



中油燃氣集團有限公司

CHINA OIL AND GAS GROUP LIMITED

(Incorporated in Bermuda with Limited Liability)

(於百慕達註冊成立之有限公司)

Stock Code: 603

股份代號：603



2023

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

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CHAIRMAN'S STATEMENT

主席致辭



Dear Valued Stakeholders,

Welcome to the Environmental, Social and Governance Report (“ESG Report”) of China Oil and Gas Group Limited (the “Company”) (Stock Code: 603) and its subsidiaries (collectively referred to the “Group” or “We”) for the year from 1 January 2023 to 31 December 2023 (the “year” or “2023”).

As a clean energy company operating in the People’s Republic of China (“PRC”), the Group has always embraced the mission of “Developing clean energy, Creating better life”. Since our establishment, we have actively aligned with the national low-carbon transition strategy for the energy mix. Through the development of city gas pipeline networks, we continuously promote the widespread use of natural gas, and are committed to making ongoing contributions to the national policies on carbon reduction and haze reduction.

In respect of the continuous development of the economy of the PRC, a safe, stable, clean and efficient energy system plays a pivotal role in the country’s sustainable development. The Group will persistently innovate and make energy-related technological breakthroughs with international competitiveness, aiming to meet the needs of the country’s economic development and support national energy security.

各位尊敬的利益相關方：

歡迎閱讀中油燃氣集團有限公司(「公司」)(股份代號：603)及其附屬公司(統稱為「集團」或「我們」)於二零二三年一月一日至二零二三年十二月三十一日(「本年度」或「二零二三年」)的環境、社會及管治報告(「ESG報告」)。

集團作為於中華人民共和國(「中國」)營運之清潔能源企業，一直肩負著「發展清潔能源，共創美好生活」的使命。自成立以來，我們積極配合國家能源結構低碳轉型策略，透過發展城市燃氣管道網絡，不斷地推動天然氣的廣泛應用，致力為國家減碳降霾政策作出持續貢獻。

隨著中國經濟持續發展，安全穩定及潔淨高效的能源體系將會給國家的可持續發展帶來舉足輕重的作用。集團將會努力不懈地創新與突破具有國際競爭力的能源相關技術，滿足國家經濟發展需求並支撐國家能源安全。

二零二三年年度環境、社會及管治報告

(continued) (續)



The Group is dedicated to adopting a green business model and enhancing its environmental performance throughout its downstream operations in the PRC and upstream operations in Canada. We have established environmental targets since the financial year ended 31 December 2021 (“2021”) for carbon reduction, waste reduction, energy saving and water conservation to promote green business. For more information on the progress, initiatives and performance, please refer to the sections headed “6. Dedication to Green Development” and “10. Sustainability Performance Data for 2023”.

In addition, the Group has been committed to strictly monitoring every aspect of the production and business processes since its establishment to ensure the safety of gas production and operations. During the year, the certification rate of safety management personnel of the Group’s subsidiaries stands at 100%.

To prevent and reduce the occurrence of safety incidents, the Group has established a comprehensive safety management system with clear accountability based on the laws and regulations promulgated by the PRC, such as the Guideline of China Occupational Safety and Health Management System (GB/T 33000), the Safety Technical Specification for Operation, Maintenance and Rush-repair of City Gas Facilities and other standards. The production safety supervision and management department (the “safety supervision department”) has been delegated the responsibility of supervising and ensuring that all subsidiaries organise various safety activities and emergency drills, as well as organising two comprehensive major production safety inspections each year. During the year, no general (level B) or higher-level production safety incidents were recorded within any of the subsidiaries. Furthermore, the Group has been actively optimising its information management platform, striving to build a new, highly efficient and operationally intelligent enterprise and ensure a stable and reliable supply of clean energy by the Group.

During the year, the Group successfully applied for a sustainability-linked loan to promote the implementation of sustainable business practices. We have established clear sustainability performance targets (“SPT”) concerning carbon emissions from our upstream operations in Canada and the Group’s health, safety, and environmental (“HSE”) training. These targets will serve as the cornerstone of our commitment to actively pursue a greener and more responsible future. During the year, the Group has been honoured with the “Outstanding Green and Sustainable Finance Award” presented by the Hong Kong Quality Assurance Agency. This award fully recognises the Group’s efforts and contributions in areas such as green and sustainable finance, carbon neutrality, climate risk management, and ESG disclosure.

The Group also firmly believes that employees are the most valuable assets and the Group’s development to its current scale are attributed to the joint effort of its talents. To this end, the Group is committed to establishing a learning-oriented enterprise by inviting its senior management, industry experts, professional lecturers and internal trainers to impart skills and knowledge to employees, cultivate talents and lay the foundation for the Group’s business development.

集團致力採用綠色商業模式，並提升其中國下游業務和加拿大上游業務的環境表現。自二零二一年十二月三十一日止財政年度（「二零二一年」）起，我們已就減碳、減廢、節能、節水等方面制定環境目標，致力推動綠色事業。有關進展、措施及績效表可參考「6. 深耕綠色發展」及「10. 二零二三年可持續發展績效數據」章節。

此外，集團自成立以來一直致力於生產經營過程中嚴格把控每一個環節，以確保燃氣生產運營安全。於本年度內，集團各附屬公司安全管理人員持證率為100%。

為防止及減少安全事故的發生，集團依據中國頒佈的《企業安全生產標準化基本規範》(GB/T 33000)及《城鎮燃氣設施運行、維護和搶修安全技術規程》等標準制定了全面細緻、責任明確的安全相關管理辦法，並委派安全生產監督管理部門（「安全監察部」）負責督促各附屬公司組織各項安全活動和應急演練，以及每年組織兩次全覆蓋性的生產安全大檢查。於本年度，各附屬公司概無錄得任何一般(B級)或以上生產安全事故。同時，集團持續優化信息管理平台，致力打造全新的高效運營智能化企業，以確保集團能夠穩定可靠地供應清潔能源。

於本年度，集團已成功申請可持續發展表現掛鉤貸款，以推動可持續業務實踐。我們就加拿大上游業務的碳排放以及集團健康、安全和環境（「HSE」）培訓制定了明確的可持續發展績效目標（「SPT」）。這些目標將成為我們實現更環保、更負責任未來的基石。於本年度，集團更榮獲由香港品質保證局頒發的「傑出綠色和可持續發展金融大獎」。此次獲獎充分肯定了集團在綠色和可持續金融、碳中和、控制氣候風險及ESG披露等方面作出的努力和貢獻。

集團亦堅信員工是企業最大的財富，集團能發展成如今的規模皆有賴其團隊的共同努力。為此，集團著力創建學習型企業，邀請集團高管、行業專家、專業講師、企業內訓師為員工傳授技能和知識，培養人才，為集團的事業發展奠定基礎。

In addition to providing employees with opportunities for continuous learning to enhance their overall quality and professional skills, the Group also strives to create a harmonious and encouraging cultural atmosphere, striving to help employees balance work and life. The Group also offers reasonable salaries, well-rounded benefits and development opportunities. The Group strictly abides by the labour-related laws and regulations in all jurisdictions where it operates, establishes sound employment management systems, develops annual training plans and organises various activities to enrich employees' lives, achieving mutual development between employees and the Group.

In the future, the Group will place even greater emphasis on sustainable development and continuous improvement. It will continue to deepen its communication with stakeholders, constantly understand and respond to their concerns, and strive to become an influential clean energy company.

Xu Tie-liang

Chairman

除了為員工提供持續進修的機會以提升員工的綜合素質和職業技能外，集團亦注重營造和諧向上的文化氛圍，努力幫助員工平衡工作與生活。集團亦向員工提供合理的薪酬、完善的福利和發展機會。集團認真遵守業務所在地有關勞工的法律法規，建立了良好的用工管理制度，每年制定年度培訓計劃，並組織各項活動來豐富員工的生活，實現員工和集團共同發展。

未來，集團將會更加注重可持續發展和持續進步，繼續深化與利益相關方的溝通，持續了解和回應各方的關注事項，努力成為一家有影響力的清潔能源公司。

許鉄良

主席

二零二三年年度環境、社會及管治報告

(continued) (續)



1. ABOUT ESG REPORT

1.1 Reporting Basis

The ESG Report is prepared in accordance with the Environmental, Social and Governance Reporting Guide (“ESG Reporting Guide”) set forth in Appendix C2 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the “Stock Exchange”). This ESG Report discloses the Group’s efforts in Environmental, Social and Governance (“ESG”) aspects. In order to fully understand the environmental, social and corporate governance performance of the Group, this ESG Report should be read in conjunction with the “Corporate Governance Report” within the annual report.

During the preparation for the ESG Report, the Group has applied the reporting principles in the aforementioned ESG Reporting Guide as the following:

Materiality: Materiality assessment was conducted to identify material issues during the year, thereby adopting the confirmed material issues as the focus for the preparation of the ESG Report. The materiality of issues was reviewed and confirmed by the board of Directors of the Company (the “Board”) through the environmental, social and governance committee of the Company (the “Committee”). Please refer to the section headed “3. Value the Participation of Stakeholders” for further details.

Quantitative: The standards and methodologies used in the calculation of the key performance indicators (“KPI”), as well as the applicable assumptions are supplemented in notes.

Consistency: Unless otherwise stated, the ESG Report was prepared in the same methodology as the financial year ended 31 December 2022 (“2022”) for comparison purposes. Explanations will be provided regarding data in the event of any changes in the disclosure scope and calculation methodologies that may affect the comparison with previous reports.

1.2 Reporting Scope

Unless otherwise specified, the reporting scope is consistent with the annual report, which covers the core business of the Group in the PRC and the core business of the Group’s subsidiary, Baccalieu Energy Inc. (“Baccalieu”) in Canada for the year. The core business of the Group includes but not limited to the operation of city gas pipelines, pipeline design and construction; transportation, distribution and sales of compressed natural gas (“CNG”) and liquefied natural gas (“LNG”), and the development, production and sales of crude oil and natural gas, along with other upstream energy resources. As most of the construction works are undertaken by external contractors, it is difficult to provide data on the environmental performance of the construction works. Based on the materiality of the business segments and their relative environmental impacts, the ESG Report only includes environmental KPI data for the four business segments within the reporting scope. These segments include Baccalieu, Qinghai COG Pipeline Co., Ltd (“LNG processing plants”), Shandong Qizhi Equipment Manufacturing Co., Ltd (“Shandong Qizhi Equipment”) and the Zhuhai head office.

1.3 Information and Feedback

For information on ESG aspects of the Group, please refer to the ESG Report on the Group’s official website (www.hk603.com). If anyone has any comments, suggestions or feedback on the content of the ESG Report, please feel free to email us at info@hk603.com.

1. 關於ESG報告

1.1 編製基準

集團按照香港聯合交易所有限公司(「聯交所」)證券上市規則附錄C2《環境、社會及管治報告指引》(「ESG報告指引」)編製ESG報告。ESG報告披露集團於本年度內在環境、社會及管治(「ESG」)方面所推行的各項工作。ESG報告應與年報中的「企業管治報告」章節一併閱覽，以便全面了解集團在環境、社會及企業管治方面的表現。

在編製ESG報告期間，集團採用了上述ESG報告指引中的匯報原則，如下所示：

重要性：集團已於本年度進行重要性評估以識別重大議題，並將已確認的重大議題作為ESG報告的編製重點。議題的重要性已由公司董事局(「董事局」)經公司環境、社會及管治委員會(「委員會」)審閱及確認。有關進一步詳情，請參閱「3. 重視利益相關方參與」一節。

量化：計算關鍵績效指標(「關鍵績效指標」)數據所使用的標準和方法以及適用的假設均已於備註補充。

一致性：除非另有說明，ESG報告的編製方法與二零二二年十二月三十一日止財政年度(「二零二二年」)一致，以便進行比較。如披露範圍及計算方法有任何變化，並可能影響與過往報告的比較，集團將對相應的數據進行解釋。

1.2 報告範圍

除有特別註明外，報告範圍與年報一致，其涵蓋本年度內集團於中國以及集團附屬公司Baccalieu能源股份有限公司(「Baccalieu公司」)在加拿大的核心業務。集團重要的核心業務包括但不限於城市管道燃氣營運、管道設計及建造；壓縮天然氣(「CNG」)及液化天然氣(「LNG」)之運輸、分銷及銷售；原油及天然氣等其他上游能源資源開發、生產及銷售。由於大部分建設工程均聘請外部承包商，因此難以提供工程建設方面的環境績效數據。基於業務分部的重要性及其相對的環境影響，ESG報告僅包含報告範圍內4家業務分部的環境關鍵績效指標數據。該等分部包括Baccalieu公司、青海中油管道燃氣有限公司(「LNG加工廠」)、山東齊智燃氣設備製造有限責任公司(「山東齊智設備」)以及珠海總部辦公室。

1.3 信息及反饋

有關集團ESG方面的資訊，請詳閱上載至集團官方網站(www.hk603.com)的ESG報告。如任何人士對ESG報告的內容有任何意見、建議或反饋，歡迎以電郵形式發送至info@hk603.com。

2. ABOUT US

2.1 Corporate Profiles

The Group is principally engaged in the investment in natural gas and energy related business. Operations of the Group include piped city gas business, pipeline design and construction; transportation, distribution and sale of CNG and LNG; and development, production and sale of crude oil and gas and other upstream energy resources.

As a piped city natural gas service provider, the Group supplies city natural gas through long-distance transmission pipelines. With 71 concession rights, the Group has built up city pipeline networks which offer stable and sufficient natural gas resources to local household, industrial, commercial and other users. As a non-pipeline natural gas provider, the Group has established 1 LNG plant each in Qinghai, Sichuan and Guizhou Province, the PRC. Meanwhile, the Group has also built certain CNG primary stations to ensure a smooth supply of natural gas all year round. These facilities support supplies of natural gas to cities not yet covered by pipeline networks and are treated as emergency backup gas sources for the Group.

All kinds of automobiles, city buses and long-distance buses can be converted into natural gas operation system by paying an affordable fee. Some of the provinces will provide subsidy to automobile owners who are willing to convert their automobile into natural gas operating system. With support from the PRC government, the Group offers inexpensive, clean and environmental friendly natural gas to the transportation sector.

As an operator of natural gas branch pipelines, the Group has already completed approximately 22,012 km natural gas pipelines in 13 provinces, cities and autonomous regions. Apart from bringing in stable natural gas transmission revenue, the branch pipelines constructions will also facilitate the development of projects along the down-stream.

The Group has well established a large-scale developed natural gas transport and logistics operation in the PRC, including the set up of LNG and CNG fleets which have reinforced the mobility and coverage of our natural gas supplies.

As an upstream energy resources producer, the Group engages in the development, production and sale of crude oil and gas and other resources in Alberta of Canada. The exploration and production business of the Group has the proved reserves of approximately 28.36 million barrels of oil equivalent (“Boe”) and the proved plus probable reserves of approximately 45.64 million Boe. Its average daily production was 5,469 Boe in 2023. Our exploration and production business possesses energy business in production, a very experienced management team with proven tracking records, a stable production assets portfolio and strong profitability with considerable potential for growth.

2. 關於我們

2.1 公司簡介

集團主要從事天然氣及能源相關業務之投資。集團之業務包括城市管道燃氣營運、管道設計及建造；CNG及LNG之運輸、分銷及銷售；及原油及天然氣等其他上游能源資源開發、生產及銷售。

作為城市管道燃氣服務供應商，集團透過長距離輸送管道供應城市天然氣。集團已獲得71個燃氣特許經營權，建立了城市管道網絡，為當地家庭、工商等用戶提供穩定及充裕之天然氣資源。作為非管道天然氣供應商，集團於中國青海省、四川省及貴州省分別建立了一座LNG工廠。同時，集團已建造多個CNG加氣母站，確保集團之天然氣供應全年保持穩定。該等設施有助於向尚未有管道網絡覆蓋的城市供應天然氣，並被視為集團之應急備用燃氣來源。

各類汽車、公共交通汽車及長途客運車均可以通過改裝，即以可承擔之費用轉換成天然氣運行系統。部分省份將為願意將汽車轉換成天然氣運行系統的車主提供補貼。在國家政府之支持下，集團向運輸界提供價格低廉、清潔及環保之天然氣能源。

作為天然氣支線管道經營之營運商，集團已於13個省、直轄市及自治區投資建成總長度約22,012公里的天然氣管道，除了增加天然氣管道運輸收入外，支線管道建設更可帶動下游沿線天然氣市場的開發。

集團已於中國發展龐大的天然氣運輸及物流業務，包括已建立LNG及CNG運輸車隊，增強了集團天然氣供應之流動性以及擴大了其覆蓋範圍。

作為上游能源資源之生產商，集團於加拿大阿爾伯塔省從事原油及天然氣等資源的開發、生產及銷售，集團油氣生產業務之探明儲量約為2,836萬桶油當量（「桶油當量」）及探明加控制儲量約為4,564萬桶油當量，二零二三年平均每日產量為5,469桶油當量。集團之油氣生產業務擁有在產的能源業務及一個經驗豐富、業績卓越的管理團隊，具穩定的生產資產組合，較強的盈利能力及廣闊的增長空間。



Natural Gas Distribution Business in the PRC

中國天然氣分銷業務

Main trunk pipelines 主要幹線管網

- West-to-East line 1
西氣東輸一線
- West-to-East line 2
西氣東輸二線
- West-to-East line 3
西氣東輸三線
- Se-Ning-Lan line
澀寧蘭線
- Shaan-Jing line 3
陝京三線
- Shaan-Jing line 4
陝京四線
- Cang-Zi Line
滄淄線
- Zhong-Wu Line
忠武線
- Myanmar-China Line
中緬線

Company operating assets / data 公司運營資產及數據

- Branch pipeline
公司自有支線管道
- City gas project with concession right
公司城市天然氣項目
- ▲ LNG processing plant
公司液化天然氣工廠
- CNG/LNG/L-CNG station
公司天然氣加氣站
- Province with natural gas sales volume > 500mn m³ in 2023
公司二零二三年銷氣量5.0億立方米以上省份
- Province with natural gas sales volume between 100mn m³ and 500mn m³ in 2023
公司二零二三年銷氣量1.0-5.0億立方米省份
- Province with natural gas sales volume < 100mn m³ in 2023
公司二零二三年銷氣量1.0億立方米以下省份
- Province to enter in near term
公司於近期內準備開展業務的省份



Note: For illustrative purpose only, actual scale and location might differ slightly
 註：此圖僅為示意圖，比例與位置可能和實際情況略有出入

Oil and Gas Production Business in Canada

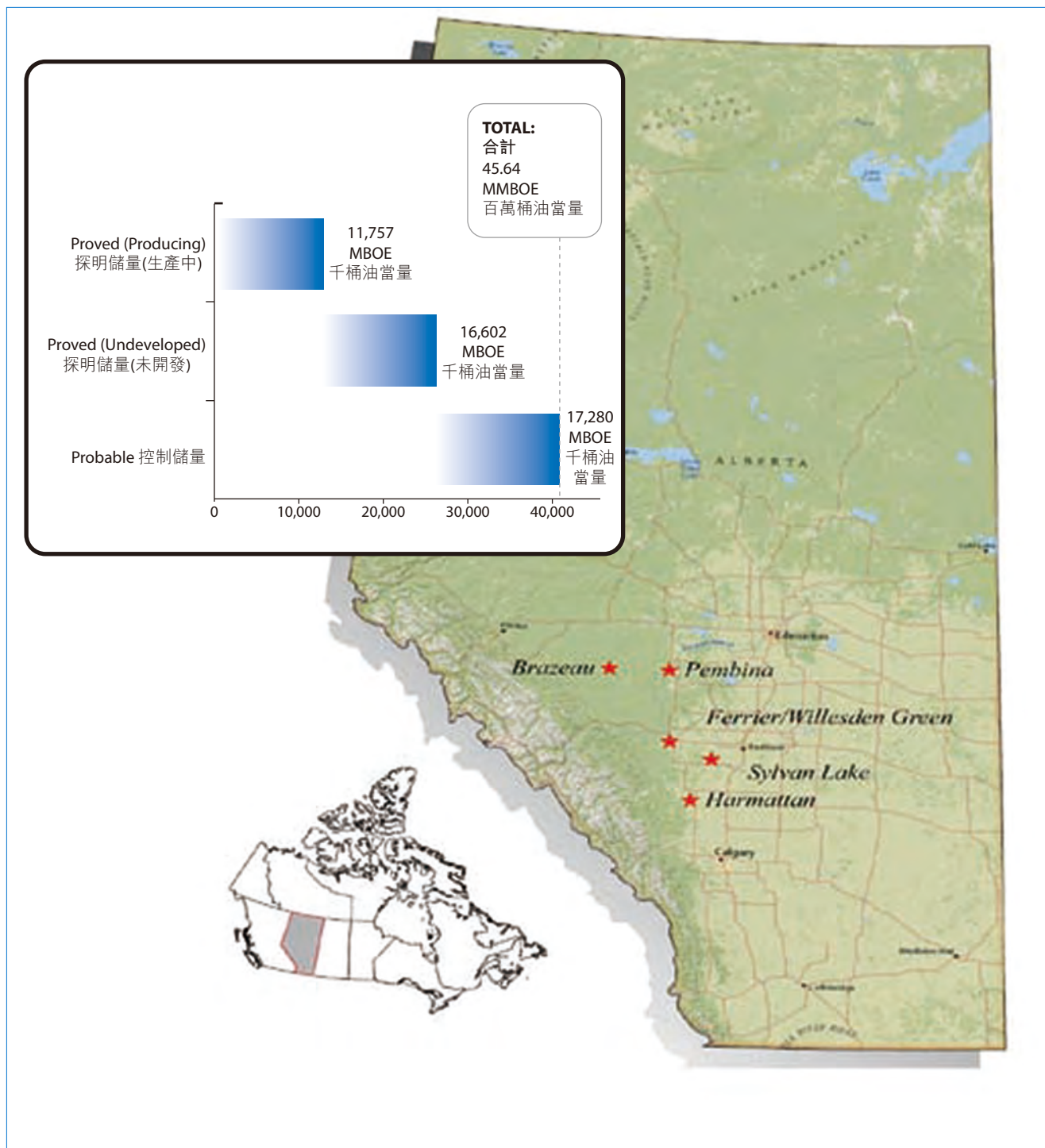
加拿大油氣生產業務

RESERVES

As at 31 December 2023

儲量

於二零二三年十二月三十一日





2.2 Enterprise Culture

2.2 企業文化



2.3 Concept of Sustainability

The Group is principally engaged in natural gas and energy-related businesses. With the mission of to “Developing clean energy, Creating better life”, the Group will seize the opportunities brought by the goal of carbon peaking and carbon neutrality, capitalise on its resource advantages, optimise its strategic layout, continuously improve its management and staff capabilities, strengthen its risk management, and spare no efforts in providing customers with stable natural gas supply, quality products and caring services. In line with the Paris Agreement and the national policies on carbon reduction and haze reduction, the Group is actively contributing to the refinement of the energy mix in the PRC, increasing the market share of natural gas and providing strong support for the development of clean energy.

The Group concentrates its investment on high-quality city gas projects and intensifies its efforts to develop the markets, striving to obtain concession rights in various regions of the PRC and provide sufficient and clean natural gas resources for users in different regions. As at 31 December 2023, the Group has obtained 71 concession rights, and has provided clean and efficient natural gas to 2,041,936 residential users and 18,008 industrial and commercial users in 13 provinces, municipalities and autonomous regions in the PRC. The Group has accumulated investments in the construction of natural gas pipelines for approximately 22,012 km. Utilising a structure wherein city gas projects act as the primary body, and resource development and energy services act as the wings, the Group has composed a diversified and coordinated development of integrated upstream and downstream operations.

Through years of tireless efforts and effective operational management, the Group successfully sold approximately 4,575 million m³ of natural gas during the year. This is equivalent to an estimated reduction of approximately 6.08 million tonnes of coal usage, which in turn contributed to an estimated reduction of carbon dioxide emissions by approximately 22.31 million tonnes. These efforts have made a significant contribution to mitigating the impacts of global warming. In the future, the Group will focus on further exploring the domestic natural gas market, optimising resource allocation, and ensuring a stable gas supply, with the goal of promoting natural gas as a major player in the PRC’s energy consumption mix.

To align with the national carbon peaking and carbon neutrality goals and in line with the strategic development layout and actions of advanced enterprises in the industry, the Group will conduct in-depth research and survey in terms of the medium-and long-term business development directions, and continue to optimise the core positioning of the Group’s medium-and long-term business development in light of the prevailing circumstances. The Group will start the layout of new businesses such as comprehensive energy services and new energy, study and carry out the construction of the Group’s ecological system to help the Group advance its new business strategies through ecological partners, and strongly promote the development of ESG-related green industries such as photovoltaics, hydrogen energy utilisation, charging and wastewater utilisation by the Group and its project companies in various forms of cooperation and development.

2.3 可持續發展理念

集團主要從事天然氣及能源相關之業務。集團秉承「發展清潔能源，共創美好生活」的使命，把握碳達峰、碳中和目標帶來的機遇，發揮資源優勢，優化戰略佈局，不斷提升管理和員工素質，加強風險管理，竭盡全力為客戶提供穩定的天然氣供應、優質的產品和貼心的服務。為響應巴黎協定以及國家減碳降霾政策，集團積極配合調整能源結構並致力提高天然氣的市場佔比率，大力支持發展清潔能源的大方向。

集團集中投資高品質的城市燃氣項目，加大力度開發市場，努力獲取中國多個地區的燃氣特許經營權，為不同地區的用戶提供充足、清潔的天然氣資源。截至二零二三年十二月三十一日，集團已在中國13個省、直轄市及自治區擁有71個燃氣特許經營權，為2,041,936戶居民用戶及18,008戶工商業用戶提供潔淨、高效的天然氣資源。集團累計投資建設天然氣管道約22,012公里，形成以城市燃氣項目為主體，資源開發、能源服務為兩翼，上下游一體，多元化協同發展的發展格局。

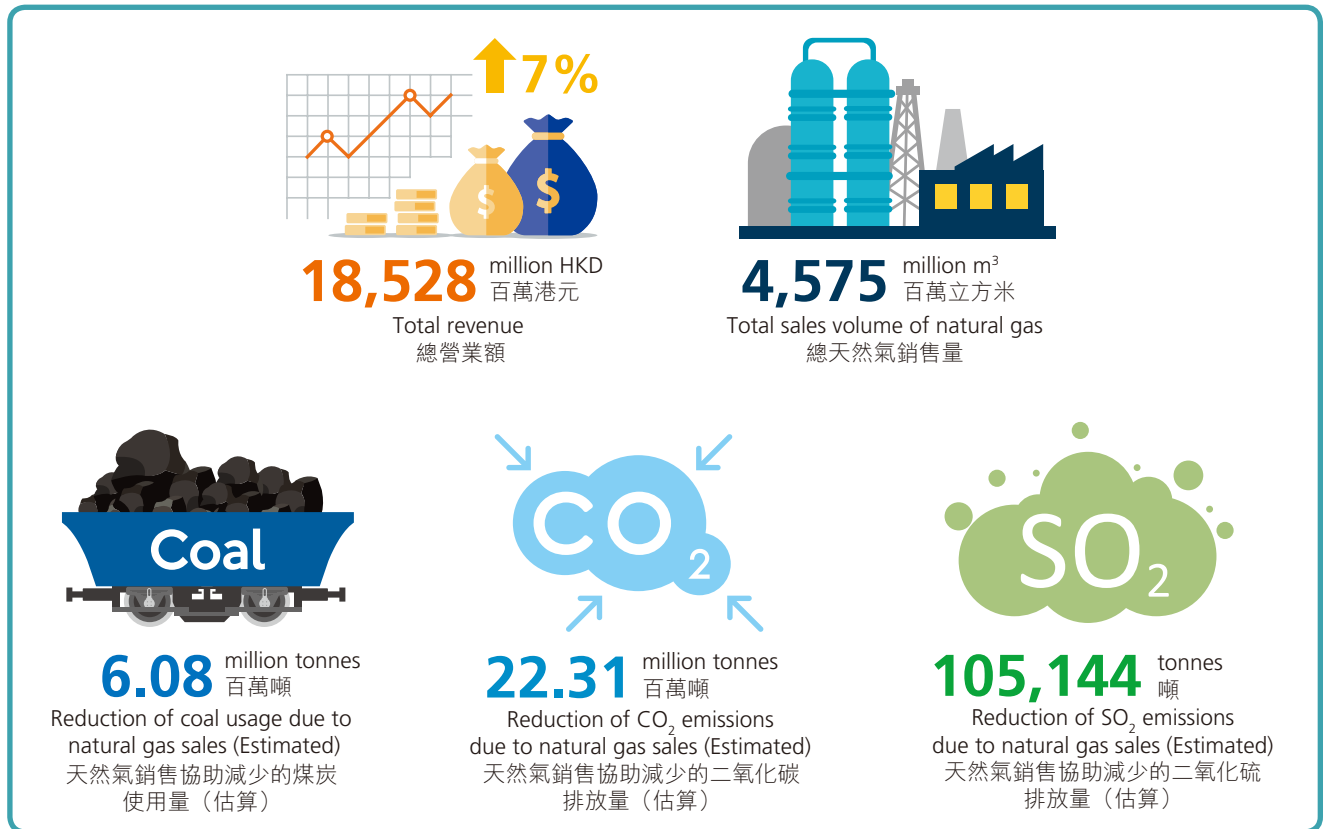
經過多年孜孜不倦的努力，配合行之有效的營運管理，集團本年度成功銷售天然氣約4,575百萬立方米。此估計相當於減少煤炭使用約6.08百萬噸，估計有助減少約22.31百萬噸二氧化碳排放，助力減緩全球暖化影響。未來，集團將進一步開拓國內的燃氣市場，做好資源配置，確保提供穩定的燃氣供應，推動天然氣成為中國能源消費結構中的主力軍。

為配合國家雙碳目標，集團將結合業內先進企業戰略發展佈局和行動，對其中長期業務發展方向進行深入研究、調研，並因勢利導，不斷優化集團中長期業務發展核心定位。集團將啟動綜合能源服務、新能源等新業務的佈局；研究開展集團生態體系建設工作，通過生態夥伴助力集團推進新業務戰略；以及大力推進集團及各項目公司以多種合作及開發形式深入發展光伏、氫能利用、充電、廢水利用等ESG相關綠色產業。



2023 Sustainability Performance of the Natural Gas Distribution Business

二零二三年天然氣分銷業務可持續發展表現



2.4 ESG Governance Structure

The Group developed an ESG governance framework to ensure the alignment of ESG governance with our business strategy, while integrating ESG management into our business operations and decision-making process.

To manage the Group's ESG performance, related issues and potential risks, the Board has to take the overall responsibility for the Group's ESG issues and reporting, and discusses ESG-related issues collectively at least once a year. To improve ESG governance and enhance management capabilities, the Group has established the Committee, whose members have the appropriate skills, experience, knowledge and perspectives to oversee the Group's ESG issues. The key functions of the Committee include, but are not limited to:

- Supervise and review the formulation of the Group's ESG management policies and strategies to ensure compliance with applicable legal and regulatory requirements, and recommend improvement strategies;
- Oversee the formulation and implementation of the Group's ESG targets, including: setting the Group's ESG management performance targets; collecting and analysing ESG data to monitor and evaluate the Group's ESG performance; reviewing progress towards the achievement of the targets and providing recommendations on actions required to achieve the targets;
- Review the annual ESG report and other ESG-related disclosures and make recommendations to the Board for approval; and
- Identify material ESG issues, risks and opportunities relevant to the Group, assess the impact of such risks or opportunities on the Group, and advise the Board on how the risks or opportunities should be addressed.

Under the authority of the Board, the Committee is responsible for the practical implementation of ESG issues in collaboration with independent third parties and meets formally at least once a year to regularly discuss ESG-related issues. The Committee is required to report to the Board on its decisions or recommendations at least once a year in order to improve the overall performance of the ESG policy.

2.4 ESG管治架構

為將ESG理念融入至我們的業務營運及決策過程當中，集團已建立ESG管治架構，以確保ESG管治與我們的業務策略保持一致。

為了管理集團於ESG方面的表現、相關問題和潛在風險，董事局需對集團的ESG議題及匯報承擔整體責任，並至少每年一次集體討論ESG相關事宜。為完善ESG管治及提升管理能力，集團已成立委員會，其成員具備監督本集團ESG事宜所需的適當技能、經驗、知識及觀點。委員會主要工作職能包括但不限於：

- 監督及檢討集團ESG管理方針及策略的制定，確保符合適用的法律及監管要求，並建議改善策略；
- 監察集團目標的制定和實施，包括：制定集團ESG管理績效目標；收集和 분석ESG數據、監測和評估集團的ESG表現；檢討目標實現的進度，並就實現目標所需採取的行動提供建議；
- 審閱年度ESG報告及其他ESG相關披露信息，並向董事局提出建議以供批准；及
- 識別與集團有關的重要ESG事宜、風險與機遇，評估此類風險或機遇對集團的影響，並就風險或機遇的應對向董事局提供建議。

在董事局的授權下，委員會與獨立第三方合作負責ESG事宜的具體執行，並每年至少安排一次正式會議，定期就ESG相關事宜進行討論。委員會需至少每年一次向董事局匯報其決定或建議，以提高ESG政策的整體績效。









3. VALUE THE PARTICIPATION OF STAKEHOLDERS

In order to collect and understand the suggestions and opinions of stakeholders on the ESG aspects of the Group, we regularly communicate with stakeholders. Based on the ESG Reporting Guide stipulated by the Stock Exchange, the Group communicated with stakeholders through a diverse and unobstructed way to understand their expectations and needs, and adjusted the strategies and policies of sustainability development according to material issues prioritised by stakeholders in a timely manner.

3. 重視利益相關方參與

我們定期主動與利益相關方進行溝通，以便收集且了解各利益相關方對集團在ESG方面的意見與觀點。集團以聯交所ESG報告指引為基礎，透過建立多元、通暢的溝通方式與利益相關方進行溝通交流，了解利益相關方的期望與需求，針對利益相關方優先關注的重要議題，適時調整可持續發展策略及政策。

Stakeholders 利益相關方	Expectations and Concerns 期望及關注點	Communication Channels 溝通渠道
 <p>Investors and shareholders 投資者及股東</p>	<ul style="list-style-type: none"> Corporate sustainable development 企業可持續發展 Protection of legitimate rights and interests 保障合法權益 Improve internal control and risk management 改善內部監控及風險管理 Financial performance 財務業績 Disclosing latest information of the corporate in due course 及時公佈企業最新信息 	<ul style="list-style-type: none"> Announcements and circulars 公告及通函 Annual general meeting and other shareholder meetings 股東週年大會及其他股東會議 Financial reports 財務報告
 <p>Customers 客戶</p>	<ul style="list-style-type: none"> Safe and high-quality product and service 安全及優質的產品與服務 Compliant operation 合規經營 Protection of customer privacy 客戶隱私保護 	<ul style="list-style-type: none"> Customer service counter 客戶服務窗口 Online platform such as WeChat official account 微信公眾號等網絡平台 Customer satisfaction survey 客戶滿意度調查 Telephone 電話溝通
 <p>Suppliers 供應商</p>	<ul style="list-style-type: none"> Win-win cooperation 合作共贏 Business ethics and integrity 商業道德與誠信 Fair and open procurement 公平公開競爭 	<ul style="list-style-type: none"> Business discussion and negotiation 商務洽談 Management meeting 管理層會議 Site visit 實地考察
 <p>Employees 員工</p>	<ul style="list-style-type: none"> Remuneration and benefits 薪酬與福利 Career development 職業發展 Healthy and safe working environment 健康安全的工作環境 Equal opportunity for promotion 平等晉升機會 	<ul style="list-style-type: none"> Intranet 內部網絡 Regular trainings 定期培訓 Regular meetings 定期會議 Employee announcement and broadcast 員工通訊和廣播 Performance appraisal 工作表現評核

Stakeholders 利益相關方	Expectations and Concerns 期望及關注點	Communication Channels 溝通渠道
 <p>Community, non-governmental organisations and media 社群、非政府組織及媒體</p>	<ul style="list-style-type: none"> • Safe and high-quality product and service 安全及優質的產品與服務 • Fulfilling environmental protection responsibility 履行環境保護責任 • Supporting public welfare undertakings 支持公益事業 • Open and transparent disclosure 公開透明披露 	<ul style="list-style-type: none"> • ESG reports ESG報告 • Charity events 慈善活動
 <p>Government and regulatory bodies 政府及監管機構</p>	<ul style="list-style-type: none"> • Business ethics and integrity 商業道德與誠信 • Compliant operation 合規經營 • Paying taxes in accordance with law 依法納稅 	<ul style="list-style-type: none"> • Site visits 實地考察 • Legal advisor 法律顧問 • Regular work meetings 定期工作會議 • Financial reports 財務報告

3.1 Identifying and Prioritising Material Issues

With reference to international, national and industrial standards, and benchmarking with leading corporates in the industry, the Group identified 19 issues that reflect the sustainable development of the business. Through online questionnaires, the Group extensively consulted with both internal and external stakeholders as to their degree of concern for each issue.

3.1 識別及釐定重要性議題的優先次序

集團參考國際、國內及行業標準，對比同行領先企業，識別出反映集團業務可持續發展的議題共19項，並透過線上問卷調查的方式，廣泛諮詢內外利益相關方對各個可持續發展議題的關注程度。





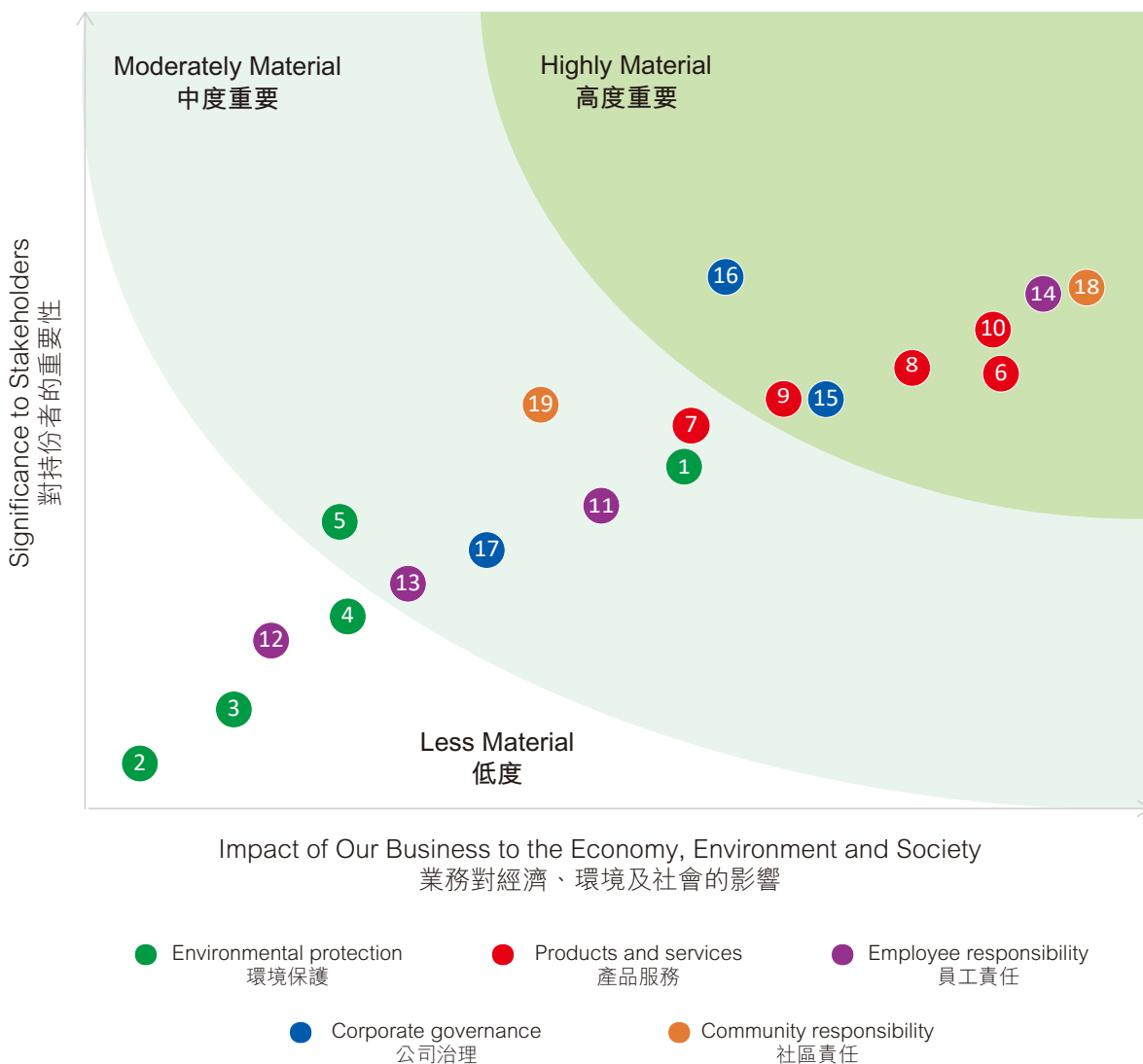
3.2 Materiality Analysis

Using the feedback and the questionnaire results from the stakeholders, the Group conducted materiality assessment and plotted the findings in the materiality matrix. The following materiality matrix shows how these 19 issues were prioritised. The closer an issue is to the upper right-hand corner, the more significant it is to the Group and the stakeholders. The closer an issue is to the lower left-hand corner, the less significant it is.

3.2 重要性分析

集團利用利益相關方的反饋與問卷結果對相關可持續發展議題進行重要性評估並繪製重要性矩陣。以下重要性矩陣展示了19項議題的優先次序。矩陣中越靠近右上角的議題對集團及利益相關方的重要性越高，越靠近左下角的議題重要性越低。

Materiality Matrix of ESG Issues
ESG議題重要性矩陣



- ① Prevention of Oil and Natural Gas Leakage
石油天然氣洩漏預防
- ② Resources Consumption (including Energy Consumption and Water Consumption)
資源消耗 (包括能源消耗及水源消耗)
- ③ Emissions and Pollution Control
控制排放及污染
- ④ Waste Management
廢物處理
- ⑤ Climate Change
氣候變化
- ⑥ Safe and Stable Supply of Gas
安全穩定供氣
- ⑦ Quality of Products and Services
產品及服務質量
- ⑧ Customer Service Management
客戶服務管理
- ⑨ Reasonable Price
合理的價格
- ⑩ Customer Privacy Protection
客戶隱私保護
- ⑪ Protection of Employees' Rights
保護員工權益
- ⑫ Employee Training and Development
員工培訓及發展
- ⑬ Caring for Employees
員工關愛
- ⑭ Safeguard Occupational Health and Process Safety
保障職業健康與工藝安全
- ⑮ Compliance with Environment-related Laws and Regulations
遵守環境相關法規
- ⑯ Environmental and Social Risk Management in Supply Chain
供應鏈環境與社會風險管理
- ⑰ Corruption and Fraud Prevention
防止貪污及舞弊
- ⑱ Corporate Social Responsibility
企業社會責任
- ⑲ Contribution to Local Economy
服務地方經濟

After considering the impact of our business to the economy, environment and society and the significance to stakeholders in respect of these ESG issues, 8 highly material issues, 7 moderately material issues and 4 less material issues were identified. While focusing on material issues, this ESG Report also responds to the major concerns of external stakeholders. The policies and management measures in all material aspects specified in the ESG Reporting Guide issued by the Stock Exchange are set out in the relevant sections of this ESG Report. For details, please refer to the index table in the appendix.

綜合考慮集團業務就這些ESG議題對經濟、環境及社會的影響及對利益相關方的重要性兩個層面後，我們確立了8項高度重要議題、7項中度重要議題以及4項次要重要議題。本ESG報告將在聚焦重要議題的同時，回應外部利益相關方關注的主要事宜。聯交所ESG報告指引各重要層面的政策與管理措施於本ESG報告中的對應位置，詳見附錄中的索引表。



4. SAFE AND STABLE SUPPLY OF GAS

The Group upholds a strong sense of responsibility and commitment to ensure the safe and reliable use of natural gas for all types of users. To this end, the Group strictly selects suppliers to ensure gas quality, regularly conducts gas safety inspections, and organises gas safety promotions, aiming to comprehensively safeguard gas safety from the supply to the usage stage.

4.1 Procurement Management

In order to improve the overall control of the Group's supplies and to establish a safe and stable supplier team, the Group has improved its supplies procurement management and supervision mechanism, and has formulated the "Measures on Supplies Management" to standardise the coordination and execution work of the Group's supplies management and control department, matters related to the centralised procurement of supply chain companies, as well as the preparation and reporting procedures of procurement plans for each subsidiary. For projects with a procurement contract value of RMB300,000 or above, the tendering process must be initiated by the supplies management and control department in strict accordance with the Group's "Measures on Tender Management", which may otherwise be conducted by way of competitive bidding.

The Group has established a supplier access management process and conducts annual supply surveys and factory inspections to monitor the production and management of suppliers. The Group requires its subsidiaries to focus on evaluating suppliers in aspects such as service quality, safety, environmental protection, service mindset, market reputation and sales performance. The Group also requires verification of suppliers' product qualification certificates, ISO14001 environmental management system certification, and other relevant certifications to eliminate suppliers with inconsistent quality. The Group also carefully selects suppliers for engineering projects to ensure project quality, control project costs, and reduce procurement expenses. For material procurement related to engineering project investments, approval from both the Group and local government is required before procurement can be carried out.

In addition, Baccalieu has outlined specific terms and procedures for purchasing and materials control in its "Pressure Equipment Integrity Management System." It requires the selection and evaluation processes of major service suppliers to be based on their track record of providing satisfactory services, thorough inspection upon delivery, documentation verification, and validation by both the company and relevant authorities on safety requirements. Baccalieu has also established a "Code of Business Conduct and Ethics", which requires all contractors to respect the rights of the individual and prohibit forced, compulsory or child labour, unsafe working conditions, and human rights abuses, in order to eliminate any products and services associated with social risks.

4. 安全穩定供氣

集團秉持高度的責任感和使命感，全力確保各類用戶能安全及穩定地使用天然氣。為此，集團嚴格挑選供應商、確保燃氣質量，同時定期開展燃氣安全檢查、舉辦燃氣安全宣傳等，務求由供氣到用氣全方位保障燃氣安全。

4.1 採購管理

為提高集團物資整體管控水平，建立安全及穩定的供應商隊伍，集團已完善物資採購管理監督機制並制定《物資管理辦法》，規範集團物資管控部的統籌及執行工作、供應鏈公司集中採購事宜以及各附屬公司採購計劃的編報程序。採購合同金額達到30萬元人民幣以上的項目，必須由物資管控部嚴格按照集團《招投標管理辦法》啟動招標投標程序，否則則可採用詢比價方式進行採購。

集團已建立供應商准入管理流程，每年對供應商進行供貨情況調研、驗廠等考核，以掌握供應商生產和管理情況。集團要求各附屬公司關注供應商在服務品質、安全、環保、服務意識、市場信譽及業績等多方面的評價，以及核實其產品合格證、ISO14001環境管理體系等相關認證，以淘汰質量參差者。集團亦審慎選擇工程項目供應商，以確保工程品質、控制工程造价及降低採購成本。涉及工程項目投資的物資採購，必須獲得集團和地方政府的立項批覆，方可實施採購。

此外，Baccalieu公司在其「壓力設備完整性管理系統」中概述了採購和物料控制的具體條款和程序。其規定主要服務供應商的選擇和評估程序應基於其提供滿意服務的記錄、交貨時的全面檢查、文件驗證以及公司和相關機構的安全要求驗證。Baccalieu公司亦制定了《商業行為和道德守則》，要求所有承包商尊重人權，禁止強迫、強制或童工勞動、不安全的工作環境和人權濫用，以杜絕任何涉及社會風險的產品及服務。

Meanwhile, we extended our management of supplies quality upstream by requiring suppliers to use specified brands for raw materials or core components to ensure that the quality and performance of their key products are up to standard. This measure aims to prevent safety incidents that may arise from the use of procured materials, parts and equipment, thereby comprehensively managing potential environmental and social risks in the supply chain. The Group will terminate the contract with any supplier found to be in serious breach of laws and regulations. In addition, the Group is committed to supporting the local economy by prioritising the procurement of goods and services from local suppliers, in a bid to reduce the carbon footprint during transportation. The Group also gives priority to suppliers using environmentally friendly products and services in the selection process, striving to minimise potential environmental and social risks in the supply chain. During the year, the Group implemented the aforementioned requirements and relevant supplier engagement practices to all suppliers (2022: all). The Group regularly monitors the implementation of these policies and measures to ensure their effectiveness.

同時，我們將物資質量管理向上游延伸，要求供應商選用指定品牌的原材料或核心零部件，以確保其主要產品的質量及性能達標，並防止因外購材料、零件、設備等引發的安全事故，全面管理供應鏈中潛在的環境和社會風險。如發現供應商有任何嚴重違反法律法規的行為，集團將終止與該等供應商的合同。此外，集團致力支持當地經濟，優先採購當地供應商，以減少運輸過程中的碳足跡。集團亦會在甄選過程中優先考慮使用環保產品及服務的供應商，努力將供應鏈中潛在的環境和社會風險降至最低。於本年度，集團已向所有供應商執行上述要求及相關供應商聘用慣例(二零二二年：所有)。集團會定期監察有關政策及措施的實施情況，以確保其有效性。

CASE 案例：

Special Project Meeting on Supplies and Warehouse Management

During the year, the Group's supplies management and control department held a special project meeting on supplies and warehouse management in Xining, Qinghai Province. In addition to reporting the results of on-site inspections of supplies and warehouse management, improvement suggestions were also put forward for the existing problems in warehouse management, aiming to enhance the level of supplies management in subsidiaries and reduce procurement costs.

物資及倉庫管理專題會議

於本年度，集團物資管控部在青海省西寧市召開青海大區物資及倉庫管理專題會議。除了通報物資及倉庫管理現場檢查結果外，亦為倉庫管理中存在的問題提出了改進建議，以提高各附屬公司物資管理水準，降低採購成本。





4.2 Safe Usage of Gas

To ensure the safe usage of gas, all subsidiaries conduct gas safety inspections in their serving regions and regularly detect leakages by using advanced monitoring instruments, conducting safety assessments and providing regular inspections for households and residents. With the aim of building the sense of gas safety, the Group also carries out activities to promote the knowledge of gas safety to the public, such as organising promotional events in communities and schools to educate participants on the proper use of gas facilities and procedures to handle gas hazards when discovered.

CASE 案例：

Promotional Campaign for Gas Safety in University Cafeterias

Given the high concentration of individuals in universities, its gas safety remains a top priority for the Group's subsidiaries. During the year, Binzhou COG Co., Ltd. ("Binzhou COG") conducted safety training and education activities on gas utilisation and safety knowledge at Binzhou Polytechnic. The purpose of the activity was to enhance the gas safety consciousness among kitchen operators and managers, thereby ensuring the safe utilisation of gas in the school cafeteria.

4.2 用氣安全

為確保用氣安全，各附屬公司在所服務地區開展燃氣安全檢查，利用先進儀器探測洩漏風險及進行安全評估，並為商戶及居民定期提供入戶檢查。集團亦同時開展普及燃氣安全知識的活動，包括在社區、學校舉辦宣傳活動，教授如何正確使用燃氣設施、發現燃氣隱患如何處理等基本用氣知識，營造安全用氣氛圍。

高校餐廳安全用氣宣傳活動

由於高校人員密集，其燃氣安全始終是集團各附屬公司的管理重點。於本年度，濱州中油燃氣有限責任公司（「濱州中油燃氣」）營運安全管理人員在濱州職業學院開展了安全用氣操作和安全知識培訓活動。此活動旨在提高廚房操作及管理人員的安全用氣意識，以保障學校餐廳安全用氣。



4.3 Process Safety

In accordance with the laws and regulations such as the Production Safety Law of the People's Republic of China, the Regulation on the Administration of Urban Gas, and the General Norms for Safety Production Standardisation of Enterprises, the Group consolidated and compiled the Group's "Production Safety Management Manual", covering the "Measures on Production Safety Management", the "Regulations on the Main Responsibility of Production Safety", the "Site Safety Management System", the "Measures on Traffic Safety Management", the "Measures on Special Operations Management" and other provisions, in order to prevent and reduce safety incidents arising from production and transportation. The Group has also formulated the "Measures on Production Safety Target Management", which requires each subsidiary to sign a production safety target responsibility statement, for the purpose of establishing a bottom-up and hierarchical system of assurance and accountability for incident control. In accordance with the "Measures on Production Safety Supervision and Inspection Management", the production safety committee (the "production safety committee") of each subsidiary of the Group is required to lead the safety supervision department, the production safety protection agency and the labour union to carry out comprehensive production safety supervision and management. The Group requires the safety supervision department to organise two major production safety inspections each year, carry out targeted production safety inspections on a regular basis for specific safety issues or general safety problems, and impose rectification plans on departments that do not meet the standards in the safety inspections and follow up on the rectification status.

Baccalieu has also formulated the "Safety Management System" for its oil and gas production operations, which establishes a "HSE Policy" to govern safety management and allocation of responsibilities to various personnel. The "Safety Management System" and the "Safety Operation Procedures" have also set out the implementation details and a comprehensive monitoring mechanism for each process with potentially significant safety hazards. The confined space working system, the hot work permit system, the lock-up and signage procedures and the safe transportation of dangerous goods system have been covered in these policies to prevent the occurrence of major accidents.

Moreover, the Group regularly organises production safety committee safety management meetings, production safety analysis meetings, occupational safety meetings, and safety work meetings for transportation personnel to implement various laws and regulations and safety instructions and obligations from superiors, as well as to discuss and formulate specific work plans. The main contents of the work plan include: conducting safety inspections, strengthening the ability of employees to perform safety operations, providing safety education and training, carrying out rectifications of hidden safety hazards and emergency accidents handling, etc.

4.3 工藝安全

集團依據《中華人民共和國安全生產法》、《城鎮燃氣管理條例》及《企業安全生產標準化基本規範》等法律法規，整合並編製集團《安全生產管理手冊》，涵蓋《安全生產管理辦法》、《安全生產主體責任規定》、《現場安全管理制度》、《交通安全管理辦法》、《特殊作業管理辦法》等規定，以防止和減少因生產或運輸產生的安全事故。集團亦有制定《安全生產目標管理辦法》，要求各附屬公司簽訂安全生產目標責任書，以建立自下而上、分級控制事故的保證及問責體系。按照《安全生產監督檢查管理辦法》，集團各附屬公司安全生產委員會（「安委會」）需領導安全監察部、安全生產保障機構以及工會實行全面安全生產監督管理。集團要求安全監察部每年組織兩次安全生產大檢查，並需定期對專項安全問題或存在的普遍性安全問題開展定向專項安全生產檢查，對安全檢查中不合格的部門下發整改計劃並跟進整改情況。

Baccalieu 公司亦有就其油氣生產業務編製《安全管理制度》，其中制定《HSE 政策》，以規範安全管理工作及各人員的責任分配。《安全管理制度》以及《安全操作程序》亦有針對各項有潛在重大安全危害之工序制定安全生產實施細則及完善的監測機制。其已涵蓋密閉空間工作制度、熱工作許可證制度、上鎖掛牌程序以及安全運送危險品制度等，以期杜絕重大安全事故的發生。

此外，集團會定期舉辦安委會安全管理工作會議、安全生產形勢分析會、職工安全大會、運輸人員安全工作例會，以貫徹各項法律法規、上級的安全指示及責任精神，並討論制定具體工作計劃。計劃的主要內容包括：做好安全檢查、強化員工安全操作自主性、提供安全教育培訓、進行事故隱患整改及應急事故處理等。

二零二三年年度環境、社會及管治報告

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Currently, the Group's subsidiaries hold ISO45001 Occupational Health and Safety Management System certification and the Production Safety Standardisation Level 2 and 3 Enterprise (City Gas) certifications. Binzhou COG is also re-evaluating its Production Safety Standardisation Level 3 Enterprise (Hazardous Chemicals) certification. During the year, the Group's subsidiaries also received recognitions for their safety management efforts. They were awarded titles of "Outstanding Enterprise in Safety Production for 2022", "Advanced Enterprise in Safety Production for 2022" and "Star Enterprise in Traffic Safety and Civilisation" respectively. The Group is committed to continuing its efforts in promoting gas safety management and facilitating sustainable and safe development across the organisation.

4.4 Occupational Safety

The Group values the safety and health of its employees and stipulates the "Measures on Occupational Health Management", the "Measures on Labour Protection Equipment Management" and other measures in the "Production Safety Management Manual" of the Group, standardising the prevention, training and control process for occupational hazards as well as the regulations on the use of labour protection equipment. The Group ensures that labour safety meets the standards specified by the relevant authorities in the places of operation. The Group also distributed the "Employee Safety Manual" to its employees to enhance their safety awareness. During the year, the Group was not aware of any material breaches of laws and regulations relevant to health and safety that had a significant impact on the Group, including but not limited to the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases, the Labor Law of the People's Republic of China and the Occupational Health and Safety Act of Alberta, Canada.

During the construction period, Qinghai Hongli Gas Pipeline Installation Engineering Co., Ltd. ("Qinghai Hongli"), a subsidiary of the Group, arranges safety management personnel to inspect high-risk processes on-site. The inspections include checking the workers' use of protective face masks and fire extinguishers during welding and painting operations; checking the use of safety ropes, antifreeze, and anti-slip measures during high-altitude operations; and inspecting safety ropes, escape ladders, ventilation systems, and toxic gas emissions when employees work in enclosed spaces such as trenches and wells, to ensure that employees work in a safe environment. Qinghai Hongli also establishes clear regulations for the safety operations of construction personnel, ensuring that the placement of on-site equipment, tools, and materials meets safety standards; the work site must be kept flat and unobstructed, and emergency escape routes must be set up. Sufficient lighting must be provided at the construction site at night, and the lighting fixtures used in the work zone must meet explosion-proof requirements. Clear safety warning signs must be placed on the roadside to remind pedestrians and vehicles to pay attention to road safety and prevent people or vehicles from entering the work pit by mistake. After dark, signal lights and duty personnel must be installed at roadside work areas to ensure safety.

目前，集團各附屬公司分別擁有ISO45001職業健康安全管理体系認證及安全生產標準二及三級企業(城鎮燃氣)認證。濱州中油燃氣正就安全生產標準化三級企業(危險化學品)認證進行複評。於本年度，集團各附屬公司亦均於安全管理工作獲得各方認可，分別榮獲「2022年度安全生產工作表現優秀企業」、「2022年度安全生產先進企業」、「交通安全文明明星企業」等稱號。集團承諾繼續做好燃氣安全管理推進工作，促進集團可持續安全發展。

4.4 職業安全

集團重視員工的安全與健康，於集團《安全生產管理手冊》中訂明《職業健康度管理辦法》、《勞動防護用品管理辦法》等，規範職業危害預防、培訓、控制流程以及勞動保護用品使用規定，確保勞動安全達到營運所在地有關部門規定的標準。集團亦向員工發放《員工安全手冊》，提升其安全意識。於本年度，集團並不知悉任何嚴重違反健康及安全的相關法例及法規而對集團造成重大影響的情況，包括但不限於《中華人民共和國職業病防治法》、《中華人民共和國勞動法》及加拿大阿爾伯塔省的《職業健康與安全法》。

於施工期間，集團附屬公司青海宏利燃氣管道安裝有限公司(「青海宏利」)會安排安全管理人員現場檢查高危工序的進行。檢查工作包括在進行焊接和刷漆作業時，檢查工人的防護面罩、滅火器佩戴情況等；高空作業時檢查安全繩佩戴情況、防凍、防滑措施的使用情況等；以及員工於溝內、井下等密閉空間作業時檢查安全繩、逃生梯、通風系統及有毒氣體排放等情況，確保員工在安全情況下工作。青海宏利亦對施工人員的安全作業制定明確的規定，確保現場設備、工具和材料擺放等須符合安全標準；作業現場必須保持平整暢通，設置緊急逃生通道等。夜間施工場地須設置足夠的照明，並確保作業帶內使用的照明燈具符合防爆要求。路邊作業須設置明顯的安全警示標誌，提醒行人和車輛注意過路安全，防止人員或車輛誤入作業坑。天黑後路邊作業亦須設置信號燈及配備值班人員，以策安全。

To enhance employees' safety awareness, the LNG processing plants also regularly conduct hazard identification courses and regularly provide labour protection supplies such as gas masks, safety helmets, and anti-static work clothes to employees engaged in hazardous work. To further reduce the possibility of occupational hazards, the LNG processing plants regularly report occupational hazards to the local production safety supervision and management bureau and take corresponding measures to address situations that may cause occupational hazards. Equipment operators must undergo specialised operation training and obtain professional qualifications before they can work independently. Natural gas dangerous goods transport personnel who are required to hold special equipment operation permits must have their qualifications reviewed by the relevant department in each review cycle. The Group has also formulated the "Guidelines for the Compilation of Risk Point Notification Signs", which stipulate the requirements for the compilation of risk point notification signs for workplaces with safety production risks. Baccalieu also holds daily safety meetings to monitor the safety status of the work environment in real-time, rectify problems or hidden dangers immediately once discovered, and make timely summaries and improvements to safety management work. The Group regularly monitors the implementation of these policies and measures to ensure their effectiveness.

Over the past three years (including the year), the Group did not record any incidents of work-related fatalities. During the year, the Group recorded 9 cases of work-related accidents, resulting in a total of 654 lost workdays due to work-related injuries (2022: Nil). None of the work-related accidents are related to production safety incidents. The Group's subsidiaries have promptly taken action to address the respective accidents and provide reimbursement for work-related insurance to the injured employees. Furthermore, the labour union also offers condolence payments or assistance funds to employees in need, providing essential support. Following the occurrence of accidents, we have conducted thorough inspections and implemented necessary preventive measures to ensure the prevention of similar work-related accidents in the future.

為加強員工的安全意識，LNG加工廠亦每年定期開辦危害因素辨識課程，向從事危險工作的員工定期發放如防毒面具、安全帽、防靜電工作服等的勞動防護用品。為進一步減低職業危害發生的可能性，LNG加工廠定期向地方安全生產監督管理局進行職業危害申報工作，並對可能造成職業危害的情況採取相應的措施。設備操作人員須經過特種作業操作培訓並取得專業資格後方能獨立上崗操作。需要持有特種設備作業人員證的天然氣危險品運輸人員，其有關資格證明必須於每個審核周期接受有關部門覆核。集團亦已制定《風險點告知牌編製指引》，對存在安全生產風險的工作場所設定的風險點告知牌規定了編製要求。Baccalieu公司亦會舉辦安全日會，以期對作業環境的安全現狀做到實時監控，對發現的問題或隱患即時整改，並對安全管理工作做到及時總結與提升。集團會定期監察有關政策及措施的實施情況，以確保其有效性。

於過去三年(包括本年度)，集團無錄得任何因工作關係而死亡的事件。於本年度，集團錄得9宗工傷事故及654天因工傷而損失的工作日數(二零二二年：無)。所有工傷意外均不涉及安全生產事故。集團附屬公司已立即採取行動處理相關事故，為受傷員工報銷工傷保險。此外，工會也會向有需要的員工發放慰問金或提供救助費用，以提供必要的支援。在事故發生後，我們已進行詳細的檢查並採取必要的預防措施，以確保類似的工傷意外不再發生。



CASE 案例：

Safety Management Training and Exchange Conference

As the gas industry continues to grow, the government has placed increasingly stringent supervision on safety practices, making safety management more challenging. To further enhance the safety management level of the Group's subsidiaries, the Group organised the "Safety Management Training and Exchange Conference" during the year. This conference aims to provide comprehensive and systematic learning opportunities for safety management personnel across different units, enabling them to acquire in-depth knowledge of safety management and exchange safety management experiences.

安全管理培訓交流會

隨著燃氣產業的發展，政府對安全工作監管日趨嚴格，安全管理難度越來越大。為進一步提升集團附屬公司的安全管理水平，集團於本年度舉辦「安全管理培訓交流會」，旨在為各部門的安全管理人員提供全面而系統的學習機會，讓他們可深入了解安全管理知識並交流安全管理經驗。



CASE 案例：

Specialised Training for Rural Gas Safety Officers

To ensure the safe operation of rural gas and prevent gas safety accidents, Binzhou COG has organised specialised training sessions for gas safety officers. Over 600 personnel, including coal-to-gas safety officers from 5 offices and 230 villages within the operating regions, have received focused training on gas safety. The training covered essential knowledge on safe gas usage, installation and maintenance of gas pipelines, gas leak management, and general understanding of gas appliances. Through these comprehensive training sessions, the safety officers in each village have gained a deeper understanding of the safe use of natural gas, thereby enhancing their preparedness and response capabilities in dealing with gas safety incidents.

農村燃氣安全員專項培訓

為確保農村燃氣安全運行及預防燃氣安全事故發生，濱州中油燃氣已召開燃氣安全員專項培訓會，對轄區5個辦事處及230個村的氣代煤安全員等600餘人進行了燃氣安全專題訓練，就安全用氣常識、燃氣管道設施安裝及維護、燃氣洩漏處理、燃氣器具常識進行詳細講解。透過學習，各村安全員對天然氣的安全使用有了更全面的認識，提升了預防和應對燃氣安全事故的緊急處理水準。



4.5 Risk Management

To ensure the safe and stable supply of gas in the Group's natural gas transmission and distribution system, and to enhance its rapid response and emergency handling capabilities in the event of major accidents, the Group has formulated risk management documents such as the "Measures on Production Safety Risk Management and Control", "Measures on Production Safety Incidents and Potential Hazards Management", "Measures on Emergency Management" and "Regulations on Incidents Management" in its "Production Safety Management Manual", based on the Emergency Response Law of the People's Republic of China, Regulation on Emergency Responses to Work Safety Accidents, and Measures for the Administration of Contingency Plans for Work Safety Incidents. These risk management documents establish emergency plans and on-site emergency response procedures for various major accidents such as leaks, fires, explosions, and force majeure events that may occur within the operational areas. They also clearly define the responsibilities of relevant departments and personnel in the pre-incident, incident, during-incident, and post-incident stages.

The Group continuously improves its risk management system, with particular emphasis on the risk management of oil and natural gas leaks, considering it a top priority in environmental management. For the identification of accident hazards, the preparation of emergency plans, and the conduct of drills, the Group has also formulated the "Criteria for Determining Major Production Safety Accidents and Potential Hazards in City Gas" and the "Guidelines for the Preparation and Exercise of Production Safety Accident Emergency Plans", to enhance the emergency management system. The Group has stipulated that each subsidiary shall, according to their own business characteristics, formulate emergency response plans ("ERP"), and organise emergency training and annual emergency drills. The ERP must undergo final review and approval by the Group's safety supervision department to ensure a rapid and effective response to accidents and minimise their impact. Baccalieu has designed a corporate ERP in accordance with the regulations to ensure prompt and orderly implementation of environmental emergency actions in the event of an emergency. As a member of the Spill Co-ops, a spill emergency response cooperation, Baccalieu often liaises closely with several agencies to ensure that Baccalieu can mobilise resources in a timely manner and conduct collaborative rescues with agencies when spills or other emergencies occur.

In the event of an emergency, the Group's station personnel on duty 24 hours a day immediately disconnect the gas supply at the station, notify upstream distribution stations to stop distribution, and inform downstream users to cease gas consumption. The Group's chief safety manager will initiate the emergency plan instructions. The operation and management department organises operations personnel to conduct emergency rescue. In the case of insufficient manpower, the Group's engineering project department organises the Group's construction team personnel to provide emergency support. According to the severity of the incident, the general manager of the Group reports to the local gas authority, the urban management bureau, the emergency management department and the relevant government departments to request support. After completing the rescue mission, the supply of gas will be resumed under safe conditions.

4.5 風險管理

為保障集團天然氣輸配系統安全穩定地供氣，提高天然氣系統發生重大突發事故的快速反應和應急處理能力，集團依據《中華人民共和國突發事件應對法》、《生產安全事故應急條例》、《生產安全事故應急預案管理辦法》等法律法規及指導文件，於《安全生產管理手冊》中訂明《安全生產風險管控管理辦法》、《安全生產事故隱患管理辦法》、《應急管理辦法》及《事故管理規定》等風險管理文件。該等風險管理文件對經營區域內發生的泄漏事故、火災事故、爆炸事故、不可抗力等各類重大事故制訂了應急預案和現場應急處置方案，並明確了事前、事發、事中、事後的各個過程中相關部門和有關人員的職責。

集團持續完善其風險管理制度，尤其重視石油天然氣泄漏的風險管理，視之為環境管理的重中之重。針對事故隱患識別工作及應急預案編製及演練工作，集團亦特別制定《城鎮燃氣重大生產安全事故隱患判定標準》及《生產安全事故應急預案編製及演練指引》，以完善應急管理體系。集團規定各附屬公司按自身業務特點設計應急預案(ERP)，舉辦應急培訓及年度演練計劃等，ERP需通過集團安全監察部作最後審核和批准，確保事故發生後迅速有效應對，將事故影響降至最低。Baccalieu公司已按照規定設計企業ERP，確保緊急事件發生時能迅速有序地開展環境應急行動。同時，Baccalieu公司作為Spill Co-ops泄漏應急合作社的成員，經常透過合作社與個別機構保持緊密聯繫，確保發生重大泄漏事件或其他緊急情況時，Baccalieu公司能及時動員四海，發揮協作力量應急救援，攜手對抗緊急事故。

遇突發事故時，集團場站24小時值班人員第一時間切斷場站供氣，通知上游分輸站停止分輸，通知下游用戶緊急停氣，由集團安全第一負責人總經理下達啟動應急預案指令。運營管理部組織運營人員進行搶險，如人力不足時，由集團工程項目部組織集團施工隊人員進行緊急支援。根據事件的嚴重程度，集團總經理向當地燃氣主管部門、城管局、應急管理部門和相關政府部門進行匯報，請求支援。完成搶險任務後，在安全的情況下恢復生產。

二零二三年年度環境、社會及管治報告

(continued) (續)



4.6 Measures Taken in Response to the COVID-19 Pandemic

To safeguard the health and safety of its employees, the Group has implemented a range of policies and measures in response to the COVID-19 pandemic in previous years. As the situation has improved towards the end of 2022, we have restored normal operations and eased some of the measures. However, the Group's subsidiaries will remain vigilant, closely monitoring local outbreaks and policy changes. We will adapt our epidemic prevention and control efforts as necessary to ensure that we can respond promptly to any emergencies. Additionally, the Group will periodically remind employees to prioritise personal hygiene to prevent the spread of the virus.

5. EXCEPTIONAL QUALITY

The Group adheres to the principles of integrity in its operations and strictly complies with all national and local standards and requirements. With a strong commitment to achieving perfection, the Group aims to enhance its operational management capabilities. Efforts are made to optimise procurement management and actively improve the quality of products and services, aiming to increase customer satisfaction in various aspects. Additionally, the Group strictly adheres to relevant laws and regulations relating to the protection of customer privacy, advertising, labels and intellectual property rights.

5.1 Quality of Products

To ensure product quality, the Group requires upstream gas suppliers to supply gas that meets the Class 1 or Class 2 standard outlined in the national quality standard — Natural Gas (GB 17820–2018). In order to monitor the quality of natural gas more effectively, the Group requires gas suppliers to regularly provide gas quality reports and specify the gas composition in the gas supply contracts. Each subsidiary also formulates relevant standards and policies based on their business characteristics. For example, the quality of LNG produced and supplied by the LNG processing plants must meet national and industry standards such as the General Characteristics of Liquefied Natural Gas and Quality Assessment Criteria for Import and Export of Liquefied Natural Gas; the quality of CNG supplied by CNG filling stations must meet the requirements of Compressed Natural Gas for Vehicles. In addition, to ensure product quality, Shandong Qizhi Equipment arranges for all pipeline products to be sent to the Binzhou Special Equipment Inspection Institution for inspection before they are sold.

4.6 2019新型冠狀病毒病疫情應對措施

為保障員工的健康和安全，集團已於往年採取多項政策及措施以應對2019新型冠狀病毒病疫情。隨著2022年底疫情狀況的緩解，我們已經恢復正常運營並放寬有關措施。然而，集團各附屬公司將繼續保持警惕，密切監測本地疫情和政策變化。我們將於必要時重啟疫情防控工作，以確保能夠及時應對緊急情況。此外，集團亦會不時提醒員工注意個人衛生，以防止病毒傳播。

5. 打造卓越品質

集團堅持誠信經營，嚴守國家與營運所在地的各項標準和要求，抱著力臻完美的決心提升營運管理水平。集團努力優化採購管理，積極提升產品與服務的質量，於多方面積極提高客戶的滿意度。同時，集團嚴格遵守有關維護客戶隱私、廣告、標籤及知識產權等的法律法規。

5.1 產品質量

為保證產品的質量，集團要求上游氣源供應商提供的管道天然氣需符合國家品質標準—《天然氣》(GB 17820-2018)中的一類氣或二類氣標準。為更有效監控天然氣的質量，集團要求氣源供應商定期提供氣質報告，並於供氣合同中列明氣體成分。各附屬公司亦會因其業務特性，制定相關的標準制度。例如LNG加工廠生產供應的LNG品質需滿足《液化天然氣的一般特性》、《進出口液化天然氣品質評價標準》等的國家及行業標準；CNG加氣站供應的CNG品質需滿足《車用壓縮天然氣》的規定等。此外，山東齊智設備為確保產品質量，於管道產品出售前均安排送往濱州市特種設備檢測所進行檢驗。

Currently, the Group's subsidiaries have obtained ISO9001 Quality Management System certification. In addition, Qinghai Hongli was granted GA1, GA2, GB1 and GC1 pressure piping installation licence certificates by the State Administration of Market Regulation. The testing center of Shandong Qizhi Equipment has also received the Certificate of Laboratory Accreditation by China National Accreditation Service for Conformity Assessment (CNAS). During the year, the RTZ50/0.6-0ZGA30 gas pressure regulator product developed by Shandong Qizhi Equipment was also honoured with the third prize of the "Scientific and Technological Progress Award" in Binzhou. The Group's subsidiaries also received various honours such as the "Outstanding Unit in Gas Management for 2022", "Advanced Unit in the City's Gas Industry for 2022", "Advanced Unit in Shandong Province's Gas and Heat Industry for 2022", "First in Provincial Business Environment Assessment", "Advanced Unit in Optimising the Business Environment for 2022", and "Advanced Collective in the Construction System for 2022". These recognitions are a testament to the elevated standards of quality management achieved by each unit of the Group.

During the year, Baccalieu has also maintained its good standing and professionalism in its operations within the upstream oil and gas industry. Notably, it has accomplished the successful renewal of its "Permit to Practice" granted by the Association of Professional Engineers and Geoscientists of Alberta. The Group is committed to continuing its efforts and achieving even greater success.

Due to the business nature of the Group, the disclosure on product recall procedures is not applicable. During the year, the Group did not initiate any product recalls due to safety and health reasons (2022: Nil), and was not aware of any material non-compliance with relevant laws and regulations relating to health and safety, advertising, labelling and privacy matters relating to products and services and methods of redress that would have a significant impact on the Group, including but not limited to the Law of the People's Republic of China on Protection of Consumer Rights and Interests, the Product Quality Law of the People's Republic of China, the Advertising Law of the People's Republic of China, the Trademark Law of the People's Republic of China, the Patent Law of the People's Republic of China and the Personal Information Protection Act of Alberta, Canada.

目前，集團附屬公司擁有ISO9001質量管理體系認證。此外，青海宏利經國家市場監督管理總局核准獲批GA1、GA2、GB1和GC1壓力管道安裝許可資質證書。山東齊智設備檢測中心更獲得中國合格評定國家認可委員會(CNAS)頒發的實驗室認可證書。於本年度，山東齊智設備研發的RTZ50/0.6-0ZGA30燃氣調壓器產品更榮獲濱州市「科學技術進步獎」三等獎。各附屬公司亦分別獲得「2022年度燃氣管理突出單位」、「2022年度全市燃氣產業先進單位」、「2022年山東省燃氣熱產業先進單位」、「全省營商環境評估第一」、「2022年度市政優化營商環境工作先進單位」、「2022年度住建系統先進集體」等榮譽。這些認可標誌著集團各單位的質量管理水平等均達到新的高度。

於本年度，Baccalieu公司亦在上游石油和天然氣行業中保持了良好的聲譽及專業的業務水平。其由亞伯達省專業工程師和地球科學家協會頒發的「執業許可證」已成功續期。集團承諾將不懈努力，再創佳績。

基於集團業務性質，有關產品回收程序的披露並不適用。於本年度，集團並無因安全與健康理由而須召回產品(二零二二年：無)，亦並不知悉任何嚴重違反與產品及服務相關的健康與安全、廣告、標籤及私隱事宜以及補救方法有關的法律及法規而對集團造成重大影響的情況，包括但不限於《中華人民共和國消費者權益保護法》、《中華人民共和國產品質量法》、《中華人民共和國廣告法》、《中華人民共和國商標法》、《中華人民共和國專利法》及加拿大阿爾伯塔省的《個人資料保護法》。



CASE 案例：

Research on Quality Issues

In recent years, Xining COG Co., Ltd. has been actively engaging in quality management team activities and conducting research on quality issues. These efforts have led to the development of innovative thinking and the application of scientific methods among the employees, enabling them to overcome production challenges and improve management capabilities, economic benefits, and work efficiency. During FY2023, the company was also honoured as the “Excellent Enterprise in Qinghai Province’s Quality Management Team Activities for 2023”. Additionally, the quality issues addressed, namely “Enhancing the handling rate of residential gas hazards” and “Natural gas dissipative silencer”, were recognised with the second and third prizes for achievements, respectively.

質量課題研究工作

近年來，西寧中油燃氣有限責任公司積極開展質量管理小組活動及質量課題研究工作，引領員工學習和運用創新的思維和科學的方法破解生產難題，提升管理能力、經濟效益和工作效率。於本年度，公司更榮獲「2023年度青海省質量管理小組活動優秀企業」。其質量課題，即「提高居民燃氣隱患處理入戶率」、「天然氣放散消音器」課題亦分別獲二等及三等成果獎。

CASE 案例：

Gas Loss Analysis Meeting

Yangzhou COG Co., Ltd. (“Yangzhou COG”) is committed to achieving high-quality development goals and held a gas loss analysis meeting during the year. During the meeting, field personnel reported the results of on-site investigations and analysed the causes of the problems. In response to the identified gas loss issues, Yangzhou COG actively implemented improvement measures and ensured the proper functioning of various measuring instruments to guarantee product quality.

氣損分析會

揚州中油燃氣有限責任公司（「揚州中油燃氣」）著力貫徹高品質發展目標，於本年度召開氣損分析會。會上，巡線人員匯報了現場調查結果，並分析問題產生的原因。針對已發現的氣損問題，揚州中油燃氣積極實施改善指施，並確保各類計量器具正常運作，以保證產品質量。



5.2 Excellent Services

The Group has always been committed to improving customer service levels. We have implemented sales and credit control to eliminate the use of false and misleading statements in the process of product promotion and trading. We have also formulated comprehensive “Measures on Customer Service Management”. Customers can provide opinions or make complaints about products and services through various channels, such as the lobby manager, 24-hour complaint hotline, fax, suggestion box, suggestion book, company website, etc., at any time. During the year, the Group did not receive any significant complaints regarding products and services (2022: Nil).

If any dissatisfaction or complaints about products or services are received from customers, the customer service team of each subsidiary will initiate standardised complaint handling procedures. In cases where customer complaints are ignored, processing of complaints is unreasonably delayed, customer complaints are concealed, false information is fabricated, timely reporting or actions are not taken when significant incidents occur, responsible employees will be disciplined. In addition, personnel handling customer complaints are responsible for maintaining the confidentiality of customer information and complaint content. Each subsidiary has also established a dedicated task force for customers to actively communicate with customers and provide 24-hour fault repair services, ensuring that “reports are responded to and repairs are done well,” to meet customer needs. To ensure service quality, repair personnel are required to depart within 5 minutes after receiving a gas leak accident alarm and arrive at the scene within 30 minutes for handling.

During the year, the Group’s subsidiaries were awarded titles such as “Top Ten Units with Public Satisfaction”, “Excellent Dispatched Service Window” and “Civilised Posts for Women”. They also received a number of silk banners from their clients. These recognitions highly affirm the Group’s professionalism, enthusiasm and efficient customer service.

5.2 服務周到

集團一向致力提高客戶服務水平。我們已落實執行銷售和信用管制，杜絕在產品宣傳和交易過程中使用虛假及誤導性說明的行為。我們亦已制定完善的《客戶服務管理辦法》。客戶可通過大堂經理、24小時投訴電話、傳真、意見箱、意見簿、公司網站等渠道，於任何時候對產品和服務提出意見或進行投訴。於本年度，集團並無接獲任何關於產品及服務的重大投訴（二零二二年：無）。

如收到客戶對產品或服務提出的不滿或投訴，各附屬公司的客戶服務部會啟動規範化的客戶投訴處理程序，如發現忽視客戶投訴、無故拖延投訴處理時限、隱瞞客戶投訴、編造虛假資訊、重大事件發生時未有及時報告或採取措施等情況，負責的員工將會被處分。此外，對於客戶資訊及投訴內容，處理客戶投訴的相關人員負有保密責任。各附屬公司同時成立客戶專責小組，積極與客戶溝通，並提供全天候的故障報修服務，做到「有報必到，修必修好」，滿足客戶所需。為確保服務質素，搶修人員需要在接到燃氣泄漏事故警報後的5分鐘內出發，在30分鐘內到達現場處理。

於本年度，集團附屬公司分別獲得「群眾滿意的十大單位」、「優秀派駐窗口」、「巾幗文明崗」等稱號，亦收到多名客戶贈送的錦旗。這些認可高度肯定了集團專業、熱情及高效的客戶服務。



CASE 案例：

Kick-off Meeting for the Collaborative Office Platform

During the year, the Group's information management centre organised a kick-off meeting for the collaborative office platform project. By establishing a digital collaborative office platform, the Group is committed to enhancing internal communication, improving management and service efficiency, and ensuring product quality and user experience.



協同辦公平台專案啟動會議

於本年度，集團信息管理中心組織召開了協同辦公平台專案啟動會議，透過建立數字化協同辦公平台，集團致力促進內部溝通及提升管理及服務效率，確保交付的產品品質和使用者體驗。

5.3 Protection of Customer Privacy and Intellectual Property Rights

The Group attaches great importance on the protection of customer privacy and intellectual property rights. Internal regulations such as "Regulations on Trade Secrets Management" have been established to regulate confidentiality and intellectual property management work. Data confidentiality is classified and managed based on its sensitivity to ensure the careful handling of customer and internal information. Unless prior approval is obtained, employees are not allowed to inappropriately access or use confidential information. The Group strictly prohibits employees from mentioning client information in personal interactions and communications, or discussing the Group's trade secrets in public places. The Group also commits to respecting the intellectual property rights of others, including patents, copyrights, and other rights. Baccalieu has also stipulated relevant confidentiality provisions in its "Code of Business Conduct and Ethics". The Group continuously optimises information management and enhances employees' awareness of information security to ensure that customer information and privacy are properly protected and managed. The Group regularly monitors the implementation of these policies and measures to ensure their effectiveness.

5.3 保障客戶私隱及知識產權

集團高度重視客戶私隱及知識產權保護。集團已制定《商業秘密管理規定》等內部規定，以規範保密及知識產權管理工作。集團就資料的保密程度進行分級管理，以謹慎處理客戶及內部信息。除非事先得到批准，員工不可不當存取及使用保密資料。集團嚴禁員工在私人交往和通訊中提及客戶資料，或在公共場所談論集團商業秘密。集團亦承諾不侵犯他人知識產權、專利權、版權等權益。Baccalieu公司亦已於其《商業行為和道德守則》中訂明相關保密規定。集團將不斷優化信息管理，持續提升員工的信息安全意識，確保客戶信息和私隱得到妥善的保護和管理。集團會定期監察有關政策及措施的實施情況，以確保其有效性。

6. DEDICATION TO GREEN DEVELOPMENT

Climate change poses significant environmental and social challenges to today's society. In order to address the rapid deterioration of the environment and ecosystems, the Group is committed to promoting green businesses, with the goal of balancing long-term corporate development, economic interests, and environmental protection, thus transforming the Group into an excellent sustainable enterprise. At the same time, the Group carefully listens to the demands of various stakeholders and actively responds to their ever-changing needs, striving to protect the environment at all times and assuming corporate social responsibility.

6.1 Environmental Management

As an enterprise mainly engaged in the sale and supply of gas, environmental management is fundamental to the Group. The Group has specified the "Regulations on Environmental Protection, Energy-saving and Emission Reduction Management" in the "Production Safety Management Manual" to promote standardised, normalised, and procedural environmental management for the Group and its subsidiaries, and to achieve cost reduction. Baccalieu has also developed a "HSE Policy" within its "Safety Management System", aiming to comply with the regulations on the exploration, storage, and sale of oil and gas at the federal in Canada and provincial levels in Alberta, while also adhering to various regulations issued by the Alberta Energy Regulator ("AER"). Currently, the Group's subsidiaries, including Shandong Qizhi Equipment, have obtained ISO14001 Environmental Management System certification.

The Group strictly complies with environmental protection laws, regulations, and industry standards in the PRC and other operating locations. During the year, the Group was not aware of any material non-compliance with relevant laws and regulations relating to air and greenhouse gas ("GHG") emissions, discharges into water and land, and generation of hazardous and non-hazardous waste that would have a significant impact on the Group, including but not limited to the Environmental Protection Law of the People's Republic of China, the Law of the People's Republic of China on Environmental Impact Assessment, the Law of the People's Republic of China on the Prevention and Control of Water Pollution, the Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution, the Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Waste and the Environmental Protection and Enhancement Act of Alberta, Canada.

6. 深耕綠色發展

氣候變化為現今社會帶來重大的環境及社會問題。為應對環境及生態系統的急劇惡化，集團致力推動綠色事業，以平衡企業的長遠發展、經濟利益及環境保護為目標，使集團成為可持續發展的優秀企業。與此同時，集團細心聆聽各利益相關方的訴求，積極回應利益相關方不斷變化的需要，力求時刻保護環境，勇於承擔企業社會責任。

6.1 環境管理

集團作為一間以燃氣供應銷售為主營業務的企業，環境管理是企業立足之本。集團於《安全生產管理手冊》中訂明《環境保護及節能減排管理辦法》，以集團及附屬公司推進環境管理規範化、標準化和程序化，並實現降低成本。Baccalieu公司亦已制定《安全管理制度》當中的《HSE政策》，務求符合加拿大聯邦及阿爾伯塔省級有關石油和天然氣開採、儲存和出售的規定，同時亦恪守阿爾伯塔能源監管機構（「AER」）頒佈的各項規定。目前，山東齊智設備等集團附屬公司擁有ISO14001環境管理體系認證。

集團嚴格遵守中國及其他營運所在地有關環境保護的法律法規和行業標準。於本年度，集團並不知悉任何嚴重違反有關廢氣及溫室氣體（「溫室氣體」）排放、向水及土地排污以及有害及無害廢棄物的產生的法例及法規而對集團造成重大影響的情況，包括但不限於《中華人民共和國環境保護法》、《中華人民共和國環境影響評價法》、《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》、《中華人民共和國固體廢物污染環境防治法》及加拿大阿爾伯塔省的《環境保護與改善法》。

二零二三年年度環境、社會及管治報告

(continued) (續)



6.2 Air and Carbon Emissions Control

The Group actively promotes the development direction of green, low-carbon, environmental protection, and energy-saving. The Group pays attention to the air and GHG emissions from its business operations, establishes a sound monitoring system, and actively uses advanced technology to control emissions. The Group has set air and carbon emissions targets in 2022, aiming to continuously optimise its process flow and timely eliminate outdated equipment to reduce air emissions. We also aim to actively respond to and cooperate with the government's emission reduction goals, striving to achieve carbon peaking and emission reduction targets within the target period.

The main sources of air and GHG emissions from the downstream operations in the PRC are electricity, natural gas boilers, vehicles and refrigerants. To achieve energy conservation and emissions reduction, the Group's subsidiaries have actively invested in low-energy-consumption and high-efficiency equipment to reduce emissions. Please refer to section "6.4 Utilisation of Resources" for more details. The LNG processing plants have also used advanced technology to recycle flash gas generated during the liquefaction of natural gas. The main component of this flash gas is methane, which poses potential risks when directly emitted and is also a waste of energy. In response to this, the LNG processing plants have launched a flash gas recovery programme to return it to the city gas pipeline network with the expansion gas.

On the other hand, the air and GHG emissions generated by the upstream operations in Canada primarily come from fossil fuel consumption, electricity usage, gas venting and flaring (including natural gas and methane) and direct emissions of nitrous oxide during oil and gas extraction process. Baccalieu has been closely monitoring its air and GHG emissions to ensure compliance with federal and provincial laws and regulations, as well as the AER Directive 60 set by the AER for oil wells and facilities of the upstream oil industry. In response to potential methane leakage risks, Baccalieu conducts annual measurements and inspections, and submits relevant reports to ensure gas safety and to monitor emissions. Baccalieu has replaced the methane-driven pneumatic controllers with instrument air and installed vent gas burners on battery storage tanks to reduce methane emissions. It has also carried out gas lift modifications on the oil wells to minimise emissions and obtain carbon offset credits. For other measures related to energy usage management, please refer to the section "6.4 Utilisation of Resources".

The downstream operations in the PRC timely phased out old vehicles this year, resulting in a decrease in their air emissions intensity. However, due to an increase in business activities, their total GHG emissions intensity increased during the year. Meanwhile, through the implementation of the aforementioned emission reduction measures, the intensities of air emissions and total GHG emissions of the Canada's upstream operations decreased during this year.

6.2 廢氣及碳排放控制

集團積極推進綠色、低碳、環保及節能的發展方向。集團關注其業務營運中的廢氣及溫室氣體的排放情況，建立完善的監測系統並積極利用先進技術控制排放。集團已於二零二二年訂立廢氣及碳排放目標，旨在持續優化工藝流程，適時淘汰落後設備，以減少廢氣排放。另外，我們亦旨在積極響應並配合政府的減排計劃目標，力爭於目標期內完成碳達峰及減排任務。

中國內地下游業務所產生的廢氣及溫室氣體排放主要源於電力、天然氣鍋爐、車輛及製冷劑使用。為實現節能減排，集團各附屬公司已積極投入能耗低且效能高的設備以減少排放，詳情可參閱「6.4 善用資源」一節。LNG加工廠亦已使用先進的技術回收於天然氣液化過程中產生的閃蒸氣體。閃蒸氣體主要成分為甲烷，直接排放會帶來存在潛在的危險，亦會浪費能源。有見及此，LNG加工廠已開展回收閃蒸氣體工作，使其隨膨脹氣體回送城市燃氣管網。

另外，加拿大上游業務所產生的廢氣及溫室氣體排放主要來自於油氣開採過程中的化石燃料消耗、電力使用、氣體排放及火炬燃燒(包括天然氣及甲烷)以及直接排放的氧化亞氮。Baccalieu公司已一直密切監察其廢氣及溫室氣體的排放，確保其排放符合聯邦及省級法律法規以及AER針對石油上游企業油井及設施頒佈的AER指引60。針對潛在的甲烷洩漏風險，Baccalieu公司會進行年度測量、檢查及提交相關報告，以確保燃氣安全及控制排放。Baccalieu公司已使用儀表空氣代替由甲烷驅動的氣動控制器，並於電池的儲油罐上安裝通風氣體燃燒器，以減少甲烷排放。其亦已對油井進行氣舉改造，以盡力降低排放，並獲得碳抵銷信用額度。其他有關能源使用管理的措施可參閱「6.4 善用資源」一節。

中國內地下游業務已於本年度適時淘汰老舊汽車，使其廢氣排放量密度有所下降。但由於業務量增加，本年度其溫室氣體排放總量密度有所上升。而透過實施上述減排措施，本年度加拿大上游業務的廢氣排放量密度及溫室氣體排放總量密度均有所下降。

In addition, with the support of the national policy of “coal-to-gas project”, the Group is also actively improving and establishing a clean energy system to align with the national goals of carbon peaking and carbon neutrality. The Group is now committed to promoting pipeline natural gas in rural areas and has planned to adopt distributed heat sources to meet the new demand for centralised heating in southern cities. The Group is still working towards achieving its air and carbon emissions targets this year. The air and carbon emissions targets will be carried forward to the year ended on 31 December 2024 (“2024”). The Group will continue to pay close attention to international trends and actively seek lower-carbon, energy-saving, and environmentally friendly technologies to lead the enterprise towards achieving sustainable development goals.

6.3 Handling of Waste

The Group strictly monitors the waste generated in daily operations and handles it in accordance with national and local laws and regulations. The Group implements source control and process control to reduce the discharge of waste into the land and water bodies through a sound waste management system.

Hazardous waste generated in the Group’s operations is entrusted to qualified units for disposal, and other waste is treated in accordance with national and local emission standards. Regarding the gas pipeline construction projects in the downstream operations in the PRC, the Group strictly supervises the management and disposal of waste at construction sites. Qinghai Hongli strictly implements the Group’s “Regulations on Environmental Protection, Energy-saving and Emission Reduction Management”, which include: 1) separate treatment of domestic waste and industrial waste, collection and unified recycling of reusable waste such as plastic bags and mineral water bottles; 2) centralised collection and treatment of sewage and the waste generated during pipeline commissioning and cleaning, waste anti-corrosion materials and waste sand produced during sandblasting and rust removal operations; 3) setting up special recovery devices to collect industrial waste oil, waste engine oil, antifreeze, and wastewater generated during construction processes, and transporting them to specialised treatment plants for disposal; and 4) sending other domestic waste to designated disposal sites near the construction site. If there is no disposal site, domestic waste will be buried in a landfill permitted by the local authorities, ensuring a depth of at least 1 m. As most of the construction projects are contracted to external contractors, it is difficult to statistically analyse the quantity of packaging materials and waste generated during the process. Therefore, these data are not reflected in this ESG Report. In the future, the Group will establish a data collection system for engineering projects.

此外，在「煤改氣」的國家政策支持下，集團已正積極改善並建立清潔能源體系，助力國家雙碳目標的實現。集團現致力在廣大農村地區推行管道天然氣，並已計劃採用分佈式熱源，以集中供暖方式滿足南方城市採暖的新需求。集團本年度仍在努力實現廢氣及碳排放目標。二零二四年十二月三十一日止財政年度（「二零二四年」）將會沿用此廢氣及碳排放目標。集團將繼續留意國際動向，積極尋找更低碳、節能及環保的技術，帶領企業實現可持續發展的目標。

6.3 廢物處理

集團嚴格監控日常營運中所產生的廢棄物，並按照國家及營運所在地的法律法規進行處理。集團通過完善的廢棄物管理，實行源頭治理和過程控制以減少向土地和水體等排放廢棄物。

集團營運中產生的危險廢棄物均委託有資質的單位進行處理，其他廢棄物亦按照國家及營運所在地的排放標準進行處理。在中國內地下游業務燃氣管道鋪設工程方面，集團嚴格監管施工現場廢棄物的管理和處置。青海宏利嚴格執行集團《環境保護及節能減排管理辦法》，包括：1) 生活垃圾與工業廢棄物分開處理，對可再利用的廢棄物如塑料袋、礦泉水瓶等分類收集並統一回收；2) 管道投產及清管作業清出的污物、施工現場對管線進行防腐補口時產生的廢棄防腐材料、噴砂除銹產生的廢砂等，均需進行集中回收處理；3) 設置專用回收裝置收集施工過程中產生的工業油污、廢機油、防凍液和污水等廢液，並運到專門處理廠進行處理；及4) 其他生活垃圾送到施工現場附近指定的處理場。如無處理場，生活垃圾會被埋入當地有關部門許可的填埋地，並保證填埋深達至少1米。由於集團大部分的建設工程均聘請外部承包商，故難以對工程使用的包裝物料及產生的廢棄物數量作出統計，因此有關數據未能在本ESG報告反映。未來，集團將建立工程項目數據收集體系。

二零二三年年度環境、社會及管治報告

(continued) (續)



The Group's office collects waste generated during daily operations, including recyclable waste such as waste paper, waste batteries, and waste ink cartridges, which are handed over to the property management company for recycling. Other office waste is disposed of by the local municipal department. Domestic sewage generated in the office is discharged directly into the municipal pipeline network, and the Group insists on not polluting local water resources with discharge. The Group has set a waste target in 2022, aiming to actively encourage employees to reuse office supplies such as paper to reduce waste emissions. The Group has implemented an electronic office system to replace traditional paper-based office work; encouraged employees to print on both sides of the paper and use environmentally friendly paper for printing publications and promotional materials; and saved unused promotional materials for future use, among other resource-saving measures.

Baccalieu strictly adheres to the waste disposal requirements outlined in the "HSE Policy" during light crude oil extraction in Alberta, Canada. Oil-based drill cuttings, water-based drill cuttings, waste and waste fluids generated in the storage tank area must all be stored in accordance with the Alberta Transportation Guidelines and disposed of in accordance with various regulations issued by the AER before they can be transported to approved provincial government landfills. Baccalieu also recycles and treats wastewater generated during the hydraulic fracturing process in light crude oil extraction and reuses it in the process of extracting oil and natural gas. This not only reduces water resource usage but also reduces the amount of wastewater generated and stored. Baccalieu also commits to maintaining a 100% wastewater recycling rate in the oil well area.

Due to an increase in business activities, the intensities of total hazardous waste and non-hazardous waste disposal of the PRC's downstream operations increased during the year. Meanwhile, the surface casing depth of certain oil wells in the upstream operations in Canada was shallower this year, resulting in an increase in lateral meterage. As a result, the disposal intensity of oil-based drilling cuttings increased, while the disposal intensity of water-based drilling cuttings decreased during this year. The Group is still actively working towards achieving the waste target this year, and the waste target will be carried forward to 2024.

6.4 Utilisation of Resources

The Group focuses on resource optimisation as its core principle, and it constantly reviews natural resource management systems while emphasising source control to enhance resource utilisation efficiency. The Group has set a resource utilisation target in 2022, aiming to continuously improve resource utilisation efficiency by advocating for water and electricity conservation among employees and promoting the use of energy-saving equipment.

集團辦公室收集日常營運中產生的廢棄物，包括廢紙、廢電池、廢墨盒等可循環再利用的廢棄物交由物業管理公司回收處理，其他的辦公室垃圾則由當地市政部門統一處置。辦公室產生的生活污水直接排入市政管網，堅持不讓排放物污染當地的水資源。集團已於二零二二年訂立廢棄物目標，旨在積極鼓勵員工循環使用紙張等辦公用品，減少廢棄物排放。集團推行電子辦公系統以取代傳統的紙張化辦公；鼓勵員工雙面打印紙張、使用環保紙張打印出版物和宣傳單；將未發放完的宣傳單留作下次使用等節約資源措施。

Baccalieu公司在加拿大阿爾伯塔省的輕質原油開採過程中，嚴格執行《HSE政策》中關於廢棄物處理的要求。對於開採過程中產生的油基鑽屑和水基鑽屑以及儲油罐區產生的廢棄物和廢液等，均需按照阿爾伯塔省運輸準則進行儲存以及按AER頒佈的各項規定進行處置，方可運輸至核准的省政府填埋場。Baccalieu公司亦會對輕質石油開採過程中水力壓裂產生的廢水進行回收處理，並重複利用於萃取石油及天然氣的過程中。此舉既可減少水資源使用，亦可減少廢水量的產生及儲存。Baccalieu公司亦承諾保持100%石油井區的污水回收利用率。

由於業務量增加，本年度中國內地地下游業務的有害廢棄物及無害廢棄物排放總量密度有所上升。而本年度加拿大上游業務某些油井的表層套管深度較淺，導致水平鑽探量增加，因此本年度油基鑽屑排放總量密度有所上升，而水基鑽屑排放總量密度則有所下降。集團本年度仍在積極努力實現廢棄物目標，二零二四年將會沿用此廢棄物目標。

6.4 善用資源

集團以善用資源為核心，時刻審視天然資源管理制度，同時重視源頭管控，提升資源使用效率。集團已於二零二二年訂立資源使用目標，旨在持續通過倡導員工節約用水、節約用電以及使用節能設備等方法提高資源耗用效率。

The downstream operations in the PRC consumes water, electricity, natural gas, diesel and petrol. It does not encounter any issues in sourcing water that is fit for purpose. To enhance energy efficiency, the LNG processing plants have used 13X molecular sieves to adsorb trace amounts of water and carbon dioxide in natural gas, utilised the expansion cooling process to reduce energy input, and simplified the treatment system to reduce reliance on heating furnaces during the production process. In addition, the Group's subsidiaries require employees to turn off the power of machinery and equipment during intermittent construction periods to reduce energy consumption. In terms of daily office operations, the Group installs energy-efficient equipment such as T5 fluorescent lamps and LED lamps and installs water-saving features such as faucets, dual flush toilets, and toilets with water-saving functions in restrooms. At the same time, the Group advocates for green office practices and encourages employees to turn off facilities such as computers, printers, electric lights and water dispensers during non-office hours. The Group also controls the air conditioning temperature to approximately 25 degrees Celsius and uses email, posters and the intranet to promote resource conservation.

During the operation of oil well areas and storage tank areas, Baccalieu mainly consumes water, natural gas, electricity, liquefied petroleum gas ("LPG"), diesel and petrol. It does not encounter any issues in sourcing water that is fit for purpose. Baccalieu has utilised saline source wells to reduce the reliance on traditional groundwater sources, which helps preserve freshwater resources for other purposes. To enhance energy efficiency and reliance on fossil fuels, Baccalieu has replaced the compressor with a smaller and more efficient model. It has also implemented electrification in the oil field. Apart from converting natural gas-powered pump truck engines to electric engines, Baccalieu has installed photovoltaic power generation systems to increase the proportion of renewable energy usage. In addition, Baccalieu has planned to transition from diesel to natural gas as a more environmentally friendly alternative for the upcoming completion programme. To further reduce electricity consumption, timers and variable frequency drives have also been installed on the wells. During the year, Baccalieu did not identify any violations of federal, provincial, and AER laws and regulations related to resource utilisation.

Due to an increase in business activities, the intensities of total water and energy consumption of the downstream operations in the PRC increased during the year. Meanwhile, through the implementation of the above measures, the intensities of total water and energy consumption of the upstream operations in Canada decreased during the year. The Group is still working towards the resource utilisation target this year. The resource utilisation target will be carried forward to 2024.

中國內地下游業務會消耗水、電力、天然氣、柴油及汽油。其在獲取適用水資源時並無遇到任何問題。為提升能源效率，LNG加工廠於生產過程中採用13X分子篩吸附天然氣中少量的水分和二氧化碳，採用膨脹製冷工藝減少能源投入，以及透過簡化處理系統減少對加熱爐的依賴。此外，集團各附屬公司會要求員工在各機械設備間斷性施工期間，及時關閉其電源以減少能源消耗。日常辦公室營運方面，集團安裝T5熒光燈及LED燈具等節能設備，並於衛生間安裝具有節水功能的水龍頭、雙沖水的小便器和馬桶等。同時，集團倡導綠色辦公，鼓勵員工在非辦公時間關閉電腦、列印機、電燈、飲水機等設施，並將空調溫度控制於約攝氏25度，以及透過電郵、海報、內聯網等方式，呼籲節約資源。

在營運石油井區及儲油罐區過程中，Baccalieu公司主要消耗水、天然氣、電力、液化石油氣（[LPG]）、柴油及汽油。其在獲取適用水資源時並無遇到任何問題。Baccalieu公司已利用鹽水源井，降低對傳統地下水資源的依賴，有助於保留淡水資源供其他用途使用。為了提高能源效率並減少對化石燃料的依賴，Baccalieu公司已將壓縮機更換為更小及更高效能的型號。其亦已於油田實施電氣化。除了將天然氣驅動的泵車發動機改為電動發動機，Baccalieu公司亦已安裝光伏發電系統，以增加可再生能源的使用佔比。此外，Baccalieu公司計劃在即將到來的完井計劃中將柴油替代為更環保的天然氣。為進一步減少電力消耗，Baccalieu公司亦已於油井安裝計時器和變頻驅動器。於本年度，Baccalieu公司並無發現違反聯邦、省級及AER頒佈有關資源使用的法律法規。

由於業務量增加，本年度中國內地下游業務的水源及能源消耗總量密度均有所上升。而透過實施以上減排措施，加拿大上游業務本年度的水源及能源消耗總量密度均有所下降。集團本年度仍在努力實現資源使用目標，二零二四年將會沿用此資源使用目標。



6.5 Caring for the Environment

As a responsible energy company, the Group has always attached great importance to environmental protection and is committed to preventing major environmental pollution and ecological damage accidents. For construction projects, Qinghai Hongli has taken the following measures to protect the local ecological environment and prevent environmental pollution at the construction site: 1) covering the soil that cannot be transported in time with dust-proof nets during excavation operations and watering the site to reduce dust; 2) protecting vegetation cover such as trees and grass during operations and planting them after construction is completed; 3) using the original soil for backfilling as much as possible to ensure the original topography, and any additional soil for backfilling must be obtained from a designated soil collection site approved by local authorities; 4) for pedestrian walkway construction, fully considering environmental requirements, setting up residual slurry sedimentation tanks to prevent slurry water from entering rivers; 5) when encountering river construction, using bridge crossing or directional drilling technology; 6) when conducting mechanical equipment maintenance at the construction site, placing pads under the machinery to prevent fuel, oil, lubricants or other materials from flowing into the soil or water; and 7) providing education on soil and water conservation for all employees to raise their awareness of soil and water conservation. Baccalieu has also taken measures related to environmental protection during oil extraction, mainly including using batch drilling technology to reduce the number of drilling machines and drilling times and avoiding large-scale land damage. Additionally, Baccalieu pledges not to operate in ecologically vulnerable areas.

Regarding noise pollution, a certain intensity of noise will be generated during the operation of production equipment such as compressors, expanders, and pumps in the LNG production process. To prevent and control noise pollution, the Group has developed a construction plan for urban pipeline operations, which includes measures such as installing mufflers on noise emission sources; regularly inviting qualified institutions to conduct occupational hazard factor testing, providing annual occupational health examinations for personnel exposed to noise hazards; coordinating the sequence of construction sections based on the traffic conditions of each road section; fencing off the construction site; prohibiting the use of high-noise equipment during nighttime and noon break periods; and developing traffic adjustment and announcement plans.

6.5 愛護環境

作為負責任的能源企業，集團一直重視環境保護，致力杜絕重大環境污染和生態破壞事故的發生。對於施工項目，青海宏利採取以下措施保護當地生態環境，避免施工現場發生環境污染：1) 開挖作業時對不能及時運走的堆土進行防塵網覆蓋，現場進行灑水降塵；2) 植被覆蓋地作業時，對林木、草皮覆蓋層等進行保護性轉移，待施工完畢後進行種植；3) 施工完畢後盡量使用原土回填，保證地貌的原有性，額外回填的泥土需在當地有關部門規定的取土場上取土；4) 人行道施工時，充分考慮環保要求，設置剩餘泥漿沉澱池，防止泥漿水進入河道；5) 遇河道施工時，採用隨橋跨越或定向鑽技術；6) 在施工現場進行機械設備維修時，需在機械設備下鋪墊以防燃油、機油、潤滑油或其他材料流入土壤或水中；及7) 各施工單位對職工進行水土保持知識教育，提高員工水土保持的意識。Baccalieu公司在石油開採過程中亦採取有關環境保護的措施，主要包括：使用批量鑽井技術以減少投入鑽井的機械，減少鑽土次數和避免大面積的土地破壞。同時，Baccalieu公司承諾不在生態易受破壞的地區運作。

噪音污染方面，在LNG生產過程中，壓縮機、膨脹機、泵等生產設備運行會產生一定強度的噪音，針對噪音污染的防治，集團編製城區敷管作業施工方案，措施主要包括：於噪音排放源加裝消音器等設施；定期請有資質的機構做職業病危害因素檢測，對接觸噪音危害的人員提供年度職業健康檢查；在方案中根據各路段的交通情況協調各施工段的先後順序；對施工場地進行圍封；嚴禁高噪聲設備在夜間和中午休息時間使用；並做好交通調整計劃、公告計劃等。

CASE 案例：

Voluntary Tree-Planting Activities

Nantong COG Co., Ltd. and Qinghai COG Investment Co., Ltd. have conducted voluntary tree-planting activities during the year. The event saw the participation of approximately 83 individuals and a total of approximately 418 trees were planted. The Group aims to enhance employee collaboration, promote environmental and ecological awareness, and contribute to the establishment of a green enterprise through organising tree-planting and greening activities.

義務植樹活動

南通中油燃氣有限責任公司及青海中油燃氣投資有限責任公司已於本年度開展義務植樹活動，參與人數共約83人，共計植樹數量約418棵。集團期望可透過舉辦植樹綠化活動，加強員工協作意識，並增強其環保及生態意識，為建立綠色企業貢獻力量。



6.6 Climate Change

The risks and challenges posed by climate change to the global economy are constantly escalating, and the Group is aware of the need to take action. Based on the recommendations of the Task Force on Climate-related Financial Disclosures established by the Financial Stability Board, the Group has assessed and recognised the climate-related risks and opportunities that affect its business.

The Group manages climate change-related issues in accordance with the ESG governance structure as detailed in the “2.4 ESG Governance Structure” section. The Group has implemented a “Climate Change Policy” to establish a process for identifying climate change risks and to set out management policies for climate change mitigation, adaptation and resilience, with an aim to timely take measures to minimise and adapt to these risks in daily business operations. The climate-related risks identified can be divided into two categories:

6.6 氣候變化

氣候變化為全球經濟帶來的風險和挑戰不斷升級，集團意識到採取行動的必要性。根據金融穩定委員會成立的氣候相關財務信息披露工作組的建議，集團已評估並認識到對集團業務有所影響的氣候相關風險及相應的機遇。

集團按照ESG管治架構管理氣候變化相關事宜，詳情可參考「2.4 ESG管治架構」一節。集團已實施《氣候變化政策》建立氣候變化風險識別流程，並訂立集團對減緩、適應和抵禦氣候變化的管理方針，以在日常業務營運中及時採取措施盡力降低及適應該等風險。我們識別的氣候相關風險可分為兩大類：



Physical risks: Climate change has led to an increase in the frequency and intensity of extreme weather events. The Group's operational locations are situated in inland areas of Canada and span across the PRC. Due to their geographical locations, the Group's operational assets such as gas pipelines, gas facilities, and factories, are susceptible to damage from various extreme weather events such as heavy rain, floods, extreme cold, and wildfires. These events may pose a threat to the safe and stable gas supply as well as oil and gas production, increase operational and maintenance costs, and lead to higher insurance investments.

As a response measure, the Group continuously strengthens the maintenance, management, and safety measures of the gas pipeline network and production facilities, and has purchased insurance for its employees and assets. We also closely monitor the latest weather updates and recommendations from local governments to develop emergency plans for extreme weather conditions. In the event of any extreme weather event, the Group will follow the work deployment of flood prevention, supply protection and safety protection, arrange maintenance personnel to arrive at disaster areas for emergency disposal, and strengthen warning forecasts and emergency response to reduce or avoid property losses when extreme weather affects the Group's operating locations. To respond to potential flood disasters, the Group's subsidiary has purchased inflatable boats and provided training in boat driving skills for maintenance and repair personnel to improve their flood resistance and rescue capabilities.

Additionally, Baccalieu has enhanced the climate resilience of its oil well sites. To cope with extreme cold weather, the ground pipelines have been insulated and equipped with heat-tracing devices to prevent freezing. It has also implemented regular site maintenance (including contouring, vegetation control, and facility containment) and established appropriate safety buffer zones to mitigate the impacts of flooding and fire.

CASE 案例：

Strengthen Summer Safety Precautions

In light of the escalating occurrence of extreme weather events, such as heavy summer rains, strong winds, high temperatures, and lightning, which pose safety risks, the Group has strengthened its safety precautions and focused on preventing unforeseen accidents. The Group has demanded strict adherence to safety production responsibilities from all subsidiaries, including the rational arrangement of production and construction plans, as well as enhanced emergency response and on-site handling drills. We have also urged each unit to conduct special inspections on fire safety, identify potential conflicts and pressure hazards associated with gas pipelines and other urban municipal projects, and strengthen disaster prevention measures and geological hazard investigations at construction sites to promptly report any major risks and production safety incidents. The Group randomly inspects the duty roster of each unit's leadership and takes serious actions against any units or individuals found to be in violation of duty discipline.

實體風險：氣候變化加劇使極端天氣事件出現的頻率和強度增加。集團的營運地點位於加拿大的內陸地區及橫跨中國。受地理位置影響，集團的營運資產，如輸氣管網、燃氣設施、工廠等，有可能會因暴雨、洪水、極寒及山火等不同極端天氣事件而遭到破壞，使安全穩定供氣及油氣產量受到威脅，也會使營運及維護成本增加以及保險投資增加。

作為應對措施，集團會持續增強燃氣管網及生產設施的維護管理與安全保障，並已為其員工及資產購買保險。我們亦會密切關注當地政府發佈的最新天氣消息及建議，制訂針對極端天氣狀況的應急計劃。如發生任何極端天氣事件，集團會按照防汛度汛、保供保安全的工作部署，安排維修人員到達災區域進行應急處置，並強化預警預報和應急處置，以在極端天氣影響集團經營場所時減少或避免財產損失。為應對可能發生的洪水災害，集團附屬公司已購置衝鋒舟，並為維修搶險隊員開展衝鋒舟駕駛技能培訓，提升抗洪搶險救援能力。

此外，Baccalieu公司已加強其油井場建設的氣候風險抵禦力。為應對極寒天氣，其地面管道已進行隔熱處理並安裝熱追蹤裝置來防止凍結。其亦透過進行定期的場地維護(包括地形修整、植被控制、設施封閉)和建立適當的安全緩衝區，以減輕洪水和火災的影響。

加強夏季安全防範工作

針對愈趨頻繁的極端天氣事件，如夏季暴雨、強風、高溫、雷電等帶來的安全風險，集團加強安全防範工作，並著力防範突發事故。集團要求各附屬公司嚴格落實安全生產責任，合理安排生產和施工計劃，加強緊急應變和現場處置演練。我們亦督促各部門進行消防安全專案檢查、排査燃氣管道與其他城市市政工程的交叉和佔壓隱患，以及加強對施工作業現場的防災保護和地質災害隱患排査治理，以及時上報重大險情和安全生產事故。集團將對各單位領導值班情況進行抽查，並嚴肅處理任何違反值班紀律的單位和個人。

CASE 案例：

Working Together to Overcome Challenges — Post-Disaster Gas Supply Recovery

The gas supply operated by an associate of the Group in Bazhou faced the need for emergency shutdown measures due to the impact of severe rainfall and flooding. In the aftermath of the disaster, the Group actively deployed professional personnel, specialised equipment, and tools from the Shandong region to provide emergency support to the Bazhou company. The aim was to quickly restore gas supply to customers and ensure the safe and stable provision of natural gas.

同舟共濟，共克時艱 — 災後恢復供氣工作

集團位於霸州的供氣由於受到極端降雨及洪災影響，需要採取緊急關停措施。災情過後，集團積極調配山東大區專業人員、專業設備和工具，緊急支援霸州公司，以儘快為用戶恢復供氣，全力保障天然氣安全平穩供應。



CASE 案例：

Measures for responding to wildfires in Canada

Climate change has resulted in longer wildfire seasons in Canada, with this year witnessing the largest wildfire in 60 years. Multiple well sites of Baccalieu are situated in severely affected areas. The management team has responded promptly by arranging thorough clearing of the isolation zones at each well site. In the event of the disaster, Baccalieu immediately activated its safety contingency plan, shut down the oil well facilities, and notified downstream stations. After ensuring the safety of equipment and the inventory of oil and gas, Baccalieu promptly evacuated employees and their families, ensuring the security of personnel and assets.

加拿大山火災難應對措施

氣候變化為加拿大帶來更長的山火季節，於本年度更發生60年來最大的山火。Baccalieu公司多個井場處於火情嚴重區域，管理層已全力應對，安排全面清理各井場隔離帶。受災情影響時，Baccalieu公司立即啟動安全預案，關閉油井設施並通知下游場站。在確保設備及庫存油氣的安全後，Baccalieu公司立刻安排員工及其家屬撤離現場，保證了人員及資產安全。



二零二三年年度環境、社會及管治報告

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Transition risk: In order to achieve sustainable development, governments around the world have successively formulated climate-related legislation or tightened regulations to support the global decarbonisation vision. For example, Canada will implement a climate plan to cap emissions from the oil and gas industry and strive for net zero emissions by 2050. The PRC government will also increase its contribution to national emissions reduction efforts, aiming to peak carbon emissions before 2030 and achieve carbon neutrality by 2060. The Stock Exchange will also enhance the requirements for disclosing climate change-related information in the coming year. As relevant policies become more stringent, the Group will also be subject to carbon emission restrictions, which may lead to increased compliance costs and operational costs.

To mitigate the impact of these policies on the Group, we regularly monitor existing and emerging trends and policies related to climate change, strengthen communication and contact with regulatory authorities, timely adjust the company's risk management measures, reasonably arrange project development and construction, improve compliance and quality in emissions and climate change disclosure, and regularly communicate with different stakeholders on their views on climate-related issues to avoid reputational risks caused by delayed responses.

Opportunities: The PRC government is supporting businesses to promote clean energy systems in order to achieve carbon reduction goals. In response to the opportunities presented by low-carbon development, the Group has strengthened its sustainable development strategy to assist the country in promoting the "coal-to-gas" clean energy programme. By developing city gas pipeline networks, the Group continuously promotes the widespread use of natural gas and increases its revenue. At the same time, the Group is committed to improving its environmental monitoring and management to reduce carbon emissions, which brings reputation and competitive advantages to the business.

In addition, the Group has successfully applied a sustainability-linked loan and established a clear SPT for carbon emissions from its upstream operations in Canada, with the aim of further enhancing its environmental performance. The Group will also utilise the funds obtained to invest in projects and activities that reduce GHG emissions, improve energy efficiency, promote renewable energy sources, or enhance climate resilience.

The Group uses annual GHG emissions as a metric to assess and manage climate-related issues. For relevant data, measures and target set, please refer to the sections headed "6.2 Air and Carbon Emissions Control" and "10. Sustainability Performance Data for 2023".

轉型風險：為實現可持續發展，各地政府相繼制訂氣候相關立法或收緊法規，以支持全球脫碳願景。例如加拿大將推行氣候計劃，率先對石油和天然氣行業的污染設限封頂，爭取二零五零年實現淨零排放。而中國政府亦將提高國家自主減排貢獻力度，力爭於二零三零年前破達峰，二零六零年前實現碳中和。聯交所亦將於來年提升有關氣候變化信息披露的要求。隨著相關政策的收緊，集團也將受到有關碳排放的限制，可能導致合規成本及營運成本的增加。

為減輕相關政策對集團的影響，我們將會定期監測與氣候有關的現有及新興趨勢和政策，加強與各監管部門的溝通聯繫，及時調整公司風險管理辦法，合理安排工程開發與項目建設，提高其在排放及氣候變化披露方面的合規性及質素，並定期與不同利益相關方就其對氣候相關問題的觀點進行溝通，以避免因反應遲緩而導致的聲譽風險。

機遇：中國政府支持企業推動等清潔能源體系，以實現減碳目標。順應低碳發展機遇，集團已加強可持續發展策略，協助國家推動「煤改氣」清潔能源計劃，透過發展城市燃氣管道網絡，不斷地推動天然氣的廣泛應用，提高收入。同時，集團亦致力提高自身環境監測和管理，以減少碳排放，為企業帶來聲譽和競爭優勢。

此外，集團亦已成功申請可持續發展表現掛鈎貸款，就加拿大上游業務的碳排放制定了明確的SPT，以進一步提升其環保方面的表現。集團亦將運用所得資金投資於減少溫室氣體排放、提高能源效率、推廣再生能源或增強氣候韌性的專案和活動。

集團以年度溫室氣體排放量作為評估和管理氣候相關議題的指標。有關數據、措施及目標設定，請參考「6.2 廢氣及碳排放控制」以及「10. 二零二三年可持續發展績效數據」兩節。

7. CARING FOR EMPLOYEES

The Group has always regarded its employees as its most valuable asset, committed to safeguarding their labour rights in accordance with the law, and actively striving to improve their working conditions. The Group focuses on building a diverse human resources team, respects employees from different cultural backgrounds, and attaches importance to protecting their privacy. The Group hopes to provide employees with ideal career development opportunities, while creating a healthy and happy work environment and fostering a rich and warm cultural life.

7.1 Employee Rights

The Group strictly establishes a comprehensive human resources management system in accordance with the laws. Employment policies such as the “Measures on Employee Recruitment Management”, the “Measures on Salary Management” and “Measures on Employee Performance Evaluation, Rewards and Disciplinary Management” are formally compiled in the Group’s “Administrative Office Management Manual” and “Human Resources Management Manual”. The Group takes pride in its diverse human resources team, adheres to the principle of non-discrimination, and treats employees from different races, nationalities, beliefs, genders, ages, marital statuses, and those protected by special laws equally in the recruitment, training, promotion, and salary setting processes, ensuring that all employees have equal development opportunities. The Group provides employees with opportunities for promotion, salary increases, or rewards based on their performance and contributions, and provides benefits such as pension, medical, work injury, maternity, social insurance, housing provident fund, and festival allowances in accordance with relevant laws and regulations in the location of operation.

Regarding working hours, the Group implements three systems: standard working hours, flexible working hours, and comprehensive calculation of working hours. Each subsidiary can flexibly arrange suitable working hour systems for employees based on their business characteristics and job requirements after approval and agreement by the human resources department, while firmly rejecting forced labour. Each subsidiary must also arrange compensatory leave or pay overtime pay in accordance with national and the Group’s regulations for employees who work overtime. Regarding holidays, employees are entitled to sick leave, personal leave, marriage leave, bereavement leave, maternity leave, work injury leave, annual leave, statutory holidays, etc.

7. 關注員工需求

集團一直視員工為最寶貴的資產，致力保障員工依法享有勞工權益，並積極爭取改善勞工待遇。集團專注建設多元化的人事團隊，尊重來自不同文化背景的員工，並注重保障員工的私隱。集團期望能為員工提供理想的職業發展，同時營造健康愉快的工作環境，締造豐富溫馨的文化生活。

7.1 員工權益

集團嚴格依法建立完善的人力資源管理程序。《員工招聘管理辦法》、《薪酬管理辦法》、《員工考核及獎懲管理辦法》等僱傭政策正式編製在集團《行政辦公管理手冊》及《人力資源管理手冊》內。集團以多元化的人事團隊為傲，堅守反歧視的原則，在招聘、培訓、晉升和薪酬制定等流程中，堅持對不同種族、國籍、信仰、性別、年齡、婚姻狀況及受特殊法律保護的員工一視同仁，確保所有員工享有平等的發展機會。集團根據績效和貢獻給予員工晉升、調薪或獎勵的機會，並依照營運所在地的相關法律法規為員工提供養老、醫療、工傷、生育社會保險、住房公積金、過節費等福利。

工作時數方面，集團實行標準工時制、不定時工時制和綜合計算工時制3種工時制度。各附屬公司可根據業務特點和崗位需要，經人力資源部審批並同意後，彈性為員工安排適合的工時制，同時堅決拒絕強制勞工工作。各附屬公司亦須為加班員工安排補休或按國家、集團規定支付加班費。在假期方面，員工享有病假、事假、婚假、喪假、產假、工傷假、年假及法定節假日等。

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The Group strictly adheres to relevant laws and regulations and prohibits child labour and forced labour in the recruitment process. We do not employ children who have not reached the legally defined minimum working age as stipulated by relevant laws and regulations. The human resources department should verify the identity documents of the prospective employees to prevent the employment of child labour. The Group shall not use any form of force, coercion, punishment, or intimidation related to work to force employees to work against their will. In the event of any violations, the Group shall handle them according to the circumstances. The Group reserves the right to terminate the labour contract with employees who violate the Group's rules and regulations or engage in illegal activities. Baccalieu has strictly implemented the "Code of Business Conduct and Ethics" and requires all employees to respect the rights of the individual and prohibit forced, compulsory or child labour, unsafe working conditions, and human rights abuses. During the year, middle management of Baccalieu has attended a meeting to read and discuss Canadian laws and regulations related to the prevention of forced labour, in order to enhance awareness on these issues.

During the year, the Group was not aware of any material non-compliance with employment-related laws and regulations relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination and other benefits and welfare that would have a significant impact on the Group, including but not limited to Labour Law of the People's Republic of China, Labour Contract Law of the People's Republic of China and Employment Standards Code of Alberta, Canada. During the year, Liling COG Co., Ltd. ("Liling COG") actively fulfilled the functions of the labour union, wholeheartedly serving its employees, and further enhancing the cohesion and creativity of the workforce. As a result, it was recognised by the Liling Municipal Federation of Labour Unions as the "Advanced Unit in Labour Union Work for 2022" in Liling.

集團嚴格遵守法律及法規規定，集團在招聘過程中嚴格禁止童工及強制勞工。我們不會聘用未達到相關法例及規例所界定的法定工作年齡的兒童。人力資源部應核實擬錄用人員的身份證件，杜絕僱用童工。集團不得以任何形式的武力或恐嚇，或與工作相關的任何類型的體罰或脅迫強制僱員違背意願工作。倘發生違規行為，集團將按情況處理。如員工違反集團規章制度或違法犯罪，集團有權與其解除勞動合同。Baccalieu公司已嚴格執行《商業行為和道德守則》，要求所有員工尊重人權，禁止強迫、強制或童工勞動、不安全的工作環境和人權濫用。於本年度，Baccalieu公司中層員工已出席會議，閱讀及討論加拿大有關防止強制勞工的法例及法規，以加強相關意識。

於本年度，集團並不知悉任何嚴重違反有關薪酬及解僱、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僱傭相關法例及法規而對集團造成重大影響的情況，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》及加拿大阿爾伯塔省的《勞工法例》。於本年度，醴陵中油燃氣有限責任公司（「醴陵中油燃氣」）實際履行工會職能，竭誠服務員工，進一步提升員工隊伍的凝聚力及創造力，獲醴陵市總工會表彰為「2022年度醴陵市工會工作先進單位」。

CASE 案例：

Empowering the Growth of Skill-Based Talents

During the year, Xining COG Co., Ltd. conducted an evaluation of skill levels in the production scheduling centre for transmission and distribution (maintenance) positions. Unlike traditional assessment methods, this evaluation utilised a combination of mandatory and random examination items, covering a comprehensive range of practical job responsibilities. The aim was to enhance employees' overall proficiency in their respective roles and provide development opportunities for skill-based talents.

助推技能型人才成長

西寧中油燃氣有限責任公司於本年度開展生產調度中心輸配(維修)崗技能等級認定評價工作。有別於傳統考評形式，是次考評採用必考項目和抽考項目相結合的評價模式，全面地覆蓋實際的業務內容，以提升員工的綜合業務水準，給予技能型人才成長機會。



CASE 案例：

Establishment of Labour Union

During the year, Zhejin Zhongyou Coalbed Methane Utilisation Co., Ltd. established a labour union with the aim of coordinating labour relations within the organisation, enhancing team cohesion, and better safeguarding the legitimate rights and interests of the organisation and its employees. The labour union strives to prevent any forced labour and improve the management system.

成立黨工組織

於本年度，織金中油煤層氣利用股份有限公司建立黨工組織，旨在協調公司勞動關係，增強團隊的凝聚力，並更好地維護公司和員工合法權益，防止任何強制勞動，完善管理體系。



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7.2 Platform for Growth

The Group places great importance on employee training and regards talent as a driving force for sustainable development. The Group actively promotes various talent training programmes, focuses on paving the way for employee development, and strives to achieve the ideal of shared growth between employees and the Group. The Group's human resources department develops a comprehensive employee training plan every year in accordance with relevant policies, providing ongoing training and diverse development opportunities based on employees' career paths.

Each subsidiary also provides specialised and themed training for employees in different positions, arranges for participation in knowledge and skills competitions, and participates in theme speech activities to enhance employees' comprehensive abilities. To continuously improve the skills of internal trainers, further improve the internal curriculum system, inherit corporate culture and management experience, the Group also organises internal training teams. The Group regularly holds training sessions on corporate culture construction, production safety management, financial information systems, supplies procurement processes, vocational skills, construction project management, value-added business and insurance business.

Safety training is an important part of the Group's training programmes. The Group provides effective and diverse training methods, classifies and trains employees at different levels, and takes multiple measures to enhance employees' safety awareness and responsibility. The Group requires new frontline employees to participate in comprehensive safety education and training. The Group's subsidiaries also regularly holds activities such as production safety themed training and emergency drills. To effectively maintain the safety management level of safety management personnel, the Group requires subsidiaries to regularly hold safety knowledge examinations, ensuring that employees always grasp safety knowledge, improve safety theoretical knowledge and enhance safety culture qualities.

7.2 成長平台

集團重視員工培訓，視人才為企業可持續發展的推動力。集團積極推進各項人才培訓，注重為員工鋪排發展的道路，實現員工與集團共同成長的理想。集團人力資源部每年均會按照相關政策制定完善的員工培訓計劃，按員工的職業生涯提供持續培訓和多元化的發展機會。

各附屬公司亦根據實際需要為不同崗位的員工提供專項及專題培訓、安排參與知識技能競賽以及參與主題演講活動等，以提升員工的綜合能力。為持續提升企業內訓師技能，進一步完善內部課程體系，傳承企業文化與管理經驗，集團亦會組織內訓團隊培訓。集團定期舉辦企業文化建設、安全生產管理、財務信息系統、物資採購流程、職業技能、建設工程管理、增值業務以及保險業務等方面的培訓。

安全培訓是集團培訓課程中重要的一環，集團提供有效且多元化的培訓方法，通過分級分類的培訓並採取多項措施，提升各級員工的安全意識和責任意識。集團規定新入職的前線員工須參加多方面的安全教育培訓。各附屬公司亦定期舉辦安全生產專題培訓以及應急演練等活動。集團為切實維持安全管理人員的安全管理水平，要求各附屬公司定期舉辦安全知識考試，保證員工時刻掌握安全知識，提高安全理論知識，增強安全文化素質。

CASE 案例：

Knowledge into Action Book Club

During the year, the Group hosted the “Knowledge into Action Book Club” event, which allowed employees to share their experiences in both work and personal life, fostering stronger team cohesion. Moreover, through engaging in book discussions, participants were able to broaden their horizons, exchange knowledge, and enhance their professional expertise and management abilities, ultimately increasing their overall work effectiveness.

知行讀書會

集團於本年度舉辦「知行讀書會」活動，讓員工藉活動分享自己的工作與生活，增加團隊凝聚力；同時亦透過閱讀書籍，拓展視野及交流知識，提升自身專業素養及管理能力，以提升工作效能。



CASE 案例：

Internal Trainer Rating Conference

Liling COG held an internal trainer rating conference for 2023. During the conference, the evaluators provided real-time feedback and guidance on the performance of the internal trainers, assessing their performance in areas such as courseware development and presentation skills. Through this rating conference, Liling COG aims to evaluate the effectiveness of internal trainers' learning outcomes, while also enhance their personal qualities and training skills, in order to further refine the talent training model.

內訓師評級會議

醴陵中油燃氣召開了2023年度內訓師評級會議。評審們針對內訓師的表現現場點評與指導，並從課件製作、台風儀態等方向考核評分。通過評級會議，醴陵中油燃氣期望可檢驗公司內訓師賦能學習成果，同時提升內訓師個人素質及培訓技能，進一步完善人才培訓模式。





8. PRACTICE INTEGRITY

The Group regards a culture of integrity as an inseparable part of corporate construction. The Group eliminates any form of interest transmission and corrupt bribery behaviour. In engineering services and material procurement bidding, the Group strictly complies with the Bidding Law of the People's Republic of China and formulates the "Measures on Supplies Management", which stipulate that bidding and tendering activities should follow the principles of openness, fairness, impartiality, honesty and trustworthiness. Multiple regulations have been established during the bidding, evaluation, and awarding process, such as prohibiting bidders from exerting pressure on the tenderer during the bidding review, clarification, evaluation, comparison, and evaluation process, in order to eliminate any form of corruption and bribery. In addition, the Group has established the "Code of Ethics for Senior Management", which requires senior management to sign the "Letter of Commitment for Ethics" and the "Letter of Commitment for Anti-Corruption" upon assuming office, pledging to firmly resist any form of bribery, extortion, fraud, intentional improper related-party transactions, money laundering activities, etc. The letters of commitment also specify that if employees violate their commitments, they must take responsibility for breach of contract and legal consequences. The Group has also formulated written procedures for the management of petitioning and reporting, standardising the acceptance of various types of reports, as well as the appeal process for dissatisfaction with disciplinary actions or handling, and regularly reports the results of the complaint and reporting work to senior management. Baccalieu has also formulated the "Code of Business Conduct and Ethics" which regulates matters such as conflicts of interest, acceptance of bribes, and privacy protection, and encourages reporting of any illegal or unethical behaviour.

During the year, the Group was not aware of any material non-compliance with relevant laws and regulations of bribery, extortion, fraud and money laundering that would have a significant impact on the Group, including but not limited to Anti-Unfair Competition Law of the People's Republic of China, the Criminal Law of the People's Republic of China, the Anti-Corruption Law of the People's Republic of China, the Anti-Money Laundering Law of the People's Republic of China, and Criminal Code of Canada. There were also no concluded legal cases regarding corrupt practices during the year (2022: Nil).

The Group arranges anti-corruption training at least once a year. During the year, the Group provided a total of approximately 18,225.00 hours of anti-corruption training to a total of 729 managerial staff, including directors, senior management and middle-to-senior-level employees of subsidiaries, as well as approximately 157,794.00 hours of anti-corruption training to 4,046 employees (2022: 654 managerial staff participated in a total of approximately 16,422.00 hours; 3,155 employees participated in a total of approximately 125,454.00 hours). The training covered the Group's risk prevention and control management system, aiming to cultivate employees' anti-corruption awareness, promote good professional ethics, and comply with regulations.

8. 廉潔從業

集團把廉潔文化視為企業建設的重要部分。集團杜絕任何形式的利益輸送和貪腐賄賂的行為。在工程服務及物資採購招投標中，集團嚴格遵守《中華人民共和國招標投標法》並制定《物資管理辦法》，當中訂明招投標活動應當遵循公開、公平、公正和誠實信用的原則。於開標、評標、定標過程中訂立多項規定，如投標人在投標審查、澄清、評價、比較及評標的過程中，禁止對招標人施加壓力，以杜絕任何形式的貪污受賄行為。另外，集團制定《高管人員職業道德規範》，規定高管人員上任時須簽署《職業道德規範承諾書》和《反舞弊承諾書》，承諾堅決抵制任何形式的賄賂、勒索、欺詐、故意與不當關聯方交易、進行洗黑錢行為等。承諾書上亦訂明如員工違反承諾，需要承擔違諾責任和法律後果。集團亦就信訪舉報管理制度書面程序，規範有關受理各類舉報以及不服處分或處理的申訴流程，並定期向上級報告信訪舉報工作結果。Baccalieu公司亦已制定《商業行為和道德守則》，規範利益衝突、收受賄賂、私隱保密等事宜，鼓勵舉報任何非法或不道德行為。

於本年度，集團並不知悉任何嚴重違反賄賂、勒索、欺詐及洗錢的相關法例及法規而對集團造成重大影響的情況，包括但不限於《中華人民共和國反不正當競爭法》、《中華人民共和國刑法》、《中華人民共和國反貪污賄賂法》、《中華人民共和國反洗錢法》及加拿大的《刑法典》。本年度亦無任何已審結的貪污訴訟案件(二零二二年：無)。

集團至少每年一次安排反貪污培訓。於本年度，集團已向董事、高管及附屬公司中層以上共729名管理人員提供合共約18,225.00小時反貪污培訓，以及向4,046名員工提供合共約157,794.00小時反貪污培訓(二零二二年：654名管理人員參與合共約16,422.00小時；3,155名員工參與合共約125,454.00小時)。該培訓內容涵蓋集團風險防控管理制度，以培養員工的反貪意識及良好的專業操守，遵守法規。

CASE 案例：

Anti-Corruption and Rule of Law Education Lecture

During the year, the Group invited a national-level judge to deliver a specialised lecture on anti-corruption and rule of law education to the directors and managerial staff at all levels. The lecture commenced by analysing real-life cases from recent years, identifying corruption risks in different enterprises, and explaining relevant laws and regulations pertaining to corruption. The Group aims to enhance the anti-corruption awareness of its managerial staff at all levels and promote a culture of integrity through the study of lecture content.

廉潔法治教育專題講座

於本年度，集團邀請國家一級法官向集團董事及各級管理人員就廉潔法治教育專題授課。講座從近年來真實案例入手，分析不同企業的廉潔風險點，並講解關於貪污相關的法律法規。集團期望各級管理人員可通過學習講座內容，提升反貪污意識，推動廉潔作風。



CASE 案例：

Kick-off Meeting for the Promotion of Employee Integrity Practice

To further enhance the ethical standards of employees, Wuhan Oriental COG Co., Ltd. conducted a kick-off meeting for the promotion of employee integrity practice during the year. The meeting was attended by a total of 45 managerial staff and employee representatives who participated in the reading and declaration of the specific contents of the employee integrity commitment, aiming to strengthen their awareness to anti-corruption.

員工廉潔從業宣傳啟動會議

為進一步提升員工道德水平，武漢東方中油燃氣有限公司已於本年度召開員工廉潔從業宣傳啟動會議。是次會議共45名管理人員及員工代表參與，就廉潔從業承諾書的具體內容進行宣讀及表態發言，旨在加強員工反貪污意識。





9. ENGAGING WITH THE COMMUNITY

The Group actively responds to the United Nations' 2030 Agenda for Sustainable Development Goals, understands the needs of different people in society, and is committed to giving back to society, spreading warmth, and taking practical actions to develop public welfare undertakings comprehensively. The Group has formulated internal regulations regarding community participation, focusing on providing assistance to vulnerable communities and has established the COG volunteer team to encourage employees to participate in voluntary work, including visiting the elderly, assisting in disaster relief, and other activities, demonstrating the love and dedication of the enterprise and employees. During the year, the Group's subsidiaries participated in different social welfare activities, which includes visiting and comforting, rural revitalisation, poverty alleviation, supporting education endeavours, and voluntary tree planting activities, etc. At the same time, the Group regularly holds gas safety knowledge lectures in communities and schools to raise users' awareness of gas safety. Baccalieu also encourages employees to join volunteer organisations and actively supports community charity events in the Calgary and other operating locations. Examples of such activities include distributing food to those in need and supporting youth sports. In the future, the Group will continue to shoulder the mission of serving society, using small acts of kindness to achieve great love and give back to society.

CASE 案例：

Achieving the Title of Outstanding Volunteer Organisation

Jishan COG Co., Ltd. has actively engaged in clean energy volunteer services, actively collaborating with the local Red Cross in various public welfare activities. They have organised and participated in over 50 volunteer activities, accumulating a total service duration of approximately 1,240 hours. During the year, they were honoured with the title of "Outstanding Volunteer Organisation" by the Jishan County Committee for Spiritual Civilisation Construction. This recognition highlights their social responsibility and mission in promoting the well-being of the people and engaging in volunteer services throughout the county.

9. 溫暖同行

集團積極回應聯合國二零三零年可持續發展議程目標倡議，切身處地體會社會不同人士的需要，致力回饋社會，傳播溫暖，並付諸實際行動，全方位發展公益事業。集團已制定有關社區參與的內部規定，專注向各方弱勢社群提供援助，並成立中油燃氣義工隊，鼓勵員工參加義務工作，包括慰問老人、協助救災等活動，展現企業和員工的愛心和奉獻精神。於本年度，集團各附屬公司參與的社會公益活動包括走訪慰問、鄉村振興、扶貧、支援教育事業、義務植樹活動等。同時，集團不定期到社區及學校舉辦燃氣安全知識講座，提高用戶的燃氣安全意識。Baccalieu公司亦鼓勵員工加入義工組織，積極支持卡加利地區和其他營運所在地的社區慈善活動，例如向有需要人士派發食物、支持青少年體育運動等。未來，集團將繼續肩負服務社會的使命，以點滴善行成就大愛，回饋社會。

獲優秀志願組織稱號

稷山中油燃氣有限公司多次開展清潔能源志願服務，積極配合當地紅十字會的各项公益活動，累計組織及參與各類志願活動50餘次，服務時長約1,240小時。於本年度，其更獲得由稷山縣精神文明建設委員會頒發的「優秀志願組織」稱號，展現了其在全縣民生事業和志願服務的社會責任和使命擔當。

CASE 案例：

Rural Revitalisation and Poverty Alleviation Efforts

To promote rural revitalisation, Zhongyou Zhongtai Coalbed Methane Utilisation Jizhou Co., Ltd. has actively supported and collaborated with the poverty alleviation efforts in Yaoke Village, persistently serving the community. During the year, the local village committee presented commendation to the company, recognising their outstanding contributions to poverty alleviation.

鄉村振興扶貧工作

為推動鄉村振興，中油中泰煤層氣利用吉州有限責任公司積極支援及配合窯科村扶貧工作，堅持不懈為社會服務。於本年度，當地村民委員會各公司贈送錦旗，對公司扶貧工作予以高度的認可。



二零二三年年度環境、社會及管治報告

(continued) (續)



10. SUSTAINABILITY PERFORMANCE DATA FOR 2023

10. 二零二三年可持續發展績效數據

Environmental Performance ¹ 環境表現 ¹	Unit 單位	PRC 中國				Canada 加拿大				Total 總計	
		Quantity 數量		Intensity (Unit/million m ³ of natural gas sold) ² 密度(單位/百萬立方米已售天然氣 ²)		Quantity 數量		Intensity (Unit/MBoe) ³ 密度(單位/千桶油當量 ³)		Quantity 數量	
Resources Consumption ⁴ 資源耗用 ⁴		2023 二零二三年	2022 二零二二年	2023 二零二三年	2022 二零二二年	2023 二零二三年	2022 二零二二年	2023 二零二三年	2022 二零二二年	2023 二零二三年	2022 二零二二年
Direct Energy Consumption 直接能源消耗量	MWh 兆瓦時	4,137.91	5,518.06	0.90	1.24	52,339.33	62,772.10	29.44	35.91	56,477.24	68,290.16
Diesel 柴油	MWh 兆瓦時	83.88	1,920.63	0.018	0.430	4,736.39	1,855.02	2.664	1.061	4,820.27	3,775.65
Petrol 汽油	MWh 兆瓦時	449.23	409.58	0.098	0.092	22.19	—	0.012	—	471.42	409.58
Natural Gas 天然氣	MWh 兆瓦時	3,604.80	3,187.85	0.79	0.71	46,151.30	58,817.42	25.96	33.64	49,756.10	62,005.27
LPG LPG	MWh 兆瓦時	—	—	—	—	1,429.45	2,099.66	0.80	1.20	1,429.45	2,099.66
Indirect Energy Consumption 間接能源消耗量	MWh 兆瓦時	32,774.42	28,379.82	7.16	6.35	5,952.78	4,743.94	3.35	2.71	38,727.20	33,123.76
Purchased Electricity 外購電力	MWh 兆瓦時	32,774.42	28,379.82	7.16	6.35	5,952.78	4,743.94	3.35	2.71	38,727.20	33,123.76
Total Energy Consumption 能源消耗總量	MWh 兆瓦時	36,912.33	33,897.88	8.07	7.59	58,292.11	67,516.04	32.79	38.62	95,204.44	101,413.92
Total Water Consumption 水源消耗總量	m³ 立方米	45,187.00	41,624.07	9.88	9.32	46,776.00	52,956.80	26.31	30.29	91,963.00	94,580.87
Wastewater 廢水量	m ³ 立方米	—	—	—	—	43,660.81	44,804.50	24.56	25.63	43,660.81	44,804.50
Wastes Disposal 廢棄物棄置											
Hazardous Wastes Disposal 有害廢棄物棄置量	kg 公斤	130.67	109.60	0.029	0.025	3,225,890.00	3,004,950.00	1,814.36	1,718.90	3,226,020.67	3,005,059.60
Oil-based Drill Cutting 油基鑽屑	kg 公斤	—	—	—	—	3,225,890.00	3,004,950.00	1,814.36	1,718.90	3,225,890.00	3,004,950.00
Ink Cartridge 墨盒	kg 公斤	122.34	100.76	0.027	0.023	—	—	—	—	122.34	100.76
Battery 電池	kg 公斤	8.33	8.84	0.0018	0.0020	—	—	—	—	8.33	8.84
Non-hazardous Wastes Disposal 無害廢棄物棄置量	kg 公斤	5,439.96	4,289.72	1.19	0.96	1,874,000.00	2,562,590.00	1,054.01	1,465.86	1,879,439.96	2,566,879.72
Water-based Drill Cutting 水基鑽屑	kg 公斤	—	—	—	—	1,874,000.00	2,562,590.00	1,054.01	1,465.86	1,874,000.00	2,562,590.00
Paper 紙張	kg 公斤	5,298.96	4,154.72	1.16	0.93	—	—	—	—	5,298.96	4,154.72
Office Wastes 辦公室廢物	kg 公斤	141.00	135.00	0.031	0.030	—	—	—	—	141.00	135.00

Environmental, Social and Governance Report 2023

(continued) (續)

Environmental Performance ¹ 環境表現 ¹	Unit 單位	PRC 中國				Canada 加拿大				Total 總計	
		Quantity 數量		Intensity (Unit/million m ³ of natural gas sold ²) 密度(單位/百萬立方米已售天然氣 ²)		Quantity 數量		Intensity (Unit/MBoe ³) 密度(單位/千桶油當量 ³)		Quantity 數量	
Air Emissions ⁵ 廢氣排放量 ⁵		2023 二零二三年	2022 二零二二年	2023 二零二三年	2022 二零二二年	2023 二零二三年	2022 二零二二年	2023 二零二三年	2022 二零二二年	2023 二零二三年	2022 二零二二年
Nitrogen Oxides (NO _x) 氮氧化物 (NO _x)	kg 公斤	684.10	1,984.53	0.15	0.44	1,499,740.58	1,948,236.88	843.51	1,114.44	1,500,424.68	1,950,221.41
Sulphur Oxides (SO _x) 硫氧化物 (SO _x)	kg 公斤	0.81	3.51	0.00018	0.00079	0.10	0.15	0.000056	0.000086	0.91	3.66
Particulate Matter (PM) 顆粒物 (PM)	kg 公斤	14.72	149.72	0.0032	0.0335	—	—	—	—	14.72	149.72
Volatile Organic Compounds (VOCs) 揮發性有機化合物 (VOCs)	kg 公斤	—	—	—	—	68,230.00	88,134.92	38.38	50.42	68,230.00	88,134.92
GHG Emissions⁶ 溫室氣體排放量⁶											
Direct GHG Emissions (Scope 1) 直接溫室氣體排放量(範圍一)	tCO₂e 噸二氧化碳當量	2,879.92	2,987.89	0.63	0.67	12,919.97	15,960.67	7.27	9.13	15,799.89	18,948.56
<ul style="list-style-type: none"> Fossil Fuel Consumption 化石燃料消耗 Gas Venting and Flaring⁷ 氣體排放及火炬燃燒⁷ Direct Emissions of Nitrous Oxide 氧化亞氮直接排放 Refrigerant Consumption 製冷劑消耗 											
Energy Indirect GHG Emissions (Scope 2) 能源間接溫室氣體排放量(範圍二)	tCO₂e 噸二氧化碳當量	18,691.25	16,185.01	4.09	3.62	3,214.50	2,561.73	1.81	1.47	21,905.75	18,746.74
<ul style="list-style-type: none"> Purchased Electricity 外購電力 											
Total GHG Emissions 溫室氣體排放總量	tCO₂e 噸二氧化碳當量	21,571.17	19,172.90	4.72	4.29	16,134.47	18,522.40	9.07	10.60	37,705.64	37,695.30

Note(s):

- 1 Environmental performance data were derived from the Group's 4 selected divisions, namely the LNG processing plants, Shandong Qizhi Equipment, and the Zhuhai head office from the PRC's downstream operations, as well as Baccalieu from Canada's upstream operation. To enhance data accuracy and ensure consistency in calculation methods between the ESG Report and the emissions reduction programme under the Technology Innovation and Emissions Reduction ("TIER") Regulation, in which Baccalieu is currently participating, we have made revisions to the presentation and calculation methodology of the environmental data, resulting in the restatement of the data for 2022.

備註:

- 1 環境績效數據來自集團的4個選定部門，包括中國下游業務的LNG加工廠、山東齊智設備及珠海總部辦公室，以及加拿大上游業務的Baccalieu公司。為了提高數據準確性，並確保ESG報告數據核算方法與Baccalieu公司目前參與的技術創新與減排(TIER)法規下的減排計劃保持一致，我們已修訂環境數據的展示和計算方法，並因而重列二零二二年數據。

二零二三年年度環境、社會及管治報告

(continued) (續)



- | | | | |
|---|---|---|--|
| 2 | During the year, the total natural gas sales volume of PRC's downstream operations was approximately 4,575.00 million m ³ (2022: approximately 4,468.00 million m ³). This is used to calculate the intensity data for the PRC divisions. | 2 | 於本年度，中國下游業務的總天然氣銷售量為約4,575.00百萬立方米(二零二二年：約4,468.00百萬立方米)。此用於計算中國分部的密度數據。 |
| 3 | During the year, the total oil and gas production of Canada's upstream operations was approximately 1,777.98 MBoe (only including oil well sites operated by Baccalieu; 2022: approximately 1,748.18 MBoe). This is used to calculate the intensity data for the Canada division. | 3 | 於本年度，加拿大上游業務的總油氣產量為約1,777.98千桶油當量(僅包括由Baccalieu公司運營的油井場；二零二二年：約1,748.18千桶油當量)。此用於計算加拿大分部的密度數據。 |
| 4 | The unit conversion method of energy consumption data is based on the Energy Statistics Manual issued by the International Energy Agency. | 4 | 直接能源消耗數據的單位換算方法乃基於國際能源署所發佈之《能源數據手冊》。 |
| 5 | The calculation method and respective emission factors of air emissions are based on the Energy Statistics Manual issued by the International Energy Agency, How to prepare an ESG Report — Appendix 2: Reporting Guidance on Environmental KPIs issued by the Stock Exchange and the 4430 Factor Handbook of Industrial Boilers of Thermal Supply Industries published by the Ministry of Ecology and Environment of the People's Republic of China. | 5 | 廢氣排放的計算方法及相關排放系數計算乃基於國際能源署所發佈之《能源數據手冊》、聯交所發佈的《如何準備ESG報告 — 附錄二：環境關鍵績效指標匯報指引》及中國生態環境部最新發佈的《4430工業鍋爐(熱力供應)行業系數手冊》。 |
| 6 | The calculation method and emission factors of GHG emissions are based on the Energy Statistics Manual issued by the International Energy Agency, the Intergovernmental Panel on Climate Change ("IPCC")'s 2006 IPCC Guidelines for National Greenhouse Gas Inventories Volume 2 Energy, Fifth Assessment Report and Sixth Assessment Report, How to prepare an ESG Report — Appendix 2: Reporting Guidance on Environmental KPIs issued by the Stock Exchange, the National Inventory Report 1990 – 2021: Greenhouse Gas Sources and Sinks in Canada issued by the Canada government, and the Notice on the Management of Enterprise Greenhouse Gas Emissions Reporting for Power Industry from 2023 to 2025 published by the Ministry of Ecology and Environment of the People's Republic of China. | 6 | 溫室氣體排放量的計算方法及排放系數乃基於國際能源署所發佈之《能源數據手冊》、政府間氣候變化專門委員會(IPCC)發佈的《2006年IPCC國家溫室氣體清單指南第2卷能源》、《第五次評估報告》及《第六次評估報告》、聯交所發佈的《如何準備ESG報告 — 附錄二：環境關鍵績效指標匯報指引》、加拿大政府發佈的《1990 — 2021年國家清單報告：加拿大溫室氣體源與匯》以及中國生態環境部發佈的《關於做好2023-2025年發電行業企業溫室氣體排放報告管理有關工作的通知》。 |
| 7 | To ensure consistency in calculation methods between the ESG Report and the emissions reduction programme under the TIER regulation, in which Baccalieu is currently participating, we have assumed that the gas venting and flaring during the crude oil extraction process have the similar emission characteristics as the combustion of natural gas and methane. | 7 | 為確保核算方法及數據與Baccalieu公司目前參與的TIER法規減排計劃保持一致，我們已假設原油開採過程中的氣體排放及火炬燃燒與天然氣及甲烷的燃燒具有相似的排放特性。 |

Social Performance	Unit	As at 31 December 2023 截至二零二三年 十二月三十一日	As at 31 December 2022 截至二零二二年 十二月三十一日
社會表現	單位		
Total Number of Employees 員工總數	People 人	4,798	4,837
Proportion of Employees by Gender 按性別分類的員工比例			
Male 男性	% 百分比	66.94	67.36
Female 女性	% 百分比	33.06	32.64
Proportion of Employees by Age Group 按年齡組別分類的員工比例			
Aged 30 or Below 30歲或以下	% 百分比	23.18	25.39
Aged 31 to 50 31歲至50歲	% 百分比	45.48	65.70
Aged 51 or Above 51歲或以上	% 百分比	31.34	8.91
Proportion of Employee by Business Type 按業務類型分類的員工比例			
Supply of Pipeline Gas 管道燃氣供應	% 百分比	65.82	68.04
Logistics and Transportation 物流運輸	% 百分比	0.83	0.41
LNG Production LNG生產	% 百分比	1.92	1.90
Exploitation and Production of Crude Oil and Natural Gas 開採及生產原油及天然氣	% 百分比	15.03	16.25
Others: Energy Equipment, Financial Leasing, Real Estate, etc. 其他：能源裝備、金融租賃、房地產等	% 百分比	16.40	13.40
Proportion of Employee by Employment Type 按僱傭類型分類的員工比例			
Full-time 全職	% 百分比	100.00	100.00
Part-time 兼職	% 百分比	—	—
Proportion of Employees by Geographical Region 按地區分類的員工比例			
PRC 中國內地	% 百分比	99.52	99.60
Hong Kong 香港	% 百分比	0.25	0.19
Canada 加拿大	% 百分比	0.23	0.21

二零二三年年度環境、社會及管治報告

(continued) (續)



Social Performance 社會表現	Unit 單位	2023 二零二三年	2022 二零二二年
Overall Employee Turnover Rate⁸ 總員工流失率 ⁸	% 百分比	9.02	14.62
Employee Turnover Rate by Gender⁹ 按性別分類的員工流失率 ⁹			
Male 男性	% 百分比	9.96	17.10
Female 女性	% 百分比	7.12	9.50
Employee Turnover Rate by Age Group 按年齡組別分類的員工流失率 ⁹			
Aged 30 or Below 30歲或以下	% 百分比	19.06	18.81
Aged 31 to 50 31歲至50歲	% 百分比	9.49	11.36
Aged 51 or Above 51歲或以上	% 百分比	0.93	26.68
Employee Turnover Rate by Business Type⁹ 按業務類型分類的員工流失率 ⁹			
Supply of Pipeline Gas 管道燃氣供應	% 百分比	7.19	9.88
Logistics and Transportation 物流運輸	% 百分比	12.50	30.00
LNG Production LNG生產	% 百分比	3.26	14.13
Exploitation and Production of Crude Oil and Natural Gas 開採及生產原油及天然氣	% 百分比	17.34	35.24
Others: Energy Equipment, Financial Leasing, Real Estate, etc. 其他：能源裝備、金融租賃、房地產等	% 百分比	9.28	13.27
Employee Turnover Rate by Geographical Region⁹ 按地區分類的員工流失率 ⁹			
PRC 中國內地	% 百分比	9.03	14.65
Hong Kong 香港	% 百分比	8.33	—
Canada 加拿大	% 百分比	9.09	10.00

Social Performance 社會表現	Unit 單位	2023 二零二三年	2022 二零二二年
Overall Percentage of Employee Trained¹⁰ 總受訓員工百分比 ¹⁰	% 百分比	99.75	93.20
Proportion of Employee Trained by Gender¹¹ 按性別分類的受訓員工比例 ¹¹			
Male 男性	% 百分比	67.05	69.43
Female 女性	% 百分比	32.95	30.57
Proportion of Employee Trained by Business Type¹¹ 按業務類型分類的受訓員工比例 ¹¹			
Supply of Pipeline Gas 管道燃氣供應	% 百分比	65.98	68.55
Logistics and Transportation 物流運輸	% 百分比	0.84	0.44
LNG Production LNG生產	% 百分比	1.92	1.60
Exploitation and Production of Crude Oil and Natural Gas 開採及生產原油及天然氣	% 百分比	15.07	15.24
Others: Energy Equipment, Financial Leasing, Real Estate, etc. 其他：能源裝備、金融租賃、房地產等	% 百分比	16.19	14.17
Proportion of Employee Trained by Employment Level¹¹ 按職級分類的受訓員工比例 ¹¹			
Senior Management 高級管理層	% 百分比	4.10	4.10
Middle Management 中級管理層	% 百分比	11.30	13.91
Entry-level Employees 基層員工	% 百分比	84.60	81.99

二零二三年年度環境、社會及管治報告

(continued) (續)



Social Performance 社會表現	Unit 單位	2023 二零二三年	2022 二零二二年
Average Training Hours Completed per Employee¹² 每名僱員完成受訓的平均時數 ¹²	Hours 小時	251.86	236.20
Average Training Hours Completed per Employee by Gender¹³ 按性別分類的員工平均受訓時數 ¹³			
Male 男性	Hours 小時	252.29	243.63
Female 女性	Hours 小時	251.01	220.86
Average Training Hours Completed per Employee by Business Type¹³ 按業務類型分類的員工平均受訓時數 ¹³			
Supply of Pipeline Gas 管道燃氣供應	Hours 小時	253.00	238.26
Logistics and Transportation 物流運輸	Hours 小時	317.50	317.50
LNG Production LNG生產	Hours 小時	211.00	165.65
Exploitation and Production of Crude Oil and Natural Gas 開採及生產原油及天然氣	Hours 小時	250.64	222.01
Others: Energy Equipment, Financial Leasing, Real Estate, etc. 其他：能源裝備、金融租賃、房地產等	Hours 小時	249.87	250.47
Average Training Hours Completed per Employee by Employment Level¹³ 按職級分類的員工平均受訓時數 ¹³			
Senior Management 高級管理層	Hours 小時	259.01	257.95
Middle Management 中級管理層	Hours 小時	736.18	267.24
Entry-level Employees 基層員工	Hours 小時	186.25	230.25
Number of Suppliers by Geographical Region 按地區分類的供應商數量			
PRC 中國內地	Number 家	186	181
Canada 加拿大	Number 家	540	548

Note(s):

- 8 Overall employee turnover rate = Total number of employees who left during the year \div Total number of employees at the end of the year \times 100%.
- 9 Employee turnover rate for each category = Number of employees who left in the category during the year \div Number of employees in the category at the end of the year \times 100%.
- 10 Overall percentage of employee trained = Total number of employees trained during the year \div Total number of employees at the end of the year \times 100%.
- 11 Proportion of employee trained for each category = Number of employees trained in the category during the year \div Total number of employees trained during the year \times 100%. The disclosure of data classified by employment level has been newly included, and the data for 2022 has been supplemented.
- 12 Average training hours completed per employee = Total training hours received by employees during the year \div Total number of employees at the end of the year.
- 13 Average training hours completed per employee for each category = Training hours received by employees in the category during the year \div Number of employees in the category at the end of the year. The disclosure of data classified by employment level has been newly included, and the data for 2022 has been supplemented.

備註：

- 8 總員工流失率=全年離職員工總人數 \div 年末員工總人數 \times 100%。
- 9 各類別的員工流失率=全年該類別的離職員工人數 \div 年末該類別的員工人數 \times 100%。
- 10 總受訓員工百分比=全年受訓員工總人數 \div 年末員工總人數 \times 100%。
- 11 各類別受訓員工比例=全年該類別的受訓員工人數 \div 全年受訓員工總人數 \times 100%。已新增披露按職級分類的數據，並已補充二零二二年有關數據。
- 12 每名員工完成受訓的平均時數=全年員工受訓總時數 \div 年末員工總人數。
- 13 各類別員工平均受訓時數=全年該類別的員工受訓時數 \div 年末該類別的員工人數。已新增披露按職級分類的數據，並已補充二零二二年有關數據。



APPENDIX: INDEX TABLE OF THE STOCK EXCHANGE'S ESG REPORTING GUIDE 附錄：聯交所之ESG報告指引索引

Mandatory Disclosure Requirements 強制披露規定

	Section 章節
Governance Structure 管治架構	2
Reporting Principles 匯報原則	1
Reporting Boundary 匯報範圍	1

General Disclosures and KPIs 一般披露及關鍵績效指標

	Description 描述	Section 章節
Environmental Aspect 環境範疇		
Aspect A1: Emission 層面A1：排放物		
General Disclosure 一般披露	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 non-hazardous waste 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。	6
KPI A1.1 關鍵績效指標 A1.1	The types of emissions and respective emissions data. 排放物種類及相關排放數據。	10
KPI A1.2 關鍵績效指標 A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility). 直接(範圍1)及能源間接(範圍2)溫室氣體排放量(以噸計算)及(如適用)密度(如以每產量單位、每項設施計算)。	10
KPI A1.3 關鍵績效指標 A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility). 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)。	10
KPI A1.4 關鍵績效指標 A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility). 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)。	10
KPI A1.5 關鍵績效指標 A1.5	Description of emissions target(s) set and steps taken to achieve them. 描述所訂立的排放量目標及為達到這些目標所採取的步驟。	6
KPI A1.6 關鍵績效指標 A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them. 描述處理有害及無害廢棄物的方法，及描述所訂立的減廢目標及為達到這些目標所採取的步驟。	6

General Disclosures and KPIs 一般披露及關鍵績效指標	Description 描述	Section 章節
Aspect A2: Use of Resources		
層面A2：資源使用		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials	6
一般披露	有效使用資源(包括能源、水及其他原材料)的政策。	
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	10
關鍵績效指標 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)。	
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	10
關鍵績效指標 A2.2	總耗水量及密度(如以每產量單位、每項設施計算)。	
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them	6
關鍵績效指標 A2.3	描述所訂立的能源使用效益目標及為達到這些目標所採取的步驟。	
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	6
關鍵績效指標 A2.4	描述求取適用水源上可有任何問題，以及所訂立的用水效益目標及為達到這些目標所採取的步驟。	
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	N/A
關鍵績效指標 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。	不適用
Aspect A3:		
The Environment and Natural Resources		
層面A3：環境及天然資源		
General Disclosure	Policies on minimising the issuer's significant impacts on the environment and natural resources.	6
一般披露	減低發行人對環境及天然資源造成重大影響的政策。	
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	6
關鍵績效指標 A3.1	描述業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動。	
Aspect A4:		
Climate Change		
層面A4：氣候變化		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	6
一般披露	識別及應對已經及可能會對發行人產生影響的重大氣候相關事宜的政策。	
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	6
關鍵績效指標 A4.1	描述已經及可能會對發行人產生影響的重大氣候相關事宜，及應對行動。	

二零二三年年度環境、社會及管治報告

(continued) (續)



General Disclosures and KPIs 一般披露及關鍵績效指標	Description 描述	Section 章節
Social Aspect 社會範疇		
Employment and Labour Practices 僱傭及勞工常規		
Aspect B1: Employment 層面B1：僱傭		
General Disclosure	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. 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：	7
一般披露	(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。	
KPI B1.1	Total workforce by gender, employment type (for example, full- or parttime), age group and geographical region.	10
關鍵績效指標 B1.1	按性別、僱傭類型(如全職或兼職)、年齡組別及地區劃分的僱員總數。	
KPI B1.2	Employee turnover rate by gender, age group and geographical region	10
關鍵績效指標 B1.2	按性別、年齡組別及地區劃分的僱員流失比率。	
Aspect B2: Health and Safety 層面B2：健康與安全		
General Disclosure	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 environment and protecting employees from occupational hazards	4
一般披露	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規例的資料。	
KPI B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year.	4
關鍵績效指標 B2.1	過去三年(包括匯報年度)每年因工亡故的人數及比率。	
KPI B2.2	Lost days due to work injury.	4
關鍵績效指標 B2.2	因工傷損失工作日數。	
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	4
關鍵績效指標 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。	

General Disclosures and KPIs 一般披露及關鍵績效指標	Description 描述	Section 章節
Aspect B3: Development and Training		
層面B3：發展及培訓		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	7
一般披露	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。	
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	10
關鍵績效指標 B3.1	按性別及僱員類別(如高級管理層、中級管理層)劃分的受訓僱員百分比。	
KPI B3.2	The average training hours completed per employee by gender and employee category.	10
關鍵績效指標 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。	
Aspect B4: Labour Standards		
層面B4：勞工準則		
General Disclosure	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 labour.	7
一般披露	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規例的資料。	
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	7
關鍵績效指標 B4.1	描述檢討招聘慣例的措施以避免童工及強制勞工。	
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	7
關鍵績效指標 B4.2	描述在發現違規情況時消除有關情況所採取的步驟。	

二零二三年年度環境、社會及管治報告

(continued) (續)



General Disclosures and KPIs 一般披露及關鍵績效指標	Description 描述	Section 章節
Operating Practices 營運慣例		
Aspect B5: Supply Chain Management 層面B5：供應鏈管理		
General Disclosure 一般披露	Policies on managing environmental and social risks of the supply chain. 管理供應鏈的環境及社會風險政策。	4
KPI B5.1 關鍵績效指標 B5.1	Number of suppliers by geographical region. 按地區劃分的供應商數目。	10
KPI B5.2 關鍵績效指標 B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored. 描述有關聘用供應商的慣例，向其執行有關慣例的供應商數目，以及相關執行及監察方法。	4
KPI B5.3 關鍵績效指標 B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored. 描述有關識別供應鏈每個環節的環境及社會風險的慣例，以及相關執行及監察方法。	4
KPI B5.4 關鍵績效指標 B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored. 描述在揀選供應商時促使多用環保產品及服務的慣例，以及相關執行及監察方法。	4
Aspect B6: Product Responsibility 層面B6：產品責任		
General Disclosure 一般披露	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, labelling and privacy matters relating to products and services provided and methods of redress. 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：	4, 5
KPI B6.1 關鍵績效指標 B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons. 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。	5
KPI B6.2 關鍵績效指標 B6.2	Number of products and service related complaints received and how they are dealt with. 接獲關於產品及服務的投訴數目以及應對方法。	5
KPI B6.3 關鍵績效指標 B6.3	Description of practices relating to observing and protecting intellectual property rights. 描述與維護及保障知識產權有關的慣例。	5
KPI B6.4 關鍵績效指標 B6.4	Description of quality assurance process and recall procedures. 描述質量檢定過程及產品回收程序。	5
KPI B6.5 關鍵績效指標 B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored. 描述消費者資料保障及私隱政策，以及相關執行及監察方法。	5

General Disclosures and KPIs 一般披露及關鍵績效指標	Description 描述	Section 章節
Aspect B7: Anti-corruption 層面B7：反貪污		
General Disclosure 一般披露	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. 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規例的資料。	8
KPI B7.1 關鍵績效指標 B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases. 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。	8
KPI B7.2 關鍵績效指標 B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored. 描述防範措施及舉報程序，以及相關執行及監察方法。	8
KPI B7.3 關鍵績效指標 B7.3	Description of anti-corruption training provided to directors and staff. 描述向董事及員工提供的反貪污培訓。	8
Community 社區		
Aspect B8: Community Investment 層面B8：社區投資		
General Disclosure 一般披露	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. 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。	9
KPI B8.1 關鍵績效指標 B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport) 專注貢獻範疇(如教育、環境事宜、勞工需求、健康、文化、體育)。	9
KPI B8.2 關鍵績效指標 B8.2	Resources contributed (e.g. money or time) to the focus area. 在專注範疇所動用資源(如金錢或時間)。	9