



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)
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2018

環境、社會及管治報告

Environmental, Social and Governance Report

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主席寄語

Message from the Chairman



二零一八年，受益於中國宏觀經濟的平穩發展及隨著國家對能源結構的不斷優化和環境污染治理的不斷重視，連續出台多項環境保護政策，大力推進大氣污染防治工作，天然氣消費保持強勁增長。面對機遇與挑戰，華潤燃氣對企業自身的可持續發展提出更高要求，在確保穩定供氣、清潔供氣、安全供氣的同時更加著重培養專業燃氣人才、引進先進技術、履行社會責任。2018年，是華潤燃氣步入第二個十年的起始年，我們在致力於成為「中國第一、世界一流」的燃氣企業上不斷努力前行。

In 2018, benefiting from the stable development of China's macro economy, and various environmental protection policies issued to promote air pollution prevention as a result of continuing perfection made to energy structure and constant attention paid to dealing with environmental pollution, natural gas consumption maintained strong growth in China. Facing opportunities and challenges, CR Gas set higher standard for its own sustainable growth, and paid more attention on cultivating talents, importing advanced technology and fulfilling its social responsibilities in addition to ensuring the stability, cleanness and security of the supply of natural gas. 2018 was the first year of the Second Ten-Years Plan of CR Gas, during which we forged ahead towards the goal of becoming "best in China, first class in the world" in gas industry.

過去十年華潤燃氣主要在中國內地投資經營城市燃氣業務，在過往的發展歷程中，華潤燃氣一直秉承「誠信、團隊、務實、積極、創新」的企業精神，致力於成為中國最受尊重的燃氣行業領導者。自2008年至2018年底，本集團市值增長21.36倍，營業額增長17.13倍，總資產增長19.85倍。且於2018年，穆迪、標準普爾及惠譽三大國際知名評級機構分別給予公司A3、A-和A-評級，這是中國燃氣行業歷史上獲得的最高信用評級，也是對華潤燃氣的企業發展戰略和業務表現的肯定。截至2018年12月31日，華潤燃氣的城市燃氣項目總共達248個，分佈於中國22個省份，其中包括14個省會城市，3個直轄市及73個地級市，年燃氣總銷量達約242.8億立方米及客戶數達3,464萬戶，總接駁覆蓋人口達2.07億人。並且第六次入選「普氏能源資訊全球能源企業250強」，2018年排名138位。

During the past decade, CR Gas was mainly engaged in the investment and operation of gas business in urban areas in mainland China. During its past development history, CR Gas had been upholding the spirits of "Integrity, Teamwork, Pragmatism, Enthusiasm, Innovation", and been striving to be the most respectable leader in gas sector. From 2008 to the end of 2018, the market capitalization of the Group increased by 21.36 times, its turnover increased by 17.13 times, and its total assets increased by 19.85 times. Moreover, in 2018, Moody's, Standard & Pool's and Fitch Ratings, the top three world famous rating agencies, awarded A3, A- and A- rating, respectively to CR Gas, the highest credit ratings being granted in the history of China's gas sector, to recognize the corporate development strategies and operating performance of CR Gas. As at 31st December, 2018, CR Gas's portfolio consisted of 248 urban gas projects in 22 provinces in China, including 14 provincial capitals, 3 municipalities and 73 prefecture-level cities, with an annual gas sales volume of 24.28 billion cubic meters, 34.64 million customers, and total connectable population of 207 million. In 2018, Platts named us in Top 250 Global Energy Company Rankings for the sixth time, ranking no. 138.



踐行綠色生態文明，積極響應國家政策。本集團響應中國政府的倡議，對污染較少的清潔能源產業進行發展和使用，致力於提高公眾生活質量和健康水平。為了響應國家環保政策，打贏大氣污染防治攻堅戰，華潤燃氣積極深挖拓展工商業市場，積極推動工商業用戶使用天然氣。年內，協助減少使用約29,507,490噸煤炭及595,621噸污染物。2018年，華潤燃氣首次申報即獲得香港企業綠色大獎「超卓環保安全健康獎」金獎，得到社會各界的肯定。

關愛員工，客戶至上，感恩回饋。華潤燃氣致力於為客戶提供更為優質、安全、穩定、環保和人性化的產品和服務，並以不斷超越用戶的期望，提升客戶滿意度要求每一位員工。本年度集團客服滿意度為91.7%。截至2018年底，本集團共聘用約48,031名員工。員工作為本集團的重要資產，我們為員工開設課程及培訓計劃，並提供多種類型的管理及技術培訓，以提高員工的知識和技術水平，於2018年，華潤燃氣學院獲中國企業大學聯盟頒發的「中國最佳企業大學」榮譽，充分體現本集團在學習資源建設及人才培等方面取得的突出成效。華潤燃氣以「常懷感恩之心，努力回饋社會」為公司責任文化，圍繞「扶貧助困，捐資助學、關愛特殊群體、志願服務」四個方向社會做出貢獻，用實際行動回饋社會，樹立良好的企業形象。於2018年，公司向社會捐贈總額達到633.6萬港元。

華潤燃氣在推進低碳經濟和履行社會責任的方向上，一定堅持不忘初心，砥礪前行，開創下一個更好的十年！



王傳棟
主席

Promoting green eco civilization, answering the call of the state on relative policies. In response to Chinese government's initiatives, the Group develops and utilizes the clean energy industry with less pollution, being dedicated to improving the living quality and health of the public. To respond to the state's environmental policies and win the combat to prevent and deal with air pollution, CR Gas positively explores and expands the industrial and commercial markets and promotes the utilization of natural gas among the users in industrial and commercial sectors. In the Year, CR Gas helped to replace approximately 29,507,490 tons of coal usage and reduce 595,621 tons of pollutants. In 2018, CR Gas gained the recognition of the society and was honored "Hong Kong Green Awards – Environmental, Health and Safety Award – Golden Award" although this is the first time for CR Gas to apply for this award.

Employees care, customers first, and being appreciative. CR Gas is dedicated to providing quality, secured, stable, environment friendly and user friendly products and services, and requires every staff to work together to exceed customers' expectation and improve customers' satisfaction. The customer satisfaction of the Group for this year was 91.7%. As at the end of 2018, the Group had about 48,031 employees. We provide courses and various training programs on management and technique for the staff, who we believe are important assets of the Group, to enhance the staff's expertise and skill level. In 2018, CR Gas Institute was awarded the honor of "Best Corporate Universities in China" by China Society for Training and Development, demonstrating the outstanding achievements in setting learning resources and cultivating talents made by the Group. "Always being Appreciative and Sincerely Giving back to the Community" is our corporate culture. The Group makes contributions and gives back to the community with tangible actions in the four directions of "poverty alleviation, education aid, caring for groups with special needs and volunteer services", to establish good enterprise image. In 2018, the Company donated a total of HK\$6.336 million to the society.

CR Gas will never forget and will forever forge ahead towards its initiative purpose of promoting low carbon economy and fulfilling social responsibility, to create a better decade for the next decade.

Wang Chuandong
Chairman

1 關於本報告

1 About this Report

1.1 報告目的

本報告為華潤燃氣控股有限公司及其附屬公司（統稱「華潤燃氣」或「本集團」）發佈的《環境、社會及管治報告》，華潤燃氣本著公開、透明的原則，向社會各界人士以全面且客觀的方式匯報本集團過去一年中在可持續發展議題上的策略和承諾，同時通過數據披露展示本集團的表現詳情及績效考核。本報告以中文和英文編撰，並已上載至香港聯合交易所（聯交所）及本公司網站 www.crcgas.com。

1.2 報告範圍

本報告涵蓋本集團的核心業務，在二零一八年一月一日至二零一八年十二月三十一日（「本年度」或「年內」）的環境、社會及管治表現。目前，本報告覆蓋本集團所有業務（包括燃氣接駁、銷售燃氣器具、設計及建設服務及加氣站）和營運地點，且匯報的環境及社會關鍵績效指標只涵蓋本集團位於中國內地八個區域中心辦公室的運營。本集團正不斷提升內部資料收集程序，並將逐步擴大披露範圍至所有業務內容。

1.3 報告標準

本報告根據香港聯合交易所有限公司《主板上市規則》附錄二十七《環境、社會及管治報告指引》進行編製，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。

1.1 REPORTING PURPOSE

This report is the Environmental, Social and Governance Report published by China Resources Gas Group Limited and its subsidiaries (collectively as "CR Gas" or "the Group"). In this report, CR Gas reports its strategies and commitments on the topic of sustainable development in the past year in a comprehensive and objective manner to all levels of the society in the principles of being public and transparent, while discloses and displays the Group's performance details and performance appraisal through data. This report has been prepared in both Chinese and English and uploaded to the website of The Stock Exchange of Hong Kong Limited (the Stock Exchange) and the Company's website at www.crcgas.com.

1.2 REPORTING SCOPE

This report covers the environmental, social and governance performance of the core business of the Group during the period from 1st January, 2018 to 31st December, 2018 (the "Year"). Currently, this report covers all businesses (including gas connection, sale of gas appliances, design and construction services as well as gas stations) and operational locations of the Group, and the key environmental and social performance indicators of the report only cover the operation of the general offices of eight regional centers of the Group in mainland China. The Group has been continuously improving the procedures of internal data collection, and gradually expanding the scope of disclosure to all its operations.

1.3 REPORTING STANDARDS

In compliance with the "comply or explain" provisions as stipulated in the Environmental, Social and Governance Reporting Guide in Appendix 27 of the Listing Rules on the Main Board of The Stock Exchange of Hong Kong Limited, this report has made disclosure based on four reporting principles, namely materiality, quantitative, balance and consistency, as set out in the Guide.

2 關於我們

2 About Us

2.1 集團簡介

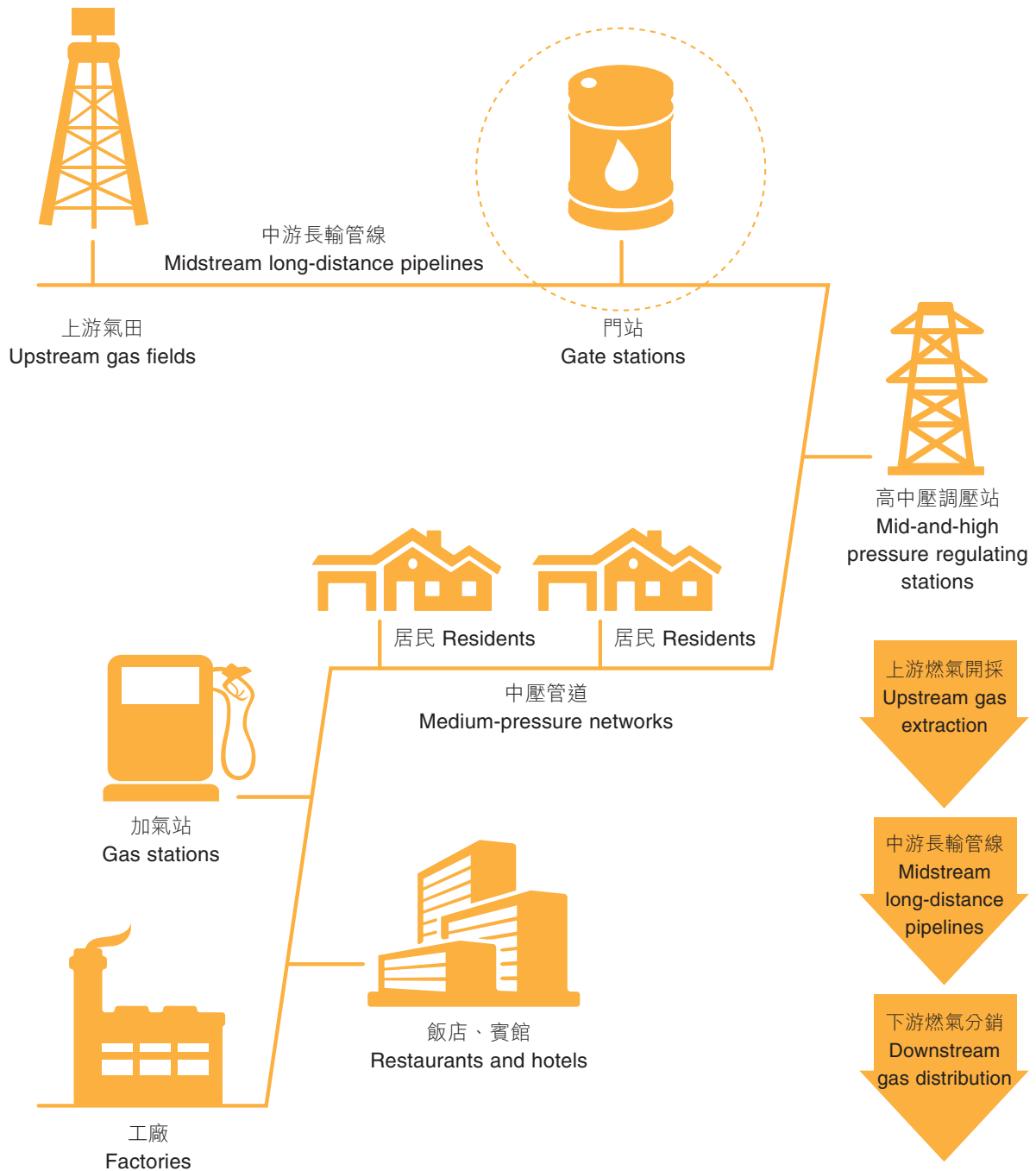
華潤燃氣成立於2007年1月，並於2008年10月於香港成功上市，現已位列香港恒生綜合指數成份股。公司總部位於廣東深圳，是華潤集團重要戰略業務單元之一，主要在中國內地投資經營與大眾生活息息相關的城市燃氣業務，包括管道燃氣、車用燃氣及燃氣器具銷售等業務。

2018年，全國天然氣消費量快速增長，本集團實現全年銷氣量達到242.8億立方米，燃氣用戶達到3,464萬戶。其中工業銷氣量達到114.1億立方米，商業銷氣量54.5億立方米，民用銷氣量55.2億立方米，分別佔本集團總銷氣量的47.0%，22.4%，22.7%。此外，集團城市燃氣項目數量已達248個，遍佈全國22個省份，3個直轄市，73個地級市。本集團連續第六年入選「普氏能源資訊全球能源企業250強」，位列第138名。

2.1 GROUP PROFILE

Established in January 2007 and successfully listed in Hong Kong in October 2008, CR Gas is now one of the constituent stocks of the Hong Kong Hang Seng Composite Index. Headquartered in Shenzhen, Guangdong, CR Gas is one of the key strategic business units under China Resources Group, engaged in mainly investing in and operating urban gas business which is crucial to people's livelihood in mainland China, including sales of pipeline gas, vehicle gas and gas appliances, etc.

2018 saw the rapid growth of China's natural gas consumption, recording the Group's annual gas sales volume of 24.28 billion cubic meters with number of gas users reaching 34.64 million, among which, the industrial gas sales volume reached 11.41 billion cubic meters, the commercial gas sales volume reached 5.45 billion cubic meters and residential gas sales volume reached 5.52 billion cubic meters, accounting for 47.0%, 22.4% and 22.7% of the total gas sales volume of the Group respectively. In addition, the number of city gas projects of the Group has reached 248, spanning across 22 provinces, 3 direct administrative municipalities and 73 prefecture-level cities. The Group has been selected as "Platts Top 250 Global Energy Company Rankings" for the sixth consecutive year, ranking the 138th.

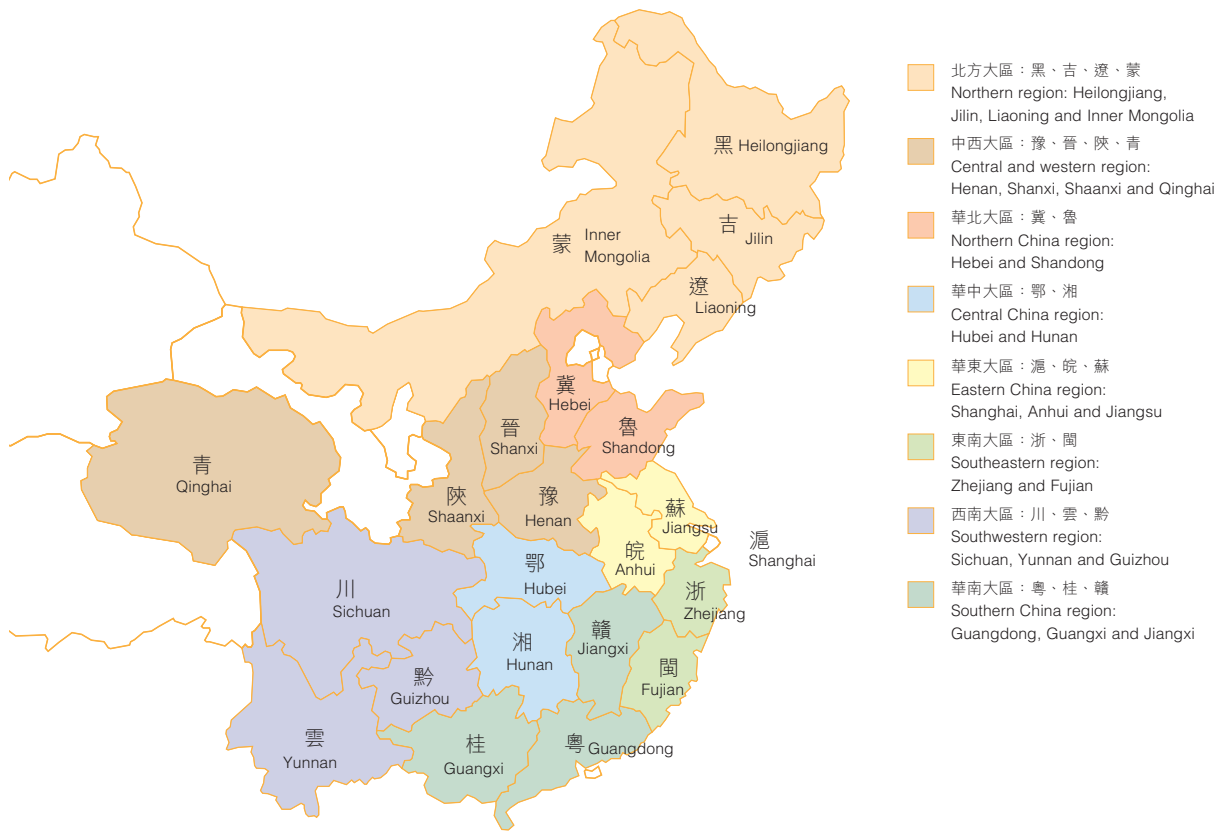


燃氣產業鏈示意圖

Illustration of the gas industry chain

業務分佈

BUSINESS NETWORK



業務分佈圖
Business Network Map

2.2 集團理念

華潤燃氣秉承「以客戶為導向」的服務理念，旨在完成「提供專業、高效、親切的服務，供應安全清潔的燃氣；致力於改善環境質量，提升生活品質；不斷追求卓越，實現股東價值、員工價值和社會價值最大化」的企業使命，成為中國最受尊敬的燃氣行業領導者，並致力於成為綜合實力「中國第一，世界一流」的燃氣企業。

(1) 綠色發展理念

在集團運營過程中，本集團承諾嚴格遵守所有運營地區所在地的環境法律法規，秉承「推廣清潔能源，持續改善環境，堅持綠色發展，共建美麗家園」的環保願景，建立「零污染，低能耗，低排放」的環保目標，發揚對各個運營點的環境認真負責的運營文化，全面提倡綠色、低碳、循環、可持續的運營方式，以此促進城市低碳經濟發展，保護生態環境，改善城市形象。在運營過程中，本集團著重關注「排放物」、「資源使用」以及「環境和天然資源」三大方面，針對不同運營地區的公司制定相對應的環境管理措施，以此妥善管理並減少運營過程中對環境造成的影響。

(2) 社會責任理念

本集團肩負著「攜手共創美好生活」的社會責任使命，帶著「追求卓越發展，把華潤燃氣建設成為具有國際競爭力的世界一流企業，實現超越利潤之上的追求」的願景，致力於將華潤燃氣打造成具有極強社會責任感的企業。本集團圍繞「僱傭」、「健康與安全」、「發展及培訓」、「勞工準則」、「供應鏈管理」、「產品責任」、「反貪污」以及「社區投資」等八大方面履行社會責任，努力做優秀企業公民，成為受人尊敬的企業。

2.2 GROUP IDEOLOGY

Adhering to the service concept of "customer-oriented", CR Gas aims at realizing the corporate mission of "provision of professional, efficient and intimate services as well as safe and clean gas; being committed to improving the quality of the environment and enhancing the quality of life; constant pursuit for excellence while achieving maximization of shareholder value, employee value and social value", becoming the most respectable leader in the PRC's gas industry, and striving to become a gas enterprise with comprehensive strength of "best in China, first class in the world".

(1) Ideology on green development

In the course of Group's operation, the Group is committed to strictly complying with environmental laws and regulations in each of the regions where the Group operates, adhering to the environmental vision of "Promoting Clean Energy, and Continuously Improving of Environment, Insisting on Green Development, and Building Beautiful Homes", establishing a goal of environmental protection "Zero Pollution, Low Energy Consumption and Low Emission", carrying forward operational culture of being seriously responsible for the environment of each operational sites, comprehensively advocating green, low-carbon, recycling, sustainable ways of operation, so as to promote the urban low-carbon economic development, protect the ecological environment and polish the cities' images. In the course of operation, great importance is attached to three aspects, namely "Emissions", "Use of Resources" and "the Environment and Natural Resources", prescribing corresponding environmental management measures for companies in different operating regions, so as to properly manage and reduce the impact on the environment in the course of operation.

(2) Ideology on Social Responsibility

Shouldering a sense of social responsibility of "Working together to Create a Pleasant Life", upholding vision of "Pursuit of Remarkable Development, Turning CR Gas into a World-class Enterprise with International Competitiveness Through Pursuing Qualities above Profitability", the Group has dedicated itself to becoming an enterprises with extremely strong sense of social responsibilities. Centering on eight major areas, namely "Employment", "Health and Safety", "Development and Training", "Labor Standards", "Supply Chain Management", "Product Responsibility", "Anti-Corruption" and "Community Investment", CR Gas fulfills its social responsibilities, devoting great efforts to become an outstanding corporate citizen and a respectable enterprise.

2.3 獎項與榮譽

香港綠色企業大獎2018年：「超卓環保安全健康獎」金獎

華潤燃氣學院榮獲2018年度中國最佳企業大學獎

華潤燃氣獲華潤集團產業創新加速營優秀項目獎

華潤燃氣入選「普氏能源資訊全球能源企業250強」，位列第138名。

2.4 業務回顧

(1) 主要業務

華潤燃氣主要從事下游城市燃氣分銷業務，包括管道天然氣分銷及天然氣加氣站業務及燃氣器具銷售。華潤燃氣的業務策略性地分佈於全國各地，主要位於經濟較為發達和人口密集的區域以及天然氣儲量豐富的地區。

華潤燃氣響應國家環保政策的號召，強化重點區域的煤改氣項目，積極推動工商業用戶使用天然氣，以此推進大氣污染防治工作，實現銷氣量快速增長。年內，華潤燃氣的城市燃氣項目達到248個，總接駁覆蓋人口達到2.07億人，燃氣用戶達到3,464萬戶。共鋪設有管線15萬餘公里，加氣站共359座，其中CNG加氣站229座，LNG加氣站85座，L-CNG加氣站45座。

2.3 AWARDS AND HONORS

Hong Kong Green Awards 2018 – “Environmental, Health and Safety Award” (Gold Award)

CR Gas Institute was awarded “2018 The Best Corporate University Award in China”

CR Gas was awarded “China Resources Group Industrial Innovation Acceleration Camp Excellent Project Award”

CR Gas ranked the 138th in “Platts Top 250 Global Energy Company Rankings”.

2.4 BUSINESS REVIEW

(1) Principal activities

CR Gas is principally engaged in downstream city gas distribution business including piped natural gas distribution, natural gas filling stations operation and sales of gas appliances. Its operations are strategically located in areas of China, which are economically more developed and densely populated and areas with rich reserves of natural gas.

In response to national environmental protection policies, CR Gas reinforces “coal-to-gas conversion” plan in key areas, actively promotes the consumption of natural gas by industrial and commercial users to boost the prevention of air pollution and achieve rapid growth in gas sales volume. During the Year, CR Gas’s city gas projects reached 248 with total connectable population of 207 million. The number of gas users reached 34.64 million. The total length of gas pipelines amounted to around 150,000 kilometers. It established 359 gas filling stations, of which 229 were CNG stations, 85 were LNG stations and 45 were L-CNG stations.

(2) 新業務

隨著國家相關清潔能源政策的頒佈和經濟結構的不斷優化，並且相應人們對清潔能源的需求不斷提升，本集團積極推進分佈式能源及充電樁等新業務，年內，本集團新批准6個分佈式能源項目，預計投資總額10.7億港元，該等項目建成後將帶來108MW的裝機容量及2.7億立方米的新增氣量。該業務在杭州、南京公司已投入穩定運營，建成投運站38座，年充電量6,200萬度，實現經營利潤1,640萬港元，2019年將會陸續投入運營，擴大充電樁業務規模。

2.5 企業管治

華潤燃氣以「誠實守信」為集團核心價值觀，並以此為指導，加強合規體系建設，深入構築風險防範和懲防體系建設，增強與股東之間的溝通合作，規範企業內部信息披露，做到全面的誠信觀，誠信於股東、客戶、員工、社會，致力於實現「做得比說得好」的企業承諾。

(1) 管治架構

本集團致力於維持一個優良可靠的企業管治結構，董事會是最高決策機構，負責持續完善公司管理體系，維持最高水平的管制標準，並對公司的戰略規劃、業務運營和經營業績負最終責任。報告期內，本集團董事會下設審核與風險管理委員會、薪酬委員會、提名委員會、投資委員會、企業管治委員會。

(2) New business

Following the promulgation of relevant clean energy policies and the continuous optimization of economic structure in China, the demand for clean energy has been increasing. The Group takes the initiatives to develop new businesses such as distributed energy and charging posts. During the Year, six distributed energy projects were approved by the Group, with a total investment estimated to be HK\$1.07 billion. Upon completion, these projects will contribute an installed capacity of 108MW and an additional gas volume of 270 million cubic meters. Hangzhou and Nanjing companies had stable business with services put into operation, and 38 operation sites were established, with an annual charging capacity of 62.0 million kWh and an operating profit of HK\$16.40 million. New services will be offered successively in 2019, further expanding the scale of charging posts business.

2.5 CORPORATE GOVERNANCE

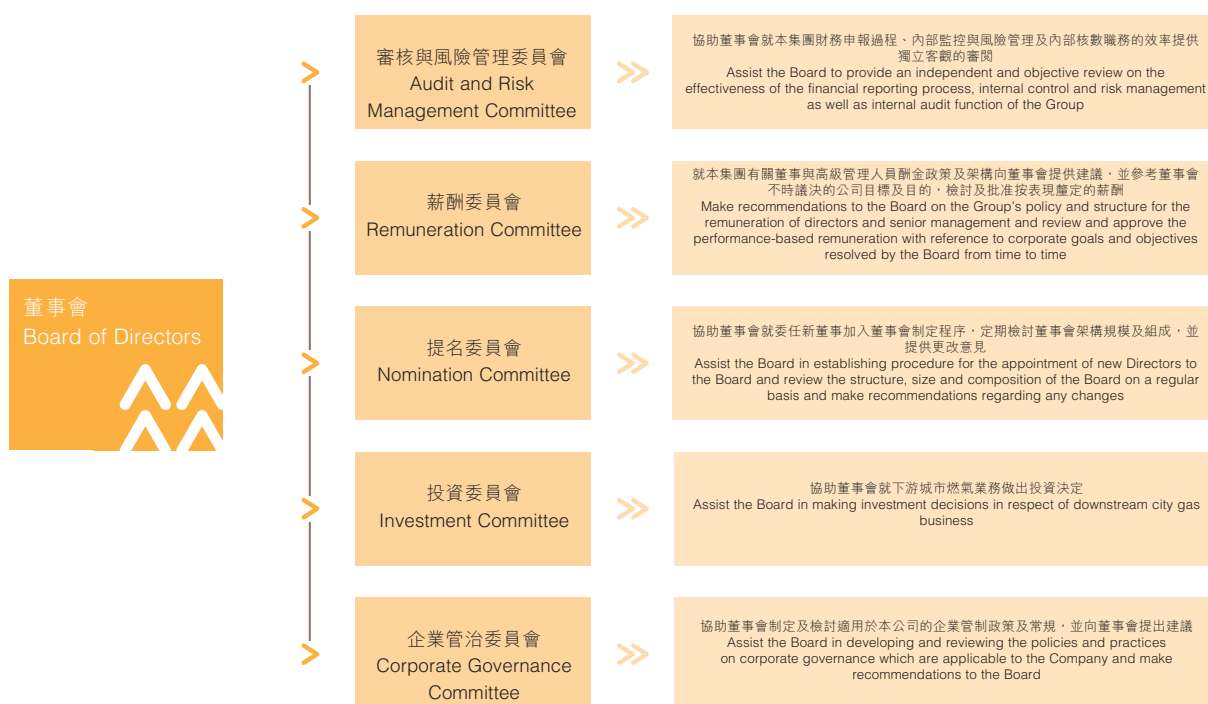
CR Gas has established its core value of being honest and trustworthy, under which it actively reinforces its compliance system construction, builds an in-depth risk prevention and punishment mechanism, enhances its communication and cooperation with its shareholders, regulates the information disclosure, comprehensively practices integrity among shareholders, customers, employees and society and devotes itself to fulfill the commitment of "better done than said".

(1) Governance structure

The Group is dedicated to maintaining a good credible framework of corporate governance. The board of directors is the highest decision-making body responsible for the continuous enhancement of the Company's management system, while maintaining a high standard of governance and is ultimately responsible for the Company's strategic planning, business operations and business performance. During the reporting period, the board of directors of the Group has set up audit and risk management committee, remuneration committee, nomination committee, investment committee and corporate governance committee.

公司管治架構

CORPORATE GOVERNANCE STRUCTURE



(2) 誠信合規

誠實守信是華潤燃氣建基立業的根本，也是公司成為「中國第一，世界一流」燃氣企業的堅強保障。為了保證本集團在誠信基礎上快速且穩地發展，本集團制定了系列誠信合規管理制度，包括《華潤燃氣誠信合規管理辦法》、《華潤燃氣誠信合規專員工作制度》、《華潤燃氣誠信合規十要十戒》等。同時，在企業內部積極開展誠信合規培訓，各企業中層以上經理人全員簽署《誠信合規責任書》，並將誠信合規體系建設與經理人考核相結合，對違反誠信原則的經理人實行「一票否決制」；要求參加供應商實地考察的專家100%簽訂《物資考察陽光宣言》，並將誠信合規條款嵌入供應商合同，開通工程物資誠信跟蹤郵箱，有效推進誠信合規落到實處，提升透明度。

(2) Integrity and compliance

Integrity is the foundation upon which CR Gas is able to achieve business development, and a formidable support for CR Gas to have grown into the No. 1 gas enterprise in China and been counted among the world first class. To ensure a rapid and stable development of the Group on basis of integrity, the Group has established a series of integrity and compliance management system, including Integrity and Compliance Management Method of CR Gas (《華潤燃氣誠信合規管理辦法》), Working System of Integrity and Compliance Officer of CR Gas (《華潤燃氣誠信合規專員工作制度》) and 10 Dos and Don'ts for Integrity and Compliance of CR Gas (《華潤燃氣誠信合規十要十戒》). Meanwhile, the Group actively conducts integrity and compliance training, and has all mid-level and above managers signing the Integrity and Compliance Responsibility Document (《誠信合規責任書》), creating a link between the integrity and compliance system with manager appraisal, with managers in violation of the integrity principles being subject to "one-vote veto". All the experts who participate in site visit and review of suppliers are required to sign Material Inspection Declaration (《物資考察陽光宣言》) with the terms of integrity and compliance being included in supplier contracts. The Group sets up mailbox for integrity tracking of engineering materials so that integrity and compliance system can be effectively implemented to enhance transparency.

(3) 反貪污

華潤燃氣建立三級誠信合規管理體系，並定時定期通過簡報、風險提示、指南及授課等方式對員工進行培訓，向員工普及公司制度和法律知識。所有員工應當嚴格遵從《華潤燃氣誠信合規管理辦法》、《華潤燃氣廉政談話實施辦法》、《十大紀律》等制度，並對員工行為進行有效的約束和管治，不得以任何形式接受或要求客戶、供應商、分包商或其他與本集團業務有往來人士提供利益，以杜絕貪污、勒索、賄賂及洗黑錢等不法行為，以此要求集團全體成員信守承諾、合規守法。本著守行規、守信譽、重合同、重公平、不賄賂的原則依法治企。

同時，華潤燃氣嚴格執行《反壟斷法》、《反不正當競爭法》、《價值法》等國家法律法規以及積極響應國家工商總局《關於禁止公用企業限制競爭和壟斷行為突出問題的公告》，持續推進反不正當競爭活動。編製《反壟斷及反不正當競爭應對指南》、《經理人普法教育百問百答反不正當競爭篇》等手冊，強化公平競爭及管理。

為確保企業運營的高效管理，華潤燃氣設立舉報、調查及處理懷疑不當行為的程序。任何人士可以在保密情況下通過電話、郵箱等方式舉報涉及本集團的違規行為。本集團對一切違規行為，堅持「三個一律」原則，即「一律處分、一律通報、一律曝光」，並根據事件影響及情節輕重程度做出相應懲罰，對於違反法律的行為，本集團將移交司法機關處理追求其法律責任。二零一八年，本集團及其員工均沒有發生與貪污相關的訴訟案件或重大違法違紀違規事項。

(3) Anti-Corruption

CR Gas has established a three-tier honesty and integrity management system and provides regular training for employees through briefing, risk warning, guidelines and lectures, conveying general knowledge on corporate system and legal knowledge to them. To eradicate illegal acts such as corruption, extortion, bribery and money laundering, all employees are required to strictly comply with the CR Gas Regulation on Honesty & Integrity (《華潤燃氣誠信合規管理辦法》), Incorrupt Governance Discussion Implementation Methods of CR Gas (《華潤燃氣廉政談話實施辦法》) and Ten Disciplines (《十大紀律》) pursuant to which employees are strictly forbidden to accept or solicit any benefits from customers, suppliers, subcontractors or other persons affiliated with the Group's businesses and all employees of the Group are required to abide by their promises and the laws and regulations. All employees shall manage the companies in accordance with the law by abiding by the code of practice for the industry and placing due emphasis on credibility, contract, fair competition and anti-bribery.

Meanwhile, CR Gas strictly adheres to national laws and regulations including the Anti-Monopoly Law, Anti-unfair Competition Law and the Value Law as well as the Announcement on Prohibitions on Prominent Problems about Restrictive Competition Practices and Monopoly Behavior by Public Companies (《關於禁止公用企業限制競爭和壟斷行為突出問題的公告》) promulgated by the State Administration of Industry and Commerce, continuing to advance the anti-unfair competition activities. CR Gas has prepared handbooks, such as the Guidance for Anti-monopoly and Anti-unfair Competition (《反壟斷及反不正當競爭應對指南》) and Q&A about anti-unfair competition of legal education of managers (《經理人普法教育百問百答反不正當競爭篇》), to reinforce fair competition and management.

To ensure enterprises effectively manage their operation, CR Gas has set up procedures of whistle-blowing, investigation and handling suspected misconduct. Anyone can confidentially report violations concerning the Group through hotline and email. All illegal practices are subject to punishment, reporting and disclosure with no exceptions. Relevant punishments are imposed based on impacts and seriousness of events. For unlawful acts, the Group will hand over to the judicial organ to hold them legally accountable. In 2018, the Group and employees had not involved in the corruption related lawsuit and major illegal acts.

(4) 風險管控

華潤燃氣為確保各類重大風險能夠得到及時的識別和有效管理，構建風險管理三道防線，從全方位，多角度地進行內控建設及優化，結合審計、內控等項目開展全面業務流程梳理，對風險進行高效管控，對效果進行評估，形成積極進取、穩健經營的風險管理文化。本集團共設立5個區域審計中心，組織開展包括財務、營運及項目工程等在內的審查工作；修訂及發佈各類審計及風險管理指引，明確風險管理工作細節，重塑法務體系，建立區域公司法務負責人制；開展準向治理行動，組織多種形式的內控檢查，從源頭遏制風險，總結最佳實踐並揭示內在問題。2018年，本集團共開展審計審核131次，完成7個板塊燃氣全業務流程法律風險點樹立工作，全年未發生系統性風險。

(4) Risk management and control

To ensure all types of material risks being timely identified and effectively dealt with, CR Gas has built three lines of defense for risk management which advances internal control and optimization both horizontally and vertically, and launched comprehensive business process management in respect of audit and internal control, effectively managed and controlled the risk and reviewed results, building a risk management culture characterized by enterprising and steady operation. The Group has set up 5 regional auditing centers to audit financial issues, operation and project management and so on. The Group has revised and issued various audit and risk management guidelines to specify details of risk management works. Reshaping the judicial system, the Group established the system of legal person in charge of regional corporate legal affairs. The Group has conducted targeted governance and organized various internal management checks to uproot the risks and summarize the best practice and reveal inherent problems. In 2018, the Group carried out 131 audits and assessed key legal risk areas for seven segments of full operation process for gas. There were no systematic risks throughout the year.



華潤燃氣風控職能定位與工作目標
Function positioning and objective of risk management of CR Gas

3 可持續發展管治

3 Sustainable Governance

3.1 責任企業管理

作為全國最大的城市燃氣營運商，華潤燃氣積極履行公司的社會責任，希望透過自身的影響力推動可持續發展，為全社會企業樹立榜樣。集團承諾提供專業、高效、親切的服務，供應安全、穩定、清潔的燃氣；致力於改善大氣污染及環境質量，提升生活質量；不斷追求卓越，實現股東價值、員工價值和社會價值最大化，攜手共創美好生活。

3.1 RESPONSIBLE CORPORATE MANAGEMENT

As the largest city gas operator in China, CR Gas vigorously fulfills its corporate social responsibility, hoping to set an example for social enterprises through its own influence on promoting sustainable development. The Group undertakes to provide professional, efficient and thoughtful services, and to supply safe, stable and clean gas. The Group strives to improve the quality of environment and the quality of life. The Group constantly strives for excellence, and to maximize shareholder value, employee value and social value.

使命 Mission	攜手共創美好生活 To create a better life together
價值觀 Value	誠實守信、業績導向、客戶至上、感恩回報 To be honest and trustworthy, performance-oriented, customers first, and be thankful
責任文化 Responsibility culture	<ul style="list-style-type: none"> 正確對待業績、辛苦和價值觀，業績不向辛苦妥協，價值觀不向業績妥協。 To treat performance, hardworking and value correctly with performance over hard work and culture over performance. 努力打造「簡單、坦誠、陽光」的組織文化。 Strive for an organizational culture with simpleness, frankness and transparency. 對經理人要嚴，對員工要善。 To be strict with managers and be kind with employees. 尊重人的價值，開發人的潛能，升華人的心靈，保護員工權益，實現企業價值和員工價值最大化。 To respect people's value, exploit people's potential and sublimate people's soul, as well as to protect interests of employees, so as to maximize shareholder value and employee value. 誠信是華潤燃氣文化的基石，是必須堅守的底線。 The cultural foundation of CR Gas lies in integrity, which is the bottom line we must keep up. 為客戶提供更為優質、環保和人性化的產品和服務，不斷超越使用者的期望。 To provide customers with more quality, environmental friendly and customized products and services, continuously going beyond expectations of users. 攜手合作夥伴互惠互利，共同發展，合作共贏。 To work together with partners to achieve mutual benefits, common development and win-win situation. 不以犧牲環境為代價謀求企業發展，不以犧牲環境的長遠利益換取企業的短期效益，不以損害員工健康為前提美化工作空間。 To avoid seeking enterprise development in jeopardy of environment, avoid obtaining short term benefits in jeopardy of long term interests of environment and avoid beautifying work space in jeopardy of employee's health. 不以犧牲公民的健康和生命謀取沒有良心利潤，不以損毀品牌為代價謀求企業短暫輝煌。 Earning profits without consciousness in consideration of damaging people's health and life and achieving a brief success through trashing brand are not acceptable. 常懷感恩之心，努力強制反饋社會。 To always embrace thankfulness and work hard to return to the society.

華潤燃氣透過內部完備的可持續發展架構，由上而下統籌和規劃集團和公司的可持續發展工作。董事會負責環境、社會及管治相關風險的評估、釐定和管理，以及華潤燃氣可持續發展工作的決策和審核；而集團辦公室負責領導集團可持續發展的日常工作，研究公司可持續發展管理的政策、治理、戰略、規劃等，以及審閱公司年度可持續發展計劃及各部門的執行情況。公司部門負責在相應的工作領域配合計劃，並於編寫年度可持續發展報告中擔任收集可持續發展工作素材的角色。

CR Gas plans the overall sustainable development work of the Group and the Company on top-down approach through internal established sustainable development structure. The Board is responsible for assessment, determination and management of risks in relation to environment, society and governance, as well as decision and review of the sustainable development work of CR Gas. The Office of the Board is responsible for leading daily work relating to the Group's sustainable development, researching the policy, governance, strategy, planning, etc. of corporate sustainable development management, as well as reviewing the Company's annual sustainable development plan and implementation status. Departments of the Company are responsible for coordination in their respective working areas, and play a role of collecting materials about sustainable development in preparation of annual sustainable development report.



3.2 利益相關方溝通

本集團深信，要得到利益相關方的長期支持，必須從持續了解和響應他們的關注和期望著手。因此，本集團積極透過日常營運和不同的溝通機制（見下表），維繫與政府及監管機構、股東、客戶、員工、業務夥伴及社區團體等利益相關方的關係，聽取他們的寶貴意見，並在決策過程中考慮他們提出的要求，以及計劃和實行華潤燃氣的社會責任行動。

3.2 STAKEHOLDER ENGAGEMENT

In order to receive long-term support from stakeholders, the Group is convinced that it is necessary to continue to understand and respond to their concerns and expectations. Therefore, the Group actively maintains relationships with stakeholders such as government and regulatory bodies, shareholders, customers, employees, business partners and community groups through daily operations and different communication mechanisms (see table below) to listen to their valuable opinions. In the decision-making process, the Group will consider their requirements and plan and implement the social responsibility actions of CR Gas.

利益相關方 Stakeholders	溝通方式 Communication Channels
政府及監管機構 Government and regulatory bodies	<ul style="list-style-type: none"> • 訪問 Interviews
股東／投資者 Shareholders/investors	<ul style="list-style-type: none"> • 問卷調查 Questionnaire surveys • 與投資者面談及進行電話會議 Interviews with investors and conference calls • 投資者論壇及會議 Investor seminars and meetings • 分析員簡報會及股東周年大會 Analysts briefings and AGM • 年報及中期報告 Annual and interim report • 集團網站的「投資者關係」分頁 “Investor Relations” web page on the Group’s website
客戶 Customers	<ul style="list-style-type: none"> • 問卷調查 Questionnaire surveys • 客戶滿意度調查 Satisfactory survey of customers • 客戶服務熱線 Customer services hotline • 網站及社交媒體 Websites and social media

利益相關方 Stakeholders	溝通方式 Communication Channels
員工 Employees	<ul style="list-style-type: none"> 問卷調查 Questionnaire surveys 訪問 Interviews 會議 Meetings 內部網絡 Intranet 培訓會 Trainings 與員工溝通的活動 Employee engagement activities 持續溝通 Continuous communication
業務夥伴 Business partners	<ul style="list-style-type: none"> 問卷調查 Questionnaire surveys 訪問 Interviews 審核及評估 Audits and assessment 戰略合作 Strategic cooperation 持續的直接溝通 Continuous direct communication
社區團體 Community groups	<ul style="list-style-type: none"> 公益活動 Public welfare activities 志願服務 Volunteer services

2018年，華潤燃氣委託第三方顧問進行獨立利益相關方問卷調查，利用調查結果進行重大性議題分析，了解他們對與華潤燃氣有關的ESG議題的關注和期望，用以加強當年報告內容的響應，以及指導未來公司開展可持續發展工作的整體方向。

In 2018, CR Gas commissioned a third-party consultant to conduct a questionnaire survey for independent stakeholder. CR Gas conducted an analysis of material issues based on survey results to understand their concerns and expectations regarding ESG issues related to CR Gas, so as to strengthen the response in the content of current annual report and guide the overall direction of future sustainability of the Company.

3.3 重大性議題判定

重大性議題分析有助集團適時審視在環境、社會及管治的潛在風險與機會，讓公司可以及早制定政策和行動管理相關領域。華潤燃氣在準備二零一八年報告時，以下列步驟識別相關的議題及重大性：

3.3 MATERIALITY ANALYSIS

Materiality Analysis helps the Group to review potential risks and opportunities of environment, society and governance in due times, and to lay down policies and adopt acts in early stages to manage relevant areas. In preparation of 2018 annual report, CR Gas identified the following issues and materiality using the following steps:

<p>背景分析 Background analysis</p>	<p>政策趨勢分析：深入解讀國家宏觀政策及能源行業相關政策法規，理解能源及燃氣行業可持續發展趨勢。 Policy trend analysis: In-depth interpretation of national macroeconomic policies and related energy industry policies and regulations to understand the sustainable development trend of the energy and gas industries.</p> <p>報告標準分析：梳理國內外社會責任標準，把握最新可持續發展議題管理標準及信息披露要求。 Report standard analysis: To sort out domestic and international social responsibility standards, and to keep abreast of the management standards and information disclosure requirements for sustainable development issues.</p> <p>優秀企業對標：選取國內外可持續發展優秀企業，深入進行實質性議題對標，分析確定燃氣行業熱點議題及自我差距。 Excellent company benchmarks: To select domestic and international corporates with outstanding performance in sustainable development to conduct in-depth benchmarks on substantive issues, and to analyze and identify hot issues in the gas industry and the gap between the Company and those benchmark companies.</p> <p>相關方期望分析：以訪談和問卷調查形式了解華潤燃氣利益相關方關注的問題，分析發現利益相關方最關心的重點議題。 Stakeholder expectations analysis: To understand the concerns of CR Gas stakeholders in the form of interviews and questionnaire surveys and to analyze the most concerned key issues of them.</p> <p>公司發展戰略：結合華潤燃氣發展戰略，識別對華潤燃氣發展意義重大的關鍵議題。 Company development strategy: To identify key issues that are of significance to the development of CR Gas in conjunction with the development strategy of CR Gas.</p>
<p>議題的初步確定 Preliminary determination of the issues</p>	<p>通過梳理國內外可持續發展標準、公司發展戰略規劃和公司實踐，並結合各利益相關方關注點，確定26項華潤燃氣相關的社會責任議題。 To identify 26 social responsibility issues related to CR Gas by reviewing domestic and international sustainable development standards, corporate development strategic plans and company practices, as well as combining stakeholder concerns.</p>
<p>議題評估 Evaluation of the issues</p>	<p>根據初步梳理出的26項可持續發展議題，制定華潤燃氣可持續發展報告重大性議題分析問卷，並向內外部利益相關方實施問卷調查。 Based on the 26 sustainable development issues that have been streamlined, a questionnaire on major issues for CR Gas sustainable development report was compiled and a questionnaire survey was conducted with internal and external stakeholders.</p>
<p>議題篩選 Screening of the issues</p>	<p>根據調查結果，以「對公司發展的重要性」及「對利益相關方的重要性」兩個維度，建立重大議題分析矩陣，對議題進行優先等級排序，並對篩選出的議題進行審核，確定公司可持續發展重大性議題。 In accordance with the results of the survey, an analysis matrix for major issues was established with two dimensions of “the importance to the development of the Company” and “the importance to stakeholders” to prioritize the issues, and to review the selected issues to determine the major issues for sustainable development of the Company.</p>

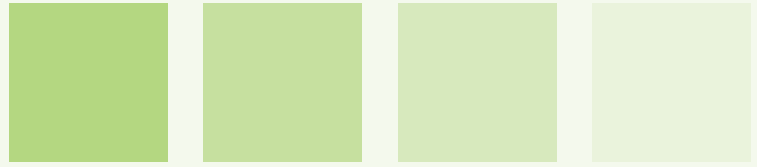
議題審核 Review of the issues	將重大性議題轉化為報告的內容，制定報告的初步框架，並對報告內容框架進行內外部審核。 To translate the major issues into the content of the report, to develop a preliminary framework for the content of the report and to conduct internal and external reviews of the report framework.
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華潤燃氣董事會和管理層定期檢討已識別重大議題的有效性和影響。由於本報告年的業務及所處市場與2017年相比並無重大變更，集團繼續根據上述年度歸納出的重大議題清單準備本報告。下表中以**粗體**顯示的項目為與華潤燃氣相關的重大議題，有關議題將會在本報告內重點描述及討論。

The Board and management of CR Gas regularly review the effectiveness and impact of material issues identified. As there are no significant changes in the business and market in this reporting year as compared to that of 2017, the Group continues to prepare this report based on the list of material issues summarized in the above year. The items in **bold** in the following table are material issues related to CR Gas, which will be highlighted and discussed in this report.

社會責任議題 Social Responsibility Issues			
1. 持續穩定回報 Sustainable and stable return	8. 加強应急管理 Strengthening emergency management	15. 促進員工成長 Promoting employee development	22. 積極融入社區 Integrating into the community actively
2. 強化股東參與 Strengthening shareholders' participation	9. 開展安全檢查 Conducting safety inspections	16. 暢通發展渠道 Opening up development channels	23. 降低生產能耗 Reducing energy consumption during production
3. 深化自主創新 Deepening independent innovation	10. 完善管道建設 Improving pipeline construction	17. 幫扶困難員工 Helping employees in hardships	24. 倡導節能減排 Encouraging energy saving and emission reduction
4. 完善公司治理 Improving corporate governance	11. 暢通服務渠道 Opening up service channels	18. 公平透明採購 Fair and transparent procurement	25. 推廣清潔能源 Promoting clean energy
5. 懲治貪污腐敗 Punishment on corruption	12. 職業健康管理 Occupational health management	19. 加強跨界合作 Strengthening crossover cooperation	26. 資源高效利用 Efficient utilization of resources
6. 強化風險管理 Strengthening risk management	13. 保障員工權益 Protecting rights and interests of employees	20. 支持社會公益 Social welfare support	
7. 保障供氣穩定 Guaranteed stable gas supply	14. 關愛員工生活 Care for employees' lives	21. 倡導志願服務 Encouraging volunteer service	

04





清潔能源

創造綠色價值

Clean Energy

Creating Green Value



4 清潔能源 創造綠色價值

4 Clean Energy Creating Green Value

4.1 環境管理

華潤燃氣繼續肩負「致力於改善環境質量，提升生活質量」的企業使命。本著「推廣清潔能源，持續改善環境，堅持綠色發展，共建美麗家園」的環保願景，華潤燃氣在「不以犧牲環境為代價，謀求企業發展；不以犧牲環境的長遠利益換取企業的短期效益；珍惜資源，節能降耗，杜絕浪費」的企業價值觀下，訂立了「零污染、低能耗、低排放」的環保目標，作為業務管理和營運方向。

華潤燃氣支持國家政府和國際間的環保工作，並恪守國家環保法例及行業標準，包括《中華人民共和國環境保護法》、《中華人民共和國水污染防治法》、《中華人民共和國大氣污染防治法》、《中華人民共和國環境噪聲污染防治法》、《中華人民共和國固體廢物污染環境防治法》、《中華人民共和國環境影響評價法》、《中華人民共和國節約能源法》和《中華人民共和國清潔生產促進法》。報告期內，華潤燃氣沒有違反與環境相關的法例法規。

此外，集團加強環境監測預警制度，要求各層級單位根據企業實際和業務特點，建立環境風險監測監控系統，明確負責管理機構和人員，監測、預警可能發生的突發環境事件。通過完善突發環境事件應急預案體系，讓應急組織機構及職責更為清晰，進而減低突發環境事故發生對集團和周邊環境的負面影響。

4.1 ENVIRONMENT MANAGEMENT

CR Gas continues to shoulder its corporate responsibility of "Committing to improve the quality of environment and people's life quality". In compliance with its vision on environment, namely "Promoting clean energy, continuously improving the environment, insisting on green development, working together for a beautiful homeland", under the guidance of its corporate values of "Seeking for corporate development but never at the cost of the environment; Never exchanging the long-term benefit of environment for our corporate's short-term profit; Valuing resources, saving energy and reducing consumption, avoiding waste", CR Gas has set its objective on environmental protection of "Zero pollution, low energy consumption, low emission", as the direction for its business management and operation.

CR Gas supports the environmental protection work of the state and those between countries, and strictly complies with national environmental regulations and industry standards, including Environmental Protection Law of the People's Republic of China, Law of the People's Republic of China on the Prevention and Control of Water Pollution, Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, Law of the People's Republic of China on Prevention and Control of Pollution From Environmental Noise, Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, Law of the People's Republic of China on Appraising of Environment Impacts, Law of the People's Republic of China on Energy Conservation and Law of the People's Republic of China on Promoting Clean Production. During the reporting period, CR Gas did not violate any environmental laws or regulations.

In addition, the Group strengthens its environmental monitoring and early warning system, requests departments at all levels to establish environmental risks monitoring and controlling system on the basis of their actual features and business characteristics, specify the responsible managerial bodies and persons, monitor and make warning against any environmental emergencies. Through optimizing the environmental emergency response system, the organizations and duties for emergency become clearer, the negative impact on the Group and the surroundings by environmental emergency occurred is in turn reduced.

另一方面，集團設立年度節能減排控制目標，對與燃氣行業相關的各類能源的消耗量、二氧化碳排放量、營業額、增加值等數據進行實時跟蹤。公司將萬元增加值綜合能耗（可比價）、萬元營業收入綜合能耗（可比價）納入考核指針，對各級附屬單位進行年度的考評。華潤燃氣亦有制定《節能減排管理制度》和《用水、用電、用油管理標準》，指導各級單位做好節能減排工作，並定期監測能源使用情況。

本集團的溫室氣體排放主要來源於生產、辦公所消耗的汽油、柴油、電力、天然氣等能源；有害廢棄物主要為少量的加臭劑桶；無害廢棄物主要分為辦公生活垃圾、報廢的廢舊管線兩大類。本集團對於有害廢棄物均實施返場或交由有資質的第三方合規處置，無害廢棄物亦統一集中處理。

華潤燃氣鼓勵實行多項環保管理機制和措施，在內部日常營運層面兌現低碳和「珍惜資源、節能降耗、杜絕浪費」的環保理念。集團鼓勵員工有節制地用水、用電和用紙，以降低辦公對環境的影響，提升資源效率，並在辦公區域張貼海報、組織「低碳日」、節能宣傳周等活動，積極宣揚節水節電，強化員工綠色辦公、低碳生活的意識。

On the other hand, the Group sets yearly target on energy saving and emission reduction, carries out real-time tracking on the consumption volume of various energy, the emission volume of carbon dioxide, turnover, value added and other data which are related to gas sector. Comprehensive energy consumption per RMB10,000 added value (comparable price) and comprehensive energy consumption per RMB10,000 business revenue (comparable price) are included into the list of appraisal indicators for the annual appraisal of affiliated units at all levels. CR Gas has also formulated Management System on Energy Saving and Emission Reduction and Management Standards on the Usage of Water, Electricity and Oil to guide departments at all levels to carry out energy saving and emission reduction work, and monitors regularly the usage of energy.

Greenhouse gas emissions by the Group are mainly caused by the use of gasoline, diesel, electricity, natural gas, and other energy sources consumed by production and office. The hazardous waste mainly includes a small amount of odorant barrels; non-hazardous waste mainly includes office trash and scrapped old pipes and cables. The Group implements hazardous waste return or deliver them to qualified third-party for compliant disposal, while non-hazardous waste is processed centrally.

CR Gas encourages the implementation of various environmental protection systems and measures, implements the environmental protection principles of low carbon and "Cherishing resources, Saving energy and reducing consumption, Avoiding waste" in its internal daily operation. The Group encourages its staff to use water, electricity and paper in moderation, to reduce the impact on the environment by office and improve resources efficiency. It posts posters in office areas, promotes activities for "low carbon day" and energy saving publicity week, takes proactive measures to encourage water and electricity saving, and strengthen the staff's awareness on green office and low carbon lifestyle.

同時，本集團在硬件上配合，除了令工作更便利，也讓員工在工作上可以實踐環保：例如，公司利用信息體系，一方面令工作流程更為自動化，另一方面透過加入在線合同審批等功能，有效地減少使用紙張；集團設有視頻和電話會議系統，大幅減少公務出行的必要，降低管理成本、資源消耗和碳排放。此外，集團主動對施工時產生的揚塵、嘈音及污染物進行處理。

華潤燃氣不斷加大環境保護力度，2018年各級單位共配置137人從事環保管理工作，累計環保總投入2,445.87萬元幣、節能減排技術改造投入2,312.71萬元人民幣。年內，集團在實現營業額提升15%的情況下，耗電量僅上升1.46%、汽油消耗量下降3.65%、柴油消耗量下降13.38%。

集團定期向公司收集排放物、碳排放、用能、用水，以及廢物產生量和回收量，以了解內部使用資源的情況和環境表現，適時檢討措施的成效。下表載列華潤燃氣本年度各環境績效指標的表現：

排放物種類	Types of emissions	單位 Unit	2018
溫室氣體排放總量	Total greenhouse gas emission	噸二氧化碳當量 tons CO ₂ e	252,784.778
溫室氣體排放密度	Greenhouse gas emission density	噸二氧化碳當量/億港元營業額 tons CO ₂ e/100 million HK\$ of business revenue	0.0494
SO _x 排放總量 ¹	Total SO _x emission ¹	千克 kg	115.234

附註：

1. 本集團硫氧化物排放總量為車輛日常使用過程中燃燒汽油、柴油所產生的排放量。

Moreover, the Group invests resources in hardware, which not only assists the staff with their work, but also facilitates them to perform environmental protection in their work. For example, through the utilization of information system, the working process becomes more automatic on one hand, and the usage of paper is reduced effectively by adding the function of approving contracts on line on the other hand; The Group has video and telephone conference systems in place to avoid the necessity of business travelling, which reduces the management cost, resources consumption and carbon emission. In addition, the Group disposes of the dust, noise and pollutant produced in construction on its own initiative.

CR Gas makes continuous efforts in environmental protection. In 2018, 137 employees from departments at all levels were deployed to participate in the environmental protection management, with RMB24.4587 million of accumulated funds in total being invested in environmental protection while RMB23.1271 million in upgrading the technology for energy saving and emission reduction. During the Year, the Group recorded 15% increase in its turnover, however, its electricity consumption increased by only 1.46%, gasoline consumption decreased by 3.65%, while diesel consumption decreased by 13.38%.

The Group collects the data on the volume of emission, carbon emission, the consumption volume of resources and water, as well as the amount of waste produced and recycled regularly from its member companies, to learn its internal resources usage and performance on environment and review the effectiveness of its measures at an appropriate time. The following table sets out CR Gas's performance against each environmental performance indicator in the Year:

Note:

1. Total sulfur oxide emission of the Group represents emission from the consumption of gasoline and diesel oil during the daily use of vehicles.

資源種類	Resource type	單位 Unit	2018
柴油消耗量	Diesel consumption volume	噸 tons	1,200.034
汽油消耗量	Gasoline consumption volume	噸 tons	4,549.886
天然氣消耗量	Natural gas consumption volume	萬標準立方米 10,000 standard m ³	961.229
外購電力消耗量	Externally purchased power consumption volume	萬千瓦時 10,000 KWH	22,083.148
綜合能源消耗折標煤總量	Total integrated energy consumption conversion to standard	萬噸標煤 10,000 tons of standard coal	4.837
柴油消耗密度	Diesel consumption density	噸／億港元營業額 tons/100 million HK\$ of business revenue	2.345
汽油消耗密度	Gasoline consumption density	噸／億港元營業額 tons/100 million HK\$ of business revenue	8.893
天然氣消耗密度	Natural gas consumption density	萬標準立方米／億港元營業額 10,000 standard m ³ /100 million HK\$ of business revenue	1.879
外購電力消耗密度	Externally purchased power consumption density	萬千瓦時／億港元營業額 10,000 KWH/100 million HK\$ of business revenue	43.160
綜合能耗折算標煤密度	Integrated energy consumption standard coal conversion density	萬噸標煤／億港元營業額 10,000 tons of standard coal/100 million HK\$ of business revenue	0.0095
燃氣具包裝材料 ¹	Packaging materials of gas appliances ¹	噸 tons	374.48

附註：

1. 本集團產品包裝材料基本僅用於百尊燃氣具的包裝，根據2018年百尊燃氣具實際銷售量及使用紙箱種類根據GB6543-2008進行估算。

Note:

1. Product packaging materials of the Group are substantially used to pack gas appliances of PERCEN, and the consumption of product packaging materials is estimated based on actual sales volumes of gas appliances of PERCEN in 2018 and types of paper boxes used in accordance with GB6543-2008.

4.2 提供綠色清潔能源

華潤燃氣積極響應國家發展潔淨能源和保護環境的工作，透過在不同地區加快鋪設燃氣管網，以及對老舊燃氣管網進行更換，進一步減低社會對用煤的依賴，讓更多小區可以使用更清潔環保的天然氣。

在車用能源方面，華潤燃氣積極推廣車用天然氣，各級下屬單位在全國範圍內投資興建天然氣汽車加氣站，截止2018年，華潤燃氣共建設天然氣汽車加氣站289座，銷售燃氣餘16億立方米。此外，華潤燃氣積極推進汽車充電業務，年內累計建設充電站38座，共為1,734輛電動車提供充電服務，累積銷售電量6,200萬度，經營利潤達1,390萬元人民幣，而杭州、南京充電樁公司投入穩定營運，日均充電量14.6萬度，為綠色交通做出顯著貢獻。

在工業能源方面，華潤燃氣積極響應國家大氣污染防治的號召，積極推進「煤改氣」工作。2016至2018年間，公司累計完成農村「煤改氣」約70萬戶，改造村莊2,612個，投入約40億元人民幣，其中2018年完成29.8萬戶，改造村莊1,232個。此外，華潤燃氣全年銷售工業燃料用天然氣114.1億立方米，為工業綠色發展做出貢獻。以下列出四家區域公司在不同地區加緊「煤改氣」工程的例子。

4.2 PROVISION OF GREEN AND CLEAN ENERGY

In an active response to the national development of clean energy and environmental protection, CR Gas accelerates the construction of gas pipelines networks and the replacement of aged gas pipelines networks of different areas to further reduce social dependence on coal, making more areas access to cleaner and more environmental gas.

In terms of vehicle-use energy, CR Gas proactively promotes automotive natural gas and subordinate subsidiaries have invested in the construction of natural gas vehicle filling stations worldwide. CR Gas has established 289 natural gas vehicle filling stations in total and sold gas of over 1.6 billion cubic meters by 2018. In addition, CR Gas actively facilitated the vehicle charging business and constructed an aggregate of 38 charging stations during the Year, providing charging service for totaling 1,734 electric vehicles with accumulative electricity of 62 million KWH and an operating profit of RMB13.90 million. Charging posts in Hangzhou and Nanjing companies were put into service with stable operation with daily charging capacity of 146,000 KWH, which made significant contributions to green transportation.

With regard to industrial energy, CR Gas proactively responds to the national call of air pollution control by actively promoting the coal-to-gas conversion. From 2016 to 2018, the Company completed the rural coal-to-gas conversion for approximately 700,000 users and rebuilt 2,612 villages with an investment of RMB4 billion, and 298,000 users and 1,232 villages in 2018. Besides, the annual sales volume of industrial gas of CR Gas is 11.41 billion cubic meters, contributing to the green industry development. Set out below are examples that four regional companies speed up the pace of the "coal-to-gas conversion" project in different areas.

案例一：賢官煤改氣項目

Case 1: Coal-to-gas conversion project of Xianguan

沭陽縣賢官鎮是著名的蘇北工業重鎮，目前擁有木材加工企業150餘家，燃煤鍋爐150餘台，每天排出40多噸的煙塵，給城鄉居民的健康造成較大的傷害。

背負著快速改善社會空氣環境的使命，為了讓工業重鎮早日用上清潔的天然氣，擺脫燃煤污染問題，華潤燃氣成立專項工作小組，在短短的5個月內，完成賢官工業企業的通氣點火工作。

項目中，華潤燃氣先後投入3,500萬元人民幣，建設次高壓管道14公里、LNG氣化站一座，並現場投入市場、工程、運行、客服近2,000人次。該項目成功為該鎮130家木材加工企業通上了清潔的天然氣，減少近40噸的煙塵排放，降低企業成本，改善了人居環境。

As a distinguished industry hub of Northern Jiangsu, Xianguan of Shuyang County has more than 150 wood processing enterprises with over 150 coal-fired boilers discharging more than 40 tons of smoke and dust, harmful to the health of urban and rural residents.

With the mission of quickly improving the social and air environment, CR Gas established the special group to complete the gas connection and ignition of industrial enterprises of Xianguan in just five months, in order to make clean natural gas available to the industry hub and get rid of the problem of coal-fired pollution.

CR Gas has invested RMB35 million in the project to construct intermediate pressure pipelines with a length of 14 kilometers and one LNG gasification station with nearly 2,000 on-site services provided for marketing, engineering, operation and customer services. This project managed to provide clean natural gas to 130 wood processing enterprises in Xianguan town, thus reducing by approximately 40 tons of smoke and dust, decreasing the enterprise cost and improving the living environment.

案例二：全國首座「橫火焰蓄熱式玻璃坩堝窯」

Case 2: The first national “cross-fired regenerative glass furnace (橫火焰蓄熱式玻璃坩堝窯)”

中山古鎮被譽為「中國燈都」，是國內最大的燈飾專業生產基地和批發市場，佔全國市場份額的60%以上，其中能耗最大的產業玻璃窯爐，一直以來都是中山公司市場重點開發的行業。燈飾玻璃產業以小作坊的民營企業為主，生產毛利低，企業一直以來使用的都是煤粉、石油焦粉等高污染的低端能源，直接進行改造的難度大，成本上漲巨大。

為了改變中山古鎮能源使用現狀，華潤燃氣中山公司率先提出「賣熱值」向「賣價值」的轉變。從2009年開始，公司組織市場人員和技術專家投入對該行業的升級改造。在各方努力下，成功開發出國內首座「橫火焰蓄熱式玻璃坩堝窯」，並獲得4項實用新型專利，綜合節能達40%以上，日用氣量在1,500方左右，全面實現預期目標。2018年帶動銷氣量增長1,000萬方／年，折合每年節約標煤714萬噸，減少了1,870噸二氧化碳排放。

Known as the “Light City of China (中國燈都)”, the ancient town of Zhongshan is the largest light specialty production base and wholesale market in China, representing over 60% of the national market share. The glass furnace industry whose energy consumption is the largest has been the market focus of Zhongshan Company. The lamp decoration glass industry is dominated by small-sized private enterprises with low gross profit. Such enterprises have been using highly-polluted and elementary energy such as coal dust and petroleum coke powder, so it is difficult to directly undertake transformation and there would be a significant increase in cost.

In order to change the energy use of Zhongshan, CR Gas initiated the transformation from “selling calorific value (賣熱值)” to “selling value (賣價值)”. The Company has organized market staff and technical experts to upgrade and transform the industry since 2009. The first national “cross-fired regenerative glass furnace” was launched under the efforts of all parties and was awarded four utility model patents, of which the comprehensive energy saving reached over 40% and the daily gas consumption was around 1,500 cubic meters which achieved the expected target. The sales volume of gas increased by 10 million cubic meters per year in 2018, representing saving 7.14 million tons of standard coal per year and reducing carbon dioxide emissions by 1,870 tons.



案例三：大同農村煤改氣，「大同藍保衛戰」

Case 3: The rural coal-to-gas conversion of Datong, “Defending the blue sky of Datong (大同藍保衛戰)”

大同公司於2017年8月簽訂為全市以氣代煤清潔能源改造1萬戶的任務，持續改善大同市的空氣質量，長效解決煤煙、揚塵和粉塵污染，積極響應國家、政府的號召，開展當地煤改氣工作。已完成熱力公司7處，鐵路4處、70研究所、東華機械、同煤力泰等共計413噸燃煤鍋爐改造工作。現已完成雲州區大坊城新村、郭家窯頭村和營房村共計1,100戶、雲崗區7,700戶煤改氣施工工作。

2018年大同市二級以上優良天數達到288天，全年空氣質量在全省11個地市中位居第一，實現了全省空氣質量「六連冠」。彰顯了大同公司堅決打贏大同藍天保衛戰的決心和力度。

Datong Company entered into the task in relation to the clean energy transformation of 10,000 users in terms of the coal-to-gas conversion in the city in August 2017 to continuously improve the air quality of Datong and to solve the pollution problems with respect to smoke, dust and powder dust in the long term. Datong Company actively responds to the call of the nation and the government to carry out the local coal-to-gas conversion, in which the transformation of coal-fired boilers with a total of 413 tons of coal was completed, including transformations of 7 heating power companies, transformations of 4 railways, transformations of 70 research institutes as well as Dong Hua Machinery and Tong Mei Li Tai (同煤力泰). Currently, Datong Company has completed the coal-to-gas conversion for 1,100 users in total of Dafangchengxin village in Yunzhou (雲州區大坊城新村), Toucun and Yingfang village of Guojiayao (郭家窯頭村和營房村) and 7,700 users of Yungang (雲崗區).

In 2018, there were 288 days of which the air quality was above class 2 in Datong city, the annual air quality ranking first among 11 cities of Shanxi province. Datong city has won six consecutive championship in respect of the air quality of the province, highlighting the determination and efforts it made to defend the blue sky.

案例四：鄒城「氣代煤」工程

Case 4: The coal-to-gas conversion of Zoucheng

鄒城華潤燃氣有限公司也積極響應政府號召。2018年，鄒城華潤燃氣公司承擔的共5,764戶氣代煤工程，涉及中心鎮、鋼山街道、鳧山街道等共9個村居的安裝任務。該工程於2018年4月份開工建設，並於10月下旬，全部完成安裝、調試、供氣任務。鄒城華潤燃氣有限公司在規定時限內保質保量完成氣代煤任務，受到了鄒城市人民政府的認可和社會各界的好評。

In an active response to the governmental call, Zoucheng China Resources Gas Co., Ltd (鄒城華潤燃氣有限公司) carried out the coal-to-gas conversion for an aggregate of 5,764 users in 2018, including the installation of the coal-to-gas conversion in 9 villages, such as Middletown, Gangshan Street and Fushan Street. The construction of the project commenced in April 2018 and the installation, commissioning and gas connection of the project were completed in late October. Zoucheng China Resources Gas Co., Ltd has completed the coal-to-gas conversion with guaranteed quality and quantity within the specified time limits, which received recognition from the people's government of Zoucheng and praises from the community.

4.3 推進生態保護

集團在擴展全國輸氣管網時或會觸及生態敏感的地區，為了保障物種的棲身地質素不會因華潤燃氣的項目而下降，公司所有新建燃氣項目均需要進行環境和社會影響評估，實施「三同時制」，即環境保護設施必須與主體工程同時設計、同時施工、同時投入使用。並要求100%開展環境和社會影響評價，以減小項目建設對周邊自然生態及生物多樣性帶來的影響；開展生產噪音治理工作，通過加裝隔音、吸引裝置，確保廠界噪音符合國家標準，降低場站輸配工藝產生噪音對附近居民日常生活產生的影響；並同時大力推進管道天然氣改造工作，拓展燃氣服務邊界，在避免安全事故的同時，減少社區周邊污染物排放。

不僅如此，華潤燃氣亦積極構建突發環境事件應急預案體系，完善突發環境事件的分級標準和應急組織架構，按照影響程度將事件分為紅色、橙色、黃色和藍色四級預警，並對應I級、II級、III級應急響應，其中I級應急響應對應紅色預警，由華潤集團（含專家組）與華潤燃氣共同組織實施；II級應急響應對應橙色預警，由華潤燃氣組織實施；III級應急響應對應黃色和藍色預警，由區域管理中心統籌負責事發單位具體組織實施。

4.3 PROMOTING ECOLOGICAL CONSERVATION

The Group may have access to ecologically sensitive areas when expanding the national gas pipeline networks. In order to ensure that the quality of habitats of species will not decrease for the project of CR Gas, all newly constructed gas projects of the Company are subject to the environmental and social impact assessments and the implementation of the “three- simultaneous system” that environmental protection facilities shall be designed, constructed and put into operation simultaneously together with the main part of the projects. The Group requires that full environmental and social impact assessments shall be undertaken, so as to reduce the impact of project construction on adjacent natural ecology and biodiversity. The Group endeavors to minimize the noise produced by industrial activities by installing noise-proofing and sound-absorbing devices, ensuring the noise produced by the factory base falls within the national standards and reducing the impact of noise generated from transmission and distribution technology of terminals on daily life of residents nearby. In addition, the Group puts greater efforts to promote the reconstruction of natural gas pipeline, expanding the coverage of gas services, and cutting down pollutant emission to the surrounding communities while avoiding safety accidents.

In addition, CR Gas also vigorously establishes emergency response system for emergency environment accidents, and optimizes grading standards and emergency structures of these accidents. Four levels of early warning system, i.e. red, orange, yellow and blue, are introduced on the accidents based on their seriousness, which could trigger Grade I, II, III emergency response. Grade I emergency response, corresponding to the red early warning, is jointly implemented by China Resources Group (experts team inclusive) and CR Gas, Grade II emergency response, corresponding to the orange early warnings, is implemented by CR Gas, and Grade III emergency response, corresponding to the yellow and blue early warnings, is implemented by responsible departments under the arrangement of regional management center.

此外，公司對各級基層單位的環保預警和監測作出規定，要求各層級單位根據企業實際和業務特點，建立環境風險監測監控系統，明確負責管理機構和人員，監測、預警可能發生的突發環境事件，降低企業經營風險。

未來，華潤燃氣將持續融入「加快生態文明體制改革、推進綠色發展、建設美麗中國」的戰略部署，將強環境管理制度體系建設，組織開展更加多元化的環保培訓，進一步提升員工的環境保護意識和能力，助力建設資源節約型、環境友好型企业，實現人與自然和諧共生。

Further, in terms of environment early warning and monitoring of the different grass root units, the Company requires the units from different levels to establish monitoring and supervision system for environmental risks based on their actual business operation and their characteristics of business, delegate responsible organizations and person to monitor and forecast potential emergency environmental incidents, so as to reduce operation risks.

Looking forward, through further implementation of the strategic initiative of "speeding up reform of the system for developing an ecological civilization, promoting green development and building a beautiful China", CR Gas will consolidate the construction of environmental management system, organize more diversified training for environmental protection, in order to further improve employees' awareness and capability for environmental protection with a view to building up a resources-saving and environment-friendly enterprise and realizing harmonious co-existence between human and nature.

05





強化管理 保障運營安全

Reinforced Management
To Secure Operational Safety



5 強化管理 保障運營安全

5 Reinforced Management to Secure Operational Safety

5.1 構建安全管理體系

華潤燃氣在每個營運環節都十分重視安全管理，將燃氣相關的風險減低，以保障員工的安全。除了遵守如《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》等國家法例法規和行業標準，集團亦在內部構建EHS方面的責任體系，華潤燃氣控股EHS委員會秘書處按規定向華潤集團EHS委員會報告，並透過發佈《華潤燃氣崗位EHS責任制度》和《華潤燃氣EHS責任追責制度》，指導所有員工其EHS責任和內部規定，全面落實EHS管理基礎。管理制度融合ISO45001、ISO9001、ISO14001等國際標準，全面涵蓋安全、健康、環保等內容。年內，華潤燃氣修訂出《華潤燃氣EHS管理體系文件(2018版)》，包括1個管理手冊、60個制度標準。各區域公司根據體系要求，逐步建立適用於區域一體化管理要求的區域EHS管理體系。

此外，集團還在《華潤燃氣EHS管理體系文件(2018版)》中納入了《交通安全管理制度》、《危險化學品運輸車輛交通安全管理制度》、《危運車駕駛員和押運員安全管理標準》等制度，向華潤燃氣車輛、車輛駕駛人員包含危運車人員提出管理要求和標準，並說明了違規行為和交通事故的處理規定等內容。

5.1 ESTABLISHMENT OF SAFETY MANAGEMENT SYSTEM

CR Gas emphasizes safety management throughout its operation process, and has reduced gas related risks so as to ensure the security of our staff. In addition to complying with national laws and regulations and industrial standards, such as Work Safety Law of the People's Republic of China(《中華人民共和國安全生產法》), Fire Protection Law of The People's Republic of China (《中華人民共和國消防法》) and Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases (《中華人民共和國職業病防治法》), the Group has also established an internal EHS responsibility mechanism. The secretariat of CR Gas's EHS Committee prepares report to CR Group's EHS Committee according to regulations, and gives instructions on EHS responsibility and internal regulations to staff by issuing "EHS Accountability System of Roles at China Resources Gas" and "EHS Accountability Ordinance of China Resources Gas", laying a foundation for EHS management. Referring to international standards, such as ISO45001, ISO9001 and ISO14001, the management system covers aspects including safety, health and environment protection. During the Year, CR Gas revised and launched the "EHS Management System Document of China Resources Gas (2018 version)" (《華潤燃氣EHS管理體系文件(2018版)》), which includes a management manual and 60 systematic standards. Based on system requirements, each regional company has gradually established regional EHS management system that is applicable to the regional integration management.

In addition, the Group added standards into the "EHS Management System Document of China Resources Gas (2018 version)", which include Traffic safety management standards (《交通安全管理制度》), Traffic safety management standards for dangerous chemicals transporting vehicles (《危險化學品運輸車輛交通安全管理制度》) and Dangerous vehicle driver and escort safety management standards (《危運車駕駛員和押運員安全管理標準》). Such standards provide management requirements and standards for CR Gas vehicles and drivers (including dangerous transporting related staff) and stipulate handling procedures for non-compliances and traffic accidents.

本集團配合外部法律法規的監管及完善的內部管理制度，致力於從經營管理、危機處理等方面全方位的執行職業安全與健康管理，實現成為「中國燃氣行業安全標桿企業」，並以零工傷作為內部的表現目標。報告期內，華潤燃氣沒有違反與職業安全與健康相關的法例法規。

Combining our monitoring on compliance with external laws and regulations and completing our internal management system, the Group endeavours to facilitate comprehensive occupational safety and health management from aspects such as operational management and crisis management. The Group is committed to realizing its vision of becoming the “safety benchmarking enterprise in the gas industry of China” and achieving its internal performance goal of zero work injury. During the reporting period, CR Gas had not violated any law or regulation relating to occupational safety and health.

案例：邯鄲華潤燃氣安全監察管理工作

Case: Safety Monitoring Management in Handan CR Gas

邯鄲公司管網運行部運行三班有8名在職員工，負責邯鄲市西南區域76台調壓櫃、415台箱式調壓器、330餘個中低壓燃氣閥門及周邊35個「煤改氣」村莊燃氣設施的維護保養及運行管理工作。邯鄲公司調度中心門站運行班嚴格遵守公司的安全管理制度，優先安全工作，在班組安全生產管理上，建立健全班組《安全生產責任制》、《安全操作規程》和《突發事故應急搶險預案》，嚴格落實崗位安全責任，保障了設備的正常安全運行。

因在安全生產工作中表現突出，邯鄲公司管網運行部運行三班和調度中心門站運行班在2018年被全國燃氣行業工會聯委會授予「安全班組」稱號。

The 3rd team of the Pipeline network operation department in our Handan branch has 8 employees, and is responsible for the maintenance and operation management of 76 pressure regulating counters, 415 pressure regulating boxes and about 330 mid-low pressure gas valves in south-west region of Handan as well as the neighbouring 35 “coal to gas conversion” village gas facilities. The operating team in dispatching centre of our Handan branch strictly obeys the Company's safety management system and prioritizes safety issues. In respect of team management on safe production, it has duly established the Safe production accountability system, Safety operation rules and Emergency plan for accidents, and has stringently conducted safety obligations of each position, making sure the daily safe operation of its equipment.

Given their outstanding performances on safe production, the 3rd team of the Pipeline network operation department and the operating team in dispatching center in our Handan branch were awarded the “Safe Units” (“安全班組”) by the China Gas Labour Union Joint Committee in 2018.

5.2 提升安全防範技能

華潤燃氣向區域公司投放資源，為員工提供安全培訓，傳播企業安全文化，提高員工安全技能和提升客戶安全意識，保障他們的職業健康安全。

5.2 IMPROVEMENT ON SAFETY PROTECTION SKILLS

CR Gas allocates resources to its regional companies and provides its staff with safety training, so as to promote a corporate safety culture, enhance staff's safety skills and improve customer's safety awareness for the purpose of securing their occupational safety and health.

案例：華潤燃氣安陽公司積極推行員工安全技能培訓

Case: CR Gas Anyang Company vigorously organized safety skills training for employees

華潤燃氣安陽公司編製了一線崗位操作崗位明白卡、應知應會題庫和應急處置方案指導意見，並拍攝崗位標準化作業視頻，作為安全知識技能系列數據，以多媒體方式強化員工的學習效果，全面提升一線員工安全素質。

在推行過程中，為把安全教育培訓與實踐充分融合，安陽公司進行了「一線崗位練兵、打造卓越工匠」活動。每個班組每月開展兩次崗位練兵，部門每季度組織一次技能比賽活動。除此以外，公司安全管理部門每季度安排一次全面檢查，將崗位練兵、技能比賽的成績與月度績效考核、優秀和首席員工評比結合起來。這一系列活動有效提升了員工安全技能，打造卓越工匠精神，為公司鞏固安全發展的基礎。

CR Gas Anyang Company prepared a notable list of operation, collections of instructions and guidelines on emergency plan for front line employees, and shot standard operation videos to obtain data of safety skills, reinforcing their studies by multimedia and improving safety quality of the front line employees.

During the process, to put the safety education and training into full practice, Anyang Company conducted "train front line employees and cultivate excellent craftsmen" activities. Every team conducted training two times a month, and the department organized skill competition once every quarter. In addition, the safety management arranged comprehensive inspection once every quarter, and combined training and results achieved in the skill competitions with month performance assessment and appraisal of excellent and chief employees. Those practices improved employee's safety skills, cultivated spirit of excellent craftsmen and laid a foundation for the Company's safety development.

在管理燃氣項目時，集團落實了多項減低職業安全與健康風險及控制措施，當中包括：

- 為員工提供充足的個人安全防護裝備；
- 定期為全體員工和特殊工種安排身體檢查；
- 對任職高危崗位的員工實行輪替和強制休假；
- 舉辦安全培訓和講座推廣企業安全文化；
- 為所有附屬公司每年安排至少一次內部安全演練，每三年與當地政府合作進行綜合安全演練；
- 委任季度安全標兵和安全人員，鼓勵員工積極參與安全建設工作。

In managing gas projects, the Group implemented various control measures to reduce risks about occupational health and safety, including:

- Providing sufficient safety protection equipment with employees;
- Arranging periodical physical examination for all employees and workers who are engaged in special kind of work;
- Carrying out shift and mandatory vocation for employees who are engaged in high-risk jobs;
- Conducting safety trainings and lectures to promote safety culture;
- Arranging internal safety drills for all subsidiaries at least once a year, and cooperating with local government to perform comprehensive safety drills every three years;
- Appointing quarter safety model and safety personnel to encourage employees to participate in safety construction.

為了進一步提升員工全面的消防安全素質，區域公司提供內部培訓，並安排當地消防部門向員工現場講解消防理論知識和實操技能，特別是對燃氣突發火災事故的應急處理，提出實質性的解決方案。受訓人員從而得到消防基本知識，掌握消防栓、滅火器等基本消防設施的使用，並了解對初期火災的撲救和火場救助與逃生的方法。

此外，集團透過區域公司所安排的「安全生產月」、「安全教育片觀看」、「安全知識學習」、「安全操作程序培訓」和「安全管理培訓會」等活動，致力促進員工健康的質素。成都公司根據華潤集團要求，組織以「健康華潤、職業健康先行」為主題的《職業病防治法》宣傳周。公司製作了「健康華潤、職業健康先行」的宣傳畫圖，並在公司辦公樓進行張貼和宣傳，內容包括《職業病防治法》介紹、職業病定義和危害、員工享有的保護權利等，並結合公司實際，對常見的噪聲、電焊煙塵等職業病的危害和預防知識進行宣傳。

To further improve safety quality of employees comprehensively, regional companies provided internal training and arranged local fire department to explain theoretical knowledge and practical operation of firefighting to employees, especially put forward substantial solutions to emergency treatments to a sudden fire disaster resulting from gas. As such, trainees acquired basic fire knowledge, mastered the use of fire infrastructures such as fire hydrants and fire extinguishers, and knew about methods of extinguishing a fire in early stage and rescuing and escaping from fire scene.

In addition, the Group is committed to keeping employees staying health through events which regional companies conducted, including "safe production month", "film on safety educational film viewing sessions", "safety knowledge learning", "safety operation procedure training" and "safety management training sessions". In response to requirement of China Resources Group, Chengdu Company organized publicity week of the Law of Occupational Disease Prevention and Treatment of the PRC (《職業病防治法》) with "Occupational health go ahead of a healthy China Resources" (健康華潤、職業健康先行) as its theme. The Company made posters of "Occupational health go ahead of a healthy China Resources" (健康華潤、職業健康先行) and posted them in the office buildings of the Company for publicity, which covered a brief introduction of the Law of Occupational Disease Prevention and Treatment of the PRC (《職業病防治法》), definition and harm of the occupational disease and rights of protection of employees entitled. The Company also publicized harm and prevention knowledge of the occupational diseases triggered by such as common noise and welding fume, based on actual situation.

案例：華潤燃氣成都公司落實安全與健康培訓教育

Case: CR Gas Chengdu Company conducted safety and health training

華潤燃氣成都公司組織各部門利用安全學習日、部門例會等場合宣傳《職業病防治法》，並對存在職業危害的崗位進行專項培訓教育，又為員工安排職業病體檢。通過《職業病防治法》宣傳周活動，公司提高了員工職業病防護意識和能力，從而預防和減少職業病的發生。

CR Gas Chengdu Company organized the publicity of the Law of Occupational Disease Prevention and Treatment of the PRC (《職業病防治法》) at the safety learning day and regular department meetings for different departments, carried out specialized training on positions with exposure to occupational hazard, and also conducted medical examinations of occupational diseases for employees. Through the publicity week of the Law of Occupational Disease Prevention and Treatment of the PRC (《職業病防治法》), the Company enhanced employee's awareness and ability of preventing occupational diseases, so as to prevent and minimize the occurrence of these diseases.

案例：丹東公司的職業安全與健康措施

Case: Measures on occupational safety and health by Dandong Company

結合集團及大區相關要求，丹東公司邀請專業職業危害評價機構對公司管轄內各場站進行檢測，對作業場所的職業危害因素識別、評估工作。存在職業危害的場所，設置相關的警示標識和說明，包括職業危害的種類、後果、預防和應急處置措施等內容。

As the Group and the Greater Area require, Dandong Company invites professional occupational hazards assessing agency to inspect the premises within its governance and identify and assess the occupational hazard factors in the workplaces. In the premises where occupational hazards are identified, reminder posters and remarks on the types, consequences of, preventing and emergency response measures for occupational hazards are put up.

公司邀請職業健康專家對公司員工進行職業健康專題講座，如CPR急救以及突發事件的緊急處理（人工呼吸，心肺復甦等可申請假人實操）、常見共性職業疾病的預防和改善、大氣污染關係呼吸道疾病的防護、三減三健、合理膳食以及如何緩解心理壓力。

It invites occupational health experts to give lectures on occupational health, such as CPR and emergency response (for artificial respiration and CPR, dummies are in place for staff's practicing use), the prevention of and relief from common occupational diseases, the prevention of atmospheric pollution related respiratory diseases, Three Reductions and Three Healths, balanced diet, and ways to relieve from mental stress.

指標	Indicator	單位 Unit	2018	2017
安全培訓投入	Safety training investment	萬元人民幣 RMB'0,000	1,712	1,345
安全培訓總時數	Total hours of safety training	小時 Hour	594,970	763,359
安全培訓參與人次	Participants of safety training	人次 Attendance	249,812	258,865
安全培訓覆蓋率	Coverage of safety training	百分比 Percentage %	100	100

5.3 強化安全監察及應急管理

除了向員工提供職業安全與健康培訓，華潤燃氣通過嚴格的檢查、考核，持續改進內部生產安全監察，提升處理燃氣時的安全性。

自2009年起，集團已連續開展10輪安全專項審核工作。2018年度，華潤燃氣以區域公司為單位進行安全專項審核，以促進區域一體化的工作，並從中發現識別營運中職業安全健康隱患及進行整改。本次審核歷時4個月，抽調安全內審員350餘人次，通過交叉審核的方式完成了對8個大區80家區域公司的安全審核，審核平均分為88.59，總計發現隱患數12,080項，其中高風險隱患數1,162項。

另外，華潤燃氣持續開展總經理每月安全檢查，2018年度，總部領導檢查12次，大區領導檢查104次，各區域公司總經理累計開展檢查736次，各成員公司總經理累計開展檢查2,280次，全集團共檢查項目94,799項，其中91,347項合格，3,452項不合格，合格率为96.36%。

5.3 STRENGTHENING SAFETY SUPERVISION AND EMERGENCY RESPONSE MANAGEMENT

In addition to providing occupational safety and health training to the staff, CR Gas makes continuous enhancement to its internal production safety supervision through strict inspection and assessment, to enhance the safety in dealing with gas.

Since 2009, the Group has conducted 10 rounds of special safety review works successively. In 2018, with each regional company as a unit, CR Gas conducted special safety review on all of its units, to promote regional integration, find out and identify potential occupational safety and health hazards in operation and then make improvements. During the 4-months long review which cost over 350 internal safety reviewers assigned, we completed safety reviews for 80 regional companies in 8 top zones through the way of cross-checking. The average score for the reviewing was 88.59, a total of 12,080 potential hazards were identified, among which 1,162 were high-risk ones.

Moreover, CR Gas continues with its monthly safety inspection by General Managers. In 2018, leaders from our headquarters completed 12 inspection, leaders from top zones completed 104 ones, general managers from regional companies completed 736 ones on accumulative basis, and general managers from member companies completed 2,280 ones on accumulative basis. The total number of inspection items for the Group as a whole amounted to 94,799, among which 91,347 ones got passed, 3,452 ones failed, with a pass rate of 96.36%.

區域公司應用創新科技，強化營運上的自動化安全監察。鄭州華潤燃氣利用自主開發的「加氣站自動充裝控制系統」，以確保用作充裝的氣瓶在檢定有效期內。充裝前機組會掃描氣瓶上的電子標籤(RFID)，由信息系統自動檢索氣瓶信息，若未在鄭州市質監局備案或超期未檢定，加氣機將無法充裝，有效的保障了加氣安全。

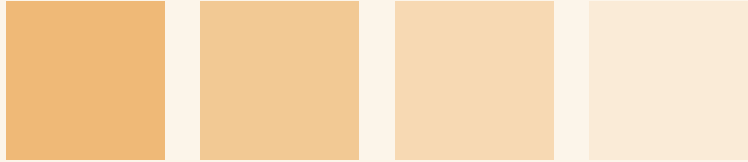
安全管理需要未雨綢繆，因此集團設有突發環境事件應急預案體系，釐訂分級標準和應急組織架構。另一方面，公司需就有可能發生的安全事故準備應急預案，並定期安排演練，而應急演練的效果將會作為集團安全評估的重要標準之一。2018年，公司首次申報即獲香港企業綠色大獎「超卓環保安全健康獎」金獎，各級成員企業獲得116項省部級以上獎勵。

The regional companies utilize innovative technologies to improve the automatic safety supervision in operation. CR Gas (Zhengzhou) (鄭州華潤燃氣) employs its “Automatic refilling control system for gas stations” to make sure the gas jars for gas refilling are within validity period. Before refilling gas for a gas jar, the RFID (電子標籤) on the gas jar will be scanned. Then the information system will search the information about the gas jar automatically. Gas refilling machine may not refill gas for gas jars which are not recorded by Zhengzhou Quality Supervision Bureau (鄭州市質監局) or whose validity periods have expired but without renewing, therefore ensuring the safety of gas refilling.

Precautions should be taken for safety management. Therefore, the Group has environmental emergency response system in place, which determines criteria for grading and organizational structure of emergency response. On the other hand, the Company should prepare emergency response plans for the potential safety incidents, and arrange regular drills. The results of the emergency drills will be used as one of the important criteria for the annual safety assessment of the Group. In 2018, the Company applied for “Hong Kong Green Awards – Environmental, Health and Safety Award – Golden Award” by the Green Council of Hong Kong for the first time and succeeded, certain member enterprises across all levels were granted 116 awards at or above provincial and ministerial level.

指標	Indicator	單位 Unit	2018	2017
安全生產投入	Investment in Safe production	萬元人民幣 RMB'0,000	36,744	28,864
安全應急演練次數	Number of safety emergency response drills conducted	次 Time	2,816	2,593
安全生產事故次數	Number of safe production accidents	次 Time	0	0
員工傷亡人數	Employee casualties	人 Person	0	0
安全管理人員持證人數	Number of licensed safety management personnel	人 Person	2,978	2,485
註冊安全工程師人數	Number of registered safety engineers	人 Person	892	790

06



以人為本 關注員工成長

Being People-Oriented
And Concerned For The
Growth Of Employees

6 以人為本 關注員工成長

6 Being People-Oriented and Concerned for the Growth of Employees

華潤燃氣深明每一位員工對公司的貢獻和重要性，並透過秉持「尊重人的價值、開發人的潛能、升華人的心靈」的人才工作宗旨和「海納百川，唯才是用」的用人理念，達至以人為本的僱傭管理方針，實現公司與員工的事業夥伴及生活朋友的緊密關係。華潤燃氣確保集團內所有僱傭工作謹守國家及地區適用的勞工法律法規，包括但不限於《中華人民共和國勞動法》、《中華人民共和國勞動合同法》、《中華人民共和國婦女權益保護法》、《中華人民共和國勞動法》、《禁止使用童工規定》、《僱傭條例》(香港)及《僱員補償條例》(香港)，寄望與每一位員工共同建設合規而具備良好條件的工作環境。

我們制訂並執行《華潤燃氣員工手冊》對企業文化、員工守則、勞動關係管理、薪酬福利等內容作出明確規定，旨為各管理及職能階層提供明確執行規範。

CR Gas understands the contribution and importance of every employee to the Company, and has developed close relationship with business partners and friends in life of employees by adhering to the philosophy of “respecting human value, developing human potential and sublimating human spirit” in talent management, and the motto of “All rivers run into the sea, and appointing all persons with talents” as well as the employment management guidelines of being people-oriented. CR Gas ensures that all employment of the Group are in compliance with applicable labor laws and regulations of China, including but not limited to the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Rights and Interests of Women, the Labor Law of the People's Republic of China, the Provisions on Prohibition of Child Labor, Employment Ordinance (Hong Kong) and Employee's Compensation Ordinance (Hong Kong), and hopes to create a compliant and good working condition with every employee.

We have compiled and, requested staff to comply with, Employee Handbook of CR Gas (《華潤燃氣員工手冊》), which clearly sets out the corporate culture, code of conduct for employees, management of labor relations and salary and welfare, aiming to provide clear standards for the management from different levels and all functions of the organization.

截至2018年12月31日，本集團員工數據如下：

As of 31st December, 2018, the Group's employee information is as follows:

		2018年 2018	
		僱員人數(人) Number of employees (person)	流失率(%) Turnover Rate (%)
總數	Total	48,031	6%
按性別劃分	By gender		
男	Male	31,701	5%
女	Female	16,330	7%
按年齡組別劃分	By age group		
20-30歲	20-30	12,204	8%
31-40歲	31-40	16,027	3%
41-50歲	41-50	14,309	3%
50歲以上	Above 50	5,491	17%
按受僱職級劃	By employment category		
高層員工	Senior staff	1,067	2%
中層員工	Middle-level staff	3,181	3%
基層員工	Elementary staff	43,783	6%
按地區劃分	By regions		
北方大區	Northern areas	2,202	12%
中西大區	Midwest areas	8,579	6%
華北大區	North China	7,716	2%
華中大區	Central China	3,859	6%
華東大區	East China	5,441	6%
東南大區	Southeast areas	4,891	7%
西南大區	Southwest areas	7,402	6%
華南大區	South China	4,520	9%
其他地區	Other areas	3,421	4%

6.1 關注員工成長

華潤燃氣不但重視集團的業務發展，更視員工的技能培訓，以及個人職業發展為重點議程，為員工投放資源，制定與行業發展、業務需求及員工個人興趣相符合的培訓計劃，讓員工能發揮所長，實現華潤燃氣與員工共同進步的目標。

透過《培訓管理制度》內的培訓政策，華潤燃氣每年編製根據職級劃分的培訓計劃及目標，細分為中心級、公司級和部門級，再進一步擬定公司整體的年度培訓計劃表，當中包括全年計劃實施的培訓項目、培訓形式、培訓主體、培訓對象、培訓經費等相關內容。同時，我們建立了從公司到各部門、各項目的培訓組織體系、明確的責任分工，以及培訓項目的具體實施流程與安排，有效幫助年內提供培訓資源予各級人員的落實工作。

2018年內，公司通過線上、線下渠道共開展培訓3,000餘場次，參訓人次高達24.4萬人次，當中包括線上培訓參與人次達17萬人次，區域公司基層培訓參與人次達6.2萬人次，人均培訓投入達1,749元人民幣。

6.1 FOCUS ON EMPLOYEE GROWTH

CR Gas not only attaches importance to the Group's business development, but also regards employees' skills training and personal career development as the key agenda. CR Gas invests resources for employees and formulates training plans that are consistent with industry development, business needs and personal interests of employees to maximize the strengths of employees and realize the goal of mutual progress between CR Gas and employees.

Through the training policy in the Training Management System, CR Gas annually prepares training plans and targets based on levels, which are subdivided into center-level, company-level and departmental level, and further develops overall annual training plan of the Company, including the training programs, training forms, training subjects, training targets, training funds and other related contents planned for the whole year. At the same time, we have established a training system from the company to each department and each project with clear-cut assignment of responsibility, and formulated specific implementation procedures and arrangements for training programs, effectively helping the provision of training resources for the staff at all levels during the Year.

In 2018, the Company carried out a total of more than 3,000 trainings through online and offline channels with up to 244,000 trainees participated, including 170,000 online trainees, and 62,000 trainees participating in primary level trainings of regional companies, and the training investment per person amounted to RMB1,749.

案例：2018年華南大區市場、工程相關技術培訓

Case: Technical Training Related to Market and Engineering in Southern China Region in 2018

為落實區域一體化管理概念，加強燃氣公司與設計公司之間的技術及人才交流，提升設計服務品質，我們於2018年在深圳開展了華南大區市場、工程相關的技術培訓。

本次培訓設置了燃氣企業安全營運、燃氣常識、市場工程一體化、非常規工程建設、工程管理人員業務知識和工作技能、居民用戶的設計、燃氣工商業用戶市場和工程技術、常規工程相關規範法規等課程，課程內容極為豐富，涉及面廣。而培訓採用以理論學習與實際工程問題相結合的方式，讓不同公司的同事參與討論，提出問題，由專家解答。交流過程中，來自不同區域的同事亦可分享自己在實際工程中的管理經驗和方法，互相學習並提升技術知識。為檢驗培訓的成效，公司在培訓後組織了相關知識考試，參與培訓的同事表現出色，合格率高達100%。

In order to implement the concept of regional integration management, strengthen the technology and talent exchange between gas companies and design companies, and improve the quality of design services, we carried out technical training related to market and engineering for Southern China region in Shenzhen in 2018.

The courses of training are extremely rich and extensive in content, covering safe operation of gas enterprises, general knowledge for gas, market and engineering integration, unconventional engineering construction, business knowledge and working skills for engineering management personnel, design of residential users, gas industrial and commercial user market and engineering technology, regulations related to conventional engineering. The training adopts a combination of theoretical study and practical engineering problems, so that colleagues from different companies can participate in the discussion and raise questions, which are answered by experts. During the communication process, colleagues from different regions can share their management experience and methods in actual projects, learn from each other and improve their technical knowledge. In order to test the effectiveness of the training, the Company organized relevant knowledge examinations after the training. The colleagues who participated in the training performed well and all of them passed the examinations.

案例：赤峰公司建立元寶山分公司培訓基地，舉辦第三屆技能比賽

Case: Chifeng Company set up a training base in the Yuanbaoshan Subsidiary and organized the 3rd skills competition

為了持續提升員工崗位勝任力，赤峰公司堅持按需施教，務求實效的原則，並結合員工培訓需求，分層級、分類別的開展了內容豐富、形式多樣靈活的員工培訓活動，增強了培訓的針對性和實效性。自2015年公司建立元寶山分公司培訓基地後，自主培養了5名內部培訓師，2名大區級培訓師，並在2018年度公司充分利用培訓基地的優勢先後組織開展了三期新員工崗位技能達標模擬實操培訓及考核，經過培訓，所有新員工均完成認證，並順利上崗。

對於一線崗位的熟練工種，公司定期開展崗位練兵，技能比賽，以戰帶訓。在2018年9月5日，公司組織開展了以「學標桿，精益求精，練就能工巧匠；強基礎，知行合一，鑄成偉業宏圖」為主題的第三屆技能比武大賽，實踐證明，崗位練兵、技能比賽是調動一線各個班組員工培訓積極性的有效方法之一，使員工業務技能有一定程度的提升，同時在全公司也形成了良好的示範效應和工作氛圍。

In order to continuously strengthen employee's competence, Chifeng Company conducted different kinds of diversified staff training activities by level and categories based on actual needs, through seeking actual effects and in combination of employee's training demands, which enhanced focalization and actual effects of the training. Since the establishment of the training base in the Yuanbaoshan Subsidiary in 2015, Chifeng Company cultivated 5 internal trainers and 2 regional trainers of their own, and successively conducted three simulated operation job trainings and assessments for new employees in 2018. After the training, all the new employees completed the certification and were qualified for their jobs.

For skilled workers throwing themselves in front line jobs, Chifeng Company regularly organized job trainings and skill competitions to motivate training activities. On 5th September, 2018, Chifeng Company held the 3rd skills competition with the theme of "benchmarking and seeking perfection make an excellent craftsman, and strengthening basic skills and practicing what you preach realize great achievement" (學標桿，精益求精，練就能工巧匠；強基礎，知行合一，鑄成偉業宏圖). As the practice proved, job training and skills competition is an effective way of arising training enthusiasm of the front line employees in different teams, which improved employees' skills in a certain degree, and created a good demonstration effect and work environment throughout the company.



除了下屬公司個別安排的培訓課程及活動，本集團亦透過設立華潤燃氣學院更有系統、更「接地氣」地培養專業燃氣人才。燃氣學院成立於2012年6月，在本集團強大的燃氣業務網絡基礎上，以一所全國性的培訓學院為主，五所區域培訓中心¹為輔助的「1+5」發展策略及人才培養體系。此系統有效實現資源共享、互補優勢的願景，致力幫助集團各區域的基、中、高層員工提升文化力、行業專業能力，以及領導力三方面的技能。當中，「領導力發展項目」、「燃氣工種職業資格認證培訓」及「混合性培養項目」等課程為重點項目，以發掘優秀與未來管理及前線人才為目標，將優秀的技術與管理人才列入集團後備人才庫，並建立特別的職業規劃及發展鍛煉，完善並裝備他們的各種技能。2018年，燃氣學院獲中國企業大學聯盟頒發的「中國最佳企業大學」榮譽。

In addition to training course and activities arranged by subsidiaries separately, the Group also fosters talents in a more systematic and practical way through establishing CR Gas Institute, which was established in June 2012. Based on its strong network of gas business, the Group formed its “1+5” development strategy and talent training system through a national training institute, which is complemented by five regional training centers¹. This system effectively fulfills the vision of sharing resources and complementing with each other, and helps grass roots workers, middle and high level workers to improve their cultural deposits, expertise and leadership skills. Courses such as “Leadership development project”, “professional certification training project” and “hybrid training project” are the major projects. Those projects aim to identify outstanding and future management and frontline talents, and excellent skilled and management personnel will be named into the Group's talent pool. The Group will draw up a special career plan and conduct training for them, as well as improve and equip them with various skills. In 2018, CR Gas Institute was awarded the “China's Best Corporate University” (中國最佳企業大學) by the China Society for Training & Development.

¹ 分別為華北培訓中心、華中培訓中心、華東培訓中心、西南培訓中心以及華南培訓中心

¹ Namely Northern China training center, Central China training center, Eastern China training center, South West training center and Southern China training center

案例：中山區域首屆後備人才班

Case: The First Backup Talent Class in Zhongshan Area

隨著區域一體化管理進程逐步加深，中山區域按照標桿基地建設要求，結合區域發展戰略，提出提升現有中基層管理人員管理能力，搭建後備人才梯隊的管理要求。通過往年考核結果和管理能力測評等條件相結合，我們在61名報名者中選出30名學員組成中山區域首屆後備人才班，並命名為「中山班」，同時提出了「不忘初心，燃夢中山」的班級主題。

本屆培訓班以燃氣學院「標桿四步法」為培訓基石，圍繞中層管理人員素質項，共設四期培訓，並在培訓期間利用行動學習工具、知識放量、課題研究等方式，提升學員知識轉化能力。

With the acceleration of regional integration, the Zhongshan Area requested for improving management skills of the existing middle level and grass root management and setting up echelons of backup talents based on regional development strategies as construction of regional benchmarking bases required. By comprehensively considering previous assessment results and assessment of management skills, we selected 30 trainees among 61 applicants to set up the first backup talent class in Zhongshan Area, and named it as the "Zhongshan Class"(中山班) with the class theme of "stay true to original ambitions and realize dreams in Zhongshan" (不忘初心，燃夢中山)。

The class had four training sessions focusing on quality of middle level management on the basis of "four steps of benchmarking" (標桿四步法) adopted by CR Gas Institute, and improved trainees' ability to transform knowledge into competence through tools of action learning, substantial volume of knowledge and topic research.



案例：中山區域首屆後備人才班

Case: The First Backup Talent Class in Zhongshan Area

2018年，中山區域後備人才培訓班已成功舉辦兩期培訓，「領導力報告解讀」讓學員通過內外部領導力對標，找準自己能力所在，明確自己的差距。「高管沙龍」環節，由史寶峰總裁講述自己的職業發展經歷，勉勵學員要不斷反思自我，用積極的態度面對問題。「行動學習」和「難題研討」聚焦區域發展面臨的難題，結合課堂所學知識制定行動方案。同時，還通過「中國天然氣發展現狀和國內各大燃氣集團的發展策略」介紹讓學員更新思想，了解新動態，以便更好地為區域的發展做出更大貢獻。

In 2018, training class of backup talents in Zhongshan Area have completed two training sessions. Trainees could know about their ability by benchmarking against the capability in the internal and external leadership through "Analysis for leadership report" (領導力報告解讀), and find out their own shortcomings. In "management salon"(高管沙龍) part, Shi Baofeng, the Chief Executive Officer, shared his career history, encouraged trainees to continuously rethink themselves and face problems with a positive attitude. "Action learning" (行動學習) and "discussion about problem" (難題研討) focused on problems that the regional development faces, and trainees could prepare action plans by using knowledge they acquired at the class. Meanwhile, through the briefing of the "Current development status of natural gas in China and development strategies of domestic gas groups" (中國天然氣發展現狀和國內各大燃氣集團的發展策略), trainees updated their ideas and grasped the latest trends, allowing them to make greater contributions to regional development.



下表載列華潤燃氣本年度所提供的培訓數據：

The training information provided by CR Gas for the Year is set out in the table below:

		單位	2018年
		Unit	2018
培訓總時數	Total hours of training	小時 Hour	3,110,294
人均受訓時數	Training hours per person	小時 Hour	64.8
受訓僱員總百分比	Total percentage of employees trained	%	87.5%
按性別劃分的人均受訓時數	Training hours per person by gender		
男	Male	小時 Hour	60.6
女	Female	小時 Hour	72.9
受僱職級劃分的人均受訓時數	Training hours per person by employment category		
管理層	Management	小時 Hour	46.1
中層員工	Middle-level staff	小時 Hour	43.3
基層員工	Elementary staff	小時 Hour	66.8
按性別劃分的受訓僱員百分比	Percentage of employees trained by gender		
男	Male	%	83.8%
女	Female	%	94.6%
按受僱職級劃分的受訓僱員百分比	Percentage of employees trained by employment category		
管理層	Management	%	82.3%
中層員工	Middle-level staff	%	80.2%
基層員工	Elementary staff	%	88.1%

華潤燃氣關注員工的發展步伐，遵循人才發展規律，圍繞管理人員素質模型、專業序列任職資格、操作序列員工應知應會來搭建人才發展體系，幫助每一位員工找到職業發展方向。我們一直以來以業績為企業文化，倡導「業績不向辛苦妥協，文化不向業績妥協」的理念，為員工創造公開、公正、公平競爭的機會，在管理、專業職能崗位出現空缺時，會推行公開競聘的方式選拔人員，通過公開競聘，按照作風、工作能力、工作業績、群眾公認程度等方面評估，挑選表現優秀的人員到合適的崗位上，讓合作團隊和落選員工服氣。我們亦通過以師帶徒、技能比賽、達標認證等方式提升員工技能，並利用達標、換崗、入職等技能考核來認證員工，為他們提供於公司內部職業發展的機會。

6.2 保障員工平等權益

華潤燃氣保障員工的合法權益，嚴格遵守《中華人民共和國勞動法》、《中華人民共和國勞動合同法》、《中華人民共和國未成年工保護法》、《中華人民共和國婦女權益保障法》等法律法規，規範執行勞動用工制度，與員工通過平等協商簽訂勞動合同，提供合理合法的薪酬與福利，包括實行從職業價值、綜合能力、職效考核三維度評估個人薪資的「3P」付薪原則，按時並足額支付勞動報酬，嚴格遵守最低工資制度，為員工繳納五險一金。除了按照國家規定嚴格執行帶薪休假制度外，我們更為員工提供節假日禮品、食宿等額外福利。

CR Gas pays attention to the development of employees and follows the principles of talent development. Centering on the competence of the management and the qualification training of professional development, the employees in the operational category shall be advised to build the talent development system to assist employees in their career orientation. Under the concept of “performance over hardwork and culture over performance”, we regard performance as corporate culture and provide open, just and fair competition to employees. In case of vacancy in management and professional personnel, outstanding employees will be screened through open competition in terms of their working style, competence, work performance and their public recognition, therefore excellent employees to whom the cooperation team and unsuccessful candidates confess will be placed in the right positions. We also enhance the employees' skills by means of leading apprentices with masters, skill competitions and certification standards. Employees are certified by skills assessment in respect of their compliance, work shifting and the entry, so that they can be offered a career opportunity within the Company.

6.2 SAFEGUARDING THE EQUAL RIGHTS OF EMPLOYEES

CR Gas safeguards the legitimate rights of employees. It strictly observes the laws and regulations such as the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Minors and the Law of the People's Republic of China on the Protection of Rights and Interests of Women to regulate the employment system, enter into the labor contracts with employees after arms-length negotiation, provide reasonable and legal salary and benefits, assess the “3P” payment principle of individual salaries in terms of professional values, comprehensive ability and performance appraisal, pay the employees the labor remuneration on time and in full amount, and it will strictly follow the minimum salary policy to pay five social insurances and one housing fund for employees. In addition to the strict execution of the paid vacation system according to national regulations, we also provide employees with additional benefits such as holiday gifts, accommodation and others.

我們在內部政策上列明禁止以任何形式僱用童工和強制勞工，在招聘過程中，本集團會對應聘者的年齡進行核查，確保應聘者符合當地法律規定的僱傭年齡標準，以避免招收童工。一經發現誤聘童工，本集團將立即停止其工作，並派人將其送回至監護人所在地，並由我們承擔所有費用。本集團亦反對以任何理由或形式進行強迫性勞動，確保每一位員工有自願工作和離職的權利。本報告期內，本集團並無發現任何童工或強制勞工的違法違規個案。

華潤燃氣每位成員互相尊重，以嚴格遵守國際公約及國家法律法規為基礎，如《中華人民共和國勞動合同法》、《性別歧視條例》(中國香港)、《種族歧視條例》(中國香港)和《殘疾歧視條例》(中國香港)等，確保員工不會因性別、殘疾、懷孕、家庭狀況、種族、膚色、宗教、年齡、性取向、國籍、學歷、工會會籍或其他條件受到差別對待。我們致力在僱傭、培訓及職業發展等方面均為員工提供平等機會，同時尊重個人背景及文化差異，以此作為本集團發展的原動力，建立多元化的工作團隊。集團更保障女員工在「三期」期間，以及享有產假、哺乳假、公益假等合法權益；聘用殘疾人士，並建立無障礙工作環境，共同推動傷健共融的社會。

在政策保障下，我們進一步制定舉報機制，讓員工在不同情況下能盡快向負責部門舉報並提供信息，機制確保所有舉報均獲公平處理。一旦發現並證實不公平或涉及歧視的案件，集團將依法懲罰相關涉案人員。

本報告期內，本集團並未發生過侵害女職工或個別職工及群體的合法權益事件。

Employment of child labor and forced labor in any shape or form is forbidden as set out in our internal policies. In the course of recruitment, the Group verifies the age of the applicants to make sure they meet the minimum age for employment as required under the local laws to avoid the use of child labor. Upon discovery of employment of any child labor by mistake, the Group will promptly cease his/her work and have him/her sent back to the location of his/her guardianship. The Group will bear all relevant costs incurred. The Group also opposes forced labor in any shape or form or for any reason and makes certain that each employee has the right to work or leave employment on a voluntary basis. During the reporting period, no breach of the laws or regulations in relation to child labor or forced labor was found to have happened to the Group.

The employees in CR Gas respect each other. We strictly comply with international convention and national laws and regulations, such as the Labor Contract Law of the People's Republic of China, Sex Discrimination Ordinance (Hong Kong, PRC), Race Discrimination Ordinance (Hong Kong, PRC) and Disability Discrimination Ordinance (Hong Kong, PRC), which ensure that employees will not be treated differently on the grounds of their gender, disability, pregnancy, family status, ethnicity, skin color, religion, age, sexual orientation, nationality, academic qualification, union membership or other conditions. We are committed to providing equal opportunities for all staff in employment, training and career development, meanwhile respect their individual background and cultural differences, to drive the development of the Group and the establishment of a diversified work team. The Group protects its female employees' legitimate interests during their pregnant, confinement or lactation period (collectively as "Three Periods"), and other legitimate interests such as maternity leave, breastfeeding leave and charitable leave. We also employ disabled, and establish barrier-free working environment, to work for a community which both disabled and non-disabled work together.

With the protection under policies, we set up a whistleblowing mechanism, which enables staff to report to the department in charge and provide information in an immediate manner in different circumstances, and ensures all concerns raised by whistleblowers are equally dealt with. For any identified and verified cases in relation to inequality or discrimination, the responsible person(s) will be punished by the Group.

During the reporting period, no infringement of the legitimate interests of female employees or any individual employee and group was found in the Group.

6.3 員工關愛活動

除了基本保障以外，集團堅持以人為本的理念，關心員工的身心健康、工作生活平衡，以至家庭生活條件等。在集團的人力資源政策的管控下，集團為所有員工提供補充醫療保險、意外傷害保險等商業險種，為員工提供人生安全保障。公司亦通過建立企業年金計劃，改善員工退休後的生活待遇，建立起公司和員工之間的長久信任關係。

我們以《員工幫助計劃》(EAP項目)為重點，持續為員工提供福利與支持項目，通過專業人員的診斷及建議，對員工及其家屬提供專業指導、培訓和諮詢，幫助員工解決的各種心理和行為問題，提高員工工作效率。公司舉辦了各種有益心身的活動，並開設了各種設施，其中成都公司去年舉辦了以「奮鬥的青春最美麗」為主題的6公里健身健步走比賽活動；大同公司開展了第一屆職工趣味運動會；鄭州公司則為員工開設職工之家，提供健身、休閒、讀書於一體的教育活動平台。

6.3 EMPLOYEE CARING ACTIVITIES

In addition to the provision of basic protections, under the guiding of the concept of being people-oriented, the Group also cares about employees' physical and psychological health, work-life balance and even their living conditions. Governed and controlled by the Group's human resources policy, the Group provides all employees with commercial insurance, such as supplementary medical insurance and accidental injury insurance, to safeguard the employees' personal safety. The Company also establishes an occupational pension plan, to improve employees' living upon their retirement, so as to establish long term mutual-trust relationship between the Company and the staff.

Focusing on "Employee Assistance Plan" (EAP Program), we continuously provide welfare and support program for employees, under which professionals will provide diagnosis and advice as well as professional guidance, training and consultancy to employees and their families, aiming to help employees to resolve various psychological or behavioral issues and to enhance employees' efficiency at work. The Company has held various activities which are beneficial to employees' mental and physical health, and provided various facilities. Last year, Chengdu Company held 6 km long walking race with the theme of "Youth in Hardworking is the Most Beautiful"; Datong Company held its first fun sports meeting; Zhengzhou Company opened its Employee's Home, a learning activities platform which employees can enjoy exercises, recreational activities and reading.



大同公司開展第一屆職工趣味運動會
Datong Company held the first Sports-for-fun events



鄭州公司建設「潤生活」職工之家
Zhengzhou Company created "CR Home" for employees

我們為員工提供不同的親子或家庭活動機會，在他們繁忙的工作提供共聚天倫的時間。

We provide various activities such as parent-child activities and family activities for our employees, which enable them to enjoy family happiness during their busy work.

案例：鷹潭、貴溪公司舉辦「小小華潤人 金秋慶團圓」親子活動
Case: Yingtan Company and Guixi Company organized parent-child activities for the employee of China Resources to celebrate reunion with their family in Autumn (小小華潤人 金秋慶團圓)

10月7日，鷹潭、貴溪公司在鷹潭師範足球場舉辦「小小華潤人 金秋慶團圓」親子活動，共有10餘個家庭報名參加。現場精彩紛呈的親子互動遊戲，「巧運物資」、「一鼓作氣」等，孩子們在與家長的共同努力下，出色地完成了一個個有趣的遊戲活動。整個遊戲過程開心而溫馨，這些遊戲拉近了家長和孩子之間的距離，讓孩子在休閒快樂中鍛煉身體，發揮想象力，提高合作意識。親子活動現場充滿歡聲笑語，每個家庭興致盎然、其樂融融，讓家長和孩子們度過了一個愉快的國慶假期。

On 7th October, Yingtan Company and Guixi Company organized parent-child activities for the employee of China Resources to celebrate reunion with their family in Autumn (小小華潤人 金秋慶團圓) at football field of Yingtan Normal School in which more than ten families participated. With concerted efforts of parents and their children, they completed fun games such as “Material Transportation Game” (“巧運物資”) and “Blowing out Candles” (“一鼓作氣”). The whole process was pleasant. These games not only brought parents and their children closer, but also enabled children to do exercise, spark imagination and strengthen awareness of cooperation. Every family felt excited and was filled with happiness on site and spent a wonderful National Day holiday.



華潤燃氣亦致力於幫扶困難員工，將其視為系統性、長期的集團工作，運用公司的資源，透過提供信訪接待、職業培訓、法律援助及生活援助等多種形式，解決員工在生活上的困或的需求。早於2015年，我們已經成立了困難員工輔助基金制度，用於幫扶困難員工，在需要時會號召全體員工關愛幫助困難員工。

CR Gas is also committed to helping employees in hardships, which is considered as a systematic and long-term task of the Group through utilization of the Company's resources and channels such as provision of petition reception, occupational training, legal aid and life aid to solve employees' difficulties in lives or demands. Before 2015, we have established the employee assistance fund system dedicated to relieving employees in hardships, while actively calling for all employees to provide a helping hand when necessary.

案例：景德鎮華困難員工幫扶

Case: Helping employees in hardships in Jingdezhen of CR Gas

景德鎮華的一名女工在女兒體檢時得知年僅十歲的女兒患了急性白血病。公司工會得知情況及時發出捐款倡議，得到廣大員工積極響應，從公司領導到前線員工紛紛伸出援助之手，踴躍捐款，在短短的時間內募得善款及時送到女工手上，讓困難情況得以緩解。

A woman worker in Jingdezhen of CR Gas came to attention that her only ten-year-old daughter had had acute leukemia when her daughter took physical examination. Upon being informed of the situation, Labor Union of the Company timely initiated a donation campaign which received active response of all employees. The campaign was supported by all employees from the leader of the Company to front-line staff, who all made generous donation. It took a short time to raise money and hand to the woman worker, making the difficulty relieve.

案例：滄中困難員工幫扶

Case: Helping employees in hardships in Huangzhong

滄中公司的一名運行管理部員工，自2015年經檢查發現患有直腸癌，前後經過了10餘次化療治療，治療費用早已花光了他們微薄的積蓄。在2018年病情再次惡化，轉院到北京治療，預計治療費用約20餘萬元人民幣，高額的治療費用，員工家庭無力承擔。

滄中公司本著關愛員工，履行責任，幫扶困難員工，在公司內部組織開展了關愛同事「愛心捐款」活動，先後員工捐款和公司幫扶共計3萬餘元人民幣。在患病員工住院治療期間，滄中公司安排公司工會人員及分管領導前往探望病情，並帶去了公司的關懷與愛心。目前，該員工病情還在持續治療當中，後期滄中公司將持續關注病情的發展，履行好企業社會責任。

An employee in Operation and Management Department of Huangzhong Company has found that he/she had rectal cancer through examination since 2015. All his/her meager savings has already been run out of through experiencing successive more than ten times of chemotherapy treatments. 2018 saw the disease worsened again, then he/she was transferred to Beijing for treatment. It was anticipated that treatment cost was approximately over RMB0.2 million. The family of the employee couldn't afford the high treatment cost.

Adhering to caring for employees, fulfilling obligations and helping employees in hardships, Huangzhong Company internally organized and carried out "Love Donation" activities, receiving successive donations from employees and help from the Company more than RMB0.03 million in total. During the hospitalization period of employees, Huangzhong Company arranged the staff of the Company's Labor Union and heads of different departments to visit the patient, giving the Company's care and love. Currently, the employee was under continuous treatment. In future, Huangzhong Company will continue to pay close attention to the health status of the employee and fulfill its corporate social responsibility.

此外，我們重視傾聽員工的聲音，並明白與員工保持良好的溝通對企業發展十分重要，員工在日常崗位經歷的每個問題都有助集團的正面發展。由此可見，我們建立了基層員工訴求收集反饋機制，利用工會等機構充分深入各部門、班組等基層，通過定期談心談話、走訪調研等方式，建立有效的基層員工訴求收集機制，對基層員工的訴求進行分析，研究相關問題解決辦法，並及時提供反饋。另外，我們以透過員工滿意度調查的方式收集員工對公司的評價，從工作環境、工作氛圍等多個角度了解員工的工作感受，讓管理人員聚焦大家反應的問題，及時制定有針對性的措施進行改善，強化提升員工滿意度的方法和措施。

In addition, we attach great importance to listening to our employees while understanding employees and having good communication with them are essential to our corporate development. Problems encountered by our employees in their daily work also contribute to our Group's development. In this regard, we have established a mechanism for our staff at elementary level for collecting information on their concerns. We endeavor to understand the concern of every unit of our Group, such as each department and team through labor union and other organs. With regular communication, visit and studies, we have set up an effective mechanism for collecting concern from staff at elementary level and analyzing such concerns. We also seek to work out solutions on relevant issues and address such concerns in a timely manner. Besides, we collect employees' opinions on our Company by employee satisfaction surveys. We can understand employees' feelings on work from various aspects including the work environment and the work atmosphere, making our management focus on problems reported by employees. Targeted measures will be taken to improve our employee satisfaction.

07





匠人精神 共建美好生活

The Spirit of Craftsman:
Creating a Better Life Together



7 匠人精神 共建美好生活

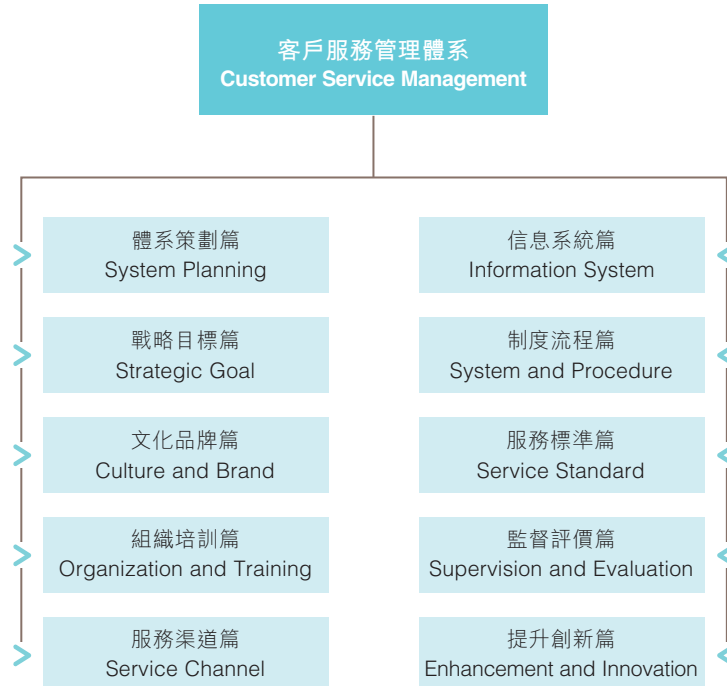
7 The Spirit of Craftsman: Creating a Better Life Together

7.1 提升服務與產品品質

華潤將產品質量放置在重要位置，透過設立管理政策及維持「供應安全、清潔的燃氣；提供親切、專業、高效的服務」的企業使命，華潤燃氣不斷完善客戶服務體系，成立客戶服務中心，細化客服管理制度，從七個方面精細管理客戶需求，包括穩定供氣、安全保障、預約服務、燃具售後服務、服務電話、服務質量、處理客戶投訴。我們亦對服務制訂出具體目標，通過完善客戶信息系統，梳理服務流程，完善服務標準體系，提升和客戶服務的規範化，保障優質服務。本報告期內，我們共接獲關於產品及服務相關投訴3,920起（2017年：4,055起），投訴跟蹤解決率100%。

7.1 IMPROVING SERVICE AND PRODUCT QUALITY

CR Gas places great emphasis on its product quality. Through establishing management system and by upholding corporate mission of "To supply safe and clean gas, and to provide thoughtful, professional and efficient service", CR Gas keeps on improving its customer service system. It has established the customer service center, and refined its customer service management system, which covers seven aspects namely stable gas supply, safety protection, reservation service, after-sale service for gas appliances, telephone service, service quality and customer complaint handling. We also specified our goals for services. Through optimizing the customer information system, CR Gas optimized its operational procedures and improved service standard and system, thus improving and standardizing customer services to ensure quality service. During the current reporting period, we have received 3,920 complaints (2017:4,055) about our products and services in total, with tracking resolving rate of complaint being 100%.



華潤燃氣堅持以客戶為中心，建立健全的客戶服務管理系統，完善管理制度及流程，深挖並透過客戶響應機制積極回應客戶需要，定期總結及反思問題，以持續提升服務與產品質量為目標。我們致力於將最好的服務與產品提供給客戶，為他們提供更加貼心的百尊燃氣器具、燃氣保險、長壽命軟管、工商業報警器、個性化安裝等商品與服務；我們嚴格按照國標GB16410-2007《家用燃氣灶具》、GB6932-2015《家用燃氣快速熱水器》等國家標準要求，監管把控產品質量。於報告期內，我們共生產銷售約42.7萬台燃氣具產品，出廠合格率高達100%，未發生產品責任事故。同時，我們積極落實《百尊售後監督管理制度》，推動各大區完善售後服務體系管理架構，以明確的崗位職責指導售後工作，有效推動售後服務質量的提高。不僅如此，公司還設立了專門的熱線電話，在收到用戶報修信息，立即指派專人及時上門處理，並利用熱線進行售後回訪跟蹤，對服務人員工作質量和產品使用情況進行了解。集團規定對每個客戶每年進行一次安檢，及時發現隱情並給予適當維護，確保機器安全可靠使用；亦於每年度制定並對外公開服務承諾，接受廣大用戶的監督指導。

我們不斷完善自身的綜合技術實力，組織售後工程師認證培訓，要求他們通過嚴格的理論和實操考試，成為合格的售後服務工程師，並積極組織安排售後服務工程師參與交流互動，提升服務團隊的專業知識與經驗交流。

CR Gas strives to maintain its focus on customers. It has established a healthy customer service management system to improve management system and procedures, and regularly summarize issues and retrospect through digging out and vigorously responding to customer's needs with response system for customers, so as to achieve the goals of continuously enhancing service and product qualities. We are committed to providing customers with excellent services and products, such as PERCEN's gas appliances, gas insurance, long-life flexible pipe, commercial and industrial alarm apparatus and customized installation. We regulate and control product quality strictly in accordance with the stringent national requirements under GB16410-2007 "Domestic Gas Cooking Appliances" and GB6932-2015 "Domestic Gas Instantaneous Water Heater". During the reporting period, we produced and sold approximately 0.427 million units of gas appliances, with 100% pass rate in ready-for-delivery products, and no product liability incidents have ever reported. In the meantime, we actively implement a Supervisory and Administrative System for After-Sale Service of PERCEN, and promote the optimization of management structure for after-sale service of different business segments. It arranges specific staff responsible for guiding after-sale works, which effectively enhances the quality of after-sale services. In addition, the Company also set up special hotline for customers. Upon receiving repair request from customers, the Company will promptly assign staff to conduct on-site inspection. Leveraging the hotline, the Company conducts after-sale tracking in order to understand the service standard of our staff and product utilization. Annual safety inspections are required to be conducted, with appropriate maintenance to be undertaken for any potential hazard discovered, so as to ensure safe and reliable use of machines. The Company also prepares and discloses its service commitment annually, accepting mass users' supervision.

We continuously enhance our own overall technology strengths. We conduct training for after-sale engineer certification. Through strict examination on theoretic and practical knowledge, we train qualified after-sale engineers. We also organize exchange programs for after-sale engineers, aiming to enhance the expertise and experience of our service team.

7.2 保護客戶權益

華潤燃氣以保障權益為己任。我們積極推進客戶信息系統建設，對於涉及客戶姓名、地址、身份證號碼、電話號碼等隱私信息的獲取，實行嚴格的分級審批和權限管理制度。對於需要獲取客戶信息的工序，我們要求外部單位和上級主管單位統一簽訂信息保密協議，並嚴格限制信息披露的內容與範疇。

我們亦注重產品合規宣傳，公司旗下百尊燃氣器具按照國標GB16410-2007《家用燃氣灶具》、GB6932-2015《家用燃氣快速熱水器》等嚴格要求生產，產品出廠合格率達100%，未發生一起產品責任事故，更主動配合工商局及其他相關政府部門整頓經營範圍內的商品和服務，及時公開公示結果。

我們在服務承諾中對處理客戶投訴制訂出具體目標，以「及時、誠信、專業」為原則，承諾在2個工作日內對投訴情況利用CIS信息系統進行分類，進行數據展示了解投訴原因及時進行改正，釐清責任、落實投訴閉環管理，努力提升投訴處理的效率和效果，並誠懇答覆客戶投訴處理情況。同時，我們引入「客戶抱怨」新概念，提升投訴處理質量和效率。

7.2 SAFEGUARD INTERESTS OF CUSTOMERS

CR Gas regards the protection of user information as its duty. We actively established a customer information system. We implement a highly regulated system for review and approval as well as authority management in relation to the access to key information of residents, including their names, addresses, identity card numbers and telephone numbers. In addition, we require all external units and supervisory departments who need to have access to customer information to be bounded by an information protection agreement, and strictly limit the content and scope of information disclosure.

We also emphasize product compliance promotions. Gas appliance of PERCEN under the Company are produced strictly in accordance with the stringent requirements under GB16410-2007 "Domestic Gas Cooking Appliances" and GB6932-2015 "Domestic Gas Instantaneous Water Heater", with 100% pass rate in ready-for-delivery products, and no product liability incidents have ever occurred. Moreover, we actively cooperate with the administration of industry and commerce and other relative governmental departments on the regulation of goods and services within our operating scope, and publish such results to the public in a timely manner.

We set specific target for handling clients' claims in our service commitment. Under the guidance of the principle of "timeliness, integrity, professionalism", we sort the claims in CIS information system within 2 working days, analyze the data presented, find out the reasons of claim and make rectification. We have formulated an accountability system, and implemented closed-loop management of complaints, striving to improve the efficiency and effect of claims handling and reply the customers sincerely on the handling of claims. Meanwhile, we introduced a new concept of "customer complaint" to improve our quality and efficiency of complaint handling.

2018年，華潤燃氣開展客戶滿意度調查，覆蓋78家區域公司，得出結果客戶滿意度得分達到91.7分。透過此調查，華潤燃氣有效掌握客戶服務中存在的問題，督促區域公司改善服務管理的薄弱環節，提升客戶服務體驗，使客戶滿意度更上一層。

同時，我們深明燃氣是人民生活中不可缺失的一環，為了更好的保障我們客戶的權益，我們必須做好準備，預防事故發生，而在事故發生時亦能拿出及時處理緊急情況的方案。

In 2018, CR Gas conducted customer satisfactory survey at 78 regional companies, the results of which showed customer satisfactory level of 91.7 points. Through the survey, CR Gas identified shortcomings in customer services, and procured regional companies to improve their service management, so as to enhance the experience of customer services and customer satisfactory level.

Meanwhile, we totally understand gas is an indispensable part of our lives. To better safeguard customer's interests, we have to make full preparation against the potential accidents, and if any of them occur, we can start up an emergency plan in time.

案例：無錫華潤冬季保供

Case: Maintaining a stable gas supply in winter by Wuxi CR

2018年1月，無錫市域範圍內暴雪突降，全市日最大用氣量達420萬立方米，全國範圍內的天然氣供應短缺，一時間各地出現「有錢買不到氣，買到氣也運不回來」的困境。受此影響，無錫市日最大供氣缺口達到140萬立方米，創歷史新高。

為此，無錫華潤燃氣不計成本保民生保發展，管理層多次赴北京、上海、南京、武漢等地協調爭取補充氣源，同時從啟東如東港、寧波北侖倉等地高價競購LNG補充氣源，最高進價超過12,000元人民幣／噸，價格比平時高出數倍。從2017年9月起，無錫華潤燃氣累計購買LNG補充氣源19.6萬噸，折合天然氣約1.5億立方米，氣源採購成本最高時達8.75元人民幣／方。為提升LNG氣化能力，無錫燃氣投資5,000萬元人民幣新建了安鎮和梅村兩個LNG氣化站，並對新區的儲配站進行了技術改造，日氣化能力提升到150萬立方米，8個大型LNG儲罐可儲存70萬立方米的天然氣，進一步提升了應急調峰能力。

In January 2018, snowstorm suddenly hit Wuxi, the city's daily gas usage volume reached 4.2 million cubic meters, a shortfall occurred in natural gas supply nationwide, and consumers faced the circumstance that "No gas was available for purchasing even though with money in hand for consumers, and no means could be found to move gas back home even though consumers had bought some" then throughout all regions. As a result, the maximum daily gas supply shortage in Wuxi amounted to 1.4 million cubic meters, reaching record high.

In response, Wuxi CR Gas strived to ensure people's well-being and sustain growth despite of cost. Time and time again, the management went to Beijing, Shanghai, Nanjing, Wuhan to coordinate the supplementation of gas sources, meanwhile bidded for LNG supplementary gas sources at high price from Qidong, Donggang, Beilun in Ningbo, with maximum purchasing price exceeding RMB12,000/ton, several times higher than that in normal times. Since September 2017, Wuxi CR Gas had purchased accumulatively 196,000 tons of LNG supplementary gas sources, equivalent to about 150,000,000 cubic meters of natural gas, with maximum purchasing cost for gas sources of RMB8.75/cubic meter. To enhance the gasification capability of LNG, Wuxi CR Gas had invested RMB50 million in establishing two new LNG gasification stations in Anzhen and Meicun, and also made technological transformation to the gas storage and distribution station in the new zone, leading to the increase in daily gasification capability to 1.5 million cubic meters. There were 8 large-scale LNG storage tanks which could store 0.7 million cubic meters of natural gas. The peak load regulation capability in emergency had been further enhanced.

7.3 創新技術管理

華潤燃氣積極發掘利用先進科技及創新技術管理的方式來達至優質服務，並促進資源優化利用，減少浪費。華潤燃氣已於2017年成立創新工作領導小組，負責統籌規劃全集團的創新工作，推動成員企業創新工作開展，審議創新課題立項以及創新項目進展。小組不斷為各項目提供技術支持，助力創新工作開展，利用創新工作管理辦法，鼓勵和推動創新。同時，我們通過持有專利、商標、著作權等方式，保護自有知識產權；加強日常監管，維護自有知識產權不受侵犯；在內部營造尊重知識產權的氛圍，樹立尊重且不侵犯他人知識產權的法律意識，在合作過程中注重保護雙方知識產權。另外，華潤燃氣工程管理中心於2018年成立了創新管理委員會，更新發佈《技術創新管理辦法》，並為配合《技術創新激勵管理辦法》、《技術創新項目評選辦法》等多項管理制度，頒佈了《2018年技術創新實施方案》，從機制上鼓勵廣大員工進行科技創新；而設計研究中心則制定落實《創新研發工作管理辦法》，從八個方向指明創新工作方向，推動研發工作開展。於報告期內，我們投入1億元人民幣用作科技創新投入，共新增19個專利，實施13個集團級的科技創新項目。

我們亦定期召開集團創新工作會和智慧燃氣工作會，匯報創新工作進展，分享創新經驗，相關員工積極開展關於智慧燃氣的研究，圍繞業務難題為燃氣智能化建設和發展獻計獻策；提出並升級「雲管理」，加強信息系統之間的互聯和共享，提升智能燃氣建設管理效率。

7.3 INNOVATIVE TECHNOLOGY MANAGEMENT

CR Gas takes proactive measures to explore and utilize advanced technologies and innovative technology management, to deliver quality service. It promotes the optimal utilization of resources to reduce wastage. CR Gas has established its Innovation Work Leading Team in 2017, which is responsible for the overall planning of innovation work of the Group, promoting the innovation work of all member enterprises, reviewing and deliberating the initiation of innovation projects and the progress of innovation projects. Such team provides continuous technical support for various projects, offers help for carrying out new work, utilizes the innovation work management means to encourage and drive innovation. In the meanwhile, by applying to and holding of patents, trademarks and copyrights, We ensure its own intellectual property rights are well protected. We also enhanced daily monitoring practices to prevent infringement from other parties in order to create an atmosphere intellectual property rights protection in the Group. We raise awareness of employees in respecting and avoiding infringement of intellectual property rights of others in the process of cooperation. In addition, CR Gas Engineering Management Center has established Innovation Management Committee in 2018, updated and issued Measures on Technology Innovation Management, issued 2018 Measures on Technology Innovation Implementation in line with various management systems such as Measures on Management of Technology Innovation Incentive, Measures on Evaluation and Selection of Technology Innovation Projects, to encourage staff to make technical innovation; Design Research Center has formulated and implemented Measures on Management of Innovation and Research & Development, in which it defines the eight directions for innovation work, to facilitate the implementation of research and development work. During the reporting period, we spent RMB0.1 billion on technology innovation, producing 19 new patents in total and implementing 13 Group-level projects on technology innovation.

Moreover, we hold Group innovation work conference and smart gas conference regularly, to report on the progress of innovation work and share experiences on innovation. The staff involved carry out research proactively on smart gas, and contribute their advices and suggestions on gas intelligentization construction and development around the difficulties in operation; "Cloud Management" was proposed and updated, to enhance the inter-connection and sharing between information systems and improve the efficiency of the management of smart gas construction.

創新管理委員會亦開展了年度創新項目宣講及創新課題研討活動，通過成果匯報、實物展示、現場答辯等方式，對三家工程公司上報的35個創新項目、12個立項課題進行了審議和評選，評選出「五小項目」、「四新項目」三十餘個獎項，並選取有代表性和實用創新型的六項申報了國家相關專利。

Innovation Management Committee gave annual sessions on innovation projects and held discussion about innovation projects, reviewing and deliberating on and evaluating and selecting from 35 innovation projects and 12 established projects from three engineering companies on the basis of achievements reporting, showcase in kind, scene reply and so on. As a result, more than thirty awards were given, including “Five Small Projects”, “Four New Projects”, among which six representative utility models were selected for applying for national patents.

案例：創新大賽活動

Case: Innovation Contest Activities

2018年8月，為營造全公司創新氛圍，加強員工創新意識、創新思維的培養，華潤燃氣南京市政設計有限公司發佈了《關於舉辦創新大賽活動的通知》。為了切實幫助同事日常工作中遇到的難題，相關同事就《燃氣管道定向鑽穿越校核計算》及《燃氣管道水域開挖水下管段穩定配重計算》開發兩款計算軟件，通過對諸多相關規範的研究，克服重重困難，於9月獨立完成了兩款（3個）軟件的初步開發，並在10月份進行了軟件調試、糾錯。本創新項目的3個軟件，可以為定向鑽穿越設計及水下管段開挖敷設穩管配重提供可靠的數據支持，保證了燃氣供應的安全可靠性。

In August 2018, to create an innovation atmosphere throughout the whole company, strengthen the fostering of innovation sense and thinking of the staff, CR Gas Nanning Civic Design Co., Ltd. (華潤燃氣南京市政設計有限公司) issued Notice on Holding Innovation Contest Activities. To help colleagues to solve the problems encountered by them in their daily work, related colleagues developed two sets of computer software with respect to Checking Calculation for Directional Drilling Crossing of Gas Pipeline (《燃氣管道定向鑽穿越校核計算》) and Calculation of Steady Counterweight of Underwater Pipe Section Excavated in Water Area of Gas Pipeline (《燃氣管道水域開挖水下管段穩定配重計算》). After making study on a number of related criteria and overcoming certain difficulties, they finished the preliminary development of those two sets of (three) software independently in September, and worked for software debugging and errors correction in October. Those 3 software in the innovation projects could provide reliable data support for directional drilling crossing design and balance weight of stable pipeline laid in the excavation of underwater pipeline section, which ensured the security and reliability of gas supply.

我們亦一直大力推動智慧燃氣的發展，通過全面構建智慧建設、智慧運營、智慧服務三大方向，打造智慧燃氣平台，全面提升華潤燃氣的數字化實力，助力智慧燃氣建設。為加強IT管控治理，2018年華潤燃氣信息化繼續完善制度體系建設，正式發佈5項管理辦法，修訂、修編2項管理指引，涵蓋成員企業信息化立項、招標、數據治理、信息化資產管理等領域，進一步規範信息化資產管理和成員企業信息化建設，有效地保障了各項信息化建設工作的平穩有序開展。同時，公司新增設立潤智科技公司，以負責燃氣科技產品研發創新及市場化運作，承接信息化系統建設及維護；而為解決成員企業物聯設備繁雜、協調不一等問題，我們亦研發推出「易作業」產品安檢及維修平台，幫助客戶解決難題，以及「加氣站自動充裝控制系統」及「地下可燃七日在線監測系統」，提高整體運營的自動化性能。

此外，2018年召開多項及多次智慧發展相關會議，包括四期智慧燃氣工作坊以形成6項智能規劃初步框架，孵化40多個智能化課題，利用「數字化、互聯網」思維，推動華潤燃氣業務數字化和互聯網創新轉型；以及與中國信息通信研究院開展4次研討、2次外部交流，積極參與籌備智慧燃氣峰會，於2018年9月28日聯合發佈華潤燃氣智慧燃氣白皮書，並開展LoRa檢測標準和蜂窩網檢定中心的籌建工作。

We have also been making great efforts to promote the development of smart gas, create smart gas platform through smart construction, smart operation and smart service, to improve CR Gas's overall capability in digitalization and help the construction of smart gas. In 2018, to strengthen its IT management and regulation, CR Gas continued the optimization of mechanism and system construction in informatization, issued formally 5 management measures, amended and revised 2 management guides, covering project initiation, tender offering, data regulation, informatized assets management and other fields in informatization of member enterprises. It further regulated informatized assets management and the informatization construction of member enterprises, which effectively ensured the stable and orderly implementation of various informatization construction work. In addition, the Company has newly established Run Zhi Technology Company (潤智科技公司), which is responsible for the research, development, innovation and marketization operation of gas technology products as well as undertaking the construction and maintenance of informatization system. To tackle the problem of member enterprises in relation to the complication and discordance of things-connecting equipment, we have developed and launched a product security checking and repairing platform which is called "Easy for Working", to help clients to deal with difficulties. We have also launched "Automatic Charging Control System for Gas Station" and "Seven-Days Online Monitoring System for Combustibles", to improve the overall automaticity of our operation.

In addition, the Company has convened several conferences on smart development in 2018, including four phases of the smart gas workshop in which 6 preliminary frameworks for smart planning were formulated and more than 40 smart topics were initiated for further studies by taking advantage of "digitalization and internet" thinking, so as to push forward the digital and internet innovation transformation of CR Gas's business. CR Gas has carried out 4 seminars and 2 external exchanges with China Academy of Information and Communications Technology to actively attend and prepare for the summit on smart gas, and jointly issued the white paper on smart gas of CR Gas on 28th September, 2018 and carried out the preparation work for the LoRa testing standards and cellular network verification center.

7.4 提供智慧服務

除了積極管理及鼓勵科研創新以外，我們更不斷結合互聯網發展，推出多元化智慧燃氣服務，為客戶帶來全新體驗。我們先後開通華潤燃氣通、微信公眾號、網上營業廳等渠道，方便用戶繳費、業務辦理、賬單查詢、信息諮詢；為IC卡用戶部署自助服務終端，提供高效便捷的服務入口；推出新一代「燃氣移動自助充值圈存系統」，讓用戶在家門口就能享受到優質便捷的服務。截至2018年底，公司共在13個城市部署IC卡圈存終端375個，互聯網繳費比例達41%，為智慧城市、智慧燃氣建設提供高效智能的服務支持。

7.4 PROVISION OF SMART SERVICE

Except for positive management and encouragement for scientific and research innovation, we continuously launched diversified smart gas service with the development of the internet to bring our customer with new experience. We successively offered access to a mobile application for gas service of CR Gas(華潤燃氣通), WeChat Official Account and online business hall to facilitate users in terms of bill payment, business handling, billing query and information consultation, providing an efficient and convenient service entry via deploying self-service terminal for IC card users. Users can receive quality and convenient service at home as we launched a new mobile self-service gas recharge system. By the end of 2018, there were 375 recharging service terminals covering 13 cities in total, with internet payment ratio of 41%, providing efficient and intelligent service support for smart cities and the construction of smart gas.

案例：安陽公司首家綜合自助營業廳投入運營

Case: The first comprehensive self-service business hall of Anyang Company in operation

2018年12月28日，安陽公司首家「24小時綜合自助營業廳」正式投入運營，為燃氣行業首家無人營業廳，也是安陽公司探索「智慧燃氣」新領域的又一里程碑。該營業廳以實際業務為載體，以信息技術為核心推動力，成功實現掃碼進門、刷臉自助繳費、百尊產品購買、波紋管和閥門自助銷售等綜合功能，為客戶提供了高效的自助服務渠道，增強服務體驗；同時，利用緊急呼叫、一鍵報警、拾音喊話等特色功能為用戶安全保駕護航，最終實現業務辦理「多渠道、高效率、低風險」的智能服務。

On 28th December, 2018, the first "24-hour comprehensive self-service business hall" of Anyang Company has been put into operation officially, which is the first unmanned business hall of the gas industry and also the milestone of Anyang Company to explore the new area of "smart gas". The business hall regards information technology as the core driving force based on the actual business and helps achieve comprehensive functions, such as scanning code through the door, self-paying with your face, purchasing products under PERCEN and self-service sales by controlling bellows and valves, thus offering efficient self-service channels to customers to improve the service experience. Also, we can apply unique functions, such as urgent call, one-button alarm and sound-detective alarm (拾音喊話), to ensure the users' safety, finally achieving the smart service of "multi-channel, high efficiency and low risk" in respect of business handling.

7.5 綠色供應商管理

華潤燃氣秉承安全第一、為客戶負責的態度，在採購過程中堅持工程物資質量第一，在與客戶合作中堅持合作共贏。集團持續推行負責任採購，確保供應商在運營時遵守所有的法律法規，對自身的環境及社會做出管控，保持我們服務和燃氣產品的可持續性。我們在政策明確集團對供應商在環境保護、員工健康與安全、勞工準則等放面的期望。集團設有三級供應商篩選機制，確保供應商符合條件，能持續保持我們服務的穩定性，並降低品質及破壞環境的風險。於報告期內，與集團合作的供應商通過質量、環境和職業健康安全體系認證的比例約9.5%，責任採購比到85.13%。同時，我們亦積極本地化採購，年內，我們共聘用203家中國內地供應商。

7.5 GREEN SUPPLIERS MANAGEMENT

Under the attitude of safety first and being responsible for customers, CR Gas sticks to giving priority to the quality of engineering materials during the procurement process and adheres to win-win cooperation with customers. The Group continues to implement responsible purchase to ensure that the suppliers comply with all rules and regulations to regulate their own environment and social conditions and maintain the sustainability of our services and gas products. We have clarified our expectations for suppliers in terms of, among others, environmental protection, employees' health and safety and labor standards in the policy. The Group has set up a three-step supplier screening mechanism to ensure the qualifications of suppliers, to sustain the stability of our services and to lower the risk of quality and environmental damage. During the reporting period, approximately 9.5% of the Group's suppliers had passed quality, environment and occupational health & safety administration systems certification. The proportion of responsible purchase amounted to 85.13%. Meanwhile, we also encourage procuring locally. During the Year, we engaged 203 suppliers in total from mainland China.

三級供應商篩選機制 Three-step Supplier Screening Mechanism	
資格預審： Pre-qualification:	關注供應商的生產能力、生產資格、資信情況及行業影響力；並要求提供企業生產及檢測能力介紹、產品生產相關許可、銀行資信情況、企業審計報告及業績等證明 We concerned about the production capability, production qualification, credit position and industry influence of suppliers and will ask them to provide brief description of the enterprise's production and testing capability, production licenses, bank credit position, audit report and certification of the performance of the enterprise
現場考察： On-site assessment:	關注供應商的生產管理、質量管理、對職工的保護及企業對環境的保護等；確保其生產流程、工藝及產品質量均符合既定環境和質量要求；要求供應商提供職業健康安全體系、環境管理體系，以及質量管理體系之認證，如ISO 14001及OHSAS 18001)的證據 We pay attention to the suppliers' production management, quality management, the protection of employees and the enterprise's protection of environment to ensure that their production procedures, craftsmanship and product quality are in line with the established environment and quality requirements. Suppliers are required to provide certificates for occupational health and safety management system, environmental management system and quality management system, e.g. ISO 14001 and OHSAS 18001
綜合評審： Comprehensive appraisal:	供貨商須通過綜合評估，確保具備相關資質 Suppliers are subject to comprehensive evaluation to ensure that they possess relevant qualifications

華潤燃氣已建立供貨商履約及分級管理制度，通過上述三個機制和接獲與經濟、社會或環境相關的處罰數量為指標，公司會每年抽查供貨商，向不達目標供貨商給予及時現場指導並要求整改，並淘汰持續未能符合目標供貨商。我們亦周期性對供應商進行重新入圍審查。在入圍周期內、不通知供應商的情況下，按照現場考察標準，進行突擊復審，針對生產管理、質量控制、勞動保護、環境保護等進行檢查，不滿足的要求的供應商，取消合作資格。

集團每兩年對供應商的生產資格進行復審，不定期抽取供應商產品，送國家相關第三方檢測機構進行送檢。另一方面，我們組織成員公司與供應商雙向互評，成員公司對供應商產品質量、售後服務、合作情況等方面進行評價，供應商對成員公司誠信合規、合同履約、採購管理等方面進行評價。通過雙向評價，有效促進了成員公司與供應商之間的合作關係。而2018年，華潤燃氣從區域公司倉庫抽取銅球閥、薄壁不銹鋼管、PE管材、PE管件、雙面埋弧焊直縫鋼管、雙面埋弧焊螺旋鋼管、鍍鋅管、固定式報警器、鋼製球閥等9類物資的樣品，送第三方檢測機構進行檢驗，檢驗結果都為合格，將我們對供應商嚴謹的管理如實反映到我們所使用的物資品質上。

我們堅持公開、公平、公正的原則，並在與供應商簽訂合同中明確誠信合規條款，嚴格要求雙方人員廉潔受規，倡導誠信經營，反對商業舞弊。對參加考察的專家人員，在考察之前我們會再加強調考察紀律和考察要求，以及考察應關注的重點問題，並與所有考察專家簽訂《華潤燃氣物資考察陽光宣言》，落實廉潔責任。而在合作過程中，如遇到成員公司在採購、合作、管理過程，存在誠信合規等方面的問題，可主動向公司誠信跟蹤郵箱進行反饋。

CR Gas has established a supplier performance and tiered management system. With the percentage of passing the above three management systems and the number of economic, social and environmental penalties it has received as indicators, the Group performs annual random inspections on the suppliers and provides prompt on-site guidance for substandard suppliers, requiring for rectification. We will cease ordering from suppliers who fail to satisfy our requirements persistently. We also re-inspect suppliers periodically, during which we would, without prior notice to suppliers, review their production management, quality control, labor protection and environmental protection based on on-site inspection standards. The suppliers who have failed to meet the standards will be terminated.

The Group requalifies production activities of suppliers every two years, and selects suppliers' products randomly and periodically for inspections by national relevant third part testing organization. On the other hand, we organize member companies and suppliers to assess with each other. Member companies assess suppliers' product quality, after sale services and attitude for cooperation, while suppliers assess integrity, compliance, contract execution, procurement management of member companies. This mutual assessment effectively enhanced cooperation between member companies and suppliers. In 2018, CR Gas randomly selected 9 categories of products from warehouse of member companies, including ball valves, light gauge stainless steel pipes, PE pipes, PE fittings, straight seam double submerged-arc welded pipes, spiral double-side submerged-arc welded steel pipes, galvanized pipes, stationary alarm and steel ball valves, as samples for inspections at the third part testing organization. Those samples were all passed at the tests, faithfully reflecting that our strict management on suppliers has brought positive effect on the quality of products we used.

We adhere to the principle of openness, fairness and justice. When entering into contract with suppliers, we clarify terms about integrity and compliance to require both parties to act honestly with full compliance, advocate honest operation and oppose business malpractice. For experts who participated in the investigation, we will re-emphasize the discipline and requirements on investigation and majors issues to be taken in consideration before the investigation, and sign the CR Gas's Declaration of Sunshine Investigation of Goods (《華潤燃氣物資考察陽光宣言》) with experts of investigation to fulfill their duties on integrity. During the process of cooperation, if member companies are found to have problems in procurement, cooperation and management, experts may actively send their feedback through the mailbox designated for following up the integrity issues to the Company.

7.6 參與社區共建

華潤燃氣持續圍繞「扶貧助困、捐資助學、關愛特殊群體、志願服務」四大方向積極履行社會責任，致力共建和諧社會。2018年內，本集團共捐贈**633.6**萬港元；動員員工參與志願活動共**23,489**人次，志願活動總時長約**5,000**小時，投入**262.16**萬元人民幣幫扶專項資金。

扶貧助困

根據國家部署規劃，華潤燃氣積極響應「匯聚各方力量精準扶貧，打贏脫貧攻堅戰，全面建成小康社會」，探索企業支持扶貧、脫貧的有效途徑，從「人才培育、產業扶貧、基礎設施建設」等方面入手，達至最佳效果。

7.6 PARTICIPATED IN COMMUNITY CO-BUILDING

CR Gas keeps proactively fulfilling its social responsibilities in the four directions of “poverty alleviation, education aid, caring for groups with special needs and volunteer services”, striving to build up a harmonious society. In 2018, the Group donated HK\$6.336 million in total, and encouraged employees to participate in volunteer activities, totaling 23,489 attendances. The time committed for volunteer activities was approximately 5,000 hours in total, and a total of RMB2.6216 million was provided to a specialized assistance fund.

Poverty alleviation

According to the national deployment plan, CR Gas actively responds to “bringing together diverse strengths for targeted poverty alleviation, winning the critical battle in poverty aid and building a well-off society in an all-round way”, and explores the effective ways for enterprises to support poverty alleviation from the aspects of “talent cultivation, industrial poverty alleviation and infrastructure construction” to achieve the best results.

案例：安陽公司首家綜合自助營業廳投入運營

Case: The first comprehensive self-service business hall of Anyang Company in operation

婁底公司積極響應國家的脫貧工作，向漣源市石馬山鎮排掌村提供從人才扶貧、產業扶貧、基礎設施建設等方面的扶貧工作。

人才扶貧：選派具有農村工作經驗的員工駐村開展脫貧幫扶工作，同時安排13名中層以上管理人員作為責任人，與51戶村民建立幫扶關係。2018年，婁底公司組織幫扶責任人入戶幫扶11次，開展貧困戶慰問活動3次。

產業扶貧：投入脫貧攻堅專項資金10萬元人民幣，組織村民和貧困戶建立2個農村合作社，為貧困戶脫貧提供持續保障。2018年，婁底公司持續鞏固18戶已脫貧貧困戶幫扶成效，並另外幫助27戶貧困戶實現脫貧。

基礎設施建設：指導和幫助排掌村開展基礎設施建設。2018年，婁底公司共完成村級公路硬化4.68公里，新建安全飲水工程14處，組織完成危房改造17處，完成異地搬遷9戶，有效完善了村級服務平台建設。

Loudi Company actively responded to the national poverty alleviation work and provided assistance to Paizhang Village, Mashan Town, Lianyuan City from the aspects of talent cultivation, industrial poverty alleviation and infrastructure construction.

Talent Cultivation: Loudi Company dispatched the staff with experience working in rural areas to carry out poverty alleviation work. At the same time, 13 middle-level and above management personnel were arranged as responsible persons to provide assistance to 51 villagers. In 2018, Loudi Company organized the responsible persons to help the poor households 11 times, and visited to poor households 3 times.

Industrial Poverty Alleviation: Loudi Company invested RMB100,000 as special funds for poverty alleviation and organized villagers and poor households to establish two rural cooperatives to provide sustainable protection for poor households. In 2018, Loudi Company continued to reinforce 18 families who went out of poverty, and lifted 27 poor households out of poverty.

Infrastructure Construction: Loudi Company guided and helped Paizhang Village to carry out infrastructure construction. In 2018, Loudi Company completed a total of 4.68 kilometers of village-level road hardening, 14 new drinking water safety projects, 17 dilapidated house transformation, and 9 households' relocations, which effectively improved the construction of village-level service platforms.

捐資助學

華潤燃氣通過捐贈教育設施、幫扶貧困學子等方式開展愛心幫扶助學活動，提升貧困地區辦學水平，讓貧困地區兒童感受到更多關心與愛護。

EDUCATION AID

CR Gas provides supports to education and deeply cares about the children in poor areas through donating educational facilities and assisting poverty students to enhance school-running level in poor areas.



▲ 武義公司結對幫扶困難學子
Wuyi Company paired up to help difficult students



▲ 滕州公司關愛困境兒童
Tengzhou Company cared for children in difficulty



▲ 遼陽區域助力高考
The people in Liaoyang supported students in the college entrance examination period

關愛特殊群體

華潤燃氣將特殊群體關愛視為一項長期性、持續性工作，對貧困群體、殘障人士、留守兒童、孤寡老人、退伍老兵、「三無」和「五老」人員提供無窮的關愛、救助及慰問，為他們創建和諧美好的生活。

CARING FOR GROUPS WITH SPECIAL NEEDS

CR Gas regards caring for groups with special needs as a long-term and continuous work. It provides endless care, assistance and visits to the poor, the handicapped, left-behind children, lonely senior citizens, veterans, the “three withouts people” and “senior Party members, veteran specialists, aged teachers, veterans and old models”, to create a harmonious and beautiful life for them.



▲ 2018年12月22日，華潤燃氣秦皇島公司聯合星海心智障礙家長互助會為自閉症和心智障礙孩子打造溫馨和諧的盛會，讓更多人關注、關愛該群體。

On 22nd December, 2018, Qinhuangdao China Resources Gas Co., Ltd. (華潤燃氣秦皇島公司) and Xinghai Parents Mutual Help Association of Mental Difficulty (星海心智障礙家長互助會) helped create a warm and harmonious event for children with autism and mental difficulty, so that more people could pay attention to and care for the group.



▲ 2018年5月26日，昆明公司參與公益行走活動，為先天性心臟病患兒等青少年群體籌款。

On 26th May, 2018, Kunming Company participated in charity walk activities to raise funds for younger teenagers such as children with congenital heart disease.

案例：免費更換長壽命軟管走進軍隊幹休所

Case: Free replacement of hosepipes with long life to walk into Sanatorium for retired cadres

為了表達對軍隊幹休所老幹部的崇高敬意，2018年「八一」建軍節來臨之際，滕州公司特開展「慶八一」燃氣安全服務活動，為49戶駐所老幹部免費更換新型金屬不銹鋼波紋管，普及燃氣安全使用知識，並提供燃氣安全檢查服務，表達節日問候，讓更多人切實感受到華潤燃氣的關懷和溫暖。

In order to express the highest respect and holiday greetings to the old cadres of the military, the Tengzhou Company carried out a gas safety service activities of "celebration of August 1st" for the upcoming military Festival on August 1st 2018 to replace the old metal stainless steel bellows with new ones for 49 resident cadres at nil consideration, popularize the knowledge of gas safety use, and provide gas safety inspection services, so that more people could truly feel the care and warmth from CR Gas.



志願服務

華潤燃氣深入領會「奉獻、友愛、互助、進步」的志願服務精神，號召各區域公司建立員工志願者隊伍，結合地區實際開展各項志願者活動。2018年，公司累計奉獻義工時長約5,000小時，捐款、捐物折合212萬元人民幣，組織大型公益活動150餘次，其中無錫公司「陽光服務」品牌獲華潤集團社會責任獎銅獎。

VOLUNTEER SERVICES

With a deeply understanding of the voluntary service spirit of "Dedication, fraternity, cooperation and progress", CR Gas promotes the organization of staff volunteer teams among its regional companies and encourages them to organize volunteering activities in light of the actual situation of regions. In 2018, the Company has contributed approximately 5,000 volunteer hours in total and organized more than 150 large-scale public welfare activities, with donations of money and materials equivalent to RMB2.12 million. The brand "Sunshine Service" of Wuxi Company was awarded bronze award on Social Responsibility by China Resources Group.



▲ 滕州公司成立志願服務隊
Tengzhou Company established volunteer service team



▲ 中山公司「小尊服務隊」隊員合影
Group photo of "Xiaozun Service Team" of Zhongshan Company

8 可持續發展績效指標

8 Sustainability Performance Indicators

環境績效

Environmental Performance

指標	Index	單位 Unit	2016	2017	2018
環保總投入	Total environmental investment	萬元人民幣 RMB'0,000	1,782.54	2,125.97	2,445.87
節能減排技術改造投入	Investment in technological upgrade for energy saving and emission reduction	萬元人民幣 RMB'0,000	1,705.10	2,011.05	2,312.71
環保培訓參與人次	Participants of environmental protection training	人次 Attendance	100,295	121,231	139,416
環保培訓總時長	Total hours of environmental protection training	小時 Hour	195,480	211,054	242,712
召開視頻電話會議次數	Times of video conferencing	場次 Time	241	151	253
視頻會議涉及會議室	Conference rooms for video conferencing	個次 Number	2,285	1,577	2,438
環保培訓總投入	Total investment in environmental protection training	萬元人民幣 RMB'0,000	77	82	94.3
綜合能源消費量	Comprehensive energy consumption	萬噸標準煤 10,000 tons of standard coal	4.81	4.8452	4.8368
全年能源消耗總量	Total annual energy consumption	萬噸標準煤 10,000 tons of standard coal	4.81	4.8452	4.8368
萬元人民幣營業收入綜合能耗 (可比價)	Comprehensive energy consumption per RMB10,000 revenue (comparables)	噸標準煤 / 萬元人民幣 tons of standard coal/RMB'0,000	0.01	0.0092	0.0083
萬元人民幣增加值綜合能耗 (可比價)	Comprehensive energy consumption per RMB10,000 value added (comparables)	噸標準煤 / 萬元人民幣 tons of standard coal/RMB'0,000	0.0307	0.0286	0.0282
溫室氣體總排放量	Greenhouse gas emissions in total	萬噸 10,000 tons	24.67	25.00	25.02
新建項目執行環境和社會影響評估的比率	Ratio of accessing environment and social impact of new projects	百分比 %	100	100	100

社會績效

Social Performance

指標	Index	單位 Unit	2016	2017	2018
安全培訓投入	Safety training investment	萬元人民幣 RMB'0,000	1,138	1,345	1,712
安全培訓總時長	Total hours of safety training	小時 Hour	722,732	763,359	594,970
安全培訓參與人次	Participants of safety training	人次 Attendance	248,213	258,865	249,812
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 Time	2,105	2,593	2,816
安全生產投入	Safe production investment	萬元人民幣 RMB'0,000	26,038	28,864	36,744
安全生產事故數	Number of safe production accidents	次 Time	0	0	0
員工傷亡人數	Employee casualties	人 Person	0	0	0
安全管理人員持證人數	Number of licensed safety management personnel	人 Person	2,211	2,485	2,978
註冊安全工程師人數	Number of registered safety engineers	人 Person	783	790	892
供應商通過質量、環境和職業健康安全管理体系認證的比例	Percentage of certified suppliers of the quality, environment and occupational health and safety management system	百分比 %	100	95	95
供應商受到經濟、社會或環境方面處罰的個數	Number of suppliers being imposed with economic, social or environmental penalties	個 Individual	0	0	0
責任採購比率	Responsible procurement coverage	百分比 %	85.57	84.2	85.13
員工總人數	Total number of employees	人 Person	40,121	42,011	48,031
女性員工人數	Number of female employees	人 Person	14,444	15,434	15,451
新增就業人數	Number of newly employed employees	人 Person	122	1,890	6,020
女性管理者比例	Ratio of female managers	百分比 %	25.20	24.70	27.00
殘疾人僱傭人數	Number of disabled persons employed	人 Person	101	93	94
少數民族員工人數	Number of ethnic minorities employed	人 Person	1,020	1,087	1,102
員工流失率	Employee turnover rate	百分比 %	3.20	4.30	4.5

指標	Index	單位 Unit	2016	2017	2018
接收應屆 畢業生人數	Number of fresh graduates employed	人 Person	771	866	785
勞動合同簽訂率	Coverage of labor 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	萬元人民幣 RMB'0,000	7.15	7.865	8.6515
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 physical examination and health archiving	百分比 %	100	100	100
人均培訓投入	Training investment per person	元人民幣 RMB	1,870	2,012	1,749
人均培訓時長	Training hours per person	學時 Hour	69	87	65
員工培訓覆蓋率	Employee training coverage	百分比 %	100	100	100
產品合格率(百尊)	Product qualification rate (PERCEN)	百分比 %	100	100	100
客戶滿意度	Customer satisfaction	分 Point	89	91	91.7
困難員工幫扶投入	Investment in employees in hardships	萬元人民幣 RMB'0,000	198.36	390	395
救助困難員工投入	Investment in employees in difficulty	萬元人民幣 RMB'0,000	4.7	120	124
走訪慰問困難員工 家庭投入	Investment in visits and comforts delivered to families of employees in difficulty	萬元人民幣 RMB'0,000	59.03	80	90
資助困難員工子女 入學投入	Investment in the education of children of employees in difficulty	萬元人民幣 RMB'0,000	55.89	60	64
社會捐贈總額	Total social donations	萬港元 HK\$'0,000	285.80	430	633.6
員工志願活動人次	Participants of volunteer activities	人次 Attendance	15,330	21,782	23,483
扶貧專項資金投入	Special funds for poverty alleviation	萬元人民幣 RMB'0,000	45.65	62.30	262.16

9 附錄：《環境、社會及管治報告指引》內容索引

9 Appendix: ESG Reporting Guide Content Index

主要範疇、層面、 一般披露及關鍵 績效指標(KPIs) Subject Areas, Aspects, General Disclosures and KPIs	描述 Descriptions	頁數 Page
A1 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： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 Information on: (a) the policies; and (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 nonhazardous waste.	24-26
KPI A1.1	排放物種類及相關排放數據。 The types of emissions and respective emissions data.	26
KPI A1.2	溫室氣體總排放量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。 Greenhouse gas emissions in total (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	26
KPI 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 tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	華潤燃氣的生產運營只產生少量有害廢棄物，對集團而言不是重要範疇。 CR Gas generated insignificant amount of hazardous waste during its operation which is immaterial to the Group.
KPI 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 tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	華潤燃氣的生產運營只產生少量無害廢棄物，對集團而言不是重要範疇。 CR Gas generated insignificant amount of non-hazardous waste during its operation which is immaterial to the Group.

主要範疇、層面、 一般披露及關鍵 績效指標(KPIs) Subject Areas, Aspects, General Disclosures and KPIs	描述 Descriptions	頁數 Page
KPI A1.5	描述減低排放量的措施及所得成果。 Description of measures to mitigate emissions and results achieved.	24-26
KPI A1.6	描述處理有害及無害廢棄物的方法、減低產生量的措施及所得成果。 Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	24-26
A2 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.	24-27
KPI 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).	27
KPI 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).	華潤燃氣在生產運營中的耗水量並不顯注，對集團而言不是重要範疇。 Water consumption is insignificant for CR Gas's production and operation and it is unimportant for the Group.
KPI A2.3	描述能源使用效益計劃及所得成果。 Description of energy use efficiency initiatives and results achieved.	24-31
KPI A2.4	描述求取適用水源上可能有任何問題，以及提升用水效益計劃及所得成果。 Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	華潤燃氣在求取水源上沒有任何問題。且生產用水對集團而言不是重要範疇。 CR Gas has no difficulty in respect of sourcing water and it is immaterial for the Group.

主要範疇、層面、 一般披露及關鍵 績效指標(KPIs) Subject Areas, Aspects, General Disclosures and KPIs			描述 Descriptions	頁數 Page
KPI 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 tons) and, if applicable, with reference to per unit produced.	27	
A3 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 minimizing the issuer's significant impact on the environment and natural resources.	32-33	
KPI A3.1		描述業務活動對環境及天然資源的重大影響及已管理有關影響的活動。 Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	32-33	
B1 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： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及法例的資料。 Information on: (a) the policies; and (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.	46	
KPI 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.	47	
KPI 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.	47	

主要範疇、層面、 一般披露及關鍵 績效指標(KPIs) Subject Areas, Aspects, General Disclosures and KPIs			描述 Descriptions	頁數 Page
B2 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： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及法例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environmental and protecting employees from occupational hazards.		36-43	
KPI B2.1	因工作關係而死亡的人數及比率。 Number and rate of work-related fatalities.		43	
KPI B2.2	因工傷損失工作日數。 Lost days due to work injury.		43	
KPI 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.		36-43	
B3 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.		48-55	
KPI B3.1	按性別及僱員類別（如高級管理層、中級管理層等）劃分的受訓僱員百分比。 The percentage of employees trained by gender and employee category (e.g. senior management, middle management).		54	
KPI 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.		54	

主要範疇、層面、 一般披露及關鍵 績效指標(KPIs) Subject Areas, Aspects, General Disclosures and KPIs			描述 Descriptions	頁數 Page
B4 一般披露 General disclosure	有關防止童工或強制勞工的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及法例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.		56	
KPI 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 labor.		56	
KPI 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.		56	
B5 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.		72-73	
KPI B5.1	按地區劃分的供貨商數目。 Number of suppliers by geographical region.		72	
KPI 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，以及有關慣例的執行及監察方法。 Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.		72	

主要範疇、層面、 一般披露及關鍵 績效指標(KPIs) Subject Areas, Aspects, General Disclosures and KPIs			描述 Descriptions	頁數 Page
B6 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： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及法例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, label and privacy matters relating to products and services provided and methods of redress.	64-71		
KPI 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.	主營業務不適用。 Not applicable to the major business operations of CR Gas.		
KPI 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.	64		
KPI 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.	68		
KPI 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.	65		
KPI 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, how they are implemented and monitored.	66		

主要範疇、層面、 一般披露及關鍵 績效指標(KPIs) Subject Areas, Aspects, General Disclosures and KPIs			描述 Descriptions	頁數 Page
B7 一般披露 General disclosure	有關防止賄賂、勒索、欺詐及洗黑錢的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及法例的資料。 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.		9-14	
KPI 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.		13	
KPI 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, how they are implemented and monitored.		12-13	
B8 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.		74-78	
KPI 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 on areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).		74	
KPI 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 area.		74	



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