研發創新機制，細化技術委員會的管理職責，以及科技項目的立項、管理和信息化流程。

我們建立科技人才保障機制，完善科技人才認定標準，編制《華潤燃氣科技人才認定辦法（試行）》，組織開展智數發展與科技創新專家庫專家推薦，明確專家庫專業分類及任職條件，經智數發展與科技創新委員會審議後納入專家庫，為科技項目提供專業評審意見。

Digital Intelligence Empowerment Development

CR Gas regards innovation as the primary driving force for development, drives digital transformation with innovation, and promotes the in-depth integration of digital technology and gas business. In 2024, CR Gas invested HK\$334,191,500 in research and development, representing an increase of HK\$29,538,000 compared with that of the corresponding period, which empowered the development of smart gas through technology and achieved the target of 78% digital coverage of key links.

R&D Innovation Mechanism

CR Gas continues to improve the organizational structure and institutional system of scientific innovation, set up the Intelligent Digital Development and Scientific Innovation Committee to coordinate the scientific innovation work, formulate internal technology project management system, which regulates the management of project sourcing, project control, intellectual property management, incentives, fault tolerance, etc. In 2024, the Group revised the Management Measures for Science and Technology Projects, the Management Guidelines for Science and Technology Projects Establishment and the Budget Preparation Guidelines for Science and Technology Projects, and the subsidiary Runzhi Technology Co., Ltd. revised the Management Measures for the Technology Committees, the Management System for Informatization Projects, Management Measures for the Informatization Projects Establishment to further improve the research and development innovation mechanism, refine the management responsibilities of the Technology Committees, and the establishment, management and informatization processes of science and technology projects.

We have established a mechanism for guaranteeing scientific and technological talents, improved the identification standards for scientific and technological talents, compiled the Measures for the Identification of Scientific and Technological Talents of CR Gas (Trial), organized and carried out recommendation of experts in the expert database on intelligent digital development and scientific innovation, clarify the professional classification and qualifications of the expert database, and included them in the expert database after consideration by the Intelligent Digital Development and Scientific Innovation Committee to provide professional review opinions for scientific and technological projects.



數字化轉型

華潤燃氣積極響應數字化轉型戰略，制定「十四五」智慧燃氣規劃和《華潤燃氣數字化轉型行動計劃專項實施方案》，引領智慧燃氣發展。2024年，我們圍繞「1+2+N」業務戰略，重點推進氣合網商城、燃氣管家APP、智能場站等智數化項目建設，持續升級華潤燃氣潤格數字化平台，支撐完成19項重點任務及2個平台打造，並在平台基礎上通過自主研發與聯合共創持續開發33個智能應用。

Digital Transformation

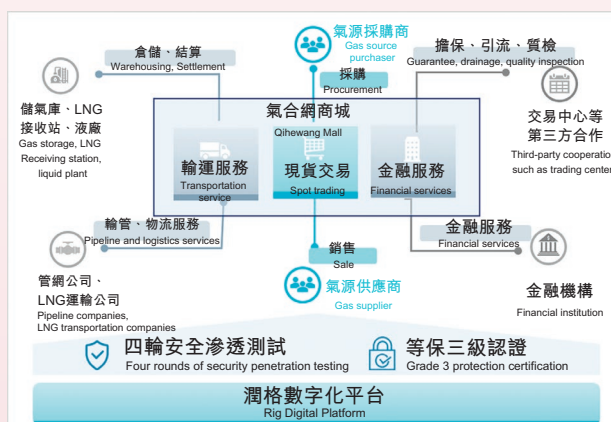
In active response to the digital transformation strategy, CR Gas formulates the 14th Five-Year Plan for Smart Gas and the Implementation Plan for the Digital Transformation Action Plan of CR Gas to lead the development of smart gas. In 2024, in line with the "1+2+N" business strategy, we focused on promoting the construction of intelligent digital projects such as Qihewang Mall, Gas Butler APP and intelligent stations, and continued to upgrade the Rig Digital Platform of CR Gas to support the completion of 19 key task projects and the creation of 2 platforms, and continued to develop 33 smart applications through independent research and development and co-creation on the platform basis.

案例：數字化平台 Case Study: Digital Platform

- 氣合網商城
- Qihewang Mall

2024年，我們搭建「氣合網」氣源聚合貿易平台，並完成四輪安全滲透測試和三級等保測評，保證系統安全。自系統上線以來，「氣合網」累計註冊內外部企業930家，達成訂單4,256單，交易金額超26億元港幣。我們通過「氣合網」商城，整合海內外資源，降低氣源採購成本，構建自主可供資源池，提升氣源保障能力。

In 2024, we set up the gas source aggregation trading platform "Qihewang", and completed four rounds of security penetration tests and the grade 3 protection test to ensure system safety. Since the launch of the system, a total of 930 internal and external enterprises have been registered on "Qihewang", and 4,256 orders have been placed, with a transaction amount over HK\$2.6 billion. Through the Qihewang mall, we integrated resources at home and abroad, reduced the cost of gas source procurement, built independent available resource pools, and improved our gas source guarantee capability.



圖：氣合網商城

Picture: Qihewang Mall

- 燃氣管家APP
- Gas Butler APP

2024年，我們借助潤格數字化平台的移動基座，匠心打造燃氣管家應用程序，達成網絡移動作業應用的標準化與統一化，為各區域網絡化服務模式築牢根基，提供穩固支撐。燃氣管家APP通過整合職能條線分散的業務功能與數據資源，推動形成燃氣傳統業務與多元綜合服務融合的新業務形態，目前已完成75家區域的推廣。

In 2024, with the help of the mobile base of Rig Digital Platform, we ingeniously created the gas butler application, achieved the standardization and unification of network mobile operation applications, and laid a solid foundation and provided stable support for the network service model in various regions. The Gas Butler APP promotes the formation of a new business model that integrates traditional gas business and diversified integrated services by integrating business functions and data resources of functional departments. It has currently completed promotion in 75 regions.



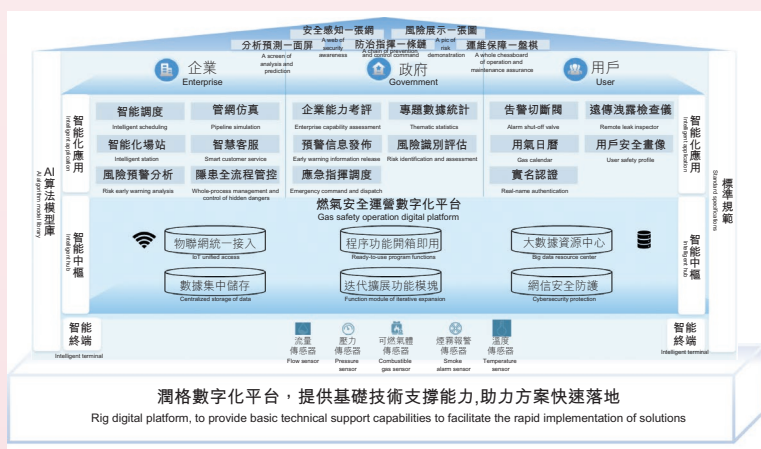
圖：燃氣管家APP

Picture: Gas Butler APP

- 燃氣安全運營數字化平台一體化解決方案
- Integrated Solution for Gas Safety Operation Digital Platform

2024年，我們以廠站智能化升級為核心，精心打造標杆示範站，同時聚焦智能廠站及城市生命線的關鍵核心設備，構建一套完備的燃氣安全運營數字化平台一體化解決方案。

In 2024, with the intelligent upgrade of stations as the core, we carefully built benchmarking demonstration stations. At the same time, we focused on the key core equipment of intelligent stations and urban lifeline to build a complete set of integrated solutions for gas safety operation digital platform.



潤格數字化平台，提供基礎技術支撐能力，助力方案快速落地

Rig digital platform, to provide basic technical support capabilities to facilitate the rapid implementation of solutions

圖：燃氣安全運營數字化平台一體化解決方案

Picture: Integrated Solution for Gas Safety Operation Digital Platform



此外，我們持續推進輸配及客戶服務領域的智能化應用：搭建華潤燃氣聚合收款中台，實現線上收款統一集中；民用燃氣物聯網雲平台累計實現2,300萬智能表的物聯網接入；安全管理系統(SMS)累計上線393家公司；遠程數據採集監控系統(R-SCADA)上線143家；易作業巡檢系統(EIS)上線376家公司，雲地理信息系統(IGIS)上線361家公司，累計收錄管網近20萬公里。

知識產權保護

華潤燃氣高度重視知識產權保護，嚴格遵守《企業知識產權保護指南》等知識產權相關法律，制定《知識產權管理規定》《專利維護規定》等內部制度，不斷優化知識產權保護機制。

In addition, we continued to promote the intelligent applications in the fields of transmission and distribution and customer services: we established the middle platform for aggregated collection of CR Gas to achieve unified and centralized online collection; the civil gas IoT cloud platform has achieved IoT access for 23 million smart meters; Safety management system (SMS) has served 393 companies; Remote Supervisory Control and Data Acquisition (R-SCADA) has served 143 companies; Easy Inspection System (EIS) has served 376 companies, Cloud Geographic Information System (IGIS) has served 361 companies, with a cumulative pipeline network length of about 200,000 kilometers recorded.

Protection of Intellectual Property

CR Gas attaches great importance to the protection of intellectual property and strictly complies with laws relating to intellectual property such as the Enterprise Intellectual Property Protection Guidelines, we have formulated internal systems such as the Provisions on the Administration of Intellectual Property and the Provisions on Patent Maintenance to continuously optimize its intellectual property protection mechanism.

2024年，我們持續完善組織架構和管理制度，在法律合規部下設知識產權管理專崗負責知識產權相關工作，更新知識產權業務單元品牌管理制度，制訂在香港、泰國等地的商標註冊工作方案，同時積極開展知識產權維權及風險排查，制定風險應對策略並編制《華潤燃氣控股有限公司關於打假專項工作方案的報告》，通過一系列知識產權管理措施，全面提升知識產權保護與創新能力。

In 2024, we continued to improve our organizational structure and management system and have set up a dedicated IP management post under the Legal and Compliance Department to be responsible for IP-related work. We updated the brand management system for our IP business unit and formulated the work plans for trademark registration in Hong Kong, Thailand and other places. At the same time, we actively carried out intellectual property protection and risk investigation, formulated risk response strategies, and prepared the Report on the Anti-counterfeiting Special Work Plan of China Resources Gas Group Limited to comprehensively improve intellectual property protection and innovation capabilities through a series of intellectual property management measures.

關鍵績效 Key Performance

截至2024年12月31日，華潤燃氣累計授權有效專利數量共584項，其中發明專利55項、實用新型專利512項、外觀專利17項。

As of December 31, 2024, CR Gas had a total of 584 granted and valid patents, including 55 invention patents, 512 utility model patents and 17 design patents.



2.2 卓越服務

華潤燃氣堅持以客戶為中心，建立客戶服務質量體系，完善客戶需求響應機制，創新智慧服務模式，強化信息安全和客戶權益保障，夯實客戶服務管理。

保障客戶權益

華潤燃氣高度重視客戶權益保障，建立信息安全管理体系，推進數據治理和管理提升行動，制定負責任營銷策略，多措並舉贏得客戶信任，攜手客戶共創美好生活新境界。

保護信息安全

華潤燃氣嚴格遵守《中華人民共和國網絡安全法》《中華人民共和國數據安全法》等國家法律法規，制定《華潤燃氣網絡安全管理辦法》《華潤燃氣客戶隱私保護工作指引》《華潤燃氣雲服務管理規範（試行）》等內部制度，規範信息安全治理，確保信息安全責任落到實處。2024年，華潤燃氣未收到侵犯客戶隱私相關投訴。

信息安全管理体系

我們建立網絡安全三層防護管理體系，完善網絡安全風險管理機制和網絡信息預警管理機制，每年邀請獨立第三方機構開展信息安全風險評估，持續提升數據安全治理水平、防護能力和運營能力，夯實信息安全屏障。

2.2 QUALITY SERVICE

Adhering to the principle of customer-centricity, CR Gas has established a customer service quality system, improved its customer demand response mechanism, innovated smart service models, strengthened information security and the protection of customers' rights and interests, and consolidated customer service management.

Protection of Customer Rights and Interests

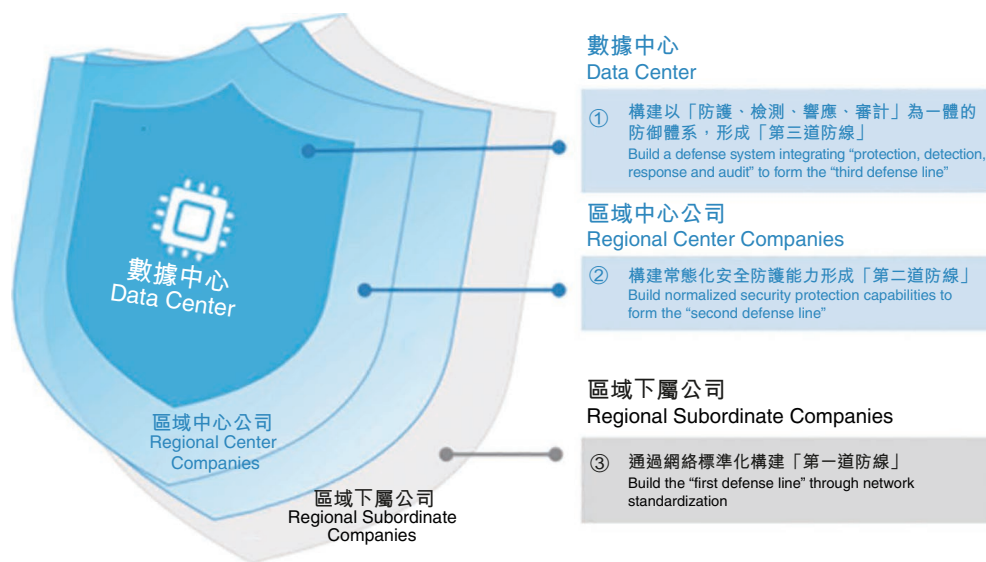
CR Gas attaches great importance to the protection of customers' rights and interests. We have established an information security management system, promoted data governance and management improvement actions, and formulated responsible marketing strategies, so as to win the trust of customers and create a new realm of better life with them through a variety of measures.

Protection of Information Security

CR Gas has strictly abided by national laws and regulations such as the Cybersecurity Law of the People's Republic of China, the Data Security Law of the People's Republic of China, and has formulated the Measures of CR Gas for Cybersecurity Management, the Guidelines for Customer Privacy Protection of CR Gas, and the Cloud Service Management Specification of CR Gas (Trial) and other internal policies to standardize information security governance and ensure that information security responsibilities are effectively implemented. In 2024, CR Gas did not receive any complaints about the invasion of customer privacy.

Information Security Management System

We have established a three-layer cybersecurity protection management system, improved the network security risk management mechanism and early warning management mechanism for network information, and invited independent third-party organizations to conduct information security risk assessment each year to continuously improved data security governance, protection capabilities and operational capabilities to strengthen the information security barrier.



圖：網絡安全三層防護架構

Picture: Three-layer Cybersecurity Protection System

2024年，我們持續提升信息安全治理能力，獲得ITSM信息技術服務管理體系認證。截至目前，華潤燃氣已取得ISO 27001信息安全管理体系認證、ISO 22301計算機業務連續性認證和CMMI軟件工程質量管理認證。

In 2024, we continued to improve our information security governance capabilities and obtained the ITSM information technology service management system certification. Up to now, CR Gas has obtained ISO 27001 information security management system certification, ISO 22301 computer business continuity certification and CMMI software engineering quality management certification.



圖：ITSM信息技術服務管理體系認證

Picture: ITSM Information Technology Service Management System Certification



圖：ISO 27001信息安全管理体系認證

Picture: ISO 27001 Information Security Management System Certification



圖：ISO 22301 計算機業務連續性認證

Picture: ISO 22301 Computer Business Continuity Certification



圖：CMMI 軟件工程質量管理認證

Picture: CMMI Software Engineering Quality Management Certification

信息安全風險管理

我們持續加強網絡安全與信創工作建設，通過安全風險檢查、網絡標準化改造、網絡安全培訓、用戶隱私管理，以及全面推行數字證書登錄等行動，全方位管控信息安全風險。2024年，我們在集團總部和區域公司開展「護網2024」實戰攻防演練行動，成功處置814起網絡安全告警事件，累計發現14,215個應用安全漏洞，漏洞修復完結率提升至48.6%，實現安全告警與漏洞的閉環管理。

Information Security Risk Management

We continue to strengthen the construction of network security and information technology innovation, and comprehensively manage and control information security risks through actions such as security risk inspection, network standardization transformation, network security training, user privacy management and full implementation of digital certificate login. In 2024, we carried out the "2024 Network Protection" practical attack and defense exercise at the Group's headquarters and regional companies, successfully handled 814 network security alarm incidents, discovered a total of 14,215 application security vulnerabilities, and increased the completion rate of vulnerability repair to 48.6%, achieving closed-loop management with security alerts and vulnerabilities.



➤ 安全風險檢查

2024年，我們抽取8家區域公司，開展工控安全風險檢查專項工作，通過訪談、現場及仿真環境測試等方式，全面評估安全組織、安全管理、應急響應、供應鏈安全、數據安全、物理環境安全、安全防護等風險點，制定整改建議和整體安全能力提升建議，最終形成8份工控安全風險檢查報告。

➤ 網絡標準化改造

2024年，我們積極推進區域公司的網絡標準化改造工作，分析網絡系統安全現狀，對網絡結構、網絡規模以及網絡性能進行優化與升級，形成網絡與基礎設施整改方案，並組織網絡及基礎設施標準化培訓，分享數十家試點企業的整改經驗。

➤ 網絡安全培訓

2024年，我們定期開展員工網絡安全意識培訓、網絡安全建設與宣貫工作，持續提升全體員工的網絡安全意識。

➤ Security Risk Inspection

In 2024, we selected 8 regional companies to carry out special inspection on industrial control security risks. Through interviews, on-site and simulated environment tests, etc., we comprehensively assessed safety organization, safety management, emergency response, supply chain security, data security, and physical environment security, security protection and other risk points, formulated rectification suggestions and overall security capability improvement suggestions, and finally produced 8 industrial control security risk inspection reports.

➤ Network Standardization Transformation

In 2024, we actively promoted the network standardization transformation of regional companies, analyzed the current situation of network system security, optimized and upgraded the network structure, network scale and network performance, formulated network and infrastructure rectification plans, and organized network and infrastructure standardization trainings and shared the rectification experience of dozens of pilot enterprises.

➤ Cybersecurity Training

In 2024, we regularly carried out employee cybersecurity awareness training, cybersecurity construction and promotion and implementation to continuously improve the cybersecurity awareness of all employees.



案例：華潤燃氣開展網絡安全培訓和宣貫活動 Case Study: CR Gas Launched Cybersecurity Training and Publicity and Education Activities

2024年，我們組織國家護網啟動會、數據安全管理辦法宣貫會和網絡安全管理辦法宣貫會，有效提升員工的網絡安全意識和應對網絡攻擊的能力。

In 2024, we organized the National Network Protection Initiation Meeting, the Data Security Management Measures Promotion Meeting and the Network Security Management Measures Promotion Meeting to effectively enhance our employees' awareness of cybersecurity and their ability to respond to cyber-attacks.

2024年9月，我們開展網絡安全意識培訓，圍繞安全意識的重要性、新時代的網絡安全觀、網絡安全政策法規解讀、員工安全意識四個方面，總結常見的辦公安全隱患和個人隱私風險，累計440人參與培訓。

In September 2024, we conducted cybersecurity awareness training to summarize common office security risks and personal privacy risks from four aspects: the importance of security awareness, the concept of cybersecurity in the new era, the interpretation of cybersecurity policies and regulations, and employee security awareness, with a total of 440 people participating in the training.



圖：國家護網啟動會
Picture: National Network Protection Initiation Meeting



圖：數據安全管理辦法宣貫會
Picture: Data Security Management Measures Promotion Meeting

- User Privacy Management

In order to regulate the use of WeCom and ensure the security of user data, we have issued the Management Requirements for WeCom Groups, which prohibits Gas Butler from creating or joining a group chat with multiple users, and seriously deal with the leakage of user data, customer complaints, and public opinion incidents caused by communication within the group.

案例：華潤燃氣推進管網數據專項治理

In 2024, we promoted the special data governance of CR Gas's pipeline network, sorted out 82 customer tags on the customer service side, and completed the collection and dynamic update of tags for 520,000 users in Nanjing area; newly added 8 types of data verification rules on the transmission and distribution side, and passed 3 rounds of overall quality checking. Over 800 million records of problems were discovered and resolved in various regions, and the completeness rate increased from 54.28% at the beginning of the treatment to 96.65%.

[illegible]

圖：數據質量檢查報表



負責任營銷

華潤燃氣堅持負責任營銷原則，遵守《中華人民共和國廣告法》《消費者權益保護法》等法律法規，制定《華潤燃氣企業微信管理指引》等內部制度，規範營銷行為，主動公開經營範圍內產品和服務的價格、質量等信息，同時持續加強公平營銷管理和業務培訓，確保產品在營銷過程中不誇大、無虛假或誤導宣傳，保障客戶權益不受侵犯。

針對華潤燃氣百尊系列燃氣具，我們制定統一市場指導價格，在線下實體店以價格標籤的形式進行展示銷售，在線上商城的產品詳情頁清晰展示燃氣具價格，有效保障客戶的知情權。

打造卓越服務

華潤燃氣持續打造卓越服務，完善售後服務和客戶投訴管理機制，制定《華潤燃氣控股有限公司客戶投訴管理指引》《華潤燃氣控股有限公司客戶服務標準手冊》等內部規章制度，規範售後服務流程。2024年，我們建立客戶服務標準化體系，形成客戶服務管理標準，推進客服業務作業全流程標準化，同時新增《華潤燃氣控股有限公司用戶安檢管理辦法》《華潤燃氣控股有限公司用戶抄表及換表管理辦法》，規範安檢、抄表、換表業務流程與標準。

Responsible Marketing

CR Gas adheres to the principle of responsible marketing, complying with laws and regulations such as the Advertising Law of the People's Republic of China and the Consumer Protection Law. We established internal policies such as the Guidelines for CR Gas WeCom Management to regulate marketing activities. We proactively disclosed information on prices, quality, and other aspects of products and services within our scope of business. Meanwhile, we continued to enhance fair marketing management and business training to ensure that our products were marketed without exaggeration, falsehood, or misleading promotions, safeguarding the rights and interests of our customers.

For the PERCEN series of gas appliances, we formulated a unified market guidance price, which was displayed in the form of price tags for sale in offline physical stores and clearly displayed on the product details page of the online mall, effectively protecting customers' right to know.

Delivering outstanding service

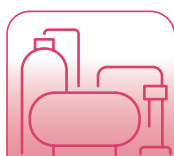
CR Gas continues to deliver outstanding service, improve after-sales service and customer complaint management mechanisms. We formulated internal rules and regulations such as the Guidelines for Customer Complaint Management of China Resources Gas Group Limited and the Customer Service Standards Manual of China Resources Gas Group Limited to standardize after-sales service processes. In 2024, we established a customer service standardization system, developed customer service management standards, and advanced the standardization of the entire customer service business operation process. At the same time, we formulated the User Safety Inspection Management Measures of China Resources Gas Group Limited and the User Meter Reading and Meter Replacement Management Measures of China Resources Gas Group Limited to standardize the safety inspection, meter reading, and meter replacement business processes and standards.

客戶投訴處理

2024年，華潤燃氣持續升級售後服務模式，拓展多元化溝通渠道，穩步推進95777客戶服務中心建設，目前已在70個區域公司完成上線，覆蓋約3,700萬戶，熱線接通率同比提升1.76%。我們繼續推廣網格化服務，上線企業微信服務工具及燃氣管家APP，搭建與用戶線上溝通的橋樑，打造「客戶專屬燃氣管家」形象，目前已推廣覆蓋75家區域，用戶規模突破2,600萬，用戶覆蓋率達到96%。

Customer complaint handling

In 2024, CR Gas continued to upgrade its after-sales service model, expanded diversified communication channels, and steadily promoted the construction of the 95777-customer service center, which has now been launched in 70 regional companies, covering about 37 million households, and the hotline connection rate has increased by 1.76% year-on-year. We continued to promote grid-like service by launching WeCom service tools and Gas Butler APP. These platforms serve as a bridge for online communication with users and create the image of "Customers' Exclusive Gas Butler". Currently, the service has been promoted to cover 75 regions, with a user scale of over 26 million and a user coverage rate of 96%.



2024年華潤燃氣客戶處理流程 2024 CR Gas Customer Complaint Handling Process

投訴處理流程 Complaint Handling Process

立即轉交相關負責部門跟進調查。
The case will be transferred promptly to the relevant responsible department for follow-up investigation.

根據事件情況對投訴進行分類，並按照承諾的投訴處理時間完成處理，識別各環節責任人。
We will classify the complaint based on the circumstances of the matter and handle it within the time frame as promised. The person responsible for each section will be identified.

投訴處理渠道包括但不限於客戶服務中心、客戶服務熱線95777、企業微信、燃氣管家APP、客戶經理、客戶來信、移動營業廳（華潤燃氣APP）、媒體辦公室等。
Complaint handling channels include but are not limited to customer service center, customer service hotline (95777), WeCom, Gas Butler APP, account managers, customer letter, mobile service hall (CR Gas APP), media office, etc.

利用電話回訪和其他形式了解客戶對公司投訴處理情況的意見。
We will obtain the customer's feedback on the complaint handling results by phone call or other means.

填寫投訴處理匯總意見進行歸類，並移交區域公司進行歸檔和評估。

We will fill in a summary of complaint handling, sort it out, and then transfer it to the relevant regional company for archiving and evaluation.





此外，為強化客戶投訴處理的閉環管理，我們建立負面輿情及客戶投訴處置機制，督促各區域公司及時整改並開展舉一反三，有效預防和化解潛在的輿情風險。

In addition, in order to strengthen the closed-loop management of customer complaint handling, we established a mechanism for negative public opinion and customer complaint handling to urge regional companies to make timely rectifications and draw lessons from each case to effectively prevent and resolve potential public opinion risks.

關鍵績效 Key Performance

- 報告期內，公司已解決的客戶投訴的總數量為24,043件。
- During the reporting period, the Company resolved a total of 24,043 customer complaints.
- 報告期內，公司系統記錄並追蹤的有責投訴解決率為100%。
- During the reporting period, the resolution rate of responsible complaints recorded and tracked by the Company's system was 100%.

客戶滿意度調研

2024年，我們充分結合業務觸點，在華潤燃氣客戶信息系統(CIS)與微網廳業務辦理系統、熱線呼叫平台及營業廳線下櫃台等渠道全面配置滿意度評價環節，確保用戶在日常用氣及相關產品與服務購買環節均可及時反饋訴求。同時，我們對各區域的滿意度得分進行晾晒，督促各區域完善投訴機制，實現投訴閉環管理，持續提升客戶滿意度。

截至2024年底，華潤燃氣70家區域公司累計收到49萬評價工單，集團滿意度得分為96.62分，圓滿完成2024年滿意度得分92分的目標。

Customer satisfaction survey

In 2024, we fully integrated business touchpoints and incorporated satisfaction evaluation set in channels such as CR Gas Customer Information System (CIS), WeChat business system (微網廳業務辦理系統), hotline calling platform and offline business hall counters to ensure that users can provide timely feedback on their demands in daily gas usage and the purchase of related products and services. Meanwhile, we disclosed satisfaction scores of each region and urged them to enhance their complaint mechanisms to achieve closed-loop management of complaints and improve customer satisfaction.

As of the end of 2024, 70 regional companies of CR Gas collectively received a total of 490,000 evaluation work orders. The Group's satisfaction score stood at 96.62, successfully achieving the 2024 target score of 92.

履行責任擔當

共建安全屏障

Fulfilling Responsibilities and
**Jointly Building a Safety
Barrier**



SDGs



1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



華潤燃氣始終擔負保障燃氣公共安全的責任和使命，築牢燃氣安全防線，以「智慧燃氣」賦能城市公共安全，以實際行動回饋社會，全力守護人民群眾美好生活，努力成為值得社會信任與託付的責任企業。

CR Gas has always shouldered the responsibility and mission of ensuring public safety of gas. We have established a robust safety framework for gas, empowering urban public safety through “smart gas”. We would make contributions to society through concrete actions, strive to safeguard the well-being of the populace and aspire to be a responsible company worthy of social trust.



2024 責任績效 2024 Responsibility Performance

安全生產投入約 **113,477** 萬港元
Investment in production safety: approximately
HK\$1,134.77 million

安全管理人員持證人數 **4,925** 人
Number of licensed safety management
personnel: 4,925





履行責任擔當，共建安全屏障
Fulfilling Responsibilities and Jointly Building a Safety Barrier

3.1 築牢安全生產底線

華潤燃氣秉持安全生產理念，持續完善安全管理體系，強化安全風險監管，創新安全技術，加強安全培訓和應急管理，全方位推進安全生產工作，築牢安全生產底線。

安全管理體系

華潤燃氣以世界一流的高質量安全管理體系為目標，建立並完善「12365」安全管理體系，以壓實全員安全生產責任制、構建風險分級管控和隱患排查治理雙重預防機制為抓手，從員工、部門、公司三個層級完善安全管理體系，持續推進包括相關方管理在內的6項年度專項工作，圍繞「5個強化」，全面提升安全管理水平。

3.1 SECURE THE BOTTOM LINE OF PRODUCTION SAFETY

CR Gas adheres to the concept of safe production, consistently enhances the safety management system, reinforces safety risk supervision, fosters innovation in safety technology, intensifies safety training and emergency management, advances safe production in all aspects to secure the bottom line of production safety.

Safety Management System

With the objective of building a world-class, high-quality safety management system, CR Gas established and improved the “12365” safety management system. By focusing on the safety production responsibility system for all employees and building a dual prevention mechanism for hierarchical risk management and control and hidden danger inspection and management, we improved the safety management system from three levels of employees, departments, and the Company, and continued to advance six annual special tasks, including stakeholder management, and focused on “five enhancements” to comprehensively improve the level of safety management.

華潤燃氣「12365」安全管理體系 “12365” Safety Management System of CR Gas	
1個目標 1 objective	以構建世界一流的高質量安全管理體系為目標 With the objective of building a world-class high-quality safety management system
2個抓手 2 focuses	以壓實全員安全生產責任制、構建風險分級管控和隱患排查治理雙重預防機制為抓手 Focusing on consolidating the production safety responsibility system for all employees, and building a dual prevention mechanism of hierarchical risk management and control and hidden danger investigation and management
3個層級 3 levels	從員工、部門、公司三個層級完善安全管理體系 Improves the safety management system from three levels of employees, departments, and the Company



6項年度專項工作 6 annual special tasks	➤	深化區域安全一體化
	➤	Deepening regional safety integration
	➤	提升應急能力
	➤	Improving emergency response capabilities
	➤	強化廠站管理
	➤	Strengthening station management
	➤	客戶端安全隱患整治
	➤	Rectifying security hazard at user terminals
	➤	推動管網管理轉型
5個強化 5 Enhancements	➤	Promoting the transformation of pipeline management
	➤	強化相關方管理
	➤	Enhancing related party management
	➤	強基：樹牢安全理念，強化安全基礎管理
	➤	Strengthen the basis: establish a firm safety concept to intensify basic safety management
	➤	強本：防範化解重大風險，強化本質安全
	➤	Strengthen the foundation: prevent and resolve major risks to reinforce intrinsic safety
	➤	強檢：強化監督檢查，壓實安全生產責任
	➤	Strengthening inspection: strengthen supervision and inspection to consolidate responsibility for production safety
	➤	強培：強化教育培訓，打造專業人才隊伍
	➤	Strengthening training: enhance education and training to build a team of professional talents
	➤	強智：推動數字化轉型，強化智慧運營
	➤	Strengthening smart operation: promote digital transformation to strengthen smart operation

我們積極開展職業健康管理體系認證工作，持續推進集團和下屬企業認證ISO 45001、ISO 14001、ISO 9001體系。截至報告期末，公司獲得相關認證情況如下：

We proactively carried out occupational health management system certification and promoted ISO 45001, ISO 14001, and ISO 9001 certification for the Group and its subsidiaries. As of the end of the reporting period, the Company obtained the following certifications:

認證類型	Type of certification	企業數量	Number of companies	覆蓋比例 Coverage
ISO 45001認證	ISO 45001 Certification	142	142	51.45%
安全生產標準化認證	Production Safety Standard Certification	128	128	46.38%



圖：南京公司獲ISO 45001再認證

Picture: Nanjing China Resources Gas Co., Ltd. Obtained the ISO 45001 Recertification

圖：大豐公司獲ISO 45001認證

Picture: Dafeng China Resources Gas Co., Ltd. Obtained the ISO 45001 Certification

圖：鄭州公司獲ISO 45001認證

Picture: Zhengzhou China Resources Gas Co., Ltd. Obtained the ISO 45001 Certification



安全管理制度

華潤燃氣嚴格遵守《中華人民共和國安全生產法》《中華人民共和國消防法》及《中華人民共和國職業病防治法》等國家法律法規，融合ISO 45001、安全生產標準化等國內外標準，建立安全管理制度體系，制定覆蓋全集團的《華潤燃氣EHS管理體系》，指導並規範下屬公司EHS管理體系建設。華潤燃氣EHS管理體系包含1個EHS管理手冊、10項安全監督管理標準和1項應急預案，覆蓋EHS組織建設、目標與責任管理、應急管理、安全文化、教育培訓、責任制管理、雙預防管理、事故事件管理、相關方管理等內容。

2024年，我們修訂《EHS管理手冊》《安全風險分級管控及隱患排查治理管理辦法》《相關方安全管理指引》等12項管理制度和6項業務管理標準，完善績效考核機制，將健康與安全表現和高管績效掛鉤，有效管控安全風險。

安全管理架構

華潤燃氣EHS委員會作為安全管理的最高決策機構，由集團總裁擔任委員會主任，由分管安全工作的副總裁擔任副主任，其他委員會委員由分管業務副總裁、總部各部室負責人擔任。EHS委員的主要職能為：貫徹國家安全管理法律法規和行業標準、規範；按季度召開不少於1次的EHS委員會會議；研究安全工作中的重大舉措，協調、解決安全管理中的重大問題；指導全集團的安全工作，實現對所屬區域公司及下屬區域企業安全集中管理。

Safety Management System

CR Gas strictly complies with the Production Safety Law of the People's Republic of China, the Fire Protection Law of the People's Republic of China and the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases and other national laws and regulations. By incorporating standards like ISO 45001, production safety standards and other domestic and international standards, we established a safety management system. Additionally, we developed a group-wide CR Gas EHS Management System to oversee and regulate the EHS management system construction of the subsidiaries. The CR Gas EHS management system includes 1 EHS management manual, 10 safety supervision and management standards and 1 emergency plan, covering EHS organization construction, target and responsibility management, emergency management, safety culture, education and training, responsibility management, dual prevention management, accident case management, and stakeholder management.

In 2024, we revised 12 management systems and 6 business management standards, including the EHS Management Manual, Hierarchical Safety Risk Control and Hidden Danger Inspection and Treatment Management Measures, and Stakeholder Safety Management Guidelines to improve the performance appraisal mechanism. We linked health and safety performance with executive performance to effectively control safety risks.

Safety Management Structure

CR Gas EHS Committee is the highest safety management body. Group's Chief Executive Officer serves as the chairman of the committee, the vice president in charge of safety works as the vice-chairman, and the vice president in charge of operations and department heads of headquarters serve as the other members of the Committee. The main functions of the EHS Committee are: compliance with national safety management laws and regulations and industry standards and specifications; hold EHS Committee meetings at least once a quarter; study material measures in safety, coordinate and address material problems in safety management; guide the safety work within the Group, and achieve centralized safety management of regional companies and subordinate regional companies.

安全管理目標

華潤燃氣制定涵蓋承包商在內的「追求零事故，超越零責任」安全目標，持續追蹤評估「職業健康應體檢人數、新增疑似職業病人數、健康管理投入資金、工作場所職業病危害日常監測執行率」等安全指標績效，及時跟進檢討安全責任目標的達成情況。

我們建立全員崗位安全責任體系，通過崗位明白卡使用及責任/任務雙清單落地，明確各層級的安全管理責任，推動安全目標順利實現。2024年，我們編制下發《華潤燃氣2024年度EHS重點工作》，明確六項專項工作及安全管理五強要求，同時要求區域公司結合實際，制定區域公司年度EHS重點工作，並分解至有關單位及人員，有效提升安全管理效率。

我們持續完善安全績效考核機制，將EHS管理工作和安全生產責任事故等安全管理表現與相關業務單位主管、高管等責任人的績效薪酬相關聯。集團每年組織與區域公司簽訂《業績合同》《EHS目標管理責任書》，對區域公司進行EHS考核，各區域公司亦將安全生產績效獎金在工資總額中單列，提高安全業績在職工收入中的權重，全面落實安全管控責任。報告期內，華潤燃氣未發生員工人身傷亡事故及有責的生產安全事故。

Safety Management Objectives

CR Gas developed the safety goal of “pursue zero accidents and incur no liability” that covers all contractors. We continuously tracked and evaluated the performance of safety performance indicators such as “the number of people who should undergo occupational health checkups, the number of people who have been newly diagnosed with suspected occupational diseases, the amount of funds invested in health management, and the implementation rate of daily monitoring of occupational disease hazards in the workplace” to follow up and review the achievement of safety responsibility goals in a timely manner.

We implemented a position safety responsibility system for all employees, clarifying safety management responsibilities at all levels through the use of position description cards and dual lists of responsibility/task, so as to enable the smooth achievement of safety objectives. In 2024, we compiled and issued the CR Gas 2024 EHS Key Tasks, which clarified six special tasks and five requirements for safety management. Meanwhile, we requested regional companies to align with actual conditions to develop annual EHS priorities of the regional Company and allocate them to relevant units and personnel to enhance safety management efficiency.

We continued to improve the safety performance appraisal mechanism, aligning the performance of safety management such as EHS management and production safety accidents with the performance compensation of executives and other responsible persons of the relevant business units. The Group organizes the signing of the Performance Contract and EHS Target Management Responsibility Letter with regional companies and conducts EHS assessments on regional companies every year. Each regional Company has also listed the bonus of production safety performance separately in total wages to increase the weight of safety performance in employees' income to comprehensively promote the implementation of responsibility for production safety management and control. During the reporting period, there were no casualties involving employees of CR Gas and production safety incidents for which CR Gas was accountable.



安全風險監管

華潤燃氣建立雙重安全預防控制體系和風險分級管控機制，制定《安全風險分級管控及隱患排查治理管理辦法》《職業健康、節能環保與消防管理辦法》等監督管理制度。為了更有效保證安全目標達成，我們定期開展內外部安全管理審核、安全風險識別、安全檢查、安全隱患排查等行動，有效管控安全風險。

Safety risk supervision

CR Gas established a dual safety prevention and control system and a risk classification management mechanism. We formulated supervision and management systems such as the Hierarchical Control of Safety Risks and Potential Hazard Inspection and Management Measures, Measures on Occupational Health, Energy Conservation and Environmental Protection and Fire Protection Management. To achieve health and safety targets, we regularly conducted internal and external safety management audits, safety risk identification, safety inspections, potential safety hazards inspections and other programs to effectively control safety risks.

安全管理審核 Safety management audit	➤ 內部審核：編制《華潤燃氣2024年安全生產標準化評審方案》，定期開展安全生產標準化評審和年度EHS審核（包括健康與安全政策）及班組考評。報告期內，累計完成79家區域公司標準化審核，平均分88.71。
	➤ Internal audit: We formulated the CR Gas 2024 Safety Production Standardization Review Plan, and regularly conducted safety production standardization reviews, annual EHS audits (including H&S policy), and unit assessments. During the reporting period, a total of 79 regional companies received standardization audits, with the average score 88.71.
	➤ 外部核驗：至少每三年邀請有資質的外部機構對安全生產管理政策執行效果，以及包括安全現狀、安全生產標準化達標認證、職業危險有害因素等在內的所有業務安全風險進行排查。 ➤ External verification: We invite qualified external third-parties at least once every three years to conduct inspection on the implementation effect of the production safety management policy, as well as all operation safety risks including the safety status quo, certification of standardization of safety production, and vocational hazardous and harmful factors, etc.
安全風險識別 Safety risks identification	➤ 整合已有風險辨識管控及隱患排查治理制度標準，通過設備風險提示卡、場站風險四色圖、班組安全管控要點、崗位明白卡，有效識別安全風險。
	➤ We integrated the policy standards for existing risk identification, management and control as well as hazard investigation and management, and effectively identified risks through equipment risk reminder cards, four-color diagrams of station risks, key points of unit safety control and position description cards.



安全檢查 Safety check	<ul style="list-style-type: none">➤ 標準化安全檢查：構建標準化檢查體系，明確區域總經理、安全及業務分管領導與部門負責人等五類人員的安全檢查頻次，即總部業務部室總經理每兩月一次、安全管理部室總經理每月一次、大區總經理每季度一次、區域公司總經理每月一次。➤ Standardized safety inspections: We built a standardized inspection system to clarify the frequency of safety inspections for five categories of personnel including the general manager of regional companies, leaders of the safety management department and department heads, etc. Specifically, the general manager of the headquarters business department should conduct safety inspections once every two months, the general manager of the safety management department should conduct safety inspections once a month, the general manager of each major region should conduct safety inspections once a quarter, and the general manager of each regional Company should conduct safety inspections once a month.➤ 飛行安全檢查：編制下發《2024年總部、大區飛行安全檢查標準》，明確業務作業質量、管理人員履職情況、相關方安全管理、現場應急拉練測試、事故善後處置桌面演練及其他重點工作等6項檢查內容，對下屬79家區域公司、120家區域公司開展飛行安全檢查。同時，我們在安全管理系統中開發飛行檢查模塊，督促受檢查單位將安全隱患錄入系統進行整改跟進後閉環管理。➤ Flight safety inspection: We compiled and issued the 2024 Headquarters and Major Region Flight Safety Inspection Standards, which clearly define six inspection contents, including business operation quality, management personnel's performance of duties, safety management of stakeholders, on-site emergency drills and tests, accident post-processing table-top exercises, and other key tasks. We conducted flight safety inspections on 79 subordinate regional companies and 120 regional companies. At the same time, we developed a flight inspection module in the safety management system to prompt inspected units to record safety hazards into the system for rectification and follow-up, enabling closed-loop management.
安全隱患排查 Potential safety hazard inspection	<ul style="list-style-type: none">➤ 組織開展安全生產治本攻堅三年行動、消防安全集中除患攻堅大整治、電動自行車消防安全隱患排查整治等活動，發現並整改隱患5萬餘項。➤ We organized and carried out a three-year action plan to address the root causes of production safety, a major campaign to rectify potential fire safety hazards, and an inspection and rectification of fire safety hazards on electric bicycles, and discovered and rectified more than 50,000 potential dangers.



報告期內，華潤燃氣大區內部各區域及下屬單位累計共組織隱患排查57,102次，其中企業主要負責人帶隊檢查3,473次、安全分管領導帶隊檢查4,240次、其他分管領導帶隊檢查4,938次、安全監管部門檢查10,598次、業務保障部門檢查33,083次。

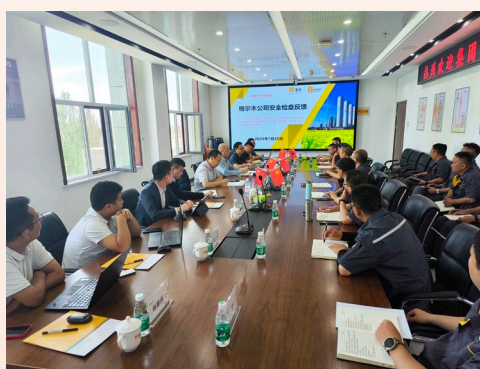
During the reporting period, various regions and subordinate units within the CR Gas major region conducted a total of 57,102 potential danger inspections, of which 3,473 were led by the Company's main persons in charge, 4,240 were led by persons in charge of safety, 4,938 were led by other leaders in charge, 10,598 were led by safety supervision departments, and 33,083 were led by business assurance departments.

案例：華潤燃氣開展安全飛行檢查和施工安全檢查工作

Case Study: CR Gas Carried Out Flight Safety Inspections and Construction Safety Inspections

2024年7月，華潤燃氣副總裁韓文臣帶隊至格爾木公司開展安全飛行檢查工作，檢查安全管理、工程管理、客服管理、輸配管理、廠站管理、人員履職、相關方管理、統建業務系統的使用和管理等情況，針對發現的問題提出改進建議和工作要求。

In July 2024, Han Wenchen, vice president of CR Gas, led a team to Golmud China Resources Gas Co., Ltd. to carry out flight safety inspections to check safety management, engineering management, customer service management, transmission and distribution management, stations management, personnel performance, stakeholder management, and the utilization and management of the unified business system, and proposed improvement suggestions and work requirements in response to the identified issues.

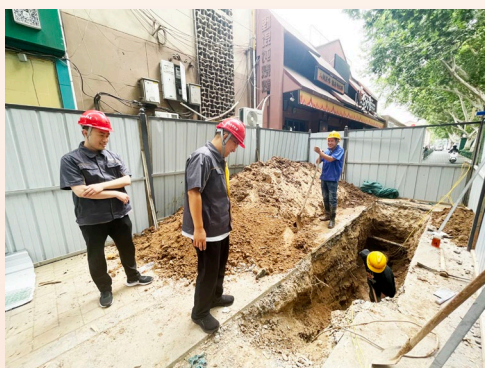


圖：格爾木公司安全飛行檢查

Picture: Flight Safety Inspection of Golmud China Resources Gas Co., Ltd.

2024年6月，華潤燃氣工程管理中心聚焦工程施工重點，高標準、高水平、高質量開展安全月系列活動，全面開展安管體系建設及施工現場管理檢查活動，守穩築牢工程施工安全防線。

In June 2024, CR Gas engineering management center placed emphasis on the key aspects of project construction, undertaking a series of safety month activities with a commitment to high standards, elevated levels, and superior quality. The center comprehensively engaged in the construction of safety management systems and conducted inspections of on-site management, ensuring a steadfast commitment to safety in project construction.



圖：施工現場安全檢查

Picture: Construction Site Safety Inspection



案例：華潤燃氣深入開展燃氣安全專項整治行動

Case Study: CR Gas Carried Out Special Rectification Campaigns on Gas Safety

2024年，華潤燃氣積極落實城鎮燃氣專項排查整治企業主體責任，完善安全管理制度和相關標準，全面排查安全風險和事故隱患，重點關注燃氣經營企業、充裝企業、燃氣具及配件銷售企業、商業用戶等6類主體，推動統建系統應用，切實構建安全管理數智化長效機制。

In 2024, CR Gas actively fulfilled its responsibility as an enterprise on the subject of special inspection and rectification of urban gas, improved the safety management system and relevant standards, comprehensively inspected safety risks and potential dangers, focused on six types of entities including gas operating companies, filling companies, gas appliances and accessories sales companies, and commercial users, promoted the application of unified systems, and effectively built a long-term digital mechanism for safety management.



圖：無錫區域燃氣設備維護

Picture: Gas Equipment Maintenance in Wuxi Area

數智化安全管理

華潤燃氣持續推進安全輸配領域數智化轉型，基於安全管理、運行管理、客戶端管理和工程建設的全業務鏈數智化系統，進一步研發智能化應用，形成燃氣安全運營數字化平台一體化解決方案，以創新技術賦能安全高效運營。

- 安全管理系統(SMS)：行業率先建立的新一代隱患治理系統，實現搶維修、危險作業、停複供等高危環節的全過程管控，以及隱患跨系統流轉的全流程閉環管理。2024年，實現跨區域派單處理，支持廠站設備常規、專業分級維保，一鍵生成廠站交接班報告。
- 工程管理系統(PMS)：利用物聯網、5G等新技術手段實現焊機監控、自動生成竣工資料、氣密性和強度試驗完成率以及螺紋鏈連接檢查率等新功能，實現工程各個環節精準管控，有效提升現場施工作業安全監管能力。建立了體系化的第三方監督管理機制，設計、施工、監理的服務質量直接從系統自動生成關鍵業務指標，能夠精準至人員進行考核評價，有效地提升了第三方服務質量。

Digital-Smart Safety Management

CR Gas continued to advance digital-smart transformation in the field of safe transmission and distribution. Based on the digital-smart full-service chain system covering safety management, operational management, customer management, and engineering construction, we further developed intelligent applications. These have led to the creation of an integrated solution of the digitized platform for gas safety operations, empowering safe and efficient operations through innovative technologies.

- Safety Management System (SMS): The first new generation of potential danger management system in the industry, which realizes the full process management and control of high-risk processes such as emergency repairs, dangerous operations, supply suspension and resumption, as well as the full process closed-loop management of the cross-system transfer of potential dangers. In 2024, cross-regional dispatch processing has been realized. The system supports conventional and professional graded maintenance of station equipment, and generates station handover reports with one click.
- Project Management System (PMS): Using new technologies such as the Internet of Things and 5G to achieve new functions such as welding machine monitoring, automatic generation of completion data, air tightness and strength test completion rate, and threaded chain connection inspection rate, to achieve precise control of all aspects of the project and effectively improve the safety supervision capabilities of on-site construction operations. A systematic third-party supervision and management mechanism has been established. Key operational indicators can be directly and automatically generated by the system based on the service quality of design, construction, and supervision. This mechanism enables precise assessment of personnel and effectively improves the quality of third-party services.



- 雲地理信息系統(IGIS)：作為行業內首款雲端部署的地理信息系統，採用北斗定位、現場自動成圖等智能測繪技術，解決了一線管道數據採集效率低的痛點，建立了專業測繪隊伍，實現近20萬公里管網信息的全面數字化，為後續在役管網的智能化仿真、巡檢、搶險維護、調度指揮等奠定了基礎。
- Cloud Geographic Information System (IGIS): As the first cloud-deployed geographic information system in the industry, it adopts intelligent surveying and mapping technologies such as Beidou positioning and on-site automatic mapping to solve the pain point of low efficiency in data collection on the first-line pipelines. A professional surveying and mapping team has been established, and comprehensive digitization of nearly 200,000 kilometers of pipeline information has been achieved, laying the foundation for subsequent intelligent simulation, inspection, emergency maintenance, dispatching and commanding of in-service pipelines.
- 易作業巡檢系統(EIS)：實現了管網巡查、檢漏、維保、末端檢測及第三方工地監護等核心環節全流程智慧化管理，以及4,700名巡檢人員的全方位管理。通過應用EIS，可實時獲取人員位置和軌跡、作業內容等。支持市政、庭院管網劃分，優化在線監測設備顯示，接入巡檢車軌跡及報警信息，推進「管網巡查+管網檢漏+專業維保」的管理模式轉型。
- Easy Inspection System (EIS): It realizes the whole-process intelligent management of the core process such as pipeline inspection, leak detection, maintenance, terminal detection and third-party site monitoring, as well as the all-round management of 4,700 inspection personnel. By applying EIS, the location and trajectory of personnel, operation content, etc. can be obtained in real time. It supports the division of municipal and courtyard pipelines, optimizes the display of online monitoring equipment, accesses the trajectory and alarm information of inspection vehicles, and promotes the transformation of the management model of "pipeline inspection + pipeline leak detection + professional maintenance".
- 數據採集監控系統(R-SCADA)：集成監測設備、視頻監控、激光雲台等監控信息，通過對閾值和變化率報警分級管理，極大提高了信息監控和報警處置效率。同時系統支持遠程閥控功能，及時保障現場安全。2024年，我們優化監測數據查詢及分析，全面支持廠站信息化及廠站監控獨立管理，新增工藝圖、遠程視頻及閥控等。
- Supervisory Control and Data Acquisition System (R-SCADA): The system integrates monitoring equipment, video surveillance, laser PTZ and other monitoring information, and greatly improves the efficiency of information monitoring and alarm handling through hierarchical management of threshold and change rate alarms. At the same time, the system supports remote valve control functions to ensure the safety of the site in a timely manner. In 2024, we optimized monitoring data query and analysis, fully supported station informatization and independent management of station monitoring, and added functions of process drawings, remote video and valve control, etc.



- 高精準洩漏檢測系統：通過高精準檢測車和天眼鐵塔等第三方視頻監控系統等先進設備的應用，配合易巡檢和安全管理系統，大幅提高洩漏檢測效率和質量。
- 智慧燃氣安全監控平台：接收管道氣及液化氣用戶洩漏報警器遠傳數據，當濃度超過上限後，會通過彈窗及聲音報警並推送手機短信和APP消息提醒等通知用戶。
- 工商安檢系統(USS)：完成下屬企業的全面普及，提高下屬企業在工商客戶隱患排查整治方面的工作效率和質量，促進了客戶端用氣安全風險的有效管控。2024年，該系統增加歷史未整改隱患板塊，隱患管理全面對接SMS。
- 居民安檢系統(SCS)：完成下屬企業的全面普及，終端支持拍照水印生成、居民安檢現場欠費、保險信息提醒；安檢片區圖形化、網格化管理；支持安檢、隱患及隱患派工、隱患處理流水賬卡片式記錄；人員上下班打卡，工作人員定位功能。
- High-Precision Leak Detection System: Through the application of advanced equipment such as high-precision detection vehicles and third-party video monitoring systems such as the Tianyan Tower, combined with easy inspection and safety management systems, the efficiency and quality of leak detection can be greatly improved.
- Smart Gas Safety Monitoring Platform: Receive remote data from leak alarms of pipeline gas and liquefied gas users. When the concentration exceeds the upper limit, it will notify users through pop-up windows and sound alarms, and send mobile phone text messages and APP message reminders.
- Industrial and Commercial Security Inspection System (USS): Complete the comprehensive popularization of subordinate enterprises, improve the work efficiency and quality of subordinate enterprises in the investigation and rectification of hidden dangers for industrial and commercial customers, and promote the effective management and control of gas safety risks at customers side. In 2024, the system added a section for historical unrectified hidden dangers, and the hidden dangers management will be fully aligned with SMS.
- Resident Security Inspection System (SCS): Complete the comprehensive popularization of subordinate enterprises. The terminal supports photo watermark generation, on-site resident security inspection arrears and insurance information reminders. It enables graphical and grid management of security inspection areas, supports card-type recording of security inspection hidden dangers and hidden dangers personnel dispatch, and hazard handling in a running account format, and includes features for personnel clocking in and out, staff positioning function.



此外，華潤燃氣積極推進先進技術裝備創新和應用，通過高精準檢測設備、管網在線監測設備和市政公用的天眼鐵塔資源，持續提升作業安全水平。2024年，高精準檢測設備已接入20家區域的23輛高精準巡檢車，在提高洩漏檢測效率的同時，加強員工巡檢作業安全；管網在線監測設備累計接入易作業巡檢系統7,012台，實現24小時監測管線及周邊洩漏情況，並通過系統跟進處置洩漏報警信息；天眼鐵塔等視頻應用能夠及時發現管線周邊施工情況，加強第三方工地監護作業管理，累計16家區域接入鐵塔視頻點176個、天眼視頻點7,804個。

相關方(包括承包商)安全管理

華潤燃氣建立包含相關方安全管理的EHS管理體系，將華潤燃氣生產經營場所涉及的相關方人員視同己方人員納入統一管理。2024年，修訂《華潤燃氣控股有限公司相關方安全管理制度》，完善安全管理部門、使用單位、相關方單位的權責，進一步落實華潤集團相關方管理的「合同管理全覆蓋、安全管理全覆蓋、責任追究全覆蓋」等要求。

針對工程管理系統的相關方管理，我們將搶險維修相關方人員納入安全管理系統，加強作業流程管控和安全檢查力度，完善相關方安全管理機制。同時，我們將相關方勞務用工備案納入EHS指標考核評價，通過定期統計、通報備案情況，督促下屬單位重新簽訂安全協議，進一步明確相關方安全責任。報告期內，我們累計對79家區域公司相關方管理情況進行安全審查。

In addition, CR Gas actively promotes the innovation and application of advanced technology and equipment, and continues to improve operational safety through high-precision inspection equipment, pipeline network online monitoring equipment and municipal public resources of Sky Eye Tower. In 2024, high-precision inspection equipment has been accessed 23 high-precision inspection vehicles in 20 regions, which improves the efficiency of leak detection and enhances the inspection work safety of employees; pipeline network online monitoring equipment has been accessed 7,012 units of the Easy Inspection System, which realizes 24-hour monitoring of pipeline and peripheral leakage, and follows up with the system to dispose of the leakage alarm information; the video application such as Sky Eye Tower can timely discover the construction situation around the pipeline and enhance the management of third-party construction site monitoring; a total of 16 regions have been accessed 176 video points of the Tower and 7,804 Sky Eye video points.

Safety Management of Stakeholders (including contractors)

CR Gas has established an EHS Management System that includes safety management of stakeholders, and has included the personnel of stakeholders involved in the production and operation of CR Gas in the unified management equal to permanent employees. In 2024, the Safety Management Policy for Stakeholders (including contractors) of China Resources Gas Group Limited was revised to improve the rights and responsibilities of the Safety Management Department, users and stakeholders, and to further implement the requirements of the China Resources Group's stakeholder management, such as "full coverage of contract management, safety management and accountability".

With regard to the management of stakeholders in the project management system, we included emergency maintenance personnel of stakeholders into the safety management system, strengthened the operation process management and safety inspections, and improved the safety management mechanism of stakeholders. At the same time, we have included the labour employment record of stakeholders into the assessment and evaluation of EHS metrics. Through regular statistics and reporting of record status, we urge our subordinate units to re-sign safety agreements to further clarify the safety responsibilities of stakeholders. During the reporting period, we conducted safety reviews on the management of 79 regional Company stakeholders.



3.2 賦能公共安全治理

華潤燃氣重視公共用氣安全，通過安全教育、安全宣貫和應急管理，與員工、用戶等相關方共同守護燃氣安全，切實保障人民群眾生命財產安全。

安全教育培訓

華潤燃氣建立全員安全教育培訓體系，搭建「總部－大區－區域－下屬公司－相關方」五級培訓框架，發佈《關於2024年度安全教育培訓有關工作的通知》，依託華潤集團EHS管理系統，開展全員日常安全教育培訓與安全專項培訓工作。

- 日常安全教育培訓：我們每月組織安全管理強相關人員學習，涵蓋法律法規、規章制度、體系建設、職業健康、節能環保、業務知識等，並利用安全學習日活動，研討管理方法、分享優秀經驗。
- 安全專項培訓：我們關注一線員工技能達標，安全專項審核員、國家註冊安全工程師、安全生產知識和管理能力培訓認證等情況，幫助關鍵崗位員工掌握正確的操作技能和應急處理能力、夯實安全基礎，從源頭減少事故發生概率。

3.2 EMPOWERING PUBLIC SAFETY GOVERNANCE

CR Gas attaches importance to public gas safety, and through safety education, safety promotion and emergency management, it works with its employees, users and other stakeholders to protect gas safety and ensure the safety of people's lives and property.

Safety Education and Training

CR Gas established a safety education and training system for all staff, built a five-level training framework covering the "headquarters – major regions – regions – subordinate companies – stakeholders", issued the Notice on Safety Education and Training in 2024, and leveraged the China Resources Group's EHS Management System to carry out daily safety education and training for all staff, as well as special safety training.

- Daily safety education and training: We organize monthly studies for personnel who are strongly related to safety management, covering laws and regulations, rules and regulations, system construction, occupational health, energy conservation and environmental protection, business knowledge, etc., and make use of the activity of safety study day to discuss management methods and share excellent experience.
- Special safety training: We pay attention to the front-line employees skills certification, special safety auditors, national registered safety engineers, safe production knowledge and management ability training certification, etc., to help employees in key positions master correct operation skills and emergency response capabilities, and consolidate safety foundation to reduce the probability of accidents from the source.



2024年度安全教育培訓工作 Safety Education and Training in 2024

職業技能等級認證培訓 Occupational skills levels certification training

- 編制發放《職業技能等級認定中心建設及驗收標準》
- Construction and Acceptance Standards for Occupational Skill Level Certification Centers
- 新增5家職業技能認定中心資質單位建設，目前共有18個職業技能認定中心，累計完成認定1,179人。
- Construction of five new vocational skill certification center qualification units, and there are currently a total of 18 vocational skill certification centers with a cumulative total of 1,179 personnel certified.
- 2024年成立職業技能大賽工作組，成功舉辦華潤燃氣2024年度職業技能競賽。
- In 2024, the vocational skills competition working group was established and the CR Gas 2024 vocational skills competition was successfully organized.

全員安全教育培訓 Safety education and training for all staff

- 累計開展全員安全教育培訓12期，累計參訓27.29萬人次，其中：
- Cumulatively 12 safety education and training courses for all staff were launched, with a cumulative total of 272,900 attendances, of which:
- 企業主要負責人，安全強相關部門高管及中層：5,694人次；
 - Company's main persons in charge, senior management and middle-level executives of safety-related departments: 5,694 attendances;
 - 下屬公司主要負責人，安全強相關部門高管及中層：6.14萬人次；
 - Subordinate companies' main persons in charge, senior management and middle-level executives of safety-related departments: 61,400 attendances;
 - 安全強相關部門主管及以下人員、相關方人員：20.59萬人次。
 - Heads & below of safety-related departments and relevant staffs: 205,900 attendances.

安全管理人員崗位資質認證 Position qualification certification of safety management personnel

- 按照「兩個層級、三個崗位、四個部分」開展認證工作，編制352頁《華潤燃氣安全管理人員崗位資格認證學習手冊》和1,000餘道試題。
- We carried out the certification work in accordance with "two levels, three positions, and four parts" and compiled a 352-page Study Manual for the Position Qualification Certification of Safety Management Personnel of CR Gas and more than 1,000 test questions.
- 兩個層級：區域及下屬公司
 - Two levels: Regions and subordinate companies
 - 三個崗位：總經理、分管安全副總、安全部門負責人
 - Three positions: General managers, vice presidents in charge of safety, safety department heads
 - 四個部分：法律法規、規章制度、專業技術、事故案例
 - Four parts: Laws and regulations, rules and policies, professional technology, accident cases



安全生產標準化評審員培訓 Standard production safety assessor training	<ul style="list-style-type: none">➤ 編制《2024年生產標準化評審表單》；➤ We compiled the 2024 Standard Production Assessment Form;➤ 組織2024年度安全生產標準化評審員能力培訓，各區域及下屬公司安全管理部門人員、安全生產標準化評審員共計2,000餘人參加培訓；組織2024年標準化評審員認證工作，共計448人通過認證。➤ We organized the 2024 standard production safety assessor competency training, with more than 2,000 personnel from Safety Management Departments and standard production safety assessors of various regions and subordinate companies attending; and organized the 2024 standard assessor certification, with a total of 448 persons passing the certification.
系統運維人員能力培訓 System operation and maintenance staff competency training	<ul style="list-style-type: none">➤ 統建信息系統使用培訓：包含安全管理系統(SMS)、工商管理系統(USS)、管網地理信息系統(IGIS)等學習課程。➤ Training on the use of the information system: Including courses on Safety Management System (SMS), User-specific System (USS), and Cloud Geographic Information System (IGIS).➤ 統建系統運維賦能培訓：包含PMS、EIS、IGIS和SMS等統建系統培訓，2024年安全輸配重點工作及安全強相關統建系統升級計劃宣貫。➤ System operation and maintenance empowerment training: Including PMS, EIS, IGIS and SMS system training, 2024 safety transmission and distribution key work and safety strongly related system upgrade plan promotion.➤ 華潤集團EHS管理系統培訓：用量化指標指導評價工具，提高數據報送質量及關鍵用戶系統操作水平。➤ China Resources Group EHS Management System training: Using quantitative indicators to guide evaluation tools to improve the quality of data reporting and operation level of key user systems.
電氣儀錶專業工程師培訓 Professional Engineer Training in Electrical Instrumentation	<p>開展首批機動車載洩漏檢測設備檢測工程師培訓認證、廠站智能化專業隊伍培訓，打造集團層面廠站電氣儀錶工程師隊伍，提升管網檢漏檢測效率。</p> <p>We launched the first batch of training and certification for engineers of motor vehicles leak detection equipment and the training of intelligent professional teams at stations to build up a team of electrical instrumentation engineers at stations at the Group level, and to enhance the efficiency of leak detection in pipeline.</p>
安全生產知識和管理能力培訓認證 Safe production knowledge and management ability training certification	<p>面向全體員工開展培訓，增強全員安全生產風險意識和責任意識，提升風險防範能力，夯實安全底層架構。</p> <p>Training is provided to all staff to enhance their awareness of safe production risks and responsibilities, improve risk prevention capabilities, and strengthen the safety infrastructure.</p>



華潤燃氣高度重視公共用氣安全，積極開展安全教育和安全宣貫活動，向員工和公眾傳播燃氣安全知識。我們組織各類安全教育活動，包括觀看安全教育片、學習安全知識、開展「安全生產月」「安全宣傳周」等活動，鼓勵員工與公司共同守護職業健康安全；開展線上線下相結合的燃氣安全宣傳活動，推動燃氣安全宣傳進企業、進農村、進社區、進學校、進家庭，持續提高公眾的安全意識和應對突發情況的處置能力。

CR Gas attaches great importance to the safety of public gas consumption and has actively launched safety education and safety promotion to disseminate gas safety knowledge to employees and the public. We organize various safety education activities, including watching safety education films, learning safety knowledge, and launching activities such as “Safe Production Month” and “Safe Publicity Week”, encouraging employees to work together with the Company to protect occupational health and safety; launch online and offline gas safety publicity activities, and advance gas safety publicity into companies, rural areas, communities, schools and families, and to continuously enhance the safety awareness and the emergency response capacity of the public.

案例：華潤燃氣開展「安全生產月」「消防宣傳月」系列活動

Case Study: CR Gas Launched a Series of Activities for the “Safe Production Month” and “Fire Publicity Month”

2024年，華潤燃氣聚焦「人人講安全，個個會應急——暢通生命通道」的安全生產主題和「全民消防，生命至上」的消防安全主題，開展隱患排查、安全宣傳「五進」工作、應急演練、安全知識競賽和演講比賽等活動，為構建堅實的安全生產防線、守護人民生命財產安全做出積極貢獻。

In 2024, focusing on the safe production theme of “Everyone Talks about Safety, Everyone Responds to Emergencies – Smooth Life Channels” and the fire safety theme of “Fire Fighting for All, Life First”, CR Gas carried out activities such as hazard investigation, the “Approaching Five Targets” of safe publicity, emergency drills, safety knowledge contests and speech competitions, making positive contributions to the construction of a solid safe production defense and the protection of people’s lives and property safety.



圖：燃氣安全「五進」宣傳活動
Picture: “Approaching Five Targets” of Gas Safety Publicity Activities



圖：安全技能競賽
Picture: Safety Skills Competition



圖：萊州公司消防安全專項培訓
Picture: Special Training on Fire Safety at Laizhou Company



圖：眉山華潤消防安全應急演練
Picture: Meishan CR Fire Safety Emergency Drill

案例：華潤燃氣開展電動車安全宣傳和隱患排查活動 Case Study: CR Gas Launched Electric Bicycle Safe Publicity and Hazard Investigation Activities

2024年，華潤燃氣印發《華燃安通[2024]24號關於開展電動自行車安全排查整治工作的通知》，編制《電動自行車安全排查表》，對進入公司生產、經營場所內的電動自行車及停放、充電場所開展自查自糾和排查整改等活動。

In 2024, CR Gas issued the CR Gas An Tong [2024] No. 24 Notice on Launching Safety Examination and Rectification of Electric Bicycles, compiled the Electric Bicycle Safety Examination Form, and launched self-examination and self-correction, examination and rectification activities for the electric bicycles and the parking and charging places in the Company's production and business premises.



圖：電動車隱患排查
Picture: Hazard Investigations of Electric Bicycles

截至目前，我們累計組織電動自行車隱患排查593次，發現問題隱患177項，均已完成整改；累計組織開展電動自行車安全培訓371次，參與8,741人。

Up to now, we have organized a total of 593 hazard investigations of electric bicycles, found 177 problems and hazards, all of which have been rectified; a total of 371 times to organize and carry out training on the safety of electric bicycles, with 8,741 participants.



應急管理能力

華潤燃氣建立完善的應急管理體系，制定《生產安全事故管理制度》《華潤燃氣EHS應急管理指引》等管理制度，搭建四級應急預案體系，要求集團及各區域單位制定綜合應急預案，包括《華潤燃氣安全生產事故綜合應急預案》《生產安全事故綜合應急預案》《突發環境事件綜合應急預案》，持續提升應急管理能力。此外，我們制定反恐應急預案，並定期開展培訓與演練，確保在突發事件中能夠迅速響應。

Emergency Management Capabilities

CR Gas has established a comprehensive emergency management system, formulated management measures such as the Management Measures for Production Safety Accidents and Guidelines for EHS Emergency Management of CR Gas, set up a four-level emergency plan system, requiring the Group and regional units to formulate comprehensive emergency plans, including the Comprehensive Emergency Plan for Production Safety Accidents of CR Gas, Comprehensive Emergency Plan for Production Safety Incidents and Comprehensive Emergency Plan for Environmental Emergencies, and continued to enhance emergency management capabilities. In addition, we have formulated anti-terrorism emergency plans and conducted regular training and drills to ensure quick response in the event of an emergency.



圖：應急預案體系
Picture: Emergency Plan System

我們建立並完善應急管理機制，通過團隊建設、應急演練、公共應急管理、應急技術和裝備應用，持續提升突發事件的應對處理能力。

We have established and improved the emergency management mechanism, and continued to enhance our ability to respond to emergencies through team building, emergency drills, public emergency management, and the application of emergency technology and equipment.



- 團隊建設：我們建立區域應急搶維中心、3大應急搶維基地，以及271個應急搶維隊，並要求區域公司成立由區域總經理擔任組長的應急處置工作組，承擔事故隱患排查、輿情監控應對等工作。2024年，我們推動建立專業應急隊伍，逐步構建「大區－區域－區域公司」三級搶維體系。
- 應急演練：我們要求區域企業至少每三年聯合地方政府有關部門進行一次綜合應急演練，每年至少開展一次公司級專項應急演練，各班組每月至少開展一次現場處置方案演練，不斷檢驗應急預案可行性和完備性，提高人員應急素質。2024年，華潤燃氣下屬各單位共開展應急演練5,134次，參演人數達6.52萬人次。
- 公共應急管理：我們建立完備的公共應急管理機制，如：與廈門市公共安全管理領導小組辦公室緊密合作，共享「雪亮工程」中的1,000多個視頻監控資源，以識別並管控第三方施工對燃氣管道安全的影響。我們在成都推行網格化安全管理，與當地政府網格化管理實現分級對接，確保燃氣安全和應急管理能深入到物業、社區、學校等基層單位。
- 應急技術和裝備：我們鼓勵區域企業根據業務特點和實際需要，不斷加大應急裝備的投入，配備行業內先進的燃氣應急裝備，如採用雙封雙堵工藝、配置移動應急撬等方式，持續提升區域企業的應急處置能力。
- Team building: We have established a regional emergency rescue and maintenance center, 3 major emergency rescue and maintenance bases, and 271 emergency rescue and maintenance teams, and require regional companies to establish an emergency response working group headed by the regional general manager, which undertakes the work of investigating accident hazards, monitoring and responding to public opinions. In 2024, we promoted the establishment of professional emergency response teams, and gradually built a three-tier emergency rescue and maintenance system of "major regions – regions – regional companies".
- Emergency drills: We require regional companies to conduct comprehensive emergency drills in collaboration with relevant local government authorities at least once every three years, carry out Company-level emergency drills at least once a year, and each unit conduct an onsite disposal plan drills at least once a month to continuously test the feasibility and completeness of emergency plans and improve the emergency response quality of personnel. In 2024, the subordinate units of CR Gas carried out a total of 5,134 emergency drills, with a total attendance of over 65,200.
- Public emergency management: We have put in place a well-established public emergency management mechanism. For instance, we collaborated with the Xiamen Public Safety Management Leading Group Office to gain access to the video resources of over 1,000 video surveillance points under the "Sharp Eye Project" to identify and control the impact of the third-party construction on gas pipeline safety. We carried out grid-like safety management and collaborated with the local government on grid-like management at different levels to integrate gas safety and emergency management into grassroots units such as properties, communities and schools in Chengdu.
- Emergency technology and equipment: We encourage regional companies to continuously increase investment in emergency equipment, equipping themselves with advanced gas emergency equipment in the industry according to the business characteristics and actual needs, such as using double sealing and double blocking technology, and configuring mobile emergency skids, and constantly improve their emergency response capabilities.



案例：華潤燃氣廈門公司舉辦燃氣反恐、消防、第三方破壞搶險應急演練
Case Study: CR Gas Xiamen Company Held Emergency Drills on Gas Anti-Terrorism, Firefighting and Third-Party Sabotage Rescue

2024年7月，華潤燃氣廈門公司與各單位聯合舉辦2024年度燃氣反恐、消防、第三方破壞搶險應急演練。此次演練模擬燃氣場站生產區在遭遇嫌疑人員闖入並試圖破壞燃氣設施、埋地天然氣管道遭受第三方施工破壞等情況的應急處理，充分運用雪亮工程、智能巡檢系統、天然氣洩漏巡檢車等數智化技術，有效提升燃氣安全風險防控和事故應急處置水平。

In July 2024, CR Gas Xiamen Company and units jointly organized the 2024 emergency drill on gas anti-terrorism, firefighting and third-party sabotage rescue. The drill simulated the emergency response of the production area of a gas station in the event of a suspected intruder attempting to damage gas facilities, and a buried natural gas pipeline being damaged by third-party construction, etc. It made full use of digital technology such as the Sharp Eye Project, the Intelligent Inspection System, and the natural gas leakage inspection vehicle, and effectively enhanced the level of risk prevention and control of gas safety and the level of emergency response to accidents.



圖：廈門公司舉辦燃氣反恐、消防、第三方破壞搶險應急演練

Picture: Xiamen Company Held Emergency Drills on Gas Anti-Terrorism, Firefighting and Third-Party Sabotage Rescue

案例：鄭州華燃極端寒潮下保供氣，守護城市供氣生命線

Case Study: Zhengzhou CR Gas Supplied Gas under an Extremely Cold Wave, Protecting the Lifeline of City Gas Supply

集團積極響應區域能源保供需求，依託自主氣源統籌能力，提升應急調峰水平。2024年1月，鄭州遭遇極端寒潮，單日用氣量增加超過150萬方，華潤燃氣能源發展公司克服重重困難，積極為鄭州協調氣源，12月11日供氣量增加至373萬方，較上一日增加了105萬方，保障了民生用氣穩定。

The Group actively responds to the demand for assuring supply of energy in the regions, and relies on its independent gas source coordination capability to enhance the level of emergency peak shaving. In January 2024, Zhengzhou was hit by an extremely cold wave, which increased gas consumption by more than 1,500,000 m³ in a single day. Overcoming the difficulties, China Resources Gas Energy Development Company actively coordinated the gas supply for Zhengzhou, and the gas supply increased to 3,730,000 m³ on December 11, an increase of 1,050,000 m³ compared to the previous day, guaranteeing the stability of gas supply to residents.



圖：《新聞直播間》報道鄭州天然氣保供

Picture: Live News Room Reports on Assuring Zhengzhou's Natural Gas Supply



榮譽及績效

華潤燃氣持續深耕安全生產管理，確保生產全流程安全可靠，全力守護員工、用戶及相關方的安全，保障燃氣安全供應。

十四五期間，我們主筆起草5項國家政策文件，承辦2次全國燃氣安全培訓，承接7項部委課題研究，在央視網分享華潤燃氣優秀安全經驗，參與國務院組織的燃氣事故調查，引領行業安全發展。

Accolades and Performance

CR Gas has continued to deepen its commitment to production safety management to ensure that the entire production process is safe and reliable, and that it is fully committed to safeguarding the safety of its employees, customers and stakeholders to ensure the safe gas supply.

During the 14th Five-Year Plan period, we drafted 5 national policy documents, hosted 2 national gas safety trainings, undertook 7 ministry and commission project researches, shared the excellent safety experience of CR Gas on CCTV, and participated in the investigation of gas accidents organized by the State Council, thus leading the industry's safety development.

2024年安全榮譽/獎項 Safety Accolades/Awards of 2024

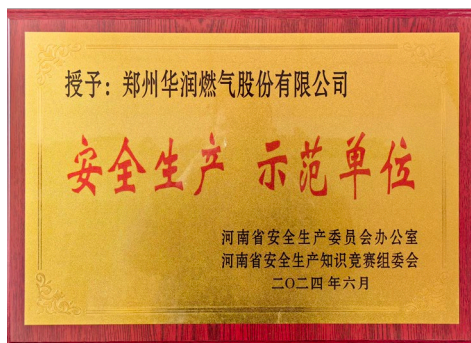
- 「香港綠色企業大獎—超卓環保安全健康獎金獎」
- “Hong Kong Green Awards – Environmental, Health and Safety Award – Gold”



- 2024年度全國燃氣行業安全先進班組
- Advanced Team in Safety in the Nationwide Gas Industry of 2024



- 安全生產示範單位
- Production Safety Demonstration Unit





績效表現

Performance

指標 Index		單位 Unit		2024年 2024	2023年 2023	2022年 2022
安全培訓投入	Safety training investment	萬港元	HK\$'0,000	4,120.77	3,850.27	3,320.20
安全培訓總時數	Total hours of safety training	小時	Hour	1,418,100	772,641	726,935
安全培訓參與人次	Participants of safety training	人次	Attendance	412,500	372,758	357,763
安全培訓覆蓋率	Coverage of safety training	%	%	100	100	100
安全生產投入	Safe production investment	萬港元	HK\$'0,000	113,477	101,403	94,515
安全應急演練次數	Number of safety emergency response drills conducted	次	Number of times	5,134	4,817	4,508
安全生產事故次數	Number of safe production accidents	次	Number of times	0	0	0
員工傷亡人數	Employee fatalities	人	Person	0	0	0
因工傷損失工作日數	Work days lost due to injury	天	Day	0	0	0
安全管理人員持證人數	Number of licensed safety management personnel	人	Person	4,925	4,766	4,456
註冊安全工程師人數	Number of registered safety engineers	人	Person	1,179	1,089	1,057
損失工作日事故率(LTIFR)－員工	Lost time injury frequency rate (LTIFR)- Employee	%	%	0	0	0
損失工作日事故率(LTIFR)－承包商	Lost time injury frequency rate (LTIFR)- Contractor	%	%	0	0	0

推動綠色發展

守護碧海藍天

Promoting Green Development and
**Protecting the Blue Sea
and Blue Sky**



SDGs





在國家「雙碳」戰略引領下，華潤燃氣以環境治理與低碳戰略發展為定位，系統構建涵蓋全鏈條的環境管理體系，通過深化污染防治、實施生態保護、驅動數智化低碳技術研發，積極應對氣候變化影響，為經濟社會綠色變革注入強勁動力。

Led by the China's goals of achieving carbon peak and carbon neutrality, CR Gas has positioned itself in environmental governance and low-carbon strategic development, systematically constructed an environmental management system covering the entire chain, and proactively responded to the impact of climate change by deepening pollution prevention and control, implementing ecological protection, and driving the research and development of digitally-intelligent low-carbon technologies, thereby injecting strong momentum into the green transformation of the economy and society.



2024 責任績效 2024 Responsibility Performance

環保總投入 **5,661.47** 萬港元
Total environmental investment:
HK\$56.6147 million

綜合能源消費量約 **4.22** 萬噸標煤
Total overall energy consumption:
about 42,200 tonnes of standard coal

新建項目執行環境和社會影響評估的比率 **100%**
Ratio of new projects subject to environmental and social impact assessment: 100%

環保培訓參與人次 **262,673** 人次
Participants in environmental protection
training: 262,673

溫室氣體排放密度約 **0.0126** 噸／萬港元營收
Greenhouse gas emission density: about 0.0126
tonnes/revenue of HK\$'0,000



4

推動綠色發展，守護碧海藍天

Promoting Green Development and Protecting the Blue Sea and Blue Sky

4.1 環境保護管理

華潤燃氣以健全環境管理體系為核心，持續強化污染防治，嚴格落實「三廢」管理，推動水資源循環利用，開展生態環境保護。同時，公司積極踐行綠色低碳文化，將環保理念融入企業運營與員工行動。

健全環境管理體系

華潤燃氣恪守國家及運營所在地的環境法律法規，依據ISO 14001環境管理體系等國際標準，持續完善《華潤燃氣控股有限公司職業健康、節能環保與消防管理辦法》等內部規範制度。

公司將能源節約、生態保護等關鍵環保指標納入年度戰略規劃，由EHS委員會統一規劃與協調環境管理工作，定期組織召開專項會議，系統部署並評估環保工作進展，確保各項舉措高效執行。我們依託華潤集團EHS管理系統實時監測與分析月度環保數據，動態跟蹤能源消耗及溫室氣體排放等核心指標。針對異常情況，我們迅速溯源並制定針對性整改方案，確保環境管理工作的全面性與實效性。

4.1 ENVIRONMENTAL PROTECTION MANAGEMENT

With a sound environmental management system as its core, CR Gas has continued to strengthen pollution prevention and control, strictly implement the management of "three types of waste (三廢)", promote the recycling of water resources, and carry out ecological environmental protection. At the same time, the Company is actively practicing a green and low-carbon culture, and integrating environmental protection concepts into its operations and employees' actions.

Improving Environmental Management System

CR Gas abides by the environmental laws and regulations of the countries and regions where it operates. In accordance with ISO 14001 Environmental Management System and other international standards, it continues to improve its internal rules and regulations such as the Measures for the Management of Occupational Health, Energy Conservation, Environmental Protection and Fire Fighting of China Resources Gas Group Limited.

The Company incorporates key environmental indicators, such as energy conservation and ecological protection, into its annual strategic planning. The EHS Committee plans and coordinates environmental management work, and organizes special meetings on a regular basis, systematically deploys and evaluates the progress of environmental protection work to ensure the efficient implementation of various initiatives. We rely on the China Resources Group's EHS management system to monitor and analyze monthly environmental data in real time, and dynamically track core indicators such as energy consumption and greenhouse gas emissions. In response to abnormal fluctuations, we quickly trace the source of the problem and formulate corrective action plans to ensure that our environmental management efforts are comprehensive and effective.



此外，公司系統性推進環境管理體系的標準化認證工作：

In addition, the Company systematically promotes the certification of the standardized environmental management system:

華潤燃氣下屬子公司獲得ISO 14001認證情況 ISO 14001 certification of CR Gas subsidiaries

累計至報告期末ISO 14001認證數目

Number of ISO 14001 certifications cumulative as of the end of the reporting period	47
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累計至報告期末ISO 14001認證比例

Proportion of ISO 14001 certifications cumulative as of the end of the reporting period	17.03%
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應對突發環境事件

為有效防範和應對突發環境事件，華潤燃氣構建了防災減災體系，明確總部、大區、區域各級職責，並通過「人防、物防、技防」三方面措施全面排查隱患，強化薄弱環節，確保責任落實到崗、到人。報告期內，公司未發生環境污染事件或違法違規行為。

同時，華潤燃氣注重輿情管理和應急處置能力提升，要求各單位建立健全突發環境事件輿情應對機制，加強監測與管理，及時分析、評估並妥善處置輿情，避免不實報道對企業造成負面影響。

Environmental Emergency Response

In order to effectively prevent and respond to environmental emergencies, CR Gas has established a disaster prevention and reduction system, clarifying the responsibilities of the headquarters, major regions and regions at all levels, comprehensively investigating hazards through the three aspects: manpower defense, material defense and technical defense and strengthening vulnerable areas to ensure that responsibilities are carried out to the positions and people. During the reporting period, the Company did not experience any environmental pollution incidents or violations of laws and regulations.

At the same time, CR Gas focuses on public opinion management and emergency response capability enhancement, requiring each unit to establish a sound mechanism for responding to public opinion on environmental emergencies, strengthen monitoring and management, and analyze, evaluate and properly handle public opinion in a timely manner, so as to avoid negative impacts on the enterprise caused by untrue reports.



防災應急工作三「防」

Three "Defenses" for Disaster Prevention and Emergency Work

人防 Manpower defense	➤ 宣傳教育：通過潤工作公眾號、企業微信、電視、廣播、網絡等渠道，普及防災減災知識，提升全員防災意識和應對能力。
	➤ Publicity and education: Popularize disaster prevention and reduction knowledge with the help of Run Work official account, WeCom, TV, radio, Internet, etc. to enhance the disaster prevention awareness and response capabilities of all employees.
	➤ 應急演練：2024年，華潤燃氣組織颱風防範、洪澇災害搶險應急、極寒條件保供等極端條件應急演練、桌面推演、專項演練120餘場，參訓人次達3.2萬人次。
	➤ Emergency drills: In 2024, CR Gas organized more than 120 emergency drills, tabletop exercises and special drills for extreme conditions such as typhoon prevention, flood and drainage emergency rescue, and extreme cold conditions to ensure supply, with 32,000 attendances.
物防 Material defense	➤ 應急救援隊伍：將防災職責納入搶險維修隊伍，並聯合政府、社區的專業應急救援隊伍，開展應急救援知識和技能培訓。
	➤ Emergency rescue team: Incorporate the responsibilities of disaster prevention into the rescue and maintenance team, and work with professional emergency rescue teams from the government and communities to develop emergency rescue knowledge and skills.
	➤ 物資儲備：根據警訊儲備食品、水、藥品、帳篷等應急物資，滿足災後初期基本生活需求。
	➤ Reserve supplies: Reserve emergency supplies, such as food, water, medicine, tents, etc., according to warning signals to meet basic living needs in the early post-disaster period.
技防 Technical defense	➤ 避難場所：熟悉政府和社區的避難場所信息，確保員工在災害發生後能夠及時避險。
	➤ Evacuation sites: Get familiar with government and community information on evacuation sites to ensure that employees are able to evacuate in a timely manner in the event of a disaster.
	➤ 備品備件管理：加強燃氣設備設施及配件的儲備和管理，保障應急搶險需求。
	➤ Management of spare parts and accessories: Strengthen the reserve and management of gas equipment, facilities and accessories to protect the needs of emergency rescue.
技防 Technical defense	➤ 監測預警：實時關注官方機構的衛星遙感、氣象觀測等監測預警信息，為應急響應提供及時準確的支持。
	➤ Monitoring and alerting: Pay real-time attention to satellite remote sensing, meteorological observations and other monitoring and alerting information, providing timely and accurate support for emergency response.
	➤ 通訊保障：配備防爆衛星電話，確保災後搶險維修及應急過程中的通訊暢通。
	➤ Communication guarantee: Equip explosion-proof satellite phones to ensure smooth communication during post-disaster emergency repairs and emergency.



強化污染防治

為深入落實國家及地方政府的生態環境保護要求，我們將綠色發展理念貫穿於項目建設和生產運營全過程，持續強化廢氣、廢棄物和水資源管理，切實提升污染防治水平。

廢氣管理

華潤燃氣嚴格遵循《中華人民共和國大氣污染防治法》《大氣污染物綜合排放標準》等要求，制定廢氣管理的規章制度，明確廢氣排放標準、管理要求及責任分工。我們積極開展老舊設備更新改造，優化工藝流程，設置圍欄、合理堆放和運輸建築材料、建立健全灑水噴淋系統等措施，有效控制施工過程中的揚塵、粉塵及廢氣排放。2024年，華潤燃氣對襄陽、普寧等公司開展大氣污染問題排查30餘次，確保自動監測設備設施安裝上線到位。

Strengthening Pollution Prevention and Control

In order to implement the ecological environment protection requirements of the national and local governments, we have consistently applied the concept of green development in the entire process of project construction and production and operation, and continued to strengthen the management of exhaust gas, waste and water resources, and practically enhanced the level of pollution prevention and control.

Exhaust Gas Management

CR Gas strictly follows the requirements of the Law of the People's Republic of China on the Prevention and Control of Air Pollution and the Comprehensive Emission Standards for Air Pollutants, and formulates the rules and regulations for exhaust gas management to specify exhaust gas emission standards, management requirements and division of responsibilities. We actively carry out the renewal and reconstruction of old equipment, optimize the production processes, set up fences, reasonably stack and transport building materials, and establish a sound sprinkler system and other measures to effectively control dust and exhaust emissions from construction. In 2024, CR Gas carried out more than 30 inspections of air pollution problems in Xiangyang and Puning to ensure that automatic monitoring equipment and facilities were installed and launched.

案例：普寧公司燃氣鍋爐改造項目

Case Study: Gas-fired Boilers Renovation Project of Puning Company

2024年，為落實華潤集團及屬地政府的環保與節能減排要求，華潤燃氣汕頭區域普寧公司對4台20噸鍋爐實施節能改造，採用水鍋FIR內循環燃燒器進行改造，全面調試優化鍋爐，確保改造後熱效率與原燃燒器相當。改造後，鍋爐排放數據為：顆粒物 $<10\text{mg}/\text{Nm}^3$ 、二氧化硫 $<35\text{mg}/\text{Nm}^3$ 、氮氧化物 $<30\text{mg}/\text{Nm}^3$ ，其中氮氧化物排放遠低於限值，並接入全國聯網實時監測平台。該項目於2024年10月通過順德特檢院的能效測試與尾氣檢測，符合標準並順利驗收投產。

In 2024, in order to implement the environmental protection, energy conservation and emission reduction requirements of China Resources Group and the local government, CR Gas Shantou Region Puning Company implemented an energy conservation renovation of four 20-tonne boilers, adopting the water boiler FIR internal recirculation burner for the renovation, and comprehensively commissioning and optimizing the boilers to ensure that the thermal efficiency after the renovation is comparable to that of the original burners. After the renovation, the boiler emission data were: particulate matter $<10\text{mg}/\text{Nm}^3$, sulfur dioxide $<35\text{mg}/\text{Nm}^3$, and nitrogen oxides $<30\text{mg}/\text{Nm}^3$, with nitrogen oxides emissions well below the limit values, and connected to the national network real-time monitoring platform. In October 2024, the project passed the energy efficiency test and exhaust gas inspection conducted by Guangdong Institute of Special Equipment Inspection and Research Shunde Branch, which was in compliance with the standards and successfully accepted for production.



圖：普寧公司燃氣鍋爐項目

Picture: Gas-fired Boilers Project of Puning Company



廢棄物管理

華潤燃氣秉持廢棄物「減量化、資源化、無害化」的管理原則，依據國家《危險廢棄物貯存污染控制標準》，遵循華潤集團內部政策，制定並落實廢棄物管理目標，完善廢棄物管理措施，規範危險廢棄物和無害廢棄物的處理流程，從制度和體系層面保障廢棄物管理的合規性和有效性。

Waste Management

Upholding the management principle of "reduction, recycling and harmless treatment of waste", CR Gas follows the internal policies of the China Resources Group, formulates and implements targets for waste management, improves waste management measures, regulates the treatment process of hazardous waste and non-hazardous waste and ensures the compliance and effectiveness of waste management from the mechanism and system level in accordance with the Pollution Control Standard for Hazardous Waste Storage.

廢棄物管理目標 Waste Management Targets

- 報告期內，集團有害廢棄物100%交由有資質的第三方公司妥善處置。
- During the reporting period, 100% of the Group's hazardous waste was transferred to qualified third party companies for proper disposal.
- 報告期內，集團無害廢棄物處置達標率達到並維持在100%。
- During the reporting period, the achievement rate of non-hazardous waste disposal of the Group reached and remained at 100%.
- 對於危險廢棄物：對產生環節進行重點識別和管控，將清管廢渣、過濾濾液、過濾器濾芯、廢料桶等交由有資質的第三方公司進行回收或無害化處理。
- For hazardous waste: identify and control the key points of production, and transfer pigging residue, filter filtrate, filter element, waste drum and other wastes to qualified third party companies for recycling or harmless treatment.
- 對於無害廢棄物：如生活垃圾等，由環保部門統一收集和清運，確保所有固體廢棄物實現綜合利用或安全處置。
- For non-hazardous waste: such as domestic garbage, is collected and transported by the environmental sanitation authority to ensure that all solid waste is processed for a variety of uses or safely disposed of.



2024年，公司嚴格落實華潤集團《固體廢物管理合規問題排查要點》要求，結合業務實際開展專項排查整治工作，通過建立整改進度跟蹤機制督促各區域公司落實整改。本年度，我們累計開展固體廢物管理專項排查608次、節能環保資質證照排查725次，重點發現旗下公司危廢標識設置不規範、危險廢物收集操作規程缺失等問題8項。針對排查結果，所屬單位均按計劃完成全部整改任務，實現全年廢棄物處理率100%。

In 2024, the Company rigorously implemented the requirements of the Key Points for the Inspection of Solid Waste Management Compliance Issues issued by China Resources Group, carrying out special investigation and remediation efforts in conjunction with operational realities and urging the implementation of corrective actions by regional companies through the establishment of a mechanism for tracking progress in rectification. During the year, we conducted a total of 608 special inspections on solid waste management and 725 inspections on energy conservation and environmental protection qualifications and licenses, focusing on 8 issues including the discovery of the hazardous waste labeling not being standardized in subsidiaries of the Company and the lack of operating procedures for the collection of hazardous waste. According to the investigation, each affiliated unit completed all rectification tasks as planned, achieving a 100% waste disposal rate for the Year.

指標 Indicator	2024 年 2024
有害廢棄物總量 Total hazardous waste produced	9.24 噸 9.24 tonnes
無害廢棄物總量 Total non-hazardous waste produced	142.40 噸 142.40 tonnes



水資源管理

華潤燃氣嚴格遵循《中華人民共和國水法》《水污染防治法》等相關法律法規要求，全面完成屬地政府《取水許可證》《排水許可證》《排污許可證》的合規辦理，秉持「節約優先、保護為主」原則，明確年度水資源管理、水污染治理及循環水利用指標目標體系，形成標準化管理框架。

Water Resource Management

In strict compliance with the requirements of the Water Law of the People's Republic of China and the Prevention and Control of Water Pollution and other relevant laws and regulations, CR Gas has fully completed the compliance of the Water Collection Permit, the Drainage Permit and the Pollutant Discharge Permit of the local governments. Adhering to the principle of “prioritizing conservation and protection”, the annual water resource management, water pollution control and recycled water utilization indicator target system has been clarified to form a standardized management framework.

水資源管理目標
Target for Water Resource Management

2025年，用水強度（萬港元營業收入用水量）較2020年減少15%。
In 2025, the water consumption intensity (water consumption per HK\$10,000 of revenue) will be reduced by 15% compared with that of 2020.

我們通過建立用水設備設施動態巡檢機制、實施清污分流改造工程、開展閉路循環系統升級等措施，並創新應用膜處理技術、智能監測系統等節水型工藝設備，將節水改造納入技術升級專項計劃，構建數字化水資源管理平台，提高水的重複利用率，減少污水排放。

We have incorporated water-saving transformation into the special plan for technical upgrading by establishing a dynamic inspection mechanism for water equipment and facilities, implementing diversion of clean water and wastewater transformation projects, upgrading closed-cycle system, and innovating the application of water-saving process equipment such as membrane treatment technology and intelligent monitoring system, and constructed a digital water resources management platform, improved the reuse rate of water and reduced wastewater discharge.

指標 Indicator	2024年 2024
水資源耗用量 Water consumption	763,644噸 763,644 tonnes

生態環境保護

華潤燃氣全面落實黨中央、國務院及集團關於生態文明建設的決策部署，強化生態環境保護主體責任，推動綠色高質量發展。2024年，公司修編了《華潤燃氣控股有限公司職業健康、節能環保與消防管理辦法》，進一步夯實生態環境保護基礎管理。

我們嚴格執行生態保護紅線、環境質量底線、資源利用上線和環境准入負面清單要求，確保廠房選址、設備設施等規劃佈局符合規範，減少對周邊生態環境的影響，保護生物多樣性，保障生態安全。同時，公司實施生態環境問題專項排查整治行動，為生態的可持續發展提供有力支撐。

Ecological Protection

CR Gas has thoroughly implemented the decisions and plans of the Party Central Committee, the State Council and the Group on the construction of ecological civilization, strengthened the main responsibility of ecological environmental protection, and promoted green and high-quality development. In 2024, the Company revised the Management of Occupational Health, Energy Conservation, Environmental Protection and Fire Fighting of China Resources Gas Group Limited to further consolidate the fundamental management of ecological and environmental protection.

We strictly implement the requirements of ecological protection redline, minimum environmental quality requirements, upper limits on resource utilization and the negative list for environmental access to ensure that the site selection of plants, equipment and facilities and other planning elements are in line with the specifications, so as to reduce the impact on the surrounding ecological environment, protect biodiversity and ensure the safety of the ecological environment. At the same time, the Company implemented special investigation and rectification actions for ecological and environmental issues, providing strong support for the sustainable development of ecology.

關鍵績效 Key Performance

- 2024年，華潤燃氣組織旗下生態環境保護相關企業主要負責人、分管領導及專業人員參與華潤集團生態環境保護專業能力培訓和認證，人員參與率達100%，通過率達90%。
- In 2024, CR Gas organized the principal person in charge, leaders and professionals of ecological and environmental protection-related enterprises under CR Gas to participate in the professional capability training and certification on ecological and environmental protection of China Resources Group, with the participation rate of personnel reaching 100% and the pass rate reaching 90%.
- 2024年，集團圍繞華潤集團下發的生態環保督察警示材料及典型案例，全年開展學習活動90餘場，參訓人員近6萬人次。
- In 2024, the Group carried out more than 90 learning activities throughout the year based on the warning materials and typical cases of ecological and environmental protection inspectors issued by the Group, with nearly 60,000 training participants.



案例：長江黃河流域生態環境問題排查整治專項行動

Case Study: Special Campaign for Investigation and Rectification of Ecological Environment Problems in the Yangtze River and Yellow River Basin

華潤燃氣深入貫徹習近平總書記關於長江經濟帶發展和黃河流域生態保護的重要指示精神，組織專題培訓，開展長江黃河流域生態環境問題專項排查整治，參照央企專項整治方案，明確總部督導、大區協同、區域和分管領導具體落實的工作職責，有效落實管理責任。

CR Gas deeply implemented General Secretary Xi Jinping's important instructions on the development of the Yangtze River Economic Belt and the ecological protection of the Yellow River Basin, organized special trainings, carried out special investigation and rectification on ecological and environmental problems in the Yangtze River and Yellow River basins, referred to the special rectification plan for state-owned enterprises, specified the work responsibilities of the headquarters supervision, regional coordination, and regional and leaders specifically implemented, and effectively implemented the management responsibilities.

2024年，華潤燃氣組織區域和區域企業開展專項排查整治225次，重點對旗下長江黃河流域、襄陽、成都等排污相關企業開展排查督導，未發現生態環境問題。未來，公司將持續關注長江黃河流域生態保護，定期開展專項排查，協同政府相關部門，建立健全協同機制，推動長江黃河流域生態保護和高質量發展。

In 2024, CR Gas organized 225 special inspections and rectifications conducted by regions and regional enterprises, focusing on the inspection and supervision of its subsidiaries related to pollutant discharge in the Yangtze River and the Yellow River Basins, Xiangyang and Chengdu. No ecological environment problems were found. In the future, the Company will continue to pay attention to the ecological protection of the Yangtze River and Yellow River Basin, carry out special inspections on a regular basis, and cooperate with relevant government departments to establish and improve the coordination mechanism to promote the ecological protection and high-quality development of the Yangtze River and the Yellow River Basin.



綠色低碳文化

為推動綠色文化建設，華潤燃氣積極推動包括綠色辦公、綠色交通、綠色建築和綠色宣導在內的綠色低碳措施。同時，我們開展「六五環境日」、全國節能宣傳周等環保活動，傳遞低碳環保理念，普及環保知識，引導員工樹立低碳生活與綠色生活的意識。

Green and Low-Carbon Culture

To promote the construction of green culture, CR Gas actively promoted green and low-carbon measures including green office, green transportation, green building and green promotion. At the same time, we carried out environmental protection activities such as the "June 5th World Environment Day" and the National Energy Saving Publicity Week to spread the concept of low-carbon environmental protection, disseminate environmental protection knowledge, and guide employees to develop awareness of low-carbon and green living.

綠色低碳措施 Green and Low-Carbon Measures	
綠色辦公 Green office	<ul style="list-style-type: none"> ➤ 推動辦公場所採用綠電。 ➤ Promote the adoption of green power in the office area. ➤ 積極踐行無紙化辦公，優先使用電子文檔和電子郵件。 ➤ Actively practice paperless office and prioritize the use of electronic documents and emails. ➤ 增加線上會議的頻次，減少差旅。 ➤ Increase the frequency of online meetings and reduce business travel. ➤ 定期分類處理辦公垃圾，推動資源回收利用。 ➤ Make classification for disposal of office waste on a regular basis and promote resource recycling. ➤ 鼓勵員工減少一次性塑料製品使用，改用可循環的飲用杯和餐具，降低塑料垃圾。 ➤ Encourage employees to reduce the use of disposable plastic products and replace them with recyclable drinking cups and tableware to reduce plastic waste.
綠色交通 Green transportation	<ul style="list-style-type: none"> ➤ 在基礎設施建設以及交通工具中廣泛應用大數據、5G、人工智能等前沿創新技術，助力打造電氣化、智能化和共享化的交通系統。 ➤ Widely apply big data, 5G, AI and other cutting-edge innovative technologies in infrastructure construction and vehicles to help build electrified, intelligent and shared transportation systems.
綠色建築 Green building	<ul style="list-style-type: none"> ➤ 着重保障辦公場所的綠電供應。 ➤ Place emphasis on ensuring the supply of green power in office area.
綠色宣導 Green promotion	<ul style="list-style-type: none"> ➤ 定期開展環保培訓和講座，如「種下一棵樹、收穫一片綠」專題植樹活動，強化員工節能減排意識。 ➤ Regularly hold trainings and lectures on environmental protection, such as the special tree-planting activity of "planting a tree and reaping a green harvest", to enhance employees' awareness of energy conservation and emission reduction. ➤ 在辦公場所設置節能提示，引導員工養成綠色辦公習慣。 ➤ Set up energy-saving reminders in the office area and guide employees to develop green office habits.



案例：開展環保主題活動，推動綠色低碳發展

Case Study: Carrying Out Environmental Protection Themed Activities to Promote Green and Low-Carbon Development

華潤燃氣立足燃氣行業特色，以綠色低碳為核心，系統開展節能宣傳周、全國低碳日及「六五環境日」等主題活動，全方位構建綠色低碳文化生態。我們通過潤工作平台、華潤集團EHS管理系統及其他多元渠道（宣傳欄、講座、手冊、視頻等），深度普及綠色生產生活方式，推廣節能減排與清潔生產知識，倡導節約型辦公模式。同時，公司開展節約用電專項行動，優化照明設備使用，並在「六五活動日」發起綠色出行倡議，減少尾氣排放，推動綠色低碳理念內化於心、外化於行。

Based on the characteristics of the gas industry and with green and low carbon as the core, CR Gas has systematically carried out themed activities such as the Energy Saving Publicity Week, National Low-Carbon Day and “June 5th World Environment Day” to build a green and low-carbon cultural ecology in an all-round way. Through the Run Work Platform, China Resources Group’s EHS management system and other various channels (publicity boards, lectures, handbooks, videos, etc.), we deeply disseminate green production lifestyle, promote energy conservation and emission reduction and clean production knowledge, and promote an energy-saving office model. At the same time, the Company carried out special campaigns to save electricity to optimize the use of lighting equipment and launched a green commuting initiative on the “June 5th Activity Day” to reduce exhaust emissions and promote the internalization of green and low-carbon concepts and externalization it in practice.



圖：環保主題活動

Picture: Environmental Protection Themed Activities



4.2 應對氣候變化

華潤燃氣積極應對氣候變化挑戰，研究制定碳減排目標及路徑，搭建智慧監測平台實現全鏈條管控，推動電氣化及可再生能源應用，深化低碳技術研發與甲烷管控，提升業務可持續發展韌性。

氣候相關風險與機遇

華潤燃氣高度重視氣候變化對業務的潛在影響，致力於將氣候風險深度融入企業全面風險管理框架。我們緊密跟蹤全球碳排放政策動態，定期更新氣候風險評估體系，優化應對策略，確保公司能夠系統性、前瞻性地應對氣候變化帶來的挑戰與機遇，保障業務的穩健發展。

4.2 ADDRESS CLIMATE CHANGE

CR Gas is actively responding to the challenges of climate change by studying and formulating the targets and paths of carbon emission reduction, building an intelligent monitoring platform to achieve full-chain management and control, promoting the application of electrification and renewable energy, deepening the research and development of low-carbon technologies and management and control of methane, so as to enhance the resilience of business sustainable development.

Risks and Opportunities Related to Climate

CR Gas attaches great importance to the potential impacts of climate change on its business and is committed to deeply integrating climate risks into its overall risk management framework. We closely track the development of global carbon emission policy, update the climate risk evaluation system regularly, and optimize response strategies to ensure that the Company can respond to the challenges and opportunities caused by climate change in a systematic and forward-looking manner and ensure the stable development of our business.

氣候變化風險及應對 Climate Change Risks and Countermeasures		
氣候變化相關風險 Risks related to climate change	潛在影響 Potential impact	應對措施 Countermeasures
<div><div>實體風險 Physical risks</div><div>↓</div><div>急性風險 Acute risks</div><div>↓</div><div>颱風 Typhoon</div></div>	<ul style="list-style-type: none">➢ 運營管網與設備設施可能遭受破壞，進而影響供氣的穩定性。➢ The pipelines, equipment and facilities in operation may be jeopardized, affecting the stability of gas supply.➢ 供應鏈中斷風險上升，可能導致業務暫停，引發違約、賠償及法律責任。➢ The risk arising from supply chain disruption has been on the rise, which may lead to business interruption, causing breach of contract and subject to compensation and legal liability.➢ 員工安全和生產環境受到威脅，增加員工健康風險。➢ The safety of employees and production environment are threatened, and employee health risks are increased.	<ul style="list-style-type: none">➢ 通過優化管網設計和管材選擇，增強設施的抗災能力，提升整體抗風險水平。➢ Strengthening facilities' disaster resistance and improving overall risk resistance standards by improving pipeline design and pipeline material selection.➢ 拓展多元化的供應渠道，降低對單一供應區域的依賴。➢ Expanding diversified supply channels to reduce dependence on a single supply region.➢ 制定極端天氣應急預案，確保員工安全和生產環境的保護。➢ Develop emergency plans for extreme weather to ensure employee safety and production environment protection.



氣候變化相關風險 Risks related to climate change	潛在影響 Potential impact	應對措施 Countermeasures
<p>實體風險 Physical risks</p> <p>↓</p> <p>慢性風險 Chronic risks</p> <p>↓</p> <p>海平面上升 Sea level rise</p>	<ul style="list-style-type: none"> ➢ 沿海地區面臨被淹沒的風險，可能改變現有市場格局。 ➢ Coastal areas are at risk of flooding, which may change the existing market landscape. ➢ 設施被淹可能導致生產中斷或資產損失，並增加維護與保護成本。 ➢ Facilities flooding may result in production interruption or asset loss, and increase maintenance and protection costs. 	<ul style="list-style-type: none"> ➢ 開展海平面上升風險評估，精準識別受影響的設施和地區。 ➢ Conducting a sea level rise risk assessment to accurately identify affected facilities and areas. ➢ 制定應對策略，如向地勢較高的區域轉移或調整佈局。 ➢ Developing coping strategies, such as moving to higher elevation or re-planning.
<p>實體風險 Physical risks</p> <p>↓</p> <p>慢性風險 Chronic risks</p> <p>↓</p> <p>平均溫度上升 Rising average temperature</p>	<ul style="list-style-type: none"> ➢ 熱浪、乾旱、火災等極端天氣事件的頻率和強度可能增加。 ➢ The frequency and intensity of extreme weather such as heat wave, drought and fire may increase. ➢ 高溫環境可能降低生產效率並影響勞動力健康。 ➢ High temperatures may reduce production efficiency and affect the health of the workforce. ➢ 自然生態系統可能受到破壞，生物多樣性面臨威脅。 ➢ Natural ecosystems may be damaged, and biodiversity is threatened. ➢ 冬季供氣設施需求減少，燃氣需求可能下降。 ➢ Decrease in demand for gas supply facilities in winter, demand for gas may go downhill. 	<ul style="list-style-type: none"> ➢ 提升供應鏈的氣候適應性。 ➢ Improving the climate resilience of supply chains. ➢ 實施設施通風和冷卻措施。 ➢ Implementing facility ventilation and cooling measures. ➢ 參與或支持生態恢復項目，緩解全球變暖對生態系統的影響。 ➢ Participating in or supporting ecological restoration projects to mitigate the impact of global warming on ecosystems. ➢ 探索多元化業務模式，如綜合能源服務，以應對季節性需求變化。 ➢ Exploring diversified business models, such as integrated energy services to cope with seasonal demand changes.
<p>轉型風險 Transition risks</p> <p>↓</p> <p>政策與法規風險 Policy and regulatory risks</p>	<ul style="list-style-type: none"> ➢ 環境信息披露的監管要求日益嚴格，合規成本可能增加。 ➢ Regulatory requirements for environmental information disclosure have become stricter, which may lead to increased compliance costs. ➢ 碳交易價格波動可能影響企業的減排成本。 ➢ Price fluctuations in carbon trading may also affect the costs of emissions reduction of enterprises. ➢ 若未能有效管理業務環境表現，可能面臨法律訴訟風險。 ➢ Failure to effectively manage the environmental performance of business may result in exposure to litigation risk. 	<ul style="list-style-type: none"> ➢ 持續跟蹤政策動態，積極參與行業政策制定。 ➢ Continuing to follow policy trends and take active part in the formulation of industry policies. ➢ 投資清潔技術和能源效率提升項目，降低碳排放。 ➢ Investing in clean technologies and energy efficiency improvement projects to reduce carbon emissions. ➢ 與專業顧問合作，優化合規政策和程序，及時化解潛在法律風險。 ➢ Cooperating with professional consultants to optimize compliance policies and procedures to resolve potential legal risks in a timely manner.



氣候變化相關風險 Risks related to climate change	潛在影響 Potential impact	應對措施 Countermeasures
<div>轉型風險 Transition risks</div> <div>↓</div> <div>技術風險 Technical risks</div>	<ul style="list-style-type: none">➢ 加大節能減排技術研發投入，可能導致人力和資金成本上升。➢ Increasing the investment in the research and development of energy-saving and emission-reduction technologies may increase manpower and capital costs.➢ 數字化技術的探索與開發需要額外的資金和人力支持。➢ The exploration and development of digital technologies require additional capital and manpower.	<ul style="list-style-type: none">➢ 開展綠色低碳技術研究，加強與科研機構和高校的合作。➢ Carrying out research on green and low-carbon technologies and strengthening the cooperation with scientific research institutions and universities.➢ 推進數字化轉型，提升生產管理的智能化水平。➢ Promoting digital transformation and improving the intelligence level of production and management.
<div>轉型風險 Transition risks</div> <div>↓</div> <div>市場風險 Market risks</div>	<ul style="list-style-type: none">➢ 市場及下游客戶對綠色低碳能源解決方案的需 求持續增長。➢ The market and downstream customers have an increasing growing demand for green and low-carbon energy solutions.	<ul style="list-style-type: none">➢ 推廣可再生能源與多種清潔能源融 合的供能模式，滿足市場需求。➢ Promoting an energy supply model that integrates renewable energy and multiple clean energy to meet market demand.
<div>轉型風險 Transition risks</div> <div>↓</div> <div>商譽風險 Reputational risks</div>	<ul style="list-style-type: none">➢ 若未能實現減排承諾或出現重大排放事件，企 業聲譽和品牌形象可能受損。➢ Failure to meet emission reduction commitments or the occurrence of severe emissions events may damage the corporate reputation and brand image.	<ul style="list-style-type: none">➢ 完善碳排放管理架構，定期審查減 排進展並進行信息披露。➢ Improving our carbon emission management structure, reviewing the emission reduction process and disclosing information on a regular basis.



在應對氣候變化的挑戰中，華潤燃氣同樣洞察到諸多發展機遇。我們致力於開拓創新技術與商業模式，主動擁抱低碳轉型浪潮，積極佈局清潔能源領域，為企業的長期發展注入新動力，助力行業向綠色可持續方向邁進。

In coping with the challenges of climate change, CR Gas also observed a number of development opportunities. We are committed to exploring innovative technologies and business models, actively embracing the wave of low-carbon transformation and actively deploying in the field of clean energy, so as to inject new impetus for the long-term development of the enterprise and help the industry to move towards a green and sustainable direction.

氣候變化機遇 Climate Change Opportunities	
氣候相關機遇 Climate-related opportunities	機遇描述 Description of opportunities
資源效率 Resource efficiency	<div>➤ 通過部署高效節能設備和創新工藝技術等措施，優化業務流程中的能源利用效率，從而顯著降低運營成本，為公司帶來更強的市場競爭力。</div>
	<div>➤ Optimizing energy efficiency in business through measures such as deploying high-efficiency energy-saving equipment and innovative process technologies will significantly reduce operating costs and bring enhanced market competitiveness to the Company.</div>
產品和服務 Products and services	<div>➤ 加速清潔能源的開發與應用，並通過綠電採購等策略，進一步優化能源結構，降低能源成本，推動企業向低碳運營轉型。</div>
	<div>➤ Accelerating the development and application of clean energy, while further optimizing the energy structure and reducing energy costs through strategies such as green power procurement, so as to promote the transformation of enterprises to low-carbon operations.</div>
產品和服務 Products and services	<div>➤ 立足城燃業務的同時，積極佈局綜合能源服務領域，探索可再生能源與燃氣業務的協同模式，為公司創造新的業務增長機遇，助力業務多元化發展。</div>
	<div>➤ While establishing a foothold in the urban gas business, we will proactively put the integrated energy services in order and explore the synergy model of renewable energy and gas business, so as to create new business growth opportunities for the Company and facilitate the diversified development of its business.</div>

氣候變化行動

華潤燃氣積極踐行國家戰略，將「碳達峰、碳中和」目標深度融入集團整體發展規劃。公司通過設立專業工作團隊，系統制定科學減排目標，在碳排放管理、甲烷控排、能源清潔轉型以及低碳技術研發等關鍵領域展開全方位佈局，同時積極探索碳捕獲與封存、氫能等前沿技術，致力於在行業低碳轉型中發揮引領作用，助力國家雙碳目標的實現。

Climate Change Action

CR Gas is active in implementing the national strategies and extends its integration the “carbon peak and carbon neutrality” goal in depth into the overall development plan of the Group. By setting up a professional team to systematically set scientific emission reduction targets, the Company has launched an all-round planning in key areas such as carbon emission management, methane emission control, clean energy transformation and low-carbon technology research and development while at the same time proactively exploring cutting-edge technologies such as carbon capture and storage, hydrogen energy, etc. We are committed to playing a leading role in the low-carbon transformation of the industry and contributing to achieving China’s goals of carbon peak and carbon neutrality.



減排目標

為加速推進華潤燃氣的綠色低碳轉型與高質量發展，華潤燃氣緊密結合國家「十四五」規劃及自身戰略，明確制定了全集團層面綠色低碳轉型發展的階段性目標：

- **2025年目標：**通過積極實施綠色低碳項目以及推進相關技術研發與推廣應用，力爭實現華潤燃氣萬港元營業收入可比價綜合能耗較2020年降低10%，二氧化碳排放強度較2020年減少10%。
- **2030年目標：**全面實現綠色低碳轉型的顯著突破，確保萬港元營業收入可比價綜合能耗以及二氧化碳排放強度大幅降低，預計碳排放量將於2035年達到峰值。

在明確長期目標的同時，本集團還制定了年度短期減排目標，持續推動減排行動落地。通過將節能減排目標分解至各級子公司，並對目標完成情況進行嚴格跟蹤與考核，將相關結果納入年度績效管理體系，從而實現對能源消耗的精細化管理。

Emission Reduction Targets

In order to accelerate the green and low-carbon transformation and high-quality development of CR Gas, in close alignment with the National “14th Five-Year Plan” and its own strategies, CR Gas has clearly formulated the group-wide phased targets of green and low-carbon transformation and development:

- **Target for 2025:** By actively implementing green and low-carbon projects and promoting the research and development, promotion and application of related technologies, we will strive to cut CR Gas’ overall energy consumption per HK\$10,000 of revenue (at comparable price) by 10% compared with that of 2020 and lower the carbon dioxide emission intensity by 10% compared with that of 2020.
- **Target for 2030:** Achieve remarkable breakthroughs in the comprehensive green transformation and ensure a significant decline in overall energy consumption per HK\$10,000 of revenue (at comparable price) and carbon dioxide emission intensity; it is expected that carbon emissions will reach its peak by 2035.

While defining the long-term goals, the Group also set annual short-term emission reduction targets, continue to promote the implementation of emission reduction actions. By breaking down energy conservation and emission reduction targets to subsidiaries at all levels, strictly tracking and assessing the achievement of targets, and incorporating relevant results into annual performance management system, the Group can achieve refined management on energy consumption.



華潤燃氣「十四五」期間節能減排目標 Energy Conservation and Emission Reduction Targets of CR Gas for the 14th Five-year Plan Period						
指標	Indicator	指標單位	Unit	2023年目標	2024年目標	2025年目標
				Target for 2023	Target for 2024	Target for 2025
				(以2020年為基準) (Decrease compared with that of 2020)	(以2020年為基準) (Decrease compared with that of 2020)	(以2020年為基準) (Decrease compared with that of 2020)
萬港元營業收入可比價綜合能耗	Overall energy consumption per HK\$'0,000 revenue (at comparable price)	噸標煤／萬港元	tonnes of standard coal/HK\$'0,000	6.00%	8.00%	10.00%
溫室氣體排放密度	Greenhouse gas emission density	(噸二氧化碳當量／萬港元營業額)	(tonnes CO ₂ e/revenue of HK\$'0,000)	6.00%	8.00%	10.00%

2024年華潤燃氣節能減排目標達成情況 Achievement of Energy Conservation and Emission Reduction Targets for 2024 by CR Gas					是否完成「十四五」考核目標 ¹
指標名稱	2020年基準值	2024年完成值	完成情況		
Indicator name	Benchmark in 2020	Completion in 2024	Achievement	Whether the assessment targets of the 14th Five-Year Plan have been achieved ¹	
萬港元營業收入綜合能耗(可比價) (噸標煤／萬港元) Overall energy consumption per HK\$'0,000 revenue (at comparable price) (tonnes of standard coal/HK\$'0,000)	0.0065	0.0042	下降35.38% decreased by 35.38%	已達成 Achieved	
溫室氣體排放密度 (噸二氧化碳當量／萬港元營業額) Greenhouse gas emission density (tonnes CO ₂ e/revenue of HK\$'0,000)	0.0325	0.0126	下降61.23% decreased by 61.23%	已達成 Achieved	

2024年度華潤燃氣萬港元營業收入可比價綜合能耗、二氧化碳排放強度分別為0.0042噸標煤/萬港元，0.0126噸二氧化碳當量/萬港元營業額，較2020年基準值分別下降35.38%及61.23%，達成既定目標。

In 2024, the overall energy consumption per HK\$'0,000 of revenue (at comparable price) and carbon dioxide emission intensity of CR Gas are 0.0042 tonnes of standard coal/HK\$'0,000 and 0.0126 tonnes CO₂e/revenue of HK\$'0,000, respectively, representing a decrease of 35.38% and 61.23% from the benchmark in 2020, respectively, and achieving the agreed targets.

¹ 覆蓋範圍為城鎮燃氣主營業務
¹ The scope of coverage is the main business of gas in towns.



2024年碳排放及能源使用情況 Carbon Emissions and Energy Use in 2024		
指標 Indicator	單位 Unit	2024年 2024
溫室氣體排放總量 Total greenhouse gas emissions	噸二氧化碳當量 tonnes CO ₂ e	129,354.76
溫室氣體直接排放量 (範圍一) Direct greenhouse gas emissions (scope 1)	噸二氧化碳當量 tonnes CO ₂ e	38,714.51
溫室氣體間接排放量 (範圍二) Indirect greenhouse gas emissions (scope 2)	噸二氧化碳當量 tonnes CO ₂ e	90,640.25
溫室氣體排放密度 Greenhouse gas emission density	噸二氧化碳當量／萬港元營業額 tonnes CO ₂ e/revenue of HK\$'0,000	0.0126
綜合能源消耗折算標煤總量 Total overall energy consumption (converted to standard coal)	萬噸標煤 '0,000 tonnes of standard coal	4.22
綜合能耗折算標煤密度 Overall energy consumption density (converted to standard coal)	萬噸標煤／億港元營業額 '0,000 tonnes of standard coal/ revenue of HK\$'00 million	0.0041
柴油消耗量 Diesel consumption volume	噸 tonnes	1,074.87
汽油消耗量 Gasoline consumption volume	噸 tonnes	4,344.38
天然氣消耗量 Natural gas consumption volume	萬標準立方米 '0,000 standard m ³	1,007.97
外購電力消耗量 Externally purchased power consumption volume	萬千瓦時 '0,000 kWh	16,782.55



碳排放管理

華潤燃氣致力不晚於2035年將碳管理水平提升至世界一流水準。為此，我們精心編制碳排放管理規劃，並制定出台了《華潤燃氣碳排放管理體系》《華潤燃氣低碳發展考核評價辦法》《華潤燃氣碳資產統計與報送制度及碳資產交易管理辦法》《華潤燃氣控股有限公司職業健康、節能環保與消防管理辦法》以及《華潤燃氣控股有限公司ESG管治政策》等5項管理辦法，以完善制度框架，規範碳排放管理的相關工作，督促各區域公司嚴格依照相關要求紮實執行。

華潤燃氣設立了碳達峰與碳中和工作小組，由安全管理部總經理擔任組長，高級主管任副組長，戰略投資部、綜合能源部等相關部門人員提供支持，形成了高效的碳排放管理架構。該小組負責制定並推動華潤燃氣雙碳工作規劃落地，跟蹤碳交易、碳捕集與封存、減排等領域的動態，並組織參與碳管理與技術相關活動。

展望未來，華潤燃氣將從政策法規體系、組織架構建設、財務管理體系、信息管理平台、支持服務體系以及監督機制等方面持續優化碳排放管理，建立長效的碳核查與碳資產管理機制，全面提升碳資產管理能力。我們計劃發佈碳白皮書，系統展示集團在碳減排領域的實踐成果與未來規劃，為行業提供可借鑒的經驗，進一步提升企業可持續發展競爭力。

Carbon Emission Management

CR Gas aims to improve carbon management to the world-class standard by 2035. For this end, we meticulously formulated carbon emission management plans, drew up and issued 5 management measures including the Carbon Emission Management System of CR Gas, the Measures for Performance Evaluation of Low-carbon Development of CR Gas, the Carbon Asset Statistics and Reporting System and Carbon Asset Transaction Management Measures of CR Gas, the Management of Occupational Health, Energy Conservation, Environmental Protection and Fire Fighting of China Resources Gas Group Limited and the ESG Governance Policy of China Resources Gas Group Limited to improve the institutional framework, regulate the work related to carbon emission management and urge regional companies to strictly follow the relevant requirements for practical implementation.

CR Gas established a Carbon Peak and Carbon Neutrality Working Group, with the general manager of the Safety Management Department as the team leader, senior executives as the deputy leader, supported by personnel from the Strategic Investment Department, the Integrated Energy Department and other relevant departments, forming an efficient carbon emissions management structure. The group is responsible for formulating and promoting the implementation of the dual-carbon work plan of CR Gas, tracking the development of carbon trading, carbon capture and storage, and emission reduction, and organizing and participating in activities related to carbon management and technology.

Looking forward, CR Gas will continue to optimize carbon emissions management in terms of policies and regulations, organizational structure construction, financial management system, information management platform, support service system and supervision mechanism, establish long-term carbon verification and carbon assets management mechanism and comprehensively improve our carbon asset management capabilities. We plan to issue a report associated with carbon to systematically manifest the Group's practical achievements and future plans in terms of carbon emission reduction, so as to provide the industry with experience that serves as a reference and further enhance our competitiveness in sustainable development.



甲烷控排

華潤燃氣密切跟蹤甲烷控排的相關標準和前沿技術，作為中國油氣企業甲烷控排聯盟的重要成員，我們致力於減少運營過程中的甲烷消耗，並優化輸配系統以降低甲烷洩漏風險，從而最大程度地減少業務活動中的甲烷排放。

Methane Emission Control

CR Gas closely follows the relevant standards and cutting-edge technologies for methane emission control. As an important member of the China Oil and Gas Enterprises Methane Emission Control Alliance, we are committed to reducing methane consumption during operations and optimizing transmission and distribution system to reduce the risk of methane leak, so as to minimize methane emissions from business activities.

甲烷管理目標 Methane Management Target

- 2025年實現生產過程中的甲烷排放強度降低至0.25%以下。
- Reduce methane emission intensity in production to below 0.25% by 2025.

為降低業務開展過程中的溫室氣體排放，我們從輸配端、用戶端兩方面對甲烷逸散進行系統管控，全面提升運營環節的環保與安全水平。

In order to reduce greenhouse gas emissions during business operations, we control methane escape from transmission and distribution facilities and user terminals in a systematical manner, thoroughly improving environmental protection and safety standards in the course of operation.



輸配端和用戶端的甲烷逸散管控

Methane Escape Control from Transmission and Distribution Facilities and User Terminals

輸配端管控
Control over
transmission and
distribution facilities

- **場站設計優化**：在LNG、CNG場站設計中，融入回收、排污回收等工藝，並採用不停輸技術，確保場站系統實現零排放或微排放。
- **Station design optimization**: In the design of LNG and CNG stations, we incorporate recycling, sewage recycling and other processes, and adopt continuous transmission technology to ensure the achievement of zero or micro emissions of the system in the stations.
- **智慧化洩漏防控**：加強調壓設施的維護保養，配備高精度甲烷檢測儀器，並通過在線洩漏監測等智慧化手段，精準識別潛在洩漏點，提升甲烷逸散的預警與防控能力。
- **Intelligent leak prevention and control**: Reinforce the maintenance of pressure regulating facilities, equip high-precision methane detection instruments, and accurately identify potential leak points through intelligent approaches such as online leak monitoring to improve the ability of detecting and warning and prevention and control against methane escape.
- **管網安全監控**：高精準檢測車24小時進行洩漏監測，對所有運行場站的進出站壓力進行實時監控，同時運用天眼、鐵塔等技術手段，預防第三方破壞，保障管網安全。
- **Pipeline safety monitoring**: High-precision detection vehicles conduct 24-hour leak monitoring and monitor in real-time the incoming and outgoing pressure of all operating stations, use technical means such as sky eyes and iron towers to prevent third-party damage at the same time, and ensure the safety of the pipelines.
- **老舊管網改造**：採用不銹鋼、抗UV管材、PE管材等優質材料，加快老舊管網的更新改造，提升管網系統的安全性和可靠性。
- **Renovation of old pipelines**: Use premium materials such as stainless steel, anti-UV pipes, PE pipes, etc. to speed up the renewal and renovation of old pipelines and improve the safety and reliability of pipeline systems.
- **管網系統排查與維護**：運用先進檢測技術，對現有管網進行全面排查，精準定位老化、腐蝕及潛在洩漏風險點，並據此制定詳細的更換計劃，最大限度減少因管網問題引發的燃氣洩漏和能源損耗，確保燃氣輸送的安全與高效。
- **Pipeline system inspection and maintenance**: Use advanced detection technology, comprehensively inspect the existing pipeline, accurately locate the aging, corrosion and potential leak risk points, and formulate a detailed replacement plan accordingly, so as to minimize gas leakage and energy loss caused by pipeline problems and ensure safe and efficient gas delivery.



用戶端管控 Control over user terminals	➤ 推廣安全設備應用： 積極推廣灶具連接專用軟管和兩端螺紋鏈接方式，從源頭杜絕用戶端燃氣逸散。
	➤ Promotion of the application of safety equipment: Actively promote the use of the special stove hoses and the threaded connection at both ends to prevent gas escape from user terminals from the source.
	➤ 提升入戶安檢效率： 提高入戶安檢覆蓋率，及時發現並處理潛在洩漏隱患，有效降低戶內洩漏風險。
	➤ Improve the efficiency of indoor safety inspection: Increase the coverage rate of indoor safety inspection and identify and handle potential leaks in a timely manner to effectively reduce indoor gas leak.
	➤ 強化戶外管道檢測： 運用激光檢測儀對戶外公共管道進行全面檢測，精準排查洩漏點，全力避免用戶端甲烷逸散的可能性。
	➤ Enhance outdoor pipeline inspection: Use laser detectors to comprehensively inspect outdoor public pipelines and accurately identify leak points, in an effort to reduce the possibility of methane escape from user terminals.

能源清潔轉型

華潤燃氣以「1+2+N」業務戰略為指引，立足高起點、全局謀劃，積極佈局綜合能源業務。我們聚焦園區、建築、交通三大核心場景，通過「分佈式光伏、分佈式能源、交通充電」三條業務路徑，致力於為用戶提供綠色低碳、清潔高效的能源產品和服務。同時，我們持續關注天然氣製氫、綠色甲醇、生物質氣等綠色能源技術，加大清潔能源領域投資，助力經濟社會高質量發展和美麗中國建設。

Transition to Clean Energy

Guided by the “1+2+N” business strategy, based on a high starting point and comprehensive planning, CR Gas actively deployed its integrated energy business. We focus on three major core scenarios of parks, buildings and transportation, and are committed to providing users with green, low-carbon, clean and efficient energy products and services through the three business paths of “distributed photovoltaic, distributed energy, and transport charging”. At the same time, we will continue to pay attention to green energy technologies such as natural gas hydrogen production, green methanol, biomass gas, and increase investment in clean energy, so as to facilitate high-quality economic and social development and the construction of a beautiful China.



2024年，華潤燃氣在分佈式光伏、分佈式能源和交通充能領域取得顯著進展：

- 公司累計簽約裝機規模4吉瓦，累計投運裝機規模3.1吉瓦，其中，分佈式能源2.6吉瓦，分佈式光伏94.7兆瓦，交通充能415兆瓦。
- 充電項目：本年度新增充電項目50個，累計投運超300個，投運充電終端近7,000個，同時，我們於2024年11月在香港投運兩座超沖充電站。截至2024年12月31日，華潤燃氣全年充電售電量超3億度，相比燃油車可減少14萬噸二氧化碳排放；
- 其他交通充能項目：2024年加氫量287.7噸，同比增長6.8%，預計可實現1,400噸減排量。

未來，華潤燃氣將繼續深耕分佈式光伏、分佈式能源和交通充能三大領域，拓展國內外市場，推動自有場站綠色低碳轉型，挖掘經營區域內用戶潛力。我們將重點關注公共服務、公共交通、多產業協同、政策導向型園區以及大型企業用能場景，尋求長期穩定合作機會，並打造能源智慧管理平台。2025年，我們着力推進具備區位優勢的加氣站向充電、加氫等新能源業務轉型，持續優化CNG/LNG母站、標準站、合建站的低碳佈局。

In 2024, CR Gas made remarkable progress in the fields of distributed photovoltaic, distributed energy, and transport charging:

- The Company's cumulative contracted installed capacity was 4 GW, with a cumulative installed capacity of 3.1 GW been put into operation, of which 2.6 GW was for distributed energy, 94.7 MW for distributed photovoltaics, and 415 MW for transportation charging.
- Charging projects: 50 charging projects were newly added during the year, with a cumulative of over 300 charging projects put into operation and nearly 7,000 charging terminals put into operation. At the same time, two supercharging stations were put into operation in November 2024 in Hong Kong. As of 31 December 2024, the annual electricity sales of CR Gas for charging was over 300 million kWh, which can reduce carbon dioxide emissions by 140,000 tonnes compared with fuel vehicles;
- Other transport charging projects: Hydrogen refueling of 287.7 tonnes in 2024, representing a year-on-year increase of 6.8%, and it is expected to achieve an emission reduction of 1,400 tonnes.

In the future, CR Gas will continue to deepen its development in three major areas of distributed photovoltaic, distributed energy and transport charging, expand the domestic and foreign markets, promote the green and low-carbon transformation of its self-owned gas stations, and explore the potential of users in its operating areas. We will mainly focus on public services, public transport, multi-industry synergy, policy-oriented parks and energy consumption scenarios of large enterprises, seek opportunities for long-term stable cooperation, and build a platform for intelligent energy management. In 2025, we will strive to promote the transformation of filling stations with geographical advantages to new energy businesses such as charging and hydrogen refueling, and continue to optimize the low-carbon layout of CNG/LNG primary stations, standard stations and co-constructed stations.



此外，華潤燃氣持續關注交通和建築等場景中的能源清潔轉型可行性，積極推進充電項目和低碳零碳園區建設項目的落地，有效減少價值鏈上二氧化碳的排放總量及排放強度，逐步推動華潤燃氣完成「雙碳」進程各項階段性任務。

在綠色交通領域，華潤燃氣聚焦公共交通降碳，抓住物流車輛電動化趨勢，積極佈局公交充電。

- 投資香港汽車充電市場，於2024年11月建成並投運香港首2座採用歐洲標準的全液冷超級充電站；
- 聯合華潤建材與華潤融資租賃，建成雲南彌渡重卡超充站，實現了司機零元換車、建材降低運費、項目節能減排的三方共贏；
- 試點開展小區充電業務，在江蘇南通、南京、江西吉安等地，為燃氣居民用戶小區的新能源汽車和電動自行車提供安全、便捷、高效的充電服務。

在低碳建築領域，華潤燃氣積極開展低碳零碳園區建設項目，通過技術創新和資源整合，打造多個零碳園區示範項目，有效降低碳排放，推動建築領域能源轉型。

In addition, CR Gas pays attention to the feasibility of clean energy transformation in transportation and construction scenarios, and actively promotes the implementation of charging projects and low-carbon and zero-carbon industrial park construction projects, so as to effectively reduce the total emission and emission intensity of carbon dioxide along the value chain, gradually promoting the completion of the various phased tasks in the “carbon peak and carbon neutrality” process by CR Gas.

In the field of green transportation, focusing on carbon reduction in public transport, CR Gas seized the trend of electrification of logistics vehicles and actively arranged for bus charging.

- Invest in Hong Kong's automobile charging market, and the first two fully liquid-cooled super charging stations in Hong Kong adopting European standards were completed and put into operation in November 2024;
- Cooperate with CR Building Materials and CR Financial Leasing to build Yunnan Midu heavy-duty truck supercharger station, achieving a win-win situation for all three parties: free replacement of vehicles, reduction of freight charges for building materials and reduction of energy conservation and emission of the project;
- Launch the community charging business on a pilot basis to provide safe, convenient and efficient charging services for new energy vehicles and electric bicycles in the residential gas user communities in Nantong, Nanjing in Jiangsu Province and Ji'an in Jiangxi province and other places.

In the field of low-carbon buildings, CR Gas actively carried out low-carbon and zero-carbon industrial park construction projects. Through technological innovation and resource integration, it has built a number of zero-carbon industrial park demonstration projects, which can effectively reduce carbon emissions and promote energy transformation in the field of building.



案例：打造華潤燃氣低碳零碳園區/工廠示範項目

Case Study: Demonstration Projects of Building a Low-Carbon and Zero-Carbon Industrial Park/Factory of CR Gas

華潤燃氣通過低碳零碳園區建設，推動建築領域能源轉型，為低碳零碳園區建設積累了寶貴經驗，為行業可持續發展樹立了標桿：

Through the construction of low-carbon and zero-carbon industrial parks, CR Gas has promoted energy transformation in the field of building, accumulated valuable experience in the construction of low-carbon and zero-carbon industrial parks, and set a benchmark for the sustainable development of industry:

- 廣東惠州大亞灣燃氣廠站：華潤燃氣利用廠站屋頂和車棚敷設柔性光伏板，安裝智慧路燈，並建設光儲充一體化電站。結合液化天然氣冷能工藝，實現交通車輛的電能替代，通過智慧能源管理系統實現近零碳排放。2024年，該項目全年發電66萬kWh，減少排放量約518.53噸；充電樁2024年充電量47.6萬kWh，減少碳排放約255.42噸。項目已形成試點經驗，將被總結推廣至其他廠站，助力零碳燃氣廠站的標準化建設。
- Daya Bay Plant in Huizhou, Guangdong: CR Gas has installed flexible photovoltaic panels on the roof and carports of the plant, installed intelligent streetlights, and built an integrated solar, storage and charging power station. Combined with the liquefied natural gas cold energy technology, it can replace the electric energy of transportation vehicles and achieve near-zero carbon emissions through the intelligent energy management system. In 2024, the project generated 660,000 kWh of electricity for the whole year, reducing carbon emissions by approximately 518.53 tonnes; in 2024, the charging capacity of charging piles is 476,000 kWh, reducing carbon emissions by approximately 255.42 tonnes. The project has developed pilot experience, which will be summarized and extended to other plants to facilitate the standardized construction of zero-carbon plants.
- 鄭州國際金貿港總部經濟產業園：華潤燃氣採用地源熱泵技術為27.55萬平方米寫字樓提供基礎冷熱負荷，並耦合燃氣鍋爐及離心式冷水機組，實現冷熱供應的高效互補。同時，園區建設分佈式光伏電站，通過智慧能源管理平台對能源站進行智慧管控，構建多能互補的高效供能系統，實現低碳化運營。
- Zhengzhou International Jinmao Port Headquarters Economic Industrial Park: CR Gas adopted ground source heat pump technology to provide basic cooling and heating loads for an office building of 275,500 square meters, coupled with gas-fired boilers and centrifugal chillers to achieve efficient and complementary cooling and heating supply. At the same time, the industrial park built distributed photovoltaic power stations, and intelligently managed and controlled energy stations through the intelligent energy management platform, so as to build an efficient energy supply system with multi-energy complementation and achieve low-carbon operation.
- 華潤三九華南區「近零碳」園區：華潤燃氣結合三九中藥材加工生產特點，將藥渣處理製成生物質燃料，通過生物質鍋爐供應蒸汽，輔以燃氣三聯供和燃氣鍋爐調峰，保障能源供應。園區還配備分佈式光伏和儲能系統，致力於實現降碳目標，近期每年可減少碳排放0.91萬噸。
- "Near-Zero Carbon" Park of CR Sanjiu in Southern China: Combining with the characteristics of processing and production of Sanjiu Chinese herbal medicines, CR Gas processes the residues of medicinal herbs into biomass fuel, which supplies steam through biomass boilers, combined with gas-fired combined cooling, heating and power and gas-fired boiler peak shaving to ensure energy supply. The park is also equipped with distributed photovoltaic and energy storage systems, committed to achieving carbon reduction targets, which can reduce carbon emissions by 9,100 tonnes per year in the near future.



圖：廣東惠州大亞灣燃氣廠站
Picture: Daya Bay Plant in Huizhou, Guangdong



圖：鄭州國際金貿港總部經濟產業園
Picture: Zhengzhou International Jinmao Port Headquarters Economic Industrial Park



圖：華潤三九華南區「近零碳」園區
Picture: "Near-Zero Carbon" Park of CR Sanjiu in Southern China



低碳技術研究

華潤燃氣加速佈局低碳科技創新，系統推進戰略規劃、科研平台建設與技術研發，全方位賦能綠色轉型與高質量發展。2024年，公司發佈《華潤燃氣科技創新發展行動計劃（2024-2026年）》，圍繞「保障能源安全、服務大國民生、落實雙碳戰略、引領數字科技」四大目標，聚焦綜合能源智慧管理、綠色低碳技術、氫能利用等關鍵技術領域，推動科技創新與業務戰略協同發展。

在標準體系完善方面，公司已完成《2023年度綜合能源標準示範項目案例集》《分布式光伏投標指引》《「兩佈一充」設計運營標準》等8項標準指引的編制，完善技術管理體系，提升項目開發、建設與運維能力，為綠色低碳轉型提供堅實支撐。

在科研平台建設方面，2024年公司完成住房城鄉建設部燃氣工程技術創新中心的申報及揭牌，新增2個省級工程技術中心，並成功主辦中歐能源國際會議，同時與同濟大學合作，啟動燃燒技術實驗室建設，進一步強化科研能力。此外，公司集中推動綜合能源智慧管理平台優化等重點項目，強化數智化平台建設，為綜合能源業務提供數智化支撐，助力綠色低碳轉型。

Low-Carbon Technology Research

CR Gas accelerated the deployment of low-carbon technological innovation, and systematically promoted strategic planning, scientific research platform construction and technology R&D, so as to fully empower green transformation and high-quality development. In 2024, the Company released the Scientific Innovation Development Action Plan of CR Gas (2024-2026), centered on four major goals of "ensuring energy security, serving national livelihood, implementing carbon peak and carbon neutrality strategy, and leading digital technology", focusing on key technological areas such as integrated energy intelligent management, green and low-carbon technology, hydrogen energy utilization, to promote the synergetic development of scientific innovation and business strategy.

In terms of improving the standard system, the Company has completed the preparation of 8 standard guidelines, including but not limited to the 2023 Case Collection of Integrated Energy Benchmarking and Demonstration Projects, the Bidding Guidelines for Distributed Photovoltaic and the Design and Operation Standards for "Distributed Photovoltaic, Distributed Energy and Transport Charging", and has improved its technical management system, enhanced project development, construction, operation and maintenance capabilities, and provided solid support for green and low-carbon transformation.

In terms of the construction of scientific research platform, in 2024, the Company completed the application and inauguration of the Gas Engineering Technology Innovation Center of the Ministry of Housing and Urban-Rural Development, established two new provincial engineering technology centers, and successfully hosted the China-Europe International Conference on Energy. At the same time, in cooperation with Tongji University, the Company launched a construction of combustion technology laboratory to further strengthen scientific research capabilities. In addition, the Company focused on promoting key projects such as the optimization of integrated energy intelligent management platform, strengthened the construction of digital and intelligent platforms, provided digital and intelligent support for integrated energy business and facilitated green and low-carbon transformation.



案例：綜合能源智慧管理平台分佈式能源應用模型建設

Case Study: Construction of Distributed Energy Application Model of Integrated Energy Intelligent Management Platform

為應對運營精細化、數智化需求及投資、供能、人力成本等挑戰，華潤燃氣啟動了綜合能源智慧管理平台建設，旨在提升運營效率、集中管理充電業務、優化能源調度，並通過雲計算和物聯網技術實現數據採集、存儲、遠程控制等功能。平台採用模塊化設計，避免重複開發，節省成本，並能與現有財務、商業智能(BI)等系統對接，打破數據孤島。項目已進入開發階段，未來將整合天然氣、可再生能源等多種能源，提升整體運營效率。

In order to cope with the challenges such as the demand for refined operation, digitalization and intelligence, and the challenges of investment, energy supply and labor costs, CR Gas launched the construction of integrated energy intelligent management platform, aiming to improve operation efficiency, centralizing management of charging business, optimizing energy dispatch, and realizing functions such as data acquisition, storage and remote control through Cloud computing and Internet of Things technologies. The platform adopted modular designs to avoid repeated development and save costs. It can also be interconnected with existing financial and business intelligence (BI) systems to break data silos. The project has entered the development stage. In the future, various energy sources such as natural gas and renewable energy will be integrated to improve overall operation efficiency.



圖：綜合能源智慧管理平台

Picture: Integrated Energy Intelligent Management Platform



在技術創新方面，公司圍繞氫能、儲能、生物質能源、CCU（碳捕集與利用）等關鍵技術領域，與科研院校及頭部企業深度合作，加速技術研發與應用落地。

- **氫能：**華潤燃氣在氫能領域多環節試點佈局，積極探索氫能消納與商業模式創新，推動氫能在能源結構中的規模化應用。公司牽頭制定《氫氣管網施工驗收規範》，作為國內首個城鎮燃氣行業純氫管道工程驗收標準，為氫氣管網建設的標準化與規範化發展提供重要支撐。我們重點推進管道摻氫、純氫輸送及氫能供港等項目，探索氫能與電力在消納方面的業務協同，並開展綠色甲醇調研。積累試點運營經驗。2024年，公司與中科院廣州能源研究所、深圳先進技術研究院聯合申報2024年度廣東省能源產業科技創新項目，計劃在廣東省內開展百噸級生物質製綠氫中試項目。

In terms of technological innovation, the Company carried out in-depth cooperation with scientific research institutions and leading enterprises in key technology fields such as hydrogen energy, energy storage, biomass energy and carbon capture and utilization (CCU) to accelerate the implementation of technology research and development and application.

- **Hydrogen energy:** CR Gas carried out multi-link pilot layout in the field of hydrogen energy, actively explored hydrogen energy consumption and business model innovation, and promoted the large-scale application of hydrogen energy in the energy structure. The Company took the lead in formulating the Code for Construction and Acceptance of Hydrogen Pipeline, which is the first acceptance standard for pure hydrogen pipeline engineering in the urban gas industry in China and provides important support for the standardization and regulated development of hydrogen pipeline construction. We focused on advancing projects such as hydrogen-blended pipeline, pure hydrogen transportation and hydrogen energy supply to ports, explored the business synergy between hydrogen energy and electricity consumption, and carried out green methanol research, accumulating experience in pilot operation. In 2024, the Company, the Guangzhou Institute of Energy Conversion of the Chinese Academy of Sciences and the Shenzhen Institutes of Advanced Technology jointly applied for the 2024 Scientific Innovation Project in Energy Industry of Guangdong Province, and planned to launch a 100-tonne biomass green hydrogen production pilot project in Guangdong Province.



案例：管道摻氫與純氫輸送

Case Study: Hydrogen-Blended Pipeline and Pure Hydrogen Transportation

華潤燃氣着力提升燃氣綠色化水平，重點推動燃氣管網摻氫輸氫試點，承接國家重點研發計劃，取得顯著成果。在山東濰坊，公司落地科技部「氫能專項」重點研發計劃，已獲批全國首條按照城鎮燃氣工程批准建設的純氫輸送管道。同時，公司啟動國內首個長週期社區摻氫試點項目，現已完成用氣設備適用性、樓宇摻氫安全性驗證，計劃開展為期2年的摻氫試驗，摻氫比例由5%逐步提升至20%，2024年10月已完成「氫進萬家」濰坊高新示範區實施方案華潤集團內部專家及外部專家評審。

CR Gas strived to improve the level of green gas, focused on promoting the pilot project of hydrogen-blended and transportation in the gas pipeline, and undertook the national key research and development plans, achieving remarkable results. In Weifang, Shandong, the Company implemented the key research and development plan of the "Hydrogen Energy Special Project" of the Ministry of Science and Technology, and obtained the approval for the first pure hydrogen transportation pipeline in China according to the urban gas project approval. At the same time, the Company launched the first long-term community hydrogen-blended pilot project in China, and has completed the verification of the suitability of gas-consuming equipment and the safety of hydrogen-blended in buildings. It planned to carry out a two-year hydrogen-blended test, and the hydrogen blending ratio would gradually increase from 5% to 20%. By October 2024, the implementation plan of the Weifang High-tech Demonstration Zone of "Hydrogen into Thousands of Families" has been reviewed by experts within CR Group and external experts.



圖：華潤燃氣與同濟大學聯合研發的社區摻氫設備

Picture: Community Hydrogen-Blended equipment jointly developed by CR Gas and Tongji University



- **儲能：**華潤燃氣積極探索儲能技術的應用場景，以提升能源利用效率、增強能源系統穩定性為目標，推動儲能技術與分佈式能源的深度融合。2024年，公司試點開展工商業用戶側儲能業務，通過政策研究、行業對標及試點項目實踐，逐步梳理儲能項目的投資、建設、運營標準，增強項目抗風險能力，為儲能技術的規模化應用奠定基礎。目前，首批儲能試點項目均處於在建狀態，未來將進一步擴大試點範圍，推動儲能技術的商業化落地。
- **Energy storage:** CR Gas actively explored the application scenarios of energy storage technology, and promoted the in-depth integration of energy storage technology and distributed energy with the goal of improving energy efficiency and enhancing the stability of energy system. In 2024, the Company carried out the industrial and commercial user-side energy storage business on a pilot basis. Through policy research, industry benchmarking and pilot project practice, the Company gradually sorted out the investment, construction and operation standards of energy storage projects, enhanced the anti-risk capability of the project, and provided a strong foundation for the large-scale application of energy storage technologies. At present, the first batch of energy storage pilot projects are under construction, the scope of which will be further expanded in the future to promote the commercialization of energy storage technology.
- **生物質能源：**華潤燃氣致力於推動綠色甲醇、生物質氣等綠色低碳技術的發展，助力能源結構綠色轉型。在標準化建設方面，公司積極參與船用甲醇燃料國家標準的編制，並完成甲醇加注方案的中國船級社(CCS)風險評估認證，為生物質能源的規範化應用提供技術支撐。在技術研發方面，公司開展生物質氣化技術的試點研究，探索生物質能源在分佈式能源系統中的應用，並結合項目經驗編制綠色燃料研究報告，為後續生物質能源的大規模應用提供技術參考。此外，公司廣泛挖掘客戶對綠色、低碳能源的需求，拓展船用綠色燃料加注業務，推動生物質能源在交通領域的應用。
- **Biomass energy:** CR Gas is committed to promoting the development of green and low-carbon technologies such as green methanol and biomass gas to facilitate the green transformation of its energy structure. In terms of standardized construction, the Company actively participated in the preparation of national standards for methanol fuel for vessel, and completed the risk assessment certification for methanol bunkering solutions by the Chinese Classification Society (CCS), providing technical support for the standardized application of biomass energy. In terms of technology R&D, the Company carried out pilot research on biomass gasification technology to explore the application of biomass energy in distributed energy systems, and compiled green fuel research reports based on project experience to provide technical reference for the subsequent large-scale application of biomass energy. In addition, the Company also explored the needs of customers for green and low-carbon energy, expanded the green fuel for vessel bunkering business, and promoted the application of biomass energy in the field of transportation.

案例：綠色甲醇加注項目 Case Study: Green Methanol Bunkering Project

華潤燃氣成功完成大灣區首單綠色甲醇加注項目，成為國內首個營運維修船舶試點加注項目。該項目通過自主研發的甲醇加注系統（已申請並獲得發明專利授權，目前國內唯一），實現了綠色甲醇的安全高效加注。同時，公司完成加注方案的中國船級社(CCS)風險評估認證，並參與船用甲醇燃料國家標準編制，為行業規範化發展提供了重要技術支撐。

CR Gas successfully completed the first Green Methanol Bunkering Project in the Greater Bay Area, becoming the first pilot bunkering project for operating and maintaining vessels in China. The project achieved safe and efficient bunkering of green methanol through the independently developed methanol bunkering system (an invention patent has been applied for and obtained, and is currently the only one in China). At the same time, the Company completed the China Classification Society (CCS) risk assessment certification for the bunkering plan and participated in the formulation of national standards for marine methanol fuel, providing important technical support for the standardized development of the industry.



圖：華潤燃氣首單綠色甲醇加注成功
Picture: CR Gas Successfully Completed Its First Green Methanol Refueling

➤ **CCU (碳捕集與利用)：**華潤燃氣因地制宜推進CCU技術的研發與應用，探索二氧化碳資源化利用的新路徑。公司以昆明地區花卉產業為切入點，結合當地資源稟賦，建成投運工業用戶二氧化碳捕集利用(CCUS)示範項目，推動二氧化碳在農業領域的規模化應用。我們通過技術創新與標準化建設，為CCU技術的商業化推廣提供了可複製的示範案例。

➤ **CCU (the Carbon Capture and Utilization):** CR Gas promotes the research, development and application of CCU technology according to local conditions and explores new paths for the resourceful utilization of carbon dioxide. Taking the flower industry in Kunming as the starting point and combining local resource advantages, the Company has completed and put into operation a Carbon dioxide Capture and Utilization (CCU) demonstration project for industrial users to promote the large-scale application of carbon dioxide in the agricultural field. Through technological innovation and standardized construction, we have provided a replicable demonstration case for the commercialization of CCU technology.



案例：昆明公司CCU示範項目 Case Study: CCU Demonstration Project of Kunming Branch

華潤燃氣昆明公司結合當地花卉產業資源，建成投運工業用戶CCU示範項目。該項目將打造「零碳工廠」與構建「富碳農業」相結合，依託二氧化碳捕集和利用技術，對百威啤酒廠的鍋爐尾氣及生產環節排放的二氧化碳進行收集、提純，通過管道輸送作為「氣肥」應用於周邊大棚花卉產業，有效降低二氧化碳排放。項目二氧化碳捕集能力約為每年1,800噸，於2024年12月30日正式投入運營，並向下游花卉企業銷售二氧化碳。在技術研發方面，項目團隊完成二氧化碳捕集工藝設計，研發二氧化碳氣相輸送技術及配套輸配管網建設，並完成項目配套工藝設備安裝調試。此外，項目產出發明專利4項、實用新型專利3項（待申報審批），榮獲第三屆「上市公司可持續發展官高峰論壇暨年度最佳獎項評選」，被評選為「安永可持續發展年度最佳獎項2024優秀案例」，成為CCU技術應用的標桿示範。

Combining the resources of the local flower industry, CR Gas Kunming Branch has completed and put into operation a CCU demonstration project for industrial users. The project will combine the creation of a “zero-carbon factory” with the construction of “carbon-rich agriculture”. Relying on CCU technology, it will collect and purify the boiler exhaust of the Budweiser Brewery and carbon dioxide emitted in the production process, and then transports it through pipelines as “gas fertiliser” for use in the surrounding greenhouse flower industry, effectively reducing carbon dioxide emissions. The project has a carbon dioxide capture capacity of approximately 1,800 tonnes per year. It was officially put into operation on December 30, 2024 and sold carbon dioxide to downstream flower companies. In terms of technology R&D, the project team completed the design of the carbon dioxide capture process, developed the gas-phase carbon dioxide transportation technology and the construction of the ancillary pipeline, and completed the installation and commissioning of the ancillary process equipment for the project. In addition, the project obtained 4 invention patents and 3 utility model patents (pending application and approval), which was awarded the 3rd “CSO Forum and Sustainability Excellence Awards”, and was selected as one of the “Best Cases of 2024 Ernest & Young Sustainability Excellence Awards”, becoming a benchmark for the application of CCU technology.



圖：項目簽約儀式

Picture: Signing Ceremony for the Project



圖：項目二氧化碳儲氣櫃

Picture: Storage Cabinet of Project Carbon Dioxide



激發人才活力

凝聚員工力量

Stimulate the Vitality of Talents and
**Unite the Strength of
Employees**



SDGs



3 GOOD HEALTH
AND WELL-BEING



5 GENDER
EQUALITY



8 DECENT WORK AND
ECONOMIC GROWTH



10 REDUCED
INEQUALITIES



華潤燃氣始終秉承以人為本的核心價值觀，將人才視為企業發展的第一驅動力。公司持續深化員工權益保障體系，優化人才培養機制，強化員工關懷行動，通過多元化的激勵措施和包容性文化建設，充分激發人才創新活力，凝聚全員奮鬥力量，為企業的可持續發展注入強勁動能。

CR Gas always adheres to the core value of being people-oriented and regards talents as the primary driving force for corporate development. The Company continues to deepen the employee rights protection system and mechanism, optimize the talent training mechanism, and strengthen employee care actions. Through diversified incentive measures and inclusive culture construction, the Company fully stimulates the innovation vitality of talents, unites the collective efforts of all employees, and injects strong momentum into its sustainable development.



2024 責任績效

2024 Responsibility Performance

人均培訓投入 **598.4** 港元

Training investment per person:
HK\$598.4

人均培訓時長 **14.3** 小時

Training hours per person: 14.3

員工培訓覆蓋率 **100%**

Total percentage of employees
trained: 100%





5

激發人才活力，凝聚員工力量 Stimulate the Vitality of Talents and Unite the Strength of Employees

5.1 員工權益保護

華潤燃氣高度重視員工權益保障，秉持以人為本的理念，制定並發佈《華潤燃氣控股有限公司總部人才交流管理辦法》《華潤燃氣控股有限公司全員績效管理辦法》等內部管理制度，嚴格遵循國家法律法規。公司通過多元化招聘渠道，廣泛吸納優秀人才。同時，公司全方位保護員工合法權益，完善薪酬福利體系，激發員工積極性，推行民主管理模式，營造安全、包容、開放的工作氛圍，致力於打造健康、和諧的職場環境。

合規僱傭

華潤燃氣嚴格遵守國際勞工標準、《中華人民共和國勞動法》和《中華人民共和國勞動合同法》，我們不斷完善內部政策，對招聘流程和勞動合同簽訂等關鍵環節進行嚴格審查和監督，堅持合法用工，禁止販賣人口和僱傭童工，杜絕一切形式的強迫和強制勞動。若發現存在僱傭童工或強制勞工的情況，我們將針對具體情況進行妥善處理，嚴格尊重和保障員工權益，確保所有僱傭活動合法合規。2024年，公司合同簽訂率保持100%，未發生任何僱傭童工和強制勞動的違法違規事件。

5.1 PROTECTION OF EMPLOYEES' RIGHTS AND INTERESTS

CR Gas attaches great importance to the protection of employees' rights and interests. Adhering to the concept of people-oriented, CR Gas formulated and issued internal management systems such as the Administration Measures of Talent Exchange at the Headquarters of China Resources Gas Group Limited and the Administration Measures for Full Staff Performance of China Resources Gas Group Limited, and strictly complies with national laws and regulations. The company attracts excellent talents extensively through diversified recruitment channels. At the same time, the Company safeguards the legitimate rights and interests of employees in an all-round way, improves the remuneration and benefits incentives system, stimulates employee enthusiasm, implements a democratic management model, creates a safe, inclusive and open working atmosphere, and is committed to creating a healthy and harmonious workplace environment.

Employment Compliance

CR Gas strictly complies with international labour standards, the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China. We constantly improve our internal policies, strictly examine and monitor key procedures such as the recruitment process and the signing of employment contracts, insist on legal use of labour, prohibit human trafficking and child labour, and eliminate all forms of forced and compulsory labour. In the event of child labour or forced labour, we will properly handle the specific situation, strictly respect and protect employees' rights and interests and ensure that all employment activities are legal and compliant. In 2024, the contract signing rate of the Company remained at 100%, and there were no cases of child labour or forced labour violations.



人才吸引

華潤燃氣採取多元化策略，積極拓展招聘渠道，優化招聘流程，吸引各類優秀人才加入。公司堅持公平、公正、公開的原則，為每一位求職者提供平等的機會，不論性別、年齡、種族或身體狀況，都能在華潤燃氣找到施展才華的舞台。

人才吸引舉措

- 多元化招聘渠道：公司採用線上線下相結合的方式，全面開展校園招聘與社會招聘，與多所高校建立深度合作關係，通過舉辦校園宣講會和招聘會，吸引優秀應屆畢業生加入。針對應屆畢業生，公司提供穩定的編制保障，並通過「基本工資+補貼」的形式，合理調整薪酬水平，確保其在同行業中具備競爭力。同時，公司積極利用專業招聘網站和社交媒體平台，進一步擴大招聘範圍，吸引更多優秀社會人才。
- 平等僱傭機會：華潤燃氣積極推動性別平等和多元化，為不同背景的人才提供平等的就業機會。公司制定詳細的招聘流程和評價標準，確保招聘過程的透明度和公正性。對於有特殊需求的群體，如殘疾人，公司提供相應的支持和便利，幫助他們更好地融入工作環境。
- 本地人才吸納：公司在各地區積極吸納本地人才，助力當地經濟發展。通過與地方政府和院校合作，開展專項招聘活動，為本地居民提供更多的就業機會。同時，公司注重培養本地人才的職業技能，為他們提供廣闊的發展空間。

Talent Attraction

CR Gas adopts a diversified strategy to actively expand recruitment channels and optimize the recruitment process to attract various types of outstanding talents. The Company adheres to the principles of fairness, impartiality and openness, and provides equal opportunities for every job seeker. Regardless of gender, age, race or physical condition, everyone can find a stage to display their talents in CR Gas.

Talent Attraction Measures

- Diversified recruitment channels: The Company adopts a combination of online and offline method to comprehensively carry out campus recruitment and social recruitment, establishes in-depth cooperative relationships with many universities, and attracts outstanding fresh graduates by holding campus lectures and job fairs. For fresh graduates, the Company ensures stable organizational positions guarantees and reasonably adjusts wage levels in the form of "basic wages + subsidies" to ensure their competitiveness in the same industry. At the same time, the Company actively uses professional recruitment websites and social media platforms to further expand the scope of recruitment and attract more outstanding social talents.
- Equal employment opportunities: CR Gas actively promotes gender equality and diversity by providing equal employment opportunities for talents with different backgrounds. The Company has formulated detailed recruitment processes and evaluation criteria to ensure the transparency and impartiality of the recruitment process. For groups with special needs, such as people with disabilities, the Company provides corresponding support and convenience to help them better integrate into the work environment.
- Local talent recruitment: The Company actively recruits local talents in various regions, thereby contributing to the development of the local economy. By cooperating with local governments and colleges and universities, we carry out special recruitment activities to provide more employment opportunities for local residents. At the same time, the Company attaches great importance to training the vocational skills of local talents, providing them with broad development space.

案例：本地人才吸納與培養 Case Study: Recruiting and Training Local Talents

華潤燃氣積極參與中央企業面向西藏、青海、新疆高校畢業生的專場招聘活動，與青海建築職業技術學院等職業院校合作，吸引本地學生報考相關專業。公司定期舉辦校園宣講會，介紹業務範圍、發展前景及人才需求，為本地應屆畢業生提供燃氣運營、客戶服務等實習與就業機會。在招聘過程中，充分考慮本地人才的文化背景與語言優勢，同等條件下優先錄用，助力他們在家鄉實現職業理想，推動區域發展。

CR Gas actively participated in the special recruitment activities of state-owned enterprises for college graduates in Tibet, Qinghai and Xinjiang, and cooperated with vocational colleges such as Qinghai College of Architectural Technology to attract local students to apply for relevant majors. The Company regularly organized campus lectures to introduce the business scope, development prospects and talent needs, and provided internship and employment opportunities for local fresh graduates in gas operation and customer services. During the recruitment process, we fully considered the cultural background and language advantages of local talents, and gave priority to recruiting under the same conditions, so as to help them achieve their career aspirations in their hometowns and promote the development of the region.

- **燃氣工程建設項目帶動就業：**在青海燃氣工程建設項目中，優先僱傭本地勞動力，參與燃氣管道鋪設、場站建設等工作，並為他們提供系統的安全與技能培訓。項目建成後，60%的本地員工從事燃氣設備維護、巡檢等工作，獲得穩定收入，掌握專業技能，為未來職業發展奠定基礎。
- **Employment promotion through gas construction projects:** In Qinghai gas construction projects, local labour was preferentially recruited to participate in the laying of gas pipelines and construction of gas stations, and systematic safety and skills training were provided to them. After the completion of the project, 60% of the local employees would be engaged in the maintenance and inspection of gas equipment, so as to obtain stable income and master professional skills, laying a solid foundation for their future career development.
- **燃氣客戶服務中心帶動就業：**為了提高客戶服務質量，青海大區設立了7個客戶服務中心。在營業廳工作時，優先考慮本地居民，為他們提供專業的客戶服務培訓，包括溝通技巧、業務知識、投訴處理等方面的培訓。
- **Employment promotion through gas customer service centers:** In order to improve the quality of customer service, seven customer service centers were set up in the Qinghai Region. In terms of working in service halls, preference is given to local residents by providing them with professional customer service training, including training in communication skills, business knowledge, complaint handling, etc.



圖：青海大區參加西南石油大學校園宣講會
Picture: The Qinghai Region Attended the Campus Lecture of Southwest Petroleum University



權益保障

多元包容

華潤燃氣始終致力於營造一個公平、公正、透明的工作環境，尊重每一位員工的個性和差異。公司秉持平等僱傭的理念，積極推動性別平等、年齡多元化以及殘障人士的就業機會。截至2024年12月31日，公司已僱傭97名殘疾人，並確保他們享有全面的福利待遇。

公司制定了系統化的校園招聘流程和評估標準，嚴格確保招聘過程中的信息公開與透明化。從職位發佈、簡歷篩選到面試通知、錄用決策，每個環節均遵循透明原則，保障招聘的公平性與規範性。同時，公司持續完善職場反歧視政策，明確違規行為的懲戒措施，確保員工在招聘、培訓、晉升及薪酬等各個環節不受性別、年齡、種族、宗教信仰、身體狀況等因素的不當影響，營造公平包容的職場環境。

公司定期對人力資源政策及招聘流程進行全面審視，確保其嚴格符合國家關於反歧視的法律法規要求。

Rights and Interests Protection

Diversity and Inclusion

CR Gas has always committed to creating a fair, just and transparent working environment, respecting the individuality and diversity of every employee. The Company upholds the concept of equal employment and actively promotes gender equality, age diversity and employment opportunities for people with disabilities. As of December 31, 2024, the Company has hired 97 disabled employees and ensured that they enjoy comprehensive welfare and benefits.

The Company has formulated a systematic campus recruitment process and evaluation criteria to strictly ensure disclosure and transparency of information in the recruitment process. We follow the principle of transparency in every process, from job posting and CV screening to interview notification and hiring decisions to ensure fairness and standardization of recruitment. At the same time, the Company continued to improve the policy of anti-discrimination in the workplace, and clarify the punitive measures for violations to ensure that employees are not discriminated against in hiring, training, promotion and compensation packages because of gender, age, race, religious beliefs, physical condition and other factors, building a fair and inclusive workplace.

The Company regularly conducts comprehensive reviews on its human resources policies and recruitment process to ensure that they strictly comply with national laws and regulations on anti-discrimination.

民主管理

華潤燃氣深入貫徹《中華人民共和國工會法》，制定《關於進一步加強基層工會、職代會建設的通知》《關於開展職工代表大會制度深化示範工作的實施意見》等規章，推進基層職代會制度化、規範化建設，保障職工民主權利。公司落實勞資集體談判機制，圍繞勞動報酬、安全、福利、培訓等事項開展協商，形成集體合同草案，回應職工訴求，維護合法權益，構建和諧勞動關係。

2024年，華潤燃氣工會完善以職工代表大會為基本形式的企業民主管理制度，制定《職工代表大會制度實施辦法》。公司工會組織達267個，建立職工代表大會200個，職代會覆蓋率為75%，召開會議225次。公司累計開展職業技能培訓22次，開展勞動和技能競賽集團級1次，創建勞模和工匠人才創新工作室1個，累計創建勞模和工匠人才創新工作室26個。



圖：華潤燃氣總部工會幹部培訓
Picture: Trade Union Cadres Training of CR Gas Headquarters

Democratic Management

CR Gas deeply implements the Trade Union Law of the People's Republic of China, formulates the rules and regulations such as the Notice on Further Strengthening the Construction of Grassroots Trade Unions and Employee Councils and the Implementing Opinions on Deepening the Demonstration of the Employee Congress System, promotes the institutionalization and standardization of the construction of grassroots employee councils, and safeguards the democratic rights of employees. The Company implements the system of collective bargaining institutionally, conducts negotiation on issues such as wages, safety, welfare, and training, in order to form a draft for collective contract that responds to employee requests, safeguards legitimate rights and interests, and builds harmonious labor relations.

In 2024, CR Gas trade unions improved the corporate democratic management system with the employee congress as the basic form, and formulated the Implementation Measures for the Employee Congress System. The Company established 267 trade unions and 200 employee congress, and held 225 meetings with the coverage rate of employee congresses of 75%. The Company launched a total of 22 trainings for vocational skills, 1 group-level labour and skills competition, created 1 innovation studio for model workers and craftsmen talents with a cumulative number of 26.



圖：華潤燃氣組織競賽
Picture: CR Gas Organizing Competition



員工溝通

華潤燃氣高度重視員工溝通，通過多種渠道和機制，確保員工能夠及時、便捷地表達意見和建議，促進企業與員工之間的雙向交流：

- **信訪舉報機制：**建立線上線下信訪舉報機制，確保員工可匿名或實名舉報，所有舉報均及時、保密處理。公司將信訪納入黨建考核，通過「線上+線下」督辦及協作機制，推動問題整改。健全領導接訪機制，常態化排查化解矛盾糾紛，完善閉環管理，落實首辦責任制。特殊時期延長接訪時間，加強信息預警與研判，確保第一時間聯動處置，及時化解問題。

Employee Communication

CR Gas attaches great importance to employee communication, ensuring that employees can express their opinions and suggestions promptly and conveniently through multiple channels and mechanisms, thereby promoting two-way communication between the enterprise and its employees:

- **Petition and report handling mechanism:** Establish an online and offline petition and report handling mechanism to ensure that employees can report anonymously or in their names, and that all reports are handled timely and confidentially. The Company included petitions into the Party building assessment, and promoted the rectification of problems through an "online + offline" supervision and collaboration mechanism. Improve the leadership reception mechanism, regularly investigate and resolve conflicts and disputes, improve closed-loop management, and implement the first-handling responsibility system. During special periods, the reception hours will be extended, information early warning and analysis will be strengthened, and coordinated handling will be ensured to resolve problems in a timely manner.



- **基層員工座談會：**定期開展基層員工座談會，深入一線了解員工的工作情況和需求，及時解決員工關心的問題。
- **組織氛圍調研：**每年末採用問卷調查法對所有下屬公司開展組織氛圍測評，參與群體覆蓋中高層管理者和一線員工。2024年，參與組織氛圍評價的員工佔比78%，平均得分達89.20分，58%的公司組織氛圍較上一年得到提升。
- **員工訴求信息反饋機制：**建立了完善的員工訴求信息反饋機制，包括線上渠道（如企業內部HR系統、電子郵件、即時溝通工具等）和線下渠道（如不定期的員工座談會、匿名意見箱等），確保員工能夠隨時提交反饋。公司對員工反饋進行分類處理，並及時將處理結果通知員工，提升透明度和滿意度。
- **Grass-roots employee symposium:** Regularly hold grass-roots employee symposiums to gain a deep understanding of employees' work situations and needs at the front line, and resolve their concerns in a timely manner.
- **Organizational atmosphere survey:** Conduct organizational atmosphere assessment of all subsidiaries using the questionnaire surveys covering middle and senior managers and frontline employees at the end of each year. In 2024, 78% of employees participated in the organizational atmosphere assessment, with an average score of 89.20, and the organizational atmosphere of 58% of the companies had improved compared with that of the previous year.
- **Employee request and information feedback system:** A comprehensive employee request and information feedback system has been established, including online channels (such as the Company's internal HR system, email, instant communication tools, etc.) and offline channels (such as irregular employee symposiums, anonymous suggestion boxes, etc.) to ensure that employees can submit feedback at any time. The Company handles feedback from employees in different categories and informs employees of the results in a timely manner to enhance transparency and satisfaction.



案例：加強培訓教育，提升信訪業務能力 Case Study: Strengthen Training and Education to Improve Petition Business Capabilities

為進一步學習貫徹習近平總書記關於加強和改進人民信訪工作重要思想，提升信訪幹部的綜合業務素質，12月3日到5日，華潤燃氣組織開展信訪人員業務培訓班，培訓以現場集中和線上視頻相結合的方式開展，總部黨群工作部、各大區黨群職能工作組組長、各區域黨委副書記或分管領導、信訪部門負責人及相關同事共計460餘人參訓。

In order to further study and implement General Secretary Xi Jinping's important ideological theme of strengthening and improving the People's petition, and enhance the comprehensive professional capabilities of petition officials, from 3rd December to 5th December, CR Gas organized a business training class for petition personnel, which was carried out in a combination of on-site training and online video. A total of more than 460 people from the Party and Mass Work Department of the headquarters, the leaders of the functional working groups of the Party and Mass in each region, the deputy secretaries or leaders of the Party committees in each region, the heads of the petition departments and relevant colleagues participated in the training.



圖：華潤燃氣潤工作培訓
Picture: CR Gas Run Work Training



薪酬福利

華潤燃氣嚴格遵守國家法律法規，持續完善員工福利保障體系。公司全面落實法定節假日帶薪休假與帶薪年休假制度，切實保障員工休息權益，並為員工足額繳納五險一金，基本保險覆蓋率達100%。此外，公司提供企業年金、補充醫療保險等福利，定期開展免費職業健康體檢及專業培訓，進一步提升員工保障水平。針對女性員工，公司提供生育假、哺乳假等特殊假期，並配套相應支持服務。

公司高度重視薪酬的公平性與競爭力，通過優化薪酬結構和激勵機制，確保員工勞動獲得合理回報。2024年，公司進一步完善薪酬管理體系，完成6家區域公司薪酬套改工作，推動薪酬向優秀員工傾斜，促進分配公平性。同時，公司加大收入分配向基層一線員工傾斜力度，對下屬公司中基層員工平均薪酬低於當地社會平均工資的，予以工資總額「提低」單列支持，切實保障基層一線員工收入。

5.2 晉升與培養

華潤燃氣持續優化人才培育及發展體系，致力於為員工提供多元化的職業發展路徑和優質的培訓服務，全面提升員工的職業技能和職業素養，推動人才發展與企業發展同步。

Compensation and Benefits

CR Gas strictly complies with national laws and regulations, and continuously improves the employee benefits protection system. The Company fully implements the system of paid leave for statutory holidays and paid annual leave to effectively protect employees' rights to rest, and fully pays five social insurances and one housing fund for employees, with the basic insurance coverage rate reaching 100%. In addition, the Company provides corporate annuity, supplementary medical insurance and other benefits, and regularly conducts free occupational health examinations and professional training to further improve the level of employee security. For female employees, the Company provides special leave such as maternity leave and breastfeeding leave, as well as corresponding support services.

The Company attaches great importance to the fairness and competitiveness of compensation. By optimizing the compensation structure and incentive mechanism, the Company ensures that employees can obtain reasonable returns for their work. In 2024, the Company further improved the compensation management system, completed the reform of compensation systems for 6 regional companies, promoted the incline of compensation to outstanding employees and supported fair distribution. At the same time, the Company increased income distribution in favor of elementary and front-line employees, and provided "raising low" in the total wages to those of the subsidiaries whose average compensation is lower than the local average compensation, so as to effectively protect the income of elementary and front-line employees.

5.2 PROMOTION AND CULTIVATION

CR Gas continues to optimize the talent cultivation and development system, and is committed to providing employees with diversified career development paths and high-quality training services, so as to comprehensively improve employees' vocational skills and professionalism, and promote the development of talents in tandem with the development of the enterprise.



職業發展體系

華潤燃氣持續深化人才發展戰略，依託學創中心這一關鍵平台，全面統籌並高效推進人才培養工作。公司精心打造了分層分類的人才培養體系，依據不同崗位需求與員工發展階段，定制專屬培養方案。同時，不斷優化並全力推動3+1人才培養工作，涵蓋經營管理人才、技能人才、科技人才以及香港人才，為各類人才提供精準培育與廣闊發展空間，進一步暢通職業發展通道，助力員工實現個人價值與職業理想的穩步進階。

人才培養體系

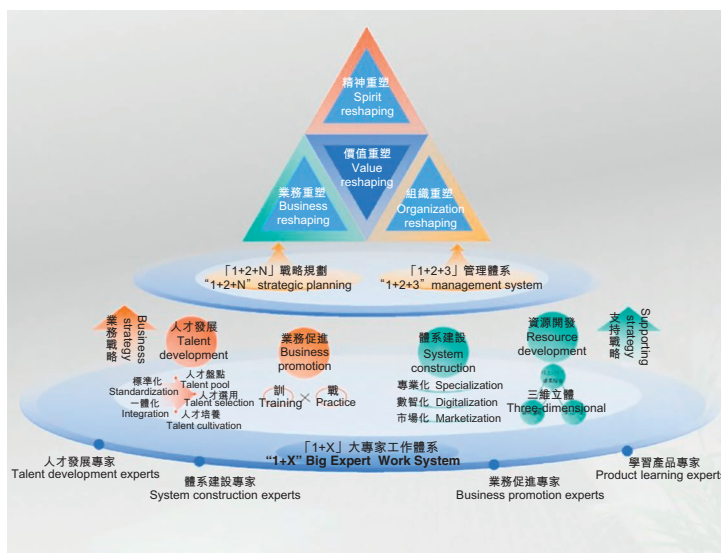
回溯2024年，華潤燃氣緊密圍繞「1+2+N」戰略藍圖以及人力資源人才戰略規劃，錨定「四個重塑」目標，以價值重塑為內核驅動力。公司全方位聚焦業務、組織和精神三大維度，持續且深入地推進「人才發展、業務促進」相關工作，同時配套開展「體系建設和資源開發」的優化升級。我們精心打造學創中心「1+X」大專家工作體系，致力於將員工培育成為兼具人才發展、體系建設、業務促進以及學習產品開發等多領域專業能力的專家，為企業的長遠發展築牢人才根基，注入強勁動力。

Career Development System

CR Gas continues to deepen its talent development strategy, relying on the key platform of the learning and innovation center to comprehensively coordinate and efficiently promote talent training. The Company has carefully built a hierarchical and classified talent training system, and customized exclusive training programs based on different job requirements and employee development stages. At the same time, it continues to optimize and fully promote the training of 3+1 talents, including operational and management talents, technical talents, scientific and technological talents, and Hong Kong talents, providing targeted training and ample development space for all types of talents, further opening up career development channels, and helping employees achieve steady advancement in their personal values and career ideals.

Talent Training System

Looking back to 2024, CR Gas closely focused on the "1+2+N" strategic blueprint and human resources and talents strategic planning, anchored the "four reshaping" goals, and took value reshaping as the core driving force. The Company focused on the three dimensions of business, organization and spirit in an all-round way, continuously and deeply promoted the work related to "talent development and business promotion", and at the same time carried out the optimization and upgrading of "system construction and resource development". We have carefully created the "1+X" big expert work system of the learning and innovation center, and are committed to cultivating employees into experts with professional skills in various fields such as talent development, system construction, business promotion and product learning, laying a solid talent foundation for the long-term development of the Company and injecting strong momentum.



圖：「1+X」大專家工作體系

Picture: "1+X" Big Expert Work System



四大人才培養序列

圍繞3+1人才發展戰略，公司建立並完善管理(M)、專業(P)、技能(S)、新人(N) MPSN 四大人才培養序列，科學匹配學習資源，推動員工職業發展與企業發展相統一、職業發展與薪酬待遇相統一。

- **管理序列：**2024年7月，公司發佈《華潤燃氣管理序列人才培養方案M3.0》。該方案在M2.0的基礎上優化課程內容和培訓形式，邀請總部及大區領導帶頭授課，將「上講台」制度延伸至各層級培訓項目中。同時，我們豐富線上學習地圖，實施雲端考核評估，創新年度幹部調訓項目和在職幹部提升培訓的課程內容和形式。各大區制定2024年度管理序列培訓計劃，建立線上幹部學習進度統計台賬，科學管理培訓進度。

Four Talent Training Sequences

Centering on the 3+1 talent development strategy, the Company has established and improved its four MPSN (management, professional, skill and new employee) talent training sequences to scientifically match learning resources and align employees' career development with the Company's development and with their remuneration.

- **Management sequence:** In July 2024, the Company released the CR Gas Management Sequence Talent Cultivation Program M3.0. The program optimized the course content and training form on the basis of M2.0, invited the leaders of the headquarters and regions to take the lead in teaching, and extended the "podium" system to training programs at all levels. At the same time, we enriched the online learning map, implemented cloud-based assessment, and innovated the course content and format of annual cadre rotation training programs and in-service cadre enhancement training. Each region formulated the 2024 annual management sequence training plan, established an online statistical ledger of cadres' learning progress, and scientifically managed the training progress.

案例：華潤燃氣新任領導培訓班

Case Study: CR Gas New Leadership Training Course

2024年，公司開展華潤燃氣M4新任「一把手」培訓班，培養對象為新提拔的大區負責人及總部部室負責人、企業一把手等。培訓班結合學員經歷和崗位經驗，設置2個學習組，通過直播學習+線上課程+讀書學習的方式開展自主學習。人力資源部結合幹部台賬系統，監督跟進學習情況及學分進度，促進學習效果最大化。

In 2024, the Company launched the CR Gas M4 new "Leaders" training course, and the training targets are newly promoted persons in charge of regions, heads of headquarters departments, corporate top leaders, etc. The training Course combined trainee experience and job experience, and set up two study groups to conduct independent learning through live streaming learning + online courses + reading learning. Combined with the cadre ledger system, the Human Resources Department supervises and follows up the learning status and credit progress to maximize the learning outcomes.



- **專業序列：**華潤燃氣制定積極開展專業序列培訓，提升員工專業技能與綜合素質。2024年，公司舉辦第二期藍精靈學習產品營銷團隊賦能培訓，採用「4天線上學習+3天集中賦能」模式，通過小組合作和經驗分享，提升學員的綜合能力。公司還舉辦第二期「華潤燃氣綜合服務新動能特訓營」，助力企業戰略發展。2024年10月，36位中基層管理者參與培訓，項目整體滿意度達4.92分。

- **Professional sequence:** CR Gas has formulated and actively carried out professional sequences training to improve employees' professional skills and comprehensive quality. In 2024, the Company held the second phase of Smurf Learning product marketing team empowerment training, adopting the "4-day online learning + 3-day centralized empowerment" model to enhance the comprehensive abilities of trainees through group cooperation and experience sharing. The Company also held the second phase of the "CR Gas Comprehensive Service New Momentum Special Training Camp" to facilitate corporate strategic development. In October 2024, 36 middle and grass-roots managers participated in the training, and the overall project satisfaction rate reached 4.92 points.



圖：藍精靈學習產品營銷團隊賦能培訓
Picture: Smurf Learning Product Marketing Team Empowerment Training



圖：新動能特訓營
Picture: New Momentum Special Training Camp

- **技能序列：**華潤燃氣制定《華潤燃氣職業技能等級認定中心運營管理制度》，推動技能人才培养。2024年8月，公司在南昌成功舉辦職業技能競賽，覆蓋燃氣管網運行工、燃氣具安裝維修工、燃氣用戶安裝檢修工三個工種，119名選手參賽，線上直播觀看人次超25,000。競賽評選出一批優秀技能人才，推動以賽促訓，營造崇尚技能的氛圍。2024年12月，公司在南京完成第一期職業技能等級認定高級考評員培養認證，35名考評員通過綜合評定，為技師與高級技師認定奠定基礎。

- **Skill sequence:** CR Gas formulated the CR Gas Occupational Skill Level Recognition Center Operation and Management System to promote the cultivation of skilled talents. In August 2024, the Company successfully held a vocational skills competition in Nanchang, covering three job types such as gas pipeline network operator, gas appliance installation and maintenance work, and gas user installation and maintenance work, with 119 contestants participating and over 25,000 views of the online live broadcast. The competition selected a batch of outstanding skilled talents, promoted the promotion of training through competition, and created an atmosphere of advocating skills. In December 2024, the Company completed the first phase of training and certification of senior assessors for occupational skill level recognition in Nanjing, and 35 assessors passed the comprehensive assessment, laying a solid foundation for the certification of technicians and senior technicians.



圖：2024年度職業技能競賽
Picture: 2024 Vocational Skills Competition

➤ **新人序列：**華潤燃氣實施「新人三年培養計劃」，承辦「未來之星」新員工訓練營華中五營，圍繞「認同華潤、角色轉變、樹立抱負、職業發展」目標，採用「研－學－賽－創」一體化教學模式，結合燃氣業務發展需要，為新員工提供系統培養。此外，公司舉辦2024年新員工「UP2」加速成長培訓班，42名優秀青年員工參加。培訓以「素質提升●蓄勢賦能●逐夢未來」為主題，聚焦「行業、企業、個人」三大維度，通過「理論學習+課題研討+經驗分享+體驗式學習」的形式，推動新員工了解行業變革，提升實幹能力。

➤ **New employee sequence:** CR Gas implemented the “three-year training plan for new employees”, and organized the fifth “Future Star” orientation training camp in Central China, which focused on the goals of “Identity with CR, Role Change, Ambition Building and Career Development”, adopted the integrated teaching mode of “research-learn-competition-creation”, and provided systematic training for new employees in line with the needs of the development of the gas business. In addition, the Company held the new employee “UP2” accelerated growth training course in 2024, with 42 outstanding young employees attending. With the theme of “Quality Improvement, Potential Empowerment, and Dream of the Future”, the training focused on the three dimensions of “industry, enterprise and individual”. Through the form of “theoretical learning + project seminars + experience sharing + experiential learning”, new employees were encouraged to understand the changes in the industry and enhance their practical ability.



圖：「未來之星」新員工訓練營
Picture: “Future Star” Orientation Training Camp



圖：新員工「UP2」加速成長培訓班
Picture: New Employee “UP2” Accelerated Growth Training Course



員工培訓機制

我們制定《華潤燃氣控股有限公司培訓工作管理辦法》《華潤燃氣內部培訓師管理辦法》等制度，為員工提供豐富培訓資源和優質培訓服務。

培訓計劃

公司依照內部培訓制度，嚴格執行培訓管理工作流程，開展年度培訓需求調研工作，整合各級分類培訓需求重點，圍繞業務發展和人員發展需要，制定年度培訓計劃。2024年，共收集反饋問卷100份，通過調研收集，計劃開展項目239個。

課程開發

平台已匯聚247名認證講師，上線線上課程1,313門，涵蓋各類專業知識與技能領域，滿足員工個性化學習訴求。同時，基於現有潤學堂平台功能，我們持續優化三年培養、培訓計劃管理功能，新增培訓項目照片直播功能，實時記錄培訓精彩瞬間，留存珍貴學習資料，增強培訓互動性與趣味性，為華潤燃氣打造學習型組織奠定堅實基礎。

培訓活動

華潤燃氣結合「1+X」人才培養體系，充分利用線上線下資源開展不同的培訓活動，如內部巡察動員部署會、培訓管理者賦能提升訓練營、應急處置專家培訓班、科創專項培訓、年輕幹部培訓班、職業技能等級認定高級考評員培養認證等，2024年全年開班項目多達281個，開展1,316場線上考試，平台使用人數高達36,897人，平均月活人次達117,687人，彰顯出員工高漲的學習熱情與持續的知識探索需求。

Employee Training Mechanism

We formulated policies such as the Management of Training Work of China Resources Gas Group Limited and the Measures for the Management of Internal Trainers of CR Gas to provide employees with abundant training resources and high-quality training services.

Training plan

In accordance with the internal training system, the Company strictly implements the training management work procedures, conducts annual training demand research, integrates the key points of classified training needs at all levels, and formulates annual training plans based on business development and personnel development needs. In 2024, a total of 100 feedback questionnaires were collected through research, and 239 projects are planned to be carried out.

Curriculum Development

The platform has gathered 247 certified lecturers and launched 1,313 online courses, covering a variety of professional knowledge and skill areas, meeting employees' tailored learning needs. At the same time, based on the existing functions of the Run Class platform, we continued to optimize the three-year training and training plan management functions, added the live streaming function of photos of training projects to record the wonderful moments of training in real time and retain valuable learning materials to enhance the interaction and interest of training, and laid a solid foundation for CR Gas to build a learning-oriented organization.

Training activities

CR Gas, in conjunction with the "1+X" talent cultivation system, made full use of online and offline resources to conduct various training activities, such as internal inspection and motivation deployment meetings, training camp for managers empowerment and improvement, and the training course for experts in emergency response, the special training on scientific and technological innovation, the training course for young cadres, the training and certification of senior assessors for occupational skill level recognition, etc. In 2024, as many as 281 courses were launched, 1,316 online exams were held, the number of users of the platform reached 36,897, and the average monthly active users reached 117,687, reflecting the staff's high enthusiasm for learning and continuous demand for knowledge exploration.



案例：舉辦科技人才培訓班

Case Study: Organizing Training Courses for Scientific and Technological Talents

2024年11月，華潤燃氣在南京校區舉辦「智創未來」科技人才培訓班。此次培訓旨在貫徹二十屆三中全會及華潤集團科技創新要求，加速數字化轉型與科技人才培育。全國各大區60餘位智數職能組長、平台對接人及科技項目骨幹共同參與，圍繞科技創新深入交流，滿意度達4.97分，共探企業發展新路徑。

In November 2024, CR Gas held a training course for scientific and technological talents with the theme of “INTELLIGENT FUTURE” at the Nanjing Campus. This training aims to implement the requirements of the Third Plenary Session of the 20th Central Committee and China Resources Group for scientific and technological innovation, and accelerate the digital transformation and cultivation of scientific and technological talents. More than 60 smart and digital functional team leaders, platform liaisons and technology project backbones from all regions across the country participated in the event, had in-depth exchanges on scientific and technological innovation, with a satisfaction rate of 4.97 points, and jointly explored new paths for corporate development.



圖：「智創未來」科技人才培訓班

Picture: “INTELLIGENT FUTURE” Training Course for Scientific and Technological Talents



5.3 員工關懷

華潤燃氣持續深化員工關懷舉措，致力於為員工打造更加溫馨、舒適、富有歸屬感的工作環境，全方位關注員工的工作生活與身心發展，激發員工的工作熱情與創造力，增強企業凝聚力。

職業健康關懷

華潤燃氣設立「潤心大使」內部心理團隊，為員工提供個性化心理健康服務，組織全員開展年度健康檢查並制定個性化健康改善計劃，委託專業服務機構定期嚴格評估並改進生產作業環境，預防、控制和消除職業健康危害，守護員工身心健康。

2024年，為有效緩解職工醫療費用壓力，防止職工因病致貧、因病返貧，重慶工會在全集團範圍開展互助保障工作方案，投入約328,200港元於重大疾病互助保障活動、住院津貼互助保障活動和住院意外綜合互助保障活動，切實為職工辦實事、解難題。

5.3 EMPLOYEE CARE

CR Gas continues to deepen its employee care initiatives and is committed to creating a warmer, more comfortable working environment with a sense of belonging for employees. It pays all-round attention to employees' work, life and physical and psychological development, stimulates their enthusiasm and creativity, and enhances corporate cohesion.

Occupational Health Care

CR Gas has set up internal psychological team named "CR Gas Ambassadors" to provide personalized mental health services for employees, organize annual health check-ups for all employees, and formulate personalized health improvement plans, and engage professional service organizations to conduct regular and rigorous assessment and improvement of the production and operating environment to prevent, control, and eliminate occupational health hazards and fully protect the physical and mental health of employees.

In 2024, in order to effectively alleviate the pressure of medical expenses for employees and prevent them from becoming impoverished or returning to poverty due to illness, the Chongqing trade union launched a mutual aid protection work plan across the group, investing approximately HK\$328,200 in serious illness mutual aid protection activities, hospitalization allowances mutual aid protection activities and comprehensive hospital accident mutual aid protection activities to practically solve problems for employees.



案例：「迎新春•送祝福」趣味活動

Case Study: “Welcome the New Year and Send Blessings” Fun Activity

2024年2月，華潤燃氣昆明區域開展「迎新春•送祝福」趣味活動。活動包括小雞下蛋、甩乒乓球、五子棋、搶凳子等項目，推動企業文化融合、增強團隊凝聚力、提升員工幸福感，營造歡樂氛圍，增強員工歸屬感，為企業發展注入活力。

In February 2024, CR Gas Kunming launched the “Welcome the New Year and Send Blessings” fun activity. The activities included little chickens laying eggs, tossing ping-pong balls, Gomoku, musical chairs, which promote the integration of corporate culture, enhance team cohesion, improve employees’ sense of happiness, create a happy atmosphere, enhance employees’ sense of belonging, and inject vitality into corporate development.



圖：華潤燃氣昆明區域迎新春·送祝福

Picture: CR Gas Kunming Welcomes the New Year and Sends Blessings



其他福利關懷

華潤燃氣遵循《華潤燃氣總部工會福利及財務管理辦法》等制度，構建豐富的員工關懷體系，努力為員工創造溫馨、包容的工作環境，提升員工的工作幸福感。

- 提供多樣化福利，包括但不限於員工生日福利，職工醫療互助保險、每月發放女性員工衛生費、提供健身相關福利等；
- 推動「我為群眾辦實事」活動，包括為一線員工送去防暑解暑藥品、清涼物資和生活物資，為偏遠場站補充維修電暖器、提供保溫防寒面罩和暖手寶等；
- 組織節日慰問活動，如「國際三八婦女節」手工DIY趣味活動，並且在國慶、重陽節、元旦、春節期間走訪慰問生活困難黨員，解決實際困難。

Other Welfare and Care

CR Gas follows the Measures for Welfare and Financial Management of the Labour Union of CR Gas Headquarters and other systems to build a rich employee care system, strive to create a pleasant and inclusive living and working environment for employees, and improve their sense of happiness at work.

- Provide diversified benefits, including but not limited to employee birthday welfare, employee medical mutual insurance, monthly health allowance for female employees, fitness-related benefits, etc;
- Promote the "I Work for the Benefit of the People" activity, including sending heatstroke prevention and relief medications, cooling materials and daily necessities to front-line employees, replenishing and repairing electric heaters, providing insulated face masks and hand warmers to remote stations;
- Organize holiday care and support activities, such as the "International Women's Day" handmade DIY fun activities, and visit and support party members in need during National Day, the Double Ninth Festival, New Year's Day, and the Spring Festival, addressing their practical difficulties.



案例：無錫華潤燃氣2024年職工子女暑期愛心託管班

Case Study: Wuxi CR Gas 2024 Summer Caring Trusteeship Class for Employees' Children

2024年7月，無錫華潤燃氣工會在公司黨委的支持下，開辦了職工子女暑期愛心託管班，幫助職工解決子女暑期無人照顧的難題。託管班提供溫馨的環境、完善的保障、豐富的課程和貼心的服務，包括讀書賞析、藝術繪畫、益智棋類、愛國電影、體育運動、燃氣安全知識宣講等興趣課程，以及愛心兒童午餐和午休服務。公司工會進一步深化了「我為群眾辦實事」實踐活動，提升了職工的獲得感、幸福感和自豪感。

In July 2024, with the support of the Company's Party Committee, the Wuxi CR Gas Trade Union opened a Summer Caring Trusteeship Class for employees' children to help employees solve the problem of their children being left unattended during the summer vacation. The trusteeship class provides a warm environment, comprehensive safeguards, diverse courses, and attentive services, including interest-based courses such as book appreciation, art and painting, strategy board games, patriotic films, sports activities, and gas safety knowledge lectures, as well as caring children's lunch and nap services. The Company's trade union further deepened the practical activity of "I Work for the Benefit of the People" and enhanced the employees' sense of gain, happiness and pride.



圖：無錫華潤燃氣2024年職工子女暑假愛心託管活動

Picture: Wuxi CR Gas 2024 Summer Caring Trusteeship Activity for Employees' Children



案例：春節前夕成都公司領導慰問離休老幹部 Case Study: Leaders of Chengdu Company Visited the Retired Veteran Cadres on the Eve of Spring Festival

春節前夕，成都公司走訪慰問公司一線員工、老黨員、離休老幹部、困難職工等，送去黨組織和公司的親切關懷，傳承老一輩奮鬥精神，激勵全體員工幹部展現新擔當新作為，並致以新春問候和美好祝福。

On the eve of the Spring Festival, the Chengdu company visited and expressed condolences to the front-line staff, veteran Party members, retired veteran cadres, and employees in hardships, sending the cordial care of the Party organization and the Company. This initiative aims to carry forward the fighting spirit of the older generation, inspire all employees and cadres to demonstrate new responsibilities and achievements, and extend New Year greetings and best wishes.



圖：成都公司領導慰問離休老幹部

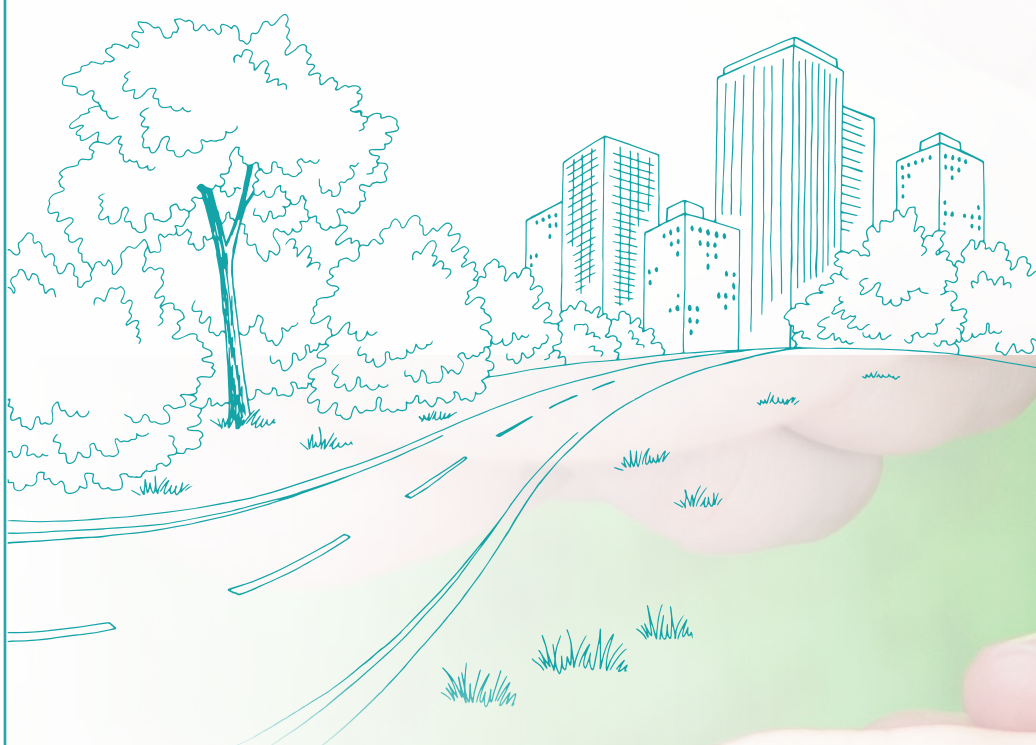
Picture: Leaders of Chengdu Company Visited the Retired Veteran Cadres



攜手共繪藍圖

引領行業創新發展

Collaborating to Shape the Future and
Driving Industrial Innovation



SDGs



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



11 SUSTAINABLE CITIES
AND COMMUNITIES



17 PARTNERSHIPS
FOR THE GOALS



在能源轉型的浪潮中，華潤燃氣深化供應商合作，攜手夥伴打造綠色可持續供應鏈。同時，我們積極參與行業標準制定，推動技術創新與規範化發展，引領行業進步。此外，公司積極響應國家戰略，服務民生需求，構建智能環保能源體系，為經濟社會可持續發展貢獻力量，共創綠色未來。

Facing the trend of energy transformation, CR Gas has deepened its cooperation with suppliers and worked with partners to build a green and sustainable supply chain. Meanwhile, we have vigorously participated in the formulation of industry standards and advanced technological innovation and standardization, thus leading the progress of the industry. In addition, the Company has actively responded to national strategies, served people's livelihood needs, and established a smart and environmental-friendly energy system, which has contributed to the sustainable development of the economy and society, thus leading us to create a green future.



2024 責任績效 2024 Responsibility Performance

供應商評價考核：**310**家（僅集聯採）
Suppliers reviewed and appraised: 310 (central and joint procurement only)

參與公益志願服務**74,130**次
Attendance of participation in volunteer services: 74,130

對外捐贈總額**283.21**萬港元
Total external donations: HK\$2.8321 million

責任採購比例：**100%**
Percentage of responsible procurement: 100%

公益志願服務總時長**160,947**小時
Total number of volunteer hours: 160,947





攜手共繪藍圖，引領行業創新發展 Collaborating to Shape the Future and Driving Industrial Innovation

6.1 協同發展

華潤燃氣始終秉持開放共贏的理念，與政府、合作夥伴及供應商保持緊密協作，致力於構建公平透明的合作機制，共同推動燃氣行業的穩健與可持續發展。

規範供應鏈管理

供應商管理制度

2024年，華潤燃氣持續優化供應商管理體系，出台《華潤燃氣控股有限公司採購管理制度》《華潤燃氣控股有限公司供應商管理辦法》，全面規範了招採基本原則、採購流程及監督管理機制等內容，涵蓋供應商准入、評估、退出等環節，實現了供應商管理的全流程閉環，確保供應商的質量和可靠性。

供應商管理流程

➤ 供應商准入

華潤燃氣的供應商准入流程分為潛在供應商徵集、資格預審、現場考察、綜合評審、結果公示5個階段。

- 潛在供應商徵集：按照《華潤燃氣工程物資集中、聯合採購管理辦法》，通過華潤守正平台、公司網站等發佈供應商徵集公告；

6.1 COLLABORATIVE DEVELOPMENT

CR Gas has always adhered to the concept of openness and win-win, maintained close cooperation with the government, partners and suppliers, and is committed to building a fair and transparent cooperation mechanism to jointly promote the sound and sustainable development of the gas industry.

Regulating Supply Chain Management

Supplier Management System

In 2024, CR Gas continued to optimize supplier management system and issued Procurement Management Policy of China Resources Gas Group Limited and Supplier Management Measures of China Resources Gas Group Limited, both of which comprehensively standardized the basic principles of tender procurement, procurement processes and supervision and management mechanisms, covering aspects such as supplier admission, evaluation and exit, achieving a full-process closed loop of supplier management and ensuring the quality and reliability of suppliers.

Supplier Management Process

➤ Supplier Admission

The supplier admission process of CR Gas is divided into 5 stages, namely solicitation of potential suppliers, preliminary qualification review, on-site inspection, comprehensive review and result announcement.

- Solicitation of Potential Suppliers: In accordance with the Management Measures for Central and Joint Procurement of Project Materials of CR Gas, the announcement of the solicitation of suppliers is published through the CR Gas Shouzheng Platform(守正平台)and the Company's website;



- 資格預審：細化對供應商基本信息的審核要求，明確供應商關聯企業的認定標準。同時，公司延續並深化ESG（環境、社會和治理）考量機制，對持有質量管理體系ISO 9001、環境管理體系ISO 14001以及職業健康安全管理体系ISO 45001認證的供應商給予額外加分，並優先建立合作關係；
- 現場考察：執行《供應商現場考察廉潔守則》，對供應商開展現場資質考核，查驗供應商的生產設備、原材料、產品和服務情況等，並評估供應商的生產環境、員工安全管理制度及工作環境；
- 綜合評審及結果公示：通過綜合評審結果，篩選出優秀供應商列入合格供應商名冊進行公示。

2024年，華潤燃氣共對15類工程物資實施集中聯合採購，按照責任採購標準篩選，共入圍供應商32家，全部通過質量、環境和職業健康安全管理体系認證。

➤ 供應商考核評價

華潤燃氣針對不同供應商類型，編制了對應的供應商履約評價表，通過日常評價與年度評價相結合的方式，定期對供應商進行全方位考核，切實監督和評估其產品與服務質量：

- 年度採購項目根據採購項目性質及規模按照季度、半年度或年度定期開展評價，每年不少於一次；

- Preliminary Qualification Review: CR Gas has refined the review requirements for suppliers' basic information and clarified the certification standards for suppliers' affiliated companies. In the meantime, the Company continues and deepens the ESG (environmental, social and governance) consideration mechanism by awarding additional points to suppliers with ISO 9001 quality control system, ISO 14001 environmental management system and ISO 45001 occupational health and safety management system certification, and prioritizing the establishment of cooperative relationships with those suppliers;
- On-site Inspection: CR Gas has implemented the Integrity Code for On-Site Inspection of Suppliers, conducted on-site qualification assessments on suppliers, checked suppliers' production equipments, raw materials, products and services, and evaluated suppliers' production environment, employee safety management policy and working environment;
- Comprehensive Review and Result Announcement: Based on the comprehensive review results, excellent suppliers are selected and included in the list of qualified suppliers for public announcement.

In 2024, CR Gas carried out central and joint procurement for 15 categories of project materials and selected them according to the responsible procurement standards. A total of 32 suppliers were shortlisted, all of which passed the quality, environment and occupational health and safety management system certification.

➤ Supplier Assessment and Evaluation

CR Gas has compiled corresponding supplier performance evaluation forms for different types of suppliers. By combining daily evaluation with annual evaluation, CR Gas regularly conducts all-round assessments of suppliers to pragmatically monitor and evaluate the quality of their products and services:

- Annual procurement projects are evaluated regularly on a quarterly, semi-annual or annual basis, depending on the nature and scale of the procurement projects, and no less than once a year;



— 在完成日常評價的基礎上，每年對供應商開展一次年度考核評價，年度考核評價以定期評價、訂單評價結果作為支撐；

— 考評維度包括信用、質量、交付、服務等。依據《華潤燃氣控股有限公司供應商管理辦法》，針對考核評價得分85分以下的供應商，制定相應的處罰或整改措施；考核評價得分60分以下的供應商，列入黑名單供應商管理。

在物資供應商集中採購評選入圍過程中，華潤燃氣將環保管理作為核心考察維度，並將供應商的環境管理體系納入評分體系。在供應商現場考評環節，公司重點評估倉庫環境、倉儲智能化水平、生產環境及實驗室環境等關鍵指標，確保供應商在環保領域的合規性與先進性。同時，華潤燃氣在一級採購管理制度中明確倡導區域公司將綠色、低碳、環保理念融入採購活動，全面推行綠色採購，以實際行動踐行可持續發展戰略。

— On the basis of the completion of the daily evaluation, annual evaluation is carried out for suppliers once a year, which is supported by the results of regular evaluation and order evaluation;

— The assessment dimensions include credit, quality, delivery, service, etc. According to the Supplier Management Measures of China Resources Gas Group Limited, suppliers with assessment scores below 85 points will be subject to appropriate penalties or corrective measures; suppliers with assessment scores below 60 points will be included in the supplier blacklist.

In the process of shortlisting suppliers for central procurement, CR Gas took environmental management as the core inspection dimension and included the suppliers' environmental management system into the scoring system. During the on-site supplier assessment, the Company focused on evaluating key indicators such as warehouse environment, storage intelligence level, production environment and laboratory environment to ensure the compliance and advancement of suppliers in the field of environmental protection. Meanwhile, CR Gas has clearly advocated in its first-level procurement management policy that regional companies should integrate green, low-carbon and environmental protection concepts into procurement activities and fully promote green procurement to realize the sustainable development strategy with practical actions.

區域供應商數據 Regional Supplier Data			
地區	Region	單位 Unit	數目 Number
東北大區	Northeast China area	家 supplier	7
冀蒙大區	Hebei & Inner Mongolia area	家 supplier	22
青海大區	Qinghai area	家 supplier	0
晉陝大區	Shanxi & Shaanxi area	家 supplier	4
河南大區	Henan area	家 supplier	7
山東大區	Shandong area	家 supplier	20
江蘇大區	Jiangsu area	家 supplier	27
湖北大區	Hubei area	家 supplier	1
安徽大區	Anhui area	家 supplier	2



區域供應商數據 Regional Supplier Data			
地區	Region	單位 Unit	數目 Number
四川大區	Sichuan area	家 supplier	17
湖南大區	Hunan area	家 supplier	2
江西大區	Jiangxi area	家 supplier	0
浙江大區	Zhejiang area	家 supplier	42
福建大區	Fujian area	家 supplier	0
雲貴大區	Yunnan & Guizhou area	家 supplier	0
粵桂大區	Guangdong & Guangxi area	家 supplier	13
重慶燃氣	Chongqing Gas	家 supplier	5
天津公司	Tianjin Gas	家 supplier	4
供貨商總數	Total number of suppliers	家 supplier	173

供應鏈風險管理

➤ 供應商失信行為管理

華潤燃氣制定並全面推行《供應商失信行為處置標準及工作流程》，與所有集中採購入圍供應商簽訂協議，進一步規範供應商失信行為的管理機制，強化供應鏈的誠信體系建設，為高質量合作提供堅實保障。2024年，我們完成與188家集中／聯合採購供應商的《失信行為處置協議》專項簽約。

- 華潤燃氣和華潤集團公司分別設定黑名單，對供應商失信行為持「零容忍」態度，一旦供應商失信行為觸發聯合懲戒的標準，會被列入華潤集團黑名單，在整個集團進行聯合懲戒；

Supply Chain Risk Management

➤ Supplier Dishonest Conduct Management

CR Gas has formulated and fully implemented the Standard and Procedures for Handling Supplier Dishonest Conduct, signed agreements with all shortlisted suppliers of central procurements, further standardized the management mechanism of suppliers' dishonest conduct and improved the build-up of credit system in the supply chain to ensure strong support for high-quality cooperation. In 2024, we completed the specialized contract signing of the Agreement on Handling Dishonest Conduct with 188 central/joint procurement suppliers.

- CR Gas and companies of CRH (China Resources (Holdings) Company Limited) have set up blacklists respectively and held a "zero tolerance" attitude towards suppliers' dishonest conduct. Once a supplier's dishonest conduct meets the criteria for joint disciplinary action, it will be included in the blacklist of China Resources Group and will be subject to joint disciplinary action in the entire Group;



- 各區域公司定期向總部報送黑名單供應商信息，對認定的失信供應商在集團內通報，並通過守正平台進行對外公示；

- 區域公司對《合格供應商名冊》實施動態管理，對考核評價不合格或存在失信行為的供應商，在暫停合作期限內剔除出合格供應商庫。

➤ 第三方送檢

2024年，共對50類集中聯合採購物資開展第三方送檢，重要物資類別送檢覆蓋率100%，已取得159份檢測報告，合格率97.5%。

➤ 反腐倡廉

華潤燃氣積極響應集團戰略部署，全面優化供應鏈廉潔合規管理體系。根據華潤集團採購制度要求，將原有《陽光宣言》正式升級為《廉潔合規承諾書》，同步完善合規條款並擴大簽署範圍，在境內外採購活動中實施差異化規範管理，即境內所有供應商及承包商須在簽訂合同時同步簽署新版承諾書；境外業務則延續既有制度框架，實現全球供應鏈的合規統一與高效管理。

➤ 應急預案

- 降低單一來源：為保證供應鏈供貨的安全和穩定，在供應商入圍階段增加全國各地的供應商數量，以確保供貨的多樣性和穩定性。

- Each regional company would regularly submit information on blacklisted suppliers to the headquarters, and notify the identified suppliers with a history of dishonest conduct within the Group and make public announcements through the Shouzheng Platform;

- Regional companies implemented dynamic management on the Qualified Supplier List and removed suppliers that failed the assessment or engaged in dishonest conduct from the qualified supplier database during the suspended cooperation period.

➤ Third-party Inspection

In 2024, a total of 50 types of centrally and jointly procured materials were sent for inspection by third-parties, with a 100% inspection coverage rate for important materials categories. 159 test reports have been obtained, with a pass rate of 97.5%.

➤ Anti-corruption

CR Gas actively responded to the Group's strategic deployment and comprehensively optimized the integrity and compliance management system of the supply chain. In accordance with the requirements of the procurement policy of China Resources Group, the original Transparency Declaration was officially upgraded to the Integrity and Compliance Commitment, and the compliance clauses were simultaneously improved and the scope of signing was expanded. Differentiated standardized management was implemented in domestic and overseas procurement, that is, all domestic suppliers and contractors were required to sign the new version of the commitment while signing the contract. For overseas business, the existing institutional framework was maintained to achieve unified compliance and efficient management of the global supply chain.

➤ Emergency Plans

- Reducing Single Source: To ensure the security and stability of supply chain delivery, the number of suppliers from all over the country is increased at the supplier shortlisting stage to ensure diversity and stability of supply.



- 保障物資庫存：要求區域公司保持合理的物資庫存，構建物資管理系統，支持區域公司間物資調撥，增強供應鏈應急能力。

供應商培訓及溝通

華潤燃氣持續深化供應商培訓與溝通機制，通過工程類範本合同明確要求承包人對施工人員進行質量教育和技術培訓，定期考核勞動技能，並嚴格執行施工規範和操作規程。同時，華潤燃氣明確規定承包人須依法設立勞務用工工資專用賬戶，專項用於支付勞務用工工資，切實保障勞務用工合法權益。

針對外包的安檢、抄表等崗位人員，公司要求其上崗前必須取得相應資格證書，包括政府考證類崗位證書及華潤燃氣認證類證書，確保人員具備崗位所需的專業技能，為高質量服務提供堅實保障。

此外，華潤燃氣定期組織區域公司開展供應商滿意度調查，系統收集供應商的改善建議並及時反饋，激勵供應商持續優化產品與服務質量。2024年，供應商滿意度調查共回收3,772份有效問卷，覆蓋79家區域公司，其中供應商服務評價為滿意及以上的比例達99.35%。

- Maintaining Material Inventory: Regional companies are required to maintain a reasonable material inventory, build a material management system and support material transfer among regional companies to enhance the emergency response capability of the supply chain.

Supplier Training and Communication

CR Gas continues to deepen its supplier training and communication mechanism. Model engineering contracts clearly requires that contractors should provide quality education and technical training for construction personnel, conduct regular examinations of labor skills, and strictly comply with construction specifications and operating procedures. Moreover, CR Gas clearly stipulates that contractors should set up special accounts for the wages of workers in accordance with the law, specifically for the payment of wages of workers, so as to pragmatically protect their legitimate rights and interest.

For outsourced personnel in security inspection, meter reading and others, the Company requires them to obtain corresponding qualification certificates before taking up the posts, including the government examination type of qualification certificates and CR Gas certificates, to ensure that personnel have the professional skills required for their positions and provide a solid foundation for high-quality services.

In addition, CR Gas regularly organizes regional companies to carry out supplier satisfaction surveys to systematically collect improvement suggestions of suppliers and provide timely feedback, so as to motivate suppliers to continuously optimize the quality of their products and services. In 2024, a total of 3,772 valid questionnaires were collected from the supplier satisfaction surveys, covering 79 regional companies, of which 99.35% rated the services of suppliers as satisfactory or above.

關鍵績效指標

Key Performance Indicators

- 報告期內，公司按照責任採購標準篩選的現有供應商佔公司供應商總數比例為100%。
- During the reporting period, the proportion of existing suppliers selected by the Company in accordance with the responsible procurement standards to the total number of suppliers of the Company was 100%.
- 報告期內，公司確定的供應鏈環節中具有重大風險與影響的事件數量為0。
- During the reporting period, the Company identified 0 incident with significant risks or impacts in its supply chain links.



加強戰略合作

華潤燃氣深知合作的力量，2024年繼續深化與政府、同行、科研機構及供應商的緊密合作，在綜合能源項目合作、數字化轉型合作等領域取得了顯著進展，進一步提升了企業的核心競爭力。

綜合能源項目合作

2024年，華潤燃氣制定《華潤燃氣「兩佈一充」設計運營標準》，繼續聚焦「兩佈一充」綜合能源賽道，充分挖掘經營區域內規模龐大的工商業用戶用能需求，擇優選取分佈式光伏、分佈式能源和交通充能的業務賽道，為不同用戶提供多種類型的清潔能源解決方案。

Strengthening Strategic Collaboration

Well aware of the power of cooperation, in 2024, CR Gas continued to deepen its close cooperation with the government, peers, scientific research institutes and suppliers, and made remarkable progress in areas such as integrated energy project cooperation and digital transformation cooperation, further enhancing the core competitiveness of the Group.

Integrated Energy Project Cooperation

In 2024, CR Gas formulated the Design and Operation Standards for Distributed Photovoltaic, Distributed Energy and Transport Charging of CR Gas, and continued to focus on the integrated energy business of distributed photovoltaic, distributed energy and transport charging, fully exploring the energy demand of large-scale industrial and commercial users in the operational region, and selecting the best distributed photovoltaic, distributed energy and transportation charging business to provide various types of clean energy solutions for different users.



案例：國內首座公交主題「光儲充服」一體化綜合站——卡子門公交充電驛站台 Case Study: Kazimen Bus Charging Station – the First Integrated Bus Station with “Photovoltaic, Storage, Charging and Services” in China

2024年9月，南京區域公司與南京公交合作，將原60路公交站點改造成為國內首座公交主題「光儲充服」一體化綜合站——卡子門公交充電驛站，實現了綜合能源與綜合服務業務的有機融合。該驛站集光伏發電、儲能利用、汽車充電和綜合服務於一體，不僅為新能源汽車提供充電服務，還通過光伏雨棚和儲能櫃實現綠電供應，同時設有便民驛站和餐飲服務，為市民提供便捷、舒適的服務體驗，是城市公交賦能新能源的創新應用。

In September 2024, Nanjing regional company cooperated with Nanjing Public Transportation (Group) Co., Ltd. to transform the original No. 60 bus stop into the first integrated bus station with “photovoltaic, storage, charging and services” in China – Kazimen Bus Charging Station, thus realizing the organic integration of integrated energy and integrated service business. The station sets photovoltaic power generation, energy storage utilization, vehicle charging and integrated services in one. It not only provides charging services for the new energy vehicles, but also supplies green power through photovoltaic awnings and energy storage cabinets. Moreover, there are also convenience stations and catering services to provide citizens with convenient and comfortable service experience. This represents an innovative application of new energy empowerment in urban public transportation.



圖：卡子門公交充電驛站台
Picture: Kazimen Bus Charging Station

數字化轉型合作

華潤燃氣積極投身於企業數字化轉型進程，致力於成為綜合能源服務領域的領軍者。我們通過開展跨行業合作，實現了資源互通共享與優勢互補，推動了綜合能源的數字化與智能化發展，助力行業轉型升級，為區域經濟增長注入新動能。

Digital Transformation Collaboration

CR Gas is proactively engaged in corporate digital transformation and is committed to becoming a leader in the field of integrated energy services. Through cross-industry cooperation, we have realized the exchange and sharing of resources and mutual complementary advantages, promoted the digital and intelligent development of integrated energy, facilitated industrial transformation and upgrading, and injected new impetus into regional economic growth.



案例：工商用戶綜合服務數字化創新應用研究

Case Study: Research on Digital and Innovative Application of Integrated Services for Industrial and Commercial Users

南京區域公司與南京大學合作開展「工商用戶綜合服務數字化創新應用研究」項目，旨在通過數字化轉型推動業務模式創新，提升企業核心競爭力。項目包含兩個主要內容：一是工商用戶綜合服務數字化創新研究，通過系統性研究和實地調研，構建用戶畫像和標籤體系，設計創新商業模式，形成待解決問題清單並進行算法模型選型；二是數字化賦能的綜合服務創新實施與深化，設計能力提升課程，選拔標桿管理者和燃氣管家分享經驗，優化數字化工具使用，構建網格化自驅管理機制，塑造自驅型先鋒團隊。

Nanjing regional company and Nanjing University jointly launched a project on “Research on Digital and Innovative Application of Integrated Services for Industrial and Commercial Users”, aiming to promote the innovation of business model and enhance corporate core competitiveness through digital transformation. The project includes two main contents: one is the research on digital innovation of integrated services for industrial and commercial users. Through systematic research and on-site investigation, user portrait and labeling system will be built, innovative business models will be designed, a list of problems to be solved will be formed, and algorithm models will be selected; the other is the innovative implementation and deepening of integrated service empowered by digitalization, including designing capacity improvement courses, selecting benchmark managers and Gas Butlers to share experiences, optimizing the use of digital tools, building a grid-based self-driven management mechanism, and shaping a self-driven pioneer team.



圖：與南京大學開展數字化綜合服務決策系統項目

Picture: We Launched a Digital Integrated Service Decision-Making System Project with Nanjing University



產學研合作

華潤燃氣積極推動產學研合作，攜手高校及專業機構，提升燃氣行業人才的科研能力。公司聚焦智慧能源管理平台開發、新能源業務拓展、高效節能設備研究及碳捕集與利用技術等前沿領域，支持科研人員開展創新性研究，為行業核心技術突破注入活力。同時，華潤燃氣深化校企合作，為高校人才提供實習、實踐與就業機會，開創校企協同發展新局面。

Industry-University-Research Collaboration

CR Gas vigorously boosted industry-university-research cooperation and worked with universities and professional institutions to enhance the scientific research capabilities of talents in the gas industry. The Company focused on cutting-edge fields such as the development of intelligent energy management platform, expansion of new energy business, research on high-efficiency energy-saving equipment as well as carbon capture, collection and usage technology, supported scientific researchers to carry out innovative research, and injected vitality into breakthroughs of core technologies in the industry. Meanwhile, CR Gas deepened its cooperation with universities, provided internship, practice and employment opportunities for talents in colleges and universities, and brought a new phase in the coordinated development of universities and enterprises.

案例：城鎮燃氣管道甲烷排放測算及減排效益評估

Case Study: Measurement of Methane Emissions from Urban Gas Pipelines and Assessment of Emission Reduction Benefits

沈陽華潤燃氣與哈爾濱工業大學合作開展「城鎮燃氣管道甲烷排放測算及減排效益評估」項目，重點對燃氣廠站、管道等設備設施進行甲烷逸散檢測，通過定位關鍵排放源，明確活動水平和計算排放因子，研究各環節甲烷逸散量，分析重點減排環節，評估減排潛力和計算減排效益，為城鎮燃氣行業的甲烷減排提供科學依據和技術支持。

Shuyang CR Gas and Harbin Institute of Technology jointly launched a project on "Measurement of Methane Emissions from Urban Gas Pipelines and Assessment of Emission Reduction Benefits", focusing on methane escape detection on equipment and facilities such as gas plants and pipelines. The project aimed to provide scientific basis and technical support for methane emission reduction in urban gas industry by locating the key sources of emissions, identifying activity levels and calculating emission factors, examining the amount of methane escape from various segments, analyzing the key emission reduction areas, assessing emission reduction potentials and quantifying emission reduction benefits.



圖：與哈爾濱工業大學合作開展甲烷排放測算及減排效益評估項目

Picture: We Launched a Project on "Measurement of Methane Emissions and Assessment of Emission Reduction Benefits" with Harbin Institute of Technology



推動行業發展

華潤燃氣深知行業的持續創新與進步是滿足客戶需求、提供優質能源服務的關鍵。集團積極與各方合作，推動產業鏈協同發展，致力於行業的健康發展與規範化進程，旨在提升整個行業的競爭力與可持續發展能力。

在標準制定領域，華潤燃氣作為參編單位，投身於《城鎮燃氣輸配工程施工及驗收標準》(GB/T 51455-2023)、《城鎮燃氣系統反恐怖防範要求》(GA 1810-2022)以及《城鎮燃氣經營安全重大隱患判定標準》等多項國家標準規範的編制工作。同時華潤燃氣勇挑重擔，承接住建部《燃氣經營企業從業人員專業培訓考核管理辦法修訂研究》以及應急部《瓶裝燃氣企業安全風險防控手冊》的編制任務。此外，我們主筆起草《全國城市燃氣管道安全專項治理行動方案》和《防範第三方施工破壞燃氣管道管理辦法》兩項國家政策文件，為推動行業安全管理的規範化發展添磚加瓦。

Boosting the Development of the Industry

CR Gas is well aware that continuous innovation and progress in the industry are the key to meeting customers' needs and providing high-quality energy services. The Group proactively cooperates with various parties to promote the coordinated development of the industrial chain and is committed to the sound development and standardization of the industry, with the aim of enhancing the competitiveness and sustainable development capability of the entire industry.

In terms of standard formulation, CR Gas, as a participating company, has been involved in the formulation of a number of national standards and specifications, including Construction and Acceptance Standards for Urban Gas Transmission and Distribution Projects (GB/T 51455-2023), Requirements for Counter-terrorism of City Gas Industry (GA 1810-2022), and Standards for Determination of Significant Hidden Hazards of Safety in City Gas Operations. Meanwhile, CR Gas has taken on heavy responsibilities to undertake the compilation of Study on the Revision of the Management Measures for Professional Training and Assessment of Employees of Gas Enterprises from the Ministry of Housing and Urban-Rural Development and the Handbook on Safety Risk Prevention and Control for Bottled Gas Enterprises from the Ministry of Emergency Management. In addition, we have drafted two national policy documents, namely the National Special Action Plan for Safety Control of Urban Gas Pipelines and the Management Measures to Prevent Gas Pipeline Damage by Third-Party Construction, which has contributed to the standardization of the industry's safety management.



6.2 服務國計民生

響應區域性發展戰略

華潤燃氣緊密圍繞國家重大區域發展戰略，在東三省、京津冀、長三角、粵港澳大灣區、成渝雙城經濟圈等重點區域深化佈局，為區域經濟高質量發展注入綠色動能，多維度推動高質量發展。2024年，集團堅持「用重兵、全方位、大掃蕩、只爭朝夕」投資方針不動搖，聚焦重大項目落地，重點聚焦長三角、成渝地區及大灣區等戰略區域。

推動天然氣體制改革

華潤燃氣積極響應國家天然氣體制改革的號召，深度參與市場化改革進程，持續推進「煤改氣」「油改氣」「瓶改管」等工程，推動「一城一網」整合及區域化協同發展。2024年，集團在多個地區推動了燃氣市場區域化整合，通過併購優質城燃企業，擴大了區域覆蓋率，形成了集群效應。

2023年，華潤燃氣成功與中國石油天然氣集團有限公司簽訂十年長期協議。2024年長協氣量達到19億立方米。此外，公司大力推進天然氣儲氣設施建設，採用自建與租賃相結合的方式，在省內運營多座LNG儲罐，顯著提升應急調峰能力，為社會經濟的平穩健康發展提供了強有力的能源支撐。

6.2 CONTRIBUTING TO NATIONAL AND PUBLIC WELL-BEING

Responding to Regional Development Strategies

CR Gas closely focuses on the country's major regional development strategies, deepening its layout in key regions such as Three northeastern provinces, Beijing-Tianjin-Hebei region, the Yangtze River Delta, Guangdong-Hong Kong-Macao Greater Bay Area, and Chengdu-Chongqing Economic Circle, injecting green momentum into the high-quality development of the regional economy, and promoting high-quality development in multiple dimensions. In 2024, CR Gas unwaveringly adhered to the investment strategy aimed at building a strong team, working in an all-round way, carrying out large-scale operation and seizing every minute, focusing on the implementation of major projects, especially strategic regions such as the Yangtze River Delta, Chengdu-Chongqing region and Greater Bay Area.

Advancing Natural Gas System Reform

CR Gas has actively responded to the call for national natural gas system reform, deeply participated in the process of market-oriented reform, continued to promote projects such as "coal-to-gas conversion", "oil-to-gas conversion", and "bottled-to-piped-gas conversion", and advanced the integration of "one city, one grid" and regional coordinated development. In 2024, the Group promoted regional integration of the gas market in various regions, expanded its regional coverage and formed a cluster effect by acquiring high-quality urban gas companies.

In 2023, CR Gas successfully signed a ten-year long-term contract with China National Petroleum Corporation. The gas volume of the long-term contract in 2024 reached 1.9 billion cubic meters. In addition, the Company has vigorously boosted the build-up of natural gas storage facilities, adopting a combination of self-construction and leasing to operate a number of LNG storage tanks in the province, which has significantly improved its emergency peak-shaving capabilities and provided strong energy support for the stable and healthy development of society and economy.



促進民生關懷

華潤燃氣積極踐行央企社會責任，深入貫徹國家戰略，踴躍參與社會公益、鄉村振興和社區建設。2024年，公司修訂了《華潤燃氣權責運行手冊》，並制定《華潤燃氣對外捐贈管理辦法》，以規範和指導愛心幫扶活動，持續推動社會進步，彰顯企業責任與價值。截止至2024年12月31日，集團累計公益志願服務人次74,130次，公益志願服務時長160,947小時，對外捐贈金額達283.21萬港元。

華潤燃氣積極響應國家鄉村振興戰略，採取多種措施助力鄉村發展。公司組織工會會員通過「圳幫扶」「央企消費扶貧」等APP平台購買扶貧產品，以實際行動支持貧困地區經濟發展。2024年，公司累計購買農產品14,222港元，幫助當地農民增加收入，改善生活條件。

- 青海省平安公司投入10,502.4萬港元實施「送氣接污」項目，完成78公里燃氣管網建設、40個農村的燃氣入戶工程，有效提升農村地區的用氣條件和生活質量
- 青海省格爾木公司推進「農村清潔能源取暖改造項目」，為農村用戶提供穩定的天然氣供應，助力清潔能源取暖。

Caring for People's Livelihood

CR Gas has actively fulfilled its social responsibility as a central state-owned enterprise, deeply implemented national strategies, and proactively participated in charity undertakings, rural revitalization and community development. In 2024, the Company revised the Operation Manual for Powers and Responsibilities of CR Gas and established the Management Measures for External Donations of CR Gas to regulate and guide charity undertakings, continuously promote social progress, and demonstrate corporate responsibility and value. As of December 31, 2024, the Group's cumulative volunteer services attendances reached 74,130, with a total of 160,947 volunteer hours and external donations amounting to HK\$2,832,100.

CR Gas has actively responded to the national rural revitalization strategy by adopting a variety of measures to facilitate rural development. The Company organized trade union members to purchase poverty alleviation products through APP platforms such as "Shenzhen Support Initiative" and "Poverty Alleviation Through Consumption by SOEs" to support the economic development of poverty-stricken areas with practical actions. In 2024, the Company purchased a total of HK\$14,222 of agricultural products, helping local farmers increase their income and improve their living conditions.

- Qinghai Ping'an Company invested HK\$105,024,000 to implement the project of "natural gas access and sewage pipeline laying", completed the construction of 78 kilometers of gas pipelines and 40 rural gas access projects, effectively improving the gas consumption conditions and quality of life in rural areas.
- The Golmud Company of Qinghai Province promoted the "Rural Clean Energy Heating Upgrade Project" to provide rural users with a stable supply of natural gas and facilitate heating with clean energy.

關鍵績效指標

Key Performance Indicators

- 累計公益志願服務74,130人次，公益志願服務時長160,947小時，對外捐贈金額達283.21萬港元。
- The cumulative volunteer services attendances reached 74,130, with a total of 160,947 volunteer hours and external donations amounting to HK\$2,832,100.
- 開展老舊管道改造，累計投資金額逾150億元，完成老舊管道改造近1.5萬公里，其中2024年累計投資21.85億元，改造2,200公里。
- The renovation of old pipelines was carried out with a cumulative investment of more than 15 billion, and the renovation of nearly 15,000 kilometers of old pipelines was completed, of which a cumulative investment of 2.185 billion was invested in 2024 to renovate 2,200 kilometers of old pipelines.



案例：無錫華潤燃氣居民用戶「瓶改管」進度表拉滿 Case Study: Successful Implementation of the “Bottled-to-Piped-Gas Conversion” of Wuxi CR Gas for Residential Users

無錫市政府「瓶改管」民生工程通過政府全面主導、社區重點推進、燃氣公司具體實施、居民全面配合的模式，將源源不斷的「安全氣」「放心氣」送到千家萬戶。此次改造涉及6個自然村、25個小區、525戶居民。

在改造過程中，社區和燃氣公司克服了地下管網複雜、架空管走線受阻等難題。社區安排了5個工作組，分片管理、責任到人，逐一解決障礙物和居民配合問題。在「瓶改管」這一項民生工程中，基層政府和無錫華潤燃氣的工作人員們共同努力、同進退，充分發揮了傾聽民聲、凝聚民慧、協調民利、共謀民福的職能和業務作用，保障了「瓶改管」工作順利實施，織密錫城安全之網，共築家園和諧防線。

With the mode of overall leadership by the government, key promotion by the community, concrete implementation by the gas company, and full cooperation of the residents, the “bottled-to-piped-gas conversion” livelihood project of Wuxi Municipal Government has delivered a steady flow of “safe gas” and “reliable gas” to thousands of households. The transformation involved 6 natural villages, 25 communities and 525 households.

During the transformation, the community and gas company overcame many problems such as the complicated underground pipe network and the obstruction of overhead pipe routes. The community has arranged five working groups to make sub-section management and assign responsibilities to individuals to solve the obstacles and the problems of residents' co-operation one by one. In the livelihood project of “bottled-to-piped-gas conversion”, the basic-level government and the staffs of Wuxi CR Gas have made joint efforts and shared the progress together, giving full play to their functions and business roles of listening to the people's voices, gathering their wisdom, coordinating their interests, and working together for the well-being of the people. This has ensured the smooth implementation of the “bottled-to-piped-gas conversion”, weaving a tight safety net in Wuxi and building a harmonious defense line for the family.



圖：保障農村及邊遠地區用氣

Picture: Guaranteeing Gas Consumption in Rural and Remote Areas



附錄
Appendix

可持續發展指標

SUSTAINABILITY INDICATORS

環境績效

ENVIRONMENTAL PERFORMANCE

指標	Index	單位 Unit	2024	2023	2022
綜合績效指標 Overall performance indicator					
環保總投入	Total environmental investment	萬港元 HK\$'0,000	5,661.47	4,512.08	4,479.84
節能減排技術改進投入	Investment in technological upgrade for energy saving and emission reduction	萬港元 HK\$'0,000	4,726.17	4,377.16	4,243.87
環保培訓參與人次	Participants of environmental protection training	人次 Attendance	262,673	221,597	201,625
環保培訓總時長	Total hours of environmental protection training	小時 Hour	429,736	367,789	354,579
環保培訓總投入	Total investment in environmental protection training	萬港元 HK\$'0,000	310.25	200.83	182.07
新建項目執行環境和社會影響評估的比率	Ratio of new construction projects conducting environmental and social impact assessment	百分比 %	100	100	100



指標	Index	單位 Unit	2024	2023	2022
A1.1：排放物種類及相關排放數據 Types of emissions and respective emissions data					
硫氧化物排放總量	Total sulphur oxides emissions	千克 kg	105.99	93.75	89.99
A1.2：直接（範圍1）及能源間接（範圍2）溫室氣體排放量 Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions					
溫室氣體排放總量 ¹	Total greenhouse gas emissions ¹	噸二氧化碳當量 tonnes CO ₂ e	129,354.76	145,054.83	140,442.60
溫室氣體直接排放量 （範圍一） ²	Direct greenhouse gas emissions (scope 1) ²	噸二氧化碳當量 tonnes CO ₂ e	38,714.51	36,151.60	35,559.80
溫室氣體間接排放量 （範圍二） ³	Indirect greenhouse gas emissions (scope 2) ³	噸二氧化碳當量 tonnes CO ₂ e	90,640.25	108,903.23	104,882.75
溫室氣體排放密度	Greenhouse gas emission density	噸二氧化碳當量／ 萬港元營業額 tonnes CO ₂ e/revenue of HK\$'0,000	0.0126	0.0143	0.0149

註：

Note:

1. 參考國家發改委委託國家應對氣候變化戰略研究和國際合作中心編制的《工業其他行業企業溫室氣體排放核算方法與報告指南》（試行）和《中國石油和天然氣生產企業溫室氣體排放核算方法與報告指南》（試行）對華潤燃氣2024年度溫室氣體排放進行核算。
1. The greenhouse gas emissions of CR Gas in 2024 were calculated with reference to the Accounting Method and Reporting Guide for Greenhouse Gas Emissions from Industry and Other Sectors (for Trial Implementation) and the Accounting Method and Reporting Guide for Greenhouse Gas Emissions from Chinese Petroleum and Natural Gas Production Enterprises (for trial implementation) prepared by the National Climate Change Strategy Research and International Cooperation Center under the engagement of the National Development and Reform Commission.
2. 溫室氣體範圍一排放量，根據汽柴油，天然氣總消耗量進行計算，相關排放因子來自《中國石油和天然氣生產企業溫室氣體排放核算方法與報告指南》（試行）中「常見化石燃料特性參數缺省值」附錄。
2. Scope 1 emissions of greenhouse gases were calculated based on the total consumption of gasoline, diesel and natural gas, and the relevant emission factors were derived from the Appendix "Default Values of Special Parameters of Common Fossil Fuel" of the Accounting Method and Reporting Guide for Greenhouse Gas Emissions from Chinese Petroleum and Natural Gas Production Enterprises (for trial implementation).
3. 溫室氣體範圍二排放量，外購電力的排放因子選取自生態環境部與國家統計局聯合牽頭建設的「國家溫室氣體排放因子數據庫」第一版中的「全國電力平均二氧化碳排放因子」，即0.5366kg CO₂/kWh。
3. For scope 2 emissions of greenhouse gases, the emission factor of purchased electricity is selected from the "National Power Average Carbon Dioxide Emission Factor", being 0.5366kg CO₂/kWh, sets out in the initial version of the Database of National Greenhouse Gas Emission Factor jointly led and built by Ministry of Ecology and Environment and the National Bureau of Statistics.
4. 2024年公司調整大區設置，以新的管控模式劃分16個大區，重慶燃氣集團股份有限公司、津燃華潤燃氣有限公司作為大區管理。公司按照最新口徑，對2023年按地區劃分的僱員人數進行重述。
4. In 2024, the Company adjusted the regional setup and divided into 16 regions under a new management and control model, with Chongqing Gas Group Corporation Ltd. and Jinran China Resources Gas Co., Ltd being managed as regions. The company has restated its 2023 employee headcount by geographical region in accordance with the updated scope.
5. 2024年公司因大區調整，重新確認供應商數據統計口徑為物資類集採供應商數目，並對2022、2023年相應數據進行了重述。
5. In 2024, due to regional restructuring, the company redefined its supplier data reporting standards to focus on the number of centralized procurement suppliers for material categories, and accordingly restated the corresponding data for 2022 and 2023.



指標	Index	單位 Unit	2024	2023	2022
A1.3：有害廢棄物總量及密度 Total hazardous waste produced and intensity					
有害廢棄物排放總量	Total hazardous waste produced	噸 tonnes	9.24	10.68	10.77
有害廢棄物產生密度	Intensity of hazardous waste produced	噸／億港元營收 tonnes/revenue of HK\$'00 million	0.009	0.0105	0.0114
A1.4：無害廢棄物總量及密度 Total non-hazardous waste produced and intensity					
無害廢棄物排放總量	Total non-hazardous waste produced	噸 tonnes	142.40	172.30	183.12
無害廢棄物產生密度	Intensity of non-hazardous waste produced	噸／億港元營收 tonnes/revenue of HK\$'00 million	0.1387	0.1701	0.1941
A2.1：直接、間接能源總耗量及密度 Direct/indirect energy consumption and intensity					
綜合能源消耗折算標煤總量	Total overall energy consumption (converted to standard coal)	萬噸標煤 '0,000 tonnes of standard coal	4.22	4.3779	4.212
綜合能耗折算標煤密度	Overall energy consumption density (converted to standard coal)	萬噸標煤／ 億港元營業額 '0,000 tonnes of standard coal/ revenue of HK\$'00 million	0.0041	0.0043	0.0045
萬港元營業收入綜合能耗 (可比價)	Overall energy consumption per HK\$'0,000 revenue (at comparable price)	噸標煤／萬港元 tonnes of standard coal/HK\$'0,000	0.0042	0.0040	0.0036



指標	Index	單位 Unit	2024	2023	2022
萬港元增加值綜合能耗 (可比價)	Overall energy consumption per HK\$'0,000 value added (at comparable price)	噸標準煤／萬港元 tonnes of standard coal/HK\$'0,000	0.0239	0.0214	0.0183
柴油消耗量	Diesel consumption volume	噸 tonnes	1,074.87	776.50	874.36
柴油消耗量密度	Diesel consumption density	噸／億港元營業額 tonnes/revenue of HK'00 million	1.047	0.767	0.927
汽油消耗量	Gasoline consumption volume	噸 tonnes	4,344.38	3,933.93	3,721.25
汽油消耗量密度	Gasoline consumption density	噸／億港元營業額 tonnes/revenue of HK'00 million	4.231	3.885	3.945
天然氣消耗量	Natural gas consumption volume	萬標準立方米 '0,000 standard m ³	1,007.97	989.064	988.953
天然氣消耗量密度	Natural gas consumption density	萬標準立方米／ 億港元營業額 '0,000 standard m ³ / revenue of HK'00 million	0.982	0.977	1.048
外購電力消耗量	Externally purchased power consumption volume	萬千瓦時 '0,000 kWh	16,782.55	19,121.26	18,298.24
外購電力消耗密度	Externally purchased power consumption density	萬千瓦時／ 億港元營業額 '0,000 kWh/revenue of HK'00 million	16.345	18.881	19.397



指標	Index	單位 Unit	2024	2023	2022
A2.2：總耗水量及密度 Total water consumption and intensity					
水資源耗用量	Water consumption	噸 tonnes	763,644	1,492,407	1,531,400

用水強度	Water consumption intensity	萬噸標煤／ 萬港元營業額 '0,000 tonnes of standard coal/ revenue of HK\$'0,000	0.074	0.150	0.160
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A2.5：製成品所用包裝材料的總量 Total packaging material used for finished products

燃氣具包裝材料	Packaging materials of gas appliances	噸 tonnes	1,118.97	1,193.28	1,537.30
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社會績效**SOCIAL PERFORMANCE**

指標	Index	單位 Unit	2024	2023	2022
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安全培訓 Safety training

安全培訓投入	Safety training investment	萬港元 HK\$'0,000	4,120.77	3,850.27	3,320.20
安全培訓總時長	Total hours of safety training	小時 Hour	1,418,100	772,641	726,935
安全培訓參與人次	Participants of safety training	人次 Attendance	412,500	372,758	357,763
安全培訓覆蓋率	Coverage of safety training	百分比 %	100	100	100
安全應急演練次數	Number of safety emergency response drills conducted	次 Number of times	5,134	4,817	4,508

安全生產 Safe production

安全生產投入	Safe production investment	萬港元 HK\$'0,000	113,477	101,403	94,515
安全生產事故數	Number of safe production accidents	次 Number of times	0	0	0

B1.1：按性別、僱傭類型、年齡組別及地區劃分的僱員總數 Total workforce by gender, employment type, age group and geographical region

員工總人數	Total number of employees	人 Person	57,522	58,608	56,114
按性別劃分的僱員總數 Total workforce by gender					
女性員工人數	Number of female employees	人 Person	19,190	19,341	19,864
男性員工人數	Number of male employees	人 Person	38,332	39,267	36,250



指標	Index	單位 Unit	2024	2023	2022
按年齡劃分的僱員總數 Total workforce by age					
20-30歲員工人數	Number of employees aged 20-30	人 Person	8,235	7,468	8,032
31-40歲員工人數	Number of employees aged 31-40	人 Person	22,908	22,020	20,766
41-50歲員工人數	Number of employees aged 41-50	人 Person	16,756	17,500	16,409
>50歲員工人數	Number of employees aged > 50	人 Person	9,623	11,620	10,907
按受僱職級劃分的僱員總數 Total workforce by employment rank					
管理層員工人數	Number of management staff	人 Person	741	881	1,042
中層員工人數	Number of middle-level staff	人 Person	3,199	3,762	3,198
基層員工人數	Number of elementary staff	人 Person	53,582	53,965	51,874
按地區劃分的僱員總數⁴ Total workforce by geographical region⁴					
東北大區員工人數	Number of employees from Northeast China area	人 Person	3,740	3,994	–
冀蒙大區員工人數	Number of employees from Hebei & Inner Mongolia area	人 Person	3,216	3,397	–
青海大區員工人數	Number of employees from Qinghai area	人 Person	451	455	–
晉陝大區員工人數	Number of employees from Shanxi & Shaanxi area	人 Person	3,023	3,117	–
河南大區員工人數	Number of employees from Henan area	人 Person	4,767	4,841	–
山東大區員工人數	Number of employees from Shandong area	人 Person	4,246	4,321	–
江蘇大區員工人數	Number of employees from Jiangsu area	人 Person	4,806	4,901	–
湖北大區員工人數	Number of employees from Hubei area	人 Person	2,209	2,240	–
安徽大區員工人數	Number of employees from Anhui area	人 Person	2,661	2,705	–
四川大區員工人數	Number of employees from Sichuan area	人 Person	7,214	7,112	–
湖南大區員工人數	Number of employees from Hunan area	人 Person	1,291	1,297	–
江西大區員工人數	Number of employees from Jiangxi area	人 Person	2,102	2,105	–



指標	Index	單位 Unit	2024	2023	2022
浙江大區員工人數	Number of employees from Zhejiang area	人 Person	2,051	1,919	–
福建大區員工人數	Number of employees from Fujian area	人 Person	2,689	2,770	–
雲貴大區員工人數	Number of employees from Yunnan & Guizhou area	人 Person	990	1,020	–
粵桂大區員工人數	Number of employees from Guangdong & Guangxi area	人 Person	1,657	1,673	–
重慶燃氣員工人數	Number of employees from Chongqing Gas	人 Person	3,809	3,914	–
天津公司員工人數	Number of employees from Tianjin Gas	人 Person	4,796	5,046	–
其他大區員工人數 (包含工程設計大區、 產業公司等)員工人數	Number of employees from other areas (including Engineering Design Region, industrial companies, etc.)	人 Person	1,804	1,781	–
B1.2 : 按性別、年齡組別及地區劃分的僱員流失比率 Employee turnover rate by gender, age group and geographical region					
員工流失率	Employee turnover rate	百分比 %	1.94	1.87	3
按性別劃分的僱員流失比率 Employee turnover rate by gender					
男性員工流失率	Male employee turnover rate	百分比 %	1.89	1.74	3
女性員工流失率	Female employee turnover rate	百分比 %	2.05	2.13	2
按年齡劃分的僱員流失比率 Employee turnover rate by age					
20-30歲員工流失率	Turnover rate of employees aged 20-30	百分比 %	3.32	4.89	5
31-40歲員工流失率	Turnover rate of employees aged 31-40	百分比 %	1.64	1.81	2
41-50歲員工流失率	Turnover rate of employees aged 41-50	百分比 %	1.64	1.00	1
>50歲員工流失率	Turnover rate of employees aged > 50	百分比 %	2.03	1.35	1
按受僱職級劃分的員工流失比率 Employee turnover rate by employment rank					
管理層員工流失率	Turnover rate of management staff	百分比 %	0.01	0.45	0.38
中層員工流失率	Turnover rate of middle-level staff	百分比 %	0.01	0.45	1
基層員工流失率	Turnover rate of elementary staff	百分比 %	0.02	1.99	2



指標	Index	單位 Unit	2024	2023	2022
按地區劃分員工流失比率⁴ Employee turnover rate by geographical region⁴					
東北大區流失比率	Turnover rate of employees from Northeast China area	百分比 %	2.99	–	–
冀蒙大區流失比率	Turnover rate of employees from Hebei & Inner Mongolia area	百分比 %	1.52	–	–
青海大區流失比率	Turnover rate of employees from Qinghai area	百分比 %	7.32	–	–
晉陝大區流失比率	Turnover rate of employees from Shanxi & Shaanxi area	百分比 %	0.03	–	–
河南大區流失比率	Turnover rate of employees from Henan area	百分比 %	1.45	–	–
山東大區流失比率	Turnover rate of employees from Shandong area	百分比 %	0.14	–	–
江蘇大區流失比率	Turnover rate of employees from Jiangsu area	百分比 %	3.10	–	–
湖北大區流失比率	Turnover rate of employees from Hubei area	百分比 %	1.13	–	–
安徽大區流失比率	Turnover rate of employees from Anhui area	百分比 %	0.26	–	–
四川大區流失比率	Turnover rate of employees from Sichuan area	百分比 %	0.55	–	–
湖南大區流失比率	Turnover rate of employees from Hunan area	百分比 %	1.16	–	–
江西大區流失比率	Turnover rate of employees from Jiangxi area	百分比 %	2.85	–	–
浙江大區流失比率	Turnover rate of employees from Zhejiang area	百分比 %	2.68	–	–
福建大區流失比率	Turnover rate of employees from Fujian area	百分比 %	2.34	–	–
雲貴大區流失比率	Turnover rate of employees from Yunnan & Guizhou area	百分比 %	4.95	–	–
粵桂大區流失比率	Turnover rate of employees from Guangdong & Guangxi area	百分比 %	7.18	–	–
重慶燃氣流失比率	Turnover rate of employees from Chongqing Gas	百分比 %	0.95	–	–



指標	Index	單位 Unit	2024	2023	2022
天津公司流失比率	Turnover rate of employees from Tianjin Gas	百分比 %	0.40	–	–
其他大區流失比率 (包含工程設計大區、 產業公司等)	Turnover rate of employees from Other area (including Engineering Design area, industrial companies, etc.)	百分比 %	2.21	–	–
B2.1：過去三年（包括匯報年度）每年因工亡故的人數及比率 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year					
員工傷亡人數	Employee fatalities	人 Person	0	0	0
B2.2：因工傷損失工作日數 Lost days due to work injury					
因工傷損失工作日數	Work days lost due to injury	天 Day	0	0	0
損失工作日事故率(LTIFR)－ 員工	Lost time injury frequency rate (LTIFR)- Employee	百分比 %	0	0	0
損失工作日事故率(LTIFR)－ 承包商	Lost time injury frequency rate (LTIFR)- Contractor	百分比 %	0	0	0
B3.1：按性別及僱員類別（如高級管理層、中級管理層）劃分的受訓僱員百分比 The percentage of employees trained by gender and employee category (e.g. senior management, middle management)					
按性別劃分的受訓僱員百分比 The percentage of employees trained by gender					
男	Male	百分比 %	100	100	59
女	Female	百分比 %	100	100	59
按受僱職級劃分的受訓僱員百分比 The percentage of employees trained by employment rank					
管理層	Management staff	百分比 %	100	100	44
中層員工	Middle-level staff	百分比 %	100	100	69
基層員工	Elementary staff	百分比 %	100	100	59
B3.2：按性別及僱員類別劃分，每名僱員完成受訓的平均時數 The average training hours completed per employee by gender and employee category					
培訓總時數	Total hours of training	小時 Hour	821,031	774,265	524,086
人均培訓投入	Training investment per person	港元 HK\$	598.4	821.5	817.94
人均受訓時長	Training hours per person	小時 Hour	14.3	13.2	12.8
員工培訓覆蓋率	Employee training coverage	百分比 %	100	100	100
按性別劃分的人均受訓時數 Average training hours per person by gender					
男	Male	小時 Hour	14.27	14.33	21.5
女	Female	小時 Hour	14.28	10.93	17.9



指標	Index	單位 Unit	2024	2023	2022
受僱職級劃分的人均受訓時數 Average training hours per person by employment rank					
管理層	Management staff	小時 Hour	23.50	9.13	15.4
中層員工	Middle-level staff	小時 Hour	24.92	23.5	19.3
基層員工	Elementary staff	小時 Hour	13.51	12.56	13.7
B5.1：按地區劃分的供貨商數目⁵ Number of suppliers by geographical region⁵					
東北大區供貨商數量	Number of suppliers from Northeast China area	家 Supplier	7	7	6
冀蒙大區供貨商數量	Number of suppliers from Hebei & Inner Mongolia area	家 Supplier	22	25	21
青海大區供貨商數量	Number of suppliers from Qinghai area	家 Supplier	0	0	0
晉陝大區供貨商數量	Number of suppliers from Shanxi & Shaanxi area	家 Supplier	4	4	1
河南大區供貨商數量	Number of suppliers from Henan area	家 Supplier	7	8	5
山東大區供貨商數量	Number of suppliers from Shandong area	家 Supplier	20	21	20
江蘇大區供貨商數量	Number of suppliers from Jiangsu area	家 Supplier	27	28	21
湖北大區供貨商數量	Number of suppliers from Hubei area	家 Supplier	1	1	1
安徽大區供貨商數量	Number of suppliers from Anhui area	家 Supplier	2	3	2
四川大區供貨商數量	Number of suppliers from Sichuan area	家 Supplier	17	27	13
湖南大區供貨商數量	Number of suppliers from Hunan area	家 Supplier	2	3	3
江西大區供貨商數量	Number of suppliers from Jiangxi area	家 Supplier	0	1	1
浙江大區供貨商數量	Number of suppliers from Zhejiang area	家 Supplier	42	39	22
福建大區供貨商數量	Number of suppliers from Fujian area	家 Supplier	0	0	0
雲貴大區供貨商數量	Number of suppliers from Yunnan & Guizhou area	家 Supplier	0	0	0
粵桂大區供貨商數量	Number of suppliers from Guangdong & Guangxi area	家 Supplier	13	12	9
重慶燃氣供貨商數量	Number of suppliers from Chongqing Gas	家 Supplier	5	7	4



指標	Index	單位 Unit	2024	2023	2022
天津公司供貨商數量	Number of suppliers from Tianjin Gas	家 Supplier	4	5	5
供貨商總數	Total number of suppliers	家 Supplier	173	191	134
B6.2：產品及服務投訴 Product and service complaints					
產品合格率(百尊)	Rate of qualified products (PERCEN)	百分比 %	100	100	100
客戶滿意度	Customer satisfaction	分 Score	96.6	96.4	95.7
B8.2: 社區投入 Community investment					
困難員工幫扶投入	Investment in employees in hardships	萬港元 HK\$'0,000	151.458	326.14	326.1
救助困難員工投入	Investment in employees in difficulty	萬港元 HK\$'0,000	41.9	46.4	73.1
走訪慰問困難員工家庭投入	Investment in visits and comforts delivered to families of employees in difficulty	萬港元 HK\$'0,000	53.52	64.9	57.9
資助困難員工子女入學投入	Investment in the education of children of employees in difficulty	萬港元 HK\$'0,000	3.94	2.36	6.98
社會捐贈總額	Total social donations	萬港元 HK\$'0,000	283.21	370.61	493.71
公益志願服務投入總時長	Total hours devoted to charity and volunteer service	萬小時 0'000 Hours	16.1	26.4	25.3
員工志願活動人次	Participants of volunteer activities	人次 Attendance	74,130	79,037	76,429
扶貧專項資金投入	Special funds for poverty alleviation	萬港元 HK\$'0,000	204.22	216.70	237.40
綜合績效指標 Overall performance indicator					
安全管理人員持證人數	Number of licensed safety management personnel	人 Person	4,925	4,766	4,456
註冊安全工程師人數	Number of registered safety engineers	人 Person	1,179	1,089	1,057
供應商通過質量、環境和職業健康安全體系認證的比例	Percentage of certified suppliers under the quality, environmental and occupational health and safety management systems	百分比 %	100	100	100
供應商通過經濟、社會或環境方面處罰的個案數量	Number of suppliers being imposed with economic, social or environmental penalties	個 Number	0	0	0



指標	Index	單位 Unit	2024	2023	2022
責任採購比率	Responsible procurement coverage	百分比 %	100	100	100
新增就業人數	Number of newly employed employees	人 Person	1,297	3,962	2,551
女性管理者比例	Ratio of female managers	百分比 %	15.65	15.66	24.59
殘疾人僱傭人數	Number of disabled persons employed	人 Person	97	97	92
少數民族員工人數	Number of ethnic minorities employed	人 Person	1,458	1,672	1,601
接收應屆畢業生人數	Number of fresh graduates employed	人 Person	373	616	750
勞動合同簽訂率	Coverage of labour contracts	百分比 %	100	100	100
社會保險覆蓋率	Coverage rate of social insurance	百分比 %	100	100	100
人均帶薪休假天數	Average paid leave days per person	天 Day	11	11	11
員工平均工資水平	Average salary of employees	萬港元 HK\$'0,000	13.83	12.85	10.96
年度新增職業病和企業累計職業病	New occupational disease and accumulative occupational disease during the year	例 Case	0	0	0
體檢及健康檔案覆蓋率	Coverage for medical check-ups and health archiving	百分比 %	100	100	100



指標索引

INDICATOR INDEX

環境、社會及管治指標索引 Reference Table of ESG Indices		披露章節 Chapter/Section of Disclosure
主要範疇A：環境 Subject Area A: Environmental		
A1排放物 Emissions	一般披露 General Disclosure 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： Information on: (a) 政策；及 (a) the policies; and (b) 遵守對發行人有重大影響的相關法律及規例。 (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.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky
	A1.1排放物種類及相關排放數據。 The types of emissions and respective emissions data.	可持續發展指標 Sustainability Indicators
	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）。 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).	可持續發展指標 Sustainability Indicators
	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）。 Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	可持續發展指標 Sustainability Indicators
	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）。 Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	可持續發展指標 Sustainability Indicators
	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。 Description of emission target(s) set and steps taken to achieve them.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky
	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。 Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky



環境、社會及管治指標索引 Reference Table of ESG Indices		披露章節 Chapter/Section of Disclosure
A2資源使用 Use of Resources	一般披露 General Disclosure 有效使用資源（包括能源、水及其他原材料）的政策。 Policies on the efficient use of resources, including energy, water and other raw materials.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky
	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）。 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).	可持續發展指標 Sustainability Indicators
	A2.2總耗水量及密度（如以每產量單位、每項設施計算）。 Water consumption in total and intensity (e.g. per unit of production volume, per facility).	可持續發展指標 Sustainability Indicators
	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。 Description of energy use efficiency target(s) set and steps taken to achieve them.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky
	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。 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.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky
	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。 Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	可持續發展指標 Sustainability Indicators
A3環境及天然資源 The Environment and Natural Resources	一般披露 General Disclosure 減低發行人對環境及天然資源造成重大影響的政策。 Policies on minimising the issuer's significant impact on the environment and natural resources.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky
	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。 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky



環境、社會及管治指標索引 Reference Table of ESG Indices		披露章節 Chapter/Section of Disclosure
A4氣候變化 Climate Change	一般披露 General Disclosure 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。 Policies on identification and handling of significant climate-related issues which have impacted, and those which may impact, the issuer.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky
	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，及應對行動。 Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	推動綠色發展，守護碧海藍天 Promoting Green Development and Protecting the Blue Sea and Blue Sky
主要範疇B：社會 Subject Area B: Social		
B1僱傭 Employment	一般披露 General Disclosure 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： Information on: (a) 政策；及 (a) the policies; and (b) 遵守對發行人有重大影響的相關法律及規例的資料。 (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.	激發人才活力，凝聚員工力量 Stimulate the Vitality of Talents and Unite the Strength of Employees
	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。 Total workforce by gender, employment type (e.g. full-time or part-time), age group and geographical region.	可持續發展指標 Sustainability Indicators
	B1.2按性別、年齡組別及地區劃分的僱員流失比率。 Employee turnover rate by gender, age group and geographical region.	可持續發展指標 Sustainability Indicators



環境、社會及管治指標索引 Reference Table of ESG Indices		披露章節 Chapter/Section of Disclosure
B2健康與安全 Health and Safety	一般披露 General Disclosure 有關提供安全工作環境及保障僱員避免職業性危害的： Information on: (a) 政策；及 (a) the policies; and (b) 遵守對發行人有重大影響的相關法律及規例的資料。 (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.	履行責任擔當，共建安全屏障 Fulfilling Responsibilities and Jointly Building a Safety Barrier
	B2.1過去三年（包括匯報年度）每年因工亡故的人數及比率。 Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	可持續發展指標 Sustainability Indicators
	B2.2因工傷損失工作日數。 Lost days due to work injury.	可持續發展指標 Sustainability Indicators
	B2.3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。 Description of occupational health and safety measures adopted, how they are implemented and monitored.	履行責任擔當，共建安全屏障 Fulfilling Responsibilities and Jointly Building a Safety Barrier
B3發展與培訓 Development and Training	一般披露 General Disclosure 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。 Information on policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	激發人才活力，凝聚員工力量 Stimulate the Vitality of Talents and Unite the Strength of Employees
	B3.1按性別及僱員類別（如高級管理層、中級管理層）劃分的受訓僱員百分比。 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	可持續發展指標 Sustainability Indicators
	B3.2按性別及僱員類別劃分，每名僱員完成受訓的平均時數。 The average training hours completed per employee by gender and employee category.	可持續發展指標 Sustainability Indicators



環境、社會及管治指標索引 Reference Table of ESG Indices		披露章節 Chapter/Section of Disclosure
B4勞工準則 Labour Standards	一般披露 General Disclosure 有關防止童工或強制勞工的： Information on: (a) 政策；及 (a) the policies; and (b) 遵守對發行人有重大影響的相關法律及規例的資料。 (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	激發人才活力，凝聚員工力量 Stimulate the Vitality of Talents and Unite the Strength of Employees
	B4.1描述檢討招聘慣例的措施以避免童工及強制勞工。 Description of measures to review employment practices to avoid child and forced labour.	激發人才活力，凝聚員工力量 Stimulate the Vitality of Talents and Unite the Strength of Employees
	B4.2描述在發現違規情況時消除有關情況所採取的步驟。 Description of steps taken to eliminate such practices when discovered.	激發人才活力，凝聚員工力量 Stimulate the Vitality of Talents and Unite the Strength of Employees
營運管理 Operating Practices		
B5供應鏈管理 Supply Chain Management	一般披露 General Disclosure 管理供應鏈的環境及社會風險政策。 Policies on managing environmental and social risks of the supply chain.	攜手共繪藍圖，引領行業創新發展 Collaborating to Shape the Future and Driving Industrial Innovation
	B5.1按地區劃分的供貨商數目。 Number of suppliers by geographical region.	可持續發展指標 Sustainability Indicators
	B5.2描述有關聘用供貨商的慣例，向其執行有關慣例的供貨商數目、以及有關慣例執行及監察方法。 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	攜手共繪藍圖，引領行業創新發展 Collaborating to Shape the Future and Driving Industrial Innovation
	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。 Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	攜手共繪藍圖，引領行業創新發展 Collaborating to Shape the Future and Driving Industrial Innovation
	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。 Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	攜手共繪藍圖，引領行業創新發展 Collaborating to Shape the Future and Driving Industrial Innovation



環境、社會及管治指標索引 Reference Table of ESG Indices		披露章節 Chapter/Section of Disclosure
B6產品責任 Product Responsibility	一般披露 General Disclosure 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： Information on: (a) 政策；及 (a) the policies; and (b) 遵守對發行人有重大影響的相關法律及規例的資料。 (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.	踐行服務承諾，品質鑄就卓越 Fulfilling Service Commitments, Quality Creates Excellence
	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。 Percentage of total products sold or shipped subject to recalls for safety and health reasons.	不適用 Not Applicable
	B6.2接獲關於產品及服務的投訴數目以及應對方法。 Number of products and service related complaints received and how they are dealt with.	踐行服務承諾，品質鑄就卓越 Fulfilling Service Commitments, Quality Creates Excellence
	B6.3描述與維護及保障知識產權有關的慣例。 Description of practices relating to observing and protecting intellectual property rights.	踐行服務承諾，品質鑄就卓越 Fulfilling Service Commitments, Quality Creates Excellence
	B6.4描述質量檢定過程及產品回收程序。 Description of quality assurance process and recall procedures.	踐行服務承諾，品質鑄就卓越 Fulfilling Service Commitments, Quality Creates Excellence
	B6.5描述消費者數據保障及隱私政策，以及相關執行及監察方法。 Description of consumer data protection and privacy policies, and how they are implemented and monitored.	踐行服務承諾，品質鑄就卓越 Fulfilling Service Commitments, Quality Creates Excellence



環境、社會及管治指標索引 Reference Table of ESG Indices		披露章節 Chapter/Section of Disclosure
B7反貪污 Anti-Corruption	一般披露 General Disclosure 有關防止賄賂、勒索、欺詐及洗黑錢的： Information on: (a) 政策*；及 (a) the policies*； and (b) 遵守對發行人有重大影響的相關法律及規例的資料。 (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing bribery, extortion, fraud and money laundering.	築牢合規根基，健全長效發展機制 Consolidating the Foundation for Compliance to Build a Sound Mechanism for Long-term Development
	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。 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.	可持續發展指標 Sustainability Indicators
	B7.2描述防範措施及舉報程序，以及相關執行及監察方法。 Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	築牢合規根基，健全長效發展機制 Consolidating the Foundation for Compliance to Build a Sound Mechanism for Long-term Development
	B7.3描述向董事及員工提供的反貪污培訓。 Description of anti-corruption training provided to directors and staff.	築牢合規根基，健全長效發展機制 Consolidating the Foundation for Compliance to Build a Sound Mechanism for Long-term Development
社區 Community		
B8社區投資 Community Investment	一般披露 General Disclosure 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。 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.	攜手共繪藍圖，引領行業創新發展 Collaborating to Shape the Future and Driving Industrial Innovation
	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）。 Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	攜手共繪藍圖，引領行業創新發展 Collaborating to Shape the Future and Driving Industrial Innovation
	B8.2在專注範疇所動用資源（如金錢或時間）。 Resources contributed (e.g. money or time) to the focus areas.	可持續發展指標 Sustainability Indicators



華潤燃氣控股有限公司 China Resources Gas Group Limited

香港灣仔港灣道26號 Room 1901-02, China Resources Building,
華潤大廈1901-02室 26 Harbour Road, Wanchai, Hong Kong.
電話 Telephone : 2593 8200
傳真 Facsimile : 2598 8228
網址 Website : www.crcgas.com
電郵 Email : investor-relations@crgas.com.hk