

中國建築興業集團有限公司

CHINA STATE CONSTRUCTION DEVELOPMENT HOLDINGS LIMITED

(Incorporated in the Cayman Islands with limited liability) (於開曼群島註冊成立之有限公司) Stock Code 股份代號: 00830







CONTENTS 目錄



02	Definitions	詞彙釋義
04	Message from the Board	董事局寄語
06	About the Group	關於本集團
	Main Business	主要業務
	Organisational Structure	組織架構
	Highlighted Projects	重點項目回顧
15	Sustainability Topics	可持續發展專題
	Topic 1:	專題一:
	Green Finance for Steady Progress	綠色金融 穩步推進
	Topic 2:	專題二:
	Technological Innovation Leads The Way	科技創新領潮前行
	Topic 3:	專題三:
	Developing Building-Integrated Photovoltaic (BIPV)	BIPV技術,推動可再
	Technologies And Driving Renewable Energy Projects	生能源項目
	reclinologies And Driving Kenewable Energy Projects	工形///
20	Governance Optimisation	優化管治
20		
20	Governance Optimisation	優化管治
20	Governance Optimisation Sustainability Strategy	優化管治 可持續發展策略
20	Governance Optimisation Sustainability Strategy Sustainability Governance Structure	優化管治 可持續發展策略 可持續發展管治架構
20	Governance Optimisation Sustainability Strategy Sustainability Governance Structure Sustainability Risk Management	優化管治 可持續發展策略 可持續發展管治架構 可持續發展風險管理
20	Governance Optimisation Sustainability Strategy Sustainability Governance Structure Sustainability Risk Management Stakeholder Engagement	優化管治 可持續發展策略 可持續發展管治架構 可持續發展風險管理 持份者溝通
32	Governance Optimisation Sustainability Strategy Sustainability Governance Structure Sustainability Risk Management Stakeholder Engagement Materiality Assessment Integrity and Anti-corruption	優化管治 可持續發展策略 可持續發展管治架構 可持續發展風險管理 持份者溝通 重要性評估
	Governance Optimisation Sustainability Strategy Sustainability Governance Structure Sustainability Risk Management Stakeholder Engagement Materiality Assessment Integrity and Anti-corruption	優化管治 可持續發展策略 可持續發展管治架構 可持續發展風險管理 持份者溝通 重要性評估 誠信廉潔
	Governance Optimisation Sustainability Strategy Sustainability Governance Structure Sustainability Risk Management Stakeholder Engagement Materiality Assessment Integrity and Anti-corruption Strategic Development	優化管治 可持續發展策略 可持續發展管治架構 可持續發展風險管理 持份者溝通 重要性評估 誠信廉潔
32	Governance Optimisation Sustainability Strategy Sustainability Governance Structure Sustainability Risk Management Stakeholder Engagement Materiality Assessment Integrity and Anti-corruption Strategic Development Pursue Quality Excellence	優化管治 可持續發展策略 可持續發展管治架構 可持續發展風險管理 持份者溝通 重要性評估 誠信廉潔 策略性發展
32	Governance Optimisation Sustainability Strategy Sustainability Governance Structure Sustainability Risk Management Stakeholder Engagement Materiality Assessment Integrity and Anti-corruption Strategic Development Pursue Quality Excellence Technological Innovation	優化管治 可持續發展策略 可持續發展(管治架構 可持續發展風險管理 持份者溝通 重要性評估 誠信廉潔 策略性發展 追求卓越品質
32	Governance Optimisation Sustainability Strategy Sustainability Governance Structure Sustainability Risk Management Stakeholder Engagement Materiality Assessment Integrity and Anti-corruption Strategic Development Pursue Quality Excellence Technological Innovation Building a Sustainable Supply Chain	優化管治 可持續發展策略 可持續發展風險管理 持份者溝通 重要性評估 誠信廉潔 策略性發展 追求卓越品質 科技創新 建設可持續供應鍵



48	Supporting Talent Development	支持人才發展
	Legitimate Employment Management	合法僱傭管理
	Talent Training and Development	人才培訓發展
	Occupational Health and Safety	職業健康安全
	Ensure Employee Benefits	保障員工福利
	Relation With Staff	員工關係
63	Excellent Environmental Management	卓越環境管理
	Implementation of Environmental Targets	落實環境目標
	Strict Control and Management of Emissions	嚴控排放管理
	Efficient Use of Energy and Resources	善用能源資源
	Green Office	踐行綠色辦公
	Raising of Environmental Protection Awareness	提高環保意識
	Tackling Climate Change	應對氣候變化
82	Serving and Giving Back to Society	服務回饋社會
	Caring About Youth Development	關注青少年發展
	Enthusiastic About Community Service	熱心社區服務
86	KPIs in Social Aspect	社會層面關鍵 績效指標總覽
88	KPIs in Environmental Aspect	環境層面關鍵績 效指標總覽
90	Appendix I: About the Report	附錄一:關於本報告
	Reporting Boundary	報告範圍
	Reporting Basis and Guideline	編制基準及原則
	Review and Approval	審核及批准
	Feedback Channel	回饋機制
92	Appendix II: Independent Verification Statement	附錄二:獨立驗證 聲明
94	Appendix III: Compliance with Laws and Regulations that Have Significant	附錄三:遵守對本集 團有重大影響的相
	Impacts on the Group	關法律法規
	Appendix IV: Content Index of	附錄四: 香港聯交所
102	the ESG Reporting Guide of the	《ESG報告指引》及
	Stock Exchange and GRI Standards	《GRI標準》內容索引

DEFINITIONS 詞匯釋義

The following words and expressions shall have the following definitions unless otherwise stipulated in the Report. 除非報告中另有説明,否則下列詞匯的定義如下:



		/	
"ACS"	「ACS」	Auto control system	智慧控制系統
"BIM"	ГВІМ 📗	Building information modelling	建築信息模型
"BIPV"	ГВІРѴЈ	Building-integrated photovoltaics	建築光伏一體化
"Board"	「董事局」	the Board of Directors of China State Construction Development Holdings Limited	中國建築興業集團有限公司之董事局
"China Overseas Supervision"	「中海監理」	China Overseas Supervision Company Limited*	中海監理有限公司
"CNC"	「CNC」	Computer numerical control	計算機數字化控制
"COP27"	「COP27」	The 27th Conference of the Parties of the United Nations Framework Convention on Climate Change	《聯合國氣候變化框架公約》第二十七次締約方會議
"COVID-19 pandemic"	「新冠疫情」	the pandemic of Coronavirus Disease 2019	2019新型冠狀病毒疫情
"CSC Development" or "Company"	「中國建築興業」或 「本公司」	China State Construction Development Holdings Limited	中國建築興業集團有限公司
"ESG Reporting Guide"	「《ESG報告指引》」	the Environmental, Social and Governance Reporting Guide as set out in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited	《香港聯合交易所有限公司證券上市規則》附錄二十七《環境、社會及管治報告指引》
"Far East (Hong Kong)"	「遠東香港」	Far East Facade (Hong Kong) Limited	遠東幕牆(香港)有限公司
"Far East (Shanghai)"	「遠東上海」	Netfortune (Shanghai) Aluminium Works Company Limited*	上海力進鋁質工程有限公司
"Far East (Zhuhai)"	「遠東珠海」	Far East Facade (Zhuhai) Limited*	遠東幕牆(珠海)有限公司
"FSC"	「FSC	Forest Stewardship Council	森林管理委員會
"Gamma Canada"	「遠東加拿大」	Gamma Windows and Walls International Inc.	Gamma Windows and Walls International Inc.
"Gamma USA"	「遠東美國」	Gamma USA, Inc.	Gamma USA, Inc.

^{*} For identification purpose only. 僅供識別之用。





"GRI"	「GRI」	Global Reporting Initiative	全球報告倡議組織
"Group"	「本集團」	Collective reference of China State Construction Development Holdings Limited and its subsidiaries	中國建築興業集團有限公司及其附屬公司的統稱
"Huanggu Thermoelectricity"	「皇姑熱電」	Shenyang Huanggu Thermoelectricity Company Limited*	瀋陽皇姑熱電有限公司
"ISO"	「ISO」	International Organization for Standardization	國際標準化組織
"MiC"	「 MiC 」	Modular integrated construction	組裝合成建築法
"PDCA"	「PDCA」	Plan-Do-Check-Act	策劃-實施-檢查-改進
"PIMS"	「PIMS 」	Project integrated management system	項目綜合管理系統
"Report"	「本報告」	Sustainability Report 2022 of China State Construction Development Holdings Limited	中國建築興業集團有限公司之2022可持續發展報告
"Stock Exchange"	「香港聯交所」	The Stock Exchange of Hong Kong Limited	香港聯合交易所有限公司
"Subsidiaries"	「附屬公司」	Subsidiaries of China State Construction Development Holdings Limited covered in the scope of the Report (see Reporting Scope in Appendix I)	本報告範圍內所包括的中國建築興業集團有限公司之 附屬公司(詳見附錄一的「報告範圍」章節)
"TCFD"	「TCFD」	Task Force on Climate-Related Financial Disclosures	氣候相關財務揭露
"Treasure Construction"	「海悦建築」	Treasure Construction Engineering Limited	海悦建築工程有限公司
"UNSDGs"	「UNSDGs 」	United Nations Sustainable Development Goals	聯合國可持續發展目標
"year" "2022", or "reporting period"	「本年度」、「 2022 年 度」或「報告期」	From 1 January 2022 to 31 December 2022	2022年1月1日至2022年12月31日

^{*} For identification purpose only. 僅供識別之用。



China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022





MESSAGE FROM THE BOARD 董事局寄語



The Board extends sincere gratitude to all sectors of society for their ongoing care and support. Looking back on 2022, the Group has made significant progress in sustainable development. Despite the continued instability of the global economy, we are optimistic about the outlook for 2023 as coronavirus restrictions in Mainland China began to ease. The Group will seize the opportunities brought by the market recovery, continue to focus on sustainable development and improve stakeholder well-being, to ensure the steady development of our business.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

In 2022, the Board led the Group to strengthen sustainable development management and risk control. During the reporting period, we brought the existing Sustainability Committee to the Board level, being authorized to assist the Board in supervising and managing sustainable development issues to ensure effective implementation of sustainable development policies. To realize our corporate vision, we established a sustainable development framework composed of five key pillars and formulated a sustainable development roadmap based on the framework, with a special focus on environmental management and short, medium, and long-term strategic goals. At the same time, we continuously improved our sustainable development risk management system, strengthened risk identification and prevention, established a sustainable development risk management framework and sustainable development risk assessment process, and had clear responsibility division.

In terms of intelligent development, the Group is committed to adopting low-carbon environmental protection technologies and methods to promote sustainable development of the economy, society, and environment. Leveraging our industry experience and strength, we actively researched and developed BIPV technology, applied it to wider areas, and launched a variety of BIPV products. Through diverse BIPV projects, we have not only utilized renewable energy in construction projects of the Group, but also launched cross-industry and cross-enterprise cooperation, and launched various types of BIPV products with continuous innovation. In addition, in terms of R&D, we have obtained a number of international authoritative certifications and awards, further proving that we have achieved remarkable results in sustainable development research and practice.

In terms of environmental protection, the Group is committed to supporting global decarbonization efforts. At COP27 in November 2022, the global community agreed to limit global warming to 1.5 degrees Celsius above pre-industrial levels and reduce greenhouse gas emissions within 20 years. Therefore, we seek more environmentally friendly solutions in our business and operations, and have specifically prioritized carbon-neutral transformation and green production in our roadmap. In response to the challenges of climate change, the Group has set a goal of carbon neutrality by 2060 and adopted measures to enhance energy efficiency to achieve this goal.

董事局由衷感謝社會各界一直以來的關心與支持。回顧2022年,本 集團繼續在可持續發展方面取得重大進展。儘管全球經濟仍然存在 不穩定性,但隨著中國內地放寬新冠疫情的限制,我們對2023年的 前景感到樂觀。本集團將抓緊市場復甦所帶來的機遇,繼續致力於 可持續發展,提升持份者的福祉,以確保本集團的業務穩健發展。

於2022年,董事局帶領本集團逐步加強可持續發展管理和風險控制。 在報告期內,我們將現行的可持續發展委員會提升至董事局層面, 由董事局直接授權協助其監督及管理可持續發展事宜,確保可持續 發展政策能有效落實。為實現企業願景,我們建立了由五大關鍵支 柱所組成的可持續發展框架,並按框架制定可持續發展路線圖,特 別聚焦環境管理,確立短、中、長期戰略目標。同時,我們持續完 善可持續發展風險管理制度,加強風險識別與防範,本集團已建立 可持續發展風險管理架構及可持續發展風險評估流程,並具備明確 的職責分工。

在智慧化發展方面,本集團致力於採取更低碳環保的技術和方法, 促進經濟、社會和環境的可持續發展。我們利用所掌握的行業經驗 和實力,積極研究和開發BIPV技術,並將其應用到更廣泛的領域。 通過多樣化的BIPV項目,我們不僅在本集團內的建築項目上實現了 可再生能源的使用,同時也在跨行業、跨企業級別上展開了合作, 並推出了各類型BIPV產品,不斷創新。此外,在研發方面,我們取 得了多項國際權威認證和獎項的肯定,進一步證明我們在可持續發 展的研究及實踐方面取得了顯著成果。

在環境保護方面,本集團致力支持全球的脱碳努力。在2022年11月 的COP27中,全球共同確定了將全球變暖幅度控制在比工業化前水 準高1.5攝氏度的目標,同時也要在20年內減少溫室氣體排放。因 此,我們也於業務和運營中尋求更環保的解決方案,我們特別在路 線圖中將碳中和轉型和綠色生產作為重點。針對氣候變化的挑戰, 本集團已經設定了在2060年前達至碳中和的目標,並採取了多項提 升能源效益的措施,以實現這一目標。









In terms of talent management, the Group continues to strengthen employee training and development in all areas to continuously improve their abilities and qualities. We hired professional ESG consulting companies to provide relevant training for employees and strengthen their understanding of sustainable development. At the same time, we actively organize community activities, such as training workshops and environmental hygiene campaigns to encourage employees to contribute to society. In 2022, we received recognition and commendation from the country, party, city, and town committees for our outstanding performance in dedication and social impact.

In terms of product and service quality, the Group insists on improving the quality of products and services to build business foundations. During the reporting period, the Group was awarded the "Best Small and Medium Value Company" at the Seventh Zhitong Caijing Listed Company Award in December 2022 and the "Sustainable Operations Award 2022" by SocietyNext Foundation in February 2023, which reflects our constant pursuit of corporate quality and sustainable development.

In the future, the Board will put more spotlights to the Group's sustainable development vision and mission and make every effort to strengthen the execution of the sustainable development roadmap strategy to promote the effective deployment and execution of various important sustainable development matters. We believe that sustainable development goals can only be achieved through cooperation among all parties. We sincerely thank the company's employees and management team for their support and efforts, enabling us to better fulfill our social responsibilities and achieve greener, harmonious, and sustainable development.

在人才管理方面,本集團不斷加強員工各方面的培訓和發展,以不 斷提升員工的能力和素質。在報告期內,我們聘請了專業的ESG顧 問公司為員工提供相關培訓,加強員工對可持續發展的認識。同時, 我們積極舉辦社區活動,如培訓工作坊、環衛行動等,鼓勵員工回 饋社會,貢獻自己的力量。於2022年,我們受到國家的認可和表揚, 榮獲黨、市、鎮委員等多項獎勵和證書,證明本集團在奉獻精神和 社會影響力方面的非凡表現。

在產品和服務質量方面,本集團堅持對產品與服務品質的提升,建 設業務基礎。在報告期內,本集團於2022年12月榮獲「第七屆智通 財經上市公司評選」中的「最佳中小市值公司」獎項,以及2023年2 月榮獲由社群創客基金(SocietyNext Foundation)頒發的「可持續營運 獎2022」,這充分體現了本集團不斷追求企業品質及可持續發展的 理念。

展望未來,董事局將更加重視本集團的可持續發展願景和使命,並 全力加強可持續發展路線圖策略的執行,以推動各項重要可持續發 展事宜的有效部署和執行。我們相信,只有與各方攜手合作,才能 實現可持續發展的目標。在此,謹向公司員工和管理團隊致上最真 摯的感謝,感謝他們的支持與努力,使我們能夠更好地履行社會責 任,實現更加綠色、和諧、可持續的發展。



CORPORATE PROFILE

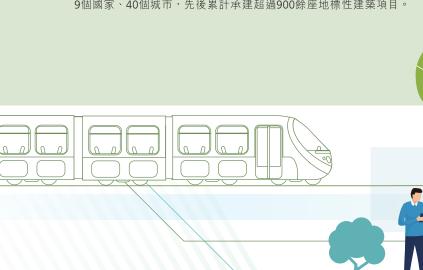
After more than 50 years of continuous development since its establishment in 1969, the Group has gradually developed a dual-core-driven development model of construction engineering business and operating management business. Currently, it has formed a diversified business structure integrating facade contracting business, general contracting business, supervision business, as well as investing and operating business. Based in Mainland China, Hong Kong and Macau, the Group's business covers 5 continents, 9 countries and 40 cities, and has successively undertaken more than 900 landmark building projects.

公司簡介

本集團自1969年成立以來,經過五十餘年的持續發展,逐步形成建築工程業務與運營管理業務雙核驅動的發展模式,目前已構成以幕牆工程業務、總承包業務、監理業務、投資運營業務一體的多元發展業態。本集團以中國內地、港澳業務為基礎,業務遍及5大洲、9個國家、40個城市,先後累計承建超過900餘座地標性建築項目。

About the Group

關於本集團











ABOUT THE GROUP 關於本集團

MAIN BUSINESS 主要業務



MAIN BUSINESS SEGMENTS OF THE GROUP 本集團主要業務板塊



CONSTRUCTION ENGINEERING BUSINESS

建築工程業務

OPERATING MANAGEMENT BUSINESS

運營管理業務



Facade Contracting Business

The facade contracting business of the Group provides one-stop facade solutions for high-end property projects, covering design, procurement, production, and installation. Over the years, the brand "Far East Facade" has earned a positive brand effect in the market with high quality products and premium services. Receiving extensive recognition from all sectors of society, Far East Facade has grown into a prestigious and professional glass curtain wall brand worldwide.

The Group expands its global presence with a number of facade contracting subsidiaries. Our Group launches business in Hong Kong, Macau, the United Kingdom and Australia through Far East (Hong Kong); Our Group launches business in Mainland China through Far East (Shanghai) and Far East (Zhuhai); Our Group launches business in North America through Gamma North Corporation, Gamma USA and Gamma Canada.

本集團幕牆工程業務專為高端物業發展項目提供設 計、採購、生產、安裝一站式幕牆解決方案。多年 來,「遠東幕牆 | 品牌憑藉高端品質和優質服務在市 場已形成良好企業品牌效應,獲得社會各界廣泛認 可,成為享負盛名的國際級玻璃幕牆專業品牌

本集團依託旗下多家幕牆工程業務企業開拓全球市 場。其中,本集團通過遠東香港開展港澳、英國、澳 洲業務;通過遠東上海、遠東珠海等開展中國內地 業務;通過Gamma North Corporation、遠東美國以 及遠東加拿大開展北美業務。

General Contracting Business

The Group conducts general contracting business through Treasure Construction, which is mainly engaged in building construction, and building maintenance, repair and improvements. Since being acquired in 2014, Treasure Construction has undertaken projects worth nearly Hong Kong dollar (HK\$) 7.4 billion, with a cumulative turnover of more than HK\$5.8 billion.

總承包業務

本集團總承包業務通過海悦 建築開展,主要從事樓宇建 造工程及樓宇保養、維修和 改善工程等業務。自2014年 被收購以來,海悦建築累計 承接總承包工程金額接近港 幣74億元,累計營業額超過 港幣58億元。

Supervision Business

The Group conducts supervision business through China Overseas Supervision. China Overseas Supervision holds a comprehensive certificate in construction supervision issued by the Ministry of Housing and Urban-Rural Development of the People's Republic of China. It has undertaken more than 1,000 construction supervision and engineering consulting projects of all types, and has received more than 40 national awards such as the China Construction Engineering Luban Prize, China Civil Engineering Zhan Tianyou Award, National Quality Project Award, and China Steel Structure Gold Award as well as national, provincial, and municipal honorary titles of advanced supervision enterprise. In recent years, China Overseas Supervision has been seeking transformation and upgrade by exploring full-process engineering consulting services.

本集團監理業務通過中海監理開展。中海監 理擁有國家住房和城鄉建設部頒發的工程監 理綜合資質,累計承接各類工程監理和工程 諮詢項目逾千項,先後榮獲「中國建設工程魯 班獎 |、「中國土木工程詹天佑獎 |、「國家優 質工程獎」、「中國鋼結構金獎」等四十多項國 家級獎項以及全國、省級及市級先進監理企 業榮譽稱號。近年來,中海監理著力開拓全 過程工程諮詢業務,全力促進轉型升級。

Investing and Operating Business

In recent years, the Group has been actively developing its investing and operating business. In 2019, the Group acquired Huanggu Thermoelectricity, which is now a wholly-owned subsidiary. Huanggu Thermoelectricity is a Combined Heat and Power (CHP) local thermoelectricity company, specialising in the generation and sales of electricity and heat and energy development. CHP is known as a "blue sky and clear waters" project, as it promotes the intensive and efficient resources consumption and brings high environmental benefits.

投資運營業務

業務,並於2019年收購全資附屬公 司皇姑熱電。皇姑熱電以電力、熱 力生產、銷售及能源開發為主要業 務,為一家熱電聯產型的地方熱電 企業。熱電聯產被譽為「藍天碧水」 工程,有利於資源的集約化高效利 用,擁有較高的環境效益。











DEVELOPMENT JOURNEY OF CSC DEVELOPMENT 中國建築興業發展歷程

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022



1969	The Group officially launched facade business	本集團正式開展幕牆業務
2010	Successful listing on the Main Board of the Stock Exchange, with the stock code 0830	本公司成功於香港聯交所主板上市,股票代號為0830
2012	Acquisition by China State Construction International Holdings Limited (stock code: 3311), opening a new chapter of development	被中國建築國際集團有限公司(股票代號:3311)收購,進 入新的發展階段
2013-2016	Expansion in Hong Kong, Macau and overseas markets	持續開拓港澳及國際市場
2017	Re-entry into the UK market; winning the bid of The Stage, a residential project in London	重新開拓英國市場,並成功中標倫敦城市舞台(The Stage) 住宅項目
2018	Far East (Zhuhai) officially put into operation; Acquisition of China Overseas Supervision in the same year	遠東珠海正式投產;同年收購中海監理
2019	Formally renamed as China State Construction Development Holdings Limited, embarking on a new journey	正式更名為「中國建築興業集團有限公司」,開啟歷史新征程
2020	Achieving a two-digit profit growth despite the COVID-19 pandemic; the value of newly signed facade contracting contracts in Mainland China hitting an all-time high	新冠疫情下業績逆勢上升,實現雙位數利潤增長,中國內 地幕牆工程業務新簽合約額創歷史新高
2021	Completion of the renaming of subsidiaries in the facade contracting business segment; continuous development of all business segments	完成幕牆工程業務附屬公司更名工作,各業務板塊持續發 展
2022	Attaining a milestone with overall turnover surpassing \$10 billion for the first time and all major business indicators hitting historical highs again.	實現里程碑式突破,整體成交額首次突破百億大關,各項主要經營指標再創歷史新高。









ORGANISATIONAL STRUCTURE 組織架構

State-owned Assets Supervision and Administration Commission of the State Council

國務院國有資產監督管理委員會

China State Construction Engineering Corporation*

中國建築集團有限公司

China State Construction Engineering Corporation Limited

中國建築股份有限公司

China Overseas Holdings Limited

中國海外集團有限公司

China State Construction International Holdings Limited

中國建築國際集團有限公司

China State Construction Development Holdings Limited

中國建築興業集團有限公司

^{*} For identification purpose only. 僅供識別之用。



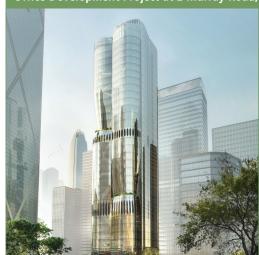






HIGHLIGHTED PROJECTS 重點項目回顧

Office Development Project at 2 Murray Road, Central, Hong Kong •香港中環美利道2號商業發展項目



Estimated year of completion 預計竣工時間	2023
Facade area	25,000 square metres
幕牆面積	25,000 平方米
Project scope	Design, supply and installation of glass curtain wall, louvres, glass doors, etc. for a 39-storey tower building
工程範圍	設計、供應及安裝一座39層高塔樓之玻璃幕牆、玻璃欄河、百葉及玻璃門等
Project feature 項目特點	Highlighted by high-difficulty hyperbolic facade, the project carries unique artistic value and will become a new landmark in Hong Kong after its completion. 該幕牆工程項目採用高難度雙曲幕牆,匠心獨運,建成後將成為香港一大嶄新地標







Calaxy macaa i mass i i rojecti macaa 100 1000	10/10/00		
	Estimated year of completion 預計竣工時間	2024	
	Facade area 幕牆面積	192,000 square metres 192,000 平方米	
	Project scope 工程範圍	unit glass curtain wall for atrium panels, glass walls with columns, 設計、供應、安裝7座酒店(T1/2	7 hotels (T1/2, T3, T4/5, T6, T7 and podium), a theatre facade, a skylight, unit aluminium panel decorative strips, aluminium wall hyperbolic aluminium panels with steel frames, UHPC panels, etc.、T3、T4/5、T6、T7及裙樓)、1座劇院外牆、1個中庭天窗之單
	Project feature 項目特點	panels and UHPC panels, the pro- upon completion.	as colossal units, giant aluminium panels, hyperbolic aluminium lect will be the world's single largest curtain wall construction 出板、UHPC板等較為複雜的系統,建成後將成為全球單體最















<u> </u>	
Facade area	40,000 square metre
幕牆面積	40,000 平方米

Project scopeDesign, supply and installation of glass curtain walls, aluminium decorative strips,工程範圍aluminium grilles and dropped ceiling for a 41-storey commercial building設計、供應、及安裝一座41層商業大樓之玻璃幕牆、鋁裝飾條、鋁格柵及吊頂

Project feature 項目特點

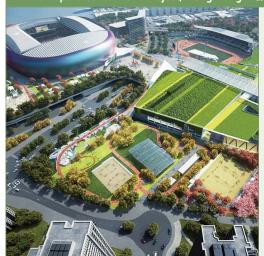
Year of completion

Containing heavy colossal units (exceeding 3 metres in width), hyperbolic glass curtain wall units, hyperbolic aluminium panels and various challenging curved glass curtain wall systems, this project involves single units that are among the heaviest and largest created in Far East Facade's projects. This project brings a brand-new landmark commercial building on Hong Kong Island upon completion.

項目包括超大超重單元件(超過3米闊度)、雙曲玻璃幕牆單元件、雙曲鋁板等多種高難度彎弧玻璃幕牆系統,為遠東幕牆所做工程中單體單元件重量最重、尺寸最大的項目之一,建成後亦是港島區全新的地標商廈之一



Kai Tak Sport Center Park Project, Hong Kong ◆香港啟德體育園項目



completion 預計竣工時間	2023
Façade area 幕牆面積	40,000 square metres 40,000 平方米
Project scope	Design, supply and ins

Design, supply and installation of unit glass curtain walls, unit aluminium curtain walls, semi-unit glass walls, indoor glass walls, aluminium louvres, aluminium panels, skylights, facade decoration, etc., in two 7-storey sports centres 設計、供應及安裝2座7層體育館之單元式玻璃幕牆、單元式鋁板幕牆、半單單元式玻璃牆、室內玻璃牆、鋁百葉、鋁板、天窗及外牆裝飾等

Project feature 項目特點

工程範圍

Estimated year of

The Hong Kong Government's most significant investment in sports infrastructure in recent decades, this project will be the largest multi-purpose integrated sports and recreation venue in the city upon completion. Kai Tak Sports Park is Far East Facade's first sports venue project, and the landmark with the most colourful facade among the projects undertaken by Far East Facade.

項目是香港政府近數十年來,在體育基建方面最重要的投資,落成後將成為香港最大的多功能綜合運動及休憩場所。 啟德體育園是遠東幕牆的首個體育場館類工程,也是遠東幕牆承接項目中外牆顏色最多的一單地標建築

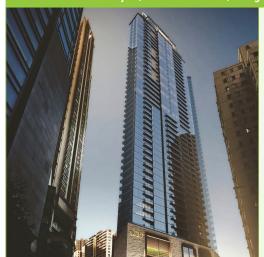












Estimated year of completion 預計竣工時間	2023
Facade area 幕牆面積	55,000 square metres 55,000 平方米
Project scope 工程範圍	Design, supply and installation of glass curtain walls, glass balustrades, sliding doors, folding doors, electric sliding doors, aluminium panels, lattice louvers, etc., in two 55-storey towers 設計、供應及安裝2幢55層高塔樓之玻璃幕牆、玻璃欄河、趟門、趟折門、電動趟門、鋁板、花格百葉等
Project feature 項目特點	Integrating original design and high performance requirements, this project configures ultra-large residences that redefine the classics of luxury. 項目幕牆系統設計標新立異,結合超高性能要求,超大戶型配置,造就豪宅經典







Illilligi	ation neauqual	ters Project,	Iseully Kwali
		0	
	THE REAL PROPERTY OF THE PARTY		
			LL CO

Estimated year of completion 預計竣工時間	2023
Facade area 幕牆面積	58,000 square metres 58,000 平方米
Project scope 工程範圍 explosion-proof glass curtain wall, aluminium panels, skylights, glass aluminium louvres, etc. in three 16-storey buildings 設計、供應及安裝3幢16層高入境處總部之玻璃幕牆、雙層玻璃幕牆牆、鋁板、天窗、玻璃欄河、鋁百葉等	
Project feature 項目特點	Adopting explosion-proof curtain wall to fulfil the special purpose of protecting the buildings against terrorism and assault, the project showcases the premium technical quality of the company's specialist curtain wall products. 項目特別採用防爆幕牆設計以滿足防恐、防衝擊的特殊要求,展現公司特種幕牆

產品技術實力











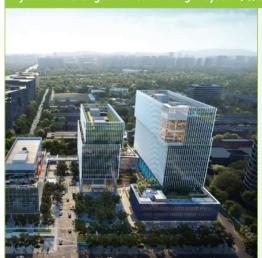
OPPO Changan R&D Centre No. 2, No. 5 and Central Ring Road Curtain Wall Project, Zhuhai ●珠海OPPO長安研發中心2號、5號樓及中央環路幕牆項目



Estimated year of completion 預計竣工時間	2023	
Facade area 幕牆面積	75,000 square metres 75,000 平方米	
Project scope 工程範圍	Design, manufacture and installation of unit glass curtain walls, frame glass curtain walls, curved aluminium curtain wall systems, etc., at Centre No. 2, No. 5 and Cen Ring Road 設計、生產及安裝2號、5號樓及中央環路之單元式玻璃幕牆、框架式玻璃幕牆、 鋁板幕牆系統等	
Project feature 項目特點	The diverse functional requirements and spatial variations of the building appearance has tremendously complicated the project's curtain wall system, which employed more arcs and curved surfaces. The project's unique appearance poses significant challenges in terms of design, procurement, fabrication, transportation and installation of the curtain walls. 多樣化的功能需求及建築外形的空間變化,使得項目幕牆系統也極為複雜,更多地運	

用了弧度與曲面等,特殊的外形使得幕牆的設計、採購、生產、物流及安裝都極具挑戰





Estimated year of completion 預計竣工時間	2024
Facade area 幕牆面積	49,000 square metres 49,000 平方米
Project scope 工程範圍	Design, supply and installation of stick-built glass curtain walls, stick-built aluminium curtain walls, aluminium alloy grilles, glass rainshed, outdoor metal dropped ceiling, aluminium alloy decoration units, glass protective balustrades, iron window balustrades, window wall systems, etc. 設計、供應及安裝構件式玻璃幕牆,構件式鋁板幕牆、鋁合金格柵、玻璃雨棚、室外金屬吊頂、鋁合金裝飾單元、玻璃防護欄杆、護窗鐵藝欄杆、窗牆系統等
Project feature 項目特點	Upon completion, the project will incorporate cutting-edge business innovations such as a smart education system and an interactive multi-media office system, further driving the development of Chengdu's new economic industries. 項目建成後將佈局包括智能教育系統、交互式多媒體辦公系統等多個前沿新經濟創新業務,進一步促進成都新經濟產業的發展





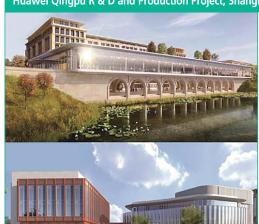








Huawei Qingpu R & D and Production Project, Shanghai (ABGH Group) ●華為上海青浦研發生產項目(ABGH組團)



Estimated Year of completion 預計竣工時間	2024	
Facade area 幕牆面積	43,000 square metres 43,000 平方米	
Project scope 工程範圍	Design, supply and installation of stone curtain walls, aluminium curtain walls, special form GRC curtain walls, large-scale glass curtain wall systems, copper curtain walls, double-later metal roofs, etc., in the ABGH Group buildings設計、供應及安裝ABGH組團之石材幕牆、鋁板幕牆、異形GRC幕牆、大玻璃系統幕牆、銅板幕牆、雙層金屬屋面等	

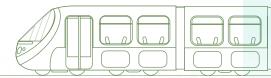


The project is a highlight in Qingpu District, Shanghai, and a major project of Yangtze River Delta Investment's Xicen S&T Innovation Center. Inspired by the planning concept of Boston, USA, the project creates a "plaza town" group radiating from the waterfront plaza at its core through a rich and complex scenic network. Mainly used for research, office space and supporting facilities, the project positions itself as a scenic community where top talents from all around the world feel at home. 項目為上海青浦區重點項目,長三角西岑科創中心的重要項目,借鑑美國波士頓的規劃理念,通過曲折豐富的景觀路網,打造成以中央臨水廣場和核心放射型「廣場小鎮」組團,主要用於科研、辦公及配套設施,定位為打造成風景如畫、賓至如歸的全球頂尖人才社區























SUSTAINABILITY TOPICS 可持續發展專題



TOPIC 專題

GREEN FINANCE FOR STEADY PROGRESS 綠色金融 穩步推進

The Group actively helps drive forward the green development of the country while seizing green finance opportunities. This year, we signed the first unsecured HK\$300 million three-year revolving green loan to finance sustainability related projects under the green finance framework. This green loan plan will enhance the Group's green building capacity, and will bring us closer to the achievement of the strategic goals of "carbon peak" and "carbon neutrality".

To realise the Group's mission of building a dynamic and sustainable community, we have also entered into the first HK\$400 million sustainability-linked loan which is interlinked with the sustainable development performance of the Group, such as the lost day rate due to work injury of employees and the average training hours. The interest rate of which will be adjusted according to the Group's performance in the social sustainability dimension. The Hong Kong Quality Assurance Agency has awarded us a Green Loan Certification in March 2022, certifying that the green loans we issued met the requirements of the Green and Sustainable Finance Certification Scheme. We believe that these sustainable finance projects will help the Group achieve sustainability goals, build internal capability to drive sustainability projects, and incorporate sustainability into our business development and strategic planning.

本集團積極協助推動國家的綠色發展,同時抓緊綠色金融機遇。於本年度,我們簽訂了首個3億港元三年期無擔保綠 色循環貸款來資助一些符合綠色金融框架下的可持續發展相關項目。這項綠色貸款方案將拓展本集團綠色建築的能 力,使我們更接近碳達峰和碳中和的可持續發展戰略目標。

為實踐本集團的使命建設充滿活力的可持續社區,我們亦簽署了首筆4億港元的可持續發展掛鈎貸款,與本集團的可 持續發展績效掛鈎,例如員工因工傷損失的工作日數比率和平均培訓時數,其利率將因應本集團社會可持續發展相 關的表現調整。香港品質保證局在2022年3月向我們頒發了綠色貸款認證,認證我們發行的綠色貸款符合綠色和可 持續金融認證計劃的要求。我們相信這些可持續發展金融項目將有助於實施本集團的可持續發展目標,培養內部能 力和促進可持續發展項目,將可持續性納入業務發展和戰略計劃。















TECHNOLOGICAL INNOVATION LEADS THE WAY

科技創新 領潮前行

TOPIC 專題

The Group is convinced that our sustainable future lies in green development. To continuously promote the development of green technologies, the Group has long been investing ample resources in conducting R&D and innovation of environmental technologies. Our R&D team, dedicated to developing and applying new technologies all along, won various recognitions and awards from international authorities this year.

本集團深信綠色發展是可持續的未來,為了持續推動綠色 技術的發展,本集團一直投入大量的資源進行環保科技的 研發和創新。我們的研發團隊一直在致力於開發和應用新 的技術,並於本年度獲得了多項國際權威認證和獎項的肯 定。



HONOURS OBTAINED THIS YEAR 於本年度獲得的榮譽

4	Second Prize of Scientific and Technological Progress Award
- 1	科技進步二等獎

2021 Shenyang Innovation Workplace 2021年度瀋陽市職工創新工作室

2022 Guangdong Specialised New Enterprise 2022年廣東省專精特新企業

2022 Guangdong Engineering and Technology Research Centre

2022年廣東省工程技術研究中心

5	2022 Guangdong Innovative Small and Medium-sized Enterprises (SME)
	2022年廣東省創新型中小企業

2022 Zhuhai Specialised New Enterprise 2022年珠海市專精特新企業

2022 Zhuhai Engineering and Technology Research Centre 2022年珠海市工程技術研究中心

2022 Jinwan District Specialised SME 2022年金灣區專精特新中小企業

High and New Technology Enterprise – China Overseas Supervision 高新技術企業-中海監理

2022 Liaoning Innovation Workplace 2022年遼寧省職工創新工作



ISSUED BY 頒發單位

China State Construction Engineering Corporation 中國建築集團有限公司

Shenyang Federation of Trade Unions 瀋陽市總丁會

Department of Industry and Information Technology of **Guangdong Province**

廣東省工業和信息化廳

Department of Science and Technology of Guangdong Province

廣東省科技廳

Department of Industry and Information Technology of Guangdong Province

廣東省工業和信息化廳

Zhuhai Industry and Information Technology Bureau 珠海市工業和信息化局

Zhuhai Municipal Science and Technology Innovation Bureau

珠海市科技創新局

Zhuhai Jinwan District Federation of Industry and Commerce, Jinwan District Bureau of Science, Technology and Industrial Information

珠海市金灣區工商業聯合會、金灣區科技工業信息化局

Shenzhen Science and Technology Innovation Commission 深圳市科技創新委員會

Liaoning Federation of Trade Unions Office 遼寧省總工會辦公室







TOPIC 專題





DEVELOPING BIPV TECHNOLOGIES AND DRIVING RENEWABLE ENERGY PROJECTS 發展BIPV技術,推動可再生能源項目

As stated in the "14th Five-Year Plan", "carbon peak and carbon neutrality" has become the core of modern construction in China. Among this, zero-energy building is the most effective way in achieving "carbon neutrality", which contributes to global green and sustainable development. Currently, BIPV system is one of the main methods in achieving zero-energy building in many countries. The system is integrated with technology, function and aesthetics. BIPV replaces traditional construction materials with photovoltaic materials, integrating such materials into buildings, such as the outer layer of wall and roof, external glass and sunshade system. Furthermore, the aesthetics is also an indispensable part of buildings. Traditional framed solar panels would affect the original aesthetics of buildings, while BIPV would allow wider use of solar power.

In response to the market trends and the government's low carbon initiatives, the Group has also been actively leveraging our industry experience and strength to conduct R&D in BIPV technologies. By incorporating BIPV into green building projects, the Group takes actions to drive the low-carbon and green transformation in the construction field and to attain the carbon neutral objective.

為響應市場及政府的低碳倡議,本集團亦利用於行業方面的經驗及實力,不斷積極地研究及開發BIPV技術,將BIPV融入綠色建築項目之中,以實際行動推動建築領域的綠色低碳轉型,達至碳中和目標。









Far East (Zhuhai) built a staff canteen with photovoltaic curtain walls, integrating low-carbon concepts and state-of-the-art technologies with building design. By reducing power consumption with technology, it can achieve net zero carbon during construction while maintaining the aesthetics. The top and the facades of the staff canteen with photovoltaic curtain walls are composed of 192 and 32 photovoltaic power generation units respectively. The photovoltaic panels of the canteen are installed with cadmium telluride thin film solar cell, and the BIPV system has an installed capacity of 36 kW, with a surface area of 322.56 square metres. Its daily average of around 80-110 units of power generated suffices to meet the electricity requirement of indoor air-conditioning. The canteen can generate 39,000 units of green electricity every year; compared with the same amount of thermal electricity, this can reduce the use of approximately 11.9 tons of standard coal, or the emission of 38.8 tons of carbon dioxide, per year. In the coming year, we will also start to retrofit the roof of the factory with photovoltaics to increase the use of renewable energy of the Group. This measure can significantly lower energy consumption and greenhouse gas emission.

Apart from converting the Group's assets into buildings that are ready to employ renewable energy, Far East (Zhuhai) is also committed to promoting the development of BIPV of the industry. Among others, we created a BIPV winter garden and a BIPV carport for the Yunxi County Hejia Poverty Alleviation Industrial Park, in order to support the low carbon development of the park with technology. The top and the facades of the BIPV winter garden are all equipped with power generation functions, which can attain electricity self-sufficiency within the building, while enhancing the building's usable area and functionality. With an area of 580 square metres, double-glazed photovoltaic components with an installed capacity of 80 kW, and transmittance as high as 40%, it can generate an estimated amount of 43,000 units of electricity every year. The BIPV photovoltaic carport enjoys even more advantages in terms of safety, aesthetics and water resistance. With photovoltaic installation covering 688 square meters in area, the carport houses electric vehicle charging stations and chargers, thereby encouraging factory staff members to practise green commuting by adopting electric vehicles.

Besides, we actively collaborate with various external parties to promote the integration of BIPV into green building projects. We have already reached a strategic partnership agreement with a leading enterprise of the cadmium telluride industry to cooperate in the Hong Kong Chinese Medicine Hospital project, jointly produce imitation aluminium plates, imitation stone frosted photovoltaic glass modules, and carry out R&D and design of BIPV products.

遠東珠海打造了光伏幕牆員工餐廳,將低碳理念和先進技術貫穿設計建造,用技術減少能耗,打造出「淨零碳」工程的同時實現了外觀美感。光伏幕牆員工餐廳的頂部由192塊,立面32塊的光伏發電單元所組成。餐廳光伏板安裝採用碲化鎘薄膜太陽能電池組件,BIPV光伏系統裝機容量為36千瓦,面積為322.56平方米,日均發電量約80-110度,即可提供足夠室內空調的電力需求。餐廳每年可生產綠電約3.9萬度,與相同發電量的火電相比,每年可節約標煤11.9噸,即二氧化碳排放量約38.8噸。來年,我們亦會開始進行廠房屋頂光伏改造,提升集團的可再生能源使用。該舉措可以顯著減少能源消耗和溫室氣體排放。

除了將本集團的資產改造成可使用可再生能源的建築,遠東珠海亦致力推動行業的BIPV發展。其中我們為鄖西縣河夾扶貧產業園建造了BIPV陽光房及BIPV光伏車棚,以科技助力園區中的低碳發展。BIPV陽光房的立面及頂部全部裝備發電功能,能實現建築內用電自給自足,同時增加建築的可利用面積以及功能。該面積為580平方米,採用雙玻光伏組件容量80千瓦,其透光率達40%,估計每年可發電約4.3萬度。而BIPV光伏車棚在安全、美觀和防水性方面有著更大的優勢。其光伏安裝面積為688平方米,車棚內部設置電動汽車充電椿,以及電動車充電器,以鼓勵廠內員工改用電動汽車,實現綠色出行。

此外,我們積極與外部各方合作推動將BIPV融入綠色建築項目之中。我們已與碲化鎘行業龍頭企業達成戰略合作協議,合作開展香港中醫醫院項目,共同製作仿鋁板、仿石材磨砂光伏玻璃組件及開展BIPV產品的研發設計工作。













GOVERNANCE OPTIMISATION 優化管治

SUSTAINABILITY STRATEGY

Adhering to the sustainability philosophy of "Promoting green civilisation, upholding sustainable development, and pursuing the harmony between corporate development, production, life, and ecological development", the Group effectively manages, monitors and enhances its sustainability performance through a systematic governance structure and regularly reviews the performance of significant sustainability issues, so as to implement sustainable development in its businesses.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

To realise our corporate vision of building a sustainable environment and enhancing the well-being of our stakeholders, during the reporting period, the Group set out specific and quantifiable objectives and action plans, and established our sustainable development framework. Our sustainable development strategy focuses on five key pillars, namely Strategic Development, Building a Sustainable Supply Chain, Supporting Talent Development, Excellent Environmental Management, Serving and Giving Back to Society. For each pillar, we have identified different key focus areas.

可持續發展策略

本集團秉承[倡導綠色文明,堅持可持續發展,將企業發展與生 產、生活、生態發展和諧統一|的可持續發展理念,通過有系統 的管治架構,有效地管理、監察及提升本集團的可持續發展績效, 並定期檢視重大可持續發展議題的表現, 在本集團業務內貫徹落 實可持續發展。

為落實我們的企業願景,營造可持續發展環境,並提升持份者的 福祉,於報告期內,本集團制定具體且可量化的目標方向及行動 計劃,建立我們的可持續發展框架。我們的可持續發展戰略專注 於五大關鍵支柱,即策略性發展、建設可持續供應鏈、支持人才 發展、卓越環境管理及服務回饋社會,而針對每個支柱,我們識 別出不同的重點關注範疇。

Strategic Development 策略性發展

- Technological innovation
- 科技創新









Building a Sustainable **Supply Chain** 建設可持續供應鏈

- Supplier management and sustainable materials
- 供應商管理及可持續物料













- Talent acquisition and retention
- Employee training
- Occupational safety
- 人才吸納及留任
- 員工培訓
- 職業安全







綠色辦公、生產和施工

卓越環境管理

Green office, production

Transition to carbon

and construction

neutrality

Clean energy

碳中和轉型

清潔能源



Serving and Giving Back to Community 服務回饋社會

- Community investment
- Employment opportunities for disadvantaged groups and young people
- 社區投資
- 弱勢群體與年輕人就業















We are committed to our Sustainability Policy, a corporate commitment to environmental and social responsibility, integrating sustainable development and innovation into our business development and creating long-term value for our stakeholders. We also continue to promote a green corporate culture and are committed to harmonising business development with environmental and social development.

The Group sets out the following development strategies and principles in different aspects of sustainability in its Sustainability Policy.

我們致力實踐所制定的《可持續發展政策》,承擔作為企業的環境 和社會責任,並將可持續發展與創新概念結合,融入業務發展當 中,同時為持份者創造長遠的價值。我們更持續推動綠色企業文 化,致力實踐業務發展與環境及社會發展共融協調。

本集團《可持續發展政策》明確了本集團於可持續發展範疇的各項 發展策略及原則,詳情如下:

Minimise the carbon footprint of our operations, identify at an early stage all significant environmental impacts of our operations and ensure proper control of such impacts.

將業務運作中的碳排放減至最低,及早識別業務運作對環境造成的所 有重大影響,並確保所有影響得到適當控制。

Comply with all legal requirements and incorporate industry best practices in climate change mitigation, climate change adaptability, and climate resilience into the Group's operations and services wherever possible.

遵守所有法律要求,並盡可能將行業在應對氣候變化、提升氣候 變化適應力及氣候韌性的最佳實踐納入本集團的營運和服務中。

Support innovation and technological R&D to continuously improve the quality of our products and services.

支持創新和科技研發,持續提高產品和服務質量。

Communicate the Group's sustainability policies to suppliers, contractors and business partners, practise sustainable procurement and give priority to environmentally and socially responsible suppliers.

向供應商、承建商及業務夥伴傳達本集團的可持續發展政策,實踐可持續採購,優先 考慮對環境和社會負責任的供應商。

Care for and support the communities in which we operate to help build sustainable communities. Encourage employees and clients to fulfill good citizenship and give back to the community by conducting volunteering and community engagement activities.

關顧並支持營運所在地的社區,藉此共建可持續發展的社區。同時通過義工服務和各 類社區活動,向員工和客戶宣揚良好公民責任,鼓勵大家回饋社會。

> Ensure that workplace activities are conducted in accordance with sound environmental protection rules and regulations.

確保工作間內的活動均遵從合理的環境保護守則。

SUSTAINABILITY POLICY

可持續發展政策

Improve our environmental performance through employee education and training.

通過對員工的教育及培訓,提升環境保護方面的表現。

Create a safe and caring workplace for our employees and strengthen talent training to sufficiently support employee development.

為員工提供一個安全及關愛的工作環境,加強人才培養力度,為員工的 發展提供充足支持。





SUSTAINABILITY GOVERNANCE STRUCTURE

The Group continuously reviews and updates its sustainability governance structure to lay a stronger foundation for its level of sustainability governance. The Board serves as the highest decision-making body and the highest supervision body on sustainability issues, and is responsible for the provision of strategic direction on the management of material sustainability issues and the formulation and review of the Group's sustainability strategies and goals. The Board is also responsible for overseeing the Group's sustainability issues, and for assessing, prioritising and managing its sustainability-related risks to ensure that appropriate and effective sustainability risk management and internal control systems are in place. To enable the Board to learn about the latest sustainability information in the market, a sustainable development awareness training was conducted this year, covering TCFD, climate-related disclosures as well as carbon neutrality and emission reduction action plan.

In addition, to ingrain the concept of sustainability into the development of business strategies and introduce a sustainable operation model actively, the Group further improved its sustainability governance structure during the reporting period. In August 2022, the Sustainability Committee was elevated to a Board Committee with the delegated authority from the Board to assist it in supervising and managing sustainable development issues and the Groups' impact on the economy, environment and people, including identifying, evaluating and managing significant sustainability issues of the Group with regular reports made to the Board on the progress and management plan to ensure an efficient implementation of sustainability policy. The Committee is also responsible for reviewing relevant reports on sustainable development and assisting the Board in supervising the sustainable development performance of the Group as a whole and of each department. Meeting will be held at least twice a year. Based on the sustainable development framework and the five key pillars of development strategy formulated during the reporting period, the Group has also established a sustainability roadmap to incorporate our development strategies into our corporate values. In terms of environmental management in particular, the Group has set up strategic goals for the short, medium and long terms, with a view to realising carbon neutrality in 2060.

The Sustainability Committee has established the Sustainability Leadership Team and the Sustainability Working Group to assist in the coordination and implementation of sustainability related work. The Sustainability Leadership Team, comprising senior management of different departments and subsidiaries, is responsible for coordinating and overseeing the development of the Group's sustainable development policies and directions, as well as overseeing and reporting regularly to the Committee on the implementation of sustainable development-related activities. Meeting will be held at least once a year. The Sustainability Working Group is responsible for coordinating with the various business units to facilitate the implementation and execution of the Group's sustainable development initiatives and to report to the Sustainability Leadership Team in a timely manner. During the year, the Group implemented its environmental organisation structure, environmental policies and management practices, and continued to monitor and manage environmental, social and governance-related objectives. Under the leadership of the Board and the co-ordination of the Sustainability Committee, all relevant business departments and subsidiaries have been actively cooperating with the implementation of the Group's sustainable development policies and efforts to promote the sustainable development of the Group's business in accordance with actual needs and the sustainability strategies and action plans formulated.

可持續發展管治架構

為本集團可持續發展管治水平奠定更強大的基石,我們一直不斷檢視及更新可持續發展管治架構。由董事局作為本集團的可持續發展事宜之最高決策層及最高監督機構,就重要可持續發展剛政長事宜的管理提供策略方向,並負責本集團可持續發展戰略及目標的的定和審查。同時,董事局亦負責監督本集團可持續發展事宜,就可持續發展相關風險進行評估、優次排序及管理,確保實施和完善適當有效的可持續發展風險管理和內部控制制度。為了令董事局獲得市場上的最新可持續發展資訊,於本年度舉辦一場可持續發展意識培訓,內容涵蓋TCFD、氣候相關披露以及碳中和與減排行動路線。

此外,為將可持續發展理念貫徹於業務策略規劃過程中,積極引入可持續營運模式,於報告期內,本集團進一步完善可持續發展管治架構。於2022年8月可持續發展委員會提升為一個董事毒價。由董事局授權可持續發展委員會提升為一個董事續發展事宜及本集團對經濟、環境和人民的影響,包括負責進行識別。評估及管理本集團的可持續發展重要事項,定期向董實。另外團度內質理情況,以確保可持續發展政策能有效地落實。另外團長會亦負責可持續發展相關報告審閱及協助董事局監督本。建委體及各部門可持續發展表現,於每年舉乃最少兩次會議。發展一點於報告期內制定的可持續發展框架及五大關鍵支柱的發展應以一一數。





THE BOARD 董事局

- oversee sustainability matters
- formulate and review sustainable development strategies and objectives
- implement and improve sustainability risk management and internal control system
- approve sustainability report
- 監督可持續發展事宜
- 制定和檢討可持續發展戰略及目標
- 落實與完善可持續發展風險管理及內部監 控系統
- 審批可持續發展相關報告



SUSTAINABILITY COMMITTEE 可持續發展委員會

SUSTAINABILITY

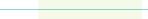
LEADERSHIP TEAM

可持續發展領導小組

- ____
 - oversee and regularly report to the Committee on the implementation status of sustainable development-related activities
 - coordinate and formulate sustainable development policies and directions
 - supervise various departments in completing sustainability information disclosure
 - 監督及定期向委員會匯報可持續發展工作的執行情況
 - 統籌定立可持續發展政策及發展方向
 - 督導各部門完成可持續發展信息披露
 - coordinate among and oversee business departments and subsidiaries in driving the implementation of sustainable development activities, such as evaluating risk and compiling sustainability reports
 - regularly collect feedback
 - report to the Sustainability Leadership Team on implementation matters in a timely manner
 - 協調及監察各業務部門和子公司,促進可持續發展工作的執行,包括風險 評估、編制可持續發展報告等
 - 定期收集反饋意見
 - 及時向可持續發展領導小組匯報執行情况

SUSTAINABILITY WORKING GROUP

可持續發展工作小組



- regularly report to the Board on the progress and management situation
- review sustainability report
- assist the Board in supervising the sustainable development performance,
 e.g. the completion progress of KPIs, of the Group as a whole and of each department
- 定期向董事局匯報進度及管理情況
- 審閱可持續發展相關報告
- 協助董事局監督集團整體及各部門可持續發展表現及風險,如績效指標完成進度





SUSTAINABILITY RISK MANAGEMENT

To ensure the steady development of the Group's business, we continuously refine the sustainability risk management mechanism to strength the identification and prevention of risks. The Group has established a sustainability risk management structure with clear division of responsibilities.

The Sustainability Committee under the Board evaluates the impact of sustainability risks or opportunities on the Group, ensures that major risks related to sustainable development are covered by the Group's risk management framework, and advises the Board on the strategies to address relevant risks; the Sustainability Leadership Team is responsible for overseeing the Group's sustainability-related risks, and for regularly reporting to the Sustainability Committee on the risks identified and proposing solutions to reduce such risks; the Sustainability Working Group is in charge of coordinating among different departments in assessing risks related to sustainability, and of regularly reporting to the Sustainability Leadership Team.

Moreover, the Group has set up procedures for assessing sustainability risks. First, the Group acquires an overview of the industries by analysing and evaluating a wide range of risk analysis reports and trend analysis reports, and then, taking into account the Group's business nature, draws up a list of potential sustainability risks by identifying relevant sustainability risks and their impact on the Group's financial performance, development strategy, operational management, reputation, etc. The Group then considers its sustainable development matters and consolidates a sustainability risk database by further filtering, adding to and shortening the list. Such risks come from various sources, including uncertainties in the financial market, possible project failure, legal liabilities, credit risks, accidents, natural causes and disasters, deliberate attack from other parties, uncertain causes and events. Next, relevant departments are invited to grade the sustainability risks in the database in terms of "the likelihood of the sustainability risk's occurring" and "the severity of the sustainability risk's impact". Lastly, based on the grading of the sustainability risks, the Group prioritises such risks and examines the management of high-risk items to further enhance or formulate risk management plans and to perfect its risk management work. Existing major risks and uncertainties identified by the Group include (but are not limited to) product quality and liability, supply chain, safety and health and project performance. The Group has defined, measured and evaluated the above risks and formulated corresponding strategies for such risks. Details of the risks can be referred to the "Report of the Directors" in the Company's Annual Report.

可持續發展風險管理

為確保本集團業務穩健發展,我們持續完善可持續發展風險管理制度,以加強風險識別與防範。本集團已建立可持續發展風險管理架構,並具備明確的職責分工。

董事局轄下的可持續發展委員會評估可持續發展風險或機遇對本集團造成的影響,確保重大的可持續發展相關風險已被涵蓋在集團風險管理框架中,並就相關應對策略向董事局提出建議;可持續發展領導小組負責監督本集團的可持續發展相關風險,定期向可持續發展委員會匯報所識別的風險,並提出建議以降低風險;而可持續發展工作小組負責協調各部門進行可持續發展相關風險評估,定期向可持續發展領導小組匯報。

另外,本集團制定了可持續發展風險評估流程。首先,通過分析 及評估多份風險分析報告、大趨勢分析報告等了解行業概況,結 合本集團的業務性質,識別出與本集團相關的可持續發展風險及 該風險如何影響本集團的財務表現、發展策略及運營管理 等,從而建立可持續發展風險備選清單;考慮本集團可持續發展 事宜,再進一步篩選及增減備選清單,整合出可持續發展風險庫; 這些風險可能來自各種來源,包括金融市場的不確定性,項目失 敗的威脅,法律責任,信用風險,事故,自然原因和災難,來自 對手蓄意攻擊,或不確定原因及事件。接著,我們邀請相關部門 就風險庫中的可持續發展風險以「可持續發展風險發生的可能性」 及「可持續發展風險影響的嚴重性」評分;最後,根據可持續發展 風險評分,確認可持續發展風險的優次,並審視本集團對高風險 事項的管理情況,以進一步優化或制定風險管理方案,完善風險 管理工作。目前本集團識別的主要風險及不明朗因素包括目不限 於以下風險:產品質量與責任,供應鏈,安全與健康,項目履約 等, 並對以上風險進行了相關定義、測量、評估和應對風險的策 略。風險詳情可參閱公司年報中的「董事局報告」。







STAKEHOLDER ENGAGEMENT

The Group firmly believes that the feedback and opinions of stakeholders are indispensable for the Group to achieve a sustainable future. Accordingly, apart from conducting annual reviews, the Board actively engages with stakeholders to identify and manage the processes and outcomes of the organisation's economic, environmental and human impacts. The Group has established extensive and efficient stakeholder communication channels to collect feedback from various stakeholders on our various sustainable development measures, and attaches great importance to their needs and concerns.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

持份者溝通

本集團深信持份者的反饋及意見對協助本集團實現可持續發展未 來不可或缺。因此,董事局不僅進行年度審查,亦積極與持份者 合作,以識別和管理組織對經濟、環境和人的影響的過程和結果。 本集團設立了多種高效的持份者溝通渠道,以收集各持份者對我 們各項可持續發展措施的反饋,並對其需求及關注事項表示高度 重視。

Stakeholder Group 持份者組別	Stakeholder Concerns 持份者關注重點	Communication Methods or Channels 溝通方式或渠道
The Board and Management 董事局及管理層	 Healthy and sustainable business development Compliant business operations Business credit and influence 業務健康持續發展 企業守法合規經營 企業信譽與影響力 	 Board meetings Executive meetings Questionnaire survey Interview with the management Phone and e-mail 董事局會議 行政會議 問卷調查 管理層訪談 電話及電郵溝通
Employees 員工	 Occupational health and safety Employee compensation and benefits Occupational training opportunities 職業培訓機會 	 Employee training and workshops Employee engagement activities and meetings Employee suggestion box and employee symposiums Internal company newsletter Questionnaire survey 員工培訓及工作坊 員工活動及會議 員工意見箱及員工座談會 發行公司內刊 問卷調查
Clients and Property Owners 客戶與業主	 Product and service quality Protection of customer 消費者權益保障 rights 	 Customer satisfaction survey Professional after-sales service Product quality monitoring 客戶滿意度調查 專業售後服務 產品質量監督
Suppliers and Contractors 供應商與承包商	 Cooperation and mutual benefits Contract fulfilment 最后限约 	 Site inspection Supplier selection management Daily business communication Questionnaire survey 廠房考察 供應商甄選管理 日常業務交流 問卷調查









China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

Stakeholder Group 持份者組別	Stakeholder Concerns 持份者關注重點	Communication Methods or Channels 溝通方式或渠道
Shareholders and Investors 股東及投資者	 Healthy and sustainable business development Compliant business operations Risk control Return on investment 業務健康持續發展 企業守法合規經營 血験控制 投資回報 	 Shareholders' meetings Questionnaire survey B卷調查 Announcements, circulars, annual reports and financial statements 公告、通函、年報及財務報表
Peer Enterprises and Partners 同業及合作夥伴	 Cooperation and mutual benefits Product and service quality Contract fulfilment 合作與共贏 產品及服務質量 誠信履約 	 Industry associations Industry standard-setting organisations 行業標準制定組織
Media 媒體	 Information disclosure Community investment 社區投資 	 Announcements, circulars, annual reports and financial statements Website and social media 公告、通函、年報及財務報题 公司官網及社交媒體
Government 政府機構	 Compliant business operations Occupational health and safety Protection of customer rights 企業守法合規經營 職業健康安全 消費者權益保障 	 Response to national policies Active cooperation with government agencies in their supervision and inspection efforts Compliance with laws, regulations and government policies 響應國家政策 積極配合政府機構監督檢查工作 遵守法律法規及政府政策
Community and the Public 社區與公眾	 Environmental protection 環境保護 社區投資 	 Community investment Volunteering service Charity and donations 社區投資 志願者服務 慈善及捐助項目







MATERIALITY ASSESSMENT

Each year, the Group engages internal and external stakeholders in an online questionnaire survey to extensively solicit their opinions, which serve as the basis of the materiality assessment. To align with GRI standard reports and their reporting principles, the Group has adopted a new materiality assessment approach during the reporting period. From this year's materiality assessment, the Group has identified the actual and potential impact of the Group's business on the economy, environment and people, and prioritised the reporting of these issues according to the materiality of their impact, thereby assisting the Group to review and develop its sustainable development strategy and effectively respond to the expectations of stakeholders.

Procedures for the materiality assessment are as follows:

重要性評估

本集團每年邀請各內外部持份者參與網上問卷調查,以廣泛徵詢持份者意見,並在此基礎上開展重要性評估。為了參照GRI標準報告及應用其報告原則,本集團於報告期內,已採取新的重要性評估方式。通過今年的重要性評估,本集團已識別集團業務對經濟、環境和人的實際和潛在影響,根據影響的重大程度確定報告的優先次序,從而協助本集團審視及規劃其可持續發展策略,有效回應持份者的期望。

重要性評估之流程如下:

Identification of sustainability issues 議題識別

With reference to the ESG Reporting Guide, the Group identified 18 sustainability issues in environmental and social aspects by an analysis of industry trends, as well as the actual operation and management of the Group.

分析行業發展趨勢並結合本集團業務及管理實際情況,參考ESG報告標準,本集團共識別出18項環境與社會層面可持續發展議題。

Data collection 數據收集

Through an online questionnaire survey, key internal and external stakeholders of the Group were invited to rate the materiality of actual and potential impacts of 18 sustainability issues on the economy, environment and people.

During the reporting period, the Group has collected a total of 360 valid responses.

通過網上問卷調查的形式,邀請本集團之內部及外部主要持份者對18項可持續發展議題對經濟、環境和人的實際和潛在影響進行重要性評分。

於報告期內,本集團共收集360份有效回覆。

Prioritization of issues 優次排序

Based on the results of the questionnaire survey, the Group analysed the ratings of stakeholders on the actual and potential impacts on the economy, the environment and people, and obtained the ranking of the materiality of each sustainable development issue.

根據問卷調查結果,分析持份者對 經濟、環境和人的實際和潛在影響 的評分,得出各可持續發展議題的 重要性排列。

Review and confirmation 審批確認

The Board reviewed the materiality assessment results and finally confirmed such sustainability issues as our material issues of the year.

董事局檢視重要性評估結果,並最終確認相關可持續發展議題為年度重要性議題

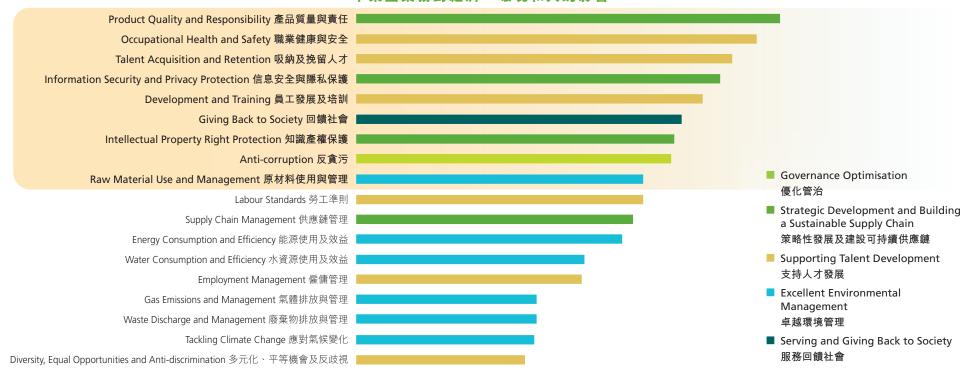








Impact of the Group's business on the economy, environment and people 本集團業務對經濟、環境和人的影響



Among various sustainability topics, those related to the two major pillars of "Strategic Development and Sustainable Supply Chain" and "Supporting Talent Development", such as "Product Quality and Responsibility", "Occupational Health and Safety" and "Talent Acquisition and Retention", carry relatively more significant impact. From this materiality assessment, the Group has identified 8 topics of higher materiality, including 1 related to the environmental aspect and 7 related to the social aspect.

在各可持續發展議題當中,與「策略性發展及建設可持續供應鏈」和「支持人才發展」兩大支柱相關的議題具有相對較重大的影響,如「產品質量與責任」、「職業健康與安全」、「吸納及挽留人才」等。本集團於本次重要性評估中共識別出8項重大程度較高議題,包括1項環境層面重要性議題和7項社會層面重要性議題。

The following chapters in the Report will focus on disclosing the Group's management strategies and performance regarding the above material issues, so as to respond more specifically to the sustainability issues that are most concerned by our stakeholders.

本報告各章節將重點披露本集團與以上重要性議題相關的管理策略及表現,以便更具針對性地 回應持份者最關注的可持續發展事宜。





INTEGRITY AND ANTI-CORRUPTION

ANTI-CORRUPTION POLICIES

The Group is committed to operating its business with the highest standards of governance and ethics and complies with the relevant anti-corruption laws and regulations and regulatory requirements applicable to the locations in which it operates. The Group adheres to the principles of integrity and honesty in both its internal operations and external collaborations. The Group takes a zero-tolerance approach to any form of corruption, including bribery, extortion, fraud and money laundering, and has developed an Anti-Corruption Policy that outlines the Group's expectations and requirements of its employees and associates, setting out appropriate practices for the acceptance of benefits, offers of benefits, hospitality, conflicts of interest, records, accounts and other documents, emphasising the Group's commitment to uphold and maintain high standards of business integrity, honesty, fairness, impartiality and transparency. The Group regularly reviews and revises its policies to improve their effectiveness. Besides, the Code of Ethics and Discipline formulated and implemented by the Group prohibits any director and employee from soliciting or receiving benefits, including gifts, loans, remuneration, job offerings, contracts, services and concessions in any form by using their position and authority.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

REPORTING MECHANISM

The Group also implements the Whistleblowing Policy and establishes and improves the internal reporting mechanism applicable to all departments and employees of various ranks, as well as business partners such as clients, contractors and suppliers. Any employees who witness any possible violation of the Code of Ethics and Discipline can report confidentially and anonymously to the Chief Executive Officer, the Audit Committee or relevant departments of the Group by whistle-blowing email or by post. The departments concerned will also investigate and collect evidence on the whistle-blows timely, while the Chief Executive Officer or the Audit Committee will decide on the appropriate arrangements and take further measures based on the investigation results, in order to assist in investigating and preventing misconduct, corrupt conduct or immoral conduct within the Group. For our business in Hong Kong, the Group will report any employee proved to have violated the anti-corruption policies to the Independent Commission Against Corruption (ICAC) and impose disciplinary sanctions on the employee concerned. The Group does not tolerate any initiating or threatening retaliation against the whistleblowers, and reserves the right to take appropriate action.

誠信廉潔

反貪污政策

本集團致力秉持最高的管治和道德標準營運業務,並嚴格遵守適 用於業務營運所在地的反貪污相關法律法規及管理規定,無論在 公司內部營運或是與外部協作,本集團都堅守誠信廉潔的原則。 本集團對任何形式的貪污,包括賄賂、勒索、欺詐和洗黑錢都採 取零容忍的態度,並已制訂《反貪污政策》,概述本集團對員工及 合作單位的期望和要求,列明接受利益、提供利益、款待、利益 衝突、記錄、帳目及其他文件時的適當做法,強調本集團堅持遵 守和維護高標準的商業誠信、誠實、公平、公正和透明度,並定 期檢查及修訂政策以提高其有效性。此外,本集團制定並實施《道 德與紀律守則》,嚴禁任何董事及員工在利用職權和工作之便索 取或收受任何利益,包括任何形式的禮物、借貸、報酬、職位、 契約、服務及優惠等。

舉報機制

同時,本集團制訂《舉報政策》,亦設立內部舉報機制,相關舉報 機制適用於所有部門及各個級別的僱員及業務夥伴,例如客戶、 承建商和供應商。員工如發現任何可能違反《道德與紀律守則》的 情況,可通過信訪舉報郵箱或郵寄方式向本集團的行政總裁、審 核委員會及相關部門進行保密及匿名舉報,相關部門亦將及時就 舉報內容展開調查取證,行政總裁或審核委員會決定適當的調查 安排,並根據調查結果進一步採取相應措施,以助偵查和阻止本 集團的不當行為、舞弊行為或不道德的行為。就香港地區的業務 而言,如任何員工被證實違反有關反貪污政策要求,本集團將向 廉政公署進行舉報,並對該員工作出相應紀律處分。本集團絕不 容忍任何向舉報人發起或威脅進行報復的行為,並會保留採取適 當行動的權利。









Attended a total of 4 integrity and self-discipline training sessions, which all participation amounted to 12,366 hours.

參與廉潔自律培訓共4次, 共計參與12,366小時



ANTI-CORRUPTION TRAINING

In addition, the Group has been providing corresponding special anti-corruption training for employees, aiming to enhance their awareness of integrity, self-discipline and anti-corruption, and to promote business ethics such as honesty and integrity. The Group carried out multiple anti-corruption training for various employees, including, but not limited to, members of the leading group, department and regional heads, employees of key departments, and young backbone employees of Far East (Shanghai). During the reporting period, the Group organized 4 anti-corruption training for both directors and staff, with a total of 3,066 participants and 12,366 training hours with all participation. Anti-corruption training included online training organised by the Group on inappropriate marketing behaviour, with a view to warning employees against ten possible corruption actions they might be involved in their work, and requiring them to uphold integrity, self-discipline and righteous practices; online and offline business integrity training for all staff members organised by China Overseas Supervision; training with the themes of "How a company strengthens anticorruption education" and "Clean governance and anti-corruption" arranged by Far East (Zhuhai); special training on integrity and self-discipline conducted by Huanggu Thermoelectricity for directors and employees, with such themes as adhering to honesty and preventing micro-corruption, revealing warning signs through anti-corruption educational cases, and strengthening clean governance, with alerting and educational cases of anti-corruption cited. The anti-corruption training helps to raise employees' integrity awareness and propel them to do business lawfully. During the reporting period, the Group has not received or concluded any corruption lawsuit against it or its employees.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

反貪污培訓

另外,本集團一直為員工提供相應反貪污專項培訓,旨在令員工 提高廉潔自律、反貪污的意識,推廣誠信廉潔等商德操守的精神。 本集團開展多項反貪污培訓活動,包括但不限於:遠東上海組織 領導班子、部門及區域負責人、關鍵部門員工、青年骨幹等。報 告期內,本集團為董事及員工舉辦了4次反貪污培訓,參與人數 達3,066人,合共參與時數12,366小時。反貪污培訓包括:市場營 銷不當行為的線上培訓,警示員工在工作上有機會觸犯的十項貪 污腐敗的行為,同時要求員工廉潔自律、正道篤行;中海監理為 全體員工組織了線上線下廉潔從業培訓;遠東珠海組織董事及員 工參與以「企業如何加強反腐倡廉教育工作」及「廉政建設和反腐 敗」為主題的培訓課程;皇姑熱電亦面向董事及員工開展廉潔自 律專項培訓,主題包括「堅守廉潔心,杜絕『微腐敗』」、「反腐警 示教育案例啟示錄」、「加強廉政建設」,並舉出反腐警示教育案 例。相關反貪污培訓活動有助於增强本集團員工的廉潔誠信意識, 依法守法開展業務活動。於報告期內,本集團未有接獲對本集團 或員工提出並已審結的貪污訴訟案件。











♪ STRATEGIC DEVELOPMENT 策略性發展

PURSUE QUALITY EXCELLENCE

PRODUCT AND SERVICE OUALITY

The Group firmly believes that standing fast to the quality of products and services can lay a foundation for the development of the enterprise. The Group adheres to the core value of "Integrity, Innovation, Pragmatism and Excellence" and practises the business philosophy of "Quality Assurance and Value Creation". Our quality management is carried out in strict accordance with ISO9001-2015 Quality Management System, thereby ensuring that our product and service quality meet international standards and satisfy the needs of customers. In addition, to further promote the institutionalisation and standardisation of production and product quality management, the Group formulated and implemented various internal quality management systems such as Engineering Management System, Production Management System and Heat Supply Management System. This year, the Group's supervision business won 23 municipal engineering awards, 12 provincial engineering awards and 3 national awards granted by domestic urban construction industry associations, including the "2021-2022 First Batch of China Installation Engineering Quality Award (Star of China Installation)", "National Quality Award" granted by the China Association of Construction Enterprise Management and "Model Subcontractor Award" granted by the Development Bureau and Construction Industry Council, which recognise the Group's engineering quality.

The Group formulated the Engineering Management System to stipulate detailed regulations for construction management of facade contractors, including detailed explanation and management of initial stage of construction, progress management, cost control, quality management, completion and repair, in order to ensure smooth construction while maintaining quality. All products, including raw materials, semi-finished products and finished products of our facade contracting business must pass strict pre-delivery quality inspection, such as size inspection, number inspection, quantity inspection and waterproof test, to prevent unqualified products from entering the factory for use and continuing to be processed, assembled or delivered. We also apply Building Information Modelling (BIM) technology to our projects to conduct lifecycle management of the construction environment. The Group has initiated the application of BIM technology in many local and overseas projects, such as Kai Tak Airside, Kai Tak Sports Park, Seymour Road project in Mid-levels, Ma Tau Wai project, Taikoo Place Phase 2B, Cheung Kong Centre Phase 2, and Murray Road project in Central in Hong Kong; and Empire Landmark and One Bloor Project overseas. These projects demonstrate BIM's eight characteristics, namely information completeness, information relevance, information consistency, visualisation, coordination, simulation, optimisation, and rendering viability, while illustrating our outstanding capability to develop lifecycle project solutions with BIM technology and to better quarantee our product quality and safety. The Group is also actively exploring the 6D management model of engineering projects, and conducting building performance analysis and simulation to meet the building requirements of low energy consumption, high performance and sustainability standards. The Sichuan Provincial Housing Construction Center awarded the "Advanced Construction Unit" in recognition of the Group's continual innovation and improvement of construction technology in projects.



Far East (Hong Kong) ISO9001-2015 Quality Management System Certificate

遠東香港ISO9001-2015質量管 理體系認證證書



China Overseas Supervision Company Limited GB/T19001-2016/ISO9001: 2005 Quality Management System Certificate

中海監理有限公司GB/T19001-2016/ ISO9001:2005質量管理體系認證證書

追求卓越品質

產品與服務質量

本集團深信堅守產品與服務質量能為企業奠定發展基礎。本集 團恪守「誠信、創新、務實、求精」的核心價值觀,徹 質保障、價值創造 | 的經營理念。我們的質量管理是嚴格按照 ISO9001-2015質量管理體系要求進行,確保產品及服務質量達 到國際標準和客戶要求。此外,為了進一步推動制度化及規範化 的產品生產及質量管理,本集團制定並實施多項內部質量管理制 度,包括《工程管理制度》、《生產管理制度》及《供熱管理制度》 等。本年度,本集團的監理業務獲得23項由各國內城市建築業協 會頒發的市級工程獎項、12項省級工程獎項及3項國家級獎項, 其中包括「2021-2022年度第一批中國安裝工程優質獎(中國安裝 之星)」,另外亦獲中國施工企業管理協會頒發「國家優質工程獎」 以及香港發展局及香港建造業協會頒發「模範分包商獎」,對本集 團的工程質量賦予認可。

本集團已制定《工程管理制度》對幕牆承建類公司工程管理進行了 詳細規定,包括對工程前期,進度管理,成本控制,質量管理 竣工與維修等各方面進行了詳細説明及管理,確保工程質量的前 提下順利進行。本集團幕牆工程業務的所有產品,包括原材料、 半成品及成品在出廠前均須通過嚴格的質量檢測程序,例如尺寸 檢查、編號檢查、數量檢查、防水檢測,防止不合格品入廠使用 繼續加工、組裝或交付。此外,我們將建築信息模型技術應用於 項目,對建築環境進行全生命週期管理。本集團已在海內外多個 項目中開展BIM技術的實際應用,例如香港的啟德南豐、啟德體 育園、半山西摩道、碼頭圍、太古坊2B、長江中心2期、中環美利 道項目,以及海外的Empire Landmark、One Bloor項目等。這些 項目均體現出BIM技術的資訊完備性、資訊關聯性、資訊一致性、 可視化、協調性、模擬性、優化性和可出圖性八大特點,充分顯 示了本集團通過BIM技術提供項目全生命週期解決方案的傑出能 力,為產品質量與安全的提升提供更好保障。本集團正積極研究 工程項目6D管理模式,進行建築性能分析模擬,滿足低能耗、高 性能、可持續發展的建築要求。憑著不斷創新及完善項目施工技 術理念,本集團榮獲四川省省級機關房屋建設中心頒發的「先進 施工單位 |。





The Group has drawn up the Quality, Environment and Occupational Health and Safety Procedure Document, which requires all departments to report and inspect unqualified products in a timely manner to ensure that the guality of the finished products is gualified before they can be delivered to construction sites for installation. Moreover, finished products are packaged and protected in a thorough manner before shipment. The products are completely cleaned to ensure that they are free of dust, aluminium chips, glue residue or any other impurities. Single parts are handled with protective packaging and the contact points of aluminium materials and transport frames are also carefully handled. In addition, the Engineering Management System of the Group establishes quality management plan and finished project protection plan for projects under facade contractors, and assigns quality manager or quality engineer based on the organizational structure of the project. To ensure good customer experience, the Group strictly checks the sound insulation and light transmission performance of facade products to prevent noise pollution and light pollution from affecting the physical and mental well-being of users. In the event of a quality problem with delivered products, the Group will immediately initiate investigation to verify the problem, and recall and replace the products in a timely manner. The Group has also formulated the Processing Plant Operation Document to establish the structure of each production department and the scope of responsibilities of each position in the factory to implement quality control of processed products. Meanwhile, it lists the maintenance procedures of mechanical equipment to ensure the quality of products. This year, the Group was awarded the "Outstanding New Supplier of the Year in China Merchants Shekou Shenzhen Area" granted by China Merchants Shekou in Shenzhen, which recognized the quality of the development project. During the reporting period, no product sold or shipped by the Group was recalled for safety and health reason.

On supervision business, China Overseas Supervision formulated the QES (Quality, Environment, Safety) Management Manual. The management manual refers to the Regulation on the Quality Management of Construction Projects, Quality Management System Requirements (GB/T 19001-2016/ISO 9001:2015) and other standards, requiring all employees to strengthen the study of quality management system documents. Based on the concept of "Plan-Do-Check-Act (PDCA)", the standardized development and continuous improvement of company business and quality objectives are ensured, quaranteeing that the quality of our works meets the requirements of customers and applicable laws and regulations. In order to urge employees to implement improvement measures regarding the guality of products and services, China Overseas Supervision has simultaneously formulated the Quality and Safety Work Evaluation and Reward and Punishment Management Measures of the Project Department, under which appropriate reward or punishment measures are adopted through the assessment and quantitative scoring of the daily quality management work of the Project Department by various functional departments. All projects with excellent performance will receive the "Quality and Safety Award" from the Project Department, and will be rewarded with corresponding bonuses, while warnings will be issued for unqualified situations to further enhance the enthusiasm of employees for quality management. In addition, the Group has also formulated the Laws, Regulations and Other Requirements, and Compliance Evaluation Management Procedures to ensure that various business activities comply with laws, regulations and other requirements.

In terms of CHP operation, Huanggu Thermoelectricity referred to quality standards such as GB/T12145-2008 Quality Criterion of Water and Steam for Generating Unit and Steam Power Equipment and GB/T1576-2008 Water Quality Standards for Industrial Boilers to standardise and institutionalise the procedures for laboratory technical supervision and management, clearly define the chemical supervision and management responsibilities for water, coal and oil, and draw on reliable testing methods and scientific management methods to ensure sound, safe, and steady operation of power generation and heating facilities, thereby providing customers with robust and high-quality power generation and heating services. This year, Shenyang Municipal Bureau of Real Estate recognised the quality of Huanggu Thermoelectricity's heating services and awarded Huanggu the "2021-2022 Outstanding Contribution Heating Service Provider".

本集團已制定《質量、環境和職業健康安全程序文件》要求各部門 及時報告及檢驗不合格品,確保成品品質合格之後方可運送到工 地進行安裝。同時,本集團亦於出貨前進行全面的成品保護程序 和全面清潔,確保整體無塵、無鋁屑、無殘膠及其他雜物後,對 單組件進行包裝保護,並在鋁料與運輸架的接觸位置採取細緻的 保護措施。此外,本集團的《工程管理制度》也對幕牆承建類公司 工程管理確立了質量管理計劃及成品保護計劃,並根據項目組織 架構而定,設置質量經理或質量工程師。為保障良好的客戶使用 體驗,本集團對幕牆產品的隔音和透光情況均進行嚴格驗算,防 止噪聲污染和光污染影響用戶的身心健康。當已發貨產品出現質 量問題,本集團會立即展開調查核實,並及時回收、更換產品。 本集團更制定《加工廠作業文件》,確立工廠各生產部架構及各職 位的職責範圍,執行加工產品質量監控,同時列出機械設備維修 保養程序,確保出品質量。本年度,集團獲招商蛇口深圳區域頒 發「年度招商蛇口深圳區域優秀新供應商」,表彰發展項目的產品 質量。報告期內,本集團已售或已運送產品中並無出現因安全與 健康理由而須回收的情況。

在監理業務方面,中海監理制定《QES(質量、環境、安全)管理 手冊》,管理手冊引用《建設工程質量管理條例》、《質量管理體 系要求(GB/T 19001-2016/ISO 9001:2015)》等標準,要求全體員 工加強學習質量管理系統文件。基於「策劃一實施一檢查一改進 (PDCA)」的概念,確保規範化地開展和持續改進公司業務及質量 目標,保證工程質量滿足顧客和適用法律法規的要求。為促使員 工落實改進產品及服務質量,中海監理同時制定了《項目部質量 安全工作考評及獎懲管理辦法》,通過各個職能部門對項目部日 常質量管理工作進行考核及量化評分,適當採取獎勵或懲處措施。 表現優異的項目均獲項目部頒發的「質量安全獎」並獲得相應的獎 金獎勵;而不合格情形將則會予以警示,進一步提高員工進行質 量管理的積極性。此外,本集團也制定了《法律法規及其他要求、 合規性評價管理程序》以確保各項業務活動滿足法律法規和其他 要求。

在熱電聯產營運方面,本集團皇姑熱電參考GB/T12145-2008《火 力發電機組及蒸汽動力設備水汽質量標準》、GB/T1576-2008《工 業鍋爐水質標準》等質量標準,將化驗室技術監督管理流程規範 化、制度化,明確劃分水、煤、油的化學監督管理職責,採用可 靠的檢測手段和科學的管理方法,保證發電供暖設備健康、安全、 穩定運行,為客戶提供穩定和高質量的發電供暖服務。本年度瀋 陽市房產局表揚供熱服務及質量,頒發了「2021-2022年度突出 貢獻供熱單位 |。









CUSTOMER SERVICE AND COMMUNICATION

The Group continues to build more efficient and smooth feedback channels to allow customers to express their opinions on the Group's products and services to us more conveniently. We also make rectifications based on customers' opinions to enhance their satisfaction with our products and services. We provide customers with various channels for feedback or complaints, including government networks, telephone platforms, the Group's hotline and on-site visits. Upon receipt of any customer feedback or complaints, relevant departments will promptly contact customers to respond to complaints and conduct follow-up analysis and investigation.

The Engineering Management System of the Group provides guidance on customer relationship management for facade constructors under the Group, including handling of warning letters, major complaints and daily complaints. For the Group's facade contracting business, the Project Department of Gamma Canada will contact customers immediately after receiving complaints or feedback to know the causes and make follow-up arrangements such as on-site investigation and maintenance as appropriate to properly solve the problems. At the same time, the Project Department shall also truthfully record the customer feedback and handling results and report them with improvement suggestions to the department heads or the general manager at the regular meeting. In addition, the Marketing Department in Far East (Shanghai) conducts customer satisfaction surveys at the end of each year, and sums up the result-based improvement direction in the next year, so as to improve customer satisfaction and enhance product quality management.

China Overseas Supervision has also formulated the *Guidelines for Handling Complaints from Customers and Related Parties* to guide relevant departments to properly handle complaints from customers and related parties about services, and conduct investigations and improvements based on the *Complaint/Grievance Form* filled out by employees receiving the complaints. Judging from the feedback provided by customers via the governmental platform, the customers of Huanggu Thermoelectricity mainly demand on policy consultation and heating system maintenance. Huanggu Thermoelectricity complies with the regulations and handles matters in strict accordance with the specified process within the required time frame. For the feedback provided through hotline channels and customer visits, Huanggu Thermoelectricity calls back to resolve policy enquiries, and performs on-site checking to tackle the feedback of heating problems. Huanggu Thermoelectricity shall also, together with government personnel, deal with special problems after visiting the areas and individuals concerned, convening property owners' meetings and coordination, and report to the higher responsible department to explain the causes and solutions. The Customer Service Department of Huanggu Thermoelectricity shall completely document the problems proposed by key users and the handling and conduct continuous tracking and visits until the problems are solved.

During the reporting period, the Group did not receive any complaints on products or services.

客戶服務與溝通

本集團持續打造高效暢通的反饋渠道,讓客戶更方便地向我們表達對於本集團產品及服務的意見,我們也會根據客戶的意見作出整改,使客戶更滿意我們的產品及服務。我們為客戶提供了多種渠道反饋意見或投訴,包括政府網絡、電話平台、本集團熱線電話以及實地來訪等。接獲任何客戶反饋或投訴後,相關部門將會及時聯繫客戶回應投訴,並進行後續分析及調查。

本集團的《工程管理制度》為本集團幕牆承建類公司工程管理提供客戶關係管理指引,包括處理警告信、重大投訴及日常投訴。對於本集團幕牆工程業務,加拿大項目部會於接獲投訴或反饋後立即聯絡相關客戶了解事由,並酌情做出例如實地考察、維修等後續相關安排,妥善解決問題。同時,項目部亦對客戶反饋及處理結果進行如實記錄,並於定期會議上向各部門主管或總經理匯報相應情況、提出改善建議。此外,遠東上海於每年年底前由市場部負責開展客戶滿意度調查,並針對調查結果總結未來改進方向,從而不斷提升客戶滿意度,同時促進產品質量管理水平的持續提高。

報告期內,本集團並無接獲關於產品及服務的投訴。







PRIVACY SECURITY AND DATA PROTECTION

Considering the protection of customers' personal information and privacy, the Group strictly abides by the relevant laws, regulations and management regulations applicable to the place where the business operates, and properly keeps and updates customers' personal data in accordance with established procedures. The relevant data is managed by the Marketing Department and stored in the designated server.

Management System

The Group has formulated the Informatisation Management System to drive the healthy and orderly development of the Groups' informatisation infrastructure, and to ensure the safe and stable operation of its information systems. The System clearly sets out the responsibilities of informatisation management, with the Informatisation Management Department being responsible for the establishment, application and management of informatisation, including formulating informatisation development plans and annual work plans according to the Group's development strategies; establishing an information security system and implementing information security work through assessment, inspection and training; and planning, researching, developing, implementing, promoting, applying and managing information systems, etc. At the same time, the Group clearly defines informatisation asset management, network infrastructure management, operation and maintenance management, application system management and informatisation performance management, and carries out information security management work in accordance with the Cybersecurity Law of the People's Republic of China, relevant regulations of China Overseas Holdings and the requirements of the ISO 27001 information security management system. Under the information security management system, all units are required to classify information security incidents according to the extent of their damage and impact, so as to formulate response, handling, recovery and follow-up procedures, to draw up corresponding emergency plans, and to conduct regular drills to evaluate the effectiveness of such emergency plans. The System also instructs employees on how to safeguard data security, such as by conducting regular data backups and by installing anti-virus software. It is also the employees' duty to the company to keep computer files confidential; they must not send company data outside of the company via any channels or networks without the consent of their unit heads.

Besides, the Group's subsidiaries have also set up systems related to network information management and security. Huanggu Thermoelectricity has formulated and implemented the *Computer Management and Cybersecurity Management System*, stipulating that the information centre is responsible for maintaining and repairing customer software equipment, cyber communication equipment and communication lines, and other cybersecurity and information security matters, while the server and major equipment should be managed and backed up by authorised system administrator. Huanggu Thermoelectricity practically divides the data into general data - such as personal or departmental office documents, e-mail, etc. - and important data - such as charging software, heating central control system, production SIS system, and other system data. The general data is backed up by the data users in each department every month and requires the cooperation of the personnel of the information centre if necessary whereas the important data is specifically managed by the system administrators according to the established procedures to comprehensively guarantee corporate cybersecurity and data information security.

私隱安全與數據保護

考慮到保障客戶個人信息及私隱,本集團嚴格遵守業務營運所在 地適用的相關法律法規及管理規定,並根據既有程序妥善保管和 更新客戶個人資料,而有關資料由市場部管理及存放於指定的服 務器。

管理制度

本集團制定《信息化管理制度》,推動集團健全有序的發展信息 化建設確保集團信息系統安全穩定運作。制度明確信息化管理職 責,由信息化管理部負責信息化建設應用管理工作,包括根據集 團發展戰略制定信息化發展規劃和年度工作計劃;制定信息安全 制度,通過審核、檢查、培訓落實信息安全工作;規劃研發實施 及推廣應用管理信息系統等。同時,清晰列明信息化資產管理 網絡基礎設施管理、運維管理、應用系統管理及信息化績效管理 並按照《中華人民共和國網絡安全法》、中海集團相關規定及ISO 27001信息安全管理體系要求,開展信息安全管理工作。信息安 全管理規定各單位對信息安全事故的破壞程度和影響程度劃分等 級,以制定響應、處理、恢復及跟蹤程序,建立相應應急預案 並定期進行演練評估應急預案的有效性。同時,制度指引各員工 如何保障數據安全,例如定期進行資料備份及安裝防毒軟件。員 工對公司的電腦檔案也有安全保密的責任,未經單位領導同意 員工不得將存有公司數據通過任何媒介或網絡傳送到公司以外的 地方。

另外,集團各子公司也訂立了網絡信息管理及安全相關制度。皇姑熱電制定並實施《計算機管理及網絡安全管理制度》,規定由信息中心負責軟件客戶端設備、網絡通訊設備、通訊線路的維護、維修等網絡及信息安全維護相關工作,而公司服務器等主要設備均由公司授權系統管理員負責數據管理和備份。皇姑熱電假際情況,將數據劃分為一般數據(如個人或部門的辦公文檔、電子郵件等)和重要數據(如經營收費軟件、供熱中控系統、生產SIS系統等系統數據),一般數據由各部門使用人員每月自行備份,必要時聯繫信息中心人員配合,重要數據則由各系統管理員根據既定流程具體管理,全面保障企業網絡及數據的信息安全。



Raising Network and Information Security Awareness

The Group also encourages its subsidiaries to carry out e-mail security promotion through the intranet, China Overseas Communications, training platforms, online and offline training, cyber offensive and defensive exercises, etc. This year, a week-long "Cybersecurity Education and Publicity Week" was launched, including setting up a cybersecurity publicity column on the company website, publishing relevant security knowledge, laws and regulations and related cases, as well as broadcasting official posters, videos, slogans, etc. of the publicity week, thereby actively creating a culture of cybersecurity and improving the information security awareness of all employees. This year, the Group's Informatisation Management Department and China Construction Management School jointly launched two cybersecurity talent training and examinations, inviting employees from the cybersecurity-related departments of the Group headquarters and subsidiaries to participate in the training, and encouraging all employees who are interested in cybersecurity to join. The content included middleware security, operating system security, database security, etc. In addition, the Group also arranged other trainings for employees of cybersecurity-related departments, including comprehensive defense of virtualization platforms, defense against direct breakthrough tactics, emergency response driven by threats, lurking techniques and tactics in intranet intrusion, etc.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

TECHNOLOGICAL INNOVATION

The Group, fully aware of the value that technological innovation will create for our business, puts much emphasis on investing ample resources in driving the R&D of innovative technologies internally, and in enhancing the protection of intellectual property.

BUILDING CAPACITY AND DRIVING TECHNOLOGICAL R&D

On driving the R&D of technological innovation, the Groups set up a leading group for technological innovation, where the Chief Executive Officer serves as the leader to guide the Group in formulating technological development and implementation plans, coordinating the declaration and maintenance of patents and awards, carrying out informatisation development, and advising on talent cultivation, thereby driving the Group's technological innovation and industrial upgrade with professional knowledge.

推廣網絡及信息安全意識

本集團亦鼓勵各附屬公司通過內網、中海通、培訓平台、線上及 線下培訓、網絡攻防演習等方式開展郵件安全宣傳工作,本年度 更開展了為期一週的「網絡安全教育宣傳周」活動,於公司網站開 設網絡安全宣傳專欄,發佈相關的安全知識、法律法規及相關案 例,並播放宣傳周的官方海報、視頻、口號標語等,積極營造網 絡安全文化氛圍,提高全體員工信息安全防範意識。本年度本集 團信息化管理部聯合中建管理學院開展了兩期網絡安全人才培訓 及考試,邀請本集團總部及各附屬公司網絡安全相關部門員工參 加培訓,並鼓勵所有對網絡安全感興趣的員工參加,培訓內容包 括中間件安全、操作系統安全、數據庫安全等。除此以外,本集 團亦**為**網絡安全相關部門員工安排了其他培訓,包括虛擬化平台 綜合防禦、抵禦正向突破戰法、威脅情報驅動的應急響應、內網 入侵中的隱蔽潛伏技戰法等。

科技創新

本集團深明科技創新能為我們的業務發展創造價值,因此高度重 視並於內部投放大量資源推動創新技術研發工作,同時加強保護 知識產權工作。

構建實力,推動科技研發

在推動創新技術研發工作方面,本集團成立了科技創新工作領導 小組,由行政總裁擔任組長帶領集團制定科技發展計劃和實施方 案,統籌專利、獎項等申報和維護,以及信息化發展工作,並對 人才培養提出意見,以專業知識推動集團技術創新和產業升級。















The Group always strictly complies with the applicable laws and regulations on intellectual property protection in the places where it operates, strives to protect our intellectual property rights, and encourages employees to achieve technological innovation while adhering to established standards. The Group implements a *Technology Management System* to step up technological innovation and intellectual property management, including applying for and maintaining intellectual property rights, managing the duties of teams and responsible departments, managing R&D results, and carrying out assessment processes. In addition, the Group has put in place a technological development fund, under which funding is set aside each year for intellectual property management, experimental research and R&D collaboration under the charge of technology management departments. The Group has also set up R&D goals under different projects, and established the division of responsibilities of various units, intellectual property response, research direction and progress, so as to carry out R&D work more efficiently. To further encourage R&D development, the Group also includes departmental technological innovation in the scope of corporate assessment, sending the assessment team to regularly assess the progress of applications for national invention patents, utility model and patents in other countries and regions, and rewarding and commending notable technological innovators in their employee assessment.

The subsidiaries of the Group have also implemented intellectual property management policies pertinent to their respective business nature, and have established their own technology working groups. For instance, Huanggu Thermoelectricity has formulated and implemented a trial on the *Regulations on Technological Innovation* and set up an internal leading group for technological innovation to comprehensively plan, coordinate and facilitate technological innovation and intellectual property work, including the declaration, paper publication and patent application of the Group's technology demonstration projects and local technological awards. In addition, China Overseas Supervision has formulated and implemented the *Control Procedure for Knowledge Management* to put in place unified and effective control and management of intellectual property rights in a standardized manner. China Overseas Supervision has also formulated the *Science and Technology R&D Centre Management System*, specified the *Science and Technology R&D Policy*, formulated technology development plans, and enhanced the capabilities of technological innovation and new technology application and promotion.

We also make good use of external R&D funds as far as practicable, such as Hong Kong Innovation and Technology Fund, Green Tech Fund, Construction Innovation and Technology Fund, etc., to promote the development of innovative technologies of the Group. We also actively cooperate with universities and other academic and R&D institutions to jointly develop new products and services, such as architectural planning design and technology, new low-carbon facade products, use of new materials, sustainable and recycled materials, etc.

本集團始終貫徹嚴格遵守業務營運所在地適用的知識產權保護相關法律法規,致力保護我們的知識產權,並規範化推動員工實踐科技創新。本集團實施《科技管理制度》以加強科技創新工作與知識產權管理,包括知識產權申請和維護、管理團隊和負責部門職產權管理,包括知識產權申請和維護、同時,本集團亦設有於四級人類,由科技管理。司教祖等等。司教祖等等,由科技管理部門負責管理,用於討立之經費,由科技管理。本集團亦於各項計算。本集團亦於各項計算,與不同單位的任務分工、知識產權應對、研究計劃之一步鼓勵科研發展,可以進度,更有效地推行研發工作。為進一步鼓勵科研發展,亦將部門科技創新工作納入企業考核範圍,由考核小組定期考核完成部門申報國家發明專利、實用新型專利及其他國家地區專利的以與關和表彰。

本集團旗下的各子公司亦根據其業務性質實施針對性的知識產權管理政策及成立各自的科技工作小組。例如,皇姑熱電制定並試行實施《科技創新工作管理辦法》,內部設置科技創新工作領導小組,負責全面統籌、協調推進科技創新及知識產權工作,包括本集團科技示範項目及地方科技獎勵的申報、論文發表、專利申請等。此外,中海監理亦制定並實施《知識管理控制程序》,以制度規範的形式,對知識產權實行統一有效的控制和管理。中海監理制定《科技研發中心管理制度》,明確《科技研發政策》,制定科技發展規劃,增強科技創新、新技術應用推廣能力。

我們亦會盡可能善用外部資助的研發資金,例如香港創新及科技基金、低碳綠色科研基金、建造業創新及科技基金等,致力推動本集團創新技術的發展。我們更積極與大學及其他學術、研發機構合作,共同開發新產品和服務,例如建築規劃設計及技術、新型低碳幕牆產品、使用新型材料、可持續及再生材料等。







TECHNOLOGICAL INNOVATION PLANNING

The Group sets up an Annual Innovation and Technology Work Plan every year to stipulate its internal technology work plan and establish R&D projects related to curtain walls, supervision and thermal electricity businesses, including formulating technology project content list, result list, major milestones, patent and construction method application volume, and technology R&D and R&D funding volume, so as to expand the application and research of various technologies, such as artificial intelligence, Internet of Things and big data, virtual reality and augmented reality, project integrated management system (PIMS), establishment of intelligent management system, etc. This year, the Company's subsidiaries have established their own technology and innovation work plans. Far East Facade conducted R&D and planning on the foundation of its six existing core technologies, including complete sets of complex hyperbolic curtain walls, complete sets of curtain walls for super high-rises, MiC curtain walls, carbon peak and carbon neutral green curtain walls, high-performance curtain wall products, and smart technologies of curtain wall fabrication and construction; China Overseas Supervision had a list of 7 technology projects, including national certification of high- and new-technology enterprises, topical studies of the public works bureau, PIMS promotion and further upgrade, technical bid innovation and R&D, technical support and training, technical paper (case studies) management, and standardised development; Huanggu Thermoelectricity launched this year 20 different technology and innovation projects, including 11 related to facility upgrade, 2 related to technological transformation, 4 related to carbon peak and carbon neutral environmental protection and 3 related to smart management, to further enhance the Group's technological innovation level and continuously strengthen the enterprise's core competence.

TECHNOLOGICAL INNOVATION APPLICATION

In respect of facade technologies and designs, Gamma Canada has developed new technologies for facade products, and the new technologies have currently been certified by the Passive House Institute in Germany. Gamma Canada has also successfully applied for the first patent of passive unit glass wall in the world and the first patent of passive glass wall in North America, in a bid to effectively protect its research results. Besides, Far East (Hong Kong) has incorporated environmental protection innovation into the design process, and designed and launched standardised products for owners to choose from, resulting in effective tooling saving, reduced energy consumption and fewer on-site welding sessions during the production process, thereby achieving business innovation and environmental protection at the same time.

創新科技規劃

創新科技應用

在幕牆技術及設計方面,遠東加拿大積極開發幕牆產品新技術,目前已獲得德國被動式建築專業委員會認證,且成功申請全球第一例被動式單元玻璃幕牆專利和北美第一例被動式玻璃幕牆專利,切實保障企業研究成果。另外,遠東香港在設計過程中加入環保創新元素,設計並推出標準化的產品供業主選擇,從而在生產過程中有效節約模具、降低能耗,並減少了現場燒焊環節,業務創新的同時也實現了達到環境保護。







During the reporting period, the Group has actively developed and applied technology and innovation in various business processes, including:

於報告期內,本集團亦積極發展及應用創新科技於各業務過程中, 包括:

Digitalised Management 數字化管理

- To enhance production progress and raise work efficiency, we employ digitalised management in simulating and analysing the situation to effect exchange of design and production data. Besides, the Group plans to increase the utilisation rate of BIM, and set the number of BIM application projects each year.
- Besides, we step up digitalisation to gradually enhance Far East's backend management system, to establish a multi-purpose web data management and filling backend system, to refine the management of the nodes of factories, transportation and construction sites, and to measure the node progress of various construction site units. Mobile apps and online platforms are used to exchange data and conduct real-time monitoring of the entire supply chain.
- We actively develop management system functions to view the category, location and rectification status of the quality
 and safety issues of construction sites; report the number of attendees and compile relevant statistics; and set user
 rights to facilitate the management and the keeping track of construction sites and curtain walls, thereby further
 enhancing the standardisation, intelligence and refinedness of project operation management and reducing project
 risks.

- 利用數字化管理模擬及分析項目情況,實現設計和生產數據互通,優化生產進度及產品質量,提升工作效率。本集團亦計劃提升BIM使用率,訂立每年BIM應用項目的數量。
- 同時,我們加強對數字化的建設工作,逐步提升遠東後台管理系統,建立多功能網絡(Web)端數據管理與填報後台,精細化管理工廠、運輸及地盤節點,統計不同地盤單元件節點進度。利用手機程式及網上平台互通數據,進行全供應鏈實時監測。
- 我們積極拓展管理系統功能,以查看地盤質量與安全的問題類別、位置及整改狀態;作上班人數填報與統計;以及設立人員權限方便管理追蹤地盤和幕牆,進一步提升項目運營管理標準化、智能化、精細化,降低項目風險。

FACTORY 工廠 Design approval Material procurement Production and assembly Quality inspection and stocking Material procurement 特別採購 生產組裝 質檢入庫

TRANSPORTATION 運輸 • Shipping and transportation • Warehouse transition • Receiving in Hong Kong 香港收貨

CONSTRUCTION SITES 地盤

• On-site installation
• Water testing

現場安裝
試水測試



WWW

W-246 - 34



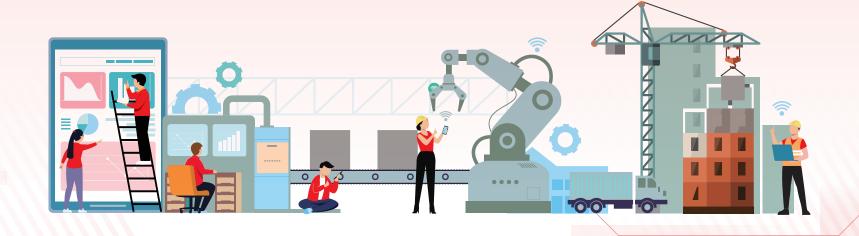


Intelligent Production 智能化生產

• Far East (Hong Kong) strengthened the application of water-testing robots and welding robots. The water-testing robots can enhance the effectiveness of curtain wall water testing, ensure that the curtain walls are completely watertight and airtight at the seams and junctions, and reduce safety risks by decreasing the need for working at height; the welding robots can perform highly precise welding on workpieces with larger sizes and wider weld seams, and produce weld seams with smoother and nicer surfaces than manual welding. Not only can they improve welding quality, but also lower safety risks such as burns and electric shocks incurred by welding.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

- As the intelligent production factory of the Group's facade contracting business in the Mainland China, Far East (Zhuhai) is committed to building a high-end and technology-based enterprise of facade contracting with global leadership in technology, efficiently leading the technological innovation and development of the industry. Among others, we introduced the second 70-ton CNC roll bending machine of the country to overcome the world-class problem of "hypercurved facade", so as to build the leading aluminium facade profile bending workshop in the Mainland China. We were also equipped with an intelligent 3D scanner for bending and processing quality testing of curved aluminium profiles to meet the requirements of production accuracy, hence mastering the world's leading digital design and construction technology of hyperbolic facade. In addition, Far East (Zhuhai) developed the first facade cutting machine plus automatic production line in the Mainland China independently, which doubled the production capacity while reducing labor by 70%, thus further improving the level of smart manufacturing.
- 遠東香港加強應用試水機械人及燒焊機器人。試水機械 人可提升幕墙試水測試效能,確保幕牆各個接縫位及收 達致全面水密性及氣密性,降低高空工作需求,從 而減少安全風險;而燒焊機器人對更大工件以及焊縫更 燒焊更平整、美觀。不單能提升焊接質量,同時亦可減少 焊接所造成的灼傷、觸電等安全風險
- 作為本集團幕牆工程業務在內地的智能生產旗艦,遠東 珠海致力於打造全球技術領先的高端幕牆科技型企業, 高效引領行業的科技創新發展。其中,為攻克「雙曲幕牆」 的世界級難題,引進全國第二台70噸數控輥彎機,打造國 指的幕牆鋁型材彎曲車間,並配備智 描儀,用於彎弧鋁型材的彎曲及加工品質檢測,滿足生產 精度的要求,從而掌握全球領先的雙曲幕牆數字化設計 及建造技術。此外,遠東珠海自主研發國內首條幕牆開料 機加自動生產線,在減少70%的人工的同時實現產能翻 一步提升幕牆智慧製造水平。











Upgrading Facilities and Production Efficiency 優化設施及生產效率

· MiC is an innovative construction method. By adopting the concept of "factory assembly followed by on-site installation", on-site construction process can be transferred to a controlled factory environment. Free-standing integrated modules (including completed with finishes, fixtures and fittings) are manufactured and assembled in a factory, meaning building can be substantially completed off-site before delivery, which reduces the amount of work on-site and mitigates the impact of weather, labour resources and site constraints on construction. Meanwhile, this also facilitates quality control and improves construction productivity, safety and sustainability. Far East Facade combines modular construction with facade, assembling modules directly in the MiC factory through the built-in window wall system, which breaks the traditional mode of on-site installation and greatly shortens the construction period, hence improving the performance of facade products.

China State Construction Development Holdings Limited 中國建築與業集團有限公司 | Sustainability Report 可持續發展報告 2022

- MiC是一種創新的建築方法。通過「先裝後嵌」的概念,將 現場建築工序轉移至較易控制的廠房進行,在廠房中製 措獨立的組裝合成組件(包括裝飾工程、固定裝置和屋宇 設施),樓宇在組件送達工地前已大致上完成,從而減省 現場施工工序,減少建築過程受天氣條件、勞動力資源和 施工場地限制影響,同時有利管理施工質素、提升建造業 的生產力、安全性及可持續性。遠東幕牆將模組化建築和 單元幕牆結合,通過內裝式窗牆系統將單元件直接在MiC 工廠組裝,打破傳統在現場安裝的模式,大大縮短建造週 期,實現了幕牆的裝配式的同時也提升幕牆產品的使用 性能。
- Huanggu Thermoelectricity has set targets for the optimisation and transformation of the primary network and heat exchange station system, which will be implemented year by year to improve the safety and reliability of the pipeline network operation and achieve energy saving and consumption reduction. Projects carried out at the same time include the renovation of the outlet flue of the desulphurisation tower, the upgrading of the high-efficiency fibre filter, the upgrading of the slag cooler, the application of new equipment such as sulphur hexafluoride (SF6) circuit breakers and double-walled calorimeters, etc. The optimisation and transformation targets of Huanggu Thermoelectricity are as follows:
- 皇姑熱電訂立一級網及換熱站系統優化改造目標,逐年 實施以提高管網運行的安全性及可靠性,實現節能降耗。 同時進行脱硫塔出口煙道改造、高效纖維過濾器升級改 造、冷渣機升級改造、六氟化硫(SF6)斷路器、雙筒量熱儀 新設備應用等項目,皇姑熱電優化改造目標如下:

2021-2022	Modification of water quality technology for high temperature grids	改造高溫網水質技術
2021-2025	Launch of the technical transformation of the dual network balance, 2-3 million square metres per year, with an expansion of the scale in 2022 to carry out project construction within the scope of 6 communities	開展二網平衡技術改造,每年200-300萬平方米,於2022 年擴大規模在6個小區範圍內進行項目建設
2022-2024	Retrofitting of boiler ACS system technology	改造鍋爐ACS系統技術
2023-2024	Retrofitting of ultra-low emission technology for hot water boilers	改造熱水鍋爐超低排放技術
2023-2024	Improvement of service quality with technology by using WeChat as a communication platform, improving the user-oriented service system and establishing a full-featured service platform	以科技提升服務質量,以微信作為溝通平台,完善面向 用戶的服務系統,建立全功能的服務平台





The Group strives to enhance the accumulation and protection of corporate intellectual property such as technology achievements, and to build a shared technology resources pool, thereby capitalising on the Group's advantages through co-creating and sharing.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

本集團致力做好科技成果等企業知識產權的積累與維護,創建共 享技術資源池,共建共享,發揮集團優勢。

STANDARDISED MARKETING AND PROMOTION

In terms of advertising, the Group strictly observes the marketing laws, regulations and ordinances applicable in the place where it operates and standardises the advertising and label use in product sales and marketing services. We prohibit illegal advertising and ensure that all promotion materials, advertisements and publicity are true and accurate enough, containing no misleading information. In this way, we eliminate false promotion and protect the rights and interests of consumers. The nature of the Group's business does not involve label-related matters, and therefore label-related policies, laws and regulations do not apply to the Group.

規範市場營銷

在廣告宣傳方面,本集團嚴格遵守業務營運所在地適用的市場營 銷相關法律法規及管理條例,規範有關產品銷售及營銷服務中的 有推廣材料、廣告及宣傳內容真實準確、不含任何誤導信息,杜 絕虛假宣傳情況發生,切實保障消費者權益。本集團業務性質並 無涉及標籤相關事項,因此標籤相關政策、法律及規例不適用於 本集團。









BUILDING A SUSTAINABLE SUPPLY CHAIN 建設可持續供應鏈

PRIORITISE RESPONSIBLE PROCUREMENT

STRICT AND STANDARDISED SUPPLIER ASSESSMENT

Most of our suppliers are material suppliers. Materials supplied include section bars, glass, aluminium boards, stones, fasteners, hardware, rubber strips and other materials. The Group is committed to building a sustainable supply chain and continues to establish a comprehensive supplier management system to achieve a win-win situation and more advantages through cooperation with our suppliers. For this, the Group has formulated the Procedures for Procurement of Materials to actively impose strict supplier selection measures in the procurement process, made efforts to identify possible environmental and social risks in the supply chain, and minimised the identified risks. Besides, when selecting suppliers, the Procurement Department of the Group assesses and considers the performance of potential suppliers in various aspects, including project progress, quality, safety, health and environmental protection, and selects and works out a List of Approved Suppliers according to the assessed performance. For each project, the Group specifies the technical, quality, safety and health and environmental requirements for the materials required, as well as the specific material loss rate requirements for the suppliers. Meanwhile, the Procurement Department is responsible for assessing all suppliers every year, and reviewing and updating the result-based list. The updates are signed, confirmed and approved by the person-in-charge of the Procurement Department. Anti-corruption is one of the Group's ongoing work principles. To this end, the Group has developed an Integrity Pledge, which requires suppliers, contractors and business partners to sign an Integrity Pledge or include an anti-corruption pledge in their contracts when engaging in various types of transactions to ensure that they abide by the Group's laws, regulations and standards of conduct on business ethics. We also regularly communicate to our suppliers, contractors and business partners our zero-tolerance for bribery and corruption. Our subsidiaries also draw up policy documents according to the requirements of their respective locations and businesses to standardise their procurement procedures; for example, China Overseas Supervision has formulated the Guidelines for Administrative Procurement Management to guide the conduct of administrative procurement processes based on the principles of openness, transparency and competitive selection.

For suppliers who severely fail to deliver goods of required quality and quantity, within the required time framework and in compliance with safety, health and environmental requirements, the project leaders and purchasers of the Group will promptly notify the person-in-charge of the Procurement Department for further handling. Where necessary, the cases will be escalated, and the suppliers concerned can be immediately removed from the List of Approved Suppliers upon approval, and the Group will not conduct business with them within one year.

Generally, the purchasers of the Group should select suppliers from the List of Approved Suppliers. Otherwise, the purchasers must fill in the Application Form for Temporary Suppliers and invite the suppliers to submit quotations upon approval from the person-in-charge of the Procurement Department. The approved temporary suppliers are allowed to offer 3 rounds of supplies at maximum. If their supplies meet our requirements, they may apply for inclusion in the List of Approved Suppliers of the Group.

During the reporting period, all suppliers of the Group implemented the above supplier selection practices.

優選責任採購

嚴謹及標準化供應商評估

本集團大部分供應商為材料供應商,供應材料包括型材,玻璃, 鋁板,石材,緊固件,五金,膠條等。本集團全力打造可持續供 應鏈,持續建立完善的供應商管理系統,與供應商合作,互惠共 贏,取得更多優勢。因此,本集團訂立了《物資採購工作程序》, 在採購過程中積極實施嚴格的供應商甄選管理措施,竭力識別供 應鏈中潛在的環境及社會風險,並將識別的風險降至最低。此外, 在篩選供應商時,本集團物資採購部會評估和考慮潛在供應商各 方面的表現,包括工程進度、質量、安全、健康及環保方面等, 根據評估表現,選出認可供應商並制定認可供應商名冊;而在每 項工程中,本集團均列明所需材料的技術、質量、安全及健康和 環保要求,以及對供應商的具體材料損耗率要求。同時,採購部 每年亦會負責對所有供應商進行年度評估,並根據評估結果複審 及更新《認可供應商名冊》。更新後的供應商名冊經由採購部負責 人簽名確認及審批。反貪污是本集團貫徹始終的工作準則之一, 為此,本集團制定了《廉潔承諾書》,要求供應商、承建商和業務 合作夥伴在從事各類交易時簽訂《廉潔承諾書》,或將廉潔反貪承 諾訂定於合約中,確保他們遵守本集團的商業道德法律、法規和 行為標準。我們亦定期向供應商、承建商和業務合作夥伴傳達我 們對賄賂和貪污零容忍的態度。各附屬公司亦會根據在地及業務 的要求制定政策文件,務求令採購過程規範化,如中海監理制定 了《行政採購管理指引》,指導行政採購過程應以公開、透明、競 爭性選用的原則進行。

對於嚴重違反時間、質量、安全、健康及環保要求的供應商,本 集團的相關項目負責人及採購員將及時通知採購組負責人進行進 一步處理。必要時,亦會上報,經審批後,可立即將相關供應商 從《認可供應商名冊》中除名,且一年之內不與其進行業務合作。

一般情況下,本集團採購員應從《認可供應商名冊》中選擇供應商 若需選用尚未進入《認可供應商名冊》的供應商,採購員須填報《暫 准使用供應商申請表》,並經採購部負責人批准後方可激請相關 供應商進行報價。經批准後的暫准使用供應商供貨次數上限為3 次,如供貨情況滿足公司各項要求,則可提請批准被納入本集團 《認可供應商名冊》。

於報告期內,本集團所有供應商均執行上述供應商管理慣例。







RISK MANAGEMENT IN SUPPLY CHAIN

Aware of the close ties between our supplier's product and service quality and our business, the Group also regularly evaluates suppliers' environmental and social sustainability risks so as to manage and effectively reduce the suppliers' sustainable development risks. Our *Supplier Evaluation Form* clearly lists the criteria for supplier evaluation. Relevant business departments, such as the Supplies Department, the Production Technology Department, the Heating Department, the General Office and the Safety Supervision Department, are to rate the suppliers and keep proper record of supplier quality, safety and health and environmental management performance.

The Contract Department elaborates on special safety, health, and environmental requirements for the materials to the suppliers and lists the special terms and conditions in the works contract. Even for those without special requirements in the contract, the purchaser must also consider the quality, safety, health, and environmental factors of the goods and the delivery, such as noise, energy consumption, dust, waste gas, waste materials, chemicals, etc. These will serve as the assessment criteria for selecting appropriate suppliers, so that safer, healthier, and more environmentally friendly products can be purchased.

In addition, the Group holds at least one training session or seminar for suppliers and subcontractors every year to ensure that the Group's sustainability requirements are clearly conveyed. During the reporting period, we also held a supplier training meeting to communicate the Group's sustainable development direction, and to provide guidance on our factory's quality to some suppliers to fully familiarise them with our quality requirements, thereby reducing the potential environmental and social risks of the supply chain.

供應鏈風險管理

了解到供應商的產品及服務質素與我們的業務息息相關,本集團亦會定期評估供應鏈中與環境及社會相關的可持續發展風險,從而進行管理以有效地減少供應商的可持續發展風險。我們的《供應商評估表》清晰列明供應商評估準則,並由各相關業務部門如物資部、生產技術部、供熱部、辦公室及安監部對供應商進行評分,妥善記錄供應商質量、安全及健康和環保管理表現。

當工程合約在安全、健康和環保等方面對相關物資採購有特別要求時,合約部會向供應商作出詳細説明,並在合約中列出相關的特別條款及條件。即使合約中未有特別的物資需求,採購員亦須兼顧貨物品質及交貨中的安全、健康和環保因素(如噪音、能源消耗、揚塵、廢氣、廢料、化學品等),並以此作為評價準則選擇合適供應商,採購較為安全、健康和環保的產品。

此外,為確保清晰傳達本集團的可持續發展要求,我們每年亦會舉辦最少一場供應商及分判商培訓或研討會。於報告期內,我們也舉行了供應商培訓會,傳達本集團的可持續發展方向,並對部分供應商進行廠區質量指導,協助供應商更全面理解本集團的各項質量要求,以降低供應鏈的潛在環境及社會風險。







GREEN PROCUREMENT FOR LOW CARBON OPERATION

The impact on the environment during the procurement process cannot be under-estimated. Therefore, the Group implements the concept of "green procurement" and takes into full consideration the environmental impact of procurement behaviours when purchasing, standardises green and sustainable procurement principles, and clearly establishes requirements for suppliers. The Group puts in place stricter requirements for businesses involving high pollution and high energy consumption, including requiring suppliers to provide relevant certificates such as International Organization for Standardization (ISO) and environmental protection qualification certificates, selecting suppliers only after approval, and revising the *Procedures for Procurement of Materials* to include environmental compliance principles as procurement considerations. In addition, we give priority to the selection of local suppliers, and include a reasonable procurement distance (not exceeding 800 kilometres) as one of the green supplier selection criteria to reduce air pollutants and greenhouse gas emissions generated during transport in the supply chain, further building a green and low-carbon supply chain. At the same time, we actively communicate customers' environmental, social and governance requirements to suppliers, helping customers choose suppliers that meet the requirements.

For existing and potential suppliers, we will conduct investigations to establish the group's low-carbon and green materials and product database to more effectively conduct green procurement. The subsidiaries of the Group are also actively formulating relevant requirements to implement green procurement. Far East (Shanghai) gives priority to suppliers with environmental protection qualifications or production of environmental protection materials in the material procurement process, and requires suppliers to provide relevant environmental protection qualification certificates before signing a procurement contract. Meanwhile, when Gamma USA purchases motors and other equipment, it ensures that while meeting production needs, energy efficient and environmentally friendly products are accorded priority in accordance with relevant environmental protection procurement catalogues to promote energy conservation and emission reduction. In the future, the Group will continue to improve the selection criteria for green suppliers, establish and improve relevant systems, and comprehensively promote green procurement within the Group.

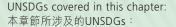
綠色採購促低碳

採購過程中對環境造成的影響不容小覷,因此本集團將「綠色採購」理念貫徹實行,在採購時將全面考慮採購行為帶來的環境影響,規範綠色及可持續的採購原則,明確訂立對於供應商的要求。本集團對涉及高污染、高能耗的業務有更嚴格的要求,包括要求求,包括要求求,包括要求,包括要求,包括要求,不可選用該供應商,我們還修訂了《物資採購工作程序》,加大環境合規原則作為採購考慮因素。另外,我們優先選擇本地供應商,並將合理的採購距離(不超過800公里)納入綠色供應商選擇標準之一,以減少供應鏈在交通運輸過程中產生的空氣污染物及溫室氣體排放,進一步創建綠色低碳供應鏈。同時我們積極的供應商反映客戶的環境、社會、管治要求,有助客戶選擇符合要求的供應商。

對於現有及潛在的供應商,我們亦會進行調查,從而逐漸設立本集團的低碳及綠色物料、產品數據庫,更有效地進行綠色採購。遠東上相關要求落實綠色採購。遠東上海在物資採購過程中優先選擇擁有綠色環保資質或生產綠色環保材料的供應商,並在訂立採購合同前要求供應商提供相關的環保資質證明;遠東美國在採購電機等設備時,確保在符合生產需要的同時,根據相關環保採購目錄,優先選用節能環保型產品,以促進節能減排。未來,本集團將繼續完善綠色供應商評選標準,建立健全相關體系,全面促進本集團的綠色採購。















Supporting **Talent** Development 支持人才發展

Material Issues 重要性議題



Staff Health and 員工健康與安全



Talent Recruitment and Retention 吸納及挽留人才



Staff Development and Training 員工發展及培訓

















SUPPORTING TALENT DEVELOPMENT 支持人才發展

LEGITIMATE EMPLOYMENT MANAGEMENT

The Group regards its employees as its most valuable assets, and their contributions are very important to the success of the Group. Therefore, the Group strictly abides by the laws and regulations related to employment, labour standards, human rights, benefits and those on remuneration and dismissal, recruitment and promotion, working hours, holidays, equal opportunity, diversity, etc. in where it operates. The Group also constantly improves the human resource management system. According to the laws and regulations of the various locations where we operate, the Group has developed a series of pertinent internal employment management systems such as the Employee Handbook and the Human Resources Management System to protect the legitimate rights and interests of both the Group and our employees. In addition, subsidiaries of the Group have established their employment management systems based on the policies of the Group and their respective circumstances. The Human Resources and Recruitment System ensures equal treatment of all candidates and staff members; the Management Measures for Employee Leave and Attendance and the Management Measures for Qualifications of Middle-level Positions demonstrate our determination to uphold our principles of fairness and high standards while safeguarding employees' welfare. The Group's human resources system incorporates good human resources operation guidelines, and we will regularly review relevant policies and procedures to ensure best practices in human resources management.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

合法僱傭管理

本集團將員工視為其最寶貴的資產,他們的貢獻對本集團的成功 十分重要。因此,本集團嚴格遵守與僱傭、勞動準則 利待遇及業務營運所在地相關的法律及規例,包括薪酬及解僱 招聘及晋升、工作時數、假期、平等機會、多元化等,並不斷完 善人力資源管理制度。本集團已針對各營運地點的法律及規例制 致力保障本集團及員工雙方的合法權益。本集團各附屬 層面政策,結合各自實際情況,建立合適的僱傭管理制 度。《人力資源招聘制度》保證所有應徵者及員工都得到平等對待, 而《員工休假與考勤管理辦法》和《中層崗位任職資格管理辦法》 體現了我們對公平原則及高標準的堅持,亦保障了員工的福利。 本集團的人力資源系統融合了人力資源的良好作業指引,我們會 定期審視相關政策和程序,以確保人力資源管理的最佳實踐。













Item 僱傭範疇

Management Policies 具體管理政策

- Clearly define the salary structure and salary adjustment criteria for all ranks of positions in the Employee Handbook.
- Carry out annual employee performance appraisals each year as the basis of salary adjustment.
- Discuss and determine the salary of new employees at the time when they are confirmed as regular employees.

Salary 薪酬

- Under special circumstances, employees may apply for individual salary adjustments in writing to the Human Resources Department through the heads of their divisions.
- Implement a salary confidentiality system, keeping employees' salaries and bonuses confidential. Anyone who violates the salary confidentiality system or publishes and disseminates personal salary data and • systems will be dismissed without economic compensation.
- 於《員工手冊》列明各職級崗位的薪酬結構及薪酬調整標 準。
- 每年開展員工年度綜合評估,並以此為主要依據對員工薪 酬進行適當調整。
- 新聘員工轉正時將進行轉正工資審查。
- 特殊情況下,員工可通過所屬單位主管以書面形式向人力 資源部申請個別調薪。
 - 實行薪酬保密制度,員工的薪金、獎金等屬保密範圍。違 反薪酬保密制度或發佈傳播個人薪酬數據、制度的,予以 辭退,不支付經濟補償金。

Dismissal 解僱

• Follow legal dismissal procedures and provide financial compensation by law.

China State Construction Development Holdings Limited 中國建築與業集團有限公司 | Sustainability Report 可持續發展報告 2022

履行法定的解僱程序,並按照法律規定給予經濟補償。

Recruitment and **Promotion** 招聘及晋升

- Provide equal employment opportunities, make employment decisions based on capabilities, experience, skills, qualifications and performance, and strictly prohibit any discrimination.
- Establish a fair and equitable promotion system: announce the eliqibility criteria of all positions and 建立公平公正的晋升制度,公佈各崗位任職標準及定期公 conduct open selections on a regular basis.
- 提供平等僱傭機會,以工作能力、經驗、技能、資歷和表 現作聘用決策,嚴格禁止任何歧視情況出現。
 - 開人員選拔。

Human rights 人權

- We strictly prohibit employees from discriminating on social media based on race, age, gender, nationality or ethnicity, disability, religion or other legally protected personal characteristics. Any violation will result in disciplinary action, including immediate dismissal.
- 我們對於任何騷擾行為採用零容忍政策,一經違反會導致 • We adopt a zero-tolerance policy for any harassment, violations of which can result in disciplinary action, 紀律處分,包括立即被解僱。
 - 我們嚴厲禁止員工在社交媒體上對於任何在種族、年齡、 性別、國籍或人種、殘疾、宗教或其他受法律保障的個人 特徵而作出的歧視行為,一經違反會導致紀律處分,包括 立即被解僱。

Remuneration 工作待遇

- Carry out annual performance appraisals at the end of each year to assess the performance of employees in a fair and impartial manner. The results of such appraisals will direct salary adjustment and promotion decisions the next year.
- Office employees have a standard working hour system, while project employees have a comprehensive working hour calculation system.
- Each employee has at least one day off each week.

including immediate dismissal.

- 每年年底進行年度績效考核,秉承公平公正原則評核員工 表現,考核結果將為下年度調薪及晋升提供指引。
- 辦公室員工有標準工時制,項目部員工則另設綜合計算工 時制。
- 規定每名員工每周至少有一天休息日。

Diversity 多元化

- Talent selection is based on a variety of criteria, including but not limited to gender, age, culture, professional experience, knowledge and service term. There will be no discrimination based on gender, age, cultural and educational background, race, nationality, religion, social and economic status, family background and other factors.
 - 甄選人選將按一系列多元化範疇為基準,包括但不限於 性別、年齡、文化、專業經驗、知識及服務任期,不因性 別、年齡、文化及教育背景、種族、國籍、宗教、社會經 濟地位、家庭背景以及其他因素而產生歧視。





The Group is committed to creating a diverse, inclusive and industry-leading team for all employees, regardless of age, gender or sexual orientation, marital or family status, disability, race, religion or political opinion or other personal characteristics protected by law, and to implementing policies related to employment diversity. The Group respects human rights at all levels of the business, has established principles and guidelines for the use of social media by employees, strictly prohibits any discriminatory behaviour and adopts a zero-tolerance policy for any harassment which may result in disciplinary action, including immediate dismissal, if violated. To help employees understand the importance the company places on the legal responsibilities related to the Equal Opportunities Ordinance, and to take measures early on to prevent discrimination or harassment issues, Far East (Hong Kong) holds briefings on Hong Kong's anti-discrimination legislation as part of its online training to enable employees to understand the major concepts of Hong Kong's anti-discrimination legislation, to learn about the legal responsibilities incurred by illegal behaviours, and to explore how to prevent discrimination and harassment in the workplace.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

Furthermore, the Group adheres to strict labour standards, abides by lawful employment and upholds zero tolerance for child labour or forced labour. The Group requires the Human Resources Department to carefully check the original copy of identity cards from candidates during the recruitment process to eliminate candidates that are not in compliance with legal requirements or provide false identity cards. The Group also has an internal policy to prevent forced labour, which stipulates that the working hours of employees should be reasonably arranged, and that compensatory time-off should be provided where appropriate. Policies on overtime work and compensatory time-off are communicated to employees during employee onboarding. In the event of child labour, forced labour, or any other non-compliant behaviour, the departments involved shall take immediate action to rectify such violations, i.e. dismiss employees who do not meet the legal working age immediately after confirmation, and compensate individuals that are victims of forced labour. The departments involved shall analyse and review the violations, trace the causes and processes that led to the violations, hold responsible persons accountable and impose penalties, and improve the relevant regulations, procedures and control and preventive measures. The relevant rules, procedures and control and prevention measures shall be improved to prevent any recurrence.

During the reporting period, the Group observed no violations relating to recruitment, dismissal, remuneration, promotion. working hours, leave and holiday, equal opportunity, diversity, or anti-discrimination. There were no cases regarding child labour or forced labour.

本集團承諾致力為所有員工創造一個多元共融及領先業界的團隊, 不論年齡、性別或性取向、婚姻狀況或家庭狀況、殘障、種族、 宗教或政見或其他受法律保障的個人特徵,均一視同仁,並實施 僱傭多元化相關政策。本集團的所有業務層面均尊重人權 了員工使用社交媒體的原則和準則,嚴厲禁止任何歧視行為,並 且對於任何騷擾行為採用零容忍政策,一經違反會導致紀律處分, 包括立即被解僱。遠東香港為令員工明白公司重視有關平等機會 條例的法律責任,及早採取措施,防止出現歧視或騷擾問題,公 司以網上培訓形式進行香港的反歧視條例簡介坊,令員工了解香 港的反歧視條例之主要概念、認識作出違法行為的法律責任和探 討如何預防工作間的歧視與騷擾。

此外,本集團嚴格遵守勞工準則,堅持合法僱傭,對僱用童工或 強制勞工持零容忍態度。本集團要求人力資源部門在招聘流程中 仔細杳驗應聘者提供的身份證原件,如發現應聘者不符合法律要 求或身份證明文件信息不實則應拒絕其應聘。本集團亦制定了防 當情況下安排員工補休,並於新員工入職時,向其説明加班及超 時工作補假政策。一旦發現僱傭童工或強制勞工等違規情況時, 相關部門將立即糾正違規行為,即於覆核證實後立即辭退不符合 法定工作年龄的員工,並給予被強制勞動人員以相應的補償,隨 後分析和檢討違規行為,追溯相關違規行為的產生原因與發生過 程,對相關責任人進行問責及處罰,並完善相關的規定、流程以 及監控預防措施,防止相關違規情況再次發生。

於報告期內,本集團未有接獲與人員招聘、解僱、薪酬、晋升、 工作時數、假期、平等機會、多元化、反歧視相關的違法違規事 件,且不存在使用童工或強制勞工的情況。





TALENT TRAINING AND DEVELOPMENT

TALENT TRAINING POLICY

"Talents and culture are the most valuable assets" is the core thinking of the Group. The Group is committed to encouraging its employees to pursue learning and development opportunities, cultivating talents, and regards the professional education and training for talents as its most important mission. The Human Resources Department is committed to "cultivating talents" and "deploying talents". The department lets employees develop in a harmonious and stable working environment that provides abundant development and professional training opportunities with competitive remuneration and numerous welfares available. The Group believes in "strengthening the foundation" in its human resources strategy, encouraging and supporting lifelong learning and continuous self-enhancement of employees through systematic professional training. By aligning personal development to corporate development, the Group seeks business growth and meets the actual and potential needs of employees.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

In order to further enhance the professional skills and management level of each personnel, by integrating current trend and actual needs of business development, the Group has formulated and implemented internal annual training plans and management measures such as the 2022 Annual Training Plan, Far East (Shanghai) Training Management Measures, the Shenyang Huanggu Thermoelectricity Company Limited 2022 Employee Training Plan and the Far East (Zhuhai) Training Supporting Management Measures. These trainings stipulate that extensive training shall be provided to employees each year in accordance with their positions and duties, and covering aspects such as corporate culture, quality enhancement, leadership, management skills, professional skills and team building. Each year, the Group requires its subsidiaries to provide documents for training plans and budgets, which have been provided accordingly. After the completion of departmental internal training, the lecturer is responsible for assessing the behaviour of personnel who completed the training and filling in the "Training Assessment Form". In addition, to further facilitate internal exchange, enhance the level of professionalism, stimulate the abilities of thinking, and problem and work difficulties solving, Far East (Zhuhai) holds internal sharing session regularly.

人才培訓發展

人才培訓政策

本集團以「人才與文化是最寶貴的財富」為核心思想,致力於鼓勵 員工尋求學習及發展機會,培育人才,並將人才的職業教育與培 訓視為首要任務。人力資源部致力於「育人」和「用人」,務求員工 能夠在和諧穩定的工作環境、提供充足的發展及職業鍛煉空間以 及具競爭力的薪酬待遇及多項福利下發展。本集團在人才策略上 堅持「固本培元」,通過系統化的職業培訓,鼓勵和支持員工終身 學習及不斷自我增值,將員工個人發展與企業發展有機結合,以 滿足本集團業務發展與員工實際及潛在需求。

本集團結合公司現階段業務發展趨勢,為進一步提升公司各職級 人員的專業技能及管理水平,現以實際業務發展需要為基礎,內 部制定並實施《公司2022年度培訓計劃》、《遠東上海培訓管理辦 法》、《瀋陽皇姑熱電有限公司2022年員工培訓計劃》、《遠東珠海 培訓配套管理辦法》等年度培訓計劃與管理辦法,規定按照崗位 職責針對不同員工,每年為員工提供廣泛的培訓,內容涵蓋企業 文化、素質提升、領導力、管理知識、專業技能、團隊建設等各 。本集團每年要求各子公司提供培訓計劃及預算支出,子 公司已向本集團提供培訓相關的文件。部門內部培訓結束後須由 講師負責完成培訓人員行為評估,填報《培訓評估表》。此外,為 了進一步促進內部交流,提高專業理論水平,激發員工的思維能 力、應對問題及工作難題的解決能力,遠東珠海定期召開內部分 享會。







Each year, in addition to in-house training, the Group provides subsidies with external training courses and grants examination leave to encourage employees to actively participate in external training courses, enhancing their professional knowledge and skills, and fulfil the legal and contractual requirements or enhance their management skills. Moreover, the Group provides employees with professional association membership subsidies and annual bonus for obtaining professional qualifications to encourage them to obtain job-related professional qualifications. In order to enhance the performance level of staff continuously, the Group has a comprehensive staff performance management in place. Such performance comprises of four processes: setting up performance goal, performance tracking and communication, performance feedback and application. The Group commenced annual performance appraisal for its employees at the end of each year, formal contracted staff of the Company shall be appraised in accordance with the KPI for the year. We will listen to and assist staff to solve the difficulties they encountered during their work, understand their expectation on career development, and help employees to set up work objectives to facilitate employees' future career development. The Group ensures effective implementation of individual performance appraisal for each department and staff, and the appraisal shall be linked to their remuneration. The Group also invites third-party services providers to provide training, including training on the awareness of sustainable development.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

除每年提供內部培訓外,本集團亦為員工提供外部培訓課程資助 及考試假期褔利,以鼓勵員工積極參加外部培訓課程,提升工作 知識及技能水平,並滿足法例及合約要求或提升管理。此外,本 集團為員工提供專業學會會費資助及考獲專業資格年度獎金福利, 以鼓勵員工積極主動考取職業相關的專業資格。為持續提高員工 績效水平,本集團設有完善的員工績效管理,由四個過程--設 定績效目標、績效跟踪溝通、績效動態考評、績效反饋與應用四 個部分組成。本集團於每年年底開展員工年度績效考核,按照年 度KPI對公司正式合約員工進行評核,聆聽並協助解決員工在工 作上遇到的困難,了解員工對職業發展的期望,並幫助員工訂立 工作目標,助力其開拓未來職業發展之路。本集團確保將本集團 各部門及員工個人績效評估有效進行,並與薪酬待遇掛鈎。本集 團邀請第三方提供培訓,當中包括可持續發展意識培訓。

The Group organized a series of training in order to align the rationale and core value of employees with that of the Group: 本集團舉辦了一系列培訓,以統一員工與本集團的理念與核心價值

- Enhance training related to sustainable development, such as corporate social responsibility and environment, onsite waste management, tailor-made professional training, etc.
- Provide online training platform and subsidies to employees and encourage them to carry out self-learning
- Provide anti-corruption training to employees each year

- 加強可持續發展有關的培訓,如 企業社會責任與環境、工地廢物 管理、量身定制的職業培訓等
- 向僱員提供網上培訓平台及資助, 鼓勵員工自學
- 每年向員工提供反貪污培訓

In 2022, the total training hours are 221,346 hours, while the average training hours for each employee are 44.97 hours.

2022年,總培訓時數近 221,346小時,每名員工 平均受訓44.97小時。











and Technology Team

生產技術部酸儲罐漏洩處理培訓



China State Construction Development Holdings Limited 中國建築與業集團有限公司 | Sustainability Report 可持續發展報告 2022

Huanggu Thermoelectricity Training on Hydraulic Balance of Secondary Network of Heat Supply Department 皇姑熱電供熱部二次網水力平衡培訓



Training on Filing Management for Staff at Offices 辦公室檔案管理培訓



企業文化培訓

During the reporting period, the Group held a number of onboarding sessions for new employees to deepen their understanding of our corporate culture, regulatory requirements and management systems, and to help them fit in more quickly. In addition, the Group's headquarters and subsidiaries in different business segments provided professional training for employees in different positions, which included but was not limited to training on "Corporate Culture Training", "Training on Hydraulic Balance of Secondary Network of Heat Supply Department", "Training on Filing", "Training on Handling Acid Tank Leakage of Production Technology Department", "Basic Concepts of Shop Drawing Design", "CAD High-Speed Drawing Techniques", "Measurement and Pricing of Construction Works", and other training activities on safety, systems, integrity, etc. Affected by the COVID-19 pandemic, most of the training sessions were conducted remotely to protect the health and safety of our employees.

The Group conducted the "Sons of the Sea 2022" recruitment campaign to nurture strategic talents. This campus recruitment exercise consists of a well-developed grooming programme, under which professional training, team development, voluntary service and junior-level internship opportunities are provided to the participants.

報告期內,本集團舉辦了多場新員工入職培訓,以加深新員工對公司企業文化理念、監管規定及管理制度等多方面的認知,協助新員工更快適 應新的工作環境。此外,本集團總部及各業務板塊附屬公司亦針對不同崗位的員工提供專業培訓,包括但不限於《企業文化培訓》、《供熱部二次 網水利平衡培訓》、《檔案培訓》、《生產技術部酸儲罐漏泄處理培訓》、《施工圖設計基本概念》、《CAD輔助插件快速繪圖技巧》、《建築工程計量 與計價》以及多項安全培訓演練、制度培訓、廉潔自律培訓活動等。受新冠疫情影響,本集團年內培訓活動以線上培訓模式為主,在保證員工健 康安全的前提下遠程開展培訓工作。

為培養具有發展前景的戰略人才,本集團舉辦2022屆「海之子」。此校招品牌有著一套成熟完善的培養計劃,為海之子提供專業課程培訓、團隊 擴展、志願服務和基層實習的機會。





OCCUPATIONAL HEALTH AND SAFETY

The Group attaches great importance to the health and safety of its employees, and is committed to providing a healthy, safe and harmonious working environment. The Group strictly abides by the applicable safety and health related laws and regulations of the places where our business operated. With "safety and prevention first" as the foundation, the Group formulated the Safety and Health Management Procedures to ensure safe conduct of the whole process from taking over the construction site to handing it over to the owner.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

Each subsidiary will formulate appropriate policy documents according to the actual condition. For example, Huanggu Thermoelectricity formulated and implemented Production Safety Supervision Management System, Safety Management System Manual - Internal Safety Code and Safety and Health Policy to set out guidelines for employee behaviour in respect of occupational health and safety. During the year, Huanggu Thermoelectricity amended Anti-violation of Rules and Regulation Management System, Management System on Award and Punishment for Safety, Safety Production Grid Management System, Production Safety Organizational Structure and Fire Safety Organizational Structure, in order to further regulate and strengthen the safety management of the Company.

The Group formulates safety and health objectives and indicators every year, conducts safety assessment every 6 months, monitors and regularly evaluates the safety and health performance of the Group and construction sites, publishes information on safety and health hazards and risks incurred by construction works, and attends quality and safety seminars to present safety reports, in particular reporting on the safety performance and points to note of high-risk construction sites. We encourage employees to participate in the decision-making process of the occupational health and safety management system.

Far East (Hong Kong) supports the Heart Caring Charter jointly launched by the Labour Department and the Occupational Safety and Health Council, and is committed to actively building healthy workplaces and encouraging the management and the staff members to work together to prevent cardiovascular and cerebrovascular diseases. Far East (Hong Kong) participates in the Joyful@Healthy Workplace Charter launched by the Occupational Safety and Health Council and the Department of Health, and is committed to promoting employees' physical and mental health. During the reporting period, Far East (Hong Kong) was recognised as a "Mental Health Friendly Organisation". Huanggu Thermoelectricity won the "Ankang Cup" competition organized by the Liaoning Provincial Federation of Trade Unions and became the winning team of the competition in 2020-2021. Far East (Shanghai) was selected as a demonstration site for safe production and civilized construction of housing and municipal engineering in Zhuhai City. The evaluation committee office organized an evaluation expert group to review and pass the declared project according to the construction progress of the project and the relevant requirements of the selection method, and was approved by the evaluation committee.

職業健康安全

十分重視員工健康及安全,矢志為員工提供健康、安全、 和諧的工作環境。本集團嚴格遵守業務營運所在地適用的安全與 健康相關法律法規,以「安全第一、預防為主」的方針為基礎,制 定《安全及健康管理工作程序》,確保所有施工的工作,由接收地 盤開始直到完工,並將工程地盤移交給業主的整個過程安全進行。

而各子公司亦會按照實際情況,制定合適的政策文件。例如,皇 姑熱電制定並實施《安全生產監督管理制度》、《公司安全管理系 統手冊一內部安全守則》以及《安全及健康政策》,為員工職業健 康與安全提供行為指引。皇姑熱電於本年度修訂《反諱章管理制 度》、《安全獎懲管理制度》、《安全生產網格化管理制度》、《安全 生產組織架構》和《消防安全組織架構》,以進一步規範和加強公 司安全管理。

本集團每年制定安全及健康目標和指標,每6個月進行安全審核, 監測本集團和地盤的安全及健康表現定期進行評估,發佈由建築 工程所產生對安全及健康的危害和風險,並於質量安全專題會進 行安全匯報,尤其是匯報高危風險級別地盤的安全表現和注意事 項。我們允許員工參與職安健安全管理體系決策過程。

遠東香港支持由勞工處和職業安全健康局合辦的「護心」約章,承 諾積極建構健康工作間,鼓勵管理層與員工攜手預防心腦血管疾 病。遠東香港參加由職業安全健康局和衛生署展開的「好心情@健 康工作間 | 約章,承諾推廣員工的身心健康。報告期內,遠東香 港獲嘉許「精神健康友善機構」。皇姑熱電在遼寧省總工會舉辦的 「安康盃」競賽活動中獲勝,成為2020-2021年度競賽優勝班組。 遠東上海被評選為珠海市房屋市政工程安全生產文明施工示範工 地,評委會辦公室根據項目施工進度情況按評選辦法相關要求組 繼評審專家組對申報的項目進行評審通過,並經評審委員會審定。





In terms of occupational hazards at project sites, the Group engages qualified testing providers certified by regulators to assess occupational hazards on a regular basis. According to the testing results and in accordance with national policies, the Group makes declarations of occupational hazards to regulators. At the same time, based on actual situation of the operation posts, the Group has formulated the Management System for the Distribution and Use of Labour Insurance Supplies. The Group regularly distributes protective equipment to relevant employees, and management, production management personnel and safety management personnel conduct routine inspections to ensure that employees wear sufficient and appropriate labour protection equipment. For employees exposed to occupational hazards, each year, the Group engages qualified occupational health check-up providers for employees to receive occupational health check-ups, so as to protect them from occupational diseases. In addition, the Group has established a Safety Management Committee, which meets every two to three months to review existing internal occupational safety policies and measures. Safety Officers are responsible for organising training on workplace safety for new employees, which aims at enhancing their safety awareness and improving occupational safety and health.

AED

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

針對作業場所的職業病危害因素,本集團定期委托國家認證的合 資格機構開展年度檢測活動,並根據檢測結果,按照國家要求, 向相關政府部門進行職業病危害項目申報。同時,本集團亦根據 作業崗位實際情況,制定《勞保用品發放與使用管理制度》,定期 為相關員工配發勞保防護用品,並由本集團管理層、生產管理人 員、安全管理人員等進行常規巡查以確保員工有佩戴足夠且適當 的勞保用品。針對涉危崗位的員工,本集團亦每年委托具備資質 的職業健康體檢機構,為員工進行職業健康體檢,保障員工免受 職業病危害。此外,本集團成立了安全管理委員會,負責每2至3 個月開會檢討內部現行的職業安全政策及措施,安全主任則負責 組織開展新入職員工安全工作環境培訓,旨在提升其安全意識, 促進職業安全與健康。









In response to the government promotion regarding the automated external defibrillator (AED), the "AED Anywhere for Anyone"







SAFETY MANAGEMENT MEASURES IN VARIOUS BUSINESS AREAS

各業務板塊的安全管理措施



China State Construction Development Holdings Limited 中國建築與業集團有限公司 | Sustainability Report 可持續發展報告 2022



Investing and operating business 投資運營業務

Huanggu Thermoelectricity formulated and implemented the Occupational Hygiene Management System of Shenyang Huanggu Thermoelectricity Co. Ltd., regulating in detail the protection and management measures during the production process, such as to strengthen the maintenance and management of dust and noise prevention facilities to ensure their proper and effective operation

皇姑熱電制定並實施《瀋陽皇姑熱電有限公司職業衛生管理制度》, 詳細規範生產過程中的防護與管理措施,例如規定防塵、防噪設施 必須加強維修管理,以確保其妥善並有效運作。



Facade contracting business 幕牆工程業務

Far East Facade formulated and implemented the regulations such as the Cranes Safe Operation Regulation - Ten No Lifting Rule, Eight Prohibition Rule, the Glass Lifting and Installation Safety Operational Regulation, and the Safety and Health Management Procedures for Facade Business to regulate and effectively manage occupational safety issues on construction sites

遠東幕牆制定並實施《起重機安全操作》「十不吊」、「八嚴禁」規定、 《玻璃吊裝安全操作規程》、《幕牆業務安全及健康管理工作程序》等 章程,對建築工地的職業安全事宜進行規範及有效管理。



Supervision business

China Overseas Supervision formulated and implemented the Hazard Identification, Evaluation and Update Procedures to guide employees on timely and effective participation in occupational hazard assessment and list hazard sources, risk level, and corresponding management and control measures of different activity points in the list of significant hazard sources. We also formulated the Hierarchical Management Method on Project Safety. Through the identification, analysis and evaluation of project risks, we implemented specific measures in a scientific and effective manner, which further improved the safe production management system, strengthened control of potential risks and optimized the risk control measures. Moreover, China Overseas Supervision formulated the Safety Supervision Works Guidance Manual to review whether the information submitted by constructor and the on-site preparation works meet the requirements, in order to put an end to casualty and safety incidents of general safety and above, and to avoid any serious injury. Meanwhile, management members are assigned to lead every team, manage safety through supervision and inspection.

中海監理制定並實施《危險源識別、評價與更新程序》,向員工提供及時、有效地參與職業危險評估 的指引, 並在重大危險源清單中詳細列明不同活動點的危險源及風險級別及其相應的管控措施。我 們也制定了《項目安全分級管理辦法》,通過項目風險的識別、分析及評價,科學有效的部署針對性 措施,進一步健全安全生產管理體系,強化風險隱患管控力度,完善風險控制措施。此外,中海監 理制定《安全監理工作指導手冊》,審查施工方報送的資料和現場預備工作是否符合要求,以杜絕死 亡和一般安全及以上安全事故、避免重傷。同時亦落實領導帶班制度,開展安全管理督導檢查。





SAFETY TRAINING

The Group set a goal this year to provide at least one staff safety training for relevant staff, and to ensure that all outsourced workers have undergone compulsory safety training before they are inducted. During the reporting period, the Group held the "Safety Production Month" with a theme of "complying safety production law and being responsible". This activity provides important instruction to safety works, with an aim to strengthen the safety responsibility awareness of all personnel within the Group. In addition, the Group strengthened the safety and risk management plan and key improvement projects, and continued to implement safety management. Meetings of Safety and Environmental Protection Group are regularly held, summarising the safety works completed in the past and the future focus of safety and environmental protection works. Moreover, Huanggu Thermoelectricity commenced third level safety knowledge training for its new employees according to the Safety Education Works Management System to let new factory personnel understand the focus, policies, laws and regulation of PRC on safety production and labour protection, and the regulation and system regarding safety production of Huanggu Thermoelectricity. Through this, new employee would know the meaning, mission, content and importance of safety production, and gain safety production knowledge such as labour protection and contingency and rescue. Far East (Hong Kong) arranged Curtain Wall Quality Inspection Training for its employees to enhance their knowledge of curtain wall quality checking. Besides, Far East (Hong Kong) provides safety training courses to new construction site staff members.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

PANDEMIC CONTROL

The Group faces numerous challenges in the reporting period. While COVID-19 pandemic is still deeply affecting the world, the Group insists on implementing the highest standard in order to prevent the spread of pandemic. The Group is using every effort to deploy time, manpower and resources to organise a series of pandemic prevention measures, and is committed to constructing a safe and healthy working environment. For example, the Group provided employees with an ample number of disease prevention supplies, such as masks and disinfectant alcohol, installed air purifiers in office areas to maintain air circulation, and arranged dedicated staff to disinfect the office frequently. At the same time, the Group set up fever screening devices and required all employees to scan the code daily, to measure their body temperature, to provide nucleic acid testing results conducted within 48 hours, to wear face mask, and to avoid the unnecessary gathering of staff. For issues that can be handled by online means, no offline mode shall be employed to ensure a safe and healthy workplace. The Group set up pandemic control leadership teams and reporting mechanism in various subsidiaries, and set out the reporting requirements and response measures applicable to groups with different transmission risks according to the Risks Categorising and Handling Measures. The Human Resources Department of the Group also strengthened the management of densely populated areas and closely tracked whether employees were living in the same buildings as confirmed patients of COVID-19. In the event of such a situation, the Human Resources Department issued immediate notifications and fully subsidise such employees for nucleic acid testing. In addition, The Group also made flexible arrangements for employees to work from home in rotation, adopted the staggered hours scheme, and extended the Chinese New Year holiday during the most severe times of the pandemic, in order to effectively reduce the risk of infection. With the easing of the pandemic, the regional pandemic control measures are adjusted in phases to further drive the Group towards resuming normal production and operation.

安全培訓

本集團今年訂立了目標,為相關員工提供最少一次員工安全培訓 並確保全部外判工人入職時已接受強制性安全培訓。報告期內, 本集團舉行了「安全生產月」活動,主題為「遵守安全生產法,當 好第一責任人 |。此活動針對安全工作作出重要指示,旨在增強 本集團全員安全責任意識。此外,本集團加強安全及風險管理計 劃及重點改進項目,持續執行安全管理,定期召開安全環保小組 工作會議,總結過去安全工作完成情況及未來安全環保工作重點。 另外,依據《安全教育工作管理制度》,皇姑熱電召開新員工三級 安全知識培訓,使新入廠人員了解國家關於安全生產、勞動保護 的方針、政策、法律法規,以及皇姑熱電關於安全生產的規章制 度,知道安全生產的意義、任務、內容和其重要性,懂得勞動保 護、應急救援等安全生產知識。遠東香港安排員工出席《幕牆質 量檢查課程》培訓,以加強員工對幕牆質量檢查的認識。此外, 遠東香港提供地盤新入職員工安全訓練課程。

報告期內本集團繼續面對重重挑戰,全球各地仍然深受新冠疫情 影響,本集團堅持以最高標準致力阻止疫情傳播,一直努力不懈 地投放時間、人力和物力策劃一系列防疫措施,致力於構建安全 健康的工作環境。包括為員工提供充足的口罩、消毒酒精等防疫 物資,於辦公區域安裝空氣清新機,保持辦公區域空氣流通,並 安排專門人員頻密消毒辦公室,同時設置體溫感應儀器,要求全 體員工每天掃碼、度量體溫、提供48小時核酸、戴口罩,避免不 必要的員工聚集,能線上解決的不線下,確保工作場所的健康與 安全。本集團於各子公司成立疫情防控工作領導小組,建立通報 機制,按照《風險分級處置辦法》,列出不同傳播風險人群的通報 要求和應採取的措施。本集團人力資源部亦加強人員密集區域管 理,密切追踪是否有員工與確診者居住於相同大廈,一旦發現有 關情況將立即發出通知,並全額資助相關員工進行核酸檢測。此 外,本集團於疫情嚴重期間亦靈活安排員工輪流居家辦公及錯峰 時間上下班,並延長春節假期,有效降低病毒傳播風險。隨疫情 逐漸緩和,為進一步推動本集團恢復正常生產經營,分階段調整 地區防疫措施。





ENSURE EMPLOYEE BENEFITS

The Group has formulated a comprehensive and competitive employee benefits system, in order to attract, retain and motivate talents. The Group provides Housing Provident Fund, Mandatory Provident Fund, basic pension insurance, basic medical insurance, maternity insurance, work injury insurance, unemployment insurance and other social insurance for employees in strict compliance with the national and regional requirements in the countries and regions where it operates. Besides, in addition to the paid annual leaves required by the laws of the countries and regions where it operates, the Group provides employees with various types of leave, including marriage leave, funeral leave, prenatal examination leave, maternity leave, transfer leave, paternity leave, birthday leave, care leave, and examination leave. Apart from statutory benefits, we also provide our employees with different types of allowances, including communication allowance, meal allowance, transport allowance, relocation allowance and high-temperature allowance.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

Apart from being a caring employer, the Group actively organises different kinds of leisure activities for its employees. The Group aims to organise in 2023 at least 40 regular social activities for caring for its employees, with no less than 2,000 employees participating each year, helping employees to have a better work-life balance, alleviate their work pressure and enhance their metal, social and physical health. In the meantime, the Group wishes to establish and strengthen sense of identity and sense of belonging of employees towards the Company.

During the reporting period, the Group was awarded the label of "Caring Company" issued by the Hong Kong Council of Social Service for the ninth consecutive year, reflecting the industry's wide recognition of the group's care to employees.

保障員工福利

本集團構建了完善並具競爭力的員工福利體系,以確保可吸納、 挽留及激勵人才。本集團嚴格按照各營運所在地國家及地區要求 為員工繳納住房公積金、強積金,以及基本養老保險、基本醫療 保險、生育保險、工傷保險、失業保險等各項社會保險。此外, 本集團亦於保障員工享有各營運所在地國家及地區法律規定的帶 薪年假之外,為員工提供婚假、喪假、產前檢查假、產假、調休 假、侍產假、生日假、關懷假、考試假等多種假期。除法定福利 以外,我們亦為員工提供不同類型的津貼福利,包括通訊津貼、 伙食津貼、交通津貼、派駐異地津貼、高溫津貼等。

除外,身為關愛僱主,本集團積極為員工組織舉辦各類業餘活動, 亦訂立目標,於2023年定期舉辦關愛員工的聯誼活動至少40次, 每年參加人數不少於2.000人,以幫助員工更好地在工作與生活 中取得平衡,舒緩員工工作壓力,並增進員工的心理、社交及身 體健康,同時建立和增強員工對公司的認同感與歸屬感。

報告期內,本集團連續第9年獲得香港社會服務聯會頒發的「商界 展關懷」榮譽標誌,體現出業界對於本集團人文關懷的廣泛肯定。









RELATION WITH STAFF

CARE FOR EMPLOYEES' PHYSICAL AND MENTAL HEALTH

During the reporting period, the Group commenced a series of caring activities. The Group commenced the activity "A caring and warm Mid-Autumn Festival", in which the leadership of the Group visited the manufacturing plants and construction site to visit "frontline" workers. The leadership gave out festive gifts to frontline workers, and asked about their work and daily life to express their care and solicitude. In addition, during the reporting period, China Overseas Supervision celebrated "March 8 Women's Day", giving out benefits to female full-time employees. Such benefits include gifts-in-kind and gift points, in order to express the care of the company to all female colleagues. Moreover, the Group regularly holds staff birthday parties. In September, the Group held a birthday party and "Love in Mid-Autumn Festival" celebration activity for our employees, offering sincere blessings to the birthday staff and making moon cakes and lanterns together with all colleagues to celebrate the Mid-Autumn Festival and make good wishes.

China State Construction Development Holdings Limited 中國建築與業集團有限公司 | Sustainability Report 可持續發展報告 2022







Staff Birthday Party 員工生日會

員工關係

關懷員工身心健康

本集團於報告期內開展一系列關懷活動。本集團開展「情暖中秋 關愛相隨 | 慰問活動,由本集團領導們深入到製造廠及項目施工 現場走訪慰問一線工作者,為他們送上節日慰問品,並關切地詢 問員工的工作生活情況,以表達公司對他們的關懷和溫暖。此外, 中海監理於報告期內慶祝「三八婦女節」,向女性正式員工發放福 利,包括實物禮物和京都福禮積分,以表達公司對婦女同仁的關 懷與問候。另外,本集團恆常舉辦員工生日會。本集團熱烈舉辦 九月份員工生日會暨「情滿中秋 | 慶祝活動,為生日員工獻 | 真摯 祝福,與全體同事一道品月餅、制花燈,共度中秋佳節,許下美 好祝願。



"March 8 Women's Day" Gift Collection Photo









China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

We held an anniversary celebration in Toronto, where more than 60 employees and their family members had a barbecue together, shared a celebratory cake, and participated in interactive fun activities such as tug of war, three-legged race and ball shaking contest.

In order to celebrate the 43rd anniversary of China Overseas Holdings, during the reporting period, the Group commenced "Company Celebration" Activity which highlighted the theme of "Building a Better Era, Expanding the Space for Happiness", practised the cultural spirit of "Leading the Tide", and surrounded our corporate mission in "Constructing Happiness". The leaders at different levels of the Group joined our employees to celebrate the birthday of the Group. After the ceremony, the leaders at different levels of the Company handed out cakes and gave their blessings.

In addition, the Group hosted a basketball friendship match among members of the four Far East locations in September, with 56 staff members recruited to participate. The first FEBA and "Leading-the-Tide Cup" galaxy friendship match was held in 2022 to strengthen the team cohesion within the company.

我們在多倫多舉行成立周年慶祝活動,60多位員工和家屬一同燒烤,分享慶祝蛋糕,並參加了趣味拔河、兩人三足、抖球比賽等豐富 多彩的互動活動。

為熱烈慶祝中海集團成立43周年,集團於報告期內開展「司慶日」慶祝活動,彰顯「建證美好時代,拓展幸福空間」主題,踐行「領潮」 文化精神,圍繞「我們經營幸福」的企業使命。當天各級領導及廣大員工慶祝本集團的生日。儀式過後,公司各級領導親派蛋糕、送上 祝福。

此外,本集團於9月完成舉辦遠東四地友誼籃球賽,成功招募56名員工參與,舉辦2022年首屆FEBA暨「領潮杯 |銀河友誼賽,增加公司 **專隊凝聚力。**







Anniversary Celebration in North America 北美周年慶祝活動







TWO-WAY COMMUNICATION

Maintaining a platform for truthful conversation and feedback is vital for the Group to establish a stable, harmonious, close and inclusive relationship with employees. Therefore, the Group carries out satisfaction surveys among its employees each year. In 2022, Far East (Zhuhai) conducted a questionnaire to survey the employee satisfaction of the design department. The employee satisfaction rate reaches about 94% in terms of the management system, working environment and cultural atmosphere. The overall satisfactory level for the annual administration services of China Overseas Supervision is 93 points, among which the satisfactory level for reception is 90.3 points, 91 points for convention and exhibition services, 91.3 points for canteen works, 91.72 points for vehicle services, while 91.5 points for social activities for the full year. Moreover, Far East (Zhuhai) held the Phase-1 worker seminar in 2022 to unify workers, guide frontline staff members to work diligently in their respective posts, understand current demands of frontline staff members, tackle the difficulties and doubts that frontline staff members encounter in their actual working life, and enhance employees' sense of belonging and satisfaction, thereby empowering the primary-level party organisations to actualise the function of guiding and serving people.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

The Group strives to maintain a stable working environment while fulfilling employees' needs to retain employees. The Group regularly reviews and sets up a target for the turnover rate of its employee, and formulate a working plan to reduce the turnover rate of employees to 25% or below by 2025. As of the end of the reporting period, the Group had 4,964 employees. There were no significant changes in the number of employees during the reporting period.

雙向溝通

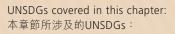
維持一個坦誠對話與反饋的平台,對本集團與員工建立穩定、和 諧、緊密及共融的關係至關重要。因此,本集團每年舉行員工滿 意度調查。2022年,遠東珠海通過問卷調查方式開展設計院員工 滿意度調查,從管理制度、工作環境及文化氛圍方面調查了解, 員工滿意度達94%。而中海監理年度行政服務總體滿意度93分, 其中包括:接待滿意度90.3分;會務服務滿意度91分;食堂工作 滿意度91.3分;車輛服務滿意度91.72分;聯誼活動全年滿意度 91.5分。此外,遠東珠海舉辦2022年第一期工人庭談會,以統一 思想,引導一線員工立足崗位、勤奮工作,了解當前階段一線員 工的訴求,解決一線員工在實際工作生活當中的困難與疑惑,增 強員工歸屬感和幸福感,切實發揮基層黨組織引導群眾、服務群 眾的作用。

本集團竭力維持穩定的工作環境,同時滿足員工所需,加強挽留 員工的機會。本集團定期檢視及訂立員工流失率目標,及制定工 作計劃,於2025年降低員工流失率至25%或以下。截至報告期 末,本集團共有4.964名員工,於報告期內和報告期之間,員工人 數沒有重大波動。















Material Topics 重要性議題



Raw Material Use and Management 原材料使用與管理

Excellent Environmental Management

卓越環境管理











EXCELLENT ENVIRONMENTAL MANAGEMENT 卓越環境管理

Apart from strictly complying with relevant regulations, the Group also actively improves the environmental performance of various businesses. The Group endeavours to contribute to the construction of sustainable cities and communities through enhancing resource utilisation efficiency, addressing climate change and adopting innovative solutions. During the reporting period, the Group stepped up its environmental management mechanism, established an Ecosystem and Environment Leading Group led by the Chief Executive Officer, confirmed the personnel in charge of environmental protection of its subsidiaries, actively drove forward the Company's environmental management measures, and strove for international and national verification to improve the environment management mechanism of the Group. For instance, China Overseas Supervision was accredited ISO 14001 successfully. Meanwhile, we formulated Protection and Management Method for Ecosystem and Environment in order to further improve the protection and management system for the ecosystem and environment of the Group, to define the duties of those holding management positions, to regulate the management of environment, energy conservation and emission reduction, to strengthen risk prevention and control, and to implement the requirement of synergistic promotion of reduction in pollution and carbon emission, thus ensuring that the Company operates in compliance with laws and regulations. In addition, during the reporting period, the Group actively seized green financing opportunities by signing the first unsecured HK\$300 million three-year revolving green loan and an HK\$400 million sustainability-linked loan. The Group endeavours to move towards green and high-quality development through green financing, innovation and technology, education and training, and clean production. During the reporting period, the Group was not involved in any event violating the laws or regulations on emission of waste gases and greenhouse gases, discharge of pollutants into water and land, and generation and disposal of hazardous and non-hazardous wastes.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

To address the market's green and low-carbon requirements, the Group also leverages its technology, innovation and professional knowledge of facade construction to promote green and innovative development and to invest in the R&D of new products. During the reporting period, we released a BIPV product called "light S", and the Group's passive facade systems also received relevant green accreditation.

In addition, we incorporate comprehensive environmental considerations into our production and works processes by initiating enhancements and green designs in our project design, production procedure and works planning, and by reducing the use of resources and energy, etc. Meanwhile, the Group also monitors supplier performance and formulates supplier selection and assessment requirements, in which safety and environmental protections requirements are some of the assessment standards in the selection of suppliers and contractors. On selecting materials, materials with high energy consumption or causing severe pollution are prohibited. Suppliers are supervised and urged to supply low-carbon equipment and materials.

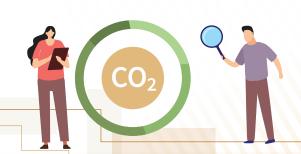
本集團除嚴格遵守相關的法規外,亦不斷積極改善不同業務的環 境表現。本集團誦渦提高資源應用效益、應對氣候變化及運用創 新的方案,務求為建設可持續城市及社區作出貢獻。本集團於報 告期內加強環境管理機制,成立由行政總裁所帶領的生態環境領 ,並落實各附屬公司的環保專責人員,積極推動公司環境 管理措施, 並爭取國際和國家認證以完善及認可本集團的環境管 理機制,其中中海監理已成功獲取ISO 14001。同時,我們亦制 定了《牛熊環境保護管理辦法》以進一步健全本集團的牛熊環境保 護管理體系,規範管理人員的崗位責任,制定環境及節能減排管 理行為,強化風險防控,落實減污降碳協同推進要求,確保公司 依法合規經營。此外,本集團亦於報告期內,簽訂了首個3億港 元三年期無擔保綠色循環貸款及4億港元的可持續發展表現掛鈎 貸款,積極抓緊綠色金融機遇。通過綠色金融、創新科技 培訓及清潔生產,著力推動本集團邁向綠色及高質量發展。於報 告期內,本集團未發生違反有關廢氣和溫室氣體排放、向水及土 地的排污、有害及無害廢棄物產生及處置的相關法律法規的事件。

為響應市場上對綠色低碳的要求,本集團亦利用自身在幕牆建設 方面的技術、創新和專業知識,推動綠色創新發展,投入資源研 發新型產品,於報告期內發佈BIPV技術產品 - light S,而本集團 的被動式幕牆系統亦獲得綠色相關認證。

此外,我們亦於生產及施工過程全方位融入環保考量,在設計方 及能源使用等。同時,本集團亦監管供應商的表現,制定供應商 選擇和評估標準,對於供應商、分判商的選擇,堅持將安全和環 保要求作為評判標準之一,且在物料選擇上,對於能耗高、污染 重的物料予以禁用, 並督促供應商提供低碳設備及物料。









IMPLEMENTATION OF ENVIRONMENTAL TARGETS

The Group has always been integrating the concept of environmental protection into the operation and management process, improving environmental management, practising green operation principles, so as to fulfil its environmental and social responsibilities and ensure business development and sustainability can go hand in hand. The Group has established specific environmental protection guidelines for each operation stage and formulated the following environmental targets:

China State Construction Development Holdings Limited 中國建築與業集團有限公司 | Sustainability Report 可持續發展報告 2022



已達成

加强環保責任及管理

- i) 2022年落實環保組織架構
- ii) 2022年制定環境政策
- iii) 2022年初步定立環境風險評 估制度,及制定管理措施

碳中和轉型

- i) 於2022年定立減排的路線圖
- ii) 於2022年撰寫碳排放報告編制指南等內部 制度,規範碳資產核查與管理,提高碳排放 盤查、核查、監測及配額核算、履約、交易
- iii) 制定供應商選擇和評估標準,對於供應商、 分判商的選擇,堅持將安全和環保要求作為 評判標準之一,且在物料選擇上,對於能耗 高、污染重的物料予以禁用,督促供應商提 供低碳設備及物料

短期:2022年至2025年

2024年

持續推行無紙化辦公

遠東美國及加拿大計劃於2024 年將認證紙張使用提高30%

2025年

提升能源效益

遠東美國及加拿大將於2025年 减少工地或車輛的柴油使用約 30%

落實環境目標

本集團致力將可持續發展融入業務營運管理全過程,持續完善環 境管理體系,落實環保運營方針,並承擔企業應有的環境與社會 責任,確保發展業務與可持續發展並行。本集團針對各個營運階 段均設立了具體的環保指引,並制定以下環境目標:

2026至2030年

使用環保的包裝物料

遠東珠海、遠東美國及加拿大研究使用環保的玻璃保護膜、單元 運輸箱等物料,2026年相較2022年包裝物料使用密度减少10%

碳排放目標

2026年前減少碳強度25%(碳排放/營業額)

提升能源效益

遠東美國及加拿大將於2026年辦公室實現可再生能源使用,工 地和工廠一半能源使用可再生能源。

增加可再生能源使用

遠東美國及加拿大將於2026年將記錄公務車耗油减少1/3,定期 檢修公務重

中期:2026至2030年

長期:2031年至2060年 (即國內碳中和目標年)

2023年

遠東香港預計2023年度公司寫字樓照明系統/空調系統的人均用電量以 及用水量較2022年降低10%

增加可再生能源使用

中海監理預料如新購置公務用車,新能源車輛需佔比50%以上(2023)

持續推行無紙化辦公

遠東香港通過無紙化辦公和BIM技術的使用,預計2023年職能部門和 設計部門人均降低紙張使用量較2022年將減少10%

持續推行無紙化辦公

中海監理計劃在2023使用FSC同等認證的紙張

遠東珠海逐漸開展光伏改造,包括廠房屋頂。2023年,預計參與光伏發電/ 光伏一體化的應用項目共6個,其中包括2項為標杆項目

提升廢棄物回收量

2023年於所有辦公室及工廠廠區設置回收及垃圾分類設施,提倡員工進行

提升員工可持續發展意識

2023年制定/修訂員工培訓政策,於員工入職時接受低碳及可持續發展相關 培訓,而所有可持續發展架構的成員每年需接受最少一次低碳相關培訓

2031至2060年

碳排放目標

本集團於2060年達至碳 中和





2022

ACHIEVED

Strengthening Environmental Responsibility and Management

- i) Implement the organizational structure of environmental protection in 2022
- ii) Develop environmental policy in 2022
- iii) Establish an environmental risk assessment system initially, and formulate management measures in 2022

Carbon neutrality

i) Establish a roadmap for emission reduction by 2022

- Establish internal systems such as guidelines for the preparation of carbon emission reports to standardize carbon asset verification and management, and to improve carbon emission inventory, verification, monitoring and quota accounting, performance, and trading in 2022
- iii) Formulate supplier selection and evaluation standards. For the selection of suppliers and subcontractors, adhere to safety and environmental protection requirements as one of the evaluation criteria. For the selection of materials, prohibit materials with high energy consumption and heavy pollution, urging suppliers to provide low-carbon equipment and materials

Short-term: 2022-2025

2024

Continue to promote paperless office

Gamma USA and Canada plans to increase use of certified paper by 30% by 2024

2025

Enhance energy efficiency

Gamma USA and Canada will reduce diesel use on construction sites or vehicles by approximately 30% by 2025

2026-2030

Use environmentally friendly packaging materials

Far East (Zhuhai), Gamma USA and Canada will research the use of environmentally friendly glass protective film, unit transport boxes and other materials, and reduce the density of packaging materials by 10% by 2026 compared to 2022

Carbon emission target

Reduce carbon intensity by 25% by 2026 (carbon emissions/turnover)

Enhance energy efficiency

By 2026, Gamma USA and Canada will realise the use of renewable energy in its offices, and half of the energy in construction sites and factories will use renewable energy

Increase the use of renewable energy

Gamma USA and Canada will reduce the fuel consumption of official vehicles by 1/3 by 2026, and regularly maintain official vehicles

Medium-term: 2026-2030

Long-term: 2031-2060 (China's target year for carbon neutrality)

2023

Enhance energy efficiency

Far East (Hong Kong) estimates that in 2023, the per capita electricity consumption and water consumption of the company's office building lighting system/air conditioning system will be reduced by 10% compared with 2022

Increase the use of renewable energy

China Overseas Supervision expects that new energy vehicles will account for more than 50% of the newly purchase of official vehicles (2023)

Continue to promote paperless office

Far East (Hong Kong) estimates that the per capita paper consumption of functional departments and design departments will be reduced by 10% in 2023 compared with 2022 through the use of paperless office and BIM technology

Continue to promote paperless office

China Overseas Supervision plans to use FSC equivalent certified paper in 2023

Clean energy

Far East (Zhuhai) gradually carries out photovoltaic transformation, including factory roofs. In 2023, it is expected to participate in a total of 6 application projects of photovoltaic power generation/integrated photovoltaics, including 2 benchmarking projects

Increase waste recycling

Set up recycling and garbage sorting facilities in all offices and factories in 2023, and encourage employees to recycle

Raise employees' awareness of sustainable development

Formulate/revise employee training policies, and attend low-carbon and sustainable development-related training when employees enter the job, and all members of the sustainable development framework must receive at least one low-carbon-related annual training in 2023

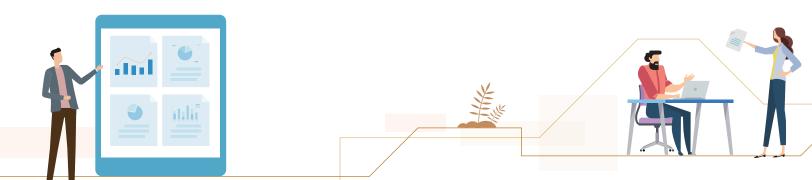
2031-2060

Carbon emission target

The Group targets to achieve carbon neutrality by 2060







STRICT CONTROL AND MANAGEMENT OF EMISSIONS

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

AIR POLLUTANT EMISSIONS AND MANAGEMENT

The Group's primary air pollutant emissions come from the use of boilers in the operating management business and the use of automobiles in subsidiaries of various businesses. Huanggu Thermoelectricity strictly complies with the requirements of the Coal-fired Power Plant Ultra-Low Emission Retrofit Plan of Liaoning Province and the Notice of the Environmental Protection Department of Liaoning Province on Coal-fired Power Plant Ultra-Low Emission Retrofit Plan, and completed all ultra-low emissions retrofits during the reporting period. In addition, to reduce emission incurred by energy consumption, Huanggu Thermoelectricity transformed and upgraded its emission reduction technologies. Through the upgrade and transformation of the denitrification equipment and dust removal facilities of the boilers, such as the installation of particulate reduction equipment, use of ultra-low sulphur diesel, and the installation of air pollution control equipment, we have further reduced the air pollutant emissions from boiler operation. After the transformation works on ultra-low emissions, currently the emission amounts of nitrogen oxides, sulphur dioxide and particulate matter of Huanggu Thermoelectricity are kept respectively at less than 50 mg/m³, 35 mg/m³ and 10 mg/m³, which are within the limits of ultra-low emissions; this marks a huge step for Huanggu Thermoelectricity in environmental protection and clean production. According to the Planning of Heat Supply for Civil Use in the Urban Area of Shenyang Under the 14th Five-Year Plan, during the planning period, the clean heating rate shall be increased from 38% at present to 100% by 2025. This policy specifically requires that for coal-fired boilers for heat supply of 100 tons and above, they shall complete the transformation for the ultra-low emission of sulphur dioxide and nitrogen oxide in flue gas of boilers by 2025. Coal-fired boilers for heat supply that have not completed the ultra-low emission transformation for flue gas have to be removed from the heat supply market of Shenyang progressively. To reduce the emission from energy consumption, we plan to complete the installation of four newly built boilers with denitrification and ultra-low emission functions by 2023, and complete the transformation of denitrification and ultra-low emission functions for the remaining two boilers by 2024. The Shenyang Municipal Bureau of Ecology and Environment awarded the Huanggu Thermoelectricity in April 2022 as an excellent heating plant for stably meeting air pollutants emissions during the heating period.

Besides, in order to improve the air quality, the Group continues to strengthen the promotion of "green travel", which is committed to raising employees' awareness of environmental protection, and encouraged them to use public transportation for their travel, so as to reduce the emission of air pollutants from the vehicles.

嚴控排放管理

大氣污染物排放及管理

本集團大氣污染物排放主要來自於熱電業務的鍋爐使用以及各附 屬公司的公務車使用。針對鍋爐排放,皇姑熱電嚴格遵守《遼寧 省燃煤電廠超低排放改造計劃》及《遼寧省環境保護廳關於制定燃 煤發電機組超低排放改造計劃的通知》之要求,積極開展並完成 全部超低排放改造工作。此外,為減少能源消耗造成的排放,皇 姑熱電改造及提升了減排技術。我們對鍋爐的脱硝設備和除塵設 施進行全面升級改造,例如加裝減少粒子器件、使用超低硫柴油 設置空氣污染控制裝置,從而進一步降低因鍋爐運作而產生的大 氣污染物排放。經過超低排放改造工作,目前皇姑熱電的氮氧化 物排放濃度低於50毫克每立方米,二氧化硫排放濃度低於35毫克 每立方米,顆粒物排放濃度低於10毫克每立方米,均已達到超低 排放限值,標誌著皇姑熱電在環保清潔生產工作上邁出重要一步。 根據《瀋陽市「十四五」城市民用供熱規劃》,規劃期內清潔取暖 率從目前的38%,到2025年提高到100%。政策具體要求100噸 及以上燃煤供熱鍋爐須在2025年之前完成鍋爐煙氣二氧化硫、氮 氧化合物超低排放改造,未完成煙氣超低排放改造的燃煤供熱鍋 爐,將逐步退出瀋陽市供熱市場。為減少能源消耗造成的排放, 我們計劃在2023年完成4台鍋爐脱硝超低排放新建及在2024年完 成剩餘的2台鍋爐脱硝、脱硫超低排放改造實施。在2022年4月, 瀋陽市生態環境局頒發了採暖期大氣污染物穩定達標排放優秀熱 源廠的獎項。

此外,為改善空氣質素,本集團持續倡導「綠色出行」宣傳力度, 致力於提高員工的環保意識,鼓勵員工搭乘公共交通工具出行 減少車輛大氣污染物排放。





WASTE DISPOSAL AND RAW MATERIAL MANAGEMENT

The Group's non-hazardous waste mainly includes construction waste from facade contracting engineering business, fly ash, slag, and desulphurised gypsum from Huanggu Thermoelectricity under the investing and operating business and other waste from the production process, as well as general office and domestic waste. The hazardous waste mainly includes electronic products, waste lamps, waste batteries, waste cartridges and used oil from the production and office processes. The Group strictly manages the waste disposal, makes sure that all wastes are disposed of strictly in accordance with the Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste, the Waste Disposal Ordinance of the Hong Kong Special Administrative Region Government, and other laws and regulations of countries and regions where it operates, and commissions registered recyclers to centrally collect and handle waste, thus ensuring that the waste is properly and appropriately disposed of and preventing them from polluting land and water sources.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

We understand that hazardous waste can be produced in the business of Huanggu Thermoelectricity. To prevent pollution from hazardous waste, Huanggu Thermoelectricity formulated solid waste management method, which regulated the collection, storage, transfer and disposal and utilisation of industrial solid waste and hazardous waste of the company, and to control and minimise the risks posed to the environment and society by the hazardous waste. For instance, ash, slag, and desulphurised by-products produced in boilers are collected and temporarily stored separately in closed ash silo, slag storage and desulphurised by-products room. During the storage and transportation, environmental protection measures such as anti-leakage, protection from rain and prevention of fugitive dust are adopted. Hazardous waste is not allowed to be entered the storage field for general industrial solid waste to ensure the safety and control effect to the environment.

To reduce the emission of non-hazardous waste, the Group has implemented various measures, including reducing paper use, and promoting online official documents management, e-stamping and electronic file library system. On paper usage, we will increase the use of environmentally friendly paper, implement the use of paper verified by FSC or other equivalent organizations, and increase the use of verified paper by 30 % by 2024. In addition, by utilising paperless office or BIM technology, Far East Facade hopes to decrease the amount of paper used per employee at the functional department and design department by 10% as compared to that of 2022. We also encourage employees to sort and recycle waste by setting up storage areas for recyclable non-hazardous waste items like aluminium, glass and paper, and by internally reusing some of the reusable waste items. Remaining items such as expired safety helmets will be passed to qualified recyclers for collection and disposal. In addition, the Group is studying the feasibility of using environmentally friendly materials such as glass protection film and transport boxes, reducing the amount of scrapped glass, and recycling glass. The Group is also committed that by 2026, the intensity of packaging materials usage would be reduced by 10% compared to the amount from 2022.

廢棄物棄置及原材料管理

本集團的無害廢棄物排放主要包括幕牆工程業務的建築廢料、投 資運營業務下皇姑熱電的粉煤灰、爐渣、脱硫石膏等生產過程中 產生的廢棄物,以及一般辦公及生活垃圾等;有害廢棄物排放則 主要包括生產及辦公過程中產生的廢棄電子產品、廢燈管 池、廢墨盒、廢機油等。本集團嚴格規範廢棄物排放管理 所有廢棄物均嚴格根據《中華人民共和國固體廢物污染環境防治 法》和香港特區政府的《廢物處置條例》及業務營運地所在國家或 地區適用的其他相關法律法規的要求進行處置,同時委託註冊回 收商對其進行統一收集處置,確保相關廢棄物得到妥善適當的處 理,避免其對土地、水源等造成污染。

我們了解皇姑熱電的業務會產生危險廢棄物,為防治固體廢棄物 污染環境,皇姑熱電制定了固體廢物管理辦法,規範公司工業固 體廢棄物及危險廢棄物的收集、貯存、轉移和處置利用,控制和 減少危險廢棄物對環境及社會的風險。例如,鍋爐產生的灰、渣 和脱硫副產物會分別採用封閉式灰庫、渣倉和脱硫副產物間進行 收集和臨時貯存。貯存和運輸過程會採取防滲漏、防雨淋、防揚 塵等環境保護措施。危險廢棄物不得進入一般工業固體廢棄物貯 存場以確保安全及對環境的影響。

為減少無害廢棄物排放,本集團落實了不同的措施,包括減少用 紙,推廣上線公文管理、電子印章與電子檔案館系統。用紙方面, 我們會增加環保紙的使用量,落實於明年使用FSC或相等認證紙, 並於2024年將認證紙張使用提高30%。此外,遠東香港通過無紙 化辦公或BIM技術的使用, 盼將2023年職能部門和設計部門人均 紙張使用量降低,較2022年減少10%。我們亦鼓勵員工進行分類 回收,設置鋁料、玻璃、紙張等可回收無害廢棄物的擺放區域, 同時將可再用部分廢棄物進行內部循環利用,其餘部分,例如, 過期安全帽,交由合資格回收商進行回收處理。此外本集團正研 究使用環保的玻璃保護膜、單元運輸箱等材料及減少玻璃報廢和 回收玻璃的可能性,承諾2026年的包裝材料使用密度會比2022 年降低10%。





WASTEWATER DISCHARGE AND MANAGEMENT

The Group's major wastewater includes the flue gas desulphurisation wastewater and domestic sewage from the investing and operating management business. In respect of flue gas desulphurisation wastewater, Huanggu Thermoelectricity strictly complies with the requirements of the relevant laws and regulations such as Water Pollution Prevention and Control Law of the People's Republic of China, the Integrated Wastewater Discharge Standard (GB8978-19963) and the Integrated Sewage Discharge Standard of Liaoning Province (DB21 1627-2008), and ensures that the sewage is discharged up to the standard after treatment. The Group has strengthened the upgrade and transformation of facilities for flue gas desulphurisation wastewater treatment, and is planning to build, maintain and operate the wastewater treatment system of the desulphurisation system, and invest in building facilities for reusing reclaimed water, thus ensuring that the chloride and heavy metal contents of the treated wastewater meet the discharge requirement. Meanwhile, we established a comprehensive wastewater quality monitoring system and commissioned professional third parties to conduct monthly wastewater quality testing to ensure the disposal is up to standards. Besides, the Group's domestic sewage is discharged through the municipal pipe network for standardised treatment. During the reporting period, the Group had no legal cases regarding wastewater discharge.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

污水排放及管理

本集團的污水排放主要來自於投資運營業務的脱硫排放水和生活 污水。針對脱硫排放水,皇姑熱電嚴格遵守《中華人民共和國水 污染防治法》等相關法律法規,並按照國家《污水綜合排放標準》 (GB8978-19963)以及《遼寧省污水綜合排放標準》(DB21 1627-2008)之要求,確保污水經處理後達標排放。本集團加強對脱硫 排放水處理設備的排污改造升級工作,計劃建設、檢修、運維有 關脱硫系統廢水處理的系統,投入建設生產回水再利用設備等, 以確保處理後的脱硫排放污中氯化物及重金屬含量達標,同時亦 建立完善的污水水質監測制度,每月委託專業第三方進行污水水 質檢測,保證污水達標排放。此外,本集團的生活污水均通過市 政管網系統統一處理排放,報告期內並無廢水排放違法案件發生。



EFFICIENT USE OF ENERGY AND RESOURCES

ENERGY EFFICIENCY AND MANAGEMENT

The Group's energy consumption mainly comes from the use of electricity and fossil fuel combustion in production and operation. To utilise energy in a more efficient manner, the Group requires all subsidiaries to assess their actual business conditions, and to establish a sound and practical energy management system based on such business conditions and in accordance with local laws and regulations where operations are located. For instance, Far East (Zhuhai) has introduced into its facade composition an internal circulation and ventilation system, which improves a building's overall thermal performance by controlling wind flow direction and volume. It facilitates curtain walls' heat dissipation and prevents them from frosting under cold weather conditions, thereby reducing their demand for energy. Moreover, our passive curtain wall technology certification is the first passive building certification for unit glass curtain walls in North America and even the world; such certification underlines our efforts to combine high-thermal performance envelope structure, high air tightness, and efficient heat recovery in delivering ultra-low energy consumption curtain wall designs. The Group has also obtained utility model patents such as "Integrated Self-Adaptive Reflective Daylighting Unit Glass Curtain Wall", and is actively exploring the feasibility of electrochromic smart glass technology to achieve automated lighting adjustment and energy consumption reduction in buildings.

Huanggu Thermoelectricity formulated and implemented the Energy Statistics and Management System and the Monitoring and Management of Key Energy-Consuming Facilities Management System, adopted a "company-department-teams" three-level mechanism for energy statistics and management. The Production Technology Department is responsible for energy management and statistics work, the upgrade of energy-saving technologies on equipment, and replacing outdated facilities with new technology and equipment. Huanggu Thermoelectricity also set up an energy-saving leading workgroup for the organisation, supervision and management of energy use in all factories. It also commenced the feasibility analysis and study on the transformation from coal to natural gas, and will continue to explore the possibility of application of and replacement by other clean energy.

Huanggu Thermoelectricity proactively implements the Systems for Performance Assessment Management of Energy Saving and the Rules of the Heating Department for the Evaluation of Energy Conservation and Consumption Reduction Indicators, and incorporates the performance on energy saving in the assessment for departments and employees. The energy-saving assessment is conducted in accordance with the evaluation standards of on-site inter-value competition, which is composed of index evaluation management, parameter evaluation management and defect management. The point system is adopted for defect management, which clearly stipulates the points that employees can obtain each time they discover and report energy-saving defect factors that affect power generation, grid-connection volume, steam and water waste rate, coal consumption rate, etc. The points they get can be added to the annual performance assessment, aiming to fully mobilise the enthusiasm of operators in finding defects and checking up on the maintenance of facilities to avoid energy leakage and waste in production facilities and improve energy efficiency.

善用能源資源

能源使用效益及管理

業務生產及營運過程中的電力使用和化石能源燃燒為本集團主要 的能源消耗。為更有效利用資源,提升能源使用效率,本集團要 求各附屬公司評估並結合自身實際情況,在嚴格遵守各地區適用 法律法規的基礎上,建立健全目切實可行的能源管理體系。其中, 遠東珠海在幕牆組成中引入內循環呼吸系統,通過控制風的流動 方向和流量,提高建築整體的熱工性能,於高溫天氣加速幕牆散 熱,於寒冷天氣防止幕牆結霜,從而降低能源需求。而被動式幕 牆技術認證為北美乃至全球首個單元式玻璃幕牆被動式建築認證, 表明我們將圍護結構熱工性能、高氣密性、高效熱回收系統結合 的努力,實現超低能耗的建築幕牆設計。本集團亦取得「一體化 自適應反射式採光單元式玻璃幕牆」等實用新型專利,並積極研 究電致變色智能玻璃技術的可行性,以實現樓宇自動調光及節能。

皇姑熱電制定並實施《能源統計管理制度》與《重點耗能設備監測 管理制度》,實行「公司-部門-班組」三級能源統計管理體制, 由生產技術部負責公能源管理及能源統計工作,同時推進設備的 節能技術改造,使用新技術、新設備,淘汰落後產能設備,提升 能源使用效益。皇姑熱電亦設立節能領導小組,以負責對工廠能 源使用進行組織、監督和管理,並已開展「煤改氣」轉型可行性分 析調研,會繼續探索其他清潔能源應用及替換的可能性。

皇姑熱電亦實行《節能考評管理制度》與《供熱部節能降耗指標考 核細則》,將節能降耗工作表現納入部門及個人考評體系。節能 考評制度遵循生產現場值際競賽考核標準執行,由指標考核管理、 參數考核管理以及缺陷管理三部分組成。其中,缺陷管理部分採 用積分制,明確規定員工每發現並上報一次影響發電量、上網電 量、汽水損失率、煤耗使用率等的節能缺陷因素可獲得的積分分 值, 並將其納入年度節能績效考評, 旨在充分調動運行操作人員 發現節能缺陷及督促檢修以消除缺陷的積極性,確保生產設備無 能源跑、冒、滴、漏等現象發生,有效提升能源使用效益。















Energy Conserving Measures of Huanggu Thermoelectricity (Partially)

皇姑熱電節能降耗改造措施(部分)



Retrofitting project of low-temperature heating grids

低溫網供暖改造項目

As early as 1997, Huanggu Thermoelectricity took the lead in retrofitting the water circulation heating of two boilers, which could offer water circulation heating in winter and achieved a total supply of approximately 30.23 GJ in 2022.

早於1997年,皇姑熱電已率先對兩台機組進行循環水供 熱改造,經改造後兩台機組均可在冬季採暖期進行循環 水供暖,並於2022年實現低溫網供熱約30.23萬吉焦。



Recycled water waste heat recovery project 循環水餘熱回收項目

In 2014, Huanggu Thermoelectricity retrofitted the water circulation system of boilers 2014年, 皇姑熱電採用合同能源管理模式對機組循環 with the energy management contract mechanism and installed two lithium bromide absorption heat pump units with a heat production capacity of 19.15 MW to recover the waste heat of the circulating water. A total heat supply of about 16.7 GJ was 2022年實現溴化鋰機組供熱約16.7萬萬吉焦。 obtained in 2022.

水系統進行改造,安裝兩台制熱能力為19.15兆瓦的溴 化鋰吸收式熱泵機組,對機組循環水餘熱進行回收,於



Phase 5 retrofitting project of sealed desulphurisation fan inlet pipelines

五期脱硫密封風機入口 管路改造項目

The air intake of the inlet pipeline of the sealed desulphurisation fan inlet pipelines in Phase 5 was set outdoors and was designed to work with a 70-kW heater in the outlet pipeline due to the low temperature. During the reporting period, the centre of Phase 5 introduced the inlet pipelines to the plants, which can raise the temperature by 30°C without the heater. It was expected to save 254,000 kWh of electricity for each winter heating season.

五期脱硫密封風機入口管路取風口原本設置在室外,因 室外溫度低,原設計在密封風機出口管路配備70千瓦加 熱器。報告期內,五期中心將密封風機入口管路引入廠 房,可提升入口風溫30°C,從而無需配備加熱器,預計 每個供暖季可節省電量25.4萬千瓦時。



Phase 3 retrofitting projects of outlet pipelines of air compressors no. 5 and no.6

三期5號及6號空壓機 出口管改造

Air compressors 5 and 6 in Phase 3 have been put into operation for more than three years, but they cannot run at the same time due to the limitation of pipeline layout. The Maintenance Centre expanded the original pipeline from 108 mm to 219 mm in diameter and connected the gas tanks of the Phase 1 project and Phase 3 project. The retrofitted pipelines are testified to be able to save the power of a 20-gallon vertical air compressor when running the dust removal box and the pneumatic 系統運行的情況下每日可少轉1台20立空壓機,預計每 system, and are expected to save 437,000 kWh of electricity for each winter heating season.

三期5號及6號空壓機投入運行超過三年,因安裝管道佈 置的限制,導致兩台空壓機無法同時運行。維修中心根 據現場實際情況,將儲氣罐連接管由直徑108毫米擴容 至直徑219毫米,並將三期儲氣罐和一期儲氣罐並聯在 一起,經運行檢驗,證明在滿足布袋除塵器及氣力除灰 個採暖季可節省電能43.7萬千瓦時。









China State Construction Development Holdings Limited 中國建築與業集團有限公司 | Sustainability Report 可持續發展報告 2022



Energy Conserving Measures of Huanggu Thermoelectricity (Partially)

皇姑熱電節能降耗改造措施(部分)



Energy-efficient transformer upgrade 節能變壓器升級

The electrical team overcame the difficulties of narrow installation space, urgency, and heavy workload, and removed 8 high energy-consuming transformers, including two water sourced transformers of 500 kVA, four transformers of 50 kVA, one chemical transformer of 800 kVA and one standby transformer of 1,000 kVA, as well as installing new energy efficient transformers, which could save 47,000 kWh of electricity each year.

電氣專業克服了安裝場地狹小、時間緊、任務重等困難 淘汰並拆除8台高耗能變壓器,包括水源變壓器500千伏 安2台、50千伏安4台、化學變壓器800千伏安1台、1號 備用變壓器1.000千伏安1台,同時安裝新型節能變壓器。 8台變壓器更換後每年可節約電能約4.7萬千瓦時。



Plan of launching hydraulic balance of secondary network and user room temperature monitoring project

計劃開展二次網水力平衡和用 戶室溫監測專案

After a trial lasting almost two months in 2021, the project achieved prominent results in saving energy, reducing consumption, and enhancing heat supply quality. This year, we plan to extend the project to cover 6 communities in order to strive for economies of scale in saving energy, reducing consumption, and enhancing quality. In 2022, the technical transformation of hydraulic balance of secondary network covered an area of 1.6 million square metres, thus realising energy saving and consumption reduction through raising the heat supply efficiency of heat exchange stations and cutting heat consumption and electricity consumption by 2-4.5% and 3-10% respectively.

通過於2021年近兩個月的試驗,項目在節能降耗和提高 供暖品質方面效果顯著,本年度計劃擴大規模在6個社 區範圍內進行專案建設,力爭在節能降耗提質增效方面 形成規模效應。2022年完成二網平衡技術改造160萬平 方米,提高換熱站供熱效率、降低熱耗2-4.5%及降低電 耗3-10%,實現節能降耗。



Implementation of retrofitting project of boiler ACS system

實施和鍋爐ACS智慧控制 系統改造專案

With the existing DCS system controlling the operation of equipment, the automation and steady main control of boiler operation, the stabilisation of boiler operation and the enhancement of operation are achieved. In 2022, after the completion of the ACS system retrofitting of boilers 6 and 7 in the factory, 4% of coal and 2% of electricity were saved. Making reference to the production plan of 2023, it is calculated that boilers 6 and 7 will save 3.988.09 tons of standard coal, reduce the electricity consumption of Phase 3 factory by 198,100 kWh, cut carbon emission by 5,143.58 tons, and lower labour costs by around Renminbi 300,000 within a year.

通過原有DCS系統控制設備運行,實現鍋爐運行的自動 化、主控目標穩定,鍋爐運行穩定及優化運行。2022年 完成廠內6和7號爐ACS系統改後約節約4%煤及2%電力。 參照2023年生產計劃計算6號和7號鍋爐在2023全年可節 約標煤3,988.09噸及節約三期廠電消耗19.81萬千瓦時, 減少碳排放量5,143.58噸,同時可節省人力成本約人民 幣30萬元。





WATER EFFICIENCY AND MANAGEMENT

The operation locations of the Group are in urban areas, and water used in its production and domestic purposes is sourced from municipal water supply system, thus the Group has not encountered any difficulties in water sourcing. To encourage employees to participate in green transformation, and to enhance the environmental protection awareness of employees, the Group published the Green Office Guidelines and advocated various measures regarding the proper use of water resources, such as conducting regular leakage tests of concealed water pipes and water tank inspections, the installation of automatic faucets and water-saving toilets, and encouraging employees to turn off the faucets after use in order to enhance the efficiency of water resources usage. In addition, Huanggu Thermoelectricity implemented a plan on water conservation system. It is planned to transform its steam heating to water heating, thus reducing the usage of steam, loss of steam water and the usage of desalinated water. Moreover, Huanggu Thermoelectricity proposed to use the water discharged from primary network to rinse the secondary network, in order to minimise the amount of water used in rinsing the secondary network of the heat network. Besides, through the reclaimed water project, Huanggu Thermoelectricity further reduced water consumption by 50 tonnes per hour and 181,200 tonnes for the whole winter heating season.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

CORPORATE LOW-CARBON TRANSITION

Through driving technological innovation, setting up relevant departments and taskforces, and investing in renewable energy, the Group actively responds to the carbon reduction actions and goals of the places where it operates, thus integrating into the sustainability blueprints of these places.

On facade business, adopting the direction of "building intelligent production base" and the goal of "leading the end-to-end intelligent fabrication of curtain walls", Far East (Zhuhai) is committed to reducing the carbon footprints in the design, manufacturing and installation of facades. We propose to choose heat-reflection glasses as far as practicable and conduct accurate calculations on the structures and heat of buildings to reduce energy consumption from heating and cooling when designing facades. We also make full use of natural lights based on the structures of buildings to reduce carbon emissions from electricity use for lighting. During the manufacturing process, the Group preferentially selects low-carbon materials in the procurement of metals and alloys. We use unit facades that are accurately designed and perfectly manufactured for installation to reduce working hours and direct or indirect carbon emissions. We also have respiratory double-skin facade and passive facade technologies, which are conducive to the reduction of energy consumption and carbon emission during construction. The Hong Kong Green Building Council awarded the Green Building Award in recognition of Far East (Hong Kong)'s application of green buildings in the Murray project in Central.

水資源使用效益及管理

本集團的營運地集中在市區,其生產及生活用水皆源於市政供水 系統,在求取適用水源方面並無困難。為鼓勵員工參與企業的綠 色轉型,提高員工的環保意識,本集團專門印發《綠色辦公室指 引》,並針對善用水資源倡導多項措施,例如定期進行隱蔽水管 滲漏測試及水缸檢查,安裝自動感應水龍頭和節水馬桶,鼓勵員 工隨手關閉水龍頭等,從而提升水資源使用效益。此外,皇姑熱 電推行了節水系統計劃,計劃對廠內汽暖系統改造,由汽暖改為 水暖供暖,節約蒸汽用量、減少汽水損失、以及減少除鹽水用量。 另外,為減少熱網二次網沖洗用水,皇姑熱電提出用一次網排水 冲洗二次網。我們亦通過中水回收改造項目進一步降低水耗, 經核算,節水改造後每小時可節水約50噸,整個採暖季可節水約 181.200噸。

本集團積極通過技術創新,設立相關部門和專責小組,及可再生 能源投資等途徑,加速企業低碳化轉型,響應業務營運所在地國 家及地區的減碳行動及目標,融入營運所在地的可持續發展藍圖。

在幕牆工程業務,遠東珠海以「打造智能型生產基地」為導向,以 [引領幕牆至過程智能製造]為目標,致力於減少設計、生產、安 裝等全周期的碳足跡。在設計環節,本集團盡可能建議選用低熱 反射玻璃並進行嚴格的結構與熱工計算,以減少建築因取暖與製 冷導致的能耗,並配合建築設計充分利用自然光以減少照明用電 帶來的碳排放;在生產環節,本集團嚴格選材,在金屬、合金等 主要材料的採購中均優先選用低碳金屬等環保材料;在安裝環節, 本集團通過採用單元式幕牆產品,以精准的設計及標準化製作流 程全面縮減工時,有效減少施工全過程的直接及間接碳排放。我 們亦擁有雙層呼吸式幕牆技術和被動式幕牆技術,有助於降低建 築能耗,減少碳排放。香港綠色建築協會頒發了環保建築大獎以 表揚遠東香港公司在中環美利項目中對綠色建築的應用。







Huanggu Thermoelectricity also strives to reduce carbon emission by cutting energy consumption. During the reporting period, Huanggu Thermoelectricity implemented four major emission reduction policies in production and operation, including determination of power by heat, precise adjustment and control, one approach for one district, and heat recovery. The traditional way of supplying heat draws on the residual heat of power generation, and the possible surplus of such residual heat might result in energy wastage. As such, we pledge that we will not generate excess electricity in order to supply heat; instead, we will determine the amount of power to be generated based on the amount of heat to be produced. To reduce energy wastage, we will conduct real-time adjustment and control according to the temperature; under the precise adjustment and control policy, the system will affect real-time adjustment and control on the heat supply volume according to the temperature of a particular day. We have also implemented the "one approach for one district" policy to adjust heat supply temperature according to the districts' needs and facilities, maximising efficiency; we will also explore a two-way balancing policy, under which the heat supply speed of places farther away from heat supply units is increased, so as to balance the heat of the districts. In addition, knowing that some residual heat is bound to be created during the heat supply process, we recover the residual heat generated by the heating units and use it for supplying heat. Such emission reduction efforts led Huanggu Thermoelectricity to consume around 600,000 tons of coal in 2022, representing a decrease of 7 tons from the amount consumed in 2020.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

The Group has formulated the 14th Five-Year Development Plan, paid close attention to market changes and explored the application and development of clean energy. We have been conducting regular verification and registration of carbon emissions in strict accordance with the Greenhouse Gas Emission Accounting Methodology and Reporting Guidelines for Enterprises-Power Generation Facilities, the Measures for the Administration of Carbon Emissions Trading (Trial) and other regulations issued by the Chinese government. Huanggu Thermoelectricity formulated internal systems such as guidelines for the preparation of carbon emission report, standardised the verification and management of carbon assets, enhanced the stocktaking, verification and monitoring of carbon emission, and improved guota accounting, contract performance and trading.

在皇姑熱電業務方面,我們致力通過節省能耗以減少碳排放。於 , 皇姑熱電實施四大生產營運減排政策, 包括以熱定電 精準調控、一區一策及熱回收。傳統供暖的方法是利用發電產生 的餘溫輸出熱力,而生產電力產生的餘溫可能供過於求導致能源 浪費。因此,我們承諾不會為了供暖而過度發電,會以生產熱量 確定電量生產的額度。為了減少浪費能源,我們會根據溫度實時 調控,在精準調控的政策下,系統會根據當天的溫度,對供暖的 額度實時進行調控。我們亦實施一區一策供暖政策,根據社區的 需要及配套調節供暖溫度以達致最高的效益度,並正研究採取二 往平衡政策,加大距離供熱機組比較遠地方的供熱速度和壓力以 平衡小區的熱力。另外,我們知道在供暖生產過程中總會有剩餘 的熱氣,所以我們把機組發熱的餘熱回收供暖。我們減少排放的 努力使皇姑熱電2022年消耗約60萬噸煤,比2020年消耗量下降 了7噸。

本集團制定十四五發展規劃,密切關注市場變化,探索清潔能源 的應用及發展機遇,同時,本集團嚴格按照中國內地政府發佈的 《企業溫室氣體排放核算方法與報告指南發電設施》、《碳排放權 交易管理辦法(試行)》等文件,積極開展碳排放的定期核查及註 冊工作。皇姑熱電撰寫碳排放報告編制指南等內部制度,規範碳 資產核查與管理,提高碳排放盤查、核查、監測及配額核算、履 約、交易。







China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022



GREEN OFFICE

To create a low-carbon working environment and to minimise the materials used and waste produced in office, the Group actively promotes environmental protection measures regarding water consumption, electricity consumption, paper use, disposal of waste, business trips and vehicles usage, and has implemented the Green Office Environmental Proposal and the Green Office Guidelines covering different aspects such as encouraging paperless office, keeping the temperature of air-conditioning above 25° C in summer, replacing business trips with video conferences, and advocating green travel. We have also built an office automation system to enable the company headquarters and the subsidiaries to foster paperless office in their information exchanges and office administration.

Besides, the Group strongly advocates all subsidiaries to use network communications to reduce carbon emissions from long-distance travel. During the reporting period, the Group's scope 3 emissions from business travel flights decreased by about 12% compared with the previous year.

During the reporting period, the Group was awarded the "Green Office" and "Eco-Healthy Workplace" labels from the World Green Organisation for the seventh consecutive year.

践行綠色辦公

為打造低碳工作環境,減少辦公室使用物料與廢物產生,本集團 積極推廣針對用水、用電、用紙、廢物處理、商務差旅、公務車 使用等相關方面的環保措施並落實了《辦公場所綠色環保倡議書》 和《綠色辦公室指引》,涵蓋鼓勵無紙化辦公、保持夏季空調溫度 不低於攝氏25度、以視像會議取代差旅、倡導員工綠色出行等。 我們還建立了辦公自動化系統,使公司總部及各子公司信息交流、 行政辦公,提高公司無紙化辦公水平。

此外,本集團亦積極倡導各附屬公司採用網路技術以參與遠程會 議,從而減少因長途差旅而產生的碳排放。報告期內,本集團因 商務差旅飛行而產生的範圍三溫室氣體排放相較於上一年度減少 約12%

報告期內,本集團已連續第十年獲世界綠色組織頒發「綠色辦公室」 及「健康工作間」標誌。









RAISING AWARENESS OF ENVIRONMENTAL PROTECTION

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

Upholding its objectives of emissions and waste reduction, the Group is committed to raising its employees' awareness of environmental protection through facilitating a green working environment. The Group will also formulate or modify its employee training policy in 2023, requiring its employees to attend training sessions in relation to low carbon practice and sustainable development during their onboarding, and members of all sustainable development functions will be required to attend training courses regarding low carbon practice at least once a year. Besides, we have organized a series of "China Overseas Group Anniversary Celebration" activities to encourage our employees' engagement and enhance their awareness of environmental protection. We intend to promote the importance of health, practice of environmental conservation and corporate responsibility through organising hiking and volunteer activities such as garbage cleaning charitable activity. One of the featured events of the Anniversary Celebration was a charity hike with the theme of achieving environmental protection and green heath together. To celebrate the "1st of May", Far East (Hong Kong) organised a charity green hiking activity, with a track that covered Siu Sai Wan, Dragon's Back and Big Wave Bay. Moreover, Far East (Zhuhai) has also arranged a series of activities "practising strict economy, operating a diligent and frugal business", such as "Turning Trash into Treasure", which promotes the philosophy of reusing the remaining materials, such as aluminium profiles, from the production to build guard post, temporary guarantine rooms, office, office equipment, event props, etc. that are unique to enterprises through splicing and transforming those material remainders by production workers. We hope to raise employees' awareness of environmental conservation.

提高環保意識

結合本集團的減排減廢目標,本集團致力於提高員工的環保意識, 推廣綠色工作環境,並將在2023年制定或修訂員工培訓政策,員 工入職時需接受低碳及可持續發展相關培訓,而所有可持續發展 架構的成員每年需接受最少一次低碳相關培訓。此外,為鼓勵員 工參與和提高環保意識,我們舉辦了「中海司慶日」系列的活動, 希望通過組織登山以及義工活動如撿垃圾公益行活動,推廣健康 實踐環境保育及企業責任。其中一個中海司慶日主題活動為環保 登山行綠色健康「益」起來。為迎接「五一」,遠東香港舉辦公益環 保行山活動,途經小西灣、龍資和大浪灣。此外,遠東珠海舉行 了「厲行節約勤儉辦企」系列的活動,如「變廢為寶」通過生產餘 料,如鋁型材的二次利用,結合生產工人的手藝將生產多餘的材 料進行拼接及改造,打造獨具企業特色的保安崗亭、臨時防疫隔 離間、辦公室、辦公桌椅、活動道具等以提升員工節約意識。



"China Overseas Group Anniversary Celebration" Green Hiking 「中海司慶日|環保登山行



Environmental Protection Volunteering Activities 環境保護義工活動



Turning Trash into Treasure -Workshop Office 變廢為寶-車間辦公室



Aluminum Office Desk 鋁板辦公桌





TACKLING CLIMATE CHANGE

Climate change poses significant risks to the global economy, with the physical risks (e.g., extreme weather) and transition risks (e.g., low-carbon related policies) directly or indirectly affecting all industries. Thus, the Group is making reference to the relevant financial reporting frameworks to tackle the climate change, and pays close attention to the risks and opportunities on our business brought by the climate change. The Group is committed to explaining the management direction and strategy on mitigating, adapting to and being resilient to climate change to our stakeholders.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

GOVERNANCE ON CLIMATE RISK

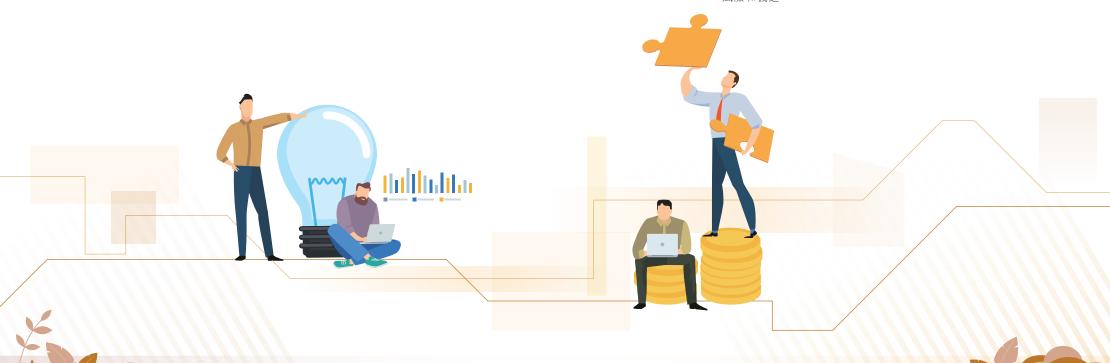
The Group has established a sustainability committee under the Board, with its members being appointed among the directors by the Board. The committee must have at least three members, more than half of which must be independent non-executive directors. The chairperson of the committee must be appointed by the Board. The committee chairperson must report issues related to sustainable development to the Board of the Company, such issues include climate-related issues and their identification, assessment and management. The sustainability committee holds meeting annually to formulate and review the climate strategy of the Group, including the objectives or material measures on mitigating, adapting and resisting climate change, and to identify risks and opportunities of climate change to our business.

應對氣候變化

氣候變化對全球經濟構成重大風險;其物理風險(如極端天氣)和 轉型風險(如低碳相關政策)直接或間接影響到各行各業。就此, 本集團正參考氣候相關財務揭露建議的框架來應對氣候變化並會 密切關注氣候變化對業務的風險和機遇,承諾向持份者闡述我們 減緩、適應和抗禦氣候變化的管理方針及策略。

氣候風險管治

本集團設有董事局的可持續發展委員會,委員會成員須由董事局 從董事中委任,並且須由不少於三名成員組成,惟過半數成員必 須為獨立非執行董事,而委員會的主席須由董事局委任。委員會 主席需向公司董事局匯報重大的可持續發展相關事宜,包括氣候 相關議題及進行識別、評估及管理。可持續發展管理委員會會每 年舉行會議,制定及檢討本集團的氣候策略,包括有關減緩、適 應和抗禦氣候變化的目標或重大措施,並識別氣候變化對業務的 風險和機遇。





STRATEGY 策略

PHYSICAL RISKS 物理風險

The physical risks of the Group caused by climate change mainly include floods, temperature increase and other problems caused by extreme weather events such as heavy rains, thunderstorms and strong winds. All these might adversely affect employees' safety, the transportation of construction materials and the works progress of the sites, thus causing financial damages to the enterprise.

The Group also gradually reviews the risks' impact on its business. The geographical locations of the high-voltage rooms, major engine rooms and production workshops of Far East (Zhuhai) are much higher than the ground level, so floods impose a rather small impact on Far East (Zhuhai).

氣候變化對本集團造成的主要物理風險包括強 降雨、雷暴、大風等極端惡劣天氣引致水浸、 温度上升等問題,均有機會影響員工安全、建 築材料的物流運送及工地施工進度等,導致企 業財務損失。

本集團亦逐步審視對業務的影響情況。遠東珠海的高壓電房、重要機房及生產車間地理位置均高出地面較多,所以水浸問題對遠東珠海的影響較低。





- In response, the Group formulated special emergency response procedures for severe weather in summer. Once we receive an alert on the weather, the General Office of the Group will organise and arrange various departments to carry out disaster prevention and emergency measures to protect the lives and health of employees and the safety of the assets, and to minimise loss.
- Far East (Zhuhai) has also acquired backup power suction pumps and mobile diesel suction pumps to meet the factories' drainage needs in case of emergency. Moreover, regular checks are conducted and drainage channels of the factory areas are cleared on a weekly basis
- 為此,本集團針對夏季惡劣天氣制定應 急措施,在重大天氣預警發出後,本集 團公司辦公室將組織並安排各部門協調 開展辦公區域的防災應急工作,保障本 集團人員生命健康及財產安全,務求將 損失降到最低。
- 遠東珠海亦因此配置備用電源抽水泵 及移動柴油抽水泵以 足廠區緊急情況 下的排水需求。同時,每週亦會定期檢查、清理廠內各區域排水通道。



TRANSITION RISKS 轉型風險

To address the transition risks posed by climate change to the Group in terms of policies, laws and regulations, the Group will coordinate departments at all levels, closely follow up on national policies and market trends, and take timely measures to reduce the impact of the risks, in order to minimise the effect on the business of the Group. The governments of various countries respond to low-carbon and carbon-neutral initiatives by continuously strengthening regulatory measures related to climate change and driving relevant technological advancement to address climate change challenges, so that enterprises must adjust their environmental policies and operation modes, and invest additional resources in introducing new technology, equipment and process, in order to address and work alongside the economic risks brought by relevant legal requirements and low-carbon technology transformations.

針對氣候變化為本集團帶來的政策、法律、規管等方面的轉型風險,本集團將協調部署各級部門機構,緊跟國家政策及市場動態, 及時採取相關應變措施,務求降低對本集團業務的影響。各國政府響應低碳及碳中和的倡議,不斷加強氣候相關的監管措施 及促進相關技術進步以應對氣候變化挑戰,使企業需要調整環境方針、營運模式及額外增加投入引入新技術、新設備、新工藝等, 以應對及配合相關法律要求及低碳技術轉變帶來的經濟風險。

OUR RESPONSE 我們的回應

- 我們積極發展及使用可再生能源BIPV的技術,有

An enterprise might experience financial loss due to asset price changes or poor credit conditions if its investment assets, borrowers or creditors cannot fully address relevant market changes. To Huanggu Thermoelectricity, the impact mainly comes from carbon quota and carbon trading in accordance with the latest standards stipulated by the state. If Huanggu Thermoelectricity fails to invest in upgrading existing facilities to meet the set goals, it will be required to purchase corresponding quota to offset its emission amount, resulting in possible corporate financial losses. However, carbon quota and carbon trading can also bring opportunities to the Group; for instance, if Huanggu Thermoelectricity excels in emission reduction, it can make a profit from selling corresponding quota.

企業投資資產、借款人或信貸人未能充分應對相關市場轉變,會導致資產價格變動或信貸狀況 惡劣,造成企業財務虧損。皇姑熱電主要的影響為碳配額及碳交易,為符合國家所訂立最新的 指標。如未能投入改善現有設備以達到既定目標,皇姑熱電需購買相應的額度抵消本身的排放量, 可能導致企業財務損失。但碳配額和碳交易同時亦可為本集團帶來機遇,因為如皇姑熱電減排 成效顯著,可出售相應的配額,從中獲利。

OUR RESPONSE 我們的回應

- efficiency. Details can be referred to the section headed "Efficient Use of Energy and Resources"
- 皇姑熱電亦就此訂立《碳資產管理辦法》,規範碳排放數據填報及收集規範,

In the future, the Group will also continue to improve the identification and response mechanism for risks posed by climate change so as to further ensure that relevant risks are being controlled and managed effectively.

未來,本集團亦將持續完善氣候變化相關風險的識別及應對機制 進一步確保相關風險得到有效控制及管理。



China State Construction Development Holdings Limited 中國建築與業集團有限公司 | Sustainability Report 可持續發展報告 2022



RISK MANAGEMENT

To formulate long-term strategy and to prevent our businesses to be affected by climate risk, we formulated sustainability risk assessment framework and a list of alternatives, and we also carry out assessment on sustainability risk.

Through analysing from different perspectives, and by referencing a number of risk analysis reports, general trend analysis reports, peer reports, and by integrating the business nature of CSC Development, we identify the sustainability risks related to the Company, and formulate the sustainability risk inventory, such as whether such sustainability risk will have direct or indirect effect to the financial performance of the Company, and whether such sustainability risk will have impact on the development strategy and operation management of the Company. Based on the sustainability risk assessment framework and sustainability risk inventory, and taking into account the risks listed in the existing list of risks that have potential linkage to sustainability issues, we will select, adjust, and integrate suitable sustainability risks to establish a sustainability risk profile, from the perspective of actual business of the Group. Afterwards, based on the confirmed sustainability risk profile, we will carry out sustainability risk assessment and investigation. Relevant departments are invited to take part in questionnaire survey in order to assess the risk level of each sustainability risk. Each relevant department shall give its scores on each sustainability risk based on "the possibility of occurrence of sustainability risk" and "the severity of the occurrence of sustainability risk".

The Group will aggregate the survey results of the sustainability risk assessment, confirm the priority of the sustainability risk, and specifically review the Company's management on sustainability issues with high risk level, in order to further refine the risk management mechanism, and to assess the material entity and transition risks and opportunities on climate change to our assets and businesses.

風險管理

為制定長遠策略及保障業務免受氣候變化相關的風險影響,我們 建立可持續發展風險評估框架及備選清單並進行可持續發展風險 評估。

通過多角度分析及參考了多份風險分析報告、大趨勢分析報告、 同行報告等文件,同時結合中國建築興業的業務性質,以識別與 公司相關的可持續發展風險,建立可持續發展風險備選清單,例 如該可持續發展風險是否對公司財務表現造成直接或間接影響和 該可持續發展風險是否對公司的發展策略及運營管理造成影響等 問題。我們會根據可持續發展風險評估框架及可持續發展風險備 撰清單,從本集團實際業務角度出發,結合現有風險清單中與可 持續發展事宜有潛在聯繫的風險,在備選清單的基礎上篩選、增 減、整合出適當的可持續發展風險組成可持續發展風險庫。接著, 我們會根據確認的可持續發展風險庫,進行可持續發展風險評估 調查方案,邀請有關部門參與問卷調查,對各項可持續發展風險 的風險程度進行評估。各相關部門就「可持續發展風險發生的可 能性 | 和 「可持續發展風險發生的嚴重性 | 對各項可持續發展風險 進行評分。

本集團匯總可持續發展風險評估調查結果,確認可持續發展風險 優次排序,並針對性審視公司對高風險程度可持續發展事宜的管 理情況,以進一步完善風險管理機制,評估氣候變化對我們的資 產及業務構成的重大實體和轉型風險與機遇。







METRICS AND TARGETS

On climate change front, the Group sets up different goals on minimising the emission of greenhouse gas, such as enhancing the energy efficiency of our equipment. Far East (Hong Kong) pledges to reduce the per capita electricity and water consumption of the office lighting and air-conditioning systems in 2023 by 10%, compared with the amount of 2022. In addition, to reduce vehicle's greenhouse gas emissions, our North America office will cut the diesel consumption of construction sites and vehicles by around 30% in 2025, and will cut the petrol consumption record of company vehicles by one-third while regularly maintaining the company vehicles.

China State Construction Development Holdings Limited 中國建築與業集團有限公司 | Sustainability Report 可持續發展報告 2022

The Group actively carries out low-carbon transition through technological innovation. Huanggu Thermoelectricity replaces the bag filters of the boilers and executes plans to control air pollution at the source in construction works and production, such as by adding particulate reduction devices, using ultra-low-sulphur diesel, installing air pollution control devices, and investing in reducing air pollutants by planning the construction, inspection and maintenance of wastewater desulphurisation treatment systems and by building equipment for reusing production wastewater. For information on how we carry out low-carbon transition through technological innovation, please refer to the part on "Corporate Low-carbon Transition".

In addition, the Group actively develops renewable energy. In 2026, our North America office will realise the use of renewable energy in half of its construction sites and factories. To increase the number of projects with BIPV application, we envisage participating in a total of 6 projects in which photovoltaic power generation and BIPV are applied in 2023. For more information on our indexes, goals and BIPV development, please refer to the parts on "Implementation of Environmental Targets" and "Efficient Use of Energy and Resources". We will draw up an emission reduction roadmap to gradually attain carbon neutrality by 2060.

指標和目標

針對氣候變化,本集團設立不同減少溫室氣體排放的目標,例如 提高設備能源效益。遠東香港承諾2023年度公司寫字樓照明系統 或空調系統的人均用電量以及用水量會較2022年降低10%。另 外,為減少汽車溫室氣體排放,我們北美的辦公室將於2025年減 少工地或車輛的柴油使用約30%及將於2026年將記錄公務車耗油 減少三分之一,並定期檢修公務車。

本集團積極通過技術創新為企業低碳化轉型,皇姑熱電對鍋爐布 袋除塵器進行更換,亦從施工或生產源頭控制空氣污染的計劃 如加裝減少粒子器件、使用超低硫柴油、設置空氣污染控制裝置 及計劃有關脱硫系統廢水處理系統建設、檢修、運維,投入建設 生產回水再利用設備等以減少空氣污染物。有關我們如何通過技 術創新為企業低碳化轉型的更多資訊,請參閱企業低碳轉型部分。

此外,本集團積極發展可再生能源,我們北美的辦公室將於2026 年實現可再生能源使用,工地和工廠一半會使用可再生能源。為 提升BIPV應用的項目數量,我們預計在2023年參與光伏發電及光 伏一體化的應用項目共6個。有關我們指標、目標和BIPV開發的更 多資訊,請參閱落實環境目標及善用能源資源部分。我們會訂立 減排的路線圖以逐步於2060年達至碳中和。















Serving and Giving Back to Society 服務回饋社會

Material Topics 重要性議題



Giving Back to Society 回饋社會









SERVING AND GIVING BACK TO SOCIETY 服務回饋社會

As a responsible corporate citizen, the Group is actively committed to corporate social responsibility. It conducts in-depth understanding to the needs surrounding the communities where it operates and address such issues, it also commits to giving back to the society in different ways by utilizing its own resources and expertise, thus facilitating social integrity and sustainable development. During the reporting period, our efforts and contributions to society won the recognition of the state. The Group is honoured to have received various awards and certificates issued by the members of the Party, Cities and Towns. These proofs of our spirit of unrelentingly giving back to the state gave us great encouragement.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

作為負責任的企業公民,本集團積極承擔企業社會責任,深入了 解及處理業務營運所在地關注的社區需要,並利用自身的資源和 專長,致力進行多種回饋社會的工作,促進社會共融與可持續發 展。於報告期內,我們對社會的貢獻和努力得到了國家的認可。 本集團很榮幸獲得黨、市、鎮各委員等單位頒發的多項獎勵和證 書,證明了我們對國家不懈的奉獻精神,讓我們感到非常鼓舞。







2022 Excellent Volunteer Service Team of Hongqi Town, Jinwan **District of Zhuhai** 2022年度珠海市金灣區紅旗 優秀志願服務隊

Communist Youth League Honggi Town Committee 共青團紅旗鎮委員會



2022 China State Construction **International Holdings Youth** lisation Award (Excellent Youth Team 2022年度中國建築國際集團 China State Construction International **Holdings Limited**

2022 Outstanding Enterprises Fulfilling **Social Responsibility** 2022年履行社會責任優秀企業

During the reporting period, our employees were engaged in 58 volunteer services, and provided 290 hours of services to the community. The Group sets the goal to increase the hours and participants of volunteering services conducted by employees and social investment by 15% by 2025 as compared to 2020, and expects our employees to engage in 100 volunteer services, and provide 400 hours for volunteering services in 2023.

於報告期內,本集團員工累計參與義工服務共58人次,累計社區 服務時間達290小時。為促進員工回饋社會和參與社區的精神 本集團設定了於2025年員工義工參與時數、員工義工參與人次、 社區投資金額比2020年增長15%的目標,並期望於2023年義工 活動員工參與人次達100人次,及員工義工參與時數達400小時。





CONTRIBUTION TO THE FOCUS AREAS 所專注貢獻範疇

Caring About Youth Development 關注青少年發展

The Group co-organised with Child Development Initiative Alliance the Y-We Programme 2022. A corporate training workshop was held at Child Development Initiative Alliance. Young people were arranged to participate in work experiencing, through which integration of enterprises with the younger generation is fostered.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

本集團與青少年發展企業聯盟合辦Y-WE計劃2022,於青少年發展企業聯盟會址舉行企業培訓 工作坊,安排青少年進行工作體驗,促進企業與下代共融。





Our Group's volunteers participated in and completed the "Strive and Rise Programme". The Chief Secretary for Administration led an inter-departmental Task Force to take forward the Strive and Rise Programme through tripartite collaboration between the government, the business sector and the community, helping 2,000 Secondary One to Secondary Three students from underprivileged families. Mentorship training workshops, orientation sessions, basic training workshops, and China Overseas mentorship briefings and training events are included.

本集團組織義工參加並完成「共創明Teen」計劃。計劃由政務司司長領導跨部門行 動小組,通過政、商、民三方協作推行,幫助2,000名來自弱勢社群家庭的中一至 中三學生學生。活動內容包括友師培訓工作坊、迎新會、基礎訓練工作坊和中海 友師簡介會暨培訓活動。

Enthusiastic About Community Service 熱心社區服務

To propagate the spirit of volunteering services, and implement the mission of "Managing Happiness for the Society" of COLI's employees, and facilitate Zhuhai to establish the civilized city, Far East (Zhuhai) joined hands with The Volunteer Association of Hongqi Town arranging 25 young volunteers to participated in the action for establishment of civilization, environment and hygiene for Tengshan Community. Volunteers helped to clean the streets of the community, thus contributing to a better city environment.

China State Construction Development Holdings Limited 中國建築興業集團有限公司 | Sustainability Report 可持續發展報告 2022

為大力弘揚志願服務精神,踐行中海人「為社會經營幸福」的使命,助力珠海創建文明城市, 遠東珠海携手紅旗鎮志願者協會組織25名青年志願者參與藤山社區創文環衛行動,志願者們 對社區街道進行清掃,為創造更美的城市環境貢獻一份力量。









With the arrival of "China Overseas Group Anniversary Celebration" on June 6, Far East (Zhuhai) exerted its force to establish with the local community, and successfully collaborated with Jinwan Library to organize a series of themed activities around family, in order to enhance the sense of ceremony and the cohesion of Leading Culture, and to celebrate the International Children's Day. Activities held included fun swapping fair, picture book reading activity themed "Honesty, Hardworking and Thrifty", and a visit to an intelligent factory.

為迎接6月6日中海司慶日,增強領潮文化的儀式感和向心力,並結合國際兒童節, 遠東珠海發揮屬地共創的力量,成功携手金灣圖書館以家庭為單位組織開展系列 主題活動。活動內容包括樂趣交換集市、以「廉潔勤儉 | 為主題的繪本閱讀活動以 及參觀智能工廠。







KPIs IN SOCIAL ASPECT 社會層面關鍵績效指標總覽

Employment Indicators 僱傭數據指標		Unit 單位	2022 2022年	2021 2021年
Workforce (as of the el 員工數目(截至報告期末		g period)		
Total workforce	員工總人數	Person 人	4,964	4,434
By gender	按性別劃分			
Male	男性	Person 人	4,226	3,825
Female	女性	Person 人	738	609
By employment type	按僱傭類型劃分			
Full-time	全職	Person 人	4,930	4,399
Part-time	兼職	Person 人	34	35
By age group	按年齡組別劃分			
< 31	31歲以下	Person 人	1,659	1,509
31 ~ 40	31-40歲	Person 人	1,653	1,383
41 ~ 50	41-50歲	Person 人	1,069	990
> 50	50歲以上	Person 人	583	552
By geographical region	按地區劃分			
Hong Kong	香港	Person 人	507	340
Mainland China	中國內地	Person 人	4,152	3,828
Macau	澳門	Person 人	33	N/A不適用
US	美國	Person 人	103	96
Canada	加拿大	Person 人	169	170
Employee turnover rate	1員工流失率1			
By gender	按性別劃分			
Male	男性	% 百分比	34	30
Female	女性	% 百分比	23	24

Employment Indicators 僱傭數據指標		Unit 單位	2022 2022年	2021 2021年
Employee turnover rate 員工流失率 ¹				
By age group	按年齡組別劃分			
< 31	31歲以下	% 百分比	48	40
31 ~ 40	31-40歲	% 百分比	31	29
41 ~ 50	41-50歲	% 百分比	18	21
> 50	50歲以上	% 百分比	15	14
By geographical region	按地區劃分			
Hong Kong	香港	% 百分比	14	26
Mainland China	中國內地	% 百分比	35	29
Macau	澳門	% 百分比	3	N/A不適用
US	美國	% 百分比	69	72
Canada	加拿大	% 百分比	9	12





The employee turnover rate of each category is calculated with the formula: number of employees lost in that category / total number of employees in that category x 100%. Figures for 2021 are restated due to methodology adjustment for year-to-year comparison.

各類別的員工流失率計算公式更新為:該類別流失員工人數/該類別員工總數×100%。為確保年度間 的比較,已調整2021年數據的計算方法及修正數據。

Employee Training Indicators 員工培訓數據指標		Unit 單位	2022 2022年	2021 2021年
Percentage of trained @ 受訓員工百分比 ²	employees²			
By gender	按性別劃分			
Male	男性	% 百分比	85.50	87.51
Female	女性	% 百分比	14.50	12.49
Percentage by employee category	按僱員類別劃分			
High-level	高層	% 百分比	0.32	0.27
Middle-level	中層	% 百分比	0.61	0.82
Entry-level	基層	% 百分比	7.63	8.29
General Staff	一般員工	% 百分比	91.44	90.63
Average training hours 員工平均受訓時數	of employees			
Average training hours of employees ³	員工平均受訓時數 ³	Hour(s) 小時	44.97	31.37
By gender	按性別劃分			
Male	男性	Hour(s) 小時	44.66	28.64
Female	女性	Hour(s) 小時	44.18	22.21
By employee category	按僱員類別劃分			
High-level	高層	Hour(s) 小時	85.31	80.00
Middle-level	中層	Hour(s) 小時	35.10	28.53
Entry-level	基層	Hour(s) 小時	43.51	29.79
General Staff	一般員工	Hour(s) 小時	44.60	27.43

Occupational Health a 職業健康與安全指標	nd Safety Indicators	Unit 單位	2022 2022年	2021 2021年	2020 2020年
Work-related fatalities	因工傷亡				
Number of work-related deaths	因工亡故人數	Person 人	0	1	0
Rate of work-related deaths ⁴	因工亡故比率4	% 百分比	0	0.02	0
Lost days due to work injury ⁵	因工傷損失工作日數5	Day(s) 目	604	423	744
Lost day rate due to work injury ⁶	因工傷損失工作日數率6	% 百分比	10.62	11.00	N/A不適用
Number of Suppliers 供應商地區分布	by Geographical Regio	on Uni 單位			2022 2022年
Mainland China	中國內地	Nos	. 家		782
Hong Kong	香港	Nos	. 家		58
Macau	澳門	Nos	. 家		3
Canada	加拿大	Nos	. 家		355
US	美國	Nos	. 家		87
Europe	歐洲	Nos	. 家		4
Other regions	其他地區	Nos	. 家		1

² The formula for calculating the percentage of trained employees in each category is: number of trained employees in that category / total number of trained employees × 100%.

² 各類別的受訓員工百分比計算方法為:該類別受訓員工人數/受訓員工總人數×100%。

³ The formula for calculating the average training hours of employees is: the total training hours/ average number of employees, while the formula for calculating the average training hours of employees in each category is: the total training hours of employees in that category / total number employees in that category.

³ 員工平均受訓時數計算方法為:員工受訓總時數/平均員工人數,而各類別的員工平均受訓時數計算方法為:該類別員工受訓總時數/該類別員工總人數。

The formula for calculating the rate of work-related death is: the number of work-related deaths / total number of employees at the end of the reporting period x 100%.

4 因工亡故比率計算方法為:因工亡故人數/報告期末員工總人數×100%。

⁵ The number of Lost days due to work injury should be determined in accordance with the *Regulation on Work-Related Injury Insurances*, the *Decision on Determination of Work-Related Injury*, the *Employees' Compensation Ordinance*, the *Workers Compensation Act*, etc.

5 因工傷損失工作目數按照《工傷保險條例》、《認定工傷決定書》、《僱員補償條例》、《勞工賠償法》等判定。

The formula for calculating lost day rate due to work injury is: the number of lost days due to work injury / total working hours x 200,000.

6 因工損失工作日數率計算方法為:因工傷損失工作日數/總工作時數×200,000。





KPIs IN ENVIRONMENTAL ASPECT¹ 環境層面關鍵績效指標總覽¹

Emissions of Air Pollutants		Unit	2022	2021
大氣污染物排放		單位	2022年	2021年
SOx	硫氧化物	Tonne 噸	136.78	160.64
NOx	氮氧化物	Tonne 噸	248.09	240.57
Particulate matter	顆粒物	Tonne 噸	6.60	8.32
CO	一氧化碳	Tonne 噸	0.60	2.49
GHG Emissions	Source	Unit	2022	2021
溫室氣體排放	排放源	·····································	2022年	2021年
	Fossil fuel combustion – gasoline 化石燃料燃燒-汽油	Tonne CO₂e 噸二氧化碳當量	205.74	243.31
	Fossil fuel combustion – diesel 化石燃料燃燒-柴油	Tonne CO₂e 噸二氧化碳當量	526.37	380.32 ²
	Fossil fuel combustion - LPG 化石燃料燃燒-液化石油氣	Tonne CO₂e 噸二氧化碳當量	39.37	39.20
	Fossil fuel combustion – natural gas 化石燃料燃燒-天然氣	Tonne CO ₂ e 噸二氧化碳當量	111.18	131.89
Scope 1: direct GHG emission 範圍一:直接溫室氣體排放	Fossil fuel combustion - lignite 化石燃料燃燒-褐煤	Tonne CO₂e 噸二氧化碳當量	724,305.55	751,451.00
	Fire extinguishing agent 滅火劑	Tonne CO₂e 噸二氧化碳當量	234.50	167.50 ²
	Carbonate 碳酸鹽	Tonne CO ₂ e 噸二氧化碳當量	2,264.91	2,177.55 ²
	Acetylene 乙炔(acetylene)	Tonne CO₂e 噸二氧化碳當量	0.13	0.16 ²
	Scope 1 in total 範圍一匯總	Tonne CO₂e 噸二氧化碳當量	727,687.75	754,590.92 ²
Scope 2: indirect GHG emission from energy 範圍二:能源間接溫室氣體排放	Purchased electricity 外購電力	Tonne CO₂e 噸二氧化碳當量	21,884.29	20,753.28
Scope 3: other indirect GHG emissions 範圍三:其他間接溫室氣體排放	Business trips 商務差旅	Tonne CO₂e 噸二氧化碳當量	83.12	94.63
Total GHG emissions 溫室氣體排放總量		Tonne CO₂e 噸二氧化碳當量	749,655.16	775,438.8 ²
Intensity of GHG emissions ³ 溫室氣體排放密度 ³		Tonne CO₂e per HK\$ million revenue 噸二氧化碳當量/每港幣百萬元營業額	79.75	123.19

Calculation of emission of air pollutants and greenhouse gases and relevant emission factors are determined with reference to "How to prepare an ESG Report – Appendix II: Reporting Guidance on Environmental KPIs" issued by the Stock Exchange, the "Technical Guidelines on Preparation of Emission Inventory of Air Pollutants from Road Vehicles", the "Inventory Preparation Technical Guide on Non-road Mobile Source of Air Pollutant Emission"。 大氣污染物排放及溫室氣體排放的計算方法及相關排放系數計算參考了聯交所發佈的《如何準備環境、社會及管治報告一附錄二:環境關鍵績效指標匯報指引》、《道路機動車大氣污染物排放清單編制技術指南》 《非道路移動源大氣污染物排放清單編制技術指南》等標準。

Intensity base for environmental KPIs has been changed from employee to revenue to provide a more meaningful comparison with the Group's business structure. 環境關鍵績效指標的密度單位已從員工人數改為營業額,旨於與本集團的業務結構進行更有意義的比較。





Figures restated due to methodology adjustment for year-to-year comparison. 為確保年度間的比較,已調整計算方法及修正數據。



Wastes		Unit	2022	2021
廢棄物類別		單位 	2022年	2021年
Total hazardous waste ⁴	有害廢棄物總量4	Tonne 噸	19.50	0.72
Intensity of hazardous waste	有害廢棄物密度	Tonne per HK\$ million revenue 噸/每港幣百萬元營業額	25.43x10 ⁻⁴	1.14x10 ⁻⁴
Total non-hazardous waste discharge	無害廢棄物總量	Tonne 噸	219,149.29	234,283.76
Intensity of non-hazardous waste discharge	無害廢棄物密度	Tonne per HK\$ million revenue 噸/每港幣百萬元營業額	28.58	37.22
Energy Consumption 能源使用		Unit 單位	2022 2022年	2021 2021年
Gasoline	汽油	MWh 兆瓦時	585.85	896.43
Diesel	柴油	MWh 兆瓦時	1,954.21	1,209.94
LPG	液化石油氣	MWh 兆瓦時	175.14	176.82
Electricity	電力	MWh 兆瓦時	38,373.29	37,518.78
Lignite	褐煤	MWh 兆瓦時	2,041,357.01	2,099,178.43
Natural gas	天然氣	MWh 兆瓦時	556.06	659.66
Energy Sold 能源外售		Unit 單位	2022 2022年	2021 2021年
Electricity sold	外售電力	MWh 兆瓦時	79,546.37	89,489.00
Heat sold	外售熱力	MWh 兆瓦時	1,645,134.39	1,665,266
Energy consumption within the Group 本集團內部的能源消耗量		Unit		
		The state of the	2022 2022年	2021 2021年
Total energy consumption⁵	tineata sa tanàna ao amin'ny faritr'i Nantana ao amin'ny faritr'i Nantana ao amin'ny faritr'i Nantana ao amin'n Nantana ao amin'ny faritr'i Nantana ao amin'ny faritr'i Nantana ao amin'ny faritr'i Nantana ao amin'ny faritr'i			
	能源總耗量 ⁵ 能源耗量密度	單位	2022年	2021年
Total energy consumption ⁵		單位 MWh 兆瓦時 MWh per HK\$ million revenue	2022 年 358,320.80	2021 年 384,885.06 ⁶
Total energy consumption ⁵ Intensity of energy consumption Resource Use 資源使用		單位 MWh 兆瓦時 MWh per HK\$ million revenue 兆瓦時/每港幣百萬元營業額 Unit	2022年 358,320.80 46.72	2021年 384,885.06 ⁶ 61.14 2021
Total energy consumption ⁵ Intensity of energy consumption Resource Use	能源耗量密度	單位 MWh 兆瓦時 MWh per HK\$ million revenue 兆瓦時/每港幣百萬元營業額 Unit 單位	2022年 358,320.80 46.72 2022 2022年	2021年 384,885.06 ⁶ 61.14 2021 2021年
Total energy consumption ⁵ Intensity of energy consumption Resource Use 資源使用 Total water consumption Intensity of water consumption	能源耗量密度 總耗水量	單位 MWh 兆瓦時 MWh per HK\$ million revenue 兆瓦時/每港幣百萬元營業額 Unit 單位 Tonne 噸 Tonne per HK\$ million revenue	2022年 358,320.80 46.72 2022 2022年 2,198,515.99	2021年 384,885.06 ⁶ 61.14 2021 2021年 1,872,803.80
Total energy consumption ⁵ Intensity of energy consumption Resource Use 資源使用 Total water consumption	能源耗量密度 總耗水量 耗水密度	單位 MWh 兆瓦時 MWh per HK\$ million revenue 兆瓦時/每港幣百萬元營業額 Unit 單位 Tonne 噸 Tonne per HK\$ million revenue 噸/每港幣百萬元營業額	2022年 358,320.80 46.72 2022 2022年 2,198,515.99 286.68	2021年 384,885.06 ⁶ 61.14 2021年 1,872,803.80 297.51

In 2022, hazardous waste disposal increased significantly compared to that in 2021 due to the newly added hazardous wastes amount from Hong Kong's operations. 由於新增了來自香港業務的有害廢棄物,2022年的有害廢棄物棄置量較2021年大幅增加。

As figures for energy sold are newly added, the total energy consumption for 2021 has been restated. 由於新增了能源外售的數據,因此已修正 2021 年的能源總耗量。





Total energy consumption within the Group = Energy consumption – energy sold 本集團內部的能源總消耗量 = 能源使用-能源外售



The Report aims to present the Group's sustainability performance in 2022 to respond to the issues related to sustainable development that stakeholders are concerned about for the financial year commencing from 1 January 2022, which is published in conjunction with the Annual Report. For more information on corporate governance, please refer to the "Corporate Governance Report" section in the Company's Annual Report 2022. The electronic version of the Report can be read and downloaded through the websites of the Company (www.cscd.com.hk) and the Stock Exchange.

本報告旨在披露本集團於2022年度內的可持續發展表現,以回應各持份者所關注的可持續發展 相關議題,由2022年1月1日起的財政年度在刊發年報時同時刊發。關於公司管治相關內容請參 閱本公司2022年年報中的「企業管治報告」章節。電子版報告可通過本公司網站www.cscd.com. hk和香港聯交所網站進行閱讀和下載。

REPORTING BOUNDARY

Unless otherwise specified, the time frame of the Report is from 1 January 2022 to 31 December 2022. The disclosure scope of the Report covers the business scope directly controlled by the Group, namely construction business (including facade contracting business and general contracting business) and operating management business (including supervision business and investing and operating business), and the operating locations include Hong Kong, Pearl River Delta, Shenyang, Shanghai, North America, etc., which is consistent with the coverage of the 2021 Sustainability Report.

Businesses	Subsidiaries covered in the Report
Facade contracting business	Far East (Hong Kong), Far East (Shanghai), Far East (Zhuhai), Gamma North Corporation, Gamma USA and Gamma Canada
General contracting business	Treasure Construction
Operating management business	China Overseas Supervision, and Huanggu Thermoelectricity

REPORTING BASIS AND GUIDELINE

The Report is prepared fully in accordance with the mandatory disclosure requirements and the "Comply or Explain" clauses in the ESG Reporting Guide. The content index is contained in the Appendix of the Report. The Report also refers to the GRI Standards and UNSDGs.

報告節圍

除非另有説明,本報告的時間範圍為2022年1月1日至2022年12月31日。本報告的披露範圍涵蓋 本集團直接控制的業務範圍,即建築工程業務(包括幕牆工程業務及總承包業務)及運營管理業 務,營運地點包括香港、珠江三角洲、瀋陽、上海、北美等地區,與《2021可持續發展報告》涵 蓋範圍一致。

業務	本報告涵蓋的附屬公司
幕牆工程業務	遠東香港、遠東上海、遠東珠海、Gamma North Corporation、 遠東美國及遠東加拿大
總承包業務	海悦建築
運營管理業務	中海監理及皇姑熱電

編制基準及原則

本報告全面依照《ESG報告指引》中的強制披露規定和「不遵守就解釋」條文進行編制,內容索引 載於本報告附錄。同時,本報告編制過程中亦參考了全球報告倡議組織《GRI標準》與UNSDGs。





The Report has been prepared under the principles of the ESG Reporting Guide, namely, "materiality", "quantitative", "balance" and "consistency". The details are as follows:

- "Materiality": During the preparation of the Report, the Group has identified the material issues based on the stakeholder survey and materiality assessment, and made major disclosure in the Report, so as to respond to the sustainable development issues which are mostly concerned by the stakeholders.
- "Quantitative": The Report discloses the environmental and social KPIs in quantitative form as far as possible, and explains the standards, methodologies and sources of data statistics and calculation.
- "Balance": The Report follows the principle of balance and objectively presents the current situation and performance of the Group's sustainable development management.
- "Consistency": Unless otherwise specified, the Report uses the data statistics and calculation methodologies in line with the 2021 Sustainability Report for a meaningful comparison with the data of previous years.

REVIEW AND APPROVAL

The information contained in this report has been independently verified by SGS Hong Kong Limited in accordance with the ESG Reporting Guide, the Board has reviewed the information contained in this report and is responsible for its authenticity and validity, and for ensuring that the content contains no misstatement or misleading description. For details of the verification, please refer to Appendix II: Statement of Independent Verification on page 92.

FEEDBACK CHANNEL

The Group attaches great importance to the opinions and feedback of all stakeholders, and on this basis, continuously improves the sustainable development management and performance of the Group while continuing to refine the disclosure in the Report.

Kindly contact the Group in the following ways if you have any comments and feedback:

Tel: (852) 2557 3121 Fax: (852) 2595 8811

Email: info.cscd@cohl.com

Address: 16th Floor, Eight Commercial Tower, 8 Sun Yip Street, Chai Wan, Hong Kong

本報告在編制過程中,充分遵循《ESG報告指引》中的「重要性」、「量化」、「平衡」及「一致性」原 則,詳情如下:

- 「重要性」原則:在報告編制過程中,本集團已根據持份者調查及重要性評估,釐定出重要 性議題,並將其在本報告中進行重點披露,從而針對性回應持份者最為關切之可持續發展 事宜。
- 「量化」原則:本報告盡可能以量化形式披露環境及社會層面的關鍵績效指標,並説明相關 數據統計及計算的標準、方法及參考來源。
- 「平衡」原則:本報告遵循平衡原則,客觀呈現本集團的可持續發展管理現狀及表現。
- 「一致性」原則:除另有説明外,本報告均採用與2021年度可持續發展報告一致的數據統計 及計算方法,以便與往年數據做有意義之比較。

審核及批准

本報告中的資料已由香港通用檢測認證有限公司根據《ESG報告指引》進行獨立驗證,且由董事 局審閱並對所載信息的真實性及有效性負責,確保內容不存在任何虛假記載或誤導性描述。驗 證詳情請參閱第92頁的附錄二:獨立驗證聲明。

回饋機制

本集團高度重視各持份者的意見和反饋,並以此為基礎不斷提升本集團的可持續發展管理及表 現,同時持續優化報告披露水平。

如有任何意見及反饋,歡迎通過以下方式與本集團聯繫

電話:(852) 2557 3121傳真:(852) 2595 8811

電郵:info.cscd@cohl.com

總部地址:香港柴灣新業街八號商業廣場16樓









APPENDIX II 附錄二: INDEPENDENT VERIFICATION STATEMENT 獨立驗證聲明



ASSURANCE STATEMENT

SGS HONG KONG LIMITED'S ASSURANCE FOR SUSTAINABILITY REPORT 2022 OF CHINA STATE CONSTRUCTION DEVELOPMENT HOLDINGS LIMITED

NATURE OF THE ASSURANCE/VERIFICATION AND THE ASSURANCE LEVEL

SGS Hong Kong Limited (hereinafter referred to as SGS) was commissioned by China State Construction Development Holdings Limited (hereinafter referred to as CSCD) to conduct an independent assurance of the China State Construction Development Holdings Limited Sustainability Report 2022 (hereinafter referred to as the Report). The reporting period of the Report is from 1 January to 31 December 2022. This assurance has been conducted at a reasonable level of scrutiny of International Standard on Assurance Engagements 3000 (Revised) - Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (ISAE

INTENDED USERS OF THIS ASSURANCE STATEMENT

This Assurance Statement is provided with the intention of informing all CSCD's Stakeholders.

The information in the Report and its presentation are the responsibility of the directors and the management of CSCD. SGS has not been involved in the preparation of any of the material included in the Report.

Our responsibility is to express an opinion on the text, data, graphs and statements within the scope of verification with the intention to inform all CSCD's stakeholders.

ASSURANCE STANDARDS AND TYPE

The SGS Environmental, Social and Governance (ESG) and Sustainability Report Assurance protocols used to conduct this assurance are based upon internationally recognised assurance and reporting guidance and standards including the Environmental, Social and Governance Reporting Guide of the Stock Exchange of Hong Kong Limited, the Principles contained within the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) GRI 1: Foundation 2021 for report quality, and the guidance on levels of assurance contained within ISAE 3000 issued by the International Auditing and Assurance Standards Board.

SCOPE OF ASSURANCE AND REPORTING CRITERIA

The scope of the assurance included evaluation of quality, accuracy and reliability of the below information and evaluation of adherence to the Environmental, Social and Governance Reporting Guide of the Stock Exchange of Hong Kong Limited, and the reference to GRI Standards 2021.

REPORT INFORMATION AND DISCLOSURES INCLUDED IN SCOPE

- Selected environmental indicators and information
- Selected social and governance indicators and information, specifically including the average training hours of employees and the lost working days rate due to work injury

ASSURANCE METHODOLOGY

The assurance comprised a combination of pre-assurance research, communication with relevant employees, documentation and record review.

I IMITATIONS AND MITIGATION

Financial data drawn directly from independently audited financial accounts has not been checked back to source during the assurance. Note here any other specific limitations for the assurance engagement and



香港通用檢測認證有限公司對中國建築與業集團有限公司的 2022 年可持續發展報告

驗證/核證的性質及驗證級別

香港補用檢測認證有限公司(以下簡稱SGS) 受中國建築畢業集團有限公司(以下簡稱 中國建築畢業)季託對 其 2022 年可持續發展報告(以下簡稱報告)進行獨立驗證。報告的報告期為2022年1月1日至12月31日。驗證是 在《國際核證聘用準則3000》(修訂版)「歷史財務資料審計或審閱以外的核證聘用」(ISAE 3000)合理的審查

本驗證聲明的預期使用者

本驗證聲明旨在通知中國建築興業的所有利益相關者

報告中的資訊及其介紹為中國建築興業的董事和管理層的責任,SGS沒有參與編寫報告中所載的任何材料。 我們的責任是就核查範圍內的客文、數據、圖表和聲明發表意見,以便通知中國建築興業的所有利益相關者。

用於進行此驗證的 SGS 環境、社會及管治和可持續發展報告驗證協定基於國際公認的驗證及報告指引和標準, 包括香港聯合交易所有限公司的《環境、社會及管治報告指引》、全球報告倡議組織的可持續性報告標準(GRI 標準) 中包含的報告品質原則 GRI 1:基礎 2021以及國際審計與核證準則委員會發佈的 ISAE 3000 中包含的驗

驗證範圍包括如下詳述信息的質量、準確性和可靠性的評估,對香港聯合交易所有限公司 (環境、社會及管治報 告指引》的遵守情况的評估,以及對GRI 標準 2021的參考程度。

範圍內包含的報告信息和披露

- 選定環境指標及資訊
- 選定社會及管治指標及資訊,其中已包括員工的平均培訓時數及因工傷損失工作日數率

該驗證包括驗證前研究、與相關員工溝通、相關文件和記錄審查

直接從獨立審計的財務賬戶中提取的財務數據並未在此驗證過程中進行回溯檢查。在此注意驗證的任何其他具體 限制以及為緩解這些限制而採取的行動。

在允許的時間範圍內,一些未被確定為重大議題的陳述和信息被排除在驗證範圍之外。

SGS集團是全球領先的檢驗、測試和驗證機構,在140多個國家開展業務,提供的服務包括管理體系認證和服務 認證、質量、環境、社會和道德審核及培訓、以及環境、社會和可持續發展報告驗證。 SGS申明我們獨立於中國 建築興業集團有限公司,與該組織、其子公司和利益相關者之間沒有偏見和利益衝突。

GP5024 年 5 年 GP5024 Issue 5







actions taken to mitigate those limitations.

Within the time frame allowed, some statements and information that were not identified as material were excluded from the scope of verification.

STATEMENT OF INDEPENDENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems certification, service certification, quality, environmental, social and ethical auditing and training, as well as environmental, social and sustainability report assurance. SGS affirms our independence from China State Construction Development Holdings Limited, being free from bias and conflicts of interest with the organisation, its subsidiaries and stakeholders.

FINDINGS AND CONCLUSIONS

ASSURANCE/VERIFICATION OPINION

On the basis of the methodology described above and the verification work performed, we are satisfied that the report information included in the scope of assurance is accurate, reliable, and has been fairly stated and prepared, in the material respects, in accordance with the reporting criteria.

For and on behalf of SGS Hong Kong Limited

Director, Knowledge Solutions

Units 303 & 305, 3/F., Building 22E, Phase 3, Hong Kong Science Park, New Territories, Hong Kong 20 April 2023

WWW.SGS.COM

調査結果和結論

根據上述方法和所進行的驗證工作,我們認為驗證範圍內的報告信息是準確和可靠,並且在重大方面都是按照報 告標準公平陳述和編制的。

(代表香港通用檢測認證有限公司

香港新界香港科學園3期22E棟3樓303及305室

2023年4月20日 WWW.SGS.COM







APPENDIX III 附錄三:

COMPLIANCE WITH LAWS AND REGULATIONS THAT HAVE SIGNIFICANT IMPACTS ON THE GROUP 遵守對本集團有重大影響的相關法律法規

Laws and Regulations that the Group Complies with and Have Significant Impacts on the Group (Including but not Limited to)

本集團遵守的對本集團有重大影響的法律和法規(包括但不限於)

Aspects of the ESG **Reporting Guide** 《ESG報告指引》層面

Environmental 環境範疇

Aspect A1: 層面A1 **Emissions** 排放物

Mainland China 中國內地

- People's Republic of China 《中華人民共和國環境保護法》
- Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste 《中華人民共和國固體廢物污染 環境防治法》
- Standard for Pollution Control on Hazardous Waste Storage 《危險廢物貯存污染控制標準》
- Law of the People's Republic of China on the Prevention and Control of Ambient Noise Pollution 《中華人民共和國環境噪聲污染防治 法》
- Law of the People's Republic of China on Environmental Impact Assessment 《中華人民共和國環境影響評價法》
- Environmental Protection Tax Law of the People's Republic of China 《中華人民共和國環境保護稅法》

Hong Kong 香港

- Environmental Protection Law of the Air Pollution Control Ordinance (Cap.311)
 - 《空氣污染管制條例》(Cap.311)
 - Water Pollution Control Ordinance (Cap.358)
 - 《水污染管制條例》(Cap.358) • Waste Disposal Ordinance (Cap.354)
 - 《廢物處置條例》(Cap.354) • Noise Control Ordinance (Cap.400)
 - 《噪音管制條例》(Cap.400)
 - Ozone Laver Protection Regulations (Cap.403) 《保護臭氧條例》(Cap.403)

International and Overseas 國際及海外

 Canadian Environmental Protection 《加拿大環境保護法》

Compliance During the Reporting Period 報告期內合規情況

There is no violation of laws and regulations that have a significant impact on the Group relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste 未有違反對本集團有重大影響並與廢氣 和溫室氣體排放、向水及土地的排污、 廢棄物產生及處置相關的法律及法規







Laws and Regulations that the Group Complies with and Have Significant Impacts on the Group (Including but not Limited to) 本集團遵守的對本集團有重大影響的法律和法規(包括但不限於)

Aspects of the ESG **Reporting Guide** 《ESG報告指引》層面

Mainland China Hong Kong

香港

International and Overseas 國際及海外

Compliance During the Reporting Period 報告期內合規情況

 Guides on Environmental Protection Tax Law of the People's Republic of

中國內地

- 《中華人民共和國環境保護税法實施
- Cleaner Production Promotion Law of the People's Republic of China 《中華人民共和國清潔生產促進法》
- Atmospheric Pollution Prevention and Control Law of the People's Republic of China 《中華人民共和國大氣污染防治法》
- Law of the People's Republic of China on Prevention and Control of Water Pollution 《中華人民共和國水污染防治法》
- Integrated Standard for Wastewater Discharge 《污水綜合排放標準》







Laws and Regulations that the Group Complies with and Have Significant Impacts on the Group (Including but not Limited to)

本集團遵守的對本集團有重大影響的法律和法規(包括但不限於)

Aspects of the ESG **Reporting Guide** 《ESG報告指引》層面

Mainland China 中國內地

Hong Kong 香港

International and Overseas 國際及海外

Compliance During the Reporting Period 報告期內合規情況

Social 社會範疇

Aspect B1: 層面B1 Employment 僱傭

- Labour Law of the People's Republic of China 《中華人民共和國勞動法》
- Labour Contract Law of the People's Republic of China 《中華人民共和國勞動合同法》
- Social Insurance Law of the People's Republic of China 《中華人民共和國社會保險法》
- Law of the People's Republic of China on the Protection of Women's Rights and Interests 《中華人民共和國婦女權益保障法》
- Law of the People's Republic of China on the Protection of Disabled Persons 《中華人民共和國殘疾人保障法》
- Employment Promotion Law of the People's Republic of China 《中華人民共和國就業促進法》
- Labour Dispute Mediation and Arbitration Law of the People's Republic of China 《中華人民共和國勞動爭議調解仲裁 法》

- Employment Ordinance (Cap.57) 《僱傭條例》(Cap.57)
- Sex Discrimination Ordinance (Cap.480) 《性別歧視條例》(Cap.480)
- Mandatory Provident Fund Schemes Ordinance (Cap.485) 《強制性公積金計劃條例》(Cap.485)
- Employees' Compensation Ordinance (Cap.282) 《僱員補償條例》(Cap.282)
- Minimum Wage Ordinance (Cap.608) 《最低工資條例》(Cap.608)

- Employment Standards Act (Ontario) 《加拿大安大略就業法》
- Fair Standards Act 《公平勞動標準法》
- Labour Law 《勞動法》

There is no violation of laws and regulations that have a significant impact on the Group relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, and other benefits and welfare

未有違反對本集團有重大影響並與薪酬 及解僱、招聘及晋升、工作時數、假期、 平等機會、其他待遇及福利相關的法律 法規









- Law of the People's Republic of China on the Protection of Minors 《中華人民共和國未成年人保護法》
- Guide on Contract Law of the People's Republic of China 《中華人民共和國勞動合同法實施條
- Regulation on the Employment of the Disabled 《殘疾人就業條例》
- Regulation on Paid Annual Leave for **Employees** 《職工帶薪年休假條例》
- Regulation on Public Holidays for National Annual Festivals and Memorial Days 《全國年節及紀念日放假辦法》







Laws and Regulations that the Group Complies with and Have Significant Impacts on the Group (Including but not Limited to)

本集團遵守的對本集團有重大影響的法律和法規(包括但不限於)

Aspects of the ESG Reporting Guide 《ESG報告指引》層面

Aspect B2: 層面B2 Health and Safety 健康與安全 Mainland China 中國內地

- Workplace Safety Law of the People's Republic of China 《中華人民共和國安全生產法》
- Law of the People's Republic of China on the Prevention and Control of Occupational Diseases 《中華人民共和國職業病防治法》
- Fire Protection Law of the People's Republic of China 《中華人民共和國消防法》
- Emergency Response Law of the People's Republic of China 《中華人民共和國突發事件應對法》
- Regulations on Safety Management of Hazardous Chemicals 《危險化學品安全管理條例》
- The Regulations on Protection in Workplaces Where Toxic Substances Are Used 《使用有毒物品作業場所勞動保護條例》

Hong Kong 香港

- Occupational Safety and Health Ordinance (Cap.509.) 《職業安全及健康條例》(Cap.509.)
- Fire Safety (Commercial Premises)
 Ordinance (Cap.502)
 《消防安全(商業處所)條例》
 (Cap.502)
- Buildings Ordinance (Cap.123) 《建築物條例》(Cap.123)
- Factories and Industrial Undertakings Ordinance (Cap.59) 《危險品條例》(Cap.295)
- Dangerous Goods Ordinance (Cap.295)
 《工廠及工業經營條例》(Cap.59)

International and Overseas 國際及海外

- New Jersey Public Employees
 Occupational Safety and Health Act
 《新澤西僱員職業安全與健康法案》
- NYC Construction Codes 《紐約市建築規範》
- Occupational Safety and Health Convention 《職業安全和衛生及工作環境公約》
- Workplace Safety and Insurance Act in Ontario, Canada 《加拿大安大略省工作場所安全與保 險法案》

Compliance During the Reporting Period 報告期內合規情況

There is no violation of laws and regulations that have a significant impact on the Group relating to providing a safe working environment and protecting employees from occupational hazards from occupational hazards

未有違反對本集團有重大影響並與提供安 全工作環境及保障員工避免職業性危害相 關的法律法規





Aspects of the ESG	nificant Impacts on the Group 括但不限於)	Compliance During		
Reporting Guide 《ESG報告指引》層面	Mainland China 中國內地	Hong Kong 香港	International and Overseas 國際及海外	Compliance During the Reporting Period 報告期內合規情況
	 Regulations on Reporting, Investigation and Disposition of Workplace Safety Accidents 《生產安全事故報告和調查處理條例》 Regulations on Work-Related Injury Insurance 《工傷保險條例》 Regulations on Occupational Health Management at Workplace 《工作場所職業衛生管理規定》 Technical Specification for Occupational Health Surveillance 《職業健康監護技術規範》 Regulations on Occupational Health Check 《職業健康檢查管理辦法》 Regulations on Emergency Plan For Workplace Safety Accidents 《生產安全事故應急預案管理辦法》 			
Aspect B4: 層面B4 Labour Standards 勞工準則	 Labour Law of the People's Republic of China 《中華人民共和國勞動法》 Provisions on the Prohibition of Using Child Labour 《禁止使用童工規定》 	 Employment of Children Regulations (Cap.57B) 《僱用兒童規例》(Cap.57B) Employment of Young Persons (Industry) Regulations (Cap.57C) 《僱用青年(工業)規例》(Cap.57C) 	 Employment Stand Act in Ontario, Canada 《加拿大安大略省就業標準法案》 Prohibition and Immediate Action for the Elimination of the Worst Forms of Child Labour 《禁止和立即行動消除最惡劣形式的 童工勞動公約》 	There is no violation of laws and regulations that have a significant impact on the Group relating to preventing child and forced labour 未有違反對本集團有重大影響並與防止 董工及強制勞工相關的法律法規







Laws and Regulations that the Group Complies with and Have Significant Impacts on the Group (Including but not Limited to)

本集團遵守的對本集團有重大影響的法律和法規(包括但不限於)

Aspects of the ESG Reporting Guide 《ESG報告指引》層面

Aspect B6: 層面B6 Product Responsibility 產品責任 Mainland China 中國內地

- Product Quality Law of the People's Republic of China 《中華人民共和國產品質量法》
- Law of the People's Republic
 of China on the Protection of
 Consumers' Rights and Interests
 《中華人民共和國消費者權益保護法》
- Patent Law of the People's Republic of China 《中華人民共和國專利法》

Hong Kong 香港

- Trade Descriptions Ordinance (Cap.362) 《商品説明條例》(Cap.362)
- Personal Data (Privacy) Ordinance (Cap.486)
 《個人資料(私隱)條例》(Cap.486)
- Sale of Goods Ordinance (Cap.26)
 《貨品售賣條例》(Cap.26)
- Hong Kong Code of Practice for Wind Effects-2019 《香港風力效應作業守則-2019年》
- Code of Practice for the Structural Use of Glass 2018 《2018年香港玻璃結構作業守則》
- Code of Practice for the Structural Uses of Steel 2011 《2011年香港鋼結構作業守則》

International and Overseas 國際及海外

- Canada Consumer Product Safety Act 《加拿大產品責任法》
- Building Act 1984 《建築法案1984》
- Building Control Act 1966 《建築控制法案1966》
- London Building Act 1930 《倫敦建築法案1930》
- Patents Act 2004 《專利法案2004》
- Consumer Protection Act 1987 《消費者保護法案1987》
- Consumer Rights Act 2015 《消費者權益法案2015》
- Trade Act 2021 《貿易法案2021》
- The Data Protection, Privacy and Electronic Communications (Amendments etc) (EU Exit) Regulations 2020 《數據保護、隱私和電子通信(修正案等)(退出歐盟)條例2020》
- The Quality Schemes (Agricultural Products and Foodstuffs) Regulations 2018 《質量計劃(農產品和食品)條例 2020》
- Marketing of Quality Agricultural Products Grant Regulations (Northern Ireland) 2002 《優質農產品營銷補助條例(北愛爾蘭) 2002》

Compliance During the Reporting Period 報告期內合規情況

There is no violation of laws and regulations that have a significant impact on the Group and relate to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress

未有違反對本集團有重大影響並與提供 的產品及服務的健康與安全、廣告、標 籤及私隱事宜以及補救方法相關的法律 法規





• Supervision Law of the People's

Republic of China 《中華人民共和國監察法》



Associate of the ESS	Laws and Regulations that the Group Complies with and Have Significant Impacts on the Group (Including but not Limited to) 本集團遵守的對本集團有重大影響的法律和法規(包括但不限於) Aspects of the ESG Compliance During					
Aspects of the ESG Reporting Guide 《ESG報告指引》層面	Mainland China 中國內地	Hong Kong 香港	International and Overseas 國際及海外	the Reporting Period 報告期內合規情況		
			 British Steel Act 1988 《鋼鐵法案1988》 Sale of Goods (Amendment) Act 1995 《貨物銷售(修正案)法案1995》 Import and Export Control Act 1990 《進出口管制法案1990》 The Customs (Import Duty Variation) (EU Exit) Regulations 2020 《海關(進口關税變更)(退出歐盟) 條例2020》 			
Aspect B7: 層面B7 Anti-corruption 反貪污	 Criminal Law of the People's Republic of China 《中華人民共和國刑法》 Company Law of the People's Republic of China 《中華人民共和國公司法》 Anti-Unfair Competition Law of the People's Republic of China 《中華人民共和國反不正當競爭法》 Law of the People's Republic of China on Bid Invitation and Bidding 《中華人民共和國招標投標法》 Guide on Law of the People's Republic of China on Bid Invitation and Bidding 《中華人民共和國招標投標法實施條 	• Prevention of Bribery Ordinance (Cap.201) 《防止賄賂條例》(Cap.201)	• Criminal Code of Canada 《加拿大刑法》	There is no violation of laws and regulations that have a significant impact on the Group relating to bribery, extortion, fraud and money laundering 未有違反對本集團有重大影響並與賄賂、勒索、欺詐及洗黑錢相關的法律法規		







APPENDIX IV 附錄四:

CONTENT INDEX OF THE ESG REPORTING GUIDE OF THE STOCK EXCHANGE AND GRI STANDARDS 香港聯交所《ESG 報告指引》及《GRI 標準》內容索引

Regulations, Subject Areas, Aspects, General Disclosures and KPIs Set Out by the ESG Reporting Guide of the Stock Exchange

<u>香港聯交所《ESG報告指引》規定、主要範疇、層面、一般披露及關鍵績效指標</u>

Applicable Indicators of GRI Standards 《GRI標準》適用內容

Location of Disclosure 披露位置

Mandatory Disclosure Requirements 強制披露規定

Governance structure 管治架構 A statement from the board containing the following elements: 由董事局發出的聲明,當中載有下列內容:

- (i) a disclosure of the board's oversight of ESG issues;
- (i) 披露董事局對環境、社會及管治事宜的監管;
- (ii) the board's ESG management approach and strategy, including the process used to evaluate, prioritise and manage material ESG-related issues (including risks to the issuer's businesses); and
- (ii) 董事局的環境、社會及管治管理方針及策略,包括評估、優次排列及管理重要的環境、社會及管治相關事宜(包括對發行人業務的風險)的過程;及
- (iii) how the board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses.
- (iii) 董事局如何按環境、社會及管治相關目標檢討進度,並解釋它們如何與發行人業務有關連。

GRI 2: General Disclosures 2-9, 2-22 GRI 2: 一般披露2-9、2-22 Message from the Board 董事局寄語 Sustainability Governance Structure 可持續發展管治架構







Regulations, Subject Areas, Aspects, General Disclosures and KPIs Set Out by the ESG Reporting Guide of the Stock Exchange

香港聯交所《ESG報告指引》規定、主要範疇、層面、一般披露及關鍵績效指標

Reporting Principles 彙報原則 Description of, or an explanation on, the application of the following Reporting Principles in the preparation of the ESG report

描述或解釋在編備環境、社會及管治報告時如何應用彙報原則

Materiality: The ESG report should disclose: (i) the process to identify and the criteria for the selection of material ESG factors; (ii) if a stakeholder engagement is conducted, a description of significant stakeholders identified, and the process and results of the issuer's stakeholder engagement.

重要性:(i)識別重要環境、社會及管治因素的過程及選擇這些因素的準則:(ii)如發行人已進行持份者參與,已識別的重要持份者的描述及發行人持份者參與的過程及結果。

Quantitative: Information on the standards, methodologies, assumptions and/or calculation tools used, and source of conversion factors used, for the reporting of emissions/energy consumption (where applicable) should be disclosed.

量化:有關彙報排放量/能源耗用(如適用)所用的標準、方法、假設及/或計算工具的數據,以及所使用的轉換因素的來源應予披露。

Consistency: The issuer should disclose in the ESG report any changes to the methods or KPIs used, or any other relevant factors affecting a meaningful comparison

一致性:發行人應在環境、社會及管治報告中披露統計方法或關鍵績效指標的變更(如有)或任何其他影響有意義比較的相關因素。

Applicable Indicators of GRI Standards 《GRI標準》適用內容

GRI 2: General Disclosures GRI 2: 一般披露 Location of Disclosure 披露位置

Reporting Basis and Guideline 編制基準及原則







Regulations, Subject Areas, Aspects, General Disclosures and KPIs Set Out by the ESG Reporting Guide of **Applicable Indicators of** the Stock Exchange **GRI Standards Location of Disclosure** 香港聯交所《ESG報告指引》規定、主要範疇、層面、一般披露及關鍵績效指標 《GRI標準》適用內容 披露位置 Reporting Boundary A narrative explaining the reporting boundaries of the ESG report and describing GRI 2: General Disclosures 2-3 Report Boundary the process used to identify which entities or operations are included in the ESG 彙報範圍 GRI 2:一般披露2-3 報告節圍 report. If there is a change in the scope, the issuer should explain the difference and reason for the change. 解釋環境、社會及管治報告的彙報範圍,及描述挑選哪些實體或業務納入環境、 社會及管治報告的過程。若彙報範圍有所改變,發行人應解釋不同之處及變動原因。 "Comply or Explain" provisions 「不遵守就解釋」條文 A.Environmental A.環境 Aspect A1: Emissions 層面A1:排放物 General Disclosure Information on: GRI 2: General Disclosures 2-27 Strict Control Management of 一般披露 GRI 2:一般披露 2-27 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: **Emissions** 嚴控排放管理 GRI 3: Material Topics 3-3 (a) the policies; and GRI 3: 實質性議題 3-3 (a) 政策;及 GRI 305: Emissions: Management Approach GRI 305: 排放:管理方法 (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.

(b) 遵守對發行人有重大影響的相關法律及規例的資料。





=		

the Stock Exchange	s, General Disclosures and KPIs Set Out by the ESG Reporting Guide of 要範疇、層面、一般披露及關鍵績效指標	Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置
KPI A1.1 指標A1.1	The types of emissions and respective emissions data. 排放物種類及相關排放數據。	GRI 305: Emissions 305-1, 305-2, 305-3, 305-6 and 305-7 GRI 305:排放305-1、 305-2、305-3、305-6及305-7	KPIs in Social Aspect 環境層面關鍵績效指針總覽
KPI A1.2 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)。	GRI 305: Emissions 305-1, 305-2,305-3 and 305-4 GRI 305:排放305-1、 305-2、305-3及305-4	
KPI A1.3 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)。	GRI 306: Effluents and Waste 306-2 (a) GRI 306: 污水與廢棄物 306-2 (a)	
KPI A1.4 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)。	GRI 306: Effluents and Waste 306-2 (b) GRI 306: 污水與廢棄物 306-2 (b)	
KPI A1.5 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。	GRI 3: Material Topics 3-3 GRI 305: Emissions 1.2 and 305-5 GRI 3:實質性議題 3-3 GRI 305:排放1.2及305-5	Implementation of Environmental Goals 落實環境目標
KPI A1.6 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。	GRI 3: Material Topics 3-3 GRI 306: Effluents and Waste 306-2 and 306-4 GRI 3: 實質性議題 3-3 GRI 306: 污水與廢棄物306-2及 306-4	







Regulations, Subject Areas, Aspects, General Disclosures and KPIs Set Out by the ESG Reporting Guide of the Stock Exchange 香港聯交所《ESG報告指引》規定、主要範疇、層面、一般披露及關鍵績效指標		Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置	
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.	GRI 3: Material Topics 3-3	Efficient Use of Energy and Resources	
一般披露	有效使用資源(包括能源、水及其他原材料)的政策。	GRI 3:實質性議題 3-3	善用能源資源	
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). 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)。	GRI 302: Energy 302-1 and 302-3	KPIs in Environmental Aspect	
指標A2.1		GRI 302:能源302-1及302-3	環境層面關鍵績效指針總覽	
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	GRI 303: Water Disclosure 303-1		
指標A2.2	總耗水量及密度(如以每產量單位、每項設施計算)。	GRI 303:水資源與污水303-1		
KPI A2.3 指標A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them. 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。	GRI 3: Material Topics 3-3 GRI 3:實質性議題 3-3 GRI 302: Energy 302-4 and 302-5 GRI 302:能源302-4及302-5	Implementation of Environmental Targets 落實環境目標	
KPI A2.4 指標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. 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。	GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3 GRI 303: Water and Effluents 303-3 GRI 303:水資源與污水303-3	Efficient Use of Energy and Resources Implementation of Environmental Targets 善用能源資源 落實環境目標	
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	GRI 301: Material 301-1	KPIs in Environmental Aspect	
指標A2.5	製成品所用包裝材料的總量(以噸計算)及(如適用)每生產單位佔量。	GRI 301:物料301-1	環境層面關鍵績效指針總覽	







the Stock Exchange		Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置
Aspect A3: Environment and Natural 層面A3:環境及天然資源	Resources		
General Disclosure 一般披露	Policies on minimising the issuer's significant impact on the environment and natural resources. 減低發行人對環境及天然資源造成重大影響的政策。	GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3	Environmental Protection 保護環境
KPI A3.1 指標A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them. 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。	GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3 GRI 303: Water and Effluents 303-2 GRI 303: 水資源與污水303-2 GRI 304: Biodiversity 304-2 GRI 304: 生物多樣性304-2 GRI 306: Effluents and Waste 306-3 (c) and 306-5 GRI 306: 污水與廢棄物306-3 (c)及306-5	
Aspect A4: Climate Change 層面A4:氣候變化			
General Disclosure 一般披露	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer. 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。	GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3	Tackling Climate Change 應對氣候變化
KPI A4.1 指標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. 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。	Not covered by the GRI Standards 《GRI可持續發展報告標準》尚未包含 此項指標	





Regulations, Subject Areas, Aspects, General Disclosures and KPIs Set Out by the ESG Reporting Guide of

Applicable Indicators of



the Stock Exchange **GRI Standards Location of Disclosure** 香港聯交所《ESG報告指引》規定、主要範疇、層面、一般披露及關鍵績效指標 《GRI標準》適用內容 披露位置 B. Social B.社會 **Employment and Labour Practices** 僱傭及勞工常規 Aspect B1: Employment 層面B1:僱傭 General Disclosure Information on: GRI 2: General Disclosures 2-27 Legitimate Employment Management 一般披露 有關薪酬及解僱、招聘及晋升、工作時數、假期、平等機會、多元化、反歧視以及 GRI 2:一般披露 2-27 合法僱傭管理 其他待遇及福利的: GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3 (a) the policies; and (a) 政策;及 (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. (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 GRI 2: General Disclosures 2-7 KPI in Social Aspect 指標B1.1 GRI 2: 一般披露2-7 社會層面關鍵績效指針總覽 group and geographical region. 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。 GRI 405: Diversity and Equal Opportunity 405-1 (b-ii) GRI 405: 多元化與平等機會 405-1 (b-ii) Employee turnover rate by gender, age group and geographical region. GRI 401: Employment 401-1(b) KPI B1.2 指標B1.2 按性別、年齡組別及地區劃分的僱員流失比率。 GRI 401: 僱傭401-1 (b)







the Stock Exchange		Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置	
Aspect B2: Health and Safety 層面B2:健康與安全				
General Disclosure 一般披露	Information on: 有關提供安全工作環境及保障僱員避免職業性危害的: (a) the policies; and (a) 政策:及	GRI 2: General Disclosures 2-27 GRI 2: 一般披露 2-27 GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3	Occupational Health and Safety 職業健康安全	
	(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.(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 指標B2.1	Number and rate of work-related fatalities occurred in each of the past three years including the reporting year. 過去三年(包括彙報年度)每年因工亡故的人數及比率。	GRI 403: Occupational Health and Safety 403-2 GRI 403:職業健康與安全403-2	KPIs in Social Aspect 社會層面關鍵績效指針總覽	
KPI B2.2 指標B2.2	Lost days due to work injury. 因工傷損失工作日數。	GRI 403: Occupational Health and Safety 403-2 GRI 403:職業健康與安全403-2		
KPI B2.3 指標B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored. 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。	GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3	Occupational Health and Safety 職業健康安全	







the Stock Exchange	, General Disclosures and KPIs Set Out by the ESG Reporting Guide of E範疇、層面、一般披露及關鍵績效指標	Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置
Aspect B3: Development and Training 層面B3:發展及培訓			
General Disclosure 一般披露	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. 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。 Note: Training refers to vocational training. It may include internal and external courses paid by the employer. 註: 培訓指職業培訓,可包括由僱主付費的內外部課程。	GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3 GRI 404: Training and Education 404-2 (a) GRI 404:培訓與教育404-2 (a)	Talent training and development 人才培訓發展
KPI B3.1 指標B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management). 按性別及僱員類別(如高級管理層、中級管理層等)劃分的受訓僱員百分比。	Not covered by the GRI Standards 《GRI可持續發展報告標準》尚未包含 此項指標	KPIs in Social Aspect 社會層面關鍵績效指針總覽
KPI B3.2 指標B3.2	The average training hours completed per employee by gender and employee category. 按性別及僱員類別劃分,每名僱員完成受訓的平均時數。	GRI 404: Training and Education 404-1 GRI 404:培訓與教育404-1	
Aspect B4: Labour Standards 層面B4:勞工準則			
General Disclosure 一般披露	Information on: 有關防止童工或強制勞工的: (a) the policies; and (a) 政策:及	GRI 2: General Disclosures 2-27 GRI 2: 一般披露 2-27 GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3	Legitimate Employment Management 合法僱傭管理
	(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour. (b) 遵守對發行人有重大影響的相關法律及規例的資料。		







the Stock Exchange	ts, General Disclosures and KPIs Set Out by the ESG Reporting Guide of 要範疇、層面、一般披露及關鍵績效指標	Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置
KPI B4.1 指標B4.1	Description of measures to review employment practices to avoid child and forced labour. 描述檢討招聘慣例的措施以避免童工及強制勞工。	GRI 2: General Disclosures 2-27 GRI 2: 一般披露 2-27 GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3 GRI 408: Child Labor 408-1 (c) GRI 408: 童工 408-1 (c)	
KPI B4.2 指標B4.2	Description of steps taken to eliminate such practices when discovered. 描述在發現違規情況時消除有關情況所採取的步驟。	GRI 2: General Disclosures 2-27 GRI 2: 一般披露 2-27 GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3 GRI 408: Child Labor 408-1 (c) GRI 408: 童工 408-1 (c)	
Operating Practices 營運慣例			
Aspect B5: Supply Chain Managemen 層面B5:供應鍵管理	t		
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。	GRI 3: Material Topics 3-3 GRI 3:實質性議題 3-3	Prioritise Responsible Procurement 優選責任採購
KPI B5.1 指標B5.1	Number of suppliers by geographical region 按地區劃分的供貨商數目。	GRI 2: General Disclosures 2-6 GRI 2: 一般披露2-6	KPIs in Social Aspect 社會層面關鍵績效指針總覽





_	
=	
_	
-	

the Stock Exchange		Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置
KPI B5.2 指標B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, 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。	GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3 GRI 308: Supplier Environmental Assessment 308-1 and 308-2 GRI 308: 供貨商環境評估308-1及 308-2 GRI 414: Supplier Social Assessment 414-1 and 414-2 GRI 414: 供貨商社會評估414-1及 414-2	Prioritise Responsible Procurement 優選責任採購
KPI B5.3 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。	GRI 414: Supplier Social Assessment 414-1 and 414-2 GRI 414: 供貨商社會評估414-1及 414-2	
KPI B5.4 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. 描述在揀選供貨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。	Not covered by the GRI Standards 《GRI可持續發展報告標準》尚未包含 此項指標	







Regulations, Subject Areas, Aspects, General Disclosures and KPIs Set Out by the ESG Reporting Guide of **Applicable Indicators of** the Stock Exchange **GRI Standards Location of Disclosure** 香港聯交所《ESG報告指引》規定、主要範疇、層面、一般披露及關鍵績效指標 《GRI標準》適用內容 披露位置 Aspect B6: Product Responsibility 層面B6:產品責任 General Disclosure Information on: GRI 2: General Disclosures 2-27 Pursue Quality Excellence 追求卓越品質 一般披露 有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的: GRI 2:一般披露 2-27 GRI 3: Material Topics 3-3 (a) the policies; and GRI 3: 實質性議題 3-3 (a) 政策;及 GRI 416: Customer Health and Safety 416-2 (b) compliance with relevant laws and regulations that have a significant impact GRI 416: 客戶健康與安全416-2 on the issuer relating to health and safety, advertising, labelling and privacy GRI 417: Marketing and Labeling matters relating to products and services provided and methods of redress. 417-2 and 417-3 (b) 遵守對發行人有重大影響的相關法律及規例的資料。 GRI 417:營銷與標識417-2及417-3 GRI 418: Customer Privacy 418-1 GRI 418: 客戶隱私418-1 KPI B6.1 Percentage of total product sold or shipped that is subject to recalls for safety and Not covered by the GRI Standards 指標B6.1 health reasons. 《GRI可持續發展報告標準》尚未包含 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。 此項指標 KPI B6.2 Number of products and service related complaints received and how they are dealt GRI 2: General Disclosures 2-29 指標B6.2 GRI 2:一般披露2-29 接獲關於產品及服務的投訴數目以及應對方法。 GRI 3: Material Topics 3-3 GRI 3: 實質性議題3-3 GRI 418: Customer Privacy 418-1 GRI 418: 客戶隱私418-1





_	
=	
=	
=	

Regulations, Subject Areas, Aspects, General Disclosures and KPIs Set Out by the ESG Reporting Guide of the Stock Exchange 香港聯交所《ESG報告指引》規定、主要範疇、層面、一般披露及關鍵績效指標		Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置
KPI B6.3 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。	Not covered by the GRI Standards 《GRI可持續發展報告標準》尚未包含 此項指標	
KPI B6.4 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。	Not covered by the GRI Standards 《GRI可持續發展報告標準》尚未包含 此項指標	
KPI B6.5 指標B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored. 描述消費者數據保障及私隱政策,以及相關執行及監察方法。	GRI 3: Material Topics 3-3 GRI 3: 實質性議題3-3	







the Stock Exchange		Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置	
	Aspect B7: Anti-corruption			
	層面B7:反貪污			
	General Disclosure 一般披露	Information on: 有關防止賄賂、勒索、欺詐及洗黑錢的: (a) the policies; and (a) 政策:及	GRI 2: General Disclosures 2-27 GRI 2: 一般披露 2-27 GRI 205: Anti-corruption 205-3 GRI 205: 反腐敗 205-3 GRI 3: Material Topics 3-3 GRI 3: 實質性議題 3-3	Integrity and Anti-corruption 誠信廉潔
		(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering. (b) 遵守對發行人有重大影響的相關法律及規例的資料。		
	KPI B7.1 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。	GRI 205: Anti-corruption 205-3 GRI 205: 反腐敗205-3	
	KPI B7.2 指標B7.2	Description of preventive measures and whistle-blowing procedures, 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。	GRI 2: General Disclosures 2-26 GRI 2: 一般披露2-26 GRI 3: Material Topics 3-3 GRI 3: 實質性議題3-3	
	KPI B7.3 指標B7.3	Describe the anti-corruption training provided to directors and staff. 描述向董事及員工提供的反貪污培訓。	Not covered by the GRI Standards 《GRI可持續發展報告標準》尚未包含 此項指標	







the Stock Exchange	, General Disclosures and KPIs Set Out by the ESG Reporting Guide of 範疇、層面、一般披露及關鍵績效指標	Applicable Indicators of GRI Standards 《GRI標準》適用內容	Location of Disclosure 披露位置
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。	•	Serving and Giving Back to Society 服務回饋社會
KPI B8.1 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)。	GRI 203: Indirect Economic Impacts 203-1 (a) GRI 203: 間接經濟影響203-1 (a)	
KPI B8.2 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)。	GRI 201: Economic Performance 201-1 (a-ii) GRI 201:經濟績效201-1 (a-ii)	



