



光大水務
EVERBRIGHT WATER

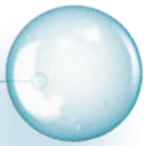
CHINA EVERBRIGHT WATER LIMITED
中國光大水務有限公司
(Incorporated in Bermuda with limited liability)
(於百慕達註冊成立之有限公司)

(STOCK CODES 股份代號: U9E.SG & 1857.HK)

2021

SUSTAINABILITY
REPORT

可持續發展報告



To Create
BETTER INVESTMENT VALUE
and Undertake
MORE SOCIAL RESPONSIBILITY

創造更好投資價值
承擔更多社會責任



MR. HU YANGUO

胡延國先生

Executive Director
and Chairman

執行董事兼董事長

The year 2021 marks an exceptional year with the ongoing pandemic due to novel coronavirus (“**COVID-19**”), which has caused increasing challenges and complexity to the global macroeconomic environment. Despite various external pressures, China’s economy continued demonstrating strong resilience and navigating through the new development outlook to pursue “high-quality development”. This marked a good start to the “14th Five-Year Plan”.

As the global sense of crisis and voices on climate change are getting stronger, promotion of green and low-carbon development has also become an important task in China’s tough battle against pollution and climate change. Following China’s strategic goals of “Peaking Carbon Dioxide Emissions” and “Achieving Carbon Neutrality” (“**Dual Carbons**”), “Reducing Pollution and Carbon Emission” and “Boosting Synergy and Efficiency” have become key development themes for the water environment management sector and even the whole environmental protection industry.

Looking ahead to 2022, amidst an ever-changing environment with both challenges and opportunities, Everbright Water will adhere to its corporate mission of being “Devoted to Ecology and Environment for a Beautiful China”, deeply participate in the national development process and actively study the industry trends. While prioritising its stability, the Group will firmly adhere to the “Innovation-Driven” development approach, and enhance its strategic vision to be more market-oriented, professional and international. Looking forward, Everbright Water is full of confidence and determination to continuously pursue “high-quality development” with a new paradigm of innovative development. The Group strives to create sustainable and good returns for its shareholders and other stakeholders, and to contribute to China’s green and low-carbon development process.

二零二一年伴隨著新型冠狀病毒引發的疫情（「**新冠疫情**」）持續反覆，全球宏觀經濟環境更加趨於複雜嚴峻。在重重外部壓力之下，中國經濟持續展現出強大的韌性，一路乘風破浪，在高質量發展進程中構建新發展格局，實現了國家「十四五」規劃階段的良好開局。

隨著全球應對氣候變化的危機感越來越強、呼聲越來越高，推動綠色低碳發展也已成爲中國污染防治攻堅戰及應對氣候變化的重要任務，圍繞國家「**碳達峰**」、「**碳中和**」（「**雙碳**」）戰略目標，「**減污降碳**」、「**協同增效**」成爲了水環境治理領域乃至整個環保行業的重要發展趨勢。

展望二零二二年，世界風雲萬變，挑戰機遇並存。光大水務將秉承「情繫生態環境，築夢美麗中國」的企業使命，深度參與國家發展進程，積極研判行業發展趨勢；把握「**穩字當頭**」的總基調，堅持「**創新引領**」的發展思路，提升「**市場化、專業化、國際化**」的戰略視野。面向未來，光大水務滿懷信心、幹勁十足，將以創新發展的新格局，繼續推動高品質發展，爲股東及各持份者創造可持續的良好回報，爲國家的綠色低碳發展進程貢獻力量。

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MR. TAO JUNJIE

陶俊杰先生

Executive Director and
Chief Executive Officer
執行董事兼總裁

The year 2021 was a challenging year for China Everbright Water Limited (“**Everbright Water**” or the “**Company**”, and together with its subsidiaries, the “**Group**”). During the period from 1 January 2021 to 31 December 2021 (the “**Reporting Period**” or the “**year under review**”), despite slowing down of the spreading of COVID-19 in China and the gradual recovery of the country’s economy and industry outlook from the tremendous impacts of the pandemic, the pandemic situation remained fluid. In the past year, Everbright Water has demonstrated strong business resilience through innovation and strong will, and achieved steady advancement in a challenging environment.

Amidst the “new normal” of the pandemic, the Group focuses on developing and improving systems, sets refinery management goals of “cost control and cost reduction”, and promotes the development of information technology for operations management. In addition, the Group has determined the development direction of digital transformation, and made every effort to enhance its core competitiveness in water environment management. The Group is actively responding to a series of national policies on pandemic prevention and control and the “14th Five-Year Plan”, by strengthening its project operations management, safeguarding the quality of construction works, promoting the construction of infrastructure relating to people’s livelihood, economic transformation and environmental protection after the pandemic outbreak. It aims to become an excellent “developer and service provider dedicated to urban water environment systems”.

二零二一年是中國光大水務有限公司（「**光大水務**」或「**本公司**」，連同其附屬公司合稱「**本集團**」）攻堅克難、砥礪前行的一年。於二零二一年一月一日至二零二一年十二月三十一日期間（「**報告期**」或「**回顧年度**」）內，新冠疫情態勢在中國有所趨緩，國家經濟和行業已從新冠疫情帶來巨大的衝擊中逐漸恢復，但仍不時面臨疫情反覆的考驗。光大水務在過去一年中聚力創新、銳意進取，展現出較強的業務韌性，完成從變中求穩到穩中求進的過渡。

在疫情常態化的形勢下，本集團以制度完善和系統建設為重點工作，提出「控成本、降費用」精細化管理目標，推動運營管理信息化建設，明確數字化變革的發展方向，全力提升在水環境綜合治理的核心競爭力。本集團積極響應國家應對疫情防控的一系列政策及「十四五」規劃，強化項目運營管理，保障工程建設質量，推動疫情爆發後的民生建設、經濟轉型與環境保護工作，朝著成為卓越的「城市水環境系統開發服務商」這一目標邁進。

During the Reporting Period, Everbright Water has adopted sustainability as its core value, and proactively implemented various measures in the following aspects:

Promoting Carbon Peak and Carbon Neutrality

Focusing on “water conservation and energy reduction” for its business upgrade, the Group has taken actions to comply with the more stringent requirements on resource recycling and carbon emission reduction as set out in the “14th Five-Year Plan”. While maintaining a high standard of project services, the Group continued to deepen its work in the field of reusable water and explored the possibility of reusable water production and water supply to external parties, in response to the relevant policies such as the “14th Five-Year Plan” for Urban Waste Water Treatment and Resources Utilisation Development.

The year 2021 is the first year of the “14th Five-Year Plan”, which emphasises “Carbon Emission Reduction” as an important task to combat pollution and climate change. By setting the goals of “Dual Carbons”, the Group has taken the lead in promoting digitalisation of operations based on the conditions of its projects, improving the disclosure framework of greenhouse gas (“GHG”) information, and further tracking and evaluating its carbon footprint. All these steps are to identify approaches for reducing its carbon footprint and formulate solutions to enhance carbon management. The Group also focuses on synergies of “Reducing Pollution and Carbon Emission”, mainly in three areas: quality and efficiency improvement, green facilities, and energy self-sufficiency. It also actively explores energy-efficient technologies and energy recovery processes for waste water treatment. These efforts are made to promote green and low-carbon development of the industry and contribute the Group’s wisdom and strengths to achieving the goals of “Dual Carbons”.

Pursuing Ecological Conservation

In response to the global and national trend of actively combating climate change, the Group is fully committed to promoting the ecological conservation. By securing a number of water treatment projects and acquiring well-established water treatment enterprises in various parts of China, the Group has solidified its market position in various regions. Meanwhile, the Group plays a significant role in urban water pollution control, water environment improvement and water ecological conservation with its mindset of high-quality and sustainable development.

報告期內，光大水務以可持續發展為核心理念，在以下範疇積極實施多項舉措：

推動碳達峰、碳中和

本集團圍繞「節水減耗」展開產業升級，緊跟國家在「十四五」規劃中對資源循環利用及減少碳排放所提出的更高要求。在維持項目服務高標準的同時，本集團繼續深化中水回用領域的工作，探索中水生產及對外供水的可能，以響應《「十四五」城鎮污水處理及資源化利用發展規劃》等相關政策基調。

二零二一年為國家「十四五」的開局之年，「碳減排」為「十四五」時期污染防治攻堅戰及應對氣候變化的重要任務。本集團積極圍繞「雙碳」等目標願景，率先以旗下項目為依託，推動運營數字化，完善溫室氣體（「溫室氣體」）信息披露框架，進一步對碳足跡實施追蹤與評估，以確定減少碳足跡的渠道，制定碳管理的優化方案。本集團亦聚焦「減污降碳」的協同增效，重點關注提質增效、綠色設施和能源自給三個方面，積極探索污水處理的高能效科技與能源回收工藝，致力於推動行業的綠色低碳發展，為實現「雙碳」目標貢獻智慧和力量。

建設生態文明

為響應全球和國家積極應對氣候變化的大趨勢，本集團全力以赴推進生態文明建設。本集團在中國各地取得多個水處理項目，亦收購具規模的水處理企業，鞏固本集團在各地的市場地位。此外，本集團秉承高質量、可持續的發展思路，在城市水污染治理、水環境改善和水生態文明城市建設中發揮了重大的作用。

In line with the Group's corporate mission of being "Devoted to Ecology and Environment for a Beautiful China", the Group has further improved the entire water industry chain and is constantly advancing its business in the areas of raw water protection, water supply, municipal waste water treatment, industrial waste water treatment, reusable water, river-basin ecological restoration, sludge treatment and disposal, etc. Therefore, the Group is able to provide comprehensive, high-quality and efficient water environment management services. As at 31 December 2021, the Group invested in and held 153 environmental protection projects and undertook 4 engineering, procurement and construction ("EPC") projects and 3 operation and management ("O&M") projects, with a total designed daily water treatment capacity of 7,061,200 m³. Besides, the Group incorporates the issue of climate change into its risk management system and continuously improves the natural disaster emergency management system. Its objectives are to build a more stable ecological environment for cities, enhance their resilience against climate change and water pollution, and promote sustainable urban development.

Paying Attention to Talent Development

With its "People-Oriented" management philosophy and belief that talent cultivation is a key driving force for its business development, the Group has always paid great attention to the career planning and personal needs of its employees. In addition, the Group is committed to providing its employees with a path to enhance their professional skills and a platform to realise their self-worth. The Group has further improved its systems for recruitment and selection, training and assessment, performance evaluation, rewards and punishments, and promotion, to create a fair and excellent career environment. During the Reporting Period, the Group increased its investment in training resources and established a human resources management information system and personnel quality evaluation model to further implement its talent development strategy.

本集團踐行「情繫生態環境，築夢美麗中國」的企業使命，完善水務全產業鏈，繼續在原生水保護、供水、市政污水處理、工業廢水處理、中水回用、流域治理、污泥處理處置等領域潛心耕耘，從而提供全面、優質、高效的水環境治理服務。截至二零二一年十二月三十一日，本集團投資並持有153個環保項目，承接4個工程總包（「EPC」）項目及3個委託運營（「委託運營」）項目，設計日水處理總規模7,061,200立方米。此外，本集團亦將氣候變化議題納入風險管理體系之中，持續完善自然災害應急管理體系，為城市構建更穩固的生態環境，提升其對氣候變化及水污染抵禦能力，促進城市可持續發展。

注重人才發展

本集團秉承「以人為本」的管理理念，視人才培養為本集團發展的核心動力，一直以來高度關注員工的職涯規劃與個人需求，致力於為員工提供增強專業素質的渠道與實現自我價值的舞台。本集團通過完善招聘選拔、培訓考核、績效評估、獎懲晉升等制度，優化全方位人才培養體系，著力於打造一個公平優質的職業環境。報告期內，本集團加大培訓資源投入，建立人力資源管理信息系統與人員素質評價模型，進一步落實了人才發展戰略。



Fostering Technology Research and Development (“R&D”)

Bearing the ethos of “Innovation-Driven Development” and objective of “application-oriented research” in mind, the Group has accelerated the development and deployment of new technologies. During the Reporting Period, with its experience and technological strengths in water environment management, waste water and sludge treatment, the Group continued expanding its “full industry chain” service capabilities at every stage, from project design to project operation and management. The Group also improved its existing technologies to achieve a higher level of pollution removal and environmental management. Additionally, the Group has built fully underground and intelligent waste water treatment plants which require minimal workers for monitoring. Such plants are integrated with above-ground ecological parks to provide benefits to the community. At the same time, in order to further enhance the automation level of water treatment plants and contribute to “Carbon Emission Reduction”, the Group has strengthened its information technology and promoted the “Intelligent Water” information management system to achieve accurate control of the operation and electricity consumption of waste water treatment plants.

Promoting Environmental Protection Education

As a long-term frontliner for environmental popularisation education, the Group has responded to the government initiatives by converting its waste water treatment plants into environmental education bases which integrate visits, practice and skills and are open to the public. Following the gradual relaxation of the pandemic situation, the bases began to receive physical visits as far as conditions allowed. Nonetheless, the Group still carries out public openings in virtual forms to expand audience groups and enhance the public’s knowledge in environmental protection and water conservation. During the Reporting Period, a number of waste water treatment plants in various places, such as Suzhou and Nanjing, were awarded the titles including “Ecological Civilisation Education Practice Base in Jiangsu Province” and “Nanjing Water-Saving Education Base”. In addition, the Group has been, for many years, cooperating with various environmental protection and technology associations and government departments to launch environmental education and publicity activities, including special events such as “World Water Day”, “China Water Week” and “World Earth Day”.

促進技術研究與開發(「研發」)

本集團堅持「創新引領發展」的理念，以「應用轉化」為目標，加速新型技術的研發及佈局。報告期內，本集團憑藉多年來在水環境治理、污水及污泥處理的技術優勢，不斷拓展從前期項目設計到最終項目運營管理的「全鏈條」服務能力，並在已有技術基礎上推陳出新、追求更高的除污效能及環境治理水平。本集團已建成少人值守的全地下式智慧污水處理廠，並與地上生態公園結合，真正實現鄰利。同時，為進一步提升水廠自動化水準，助力「碳減排」，本集團加強信息化建設，促進「智慧水務」信息管理體系的推廣，實現對污水處理廠運行狀況與用電耗能的精準把控。

普及環保教育

本集團長期活躍在環保科普教育的前沿，響應國家號召，將旗下污水處理廠打造為集參觀、實踐、技能為一體的環保教育基地，面向公眾開放。隨著疫情形勢的逐步緩和，各基地在條件允許的情況下，開始恢復線下接待參觀，但本集團依舊堅持各類線上形式的開放，擴大受眾面積，增加群眾的環保節水知識。報告期內，蘇州、南京等多個污水處理廠被授予省市級「江蘇省生態文明教育實踐基地」、「南京市節水教育基地」等榮譽稱號。此外，本集團亦連續多年與各環保、科技協會及政府機構合作展開環保教育宣傳，包括「世界水日」、「中國水週」及「世界地球日」等專題活動。

Summing Up

Following the global trend of actively responding to climate change and the national trend of accelerating the development of ecological civilisation, the Group continued focusing on the area of water environment management, seizing opportunities arising from the relevant policies, enhancing intelligence and digitalisation, and carrying out technological innovation and research. While ensuring all the measures for pandemic control are implemented, the Group is also focusing on good business opportunities to drive its sustainable development to a new level.

TAO JUNJIE

Executive Director and Chief Executive Officer

31 May 2022

結語

在全球積極應對氣候變化和國家加快生態文明建設的大趨勢下，本集團繼續深耕水環境綜合治理領域，緊抓政策機遇，提升智慧和數字化水準，持續技術創新攻關。在保障疫情防控常態化工作的同時，著眼優質業務機會，推動業務可持續發展再上新台階。

陶俊杰

執行董事兼總裁

二零二二年五月三十一日

Board oversight of environmental, social and governance (“ESG”) and climate change issues 董事會對環境、社會及管治（「ESG」）及氣候變化事宜的監管

In line with its long-term sustainability belief, the board of directors of Everbright Water (the “**Board**”, and each member, a “**Director**”) is responsible for (i) formulating the Group’s policies, strategies and objectives relating to ESG, climate change and responsible investment; (ii) overseeing the performance and effectiveness of the Group’s ESG, climate change and responsible investment; and (iii) identifying and evaluating significant ESG and climate change-related issues and their prioritisation in relation to the Group’s business and/or other key stakeholders. The Board is also responsible for reviewing the Group’s ESG report.

秉承長期可持續的發展理念，光大水務董事會（「**董事會**」，其中每位簡稱「**董事**」）負責(i)制定本集團ESG、氣候變化及責任投資的政策、策略及目標；(ii)監督本集團踐行ESG、氣候變化及責任投資的表現與成效；及(iii)識別及評估涉及本集團業務及/或其他重要持份者的ESG和氣候變化相關的重大議題及其優次排列。董事會亦負責審閱本集團的ESG報告。

The Board has reviewed the material ESG issues and will manage and monitor these issues and take them into consideration in determining the Group’s business directions and strategies. The Group will actively undertake social responsibility in pursuing a better water environment.

董事會已審閱有關ESG的重大議題，將管理和監督這些議題，並在制定本集團經營方針及戰略時將該等議題列入考慮範圍。本集團將積極承擔社會責任，創造更優質的水環境。

Introduction

Everbright Water is an environmental protection company focusing on water environment management. It is listed on the Mainboard of Singapore Exchange Securities Trading Limited (“**SGX**” or “**SGX-ST**”) and the Main Board of The Stock Exchange of Hong Kong Limited (the “**SEHK**”) (stock codes: U9E.SG & 1857.HK) with its controlling shareholder being China Everbright Environment Group Limited (stock code: 257.HK, “**Everbright Environment**”).

Aiming to develop a full industry chain in the water business, Everbright Water has developed a full-fledged business coverage, which includes raw water protection, water supply, municipal waste water treatment, industrial waste water treatment, reusable water, river-basin ecological restoration, sludge treatment and disposal, etc. While incorporating “Dual Carbons” into its ecological conservation business, Everbright Water actively explores synergistic paths for pollution reduction and carbon reduction in order to build a foundation for realising carbon neutrality in waste water treatment in the future. At the same time, Everbright Water actively focuses on “Intelligent Water”, and integrates intelligent transformation into its business practices with decades of experience, so as to cooperate with the local governments on the construction of smart cities and promote the sustainable development of China’s water industry.

報告簡介

光大水務是一家專注於綜合水環境治理的環保企業，為新加坡證券交易所有限公司（「**新交所**」）及香港聯合交易所有限公司（「**聯交所**」）主板上市公司（股份代號：U9E.SG及1857.HK），控股股東為中國光大環境（集團）有限公司（股份代號：257.HK，「**光大環境**」）。

光大水務致力打造水務行業全產業鏈佈局，已實現原水保護、供水、市政污水處理、工業廢水處理、中水回用、流域治理、污泥處理處置等全業務範圍的覆蓋。為踐行把「雙碳」納入生態文明建設整體佈局，光大水務積極探索減污降碳的協同路徑，為未來實現污水處理碳中和目標奠定基礎。同時，光大水務積極以「智慧水務」為重點，運用其多年的行業經驗，將智能化轉型與業務實踐結合，以配合建設智慧城市，促進中國水務行業的可持續發展。

The Sustainability Report 2021 (this “**Report**”) covers the Group’s main sustainability initiatives and performance during the Reporting Period. This Report was prepared in accordance with Rule 13.91 and Appendix 27 *Environmental, Social and Governance Reporting Guide* of the Rules Governing the Listing of Securities on the SEHK, as well as the Listing Manual of SGX (Rules 711A, 711B and Practice Note 7.6 *Sustainability Reporting Guide*). The *GRI Sustainability Reporting Standards* (the “**GRI Standards**”) is a globally and widely recognised and applied sustainability reporting standard, which is a standardised framework for corporates to disclose non-financial information. This Report has been prepared in accordance with the GRI Standards: Comprehensive option⁽¹⁾, which is aligned with most of its industry peers in Singapore, Hong Kong and other countries and areas around the world. By these means, the material issues were covered in a more comprehensive manner. Besides, Everbright Water adheres to the corporate mission of being “Devoted to Ecology and Environment for a Beautiful China” by fully integrating the Sustainable Development Goals of the United Nations (“**SDGs**”) into its environmental and social management strategies to promote global environmental protection and ecological conservation. In order to address the risks and opportunities arising from climate change that the Group may face in the future, Everbright Water actively refers to the recommendations made by the Task Force on Climate-Related Financial Disclosures (“**TCFD**”) to disclose the Group’s information including carbon emissions, carbon emissions intensity, carbon emissions management strategies and climate-related risks, etc. to further enhance the Group’s ESG disclosure.

二零二一年可持續發展報告（「**本報告**」）涵蓋了本集團於報告期內的主要可持續發展策略和表現。其內容依循聯交所證券上市規則第13.91條及附錄二十七所載的《環境、社會及管治報告指引》以及新交所上市手冊（第711A條、第711B條和第7.6項應用指引《可持續發展報告指引》）所編寫。《GRI永續性報導準則》（「**GRI準則**」）是全球廣泛應用的可持續發展報告標準，為企業披露非財務資訊提供了規範的框架。本報告依循GRI準則：全面選項⁽¹⁾，務求報告更全面涵蓋實質性議題，並與新加坡、香港及全球其他國家和地區的大部份同行企業保持一致。此外，光大水務秉承「情繫生態環境，築夢美麗中國」的企業使命，將聯合國可持續發展目標（「**SDGs**」）全面融入到其環境及社會管治戰略當中，推動全球環境保護和生態文明建設。為應對本集團未來面臨的氣候變化的風險和機遇，光大水務積極參照「氣候相關財務信息披露工作組」（Task Force on Climate-Related Financial Disclosures，簡稱「**TCFD**」）的建議，公開本集團的碳排放量、碳排放強度、管理碳排放戰略及氣候相關風險等信息，務求進一步加強本集團的ESG披露。

The data and information disclosed in this Report were based on materiality assessment, stakeholder engagement and other relevant sustainability reporting guidelines, covering the sustainability performance of the Group's Shenzhen, Hong Kong and Singapore offices, projects under construction⁽²⁾ and operating projects that are under the Group's operational control during the Reporting Period^{(3),(4)}. During the Reporting Period, the issues of concern to stakeholders were similar to those of last year, and the reporting scope of this Report has not changed significantly compared with the previous year. The details of the Group's relevant entities can be found in Notes to the Financial Statements as included in the Company's annual report for the year under review (the "Annual Report 2021"). The data collection and analysis of this Report were carried out based on the relevant international, national and local guidelines or standards, including the use of calculation methodologies approved by the Clean Development Mechanism ("CDM"), the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2019 Revision) from the Intergovernmental Panel on Climate Change ("IPCC"), and specification of ISO 14064-1: Specification with Guidance at the Organisation Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals to estimate project GHG emissions and offsets. All data included in this Report has been rounded except integers and data disclosed in the Annual Report 2021⁽⁵⁾.

The Group commissioned Hong Kong Quality Assurance Agency as the third-party verification institution to conduct an independent audit and verification on the content and data of this Report, with the addition of auditing against the ISO 14064-1 Standard this year, which is for the quantification and reporting of GHG emissions and removals at the organisation level. The corresponding verification statements have been appended to this Report. The Board reviewed and approved the content and scope of this Report to demonstrate that the Board had considered sustainability issues as part of its strategy formulation, determined the significant material ESG issues and overseen the management and monitoring of those issues.

本報告所披露的數據及信息是基於實質性評估、持份者參與和其他相關的可持續發展報告指引釐訂，涵蓋了本集團在報告期內於深圳、香港和新加坡辦公室以及本集團擁有運營控制權的在建⁽²⁾與運營項目的可持續發展表現^{(3),(4)}。於報告期內，持份者關注的議題與去年相似，本報告的匯報範圍與去年報告相比並無重大改變。本集團的相關實體資料可參閱本公司關於回顧年度的年度報告（「二零二一年度報告」）中的財務報表附註。本報告的資料收集及分析乃根據相關國際或當地指引或準則進行，包括使用清潔發展機制（「CDM」）核准、政府間氣候變化專門委員會（「IPCC」）《二零零六年IPCC國家溫室氣體清單指南》（二零一九年改進版）核准的計算方法，及《ISO 14064-1：組織層級溫室氣體排放與移除之量化及報告附指引》之規範，估算項目的溫室氣體排放及抵銷。除了整數數據及二零二一年度報告已公佈的數據外，本報告所載的所有數據均已作捨入調整⁽⁵⁾。

本集團已委託香港品質保證局作為第三方核證審核機構，為本報告的內容及數據進行獨立審核及認證，並於今年新增針對組織層面溫室氣體排放和移除的量化及報告的ISO 14064-1標準審計驗證，其相關審核聲明已附載於本報告中。本報告的內容及範圍亦經過董事會審閱及批准，以表明董事會已將可持續發展議題視為戰略制定的一部分，確定了重大的ESG議題，並對該等議題的管理和監測進行了監督。

Reporting Principles

This Report is based on seven reporting principles: Materiality, Quantification, Balance, Consistency, Stakeholder Inclusiveness, Sustainability Context and Integrity:

報告原則

本報告以重要性、量化、平衡、一致性、持份者包容性、永續性的脈絡及完整性這七項匯報原則為編製基礎：

<p>Materiality 重要性</p>	<p>The Group regularly conducts materiality assessments to identify material ESG issues which the Group and its stakeholders are concerned with, and to ensure that these issues are reflected in this Report. 本集團定期進行重要性評估，以識別本集團和本集團的持份者所關注的重大ESG議題，並確保該等議題反映於本報告中。</p>
<p>Quantification 量化</p>	<p>The Group attempts to present quantitative information with explanations. 本集團盡量展示量化的資訊並附帶說明。</p>
<p>Balance 平衡</p>	<p>The Group presents the positive and negative impacts of its business in a transparent manner. 本集團以透明方式呈列其業務所帶來的正面及負面影響。</p>
<p>Consistency 一致性</p>	<p>This Report has been drafted in a consistent manner to allow readers to make meaningful comparisons of the Group's ESG performance. 本報告盡量採用與以往一致的編製方法，以供讀者對本集團的ESG表現進行有意義的對比。</p>
<p>Stakeholder Inclusiveness 持份者包容性</p>	<p>The Group's stakeholders are widely covered, which include its shareholders, investors, customers, business partners, employees, suppliers, media, communities and non-governmental organisations ("NGOs"). 本集團的持份者包含範圍較廣，主要有股東、投資者、客戶、業務夥伴、員工、供應商、媒體、社區和非政府組織（「非政府組織」）。</p>
<p>Sustainability Context 永續性的脈絡</p>	<p>In addition to the significant ESG factors, sustainable development goals and climate-related financial risks are the key factors for sustainability in this Report. 本報告的永續性關鍵因素除了有重大ESG因素，還有可持續發展目標和氣候相關的財務風險。</p>
<p>Integrity 完整性</p>	<p>The Group consistently incorporates material issues, issue boundaries, relevant significant impacts and stakeholder views into this Report, and adhere to the first six reporting principles to ensure a complete disclosure. 本集團連貫地將重大議題、議題邊界、相關顯著影響和持份者意見融入本報告，並謹遵前列六項報告原則以確保披露完整。</p>

Availability of this Report

This Report is available in both Chinese and English languages and has been uploaded onto the SGXNet (www.sgx.com), the websites of Hong Kong Exchanges and Clearing Limited (www.hkexnews.hk) and Everbright Water (www.ebwater.com). If there is any inconsistency or discrepancy between the Chinese version and the English version, the English version shall prevail; in the event of any inconsistency or discrepancy between this Report and the Annual Report 2021, the Annual Report 2021 shall prevail.

報告獲取

本報告備有中英文版本，已上載至SGXNet (www.sgx.com)、香港交易及結算所有限公司網站(www.hkexnews.hk)及光大水務網站(www.ebwater.com)供下載及閱覽。如中、英文版本有任何抵觸或不相符之處，應以英文版本為準；若本報告和二零二一年度報告有任何抵觸或不相符之處，應以二零二一年度報告為準。

Contact Us

The Group welcomes all stakeholders and the public to provide valuable comments and suggestions to info@ebwater.com on the content of this Report, the reporting approach as well as the Group's sustainability performance.

Notes:

- (1) GRI means Global Reporting Initiative.
- (2) For environmental data of projects under construction, only fuels, electricity and water consumption and associated GHG emissions are disclosed in this Report.
- (3) Except for the fuel consumption of projects under construction or other data specified otherwise, data of contractors and/or subcontractors is not disclosed in this Report.
- (4) Over 99% of the Group's projects are located in China. The environmental performance of the projects located in China is disclosed in this Report. Since the assets related to Qingdao Waste Water Treatment Project (Haibohe Plant) and the four projects undertaken by Everbright Water under EPC model are owned by its customers, Everbright Water has no right of access to the environmental data of such projects, including electricity consumption, water consumption, etc. As such, the environmental performance of these projects is not disclosed in this Report.
- (5) The numbers stated in various tables of this Report may not add up to totals or 100% due to rounding.

Report Scope

To determine the scope and boundaries of this Report, the Group engages an independent sustainability consultant to conduct a comprehensive materiality assessment every year to identify the economic, environmental and social issues which the Group and its stakeholders are greatly concerned with. The Group prioritises and incorporates topics into this Report to ensure the relevance of this Report, thereby further advancing its work on sustainable development.

聯絡我們

歡迎各持份者及公眾電郵至 info@ebwater.com，就本報告內容、報告方式和本集團在可持續發展方面的表現提供寶貴意見及建議。

附註：

- (1) GRI是指全球報告倡議組織。
- (2) 有關在建項目的環境數據，本報告披露了其燃料、電力及水消耗量以及相關的溫室氣體排放。
- (3) 除了有關在建項目的燃料消耗量或其他另有註明的數據外，承包商及/或分包商的數據不會於本報告中披露。
- (4) 本集團超過99%的項目位於中國，本報告披露位於中國的項目環境表現。由於青島污水處理項目（海泊河廠）及光大水務以EPC模式承接的四個項目所涉及的資產由其客戶擁有，光大水務無權存取其環境數據（包括電力消耗量及水消耗量等）。因此，這些項目的環境表現不會於本報告中披露。
- (5) 本報告所載各類表格中包含的數字，由於四捨五入關係，數值加起來可能不等於總數或100%。

報告範圍

為確定本報告的範圍及邊界，本集團每年均會委聘獨立可持續發展顧問進行一次全面的實質性評估，以識別本集團及持份者最為關注的經濟、環境和社會議題。本集團將議題進行優先排序並納入本報告中，以確保本報告的針對性，從而進一步推動本集團在可持續發展上的工作。

Communicate with Stakeholders

In order to ensure that the Group is able to actively respond to the current and emerging risks and opportunities in the market, stakeholder engagement is a significant part of its sustainability strategy. The Group strives to facilitate a clear and positive mutual understanding and maintain trust with its stakeholders by keeping constant communication with them through various platforms and proactively understanding their needs and expectations. Stakeholders' opinions are also helpful for the Group to identify priority issues and formulate corresponding development strategies.

Everbright Water's business involves various types of stakeholders, including investors/shareholders, government, customers, business partners/suppliers, employees, villagers/local communities, NGOs, investment analysts, and media. The stakeholders are identified based on the five principles below:

Responsibility 責任	Influential Power 影響力	Proximity 鄰近性	Dependency 倚靠性	Representativeness 代表性
Stakeholders connected to the Group through legal, financial, operational procedures, contracts, and/or policies 通過法律、財務、運營規則、合約及/或政策與本集團聯繫的持份者	Stakeholders with formal decision-making power or informal influence on the Group 對本集團具有正式決策權或非正式影響力的持份者	Stakeholders who live closely to the Group's operations and whom the Group interacts closely with 居於本集團運營廠房附近及與日常運作關係密切的持份者	Stakeholders who are highly dependent on the Group's business operations 在很大程度上依靠本集團業務運營的持份者	Stakeholders who are representing the sectors which are closely connected with the Group 來自與本集團聯繫最緊密的業界代表的持份者

During the life cycle of the projects, the Group invites stakeholders on a regular basis to express their views on the projects from planning to operation stages. By this means, the Group identifies priority issues and the associated concerns relevant to sustainability in order to improve its environmental performance, meet stakeholder's expectations and develop effective development strategies. The major communication channels and frequencies are as follows:

與持份者溝通

為確保本集團能夠積極應對市場中現有及新興的風險與機遇，持份者參與是本集團制定可持續發展策略過程中尤其重要的一環。本集團透過各種渠道與多個持份者保持緊密溝通，主動了解他們的需要及期望，致力促進清晰及正面的相互了解，並維繫各持份者對本集團的信任。持份者的觀點亦有助本集團釐清先決事項，並制定相應的發展政策。

光大水務的業務涉及多個持份者組別，包括投資者/股東、政府、客戶、業務夥伴/供應商、員工、村民/當地社區、非政府組織、投資分析員及媒體。持份者的界定基於以下五個原則：

本集團在項目的生命週期中，定期邀請持份者對於各項目從規劃至運營期間的事項發表意見，了解及識別優先且備受關注的可持續發展議題，從而改善環保表現和達到持份者的期望，並制定有效的發展戰略。主要溝通渠道和頻率如下：

<p>Investors/Shareholders 投資者/股東</p> 	<p>Government 政府</p> 	<p>Customers 客戶</p> 
<p>Annual/special general meeting 週年/特別股東大會</p> <ul style="list-style-type: none"> Annual/as needed 每年/根據需要 <p>Press release/announcement/circular 新聞稿/公告/通函</p> <ul style="list-style-type: none"> Regularly/as needed 定期/根據需要 <p>Results presentation 業績發佈</p> <ul style="list-style-type: none"> Semi-annually 每半年 <p>Interim/annual report 中期/年度報告</p> <ul style="list-style-type: none"> Annually 每年 <p>Roadshow 路演</p> <ul style="list-style-type: none"> Regularly/as needed 定期/根據需要 <p>Meeting/conference 會議/電話會談</p> <ul style="list-style-type: none"> Regularly/as needed/upon request 定期/根據需要/根據請求 <p>Site visit 現場考察</p> <ul style="list-style-type: none"> Regularly/as needed/upon request 定期/根據需要/根據請求 	<p>Progress report 進度報告</p> <ul style="list-style-type: none"> Weekly/monthly/quarterly 每週/月/季度 <p>Site visit 現場考察</p> <ul style="list-style-type: none"> Weekly/monthly/quarterly 每週/月/季度 <p>Meeting 會議</p> <ul style="list-style-type: none"> Weekly/monthly/quarterly 每週/月/季度 <p>WeChat and QQ 微信及QQ</p> <ul style="list-style-type: none"> As needed 根據需要 <p>Phone/email 電話/電郵聯繫</p> <ul style="list-style-type: none"> Weekly/monthly/quarterly 每週/月/季度 <p>Survey on customer satisfaction 客戶滿意度調查</p> <ul style="list-style-type: none"> Annually 每年 	<p>Meeting 會議</p> <ul style="list-style-type: none"> As needed 根據需要 <p>Phone/email 電話或電郵聯繫</p> <ul style="list-style-type: none"> As needed 根據需要 <p>Survey on customer satisfaction 客戶滿意度調查</p> <ul style="list-style-type: none"> Annually 每年

**Business Partners/
Suppliers**

業務夥伴/供應商



Pre-tender meeting

採購招標會

- Every tender event
每次招標活動

Phone interview

電話回訪

- As needed
根據需要

Questionnaire

意見調查

- Ad hoc
不定期

WeChat and QQ

微信及QQ

- As needed
根據需要

Employees

員工



Work meeting/project meeting

工作會議/專題會議

- Regularly
定期

**Performance
assessment meeting**

表現評估會議

- Interim/year-end
年中/年末

Everbright publication

光大刊物

- Monthly
每月

Charitable activity

公益活動

- As needed
根據需要

Face-to-face meeting

當面會談

- As requested by employees
根據員工請求

Email

電郵聯繫

- Regularly/as needed
定期/根據需要

Phone meeting

電話會議

- As requested by employees
根據員工請求

**Villagers/Local
Communities**

村民/當地社區



Project visit/site visit

項目參觀/現場考察

- Before construction/public
open day on the first weekend
of every month/upon request
工程施工前/每月第一個週末
之公眾開放日/根據請求

Survey

意見調查

- Before construction/as needed
工程施工前/根據需要

Public hearing

公聽會

- Before construction/as needed
工程施工前/根據需要

Charitable activity

公益活動

- As needed
根據需要

<p>NGOs 非政府組織</p> 	<p>Investment Analysts 投資分析員</p> 	<p>Media 媒體</p> 
<p>Charitable activity 公益活動</p> <ul style="list-style-type: none"> As needed 根據需要 <p>Site visit 現場考察</p> <ul style="list-style-type: none"> Regularly/as needed 定期/根據需要 <p>Meeting 會議</p> <ul style="list-style-type: none"> As needed 根據需要 	<p>Project visit/site visit 項目參觀/現場考察</p> <ul style="list-style-type: none"> As needed/upon request 根據需要/根據請求 <p>Meeting 會議</p> <ul style="list-style-type: none"> Semi-annually/as needed 每半年/根據需要 <p>Press release/announcement 新聞稿/公告</p> <ul style="list-style-type: none"> Regularly/as needed 定期/根據需要 <p>Results presentation 業績發佈會</p> <ul style="list-style-type: none"> Semi-annually 每半年 <p>Interim/annual report 中期/年度報告</p> <ul style="list-style-type: none"> Annually 每年 	<p>Project visit/site visit 項目參觀/現場考察</p> <ul style="list-style-type: none"> As needed/upon request 根據需要/根據請求 <p>Press release/announcement 新聞稿/公告</p> <ul style="list-style-type: none"> Regularly/as needed 定期/根據需要 <p>Management interview 管理層採訪</p> <ul style="list-style-type: none"> Regularly/as needed/upon request 定期/根據需要/根據請求 <p>Results presentation 業績發佈會</p> <ul style="list-style-type: none"> Semi-annually 每半年

Materiality Assessment

The materiality assessment was conducted in four stages for this Report as follows:

Stage 1: Identification of Sustainability Issues

Everbright Water commissions an independent sustainability consultant to identify and review more than 30 sustainability issues that were most relevant to the Group (please refer to the "List of Sustainability Issues"). These topics were identified from extensive sources of information, including the GRI Standards, SDGs, opinions from the stakeholders, suggestions of the Board and management personnel, internal publications, media information analysis, etc. The purpose was to ensure that the identified issues were fully aligned with the business nature of the Group and relevant to the findings from the previous stakeholders' engagement exercises.

實質性評估

本報告的實質性評估由以下四個階段組成：

第一階段：識別可持續發展議題

光大水務委聘獨立可持續發展顧問全面識別及檢視超過30項與本集團業務最密切的可持續發展議題（請參考「可持續發展議題列表」）。這些議題乃透過廣泛來源所得，包括GRI準則、SDGs、持份者參與意見、董事會及管理層建議、內部刊物及媒體信息分析等，以確保識別出來的議題與本集團的業務性質完全一致，並且與以往與持份者參與活動的結果相關。

GRI 102-44 GRI 102-46 GRI 102-47 GRI 102-49

List of Sustainability Issues

Economic 經濟	Environmental 環境	Social 社會	
<ul style="list-style-type: none"> Economic Performance 經濟績效 Market Presence 市場地位 Indirect Economic Impacts 間接經濟影響 Procurement Practices 採購行為 Anti-Corruption 反貪腐 Anti-Competitive Behaviour 反競爭行為 Technology R&D 技術研發 	<ul style="list-style-type: none"> Materials Usage 物料使用 Energy Efficiency 能源效益 Water Resources Consumption 水資源消耗 Greenhouse Gas Management and Climate Change Mitigation 溫室氣體管理及氣候變化的應對 Waste Water Treatment 污水處理 Waste Management 廢物管理 Biodiversity 生物多樣性 Environmental Compliance 環境合規 Suppliers' Environmental Assessment 供應商環境評估 Construction Management 工程施工管理 Environmental Protection Education 環保教育 	<ul style="list-style-type: none"> Employee Welfare 員工福利 Occupational Health and Safety 職業健康與安全 Employee Training 員工培訓 Diversity and Equal Opportunity 多元化及平等機會 Internal Communication 內部溝通 Child Labour and Forced Labour 童工與強制勞工 Rights of Indigenous Peoples 原住民權利 Poverty Alleviation 扶貧 Social Assessment of Suppliers 供應商社會評估 Health and Safety of Communities 社區健康及安全 	<ul style="list-style-type: none"> Third-Party Privacy 第三方私隱 Disaster and Emergency Planning and Response 災難及應急預案規劃 Participation of Community 社區參與 Social Compliance 社會合規

可持續發展議題列表

Stage 2: Collection of Stakeholders' Opinions, Establishment of Materiality Matrix

The independent sustainability consultant carried out a stakeholder survey to obtain views from nine stakeholder groups on the priority of material issues identified in Stage 1. The findings were then analysed quantitatively by the consultant to form a materiality matrix based on two parameters: perceived importance to stakeholders and significance to Everbright Water's Sustainable Development. The top 12 prioritised material issues perceived with the highest importance to the stakeholders and the Group are the disclosure focuses of this Report. The result of the Group's materiality assessment is shown in the matrix below, and the 12 prioritised material issues are converted into the GRI Standards.

第二階段：收集持份者意見，繪製實質性矩陣

獨立可持續發展顧問對九個重點持份者組別進行持份者參與調查，依據調查結果為第一階段識別到的可持續發展議題作優先排序。顧問隨即根據持份者對議題的重要性評分和議題對光大水務可持續發展的重要性這兩個參數，對這些議題的實質性作量化分析，並將分析結果以矩陣形式表達，從而確定在兩個層面最為重要的議題。於持份者和本集團層面最為重要的12個經優先排序的實質性議題即為本報告的披露重點。本集團的實質性評估結果如以下矩陣圖所示，12個經優先排序的實質性議題已被轉換成GRI準則。



Stage 3: Verification of Material Issues and Data Analysis

The prioritised material topics and boundaries were verified by the Board to ensure the reasonableness, balance and completeness of this Report. Subsequently, the independent sustainability consultant reframed the material topics into the GRI Standards for reporting purpose. Through the systematic data collection and monitoring mechanisms, the specialists from the Group's Operations Management Department ensure that all project companies provide accurate and comprehensive sustainability data on a regular basis.

第三階段：驗證實質性議題及數據分析

董事會對經優先排序的實質性議題及其邊界作驗證，以確保本報告的合理性、平衡性及完整性。隨後，獨立可持續發展顧問將實質性議題轉換為GRI準則，方便報告之用。本集團運營管理部的專員透過系統式的數據收集和監測機制，確保所有項目公司定期提供準確、全面的可持續發展數據。

The materiality topics covered in this Report, their impacts and boundaries, and their corresponding GRI Standards and SDGs are as follows:

本報告涵蓋的實質性議題、其影響力及範圍、其相應的GRI準則及SDGs如下：

Material Topics / Stakeholders' Concerns 實質性議題/持份者關注事項	Impacts and Boundaries 影響及範圍									GRI Standards GRI準則	Relevant SDGs 相關的 可持續發展目標
	Investors/ Shareholders 投資者/股東	Employees 員工	Government 政府	Villagers/ Local Communities 村民/ 當地社區	Customers 客戶	Business Partners/ Suppliers/ 供應商	Investment Analysts 投資分析員	Media 媒體	NGOs 非政府組織		
1 Environmental Compliance 環境合規	✓	✓	✓	✓	✓	✓	✓	✓	✓	GRI 307 Environmental Compliance 有關環境保護的 法規遵循	
2 Waste Water Treatment 污水處理	✓	✓	✓	✓	✓	✓	✓	✓	✓	GRI 303 Water and Effluents 水資源與污水	
3 Occupational Health and Safety 職業健康與安全	✓	✓	✓					✓		GRI 403 Occupational Health and Safety 職業安全衛生	
4 Greenhouse Gas Management and Climate Change Mitigation 溫室氣體管理及 氣候變化的應對	✓	✓	✓	✓	✓	✓	✓	✓	✓	GRI 305 Emissions 排放	
5 Social Compliance 社會合規	✓	✓	✓	✓	✓	✓	✓	✓	✓	GRI 419 Socioeconomic Compliance 社會經濟法規遵循	
6 Economic Performance 經濟績效	✓	✓	✓	✓	✓	✓	✓	✓	✓	GRI 201 Economic Performance 經濟績效	
7 Waste Management 廢物管理	✓	✓	✓	✓	✓	✓	✓	✓	✓	GRI 306 Waste 廢棄物	
8 Energy Efficiency 能源效益	✓	✓			✓	✓	✓	✓	✓	GRI 302 Energy 能源	
9 Employee Training 員工培訓	✓	✓								GRI 404 Training and Education 訓練與教育	
10 Anti-Corruption 反貪腐	✓	✓	✓		✓	✓		✓		GRI 205 Anti-corruption 反貪腐	
11 Child Labour and Forced Labour 童工與強制勞工	✓	✓	✓						✓	GRI 408 Child Labour GRI 409 Forced or Compulsory Labour 強迫或強制勞動	
12 Water Resources Consumption 水資源消耗	✓	✓	✓	✓	✓	✓	✓	✓	✓	GRI 303 Water and Effluents 水資源與污水	

Stage 4: Materiality Review

Prior to the preparation of this Report, the Group reviewed the material topics and disclosure in the previous sustainability reports and collected the stakeholders' opinions on Everbright Water's sustainability performance in 2021 through stakeholder survey. All opinions and data collected were reported to the Board, and reviewed and verified by the Board. The materiality review allows stakeholders to fully participate in the process of sustainable development management and disclosure, and is beneficial to the Group in accomplishing long-term sustainable development goals.

第四階段：檢視實質性

在準備本報告之前，本集團對過往報告的實質性議題和披露工作進行了回顧及審閱，並通過持份者參與調查收集持份者對光大水務於二零二一年可持續發展表現的意見。所有意見及數據皆會於董事會會議中匯報，並由董事會檢視及核實實質性，以助持份者更全面地參與可持續發展的管理和披露過程，同時有利於本集團實踐長遠的可持續發展目標。

Average stakeholders' rating for the Sustainability Report 2020 of Everbright Water:

持份者對光大水務二零二零年可持續發展報告的平均評分：

8.5 (out of 10)
(10分為滿分)

Average stakeholders' rating for the sustainable development performance of Everbright Water in 2021:

持份者對光大水務二零二一年可持續發展表現的平均評分：

8.8 (out of 10)
(10分為滿分)

Is the engagement of Everbright Water with its stakeholders adequate?

光大水務與持份者的聯繫是否足夠？

100%

Voice of Stakeholders
持份者聲音



Government 政府

"Everbright Water has made great efforts in business expansion and is excellent in project operation, and has a wide range of businesses. It has made positive impact on the society."

「光大水務的業務拓展力度大，運營項目優良，業務範圍廣泛，對社會帶來良好影響。」



Investment Analysts 投資分析員

"Very comprehensive disclosure which covers all key material issues."

「非常全面的披露，涵蓋所有重要物質性議題。」



Local Communities 當地社區

"The Company's operation is safe and stable, which has made positive contributions to the management of the local water environment."

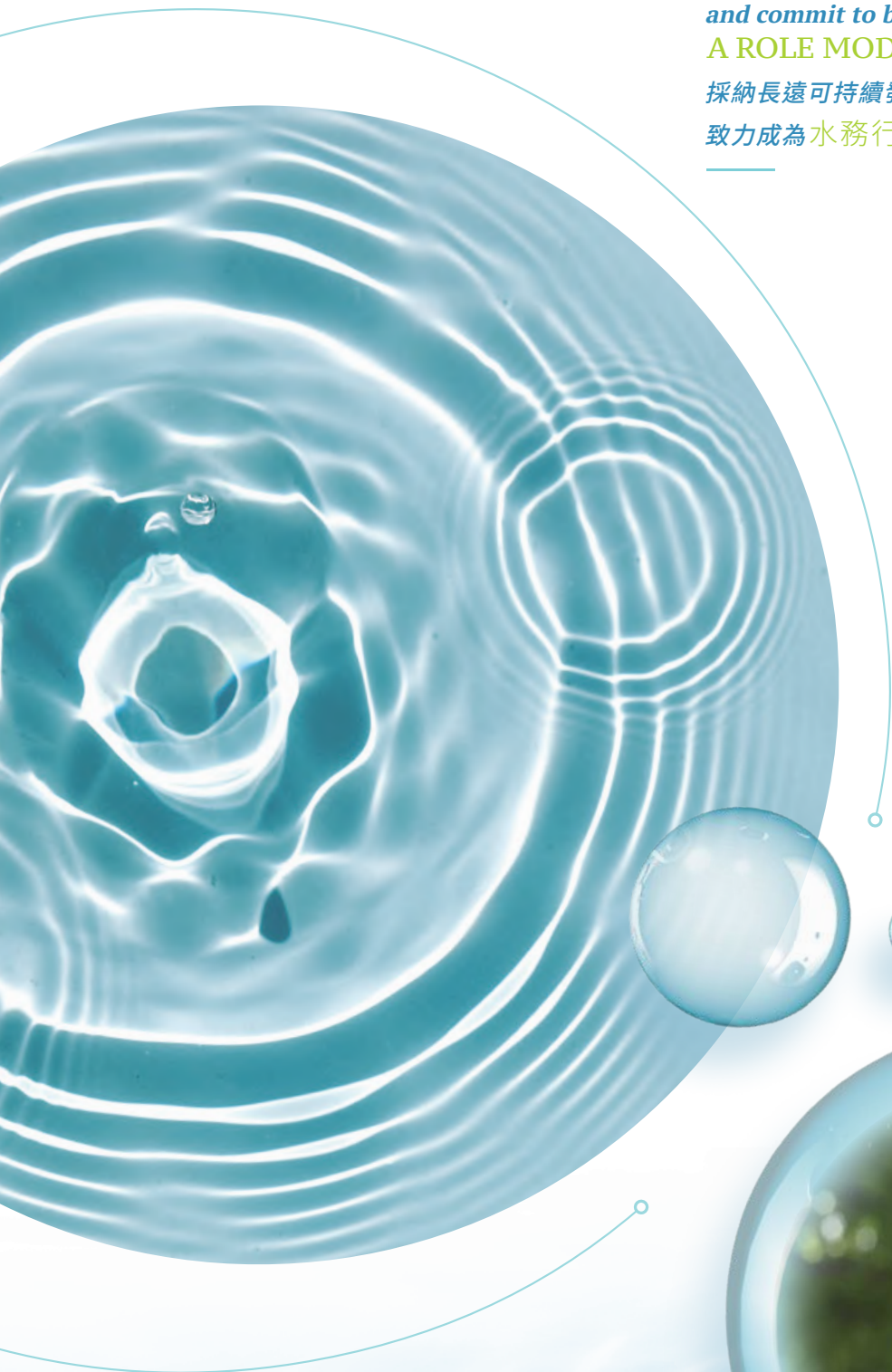
「本公司運營安全穩定，為公司駐地的水環境治理，做出了積極的貢獻。」

We incorporate long-term sustainable development strategies and commit to becoming

A ROLE MODEL IN WATER INDUSTRY

採納長遠可持續發展方針，

致力成為水務行業企業模範



Everbright Water is an environmental protection enterprise focusing on water environment management. It is listed on the Mainboard of SGX and the Main Board of the SEHK (stock codes: U9E.SG & 1857.HK) with its controlling shareholder being Everbright Environment (stock code: 257.HK).



光大水務是以水環境綜合治理業務為主業的環保集團，為新交所及聯交所主板上市公司（股份代號：U9E.SG及1857.HK），其控股股東為光大環境（股份代號：257.HK）。



Business Overview

Everbright Water is a leading water environment management enterprise in China with diversified and comprehensive businesses, including raw water protection, water supply, municipal waste water treatment, industrial waste water treatment, reusable water, river-basin ecological restoration, sludge treatment and disposal, etc. The Company has formed a full industry chain in the water business, specialising in project investment, planning and design, technology R&D, engineering and construction, operations management, etc. Its geographical footprint spans across East, Central, South, North, Northeast and Northwest China, covering 12 provinces, municipalities and autonomous regions in China, namely Beijing, Tianjin, Hebei, Jiangsu, Zhejiang, Shandong, Shaanxi, Henan, Hubei, Guangxi, Liaoning and Inner Mongolia. The Company also has overseas business presence in Mauritius.

業務概覽

光大水務作為中國水環境綜合治理領域的業界魁首，業務範圍廣泛多元，包括原水保護、供水、市政污水處理、工業廢水處理、中水回用、流域治理、污泥處理處置等，精專於項目投資、規劃設計、科技研發、工程建設、運營管理等業務領域，形成水務行業全產業鏈佈局。業務分佈於中國華東、華中、華南、華北、東北及西北地區，涵蓋北京、天津、河北、江蘇、浙江、山東、陝西、河南、湖北、廣西、遼寧、內蒙古共計12個省市自治區，海外業務佈局毛里求斯。



As at 31 December 2021
截至二零二一年十二月三十一日



Project Investment and EPC/O&M Projects

As at 31 December 2021, Everbright Water invested in and held a total of 153 projects, with a total investment of approximately RMB28.43 billion, and undertook 4 EPC projects and 3 O&M projects.

項目投資及EPC/委託運營項目

截至二零二一年十二月三十一日，光大水務投資並持有153個水務項目，涉及總投資約284.3億元人民幣，另承接4個EPC項目及3個委託運營項目。



Intelligent Water

In recent years, Everbright Water has made good progress in establishing and improving the information system, and has achieved success in implementing smart systems in waste water treatment plants, facilitating the exploration and promotion of digitalisation of urban water business. The Group has published the *China Everbright Water Limited Intelligent Water Whitepaper*, which analyses and discusses the application scenarios, technical options and implementation approaches relating to “Intelligent Water” in the future. The whitepaper aims to nurture the technical and management advancement among enterprises and in the industry.

Response to the COVID-19 Pandemic

During the COVID-19 pandemic, the Group has, through the overall technical and management upgrade, promptly deployed relevant measures to safeguard the well-being of its employees and ensured the smooth operation of its projects. In addition, the Group helped prevent secondary virus transmission in communities through intermediaries such as waste water, and achieved “safe production with compliant discharge”.

Business Highlights in 2021

As at 31 December 2021



- Revenue of approximately HK\$6.91 billion, with total assets of approximately HK\$33 billion
- Provided services and products, which amounted to a total contract value of over RMB100 million
- 28 patents granted (including 25 utility models, 1 invention patent and 2 software copyrights) and published 28 technical papers
- The Group’s projects treated approximately 1.6987 billion m³ waste water and produced approximately 28.53 million m³ reusable water, representing increases of 8.95% and 17.26% respectively compared with 2020

Note:

⁽¹⁾ Excluding EPC Projects

智慧水務

近年來，光大水務致力於信息化建設，並於污水處理廠的智能化建設方面取得一定成效，有助探索和推動數字化新型城市水務。本集團發佈了《中國光大水務有限公司智慧水務白皮書》，分析和探討未來「智慧水務」主題的應用場景、技術選擇、實施方法等，促進企業乃至行業的整體技術和管理升級。

應對新冠疫情

新冠疫情期間，通過整體技術和管理升級，本集團及時瞬速地在保障員工的健康安全和項目穩定運營方面作出部署，並致力協助當地社區防止病毒透過污水等廢棄物媒介產生二次傳播，實現「安全生產、達標排放」。

二零二一年業務亮點

截至二零二一年十二月三十一日

- 收入約69.1億港元，總資產約330億港元
- 提供外部技術服務及產品，相關服務及產品合同涉及金額超過1億元人民幣
- 獲得授權專利28項（包括實用新型專利25項、發明專利1項及軟件著作權2項），發表技術論文28篇
- 旗下各項目共處理污水約16.987億立方米、生產中水約2,853萬立方米，較二零二零年分別增長8.95%和17.26%

附註：

⁽¹⁾ 不含EPC項目



Business expansion
業務擴展

The Group has, through its wholly-owned subsidiary, Beijing Everbright Water Investment Management Co., Ltd., completed the purchase of 65% equity interest in Tianjin Binhai New Area Huantang Sewage Treatment Co., Ltd. (“**Tianjin Huantang**”) from Tianjin Binhai Environmental Protection Asset Development Co., Ltd.

本集團已經透過其全資附屬公司北京光大水務投資管理有限公司完成向天津濱海環保產業發展有限公司購買天津濱海新區環塘污水處理有限公司（「**天津環塘**」）65%的股權。

Tianjin Huantang is principally engaged in waste water treatment and recycling; pipeline engineering; municipal engineering; construction, management, operation, technical consultation and ancillary services of waste water treatment and reusable water facilities; R&D and operation of environmental protection technology and environmental protection products; renewable resources utilisation and operation; sludge dewatering treatment and its application. Such purchase was part of the Group’s strategy to expand its water business, laying a good foundation for securing other water projects in the region in the future.

天津環塘主要從事污水處理及再生利用；管道工程；市政工程；污水及中水設施的建設、管理、經營、技術諮詢及配套服務；環保科技及環保產品的研發與經營，再生資源利用及經營；污泥乾化處理及其應用。此次購買擴大了本集團水務業務，為日後於該地區取得其他水務項目奠定良好基礎。

In addition, during the Reporting Period, the Group expanded its business footprint to Mauritius, and signed a 7-year O&M project agreement in relation to Mauritius St. Martin Waste Water Treatment Plant Operation and Management Project, of which the designed daily waste water treatment capacity is 69,000 m³.

此外，本集團於報告期內把業務擴展至毛里求斯，簽訂了為期七年的委託運營項目，負責毛里求斯聖馬丁污水處理廠委託運營項目，其設計污水處理規模為69,000立方米/日。

The Group's Featured Environmental Protection Businesses

本集團特色環保業務

Sponge City 海綿城市

"Sponge City" is a new form of urban rainwater management concept. By adapting to the natural environment with resilience and the following six principles of integrated flood control management, including "infiltration, stagnation, storage, purification, utilisation and drainage", Sponge City facilitates effective drainage and harvesting of rainwater, strengthens the urban ecosystem and promotes sustainable development. Through enhancing a city's ability in absorption, infiltration, retention, release and purification of rainwater, Sponge City improves the city's resilience against climate change. Sponge City resolves urban waterlogging issue and conserves water resources through restoring the natural water cycle in cities, thus alleviating urban heat island effect and improving the urban living conditions.

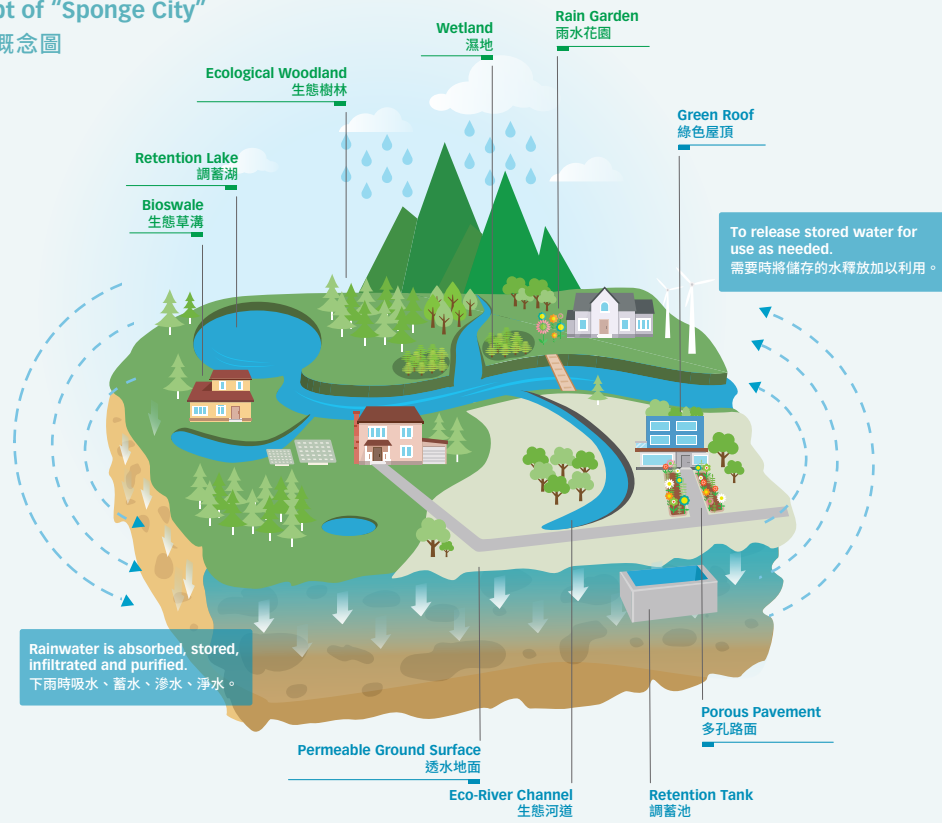
「海綿城市」是新一代城市雨洪管理概念，以「順應自然，彈性適應」的方式模擬大自然水循環，遵循「滲、滯、蓄、淨、用、排」六個方針的整合防洪管理，疏導和回用雨水，改善城市生態系統及促進可持續發展。海綿城市旨在透過提升城市對雨水的吸納、蓄滲、緩釋和淨化能力，加強城市對氣候變化的應變能力。海綿城市利用復原城市自然水循環的方法，解決內澇問題及保護水資源，同時緩解熱島效應，提高城市居住品質。

6 Main Functions of Sponge City 海綿城市的六大水務功能

Water security development 水安全建設	Water landscape planning 水景觀規劃	Water environment protection 水環境保護
Water ecological restoration 水生態恢復	Water culture inheritance 水文化傳承	Water economic development 水經濟發展

The Concept of "Sponge City"

「海綿城市」概念圖



Putting “Sponge City” Concept into Practice – Zhenjiang Sponge City
Construction Public-Private Partnership (“PPP”) Project
「海綿城市」概念實踐—鎮江海綿城市建設政府和社會資本合作（「PPP」）項目



Zhenjiang Sponge City Construction PPP Project (“**Zhenjiang Sponge City Project**”) is the Group’s key demonstration project to showcase the “Sponge City” concept. Located at the scenic belt of Jinshan Lake of Zhenjiang City, Jiangsu Province, the project’s engineering design emphasises on conservation and enhancement of the local ecosystem through measures including natural embankments, gentle river banks and artificial plant landscaping. The ultimate goal is to create a scenic green belt that facilitates the utilisation of rainwater and ecological environment protection, with a series of water retention tanks, rainwater pumping stations, rainwater drainage networks and waste water treatment facilities to significantly improve Zhenjiang City’s abilities in flood prevention and pollution reduction.

鎮江海綿城市建設PPP項目（「**鎮江海綿城市項目**」）為本集團旗下的「海綿城市」概念重點示範項目。項目位於江蘇省鎮江市金山湖風光帶，工程設計重點強調通過自然駁岸、緩坡入水、植物造景等生態化手段，保育及美化當地生態環境，建設一條有機的風景綠廊。該項目建立了一系列調蓄池、雨水泵站、雨水管網和污水處理設施，將大幅提升鎮江市的內澇防治的能力並削減污染，促進雨水利用和生態環境保護。

The largest single sub-project under Zhenjiang Sponge City Project is the Waste Water Overflow Pollution Control Project Along Jinshan Lake. The sub-project implemented the Combined Sewer Overflow (CSO) management strategy with a focus on the control of surface runoff and sewer overflow pollution. The construction involves the installation of large-diameter pipes at the bottom of Jinshan Lake to collect and transfer rainwater to waste water treatment plants and wetlands for treatment prior to discharge. Through measures including water bodies transformation, river bank stabilisation and wetland restoration, the sub-project promotes the city's rainwater infiltration, storage and purification capacity, significantly improving the water and landscape quality in the area.

鎮江海綿城市項目中的最大單體工程是沿金山湖合流污水溢流污染控制工程，該子項目採用合流制溢流污染綜合治理方案，針對控制地表徑流和溢流污染。工程主要在金山湖底下鋪設大口徑管道，將雨水收集運送到污水處理廠和濕地處理。項目透過改造水體、整治岸坡、復原濕地等多項措施，發揮了滲透、儲蓄和淨化雨水的的作用，大大改善城內水質和美化景觀。

This Project was shortlisted as Top 5 and received an Honorary Mention in the "Building Back Better Infrastructure Award" of the United Nations Economic Commission for Europe ("UNECE"). Additionally, it was regarded as one of the best "People-first" PPP projects and presented at the 5th International PPP Forum of UNECE.

此項目在聯合國歐洲經濟委員會（「聯合國歐經會」）「更好重建」基礎設施獎項(Building Back Better Infrastructure Award)評選中躋身五強並榮獲「榮譽提名獎」，亦作為最佳「以人為本」(People-first) PPP項目之一在聯合國歐經會第五屆國際PPP論壇上進行案例展示。

In addition, the project aligns with the *Urban Black and Odorous Water Bodies Management Measures of Jiangsu Province*, incorporating black and odorous water management system into the sponge city design. The combined management approach is essential to the upgrading of the tributaries of Jinshan Lake within Zhenjiang City, and will ultimately purify the city's water resources.

與此同時，本項目亦配合《江蘇省城市黑臭水體整治行動方案》，將黑臭水體整治系統與海綿城市建設進行深度融合，對鎮江市內幾條流入金山湖的黑臭河流進行同步改造，淨化城市水資源。

Project goals 項目目標

<p>Improve Water Quality 改善水質</p>	<p>Improve Drainage 加強排水能力</p>	
<p>Eliminate 91% of pollutants (including ammonia, chemical oxygen demand ("COD"), & suspended solids ("SS"), etc.) 削減91%的污染物(包括氨氮、化學需氧量 ("COD") 及懸浮固體 ("懸浮固體") 等)</p>	<p>Prevent flooding in the city 小雨不積水、大雨不內澇</p>	
<p>Enhance Flood Prevention Capacity 提升防洪能力</p>	<p>Conservation & Revitalisation 活化保育</p>	<p>Embellish Landscape 美化景觀</p>
<p>Enable withstanding flood that occurs once in 30 years 可有效應對30年一遇洪水</p>	<p>Enhance biodiversity and ecological value 增加生物多樣性和提升生態價值</p>	<p>Transform Jinshan Lake into a new landmark in Zhenjiang with clear water 更清澈的金山湖成為鎮江新地標</p>

Waste Water Treatment 污水處理

Generally, waste water treatment plants occupy a large area of developable land, and may affect the property prices and land value, thereby affecting the development of nearby lands. As such, many local governments are willing to increase construction expenses and operational costs for developing underground waste water treatment plants, which in turn will reduce the impact on land development. The Group is actively keeping up with the trend of constructing underground waste water treatment plants and determined to be the leader and advocator of enhanced ecological conservation.

污水處理廠普遍佔用大範圍可開發的土地，而且會影響土地和樓盤價格，對周邊土地的開發有重大影響。現時有不少地方政府願意支付較高的建設和運營開支，採用地下式污水處理廠，以減低對土地開發的影響。本集團亦積極響應地下污水處理廠建設的趨勢，成為良好生態文明建設的宣傳者和實行者。

Ji'nan Huashan Waste Water Treatment Project is the Group's first fully underground waste water treatment plant, with a designed daily treatment capacity of 30,000 m³; Ji'nan East Station Area Underground Waste Water Treatment Project of the Group also adopts fully-underground design, with a designed daily treatment capacity of 100,000 m³.

濟南華山水質淨化項目為本集團旗下首個全地下污水處理廠，設計處理規模三萬立方米/日；濟南東站片區地下污水處理項目同樣採用全地下設計，設計規模達到十萬立方米/日。



Ji'nan Huashan Waste Water Treatment Project
濟南華山水質淨化項目

River-Basin Ecological Restoration 流域治理

River-basin ecological restoration refers to the integrated treatment within the river and land boundary through artificial restoration measures to improve flood prevention and stormwater drainage. In addition, it will promote the aquatic ecological enhancement and build an aesthetically pleasant, healthy and comprehensive river ecosystem.

流域治理 (或河道生態治理) 是指在河道陸域控制線內實施綜合整治，通過人工修復措施大大提升防洪排澇功能，同時促進河道的水生態發展，構建美觀、健康和完整的河道水生態系統。

The Concept of River-Basin Ecological Restoration Project 流域治理項目概念圖



River-Basin Ecological Restoration Project 流域治理項目

The Group's first key project in the river-basin ecological restoration area is the Nanjing Municipal Water PPP Project, which has a total investment of approximately RMB275 million. Another key project of the Group in this area is the Nanning Shuitang River Integrated Restoration PPP Project, which commands a total investment of approximately RMB1.5 billion. Such projects enhance the relevant cities' resilience against flooding through improvement in water quality, river dredging, river widening, transect restoration, riverbank greenery and river and discharge point restoration, etc. They also protect and increase the ecological value of the relevant local areas.

本集團重點建設首個河道流域治理項目為南京涉水市政工程PPP項目，總投資額約2.75億元人民幣。本集團另一個重點水環境綜合治理項目為南寧水塘江綜合整治工程PPP項目，總投資額約15億元人民幣。該等項目透過改善河流水質、提供河流疏浚、河道拓寬、斷面修整、岸坡綠化以及河道和排污口整治等治理工程，加強涉水城市防洪能力，並維護及提升當地的生態價值。

Raw Water Protection 原水保護



Zhejiang Tongxiang Project
浙江桐鄉項目

The Group has expanded its business to raw water protection. Amidst the challenges of climate change and increasing water scarcity, the Group is committed to ensuring the quality and safety of water supply sources, as well as protecting precious ecological wetlands and drinking water resources.

本集團已將業務拓展至原水保護領域。面對氣候變化和水資源日趨缺乏的挑戰，本集團致力為供水水源的水質和供給安全提供保障，維護珍貴的水生態環境與飲用水資源。

Located in Zhejiang Province, Zhejiang Tongxiang West Area Drinking Water Sources Protection PPP Project ("Zhejiang Tongxiang Project") is the Group's first drinking water source wetland protection project, with a total investment of approximately RMB1.253 billion. The project involves investment, construction and operation of water intake

pumping stations, raw water pipelines and ecological wetlands, including ecological engineering project, controlled construction, soil conservation project, surrounding water conservancy compensation project and "Intelligent Water" system, covering a total construction area of approximately 5,400 mu. Upon completion of construction and commencement of operation, the project will effectively improve the quality of water supply in Tongxiang City, ensure the safety of drinking water for local residents, and strengthen the resilience of local water treatment plants.

浙江桐鄉西部飲用水源保護建設工程PPP項目（「浙江桐鄉項目」）位於浙江省，是本集團首個飲用水源濕地保護項目，總投資額約12.53億元人民幣。該項目涉及投資、建設和運營新建取水泵站、原水管線工程及生態濕地工程，包括生態濕地工程、控制性建築物、水土涵養工程、周邊水利補償工程和「智慧水務」系統，工程佔地約5,400畝。該項目建成投運後，將有效提升桐鄉市供水水質，為居民用水安全提供可靠保障，並增強當地水廠的抗風險能力。

Business Outlook

Against the backdrop of the complex international situation and stable domestic environment, the country's "14th Five-Year Plan" and the "Long-Range Objectives Through the Year 2035" have clearly stipulated the requirements on ecological conservation and environmental protection. The "Central Economic Work Conference" included "Dual Carbons" as one of the eight main tasks in 2021, aiming to create synergy effect for the reduction of pollution and carbon emissions. Water environment management has been regarded as an important task in the country's plan for ecological civilisation and pollution control and elevated to an unprecedented high strategic level. "High-quality development" will become the keyword for the water environment management industry during the "14th Five-Year Plan" period .

As a water company in China, the Group will keep up the pace of "Dual Carbons", and focus on three aspects: quality and efficiency improvement, green infrastructure, and self-sufficient energy. In addition, amidst the uncertain external environment, the Group has established a series of business development strategies to continuously improve its business performance. Such strategies include actively seizing opportunities in the national strategic areas, continuously improving the balance between asset-light and asset-heavy businesses to enhance its business efficiency and profitability, harnessing the strength of its technology R&D platform, accelerating the digitisation and "resource recovery" to boost value, and leveraging its dual listing status in Singapore and Hong Kong to drive business integration with capital. The Group is confident that it will overcome all the obstacles, continue to enhance its business performance, and seize opportunities to embark the journey towards "high-quality development". With the goal of being a top-tier "developer and service provider dedicated to urban water environment systems", the Group strives to contribute "Everbright" power to the water environment management business.

For details of the Group's business and prospects, please refer to the Annual Report 2021.

業務前景

面對錯綜複雜的國際形勢及穩中向好的國內環境，國家「十四五」規劃和「二零三五年遠景目標」建議對生態環境保護提出明確要求，「做好雙碳工作」已被「中央經濟工作會議」列為二零二一年八項重點任務之一，明確推動實現減污降碳協同效應。水環境綜合治理作為國家生態文明建設及污染防控的重要任務，已被提升至前所未有的歷史戰略高度，「高質量發展」將成為水環境綜合治理行業在「十四五」規劃期間的關鍵詞。

作為中國水務企業，本集團要跟上「雙碳」步伐就必須重點關注提質增效、綠色設施和能源自給三方面。此外，為了在充滿不確定性的外部環境中持續提升經濟效益，本集團已制定一系列業務發展方針以緊緊把握國家戰略與政策，包括重點佈局國家戰略區域、持續優化輕重資產配置以提升本公司經營效益、充分發揮創新技術研發平台優勢、加快數字化及「資源化」建設以提升價值創造、透過新港兩地上市企業的優勢以推動產業整合等。本集團有信心能夠從容應對各類挑戰，戮力同心繼續提升本集團的經濟效益，緊抓機遇並踏上「高質量發展」的新征程，向成長為一流「城市水環境系統開發服務商」的目標奮楫前行，為水環境綜合治理事業貢獻「光大」力量。

有關本集團業務和展望的詳情，請參閱二零二一年度報告。



***We foster ALL-WIN SITUATION
IN ECONOMIC, SOCIAL AND
ENVIRONMENTAL ASPECTS by creating
green operation concept and practising
green management***

**構建綠色經營理念、踐行綠色管理，
取得經濟、社會與環境的共贏局面**

Strengthening its corporate governance is the key to ensure an efficient, healthy and sustainable development of the Group. The Group is devoted to creating long-term value for its stakeholders and building a sustainable future for the Group. In order to ensure its core values in social responsibility and risk management are protected, the Group implements the comprehensive Environmental, Safety, Health and Social Responsibility (“**ESHS**”) Management System (“**ESHS Management System**”) and Risk Management System, integrating them with daily operational management and making timely and comprehensive information disclosure. To demonstrate its commitment in creating a fair and just society and sustainable environment, the Group incorporates sustainable development and corporate social responsibility into its governance structure from board level to project level in its business units.

Corporate Governance Structure for Sustainable Development

The Group has established a sustainable corporate governance structure. To ensure that the visions and missions of sustainable development are integrated into its operations, the Group’s corporate governance structure stipulates the responsibilities of the committees of the Board (the “**Board Committees**”), departments and project companies, under the supervision of the Board.

加強企業管治是確保本集團高效、健康和可持續發展的基礎。透過實施全面的環境、安全、健康及社會責任（「**ESHS**」）管理體系（「**ESHS管理體系**」）和風險管理體系，並與日常經營管理有機結合，以及進行適時全面的信息披露，為本公司的管理架構保駕護航，確保本公司各項業務在社會責任和風險管理方面的核心價值始終如一，致力為持份者創造長遠價值，為本集團建立可持續的未來。為充分展現光大水務對建構公平正義社會與永續環境的承諾，本集團將可持續發展及企業社會責任納入整個集團的企業管治架構，上至董事會層面下至項目層面的部門及各業務單位。

可持續發展管治架構

本集團建立了可持續發展管治架構，明確了在董事會監督下各董事會轄屬委員會（「**董事會委員會**」）、部門以及項目公司的職責，以確保將可持續發展願景及使命融入本集團的運營。



Top-level governance body
最高管治機構

The Board
董事會

Responsible for identifying the key stakeholder groups, considering the sustainability issues as part of the Group's strategic formulation and assuming responsibility for corporate governance, etc.
負責識別關鍵的持份者群體，在制定本集團戰略時考慮可持續性問題，承擔企業管治的責任等。

Report 匯報 ↑ ↓ Delegate 委派

**Board Committee/
Management level**
董事會委員會/管理層層面

Strategy Committee
戰略委員會

Responsible for assisting the Board in providing strategic directions to the Group, and overseeing the implementation and management of the ESG factors that are material to the business of the Group.
負責協助董事會制定本集團的戰略方向，監督對本集團業務有重大影響的ESG因素的實行和管理。

Report 匯報 ↑ ↓ Manage 管理

Management Committee⁽¹⁾
管理委員會⁽¹⁾

Responsible for the decision-making and management of significant topics in relation to the Group's social responsibility.
負責與本集團社會責任相關之重大議題的決策和管理。

Report 匯報 ↑ ↓ Manage 管理

Functional departments at headquarters level
總部職能部門層面

Operations Management Department/Department of Safety and Environment Management/Legal & Risk Management Department
運營管理部/安全與環境管理部/法律及風險管理部

Responsible for overseeing the sustainability performance of the Group and each of its project companies.
負責監督本集團以及每個項目公司的可持續發展績效。

Report 匯報 ↑ ↓ Manage 管理

Project level
項目層面

Department of Safety and Environment Management/Specialist
安全與環境管理部/專員

Department of Safety and Environment Management/specialist is established/appointed in all projects under construction and in operation, responsible for implementing the sustainable development plans and monitoring the sustainability performance of the projects.
所有在建及運營項目均設有/委任安全與環境管理部/專員，負責落實可持續發展計劃及監督項目的可持續發展表現。

Note:
附註：

- (1) The Management Committee has ceased to be a Board Committee with effect from 11 August 2021.
- (1) 管理委員會自二零二一年八月十一日起不再作為董事會委員會。

Apart from the support from the functional departments at its headquarters, the Group invites external consultants to provide regular training to the Directors and share with them the latest information on popular topics (e.g. regulatory updates, economic, environmental and social issues), in order to continuously enhance the Directors' leadership in sustainable development practices. The Board and the senior management review issues and policies related to the Group's sustainable development annually, make amendments to the policies in a timely manner, and review and approve the sustainability report.

During the Reporting Period, Everbright Water held six Board meetings. All relevant Board committees and senior management reported to the Board on economic, environmental and social issues, and the Board reviewed the impact, risks and opportunities brought by the issues to the Group to ensure the effective implementation of the Group's sustainable development strategy.

ESHS Management

As a leading corporate in China's water environment management industry, the Group is committed to maintaining stable and good operations management as part of its social responsibility, and ensures products and services meet the relevant local, national and international safety and environmental standards and regulations. To further integrate such requirements into its operation, the Group has, since 2016, fully implemented the ESHS Management System, which improved the environmental, health and safety standards of products and services. The system consists of four parts, including environmental management, safe production management, occupational health management, and social responsibility management. The system is formulated based on the relevant international and domestic management systems and experience and ensures strict compliance with all the laws, regulations, and standards regarding environmental protection, safe production, occupational health, and social responsibility. In addition to promoting the Group's internal sustainable development, the system also standardises the internal management and risk control in all different processes. As such, the sustainable environment development and safety culture and policies are implemented at all levels, including all its employees and on-site third-party contractors and subcontractors. The system also minimises the environmental, safety, health and social impacts on the project areas as well as the indigenous peoples.

除了得到總部各職能部門之輔助外，為持續提升董事們在領導可持續發展工作方面的能力，本集團定期邀請外部顧問為董事提供熱門課題（如最新法規、經濟、環境、社會事務）的培訓及資料。董事會和高級管理層會定期檢視本集團的可持續發展議題及政策，適時作出修訂，並審閱及批准可持續發展報告。

於報告期內，光大水務舉行了六次董事會會議。各相關董事會委員會及高級管理層就經濟、環境和社會議題向董事會作出匯報，並由董事會審議議題為本集團帶來的影響、風險和機遇，以確保本集團的可持續發展策略得以有效實行。

ESHS管理

本集團作為中國水環境治理的龍頭環保企業，深信維持穩定和良好的企業運營管理為自身社會責任，確保旗下產品和服務符合相關國際、國家和地方的環境及健康安全標準及法規。為進一步把制度要求融入運營實踐中，本集團於二零一六年起全面實施ESHS管理體系，提升其產品和服務的環境及健康安全水平。該體系針對環境管理、安全生產管理、職業健康管理、社會責任管理四個部分，根據國際、國內相關的管理體系和經驗，確保本集團嚴格遵守所有相關環境保護、安全生產、職業健康與社會責任的法規和標準。此體系不僅推動本集團內部的可持續發展，更規範各個環節的內部管理及風險管控，將可持續的環境發展與安全文化和政策延伸到本集團各級部門和各個層面，包括旗下所有員工及駐場第三方承包商及分包商。該體系亦同時保障本集團項目對所在地原住民以及當地環境、安全、健康和社會方面的影響降至最低。



The Group has also been actively evaluating its environmental and social performance in accordance with the internationally recognised standards including the World Bank Group's *Environmental, Health, and Safety Guidelines*, and has been submitting its environmental and social monitoring reports to International Finance Corporation ("IFC") annually since 2016. Such monitoring reports cover all projects of the Group, including projects in the preparatory stage, projects under construction, projects that completed construction, and projects in operation.

In order to identify and eliminate occupational hazards and risks at an early stage, the Group has formulated the *ESHs Audit Management Standards* to implement the ESHS Management System at project companies and to conduct audits on their ESHS performance so as to determine if any preventive and corrective measures for ESHS performance are required. The Group conducts internal on-site ESHS audits annually for all of its projects under construction and in operation.

本集團亦積極按照世界銀行集團《環境、健康和生產指南》等國際認可的標準評估其環境及社會表現，並自二零一六年起每年向國際金融公司（「IFC」）提交環境和社會監測報告。監測報告的範圍涵蓋本集團的所有項目，包括籌建項目、在建項目、建成完工項目及運營項目。

為盡早識別和消除職業危害及風險，本集團制定了《ESHs審核管理標準》，在項目公司實施ESHs管理體系，審核項目公司在ESHs方面的表現，並確認是否需要對項目公司現場的ESHs表現採取預防及整改措施。本集團旗下所有在建及運營項目每年均會進行一次內部ESHs現場審核。

Everbright Water (Ji'nan) Limited (“**EB Water Ji'nan**”) has consolidated, in particular ESHS Management System, Risk Management System through Standardised Operational Procedures (“**SOP**”) (“**SOP Risk Management System**”) and Version I Quality, Environment, Occupational Health and Safety Integrated Management System to improve efficiency and integrate production with safety. Such innovative management will meet the standards in three aspects, including safety work implementation, equipment maintenance and production record inspection.

Business Principles

The Group has formulated prudent policies and measures to promote and maintain integrity. The Group's *Code of Conduct* provides clear guidelines for all employees' behaviour, including issues such as equal opportunity, anti-discrimination, prevention of bribery, prevention of extortion, anti-fraud and anti-money laundering, and safeguarding employees' benefits and welfare. The Group requires all employees to strictly comply with such code, adhere to the honest and pragmatic management guidelines, and uphold ethics in business operations.

Prevention of Corruption and Anti-Competitive Behaviours

Everbright Water has formulated the *Guidelines for Management of Conflicts of Interest*. Such guidelines clearly set out the potential conflicts of interest in the business, and defines the division of works, prevention strategies and accountability systems for conflicts of interest, especially prohibition of facilitation payments. The Group prohibits bribery or any form of unethical inducement or payment, including facilitation payments. All employees must also refrain from any activity that may create a conflict of interest with the Group's business.

其中光大水務(濟南)有限公司(「**光大水務濟南**」)把ESHS管理體系、通過標準化操作流程(「**SOP**」)的風險管理體系(「**SOP風險管理體系**」)及I版質量、環境、職業健康安全一體化管理體系結合,務求將安全與生產緊密結合並提高工作效率。此創新合併管理方式能達至三大工作範疇標準,包括安全工作落實、設備保養驗收和生產台賬紀錄檢查。

營商原則

本集團制定了審慎的政策和措施,推廣及維持誠信文化。本集團的《行為守則》為員工的行為提供清晰指引,包括平等機會、反歧視、防止賄賂、防止勒索、反欺詐及反洗錢,以及保障員工待遇和福利等議題。本集團要求所有員工嚴格遵守該守則,並在業務運作中秉承誠信與務實的管理方針並堅持道德操守。

防止貪腐及反競爭行為

光大水務制定了《利益衝突管理指引》,除了清楚地列出業務上的潛在利益衝突情況,還釐定了利益衝突的管理分工、防範策略和問責制度,尤其禁止疏通款項。本集團禁止賄賂或任何形式的不道德誘因或付款,包括疏通費。所有員工亦須避免任何可能導致與本集團業務產生利益衝突的活動。

To strengthen the anti-corruption practice and enhance its employees' awareness on conflicts of interest and integrity issues, the Group provided to the Directors and employees 35 hours of training on anti-corruption during the year under review. Such training was attended by the Group's senior management, middle-level management and other employees. The training covers topics such as *Towards Integrity* and *20 Guidelines for Anti-Corruption* to emphasise the responsibility of anti-corruption. Striving to reduce the risk on corruption, the Group has actively strengthened the culture of integrity and consistently incorporated anti-corruption in its governance at all business levels. In addition to promoting the anti-corruption and integrity culture to its employees, the Group communicates its anti-corruption policy to all business partners, requiring business partners to abide by relevant laws and regulations, and conduct business ethically.

The Group prohibits any arrangement which prevents, restricts or distorts competition, including preventing competitors from collusion on key parameters of competition such as price, output or form of bidding which would harm competition in the water industry. Meanwhile, the Group prohibits any power-abusive behaviour from harming competition so as to ensure that consumers' choices are not limited.

為加強反貪腐實踐與員工對利益衝突及誠信事宜的警覺性，本集團於回顧年度內為董事及員工提供35小時防止貪腐的培訓，參與培訓的人員包括本集團高管、中層及其他各層級員工，培訓內容基於《送廉上門》及《廉政建設二十條規定》等學習材料，切實履行廉政建設的責任。本集團積極增進誠信文化，在各業務層面一直貫徹反貪腐的管治，致力減低貪腐風險。除了向所有光大水務的員工推廣反貪腐及廉潔文化外，本集團亦對所有商業夥伴溝通本集團的反貪腐政策，規定商業夥伴謹遵相關的法規，從道德角度出發，誠實地進行經營。

本集團禁止訂立任何妨礙、限制或扭曲競爭的安排，包括阻止競爭對手就關鍵的競爭元素（例如價格、產量或投標的方式）進行串通而損害水務行業的競爭。同時，本集團禁止任何濫用權勢損害競爭的行為，確保不會限制客戶的選擇。



Protection of Third-Party Privacy and Intellectual Property

The Group is devoted to protecting the privacy of third parties. Its *Privacy Policy* sets out the scope, standards, and procedures for employees and suppliers to handle privacy and information of third parties. In addition, the Group requires all parties to respect intellectual property rights by including the anti-copyright infringement terms in the policy. Its employees are also required to comply with the legal requirements in relation to collecting, possessing, processing, disclosing and using the personal data. The Group regularly evaluates the privacy risks of the business and the adequacy of measures to protect the privacy of individuals. When identifying risks on personal privacy and data security, the Group will respond promptly in accordance with data security incident procedures and ensure that personal data is protected from further unauthorised access or use. In the event of an incident involving copyright infringement, the Group's Legal and Risk Management Department will review the incident and provide legal advice.

Regular Review of System and Policy for Whistleblowing

The Group has established a regular review system to examine potential violations of ethics and professional ethics every year, conduct internal investigations for various violations and hold them accountable. The Group also analyses and evaluates the effectiveness of the implementation of the system and provides rectification suggestions to improve its corporate management.

保護第三方私隱及知識產權

本集團矢志保護第三方的個人私隱。本集團的《私隱政策》清楚列明員工及供應商在處理第三方私隱及資料時的範圍、標準及程序。此外，該政策亦包含了防止侵犯版權的條款，務求各方尊重知識產權。本集團亦要求員工遵守有關收集、保管、處理、披露及使用個人資料的適用法律規定。本集團定期評估業務的私隱風險，並衡量保障個人私隱的控制措施是否充足。當發現涉及個人私隱和資料安全的風險，本集團將迅速按照資料安全事故程序作出回應，並確保個人資料免受進一步未經許可的存取或使用。如涉及侵犯版權的事故，本集團的法律及風險管理部將審視事故並提供法律意見。

定期檢討制度及舉報政策

本集團建立了定期檢討制度，每年檢視違反道德和職業操守行為的隱患，對各種違規行為進行內部調查並予以追責；分析評估制度執行的有效性並提出整改意見，穩步提升企業管理水平。

The Group has set up an email address and a dedicated independent telephone number that is available in local languages to provide employees with an official whistleblowing channel to contact the chairman of the Audit Committee directly. Whistleblowers are also able to contact the chief executive officer of the Company (the “CEO”) directly through the CEO’s email address which is available on the Company’s website. The whistleblower channels operate 24/7 and employees are encouraged to report anonymously. Without the whistleblower’s consent, the identity of the whistleblower will not be disclosed unless it is a legal requirement, ensuring that the whistleblower can actively defend the Company’s moral standard. Employees can report any misconduct, malpractice and irregularities in relation to the Group in strict confidentiality while ensuring that employees have no fear of retaliation. All concerns or irregularities raised will be treated as confidential information and all efforts will be made to ensure that impartial and independent investigation is carried out and appropriate follow-up action is taken. During the Reporting Period, the Group did not receive any reports that had been verified to be true after investigation through the whistleblowing channels.

Biodiversity and Land Use Policy

Everbright Water is aware that the construction of new projects will cause disturbance to land and wildlife habitat. Therefore, its environmental management policy focuses on mitigating the impact on biodiversity. The Group is committed to promoting biodiversity, carefully treating the natural habitats and highly ecologically sensitive areas near the projects, and strives to fully protect the ecological environment near the projects.

Before commencing the construction of new project facilities, the Group will follow legal procedures to ensure that the environmental impact assessment report and approval, land use certificate, construction permit and other documents are obtained. In addition, in order to protect and identify the groups affected by the project, the Group will conduct a preliminary social evaluation of the development project at an early stage, assess the needs of each group such as affected households, indigenous peoples, vulnerable groups, etc., and implement corresponding procedures. These steps are to provide additional support on top of the compensatory measures from the local authorities.

本集團設立了接收舉報的電子郵箱和提供當地語言的獨立專線電話，旨在提供正式舉報渠道，讓員工可以直接聯繫審計委員會主席。舉報人也可通過本公司總裁（「總裁」）的電子郵箱（已在本公司網站上公佈）直接和他取得聯繫。本集團的舉報渠道全天候運作，並鼓勵員工匿名舉報，在未經舉報者同意或無法律要求下不會透露舉報者身份，以確保舉報者能在沒有後顧之憂的前提下積極捍衛本公司的道德標準。員工可在保密情況下舉報與本集團有關的任何不當、失職及違規行為，同時確保員工毋須畏懼報復。被提出的所有關注事項或違規行為都將被視為保密信息，本集團將確保妥善安排公平獨立的調查並作出適當跟進。於報告期內，本集團未通過舉報渠道收到任何查證屬實的報告。

生物多樣性與土地利用政策

光大水務意識到興建新項目會對土地及野生動物棲息地造成干擾，因此本集團的環境管理方針亦重點包含緩解對生物多樣性的影響。本集團致力推廣生物多樣性，細心謹慎對待項目附近的自然棲息地及高度生態敏感地區，力求充分保護項目附近的生態環境。

本集團在動工興建新項目設施前，均會按照法定程序，確保已取得環境影響評估報告及批覆、土地使用證、施工許可證等文件後才開始施工。此外，為保障及識別受項目影響的群體，本集團會在項目初期盡早對開發項目進行初步社會評價，評估各群體如受影響戶、原住民、弱勢群體等的需要，實施相應措施，致力於除提供當地政府要求的補償外也為他們提供額外支援。

In addition, the Group has formulated a *Biodiversity and Land Use Policy* to ensure that the following protection measures and design principles are adopted during project development:

此外，本集團已制定《生物多樣性與土地利用政策》，確保於項目發展時採取以下保護措施及設計原則：



Ecological environmental protection measures 生態環境保護措施

- Avoid constructing project facilities in nature reserves, ecological function areas, forest parks and dense forest areas (if possible) to reduce damage to vegetation areas.
盡量避免在自然保護區、生態功能區、森林公園和密集林區等區段興建項目設施，減少對植被區的破壞。
- Reasonable planning of permanent land occupation for water and waste water pipelines to reduce soil disturbance and damage to surface vegetation.
對供水及污水管網永久佔地進行合理規劃，以減少土壤擾動和地表植被破壞。
- If there is construction work, strictly monitor the on-site construction machines, delineate the scope of activities, and do not drive and operate outside the road to ensure that the vegetation outside the road is not damaged.
如有施工作業，嚴格管理現場施工作業機械，劃定活動範圍，不得在道路站場以外的地方行駛和作業，保障路外植被不被破壞。
- Raise staff's awareness on environmental protection, and regard protection of certain species under national key protection as an important task.
加強工作人員的環保意識，對國家重點保護的物種列入工程建設中的重要事項。
- If there is construction work, restore the original land use pattern as far as possible after the construction, and implement greening measures by planting trees and grass according to the climate.
如有施工作業，盡量於施工結束後恢復原有土地利用格局，並根據氣候條件採取種樹種草的綠化措施。



Biodiversity protection 生物多樣性保護

Protect wild plants

保護野生植物

- Avoid deforestation of wild plants (particularly the highly important nature protection areas) and cause damage to the ecological environment in the areas along the line.
避免對野生植物濫砍濫伐 (尤其要高度重視自然保護區段) 而造成沿線地區的生態環境破壞。

Protect wild animals

保護野生動物

- Promote the protection of wild animals, vigorously publicise the role of amphibians, reptiles and birds on the ecosystem, and prohibit construction workers from harming any wild animals.
推廣保護野生動物，大力宣傳兩棲、爬行動物、鳥類對生態系統的作用，禁止施工人員危害任何野生動物。

Environmental protection

環境保護

- Strengthen the protection of the water environment, avoid pollution or eutrophication of local waters along the construction line, and minimise the impact on aquatic organisms and their habitats.
加強水環境保護，避免施工作業沿線局部水域發生污染或富營養化，把對水生生物及其棲息環境的影響減至最低。

Education on protection

保護意識教育

- Strengthen public education on wildlife protection and ecological environmental protection.
強化教育公眾的野生動物保護意識和生態環境保護意識。



Indigenous peoples resettlement 原住民安置

- Protect the livelihood of those people who are affected by the project by prioritising their employment (if appropriate).
在合適情況下，優先聘請受項目影響的人士，使其生計得到保障。
- Incorporate social management clauses into construction contracts and ensure full compliance by contractors.
將社會管理條款納入施工合同，確保承包商完全遵守。
- Avoid bidding those projects located in socially sensitive areas.
避免投標位於社會敏感區的项目。

Risk Management

The Group attaches great importance to risk management. It has actively established a systematic, standardised and efficient Risk Management System and an internal monitoring system to safeguard the continuous improvement on internal controls. The Group adopts the precautionary principle in its risk control framework, and takes precautionary measures against the risks brought by its investments and operations based on environmental, social and governance factors, so as to reduce the potential impact of risks on its business.

The Group has established an efficient risk management structure. It is dedicated to preventing risks at source by establishing three lines of defence, including project companies, functional departments at the headquarters, and the Internal Audit Department. The Group has also set up special committees such as the Risk Assessment Committee, the Technology Committee and the Procurement Management Committee, which strengthen the specialised review and effectiveness of the progress on critical issues.

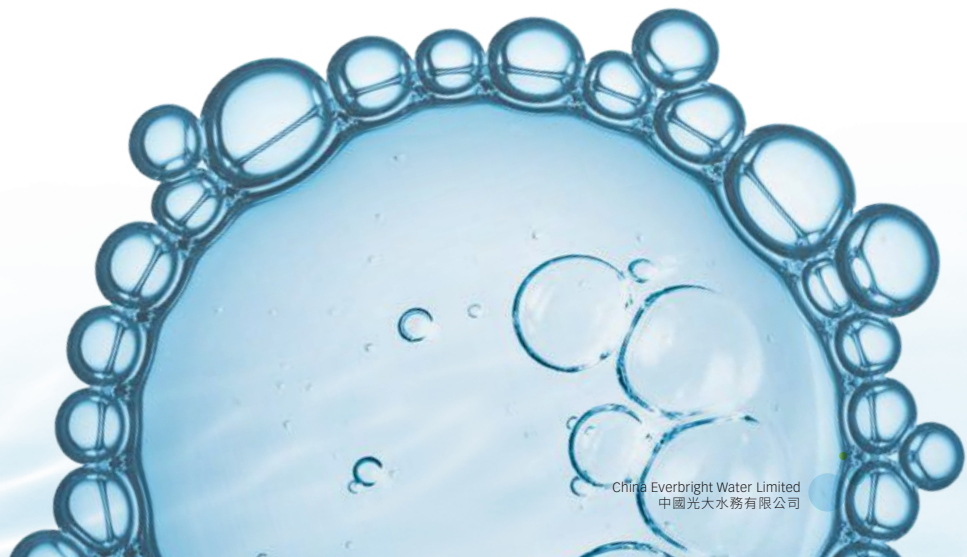
In addition, the Group carries out annual risk assessments to identify, control and regulate various types of risks. As an environmental enterprise which is closely connected with the water cycle, the Group recognises that climate change could bring significant risks to its business. Therefore, the Group is devoted to identifying relevant climate change risks and opportunities at all levels of its business, which include areas such as extreme weather, policy changes, environmental compliance, technology and innovation. Regular reviews and updates are also carried out. The Group is committed to mitigating, adapting and combating negative impacts brought by climate change on its business.

風險管理

本集團高度重視風險管理，積極建立系統、規範、高效的風險管理體系和內部監控系統，保障內部控制的不斷完善與進步。本集團的風險控制框架納入了預防原則，基於環境、社會和管治因素對本集團投資及運營帶來的風險採取預防性措施，以減低風險對業務造成的潛在衝擊。

本集團建立了高效的風險管理架構，並透過項目公司、總部各職能部門、內審部的三道風險控制防線，致力從源頭防範風險。本集團亦設立了風險評審委員會、技術委員會、採購委員會等專項委員會，強化了對於重點事項的專業審閱及有效推進。

此外，本集團堅持每年進行風險評估，以對本集團面臨的各類風險進行識別及管控。另外，作為與水循環密切相關的環境從業者，本集團深知氣候變化可能對業務構成重大風險。因此，本集團致力在所有業務層面識別相關的氣候變化風險與機遇（其中包括極端天氣、政策改變、環境合規、科技與創新等範疇），並會定期作出檢視與更新。本集團承諾以行動減緩、適應及抗禦氣候變化對業務所帶來的負面影響。



For the details of corporate governance, risk management and internal control, please refer to the Annual Report 2021.

有關本集團的企業管治、風險管理及內部控制的詳情，請參閱二零二一年度報告。

Supply Chain Management

Everbright Water views local suppliers as its important partners and cooperates with them in a fair and open manner. This facilitates the development of local communities at all provinces, municipalities, and autonomous regions (the “**Provinces**”) in China. The Group prioritises suppliers in the same Province when developing business all over the country in order to create employment opportunities for local communities and fulfil corporate social responsibility. Preference is also given to the environmentally- and socially-responsible suppliers, such as contractors who prioritise the purchase of reusable and renewable products or adopt low-emission construction processes, etc.

As at 31 December 2021, the Group engaged a total of 5,261 suppliers, all of which were based in mainland China⁽¹⁾. The principal services provided by these suppliers included equipment fitting, installation and construction. The Group outsourced services such as environmental monitoring, equipment maintenance, cleaning, security, and landscaping, involving 9,702 on-site outsourced workers.

供應鏈管理

光大水務視本地供應商為重要夥伴，堅持以公平、開放的方式與各供應商合作，促進中國各省、直轄市及自治區（「**省份**」）的當地發展。本集團於全國各地發展業務時，會優先選用位於同省份的供應商合作，為當地創造就業機會，履行企業社會責任；亦會盡可能選擇承擔環境及社會責任的供應商，例如優先選購可重用或再生產品、聘任採用低排放建設過程的承包商等，以鼓勵供應商支持可持續發展。

截至二零二一年十二月三十一日，與本集團建立合作關係的供應商共有5,261家，所有供應商均位於中國內地⁽¹⁾，主要服務包括設備配置、安裝與工程建設。本集團的外判服務包括環境監測、設備維修、清潔、保安和綠化等，共涉及9,702名駐場外判工人。

Note:

⁽¹⁾ The suppliers of Mauritius St. Martin Waste Water Treatment Plant Operation and Management Project were excluded.

附註：

⁽¹⁾ 不包括毛里求斯聖馬丁污水處理廠委託運營項目的供應商。

As at 31 December 2021
截至二零二一年十二月三十一日

Number of Suppliers by Geographical Region
按地區劃分的供應商數目

Mainland China
中國內地

5,261

Overseas
海外

0

Total
總數
5,261

Number of On-Site Outsourced Workers in 2021
二零二一年駐場外判工人數目

Environmental monitoring
環境監測

266

Equipment maintenance
設備維修

1,167

Cleaning
清潔

241

Others
其他

395

Security
保安

182

Landscaping
綠化

464

Catering
食堂

121

Construction Workers
建築工人

6,866

Total
總數
9,702

Supplier Management Measures

The Group is devoted to exerting a positive influence on the supply chain. The Group regularly communicates with suppliers and delivers messages regarding sustainability to all stakeholders to ensure sustainable development values are integrated into the supply chain. To identify and minimise the environmental and social risks in the supply chain, the Group has formulated and implemented a series of supplier management guidelines and integrated the environmental and social management into all processes of the supply chain:

供應商管理準則

本集團持續與供應商進行溝通，向供應鏈中各持份者傳達可持續發展的訊息，以確保本集團的可持續發展宗旨能夠融入到供應鏈中，並致力於讓供應鏈發揮正面影響。為了識別並降低供應鏈中的環境與社會風險，光大水務特別制定並落實以下供應商管理準則，在供應鏈的各個流程中落實環境與社會管理：

Code of Conduct for Suppliers 《供應商行為準則》

- Regulates the behaviours of suppliers in the economic, environmental and social aspects in a systematic way, in order to encourage suppliers to fulfil and jointly improve the sustainability performance of the supply chain. Such Code of Conduct also encourages the Group's suppliers to treat their subordinate suppliers with the same standards, so as to enhance the sustainability of the entire supply chain.
以系統性的方式規範供應商在經濟、環境及社會領域的行為，旨在鼓勵供應商履行並共同提高供應鏈的可持續發展表現。該行為準則更鼓勵本集團的供應商以相同的標準對待他們的從屬供應商，以提升整體供應鏈的可持續性。
- In terms of economic and governance aspects, suppliers are required to carry out and operate businesses with ethics and integrity, and to comply with relevant local, national and international laws and regulations. As for environmental aspect, suppliers are required to minimise the negative impacts on the environment during their operations and strengthen monitoring of environmental issues. In terms of social aspect, suppliers are required to comply with the relevant national labour policies and legislations, which include prevention of slavery, forced and bonded labour, child labour and abusive employment practices. Suppliers are also obliged to safeguard human rights of their employees and take due considerations of public welfare.
在經濟和管治層面，規定供應商進行商業活動時需要從道德角度出發，誠實地進行經營，並遵守當地及國際的相關法律；在環境層面，要求供應商在其運營中加大監控力度，盡量減少對環境的污染及負面影響；在社會層面，要求供應商遵守國家的勞工政策和法規，當中包括避免任何奴役、強迫勞動、抵押勞工、使用童工或虐待行為，維護員工的基本人權，並考慮公眾福利。
- In terms of employee treatment, suppliers must provide employees with a suitable living environment, set minimum living wages and maximum working hours to protect employees' well-being. Suppliers must also establish a good working environment for employees, protect employees from discrimination, and ensure that the health and safety of employees are fully safeguarded.
在員工待遇方面，規定供應商須為員工提供適宜居住環境，設立最低生活工資及最高工時，以保障員工福祉；供應商亦須為員工建立良好的工作環境，保護員工免受歧視，並確保員工的健康和安全得到全面保障。
- All suppliers shall comply with such Code of Conduct during their course of business with the Group or participation in any events related to the Group.
所有供應商在與本集團進行業務往來或參與任何與本集團有關的活動時都應遵守此準則。

Supplier Management Measures 《供應商管理辦法》

- Covers various topics such as the responsibilities of various suppliers on equipment, main materials, construction units, design units and operation centres, ranking and evaluation of suppliers, engagement of new suppliers, ongoing management of suppliers, management of unqualified suppliers, and disciplinary actions on misconduct.
涵蓋裝備、主材料、施工單位、設計單位、運營中心等供應商之職責分工、供應商等級及評價、新供應商的顧用、供應商動態管理、不合格供應商的管理和違規處罰等事宜的詳細規定和要求。
- Suppliers are categorised into four grades, namely A, B, C, and D based on the continuous evaluation of their professional level, financial status and compliance records. Business relationship may be terminated if the suppliers with the lowest grade fail to prove that they are capable of fulfilling the Group's requirements.
按照供應商的專業水平、財務狀況及合規記錄等對現有供應商進行持續評估，將供應商劃分為A、B、C、D四個等級，最低等級的供應商若無法證明其能夠達到本集團的要求，本集團或會終止與其合作。

Contractors ESHS Management Measures 《承包商ESHS管理標準》

- Aims to identify and control the environmental, social and safety risks during outsourcing by examining the contractors from the aspects of background, qualification, construction operation and environmental protection performances.
旨在審視承包商在背景、資質、施工作業及環保等方面的表現，藉此識別和控制工作外包過程中產生的環境、社會和安全風險。
- Contractors need to fill in the *Contractor ESHS Questionnaire* and provide relevant ESHS information to assist the Group in compiling the list of qualified contractors and ensuring that the suppliers and contractors comply with environmental and social responsibility management regulations, as well as any applicable national and local government regulations.
承包商需要填寫「承包商ESHS問卷調查表」，提供ESHS相關資料，以協助本集團整理合格承包商名單，並確保供應商和承包商遵守環境和社會責任的管理條例和法規，以及適用的國家和地方政府規定。
- The information required to be submitted includes whether the contractor has any certificate for international environmental management standard such as ISO 14001, whether it has conducted ESHS training and assessment and whether it has provided appropriate protective equipment for employees, etc.
要求提交的信息包括承包商是否擁有ISO 14001等國際環境管理標準認證、是否進行ESHS培訓與考核、是否為員工提供適當的保護裝備等。

The Group provides further guidance to its business partners to enhance their sustainability performance by issuing various policies and guidelines, including *Tender Management Measures* and *Management Measures for Appraisal Expert Database of Project Construction Procurement*.

Supplier Sustainability Risk Assessment

Amidst the global trend of sustainable development, the Group emphasises on corporate social responsibility as well as extending the strategy of sustainable development to its supply chain. In order to deepen the understanding of risks in the supply chain, the Group commissioned an independent consultant to carry out an assessment on its suppliers' sustainability risks and ESHS performance. In 2021, a total of 173 suppliers, whose businesses cover electrical equipment, pumping equipment and water treatment equipment, etc., participated in the survey and assessment. The scope of the assessment includes the qualifications of suppliers in terms of production, operation, and safety, etc., as well as their management systems related to quality, environment and society, etc.

The Group's effectiveness in sustainable supply chain management has been fully reflected in the results of the sustainability risk assessment. None of the assessed suppliers indicated that they were involved in any ongoing commercial litigation, nor being prosecuted or fined by the relevant authorities on environmental and social issues. Most assessed suppliers were applying for or had already obtained international certification for management standards including ISO 9001, ISO 14001, and ISO 45001, etc.; 54% of surveyed suppliers had formulated occupational health and safety policies and provided relevant training for employees. None of the surveyed suppliers indicated that they had any safety accident in the past 3 years. The Group has not identified any risks related to child labour or forced labour in the supply chain in the recent risk assessment.

本集團的《招標管理辦法》及《工程建設採購評審專家庫管理辦法》等相關制度亦進一步引領業務夥伴提升其可持續發展表現。

供應商可持續風險評估

在目前全球可持續發展的大趨勢下，本集團不僅強調企業自身履行社會責任，更重視將可持續發展的策略擴展至企業的供應鏈。為加深了解供應鏈內的風險，本集團委託了獨立顧問為本集團的供應商評估可持續性風險及ESHS方面的表現。於二零二一年，本集團邀請了約173家主要供應商接受評估。供應商的業務範圍包括電力設備、泵類設備及水處理設備等。評估涵蓋了供應商生產、經營及安全方面的資質，以及質量、環境和社會方面的管理體系等。

本次的可持續風險評估結果充分反映本集團在可持續供應鏈管理中的成效。被評估的所有供應商均表示企業現時沒有因環境和社會問題引發的商業訴訟正在進行中，也未被有關部門就環境和社會問題作出檢控或罰款。另外，大部分被評估的供應商均正在申請或已擁有了ISO 9001、ISO 14001及ISO 45001等國際認證；當中54%的受訪供應商訂立了職業健康及安全政策，並為員工提供相關培訓活動；所有受訪供應商均表示在過去三年沒有發生過任何安全事故。在該次風險評估中，本集團未有辨識到在供應鏈中任何與童工或強制勞動相關的風險。

The Group has commissioned an independent consultant and its internal ESHS management team to identify and assess the environmental and social risks of its suppliers through materiality assessment, and to determine the sustainability risks at each stage of the supply chain. The team identified and reviewed each supplier's sustainability risk factors and issues, including environmental performance, quality management, occupational health and safety, employee training, human rights policies, etc. Through collection and analysis of the data provided by the suppliers, the Group identified the most significant risk factors and issues. The Group categorised suppliers' risks into low, medium, and high levels according to the assessment results to determine their performance in corporate social responsibility. In this assessment, 64% of surveyed suppliers were classified into low-risk category, and the rest were in medium-risk category. No suppliers fell into high-risk category. In order to assist the suppliers with relatively higher risks to improve their management, the Group actively investigated their situations and provided recommendations to ensure their risks could be effectively controlled. In the future, the Group will continue to monitor the performance of suppliers and keep close communication with each other to maintain the sustainability of the supply chain.

本集團委託獨立顧問及內部的ESHS管理團隊，透過實質性評估來識別及評定供應商的環境及社會風險，以識別供應鏈每個環節的可持續風險。團隊識別及檢視本集團各個供應商的可持續發展風險因素及議題，如環境表現、質量管理、職業健康與安全、員工培訓、人權政策等。本集團收集並分析供應商所提供的資料數據，從而識別最具重要性的風險因素及議題。本集團參考評估結果，將供應商的風險分為低、中、高三個等級，以檢視供應商在企業社會責任的績效。在是次評估中，64%的受訪供應商屬於低風險，其餘均屬於中風險，沒有供應商落入高風險的類別。為了協助較高風險供應商改善其管理，本集團積極探討情況並提出建議，確保其風險可被有效控制。在未來，本集團會持續監察供應商的表現，與各方保持緊密溝通，確保供應鏈的可持續性。



*We carry out environmental responsibility,
protect our lucid water and blue sky, and
FOSTER HARMONIOUS
DEVELOPMENT IN THE SOCIETY*

*履行環保責任，保護碧水藍天，
促進社會的共融發展*





Climate change is the primary risk threatening the world today. It is also the most important sustainable development issue for the Group and its stakeholders. To address climate change and strengthen disclosure, the Group makes transparent and reliable climate-related disclosure to stakeholders, including investors and fund providers, in accordance with the framework of the Task Force on Climate-related Financial Disclosures (“TCFD”).

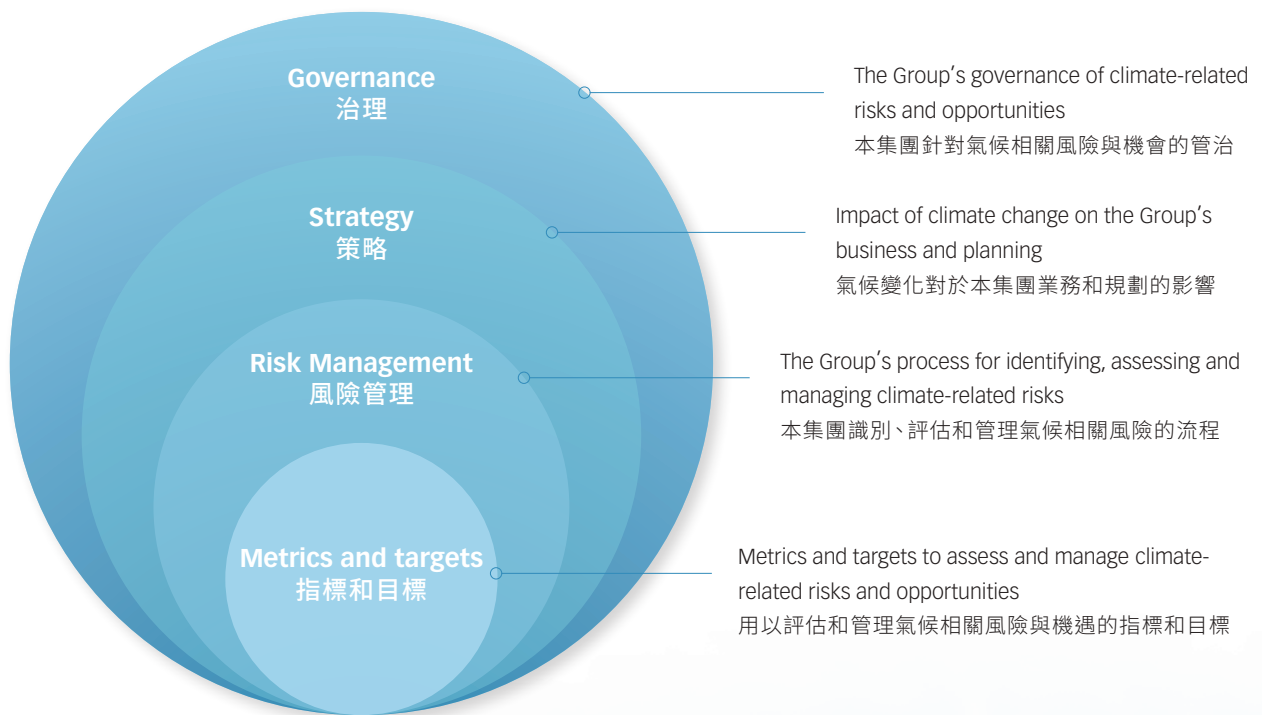
氣候變化是當下威脅全球的首要風險，亦是本集團及持份者最為重視的可持續發展實質性議題。為應對氣候變化及加強披露工作，本集團按照氣候相關財務信息披露工作組（「TCFD」）的框架，向包括投資者及資金提供者在內的持份者披露透明和可靠的氣候相關財務風險資訊。

About TCFD

TCFD covers four key areas for disclosure: governance, strategy, risk management, metrics and objectives.

關於TCFD

TCFD涵蓋了四個主要的資訊披露領域：治理、策略、風險管理、指標和目標。



Governance

Everbright Water has incorporated the governance of sustainable development into its corporate governance structure. This is to ensure that the climate change risks faced by the Group are included in its corporate agenda, and to encourage the Group, from top to down, to actively participate in the formulation, development and implementation of strategies to address climate risks.

Responsibilities of Board and Committees

The Board is the highest governance body of the Group and is the highest leading unit for managing climate change risks, formulating sustainable development strategic goals and supervising the effective implementation of relevant goals. The Board formulates the strategic direction of the Group with the assistance of the Strategy Committee. When formulating strategic goals and development directions, the Board takes climate change-related issues and corporate social responsibility into consideration, sets goals for the management and supervises the achievement thereof.

The Board, through the Audit Committee, supervises and guides the promotion of the Group's climate change-related strategies. The Audit Committee, with the participation of the Board, is responsible for reviewing the adequacy and effectiveness of various systems within the Group, including the Risk Management System and the ESHS Management System. The Audit Committee reviews the Group's internal controls and management on an annual basis, including operational, compliance and ongoing risk management, and as such, the Audit Committee plays an important role in maintaining the Group's effective climate risk management. In addition, the Group has established the Risk Assessment Committee to assist the Management Committee in making decisions on new investment projects. Before reporting any new investment project to the Management Committee for decision-making, the Risk Assessment Committee must review them and provide recommendations based on the risk assessment results to ensure that the Group fully considers the potential risks of investment projects.

治理

光大水務已將可持續發展的管治納入其企業管治架構之中，以確保本集團所面對的氣候變化風險納入公司議程，並促使本集團由上至下均積極參與制定和落實應對氣候風險的策略。

董事會及委員會之職責

董事會為本集團的最高管治機構，是管理氣候變化風險、制定可持續發展策略目標及監督相關目標有效落實的最高領導單位。董事會在戰略委員會的協助下制定本集團的戰略方向，在制定戰略目標及發展方向時，把氣候變化相關議題及企業社會責任納入考量，並為管理層設定目標及監督目標的實現。

董事會透過審計委員會，監督與指導本集團氣候變化相關策略之推動。審計委員會在董事會的參與下，負責審閱本集團內部各個體系的充分性和有效性，包括風險管理體系和ESHS管理體系。審計委員會每年均會審閱本集團的內部控制及管理，當中包括運營、合規和持續性風險管理，對本集團維持有效的氣候風險管理發揮重要作用。另外，本集團設立了風險評審委員會，以協助管理委員會作出關於新投資項目的決策。所有的新投資項目在上報管理委員會決策前，須經過風險評審委員會的審閱及按風險評估結果提供建議，以確保本集團充分考慮投資項目的潛在風險。

Responsibilities of Headquarters' Functional Departments

The functional departments of the headquarters are responsible for overseeing the sustainability performance of the Group and each project company. The Legal and Risk Management Department of Everbright Water is responsible for summarising the risk management results of various departments and regional management centres, assessing the potential major risks faced by the Group in accordance with the Group's risk management plan, and formulating and implementing the risk management plan for the next year. The Operations Management Department and the Department of Safety and Environment Management are responsible for the day-to-day business operations management, ensuring project operation compliance, and supervising the effective implementation of the Group's sustainable development strategic goals in the project companies.

Responsibilities of Project Managers

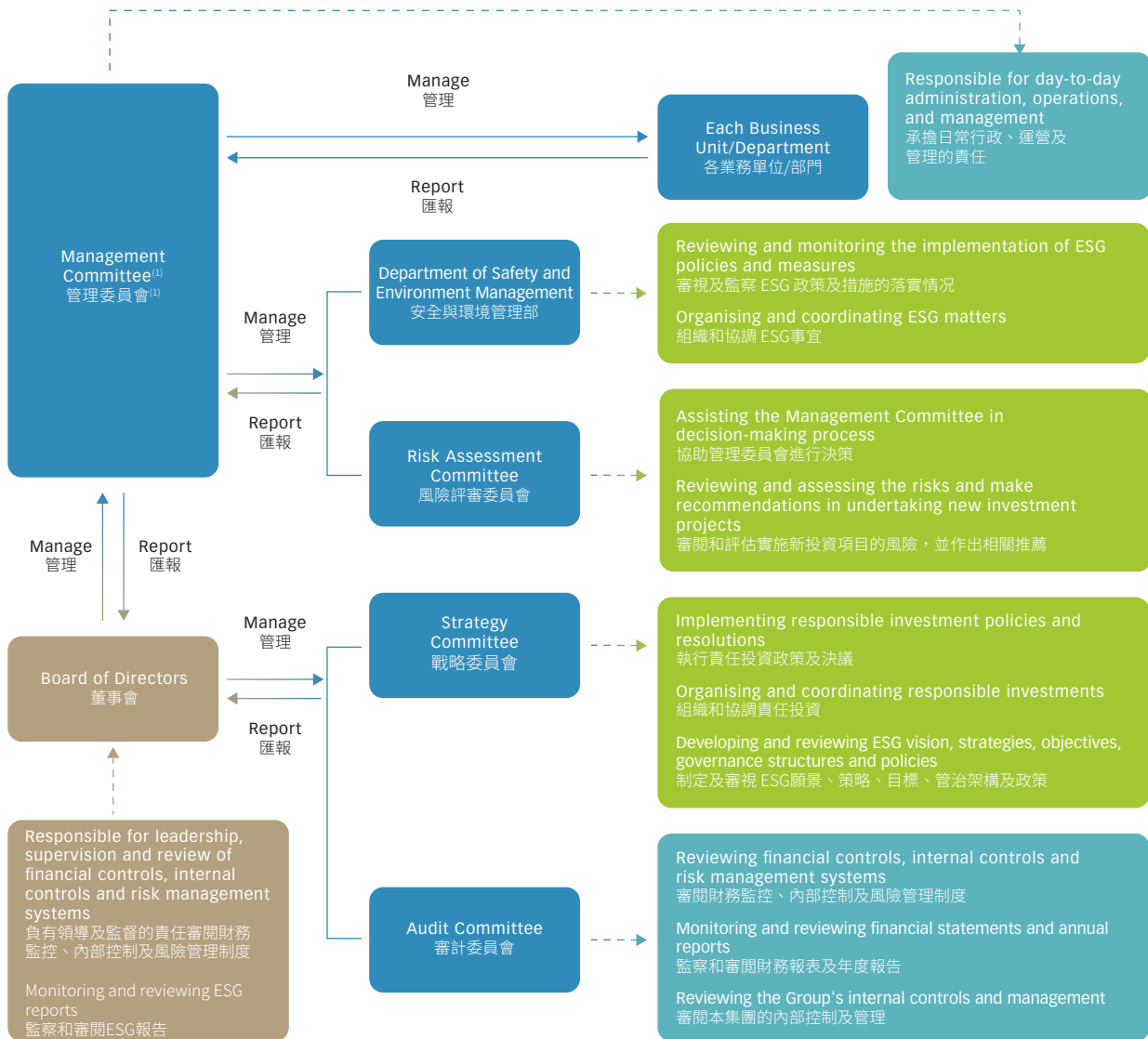
The Group adopts a comprehensive Risk Management System and ESHS Management System, and promotes sound internal management and risk management at all levels. All the Group's ongoing and operating projects have appointed safety and environmental management specialists who are responsible for ensuring that the daily operation of the projects is in line with the Group's sustainable development plan. Project managers are responsible for supervising the performance of projects in terms of safety and environmental compliance, optimising waste water treatment processes, and promoting low-carbon, high-efficiency operations at the project level to address potential risks brought by climate change.

總部職能部門之職責

總部職能部門負責監督本集團以及每個項目公司的可持續發展績效。光大水務的法律及風險管理部負責總結各部門和區域管理中心的風險管理結果，按照本集團的風險管理計劃評估本集團面臨的潛在重大風險，制定和實施下一年的風險管理計劃。運營管理部及安全與環境管理部負責日常業務運營管理，確保項目運營合規，並監督本集團的可持續發展策略目標在項目公司的有效落實。

項目管理人員之職責

本集團採納全面的風險管理體系和ESHS管理體系，把完善的內部管理及風險管控推展至涵蓋各層級。本集團所有在建及運營項目均委任了安全與環境管理專員，負責確保項目的日常運營符合本集團的可持續發展計劃。項目管理人員負責監督項目在安全及環境合規的表現，使污水處理流程達至最優，從項目層面推動低碳、高效運營，以應對氣候變化帶來的潛在風險。



Note:

附註：

⁽¹⁾ The Management Committee has ceased to be a Board Committee with effect from 11 August 2021.

⁽¹⁾ 管理委員會自二零二一年八月十一日起不再作為董事會委員會。

For details of the Group's sustainable development governance, please refer to the chapter entitled "Sustainability Governance" of this Report.

關於本集團的可持續發展管治，詳見本報告的「可持續發展管治」章節。

Strategy

Everbright Water understands that climate change will bring various risks to its business, including physical risks such as water stress, floods and extreme weather, which will cause damage and negative impact on assets and supply chains; and transition risks such as reputation and policy changes, which will also cause potential financial impact. Therefore, it is actively taking actions to address the impact of climate change. The Group is committed to reducing and offsetting GHG emissions, enhancing the resilience of the Group and its projects in response to climate change, and seizing relevant opportunities to build a cleaner water environment.

Facing the continuous impact of climate change, Everbright Water has established and implemented a series of strategies to deal with climate risks, re-positioning the Group in the ever-changing world, in order to enhance the city's climate change resilience and promote sustainable development. The Group has adopted the following three strategies to address climate change, and will strengthen its efforts and take more relevant actions to achieve the goal of carbon neutrality:

策略

光大水務深明氣候變化對本集團的業務帶來多種風險，如水資源壓力、洪水及極端天氣等實體風險，這些會對資產及供應鏈造成破壞和負面影響；政策變更及聲譽等轉型風險，亦會造成潛在的財務影響。光大水務積極採取行動應對氣候變化帶來的衝擊。本集團致力降低及抵銷溫室氣體排放、增強本集團及其旗下項目對氣候變化的適應力，並抓住相關機遇，務求建立更清潔的水環境。

面對氣候變化帶來的持續影響，光大水務透過制定和落實一系列應對氣候風險的策略，為本集團重新在不斷變化的世界中明確定位，為提升城市的氣候變化抵禦力及促進可持續發展作出貢獻。本集團已採取以下三大策略應對氣候變化，並將加強力度，採取更多相關行動實現碳中和的目標：



Understanding Climate Risks Through Climate Analysis

TCFD divides the climate risks faced by companies into two categories: physical risks and transition risks. In order to gain an in-depth understanding of the significant climate risks faced by the Group, the Group establishes climate scenarios with reference to internationally recognised guidelines and evaluates the impact of future climate change trends on the business. The Group aims to assess the impact of climate change on Everbright Water's assets in preparation, construction, commissioning and operation through climate scenario analysis.

Physical Scenarios

According to the *Sixth Assessment Report ("AR6")* on climate change published by IPCC in 2021, the Group also considers a combination of "Shared Socioeconomic Pathways" ("SSP") and "Representative Concentration Pathways" ("RCP") to assess current climate conditions (applicable to water stress assessments) and acute and chronic climate risks faced by the Group in the 2040 climate change scenario. Considering the majority of projects are operated under a concession for approximately 20 to 30 years, the selection of 2040 as the future assessment year is considered appropriate.

透過氣候情境分析了解氣候風險

TCFD把企業所面臨的氣候風險分為兩類：實體風險和轉型風險。為了深入了解本集團所面對的重大氣候風險，本集團參照國際認可的指引設立氣候情境，並評估未來氣候變化趨勢對業務的影響。本集團旨在透過氣候情境分析，評估氣候變化對光大水務所有籌備、建設、投產以及運營中的資產之影響。

實體情境

本集團根據IPCC於二零二一年公佈的氣候變遷《第六次評估報告》(「AR6」)，同時考量「共享社會經濟路徑」(Shared Socioeconomic Pathways, 簡稱「SSP」)與「代表濃度途徑」(Representative Concentration Pathways, 簡稱「RCP」)，評估在當前氣候狀態(適用於水資源壓力評估)及二零四零年的氣候變化情境中，本集團所面對的急性和慢性氣候風險。考慮到大多數項目的特許經營年期為約20至30年，本集團認為以二零四零年作為未來評估年份是合適的。



Physical Scenarios¹實體情境¹

Physical risk 實體風險	Scenario 情境	Scenario simulation 模擬情境
Water stress ² 水資源壓力 ²	Current state 當前狀態	By calculating the water stress level from 1960 to 2014, the ordinary least squares methods estimate the current water stress risk in the absence of climate anomalies. 使用普通最小平方方法計算一九六零年至二零一四年的水資源壓力程度，推算在沒有氣候異常狀態下現時的水資源壓力風險。
	SSP2 RCP4.5 (Optimistic scenario) SSP2 RCP4.5 (樂觀情境)	Representing a world with stable economic development – carbon dioxide (“CO ₂ ”) emissions will peak and fall by 2040, limited to about 650 ppm before 2100 and the temperature should be maintained between 1.1 to 2.6°C. 代表一個經濟穩定發展的世界，在二零四零年前碳排放量將達到峰值並下降。於二零二零年前，二氧化碳（「二氧化碳」）的排放量必須限制在約650 ppm，溫度應保持在攝氏1.1至2.6度之間。
	SSP2 RCP8.5 (Business-as-usual) SSP2 RCP8.5 (如常運作)	Representing a world with stable economic development and steady growth in global carbon emissions – CO ₂ concentrations will reach around 1,370 ppm by 2100 and the global average temperature will rise by 2.6 to 4.8°C as compared with 1986 to 2005. 代表一個經濟發展穩定、全球碳排放穩定增長的世界，於二零二零年前二氧化碳濃度將達到約1,370 ppm，而全球的平均溫度相對於一九八六年至二零零五年將會上升攝氏2.6至4.8度。
Coastal flood risk ³ 沿海洪水風險 ³	SSP2-4.5	GHG emissions peak and decline around 2040. SSP2-4.5 represents a climate scenario for the middle path, which is almost in line with the total emission reductions committed by countries in the 2015 <i>Paris Agreement</i> . This scenario simulates that emissions stabilise by mid-century, and global temperatures are projected to be about 2.7°C above pre-industrial levels by 2100. 溫室氣體排放量大約在二零四零年達到峰值並下降。SSP2-4.5代表中間路徑的氣候情境，與二零一五年《巴黎協定》中各國承諾的總減排量大致相符。此情境模擬排放量在本世紀中葉穩定下來，預計到二零二零年全球氣溫將比工業化前水平高出約攝氏2.7度。
	SSP5-8.5	GHG emissions have increased rapidly for most of this century and will double in 2050. The climate scenario for this high emissions pathway simulates a global temperature of about 4.4°C above pre-industrial levels. 溫室氣體排放量在本世紀的大部分時間裡迅速增加，並在二零五零年達到雙倍排放量。此高排放路徑的氣候情境模擬全球氣溫將比工業化前水平高出約攝氏4.4度。

Notes:

- ¹ The descriptions of various scenarios refer to the technical manual – *Guidance on Scenario Analysis for Non-Financial Companies* published by TCFD in 2020
- ² The description of the scenario simulation for the water stress assessment referred to the technical note document of the Aqueduct Water Risk Assessment Tool developed by the World Resources Institute.
- ³ The description of the scenario simulation for coastal flood risk assessment referred to Coastal Risk Screening Tool published by Climate Central and the IPCC AR6 report.
- ⁴ ppm means parts per million.

附註：

- ¹ 各種情境的描述均參考TCFD在二零二零年發佈的技術手冊—《非金融公司情境分析指南》。
- ² 水資源壓力評估的模擬情境描述參考世界資源研究所所開發的Aqueduct水風險評估工具的技術說明文件。
- ³ 沿海洪水風險評估的模擬情境描述參考氣候中心(Climat Central)的沿海洪水風險篩檢工具說明及IPCC AR6報告。
- ⁴ ppm指百萬分之一。

Transition Scenarios

The Group has adopted the climate change scenarios in the *World Energy Outlook 2021* report released by the International Energy Agency to analyse the transitional climate risks the Group is facing and the management approach for this implementation, so as to have a better plan for its corporate development. This Report adopts the recommendations of TCFD's "Guidance on Scenario Analysis for Non-Financial Companies" and adopts a 1.5°C scenario, which is in line with IPCC's latest scientific research, and the growing momentum of pledges to ensure net-zero emissions by 2050. This Report adopts the "Net Zero Emissions by 2050 Scenario" from the *World Energy Outlook 2021* report to represent a 1.5°C warming scenario, and the "Stated Policies Scenario" to represent a future climate change scenario which is similar to current annual emissions.

Transition Scenarios

轉型情境

本集團採納了國際能源署發佈的《二零二一年世界能源展望》報告中的氣候變化情境，以分析本集團正面臨的轉型氣候風險及該實施的管理方針，從而幫助本集團更好地規劃企業發展。本報告採納TCFD《非金融公司情境分析指南》的建議，採用一個攝氏1.5度情境，在符合IPCC最新的科學研究同時，亦符合全球多國承諾在二零五零年達到淨零排放的國際趨勢。本報告採用《二零二一年世界能源展望》報告中的「二零五零淨零排放情境」以代表升溫控制在攝氏1.5度的情境，並採用「既定政策情境」代表與現時年排放量相仿的未來氣候變化情境。

轉型情境

Scenario 情境	Scenario simulation 模擬情境
Net Zero Emissions by 2050 Scenario 二零五零淨零排放情境	By 2030, CO ₂ emissions will be 45% lower than in 2010, net-zero emissions by 2050, and there is a 50% chance of limiting warming to 1.5°C. 到二零三零年，二氧化碳排放量比二零一零年低45%，二零五零年實現淨零排放，並且有50%的機會將升溫控制在攝氏1.5度內。
Stated Policies Scenario 既定政策情境	The energy and climate measures that countries around the world have been put in place so far, and the specific policy measures that are being formulated. In this scenario, almost all of the net increase in energy demand until 2050 is covered by low-carbon sources; annual emissions will remain about the same as today; and by 2100, the global average temperature will rise to 2.6°C and will continue to rise. 全球各國截至目前為止，已實際採取的能源及氣候措施、及正在制訂的具體政策措施。在此情境中，直至二零五零年，幾乎所有淨增加的能源需求都由低碳的排放源補足；年排放量仍將與今日的水平大致相同；到二一零零年，全球平均氣溫將攀升至攝氏2.6度，並將持續攀升。

Promote the Development of Renewable Energy

Towards the goal of “Dual Carbons”, the issue of energy conservation and emission reduction in the water environment management industry has attracted much attention. To reduce GHG emissions, promoting renewable energy is one of the Group’s key strategies. The Group advocates the concept of green operation, and reduces the consumption of non-renewable energy by recycling the energy in waste water and generating electricity from renewable energy such as photovoltaics in the plant. The Group has actively established an in-plant photovoltaic special team to carry out a series of work such as policy study, research and exchange, and project pilots, to reduce unnecessary resource consumption during operation and construction, and actively explore more energy-saving solutions. The Group also generates electricity through sludge to reduce the use of traditional petrochemical energy and contribute to the promotion of renewable energy.

In-plant Solar Photovoltaic

In the first half of 2021, the Group’s Zibo Waste Water Treatment Project (Plant 1) in Shandong Province set up a pilot photovoltaic project in the plant, which was officially connected to the grid in August 2021, with an estimated annual power generation capacity of 1,900,000 kWh which can satisfy about 9% of the project’s power consumption. The relevant experience has laid a good foundation for the Group to promote in-plant photovoltaic pilot projects in the future and improve in-plant photovoltaic power generation efficiency.

推動發展可再生能源

朝著「雙碳」的目標邁進，水環境治理行業的節能減排問題備受關注。為降低溫室氣體排放，推動可再生能源是本集團的重點策略之一。本集團倡導綠色運營的理念，透過回收利用污水中的能源及廠內光伏等可再生能源發電，減少消耗非再生能源。本集團積極組建了廠內光伏專項小組，開展政策學習、調研交流、項目試點等一系列工作，在運營和建設期間減少不必要的資源消耗，並積極探索更多節能方案。本集團亦透過污泥發電，以減少使用傳統化石能源，為推動可再生能源作出貢獻。

廠內光伏

二零二一年上半年，本集團位於山東省的濰博污水處理項目（一廠）設立了廠內光伏項目試點，並於同年八月正式併網發電，預計年發電量為190萬千瓦時，可滿足約9%的項目廠區用電。相關經驗為本集團未來推廣廠內光伏試點、提升廠內光伏發電效率奠定了良好基礎。



In-plant solar photovoltaic facilities in Zibo Waste Water Treatment Project (Plant 1)
濰博污水處理項目（一廠）的廠內光伏設施

Waste water source heat pump

Using effluent of waste water treatment plant, Zibo Waste Water Source Heat Pump Project extracts the heat energy from the rich low-grade organic matter contained in the waste water, providing heating service in winter and cooling service in summer for the surrounding buildings of about 295,000 square metres. It is a demonstration project of developing energy-saving and environmental-friendly buildings.

污水源熱泵

淄博污水源熱泵項目以污水處理廠出水為基礎，把蘊藏於污水內豐富的低品位有機物內的熱能提取出來，為周邊約29.5萬平方米建築提供冬季供暖和夏季製冷服務，是節能環保建築示範工程。



Zibo Waste Water Source Heat Pump Project
淄博污水源熱泵項目

Anaerobic digestion of sludge power generation

The designed waste water treatment capacity of Qingdao Waste Water Treatment Project (Maidao Plant) is 140,000 m³ per day, and the annual sludge treatment capacity of its sludge digestion section is about 340,000 tonnes of sludge (with a moisture content of 95%). The project was put into operation in 2007 and is one of the earliest projects in mainland China equipped with sludge digestion and biogas power generation. The monthly power generation of Qingdao Waste Water Treatment Project (Maidao Plant) and its upgrading project can reach up to 100,000 kWh which accounts for about 35% of the power consumption of the whole plant.

污泥厭氧消化發電

青島污水處理項目(麥島廠)設計污水處理量是每天14萬立方米，其污泥消化工段的年污泥處理量大約是34萬噸污泥(含水率95%)。該項目於二零零七年投產，是中國內地早期設有污泥消化及沼氣發電的項目之一。青島污水處理項目(麥島廠)及其提標改造項目的每月發電量可達十萬千瓦時，污泥發電量佔全廠用電35%左右。



Qingdao Waste Water Treatment Project (Maidao Plant) and its Upgrading Project
青島污水處理項目(麥島廠)及其提標改造項目

Promote Innovative Technologies to Reduce Pollution and Carbon Emissions

Amidst the trend of corporate green transformation, Everbright Water continues to adhere to its corporate philosophy of “Innovation-Driven Development”, with the goal of “application-oriented research” and continues to increase the support for technology R&D, in order to achieve the goal of pollution and carbon reduction through technology and innovation.

Scientific Research Development

In 2021, the Group continued actively promoting the research of technological innovation, and attained good progress in the fields of industrial waste water treatment, precise control system, intelligent inspection system, etc. To improve the scientific research level of the team, the Group enhances its “Industrial-Academic” collaboration with local tertiary education institutions to understand and apply their advanced concepts and experiences. The Group also completed the application of a number of provincial and municipal technology R&D projects and provided external technical services and products with a total contract value of over RMB100 million. During the Reporting Period, Everbright Water was granted 28 patents.

推動創新技術達致減污降碳

面對企業綠色轉型的大趨勢，光大水務繼續秉承「創新引領發展」的企業理念，以「應用轉化」為目標，持續加大對技術研發的支持力度，務求以科技和創新達到減污降碳的目標。

科研發展

於二零二一年，本集團繼續積極推進技術創新研究，於工業廢水處理、精準控制系統、智能巡檢系統等領域均取得良好進展；加強與國內高等院校的「產學研」合作，吸收外部人士先進理念和經驗，提升團隊科研水平；完成多個省市級技術研發項目申報；提供外部技術服務及產品，相關服務及產品合同涉及金額超過1億元人民幣。於報告期內，光大水務獲得專利28項。

Intelligent Chemicals Dosing System for Phosphorous Removal 智能除磷加藥控制系統

The Group continues conducting R&D on the “Intelligent Chemicals Dosing System for Phosphorous Removal” project. The aim of the project is to develop a fully automatic operation system, which is able to automatically and accurately adjust the dosing amount by closely monitoring the changes in water quality and quantity. Unlike the traditional automatic control method (with preset conditions), the intelligent control algorithm is fundamentally based on the characteristics of water quality in the actual operation of the waste water plant. Coupled with various situational simulations, extreme contingency measures and various fault-tolerant mechanisms, a complete control strategy is established. The advantage of a self-developed intelligent control system is that it can produce more suitable, effective and low-cost products, which can be easily applied to the projects of the Group. It helps the Group effectively reduce risks, and at the same time achieve the goal of reducing chemical consumption. As at end of 2020, the “Intelligent Chemicals Dosing System for Phosphorous Removal” was registered as EB-IDC®.

本集團於「智能除磷加藥控制系統」項目上持續進行研發。項目的研發目標為實現全自動運作系統，通過嚴密監測水質水量的變化，自動精確地調整加藥量。與傳統自動控制（預設條件）的方式不同，智能控制算法以污水廠實際運行中的水質特徵作為編製的最根本依據，主要在開發初期透過化驗收集水質數據和透過實驗檢查藥品匹配性，再加上各種情境模擬、極端情況處理方式及各種容錯機制，建立起完整的控制策略。自行研發智能控制系統的好處在於能做出一套更合適、效果好且價格低的產品，便於套用在本集團旗下的項目上，並有效降低風險，同時實現降低藥品消耗的目標。在二零二零年底，「智能除磷加藥控制系統」被註冊為商標EB-IDC®。

Waste Water Treatment Plant New High-efficiency Micro-sand Charcoal Sedimentation Tank 污水處理廠新型高效微砂加炭沉澱池

The high-density sedimentation tank technology has become more popular in the local water supply and waste water treatment fields. The successful application of such technology at the Group's Dalian Malanhe Waste Water Treatment Project has attracted wide attention from the industry. The Group has carried out the in-house R&D of the high-density sedimentation tank process, won the second prize for the transformation and application of scientific and technological achievements, and registered the trademark EBHES® high-density sedimentation tank, which has been successfully applied in more than 20 projects.

高密度沉澱池技術在國內的供水和污水處理領域越來越普及，本集團大連馬欄河污水處理項目上的成功應用，使這項技術受到業界廣泛關注。本集團在此基礎上展開了高密度沉澱池工藝的自主研發工作，獲得了科技成果轉化應用二等獎，並註冊商標EBHES®高密度沉澱池，成功應用在超過20個項目中。

Following the increasingly stringent requirements for effluent quality, the requirements for the function and treatment effect of high-density sedimentation tanks are also higher. By referring to the micro-sand aggravated flocculation high-efficiency sedimentation tank process developed in the early 1990s, the Group applied micro-sand to enhance flocculation and adsorption of powder carbon on non-biodegradable organic matter, enabling the treated waste water meeting the Class IV standard of the *Environmental Quality Standards for Surface Water* (GB3838-2002).

隨著出水水質要求的進一步提高，對高密度沉澱池的功能和處理效果有更高的要求，本集團參考了90年代初開發的微砂加重絮凝高效沉澱池工藝，利用微砂強化絮凝作用和粉碳對不能生物降解有機物的吸附作用，使處理後的污水達至《地表水環境質量標準》(GB3838-2002) IV類標準。

Unlike the old high-density sedimentation tank, the new high-efficiency micro-sand plus carbon sedimentation tank possesses obvious advantages. It is more suitable for the upgrading of waste water treatment plants, low-turbidity river water and rainwater, high-salt and high-chromatic industrial waste water and algae-containing waste water. On the basis of saving civil construction investment, only a cyclone separator is added to the equipment, and the total installed power remains unchanged, which makes the overall investment obviously more favourable and is expected to become the future trend of the water treatment industry.

新型高效微砂加炭沉澱池相比起舊式的高密度沉澱池具有明顯優勢，更加適合污水處理廠提標改造、低濁河道水和雨水、高鹽高色度工業廢水和含藻類污水。在節約土建投資的基礎上，設備只增加了旋流分離器，總裝機功率不變，使得整體投資優勢明顯，預計將成為水治理行業的未來趨勢。

Promote the Application of Advanced Technology Unlock the Potential of Energy-Saving and Carbon Reduction

Adhering to the national mission of “Dual Carbons”, Everbright Water has studied the characteristics of the water industry, and carried out a series of policy studies, research exchanges, and pilot projects in relation to “Reducing pollution and Carbon Emission” and “Boosting Synergy and Efficiency”, etc. As a leading enterprise in the water environment management industry, the Group actively launched and optimised pilot projects and explored ways to reduce carbon emissions through the application of new technologies. This enabled the Group to build a solid foundation for zero-carbon water services in the future.

推廣先進技術應用 深挖節能降碳潛力

光大水務秉持實現國家「雙碳」的使命感，研究了水務行業的特徵，以「減污降碳」、「協同增效」為方針，開展了一系列政策學習、調研交流、項目試點等工作。作為水環境治理行業的領先企業，本集團積極展開及優化試點，探索以新技術應用達致減碳的路徑，為未來打造零碳水務奠定良好基礎。

Low-carbon and Sustainable Operating Goals 低碳及可持續運營目標

Achievements of Everbright Water's Application of Advanced Technologies 光大水務應用先進技術的成果

Sustainable water use 可持續的水資源利用

In-house R&D of waste water treatment processes (such as EBHES® high-density sedimentation tank), and application of advanced scientific research results (such as EBAF® third-generation biological aerated filter) in waste water treatment. The effluent quality of most of the projects complies with or is better than the Grade 1A standard of the *Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant* (GB18918-2002) or the Class IV standard of the *Environmental Quality Standards for Surface Water* (GB3838-2002). The effluent can be used as urban landscape water and general reusable water to meet the needs for sustainable recycling of water resources.

自主研發污水處理工藝（如EBHES®高密度沉澱池），在污水處理中應用先進科研成果（如EBAF®第三代曝氣生物濾池）大部分項目的出水水質執行或優於《城鎮污水處理廠污染物排放標準》(GB18918-2002)的一級A標準或《地表水環境質量標準》(GB3838-2002)第IV類標準。出水可作為城鎮景觀用水和一般回用水等用途，滿足水資源可持續循環利用的需要。

Resource recycling 資源循環

During the Reporting Period, the Group's reusable water projects produced a total of approximately 28,530,000 m³ of reusable water. The average in-plant water recycling rate of the Group's projects reached 95.85%. The sludge generated by the projects will be sent to a third party for treatment and utilised as construction materials and other purposes.

於報告期內，本集團的中水回用項目共生產了約28,530,000立方米的回用水。本集團旗下項目的廠內循環用水率平均達到95.85%。項目所產生的污泥會被送到第三方處理，並用於建材利用等用途。

**Low-carbon
and Sustainable
Operating Goals**
低碳及可持續運營目標

Achievements of Everbright Water's Application of Advanced Technologies
光大水務應用先進技術的成果

Energy use
能源利用

The Group's Qingdao Waste Water Treatment Project (Maidao Plant) utilises the biogas generated from sludge treatment to generate electricity and converts waste into energy. The waste water source heat pump projects provide heating service in winter for the surrounding buildings by extracting the thermal energy contained in the waste water organic matters. Zibo Waste Water Treatment Project (Southern & Northern Plants) has newly added photovoltaic facilities in the plant, which was officially connected to the grid in August 2021 for power generation, with an estimated annual power generation capacity of 1,900,000 kWh which can satisfy about 9% of the project's power consumption.

本集團的青島污水處理項目(麥島廠)利用污泥處理所產生的沼氣發電，達到轉廢為能。污水源熱泵項目透過提取蘊藏於污水有機物內的熱能，為周邊建築提供冬季供暖。淄博污水處理項目(南郊廠及北廠)新增廠內光伏設施，並於二零二一年八月正式併網發電，預計年發電量為190萬千瓦時，可滿足約9%的項目廠區用電。

Low-carbon operation
低碳運營

Through process optimisation and implementation of the "Intelligent Water" information management system, the aeration and dosing systems are precisely controlled to reduce energy and material consumption; through sludge biogas power generation, photovoltaic power generation and waste water source heat pumps, etc., Everbright Water continues to export green energy to reduce fossil fuel usage. Everbright Water applies advanced systems to achieve energy saving and consumption reduction, offsets carbon emissions through grid-connected power generation, and implements water projects with low-carbon operation.

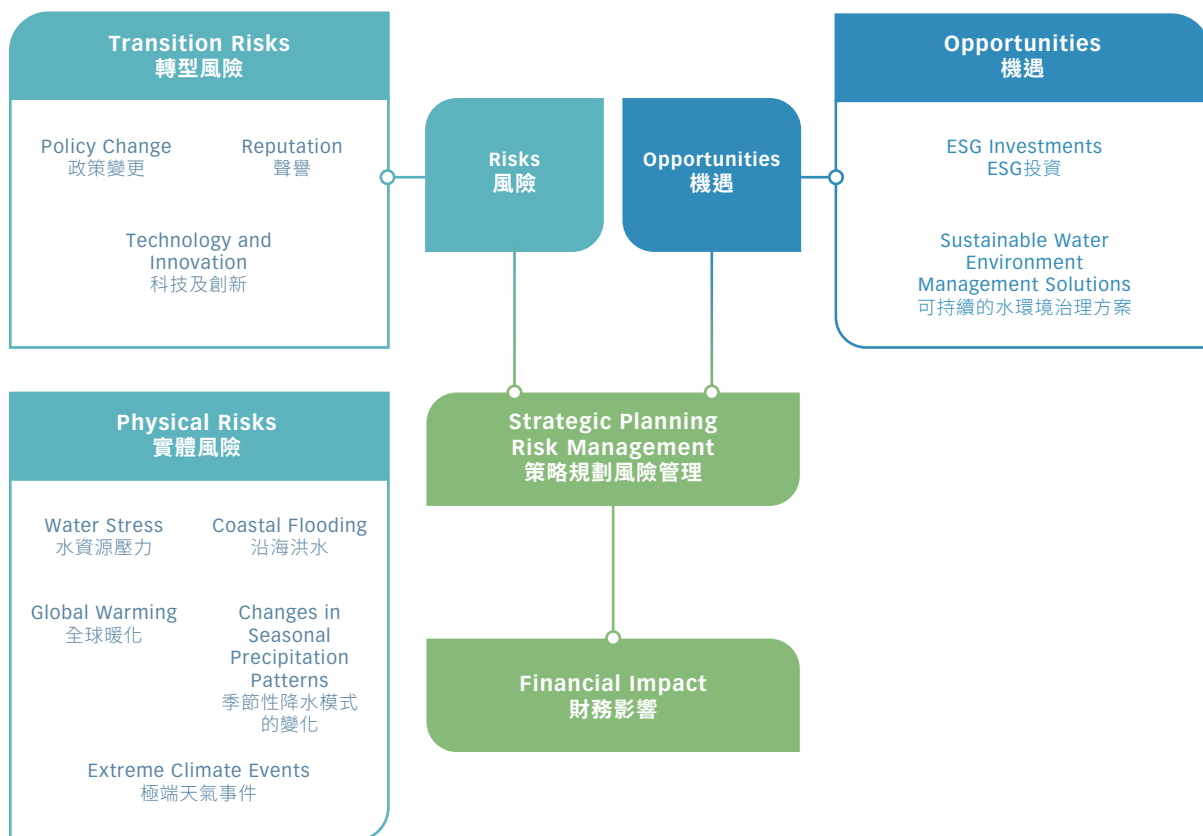
透過工藝優化及落實「智慧水務」信息管理體系等，精確控制曝氣及加藥系統，降低能源及物料消耗；透過污泥沼氣發電、光伏發電及污水源熱泵等，光大水務持續輸出綠色能源以減低化石燃料的使用。光大水務應用先進系統以達到節能降耗，並透過併網發電抵銷碳排放，確切實踐低碳運營的水務項目。

Risk Management

In accordance with the framework and recommendations of TCFD, the Group explains to stakeholders the process of identifying, assessing, and managing climate-related risks, including analysing the climate-related risks and opportunities that the Group is facing, and assessing various risk factors. The Group incorporates climate-related physical risks and transition risks into the Group’s overall operational considerations to formulate and implement climate risk control measures, and analyse the effectiveness of the measures and implementation risks. An outline of the key climate-related risks and opportunities applicable to the Group is presented below.

風險管理

本集團按照TCFD的框架及建議，向持份者闡述了本集團辨識、評估和管理氣候相關風險的流程，當中包括分析本集團正面對的氣候相關風險及機遇，評估各個風險因子等。本集團把氣候相關的實體風險和轉型風險納入本集團整體運營考量，以制定和實施氣候風險控制措施，並分析措施的有效性以及執行風險。以下是適用於本集團的主要氣候相關風險和機遇的概述。



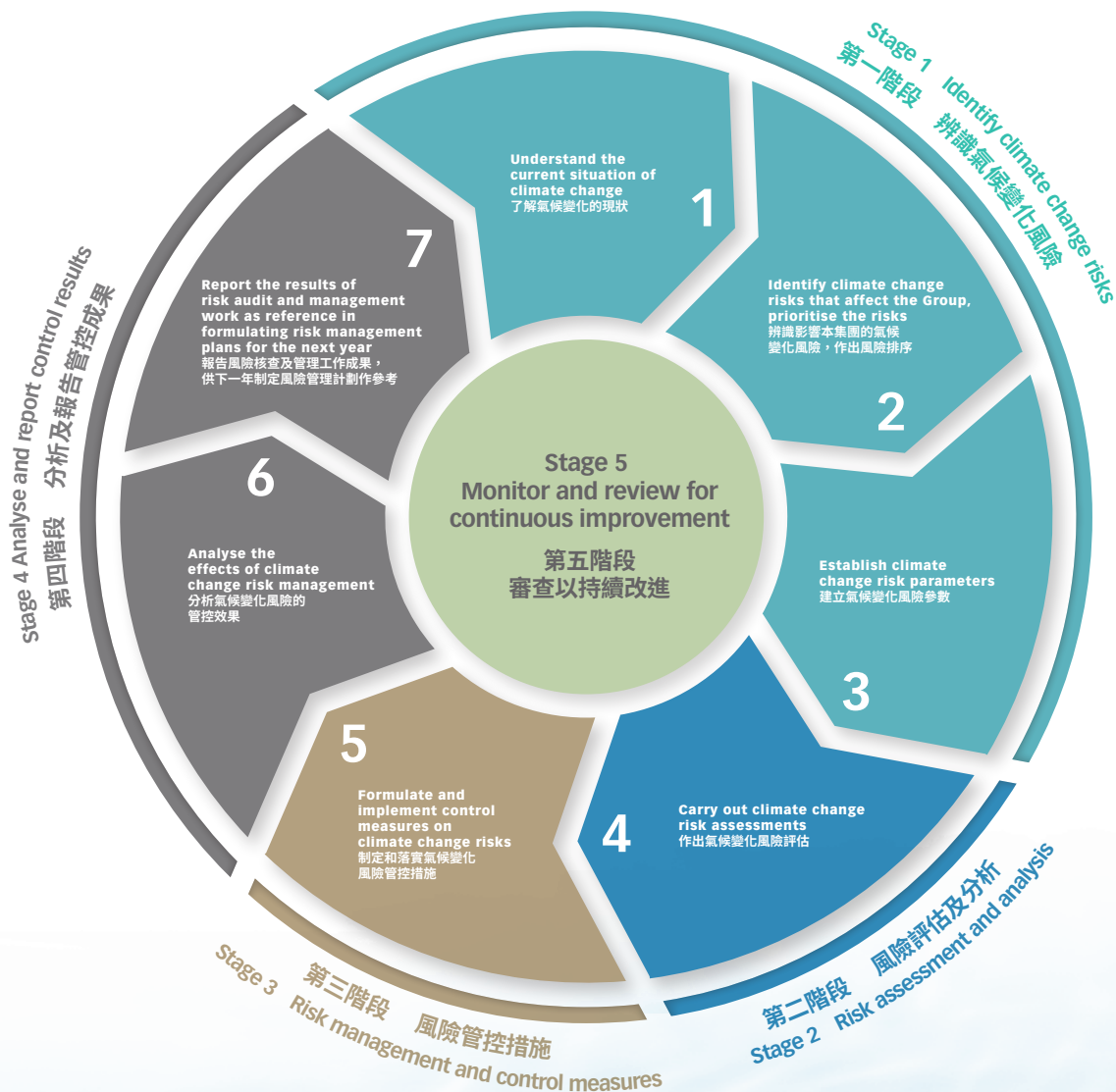
Risk Management Process

The risk management process of Everbright Water is formulated and implemented in accordance with the Group's risk management plan to enable the Group to effectively identify potential risks faced by each project through sound risk management processes and systems, and to formulate and implement climate change risk management and control measures. These are to ensure that the Group can continue operating and developing stably under the influence of climate change.

風險管理流程

光大水務的風險管理流程是按照本集團的風險管理計劃而制定和執行，目標是透過健全的風險管理流程和系統，使本集團能夠有效地識別各個項目所面臨的潛在風險，並適時制定和落實氣候變化風險管控措施，以確保本集團在氣候變化的影響下能夠繼續穩健經營和發展。

Process of Climate Change Risk Management 氣候變化風險管理流程



Everbright Water has completely implemented the identification, assessment and situational analysis of climate risks, and formulated corresponding mitigation measures according to the results of qualitative risk assessment and quantitative analysis to minimise the climate risks faced by the Group. In accordance with the TCFD recommendations, the Group divides climate-related risks into two categories, including physical risks and transition risks, and evaluates material risks through scenario analysis.

Physical Risks

The instability of climate system and extreme weather events which are caused by global warming, bring various physical risks to business operations. Physical risks may cause direct damage to corporate assets and supply chains, which in turn bring the risk of financial losses to companies.

As an enterprise in the water industry, Everbright Water recognises that water stress and coastal flood risks are significant climate change risks faced by the Group. Its business areas cover various aspects in the field of water environment management, including raw water protection, water supply and waste water treatment, etc. The shortage of water resources will have a direct impact on the Group's business. Climate change will lead to sea-level rise, and coastal flooding will threaten the safety of employees and assets of those projects located in coastal cities. With reference to the Aqueduct 3.0 released by the World Resources Institute and the Coastal Risk Screening Tool released by Climate Central, the Group has carried out scenario analysis by applying scientifically based methods and databases in order to effectively assess the impact of these physical risks to the Group.

光大水務全面落實氣候風險辨識、評估及情境分析工作，並針對風險質化評估和量化分析結果制定相應的緩解措施，把本集團所面臨的氣候風險減至最低。本集團按照TCFD建議，把氣候相關風險劃分為兩類，包括實體風險和轉型風險，並以情境分析評估重大風險。

實體風險

全球變暖引致的氣候系統不穩定和極端氣候事件為企業運營帶來一系列的實體風險。實體風險有機會對企業資產及供應鏈造成直接破壞，進而為企業帶來財務損失風險。

作為水務行業企業，光大水務認明水資源壓力及沿海洪水風險為本集團面對的重大氣候變化風險。本集團的業務涵蓋水環境治理的各個範疇，包括原水保護、供水及污水處理等，水資源短缺將會為本集團業務帶來直接影響。氣候變化導致海平面上升，沿海洪水將會對本集團旗下沿海城市項目的員工安全及資產構成威脅。本集團參考世界資源研究所發佈的Aqueduct 3.0及氣候中心(Climate Central)發佈的沿海洪水風險篩檢工具，透過採用具科學根據的方法和資料庫進行情境分析，以有效評估這些實體風險對本集團帶來的影響。

Water Stress Risks 水資源壓力風險

▶ **Why assess water stress?**
為什麼要評估水資源壓力程度?

Being a water environment management business provider, water is the foundation of the Group's business and as such, prolonged drought or insufficient water supply will directly affect its business.

本集團乃水環境綜合治理業務提供商，水為業務之本。長期乾旱或供水不足會直接影響本集團的業務。

▶ **Climate Scenario**
氣候情境

Current state scenario, 2040 SSP2 RCP4.5 scenario (optimistic scenario) and 2040 SSP2 RCP8.5 scenario (business-as-usual scenario).

當前狀態情境、二零四零年SSP2 RCP4.5情境（樂觀情境）和SSP2 RCP8.5情境（如常運作情境）。

▶ **Methodology**
方法

The Group's water stress assessment measures the ratio of total water withdrawals to available renewable surface water and groundwater supplies. A higher water stress risk indicates more competition among local users for freshwater.

本集團的水資源壓力評估量度了總取水量及可再生地表水和地下水供應量的比率。水資源壓力程度風險越高，代表本地用戶之間對淡水的競爭越激烈。

▶ **Findings**
調查結果

1



By Percentage of Capital Investment in Projects
按項目資本投資的百分比

From the Group's analysis, water stress is the key climate-related risk to its projects in the future. **65.37%** of the Group's investment in projects under preparation, construction, commissioning and operation, are categorised with high water stress or above under the current state scenario. The figures are increased to **78.85%** under both optimistic scenario (SSP2 RCP4.5) and business-as-usual scenario (SSP2 RCP8.5) by 2040.

根據本集團的分析，水資源壓力是未來本集團項目所對面的主要氣候相關風險。在當前狀態情境下，本集團在籌劃、建設、投產和運營中的項目投資，有**65.37%**屬於水資源壓力程度高或更高的級別。到二零四零年，在樂觀情境（SSP2 RCP4.5）和如常運作情境（SSP2 RCP8.5）下，兩者都增加到**78.85%**。

2



By Percentage of Number of Projects
按項目數目百分比

55.47% of the Group's projects under preparation, construction, commissioning and operation, are categorised with high water stress or above under the current state scenario. The figures are increased to **81.02%** under both optimistic scenario (SSP2 RCP4.5) and business-as-usual scenario (SSP2 RCP8.5) by 2040.

在當前狀態情境下，本集團在籌劃、建設、投產和運營中的項目中，有**55.47%**屬於水資源壓力程度高或更高的級別。到二零四零年，在樂觀情境（SSP2 RCP4.5）和如常運作情境（SSP2 RCP8.5）下，兩者都增加到**81.02%**。

Under current state scenario, 2040 SSP2 RCP4.5 scenario (optimistic scenario) and 2040 SSP2 RCP8.5 scenario (business-as-usual scenario), Everbright Water's water stress assessment is as follows:

在當前狀態情境、二零四零年SSP2 RCP4.5情境(樂觀情境)和SSP2 RCP8.5情境(如常運作情境)下，光大水務的水資源壓力程度評估如下：

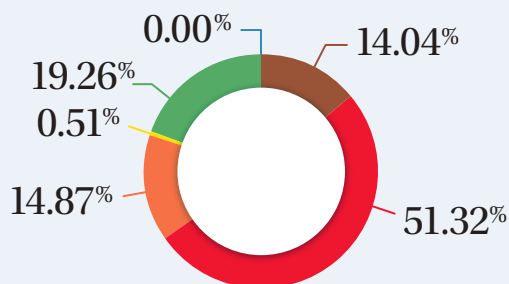
By Percentage of Capital Investment in Projects

按項目資本投資的百分比

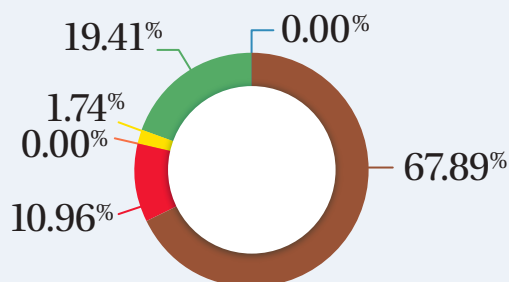
As of 31 December 2021, the total amount of investment was RMB **28.43 billion**.

截至二零二一年十二月三十一日，投資總額為 **284.3億** 元人民幣。

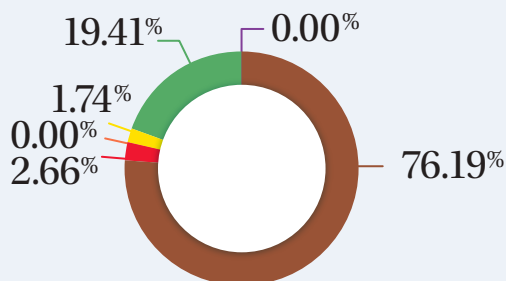
Water Stress Risk: Current State Scenario by % of Capital Investment in Projects
水資源壓力風險：當前狀態情境，按項目資本投資的百分比



Water Stress Risk: Optimistic Scenario in 2040 (SSP2 RCP4.5) by % of Capital Investment in Projects
水資源壓力風險：二零四零年樂觀情境(SSP2 RCP4.5)，按項目資本投資的百分比



Water Stress Risk: Business-as-usual Scenario in 2040 (SSP2 RCP8.5) by % of Capital Investment in Projects
水資源壓力風險：二零四零年如常運作情境(SSP2 RCP8.5)，按項目資本投資的百分比

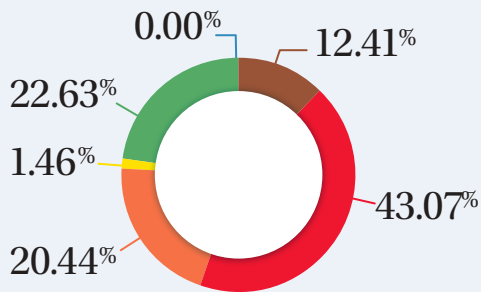


- Extremely high
極高
- High
高
- Medium to high
中等至高
- Low to medium
低至中等
- Low
低
- Arid and low water use
乾旱和低用水量

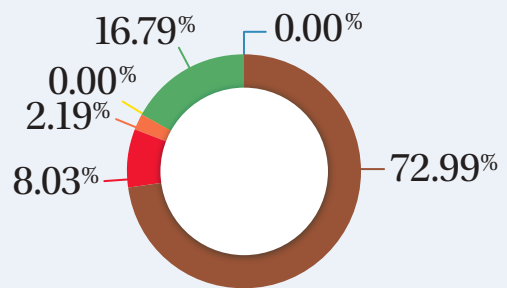
By Percentage of Number of Projects
按項目數目的百分比

In the Reporting Period, the Group's water stress risk by percentage of number of projects:
在報告期內，本集團按項目數目百分比的水資源壓力風險：

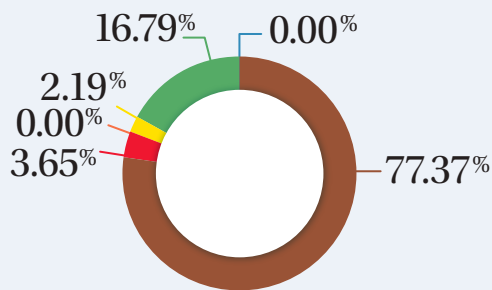
Water Stress Risk: Current State Scenario by % of Number of Projects
水資源壓力風險：當前狀態情境，按項目數目的百分比



Water Stress Risk: Optimistic Scenario in 2040 (SSP2RCP4.5) by % of Number of Projects
水資源壓力風險：二零四零年樂觀情境(SSP2 RCP4.5)，按項目數目的百分比



Water Stress Risk: Business-as-usual Scenario in 2040 (SSP2 RCP8.5) by % of Number of Projects
水資源壓力風險：二零四零年如常運作情境(SSP2 RCP8.5)，按項目數目的百分比



- Extremely high
極高
- High
高
- Medium to high
中等至高
- Low to medium
低至中等
- Low
低
- Arid and low water use
乾旱和低用水量



**Mitigation
measures for
water stress risk**
針對水資源壓力
風險的緩解措施

Through its technical level in reusable water and re-circulating water, the Group is able to better manage the water stress, as the effluent will meet the usage standard of cooling water after a series of treatments such as ultrafiltration, nanofiltration and reverse osmosis. A water recovery rate of 80% can be achieved by adopting this technique. The advanced waste water treatment process supports the Group's vision of "Reuse all Water, Zero Discharge".

本集團通過其回用水和循環水的技術水平可更好地管理水資源壓力，出水經過超濾、納濾、反滲透等一系列處理後可達到冷卻水的使用標準。通過採用這種技術可以達到80%的水回收率。先進的廢水處理工藝支持本集團實現「全回用、零排放」的願景。

**Re-Circulating
Water**
循環水

Water is re-circulated within the waste water treatment system as far as practical to reduce the use of freshwater.

透過盡可能在廢水處理系統內對水進行循環使用，以減少消耗淡水資源。

**Reclaimed
Water**
再用水

Reclaimed water refers to the effectively treated effluent water which is clear and safe for general industrial use or non-drinking purposes such as street cleaning, vehicle washing, landscaping, toilet flushing, firefighting, etc.

再用水是指經過高效處理的排放水，水質清澈並可安全地用於一般工業用途或非飲用水用途（如街道清潔、車輛清洗、園林美化、廁所沖洗、救火等）。

Reusable Water
中水回用

Reusable water refers to the water that is purified by the reusable water projects of Everbright Water. The reusable water projects purify effluent from waste water treatment plants in accordance with *The Reuse of Urban Recycling Water – Water Quality Standard for Industrial Uses* (GB/T 19923-2005) or equivalent standards. Reusable water produced by reusable water projects can be used for power plants and general industrial use to reduce the freshwater demand of cities.

中水回用是指通過光大水務的中水回用項目淨化的水。中水回用項目根據《城市污水再生利用工業用水水質》(GB/T 19923-2005)或相等標準處理廢水處理廠的廢水。中水回用項目產生的回用水可用於發電廠和一般工業用途，從而減少城市的淡水需求。

Coastal Flood Risks 沿海洪水風險

**Why assess coastal flood risk?**

為什麼要評估沿海洪水風險？

The risk of coastal flooding will pose a direct threat to the safety of the Group's assets and employees.

沿海洪水風險將對本集團資產及員工安全構成直接威脅。

**Methodology**

方法

The Group's coastal flood risk assessment measures the percentage of the Group's projects by (1) capital investment and (2) number of projects in coastal cities that would be below the projected water level plus the added height of a local annual flood by 2040. Coastal flood risk assessment was conducted for all of the Group's projects under preparation, construction, commissioning and operation.¹

本集團的沿海洪水風險評估根據本集團沿海城市項目被當地二零四零年預測水平面及年度洪水疊加水位淹沒的情況，按(1)資本投資和(2)項目數目百分比表示。本集團正在籌備、建設、投產和運營中的所有項目均有進行沿海洪水風險評估。¹

**Climate Scenario**

氣候情境

2040 SSP2-4.5 scenario (optimistic scenario) and SSP5-8.5 scenario (business-as-usual scenario)

二零四零年SSP2-4.5情境(樂觀情境)和 SSP5-8.5情境(如常運作情境)

**Findings**

調查結果

**By Percentage of Capital Investment in Projects**

按項目資本投資的百分比

From the Group's analysis, **42.23%** of the investments of the Group's projects under preparation, construction, commissioning and operation are in coastal cities.

根據本集團的分析，正在籌備、建設、投產和運營項目中，有**42.23%**的投資是位於沿海城市。

By 2040, **20.66%** of such investments will be below projected water level plus the added height of a local annual flood in both optimistic scenario (SSP2-4.5) and business-as-usual scenario (SSP5-8.5).

於樂觀情境(SSP2-4.5)和如常運作情境(SSP5-8.5)下，兩者都有**20.66%**的投資將位於二零四零年當地預測水平面及年度洪水疊加水位之下。

**By Percentage of Number of Projects**

按項目數目百分比

From the Group's analysis, **37.23%** of the number of Group's projects under preparation, construction, commissioning and operation are located in coastal cities.

根據本集團的分析，正在籌備、建設、投產和運營項目中，有**37.23%**的項目是位於沿海城市。

By 2040, **23.36%** of such projects will be below projected water level plus the added height of a local annual flood in both optimistic scenario (SSP2-4.5) and business-as-usual scenario (SSP5-8.5).

於樂觀情境(SSP2-4.5)和如常運作情境(SSP5-8.5)下，兩者都有**23.36%**的項目於二零四零年當地預測水平面及年度洪水疊加水位之下。

Note:
附註：

¹ The calculation of flood risk referred to Coastal Risk Screening Tool published by Climate Central in 2020. 沿海洪水風險的計算方法參考了氣候中心(Climate Central)於二零二零年發佈的沿海洪水風險篩檢工具。



Mitigation measures for coastal flood risk
 針對沿海洪水風險的緩解措施

Projects with built-in flood protection

內置防洪措施的項目

The greenery of the factory area not only provides a beautiful landscape for the project, but also includes flood control design.

廠區綠化不但為項目提供了美麗的景觀之餘，亦包含了防洪設計。

Some highlights:

部分亮點項目：



Jiangyin Waste Water Treatment Project

江陰污水處理項目

(Overall site greenery area: 98,000 m²)

(整體廠區綠化面積：98,000平方米)



Ji'nan Waste Water Treatment Project

濟南污水處理項目

(Overall site greenery area: 94,000 m²)

(整體廠區綠化面積：94,000平方米)

Height of core equipment/machinery

核心設備/機械的高度

To the extent practicable, key equipment and machinery are elevated to avoid damages due to flooding.

在切實可行的範圍內升高核心設備和機器，以避免洪水造成的損壞。

Sponge City

海綿城市

By constructing the systems which can effectively control surface runoff and relieve pressure on urban river channels, the Group's sponge city project is able to improve a city's abilities in absorption, infiltration, retention, release and purification of rainwater and to strengthen the urban ecosystem. Therefore, the Group has put the concept of "blue-green infrastructure" into practice. Additionally, a series of rainwater storage tanks, rainwater pumping stations, rainwater drainage networks, waste water treatment facilities, as well as ecological restoration works, are integrated into the sponge city project.

本集團的海綿城市項目旨在透過建立控制表面徑流和防洪排澇的系統，提升城市對雨水的吸納、蓄滲、緩釋和淨化能力，加強城市生態系統功能，從而實踐了「藍綠建設」的概念。海綿城市項目中包含了一系列雨水調蓄池、雨水泵站、排澇管道、廢水處理設施以及生態修復工程。



Zhenjiang Sponge City Project

鎮江海綿城市項目

River-Basin Ecological Restoration

流域治理

To a broader extent, the Group undertakes river-basin ecological restoration projects to help protect the water sources at the catchment scale. River-basin restoration (or river-basin ecological restoration) refers to river ecosystem restoration through establishing a healthy, comprehensive and stable river ecosystem using artificial reclamation measures, while meeting the basic needs for flood prevention, stormwater drainage and diversion within the river and land boundary.

本集團在更大範圍內開展流域治理項目，以保護集水區範圍內的水源。流域治理（或河道生態治理）是指在河道陸域控制線內，在滿足防洪、排澇及引水等河道功能的基礎上，通過人工修復措施促進河道水生生態系統恢復，構建健康、完整、穩定的河道水生生態系統。

Climate-Related Physical Risk Matrix 與氣候相關的實體風險矩陣

Based on the physical climate scenario analysis, the Group created a risk matrix in the current state scenario and under different scenarios in 2040.

根據實體氣候情境分析，本集團建立了在當前狀態及二零四零年不同氣候變化情境下的風險矩陣。

Key Findings:

主要發現：

- High impact was imposed on the Group's projects on water stress in the current state scenario, 2040 SSP2 RCP4.5 scenario (optimistic scenario) and 2040 SSP2 RCP8.5 scenario (business-as-usual scenario).
在當前狀態、二零四零年SSP2 RCP4.5情境(樂觀情境)和SSP2 RCP8.5情境(如常運作情境)下，水資源壓力對本集團的項目均產生了高度影響。
- Low impact was imposed on the Group's projects on the coastal flood issue in the 2040 SSP2-4.5 scenario (optimistic scenario) and SSP5-8.5 scenario (business-as-usual scenario).
在二零四零年SSP2-4.5情境(樂觀情境)和SSP5-8.5情境(如常運作情境)下，沿海洪水對本集團的項目均產生了低度影響。



Low impact:
低度影響：

<25%

of project investments impacted with high risk or above¹

的項目投資受到高風險或以上影響¹



Medium impact
中度影響：

≥25% and <75%

of project investments impacted with high risk or above¹

的項目投資受到高風險或以上影響¹



High impact
高度影響：

≥75%

of project investments impacted with high risk or above¹

的項目投資受到高風險或以上影響¹

Consequences of Climate Change on Everbright Water's Projects under Different Scenarios

光大水務項目在不同情境中的氣候變化後果

	Current state	SSP2 RCP4.5 Optimistic	SSP2 RCP8.5 Business-As-Usual	SSP2-4.5	SSP5-8.5
	當前狀態	SSP2 RCP4.5 (樂觀情境)	SSP2 RCP8.5 (如常運作)	SSP2-4.5	SSP5-8.5
Water Stress Risk 水資源壓力風險				/	/
Coastal Flood Risk 沿海洪水風險	/	/	/		

Note:

附註：

¹ For coastal flood risk, Group's projects that would be below the projected water level plus the added height of a local annual flood in 2040 were categorised as high risk.

¹ 在沿海洪水風險方面，本集團所有位於預測在二零四零年的海平面及年度洪水水位之下的項目均被評價為高風險。

Other Physical Risks**其他實體風險**

Physical Risks 實體風險	Potential Impacts 潛在影響
Changes in seasonal precipitation patterns – generally wetter winters (with less precipitation as snow) and drier summers (with a greater possibility of drought) 季節性降水模式改變 – 一般而言冬季較濕 (降雪減少) 和夏季較乾 (乾旱可能性較大)	<ul style="list-style-type: none"> • Changes to site hydrology 現場水文模式改變 • Impose stressful environment to on-site vegetation 對現場植被施加環境壓力 • Reduce water availability during dry seasons 旱季供水減少
Increase in average and daily maximum temperature 平均和每日最高溫度升高	<ul style="list-style-type: none"> • Health risks to employees due to hotter workplaces 工作場所溫度升高對員工健康造成的風險 • Increase in perceived odour impacts due to hotter ambient environment 因環境溫度升高而增加的氣味影響
Increase in frequency and magnitude of extreme weather events 極端天氣事件的頻率和強度增加	<ul style="list-style-type: none"> • Increased risk of storm damage to buildings and facilities 暴風雨破壞建築物和設施的風險增加 • Increased risk of open-stored materials being blown away by wind 露天材料被風吹走的風險增加 • Increased health and safety risks to employees exposed to extreme weather conditions 暴露於極端天氣條件下的員工的健康和安全風險增加 • Impacts on revenue due to operational disruptions (e.g. blockage in delivery of wastes, unscheduled shutdown of facilities) 運營中斷對收入造成的影響 (例如廢棄物運送受阻、設施的非計劃停工) • Power outage due to damage of power supply facilities (including both onsite and/or grid infrastructures) 供電設施 (包括現場及/或電網設施) 受到破壞而造成停電/電源故障
Changes in precipitation patterns 降雨模式改變	<ul style="list-style-type: none"> • Increased inflow of waste water caused by increased precipitation, thus inducing high risks of waste water bypassing 降雨量大幅增加導致污水量增加，造成污水繞流排放的風險 • Increased risks in non-compliant discharge due to higher strength of influent caused by decreased precipitation 降雨量減少導致污水濃度增加，造成違規污水排放的風險增加

Mitigation Measures for Physical Risks

In addition to the above mitigation measures for individual material entity risks, Everbright Water implemented a series of applicable measures to mitigate the impacts of other climate change physical risks that may adversely affect its human resources and projects. The Group will continue implementing these measures in the next five years.

1. Emergency Response

The Group has enhanced its emergency contingency plans, for rapid response and recovery from extreme weather events, including heavy rainstorms, floods, typhoons, thunderstorms, sandstorms, etc. In response to the flood seasons and the occurrence of extreme weather events, the Group has deployed necessary measures in advance, and issued a number of documents, namely *Notice on Strengthening Work Safety in Labour Day Holiday*, *Notice on Commencing "Safety Production Month"*, *Notice on Safe Management of Production Safety during Flood Seasons and under Catastrophic Weather Conditions*, *Notice on Management of Production Safety during Adverse Weather*, and *Notice on Work Measures to Prepare for Strong Wind, Rainstorm, Thunderstorm and Lightning*. In addition, the Group has formulated the *Crisis Management Plan*, *Contingency Plans for Work Safety and Accidents (Comprehensive)*, *Contingency Plans for Floods* etc. in order to proactively and effectively respond to emergencies. These are to ensure the safety and normal operation of the projects and safeguard the Group's assets and employee health.

實體風險的緩解措施

除了上述針對個別重大實體風險的緩解措施外，光大水務已實施了一系列的適應措施，以減輕其他實體氣候變化風險對本集團的人力資源和項目的不利影響，該等措施將會在未來五年內繼續推進。

1. 應急反應

本集團加強了對突發事件（包括暴雨、洪水、颱風、雷暴、沙塵暴等）的快速反應和促進恢復的應急準備。針對汛期和極端天氣事件的發生，本集團提前部署，下發了《關於加強[五一]假期安全生產工作的通知》、《關於展開「安全生產月」活動的通知》、《關於認真做好汛期及災害性天氣安全生產管理工作的通知》、《關於加強災害性天氣期間安全生產管理工作的通知》及《關於做好暴雨雷電大風等惡劣天氣防範應對工作的通知》等制度。此外，本集團制定了《危機管理計劃》、《安全生產事故（綜合）應急預案》、《防汛應急預案》等，以積極應對並有效處置突發事件，保障項目安全正常運行，保護本集團資產安全和員工身體健康。

At project level, all project companies conduct regular reviews on their adverse weather protection measures, and implement various measures to safeguard their communication, logistics support and emergency supplies to ensure a safe operation at all times. A few days before the arrival of an anticipated extreme weather event, all relevant projects companies will deploy their contingency plans in advance including stocking up emergency supplies, strengthening backup power systems, and enhancing information exchange and communication between the frontline emergency response teams.

The Group also carried out specific investigation and assessment of potential hazards to ensure precautionary measures were adequately in place. Furthermore, it carried out various emergency preparedness drills to improve the staff capabilities in terms of accident prevention and handling skills. The Group also conducted various on-site plans and key emergency drills which target certain key locations and key positions, as well as preliminary practical and operational emergency response drills in particular for those frontliners.

在項目層面，所有項目公司定期檢測針對惡劣天氣的保護措施及實行通信、物流、應急物資保障工作，以確保時刻安全運行。所有相關的項目公司在預計發生極端天氣事件前幾天，已額外提早部署應急準備工作，包括儲備應急物資、加強後備電源、進一步加強前線應急成員單位的資訊交流與工作聯繫等。

本集團亦專門調查和評估潛在危害，以確保充分採取預防措施。此外，本集團展開了應急準備演習以此提高員工的事故預防和處理能力。演習針對重點場所和重點崗位，展開現場處置方案和重點崗位應急處置演練活動。特別是車間班組一線員工操作式、實戰化的初期應急處置演練，提高應急處置能力。

2. Robust Preventive Maintenance Programme

To ensure the infrastructures are able to operate within a certain range despite the climate change, the Group has implemented a robust preventive maintenance programme. Such programme will perform regular and frequent maintenance on key systems to reduce the change of failure and extend uptime. Hence, the programme allows project companies to address any problems before they arise.

3. Climate-Related Risk Insurance

The Group has insurance against climate-related natural hazards including lightning, rainstorms, floods, storms, tornadoes, hail, typhoons, hurricanes, sandstorms, blizzards, landslides, collapse, mudslides, ground subsidence and other natural disasters. Insurance covers the compensation for damages to projects, interruption in operations, health of workers, etc.

Transition Risks

The acceleration of low-carbon economy transformation brings numerous transition risks to enterprises. In order to achieve carbon reduction goals, the governments and relevant regulatory agencies have introduced successively various policies and measures to encourage various industries in implementing green and low-carbon transformation. The innovative technologies that companies adopt when moving towards low-carbon operations will add uncertainty to their operations. As investors pay more attention to climate change issues, companies are also facing pressure from investors and other competitors in the industry to enhance their reputation by developing low-carbon transition strategies and enhancing GHG auditing and disclosure.

2. 健全的預防性維修計劃

為確保在氣候變化的影響下基礎設施的操作性能維持在相同範圍內，本集團實施了健全的預防性維修計劃，針對關鍵系統進行定期、頻繁的維修活動，以減少故障的變化並延長正常運行時間。該程序使項目公司可以在問題出現之前即有所應對。

3. 氣候相關風險的保險

本集團擁有應對氣候相關的自然災害的保險，包括閃電、暴雨、洪水、風暴、龍捲風、冰雹、颱風、颶風、沙塵暴、暴風雪、滑坡、塌陷、泥石流、地面塌陷和其他自然災害。保險包括對項目損害、運營中斷、工人健康等的賠償。

轉型風險

低碳經濟轉型趨勢加快，為企業帶來一系列的轉型風險。為實現減碳目標，各國政府及監管機構的相關政策措施都相繼出台，推動各行業進行綠色低碳轉型。企業在邁向低碳運營時所採用的創新科技，會為企業運營增添不確定性。隨著投資者對氣候變化議題更加重視，企業亦面臨來自投資者及同行業其他競爭對手的壓力，需透過制定低碳轉型戰略及加強溫室氣體核算和披露，以提升企業的聲譽。

Scenario Analysis and Management Approach**情境分析及管理方針**

The transition risks, potential impacts and management approaches identified for the “Net Zero Emissions by 2050 Scenario” and the “Stated Policy Scenario” are as follows.

針對「二零五零淨零排放情境」及「既定政策情境」而識別出的轉型風險、潛在影響及管理方針詳列如下。

Categories	Major Risks	Potential Financial and/or Operational Implications	Management Approach
類別	主要風險	潛在財務及/或運營影響	管理方針
Policy Changing Risk 政策變動風險	<p>Carbon tax, fuel/energy tax, volume and trading control 碳稅、燃料/能源稅、總量管制與交易</p> <p>Affected by regulatory authorities' restrictions on GHG emissions or mandatory carbon trading. For example, China's plan to reach carbon neutrality by 2060.</p> <p>受監管部門關於溫室氣體排放的限制及/或強制碳交易的影響。例如，中國計劃於二零六零年達致碳中和。</p> <p>Under the “Net Zero Emissions by 2050 Scenario”, more stringent restrictions and measures will be implemented by regulatory authorities.</p> <p>在「二零五零淨零排放情境」下，監管部門將實施更嚴格的限制和措施。</p>	<ul style="list-style-type: none"> • Increase of operating cost 運營成本增加 • Early retirement of existing assets due to policy changes 因政策變動而提前報廢現有資產 • Investment expenditure on developing low-carbon intensity technology 開發低碳強度技術的投資開支 	<ul style="list-style-type: none"> • To enhance communication with various monitoring regulatory authorities, promptly make adjustments according to the laws and regulations, and actively implement measures to address changes in prevailing policies. 加強與各監管部門的溝通聯繫，及時根據法規做出調整，積極採取措施應對政策變動。 • To improve energy efficiency of operating assets and consider deploying more carbon offsetting measures (e.g. large-scale tree planting, investment in renewables). 提高運營資產的能源效率，並考慮採取更多的碳補償措施（例如大規模植樹，可再生能源投資）。 • To carry out additional studies when necessary in identifying carbon emission hotspots in the waste water treatment process and explore the possibility of “Dual Carbons”. 於需要時展開額外研究，以識別污水處理流程中的碳排放熱點，探討「雙碳」的可能性。

Categories	Major Risks	Potential Financial and/or Operational Implications	Management Approach
類別	主要風險	潛在財務及/或運營影響	管理方針
	<p>Sustainability/ ESG reporting 可持續發展/ ESG報告</p> <p>SEHK, SGX, key international sustainability reporting guidelines, institutional investors and ESG rating agencies are gradually tightening their requirements for climate-related disclosures, including estimates of GHG emissions, adaptation and mitigation plans.</p> <p>聯交所、新交所、主要的國際可持續報告指引、機構投資者及ESG的評分機構正逐漸提高他們對氣候相關資料披露的期望，當中涵蓋溫室氣體排放的估算、應對氣候相關風險的適應與減緩計劃。</p> <p>Under the “Net Zero Emissions by 2050 Scenario”, more stringent restrictions and measures will be implemented by regulatory authorities. 在「二零五零淨零排放情境」下，監管部門將實施更嚴格的限制和措施。</p>	<ul style="list-style-type: none"> • Increase of operating cost 運營成本增加 • Increase in R&D expenditures on developing the matrix and targets for climate-related risks 增加用於開發與氣候相關風險的矩陣和目標的研發支出 	<ul style="list-style-type: none"> • To comply with the latest sustainability/ ESG reporting requirements and attempt to become an industry leader in sustainability. 致力遵守最新的可持續發展/ESG報告要求，並成為可持續發展行業的領導者。 • To assign specialists to study the parties’ requirements and make appropriate disclosures, carry out additional research when necessary, refer to the latest international standards, and improve the GHG emission estimation method and disclosure framework. 指派專才研究各方的要求並作出相應的披露。於需要時展開額外研究，參考最新的國際標準，完善溫室氣體排放估算方法及披露框架。
<p>Technology and Innovation Risks 科技與創新風險</p>	<p>Technological advancement required 需要進行科技革新</p> <p>More advanced technologies are needed to meet the increasingly stringent carbon reduction requirements. 需要採用更先進的科技以符合日益嚴格的減碳要求。</p> <p>Under the “Net Zero Emissions by 2050 Scenario”, more stringent restrictions and measures will be implemented by regulatory authorities. 在「二零五零淨零排放情境」下，監管部門將實施更嚴格的限制和措施。</p>	<ul style="list-style-type: none"> • Increase of operating cost 運營成本增加 • R&D expenditures on new and alternative technologies 新型和替代型技術研發支出 • Capital investments in technology development 技術開發的資本投資 	<ul style="list-style-type: none"> • To promote scientific and technology R&D and innovation, actively bring in technical expertise, carry out in-house technology R&D, promote the transformation of technological achievements and project applications, and be firm on “Innovation-Driven Development” 推動科技研發與創新，積極引進專業技術人才、開展自主技術研發、推動技術成果轉化以至項目應用，堅持「創新引領發展」。

Categories	Major Risks	Potential Financial and/or Operational Implications	Management Approach
類別	主要風險	潛在財務及/或運營影響	管理方針
Reputation Risk 聲譽風險	<p>Relationship with ESG investors 與ESG投資者的關係</p> <p>Following the more stringent requirements from investors and intense competition with competitors, it is necessary to strengthen the accounting and disclosure of ESG and carbon emissions to enhance corporate reputation.</p> <p>面對投資者更高的要求及與競爭對手之間更激烈的競爭，需要加強ESG及碳排放的核算和披露，以提升企業聲譽。</p> <p>Under the “Net Zero Emissions by 2050 Scenario”, more stringent restrictions and measures will be implemented by regulatory authorities.</p> <p>在「二零五零淨零排放情境」下，監管部門將實施更嚴格的限制和措施。</p>	<ul style="list-style-type: none"> Increase of operating cost 增加運營成本 Increase expenditure on ESG disclosure and climate change risk management 增加用於ESG披露及氣候變化風險管理的支出 	<ul style="list-style-type: none"> To conduct evidence-based, scientific calculations in estimating the GHG offsets potential of waste water treatment projects to provide a scientific basis for setting carbon reduction targets. 進行實證、科學的計算，以估算污水處理項目的溫室氣體抵銷潛力，為制定減碳目標提供科學基礎。 To improve communication with stakeholders to help them understand the unique nature of the water environment management business and its overall environmental benefits (protecting public health, strengthening urban flood control, stabilising river water ecosystems, etc). 改善與持份者的溝通，以幫助他們了解水環境治理業務的獨特性質及其帶來的整體環境效益（保障民眾健康、加強城市防洪能力、穩定河道水生生態系統等）。

Exploring Climate Change Risk Adaptation Measures for Project Lifecycle

探索項目生命週期的氣候變化風險應對措施

Everbright Water recognises the long-term challenges arising from climate change and has continued exploring adaptation measures to mitigate physical and transition risks. Such task covers the entire lifecycle of projects from early-stage planning, design, construction till ongoing operation and management to fully identify potential risks at each stage, adopt proactive strategies to address climate change.

光大水務意識到氣候變化帶來的長期挑戰，並繼續探索適應措施以減輕實體和轉型風險。探索工作涵蓋了整個項目生命週期的各個階段，包括早期規劃、設計、施工和運營及管理，務求充分識別各階段的潛在風險，採取主動性策略以從容應對氣候變化。

Planning 規劃

Climate-Sensitive Site Selection

氣候敏感的選址

- To consider climate factors when selecting the project sites.
將氣候因素納入項目選址過程。
- To avoid (where appropriate) choosing sites with unfavourable hydrometeorological parameters and/or potential extreme weather conditions.
盡可能避免 (如適當) 選擇水文氣象參數不利和/或具潛在極端天氣條件的地點。

Green Building/Infrastructure Development

綠色建築/基礎設施開發

- To consider climate-related impacts which may arise during the lifecycle of buildings and obtain green building certifications for new buildings/infrastructures where possible. The Group will also closely monitor the energy performance of existing buildings through advanced technologies such as real-time energy monitoring for smart energy management, thereby reducing GHG emissions.
考慮建築物生命週期中與氣候相關的影響，並在可能的情況下獲得新建築物/基礎設施的綠色建築物認證。本集團還將通過先進技術 (例如用於智能能源管理的實時能源監控) 密切監控現有建築物的能源績效，從而減少溫室氣體排放。

Design 設計

Drainage and Flood Prevention

防洪及排水設計

- To adopt climate-resilient drainage design that caters for higher rainfall intensity and shorter return periods.
採用氣候適應性排水設計，可滿足更高的降雨強度和更短的返回期。
- To install floodgates in flood-prone areas.
在容易發生水災的區域安裝水閘。

Improve Performance of Equipment under High Temperatures

提高設備在高溫下的性能

- To conduct thermodynamic modelling to investigate how higher temperatures and humidity would affect long-term plant performance.
使用熱力學模型研究較高的溫度和濕度將如何影響項目的長期性能。

Rainwater Harvesting

雨水收集

- To explore opportunities to increase rainwater harvesting.
探索機會增加雨水收集。

Transportation Route

運輸路線

- To carefully design transportation routes to reduce climate-related impacts that may affect the delivery of sludge and raw materials.
精心設計運輸路線，以減少可能阻礙污泥和原材料輸送的氣候相關影響。

Construction
施工**Sustainable Construction**
可持續施工

- To select suitable low-carbon materials for construction.
選擇合適的低碳材料進行施工。
- To use biodiesel to power the construction projects and equipment or adoption of fully electrified equipment to lower carbon emissions
於在建項目及設備中使用生物柴油，或改用全電動設備，以減少碳排放。

Operation and Management
運營及管理**Improve Flood Resilience of Operating Assets**
提高運營資產的抗洪能力

- To review design and operation of existing assets to identify opportunities for improving the waterproofing of buildings.
審查現有資產的設計和運營，以識別改善建築物防水的機會。

Assessing Climate Resilience of Utilities
評估公用行業的氣候適應能力

- To communicate with utility authorities to assess climate resilience of utilities with considerations given to rerouting of pipelines, use of underground pipelines, etc.
與公用事業當局進行溝通，以評估公用事業行業的氣候適應能力，並考慮管道的重新分佈、地下管道的使用等。

Capacity Building
能力建設

- To conduct training for all staff to ensure they are aware of the potential climate-related impacts.
對所有員工進行培訓，以確保他們了解與氣候相關的潛在影響。

Supply Chain: Implementing Climatic Guidance for Procurement
供應鏈：實施採購氣候指引

- Where practical, procurement specifications shall clearly identify the climatic conditions (current and future) in which the equipment or asset will operate.
在可行的情況下，採購規範應明確標識設備或資產運行所處的氣候條件（當前和將來）。

Climate-Related Opportunities

氣候相關機遇

Categories	Major Opportunities	Potential Financial and/or Operational Opportunities	Management Approach
類別	主要機遇	潛在財務及/或運營機遇	管理方針
Corporate Reputation 企業商譽	ESG investments ESG投資 Climate change leads to ESG investment opportunities, and investors will make investment considerations based on the corporate's ESG performances. 氣候變化帶來ESG方面的投資機遇，投資者會依照企業的ESG方面的績效作投資考慮。	<ul style="list-style-type: none"> Increase value of assets 資產價值增加 Enhance the Group's reputation and competitiveness 本集團聲譽及競爭地位提升 	<ul style="list-style-type: none"> To adopt international best practices in sustainability reporting. 在可持續報告中採用國際最佳實踐。 To enhance transparency in ESG information disclosure. 增加披露ESG資料的透明度。 To incorporate ESG considerations into the Group's operations. 於本集團的運營中納入ESG的考慮。
Market Change 市場轉變	Sustainable waste treatment solutions 可持續的污水處理方案 In the era of climate change, the market is looking for more effective and sustainable water environment management solutions to promote compliant discharge and turn waste into energy, which is in line with the business of Everbright Water. 在氣候變化的時代下，市場正在尋覓更有效與可持續的水環境治理方案，以促進達標排放及轉廢為能，此市場趨勢與光大水務的業務工作一致。	<ul style="list-style-type: none"> Increase in demand of sustainable water environment management solutions 對可持續水環境治理方案的需求大增 Enhance the Group's reputation and market standing 本集團聲譽及市場地位提升 	<ul style="list-style-type: none"> Water environment management continues to be the core business of Everbright Water. The Group will strengthen its efforts in technology R&D to give full play to the synergistic effect of "Reducing Pollution and Carbon Emission" in water environment management projects. 水環境治理繼續是光大水務的核心業務。本集團將會加強技術研發，以發揮其在水環境治理項目中「減污降碳」的協同效應。

Metrics and Targets

The Group formulates GHG emissions and removals and calculates the GHG emissions and offsets from its projects, in accordance with CDM methodology under the *United Nations Framework Convention on Climate Change, GHG Protocol Corporate Accounting and Reporting Standard*, and *ISO 14064-1: Specification with Guidance at the Organisation Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*. The Group has commissioned Hong Kong Quality Assurance Agency as the third-party verification institution to conduct an independent audit and verification on the Group's GHG inventory of the Reporting Period according to ISO 14064-1, and the corresponding verification statement is appended to the Report. This demonstrates that Everbright Water is fulfilling its responsibility to manage, quantify and report GHG emissions, and has taken an important step towards promoting a low-carbon economy. In order to further improve its GHG accounting framework, the Group is establishing a complete Scope 3 GHG emission calculation framework, so as to disclose the overall environmental performance of the corporate value chain more comprehensively.

Data Calculation Methodologies

The GHG emissions and offsets are calculated by making reference to CDM methodologies *AM0080: Mitigation of Greenhouse Gases Emissions with Treatment of Wastewater in Aerobic Wastewater Treatment Plants (Version 1.0)* and revised and updated the emission factor according to the *2006 IPCC Guidelines for National Greenhouse Gas Inventories (2019 Revision)* in order to comply with the latest domestic and international accounting standards. GHG emissions from aircraft travel are calculated using the ICAO Carbon Emissions Calculator.

指標和目標

本集團按照《聯合國氣候變化框架公約》中 CDM 方法學、《溫室氣體核算體系》、《ISO 14064-1 組織層級溫室氣體排放與移除之量化及報告附指引》之規範，制定溫室氣體核算框架，計算項目的溫室氣體排放及抵銷量。本集團已委託香港品質保證局作為第三方核證審核機構，按照 ISO 14064-1 為本集團於報告期內的溫室氣體清單進行獨立審計及認證，其相關審核聲明已附載於本報告中，展示出光大水務正履行管理、量化及報告溫室氣體排放的責任，並為推動低碳經濟邁出重要的一步。為進一步完善光大水務溫室氣體核算框架，本集團正在建立完善的範疇三溫室氣體排放計算框架，從而更加全面地披露企業價值鏈的整體環境表現。

數據計算方法

溫室氣體的排放及抵銷的計算參照 CDM 方法《AM0080：透過在有氧污水處理廠處理污水減少溫室氣體排放（1.0版）》，並按照《二零零六年 IPCC 國家溫室氣體清單指南》（二零一九年改進版）修訂計算方法及更新排放因子，以符合國內外最新的核算標準。飛機差旅的溫室氣體排放以國際民航組織的碳排放計算器計算得出。

Greenhouse Gas Offsets

The Group also calculates the GHG offsets of operating projects, which reflect its achievements in low-carbon transition. The Group achieves GHG offsets mainly through the use of renewable energy, waste water nitrogen removal treatment process and in-plant greening. The relevant calculation methods are as follows:

Renewable Energy

The Group has been using the biogas generated by the anaerobic digestion of sludge to generate electricity. During the Reporting Period, it has installed photovoltaic power generation facilities in the plant to generate electricity using renewable energy. The Group uses the CDM methodology to estimate and compare the GHG emissions from the use of renewable energy and electricity from fossil fuel power plants to calculate the CO₂ emissions offsets by its operations.

Nitrogen Removal through Waste Water Treatment Process

Everbright Water reduces the nitrous oxide released from the effluent through the waste water nitrogen removal treatment process. The amount of nitrous oxide emitted from waste water effluent depends on the nitrogen content of the waste water. Therefore, reducing the nitrogen content of the effluent through the waste water denitrification treatment process can achieve GHG offsets. The Group estimates and compares nitrous oxide emissions from treated and untreated waste water in accordance with the *2006 IPCC Guidelines for National Greenhouse Gas Inventories (2019 Revision)*, so as to calculate the amount of GHG emissions offsets by the nitrogen removal treatment of waste water.

Greenery in the Facilities

The Group actively promotes greenery by planting trees and other plants in its project facilities to aestheticise the environment and enhance the physical and mental health of employees. The Group reported the number of trees planted in each project, and calculated the GHG offsets achieved by greenery in the projects during the Reporting Period, based on the annual CO₂ absorption of each mature tree published by the European Environment Agency.

溫室氣體抵銷

本集團亦計算了運營項目的溫室氣體抵銷量，反映本集團在低碳轉型方面的成果。本集團主要透過利用可再生能源、污水除氮處理工藝和廠內綠化來達到溫室氣體抵銷，相關計算方法如下：

可再生能源

本集團一直使用污泥厭氧消化產生的沼氣發電，更於報告期內新增了廠內光伏發電設施，利用可再生能源發電。本集團使用CDM的方法，估算和比較使用可再生能源及以化石燃料發電廠發電的溫室氣體排放量，從而計算本集團的運營所抵銷的二氧化碳排放量。

污水除氮處理工藝

光大水務透過污水除氮處理工藝，減少出水中釋放的氧化亞氮。污水出水的氧化亞氮排放量取決於污水的氮含量，因此透過污水除氮處理工藝降低出水的氮含量能夠實現溫室氣體抵銷。本集團按照《二零零六年IPCC國家溫室氣體清單指南》(二零一九年改進版)，估算和比較經過處理及未經處理污水的氧化亞氮排放，從而計算污水經過除氮處理所抵銷的溫室氣體排放量。

廠內綠化

本集團積極推動綠化工作，在旗下項目廠內栽種樹木及其他植物，以優化廠內環境，同時有利於員工身心健康。本集團統計了各個項目廠內所種植的樹木數量，並按照歐洲環境署公佈每棵成年樹木每年的二氧化碳吸取量，計算報告期內廠內綠化所達到的二氧化碳抵銷量。

Enhance Cities' Resilience Against Climate Change

Following the rising of global temperature, acute hazards such as heat waves, floods and extreme weather occur more frequently; and chronic hazards such as drought, rising sea levels and resource depletion intensify threat to the mankind. To improve the projects' resilience against climate change, the Group has included climate change risk into its Risk Management System and formulated more comprehensive emergency and natural disaster contingency plans.

The Group contributes to the development of sustainable cities and communities by providing a series of water environment management services. Its projects in various areas, such as raw water protection, municipal waste water treatment, industrial waste water treatment, water supply, reusable water, and sludge treatment and disposal have effectively relieved the pressure on urban water supply and substantially minimised the impact of harmful substances on the aquatic and terrestrial ecosystems. Through establishing systems for controlling surface runoff and relieving pressure on urban river channels, the Group's river-basin ecological restoration projects enhance the ecological environmental, and improve the cities' flood prevention ability.

Since the first introduction of the "Sponge City" concept in China in 2012, the construction of "Sponge City" has gradually come into the limelight and has become a top solution for urban flood control and drainage. The Group's "Sponge City" project aims to improve a city's abilities in absorption, infiltration, retention, release and purification of rainwater, and to strengthen the function of the ecosystem in the city through systems that can effectively control surface runoff and relieve pressure on urban river channels. In 2021, Zhenjiang Sponge City project was recognised as a top five project in the UNECE "Building Back Better Infrastructure Award". As one of the best "People-first" PPP projects, the project was showcased at the UNECE 5th International PPP Forum. The project has solved the local waterlogging problem through green infrastructure, ensuring that Zhenjiang City will not suffer from flooding and stormwater pollution even when facing a once-in-50-year rainstorm.

提升城市應對氣候變化的抗禦能力

隨著全球氣候變暖趨勢的日益加劇，熱浪、洪水及極端天氣等急性自然災害頻發；乾旱、海平面上升及資源枯竭等危機也對人類社會造成重大威脅。為抵禦氣候挑戰，提高業務運營韌性及恢復能力，本集團將氣候變化風險納入現有的風險管理體系中，以制定更完善的緊急與自然災害應變方案。

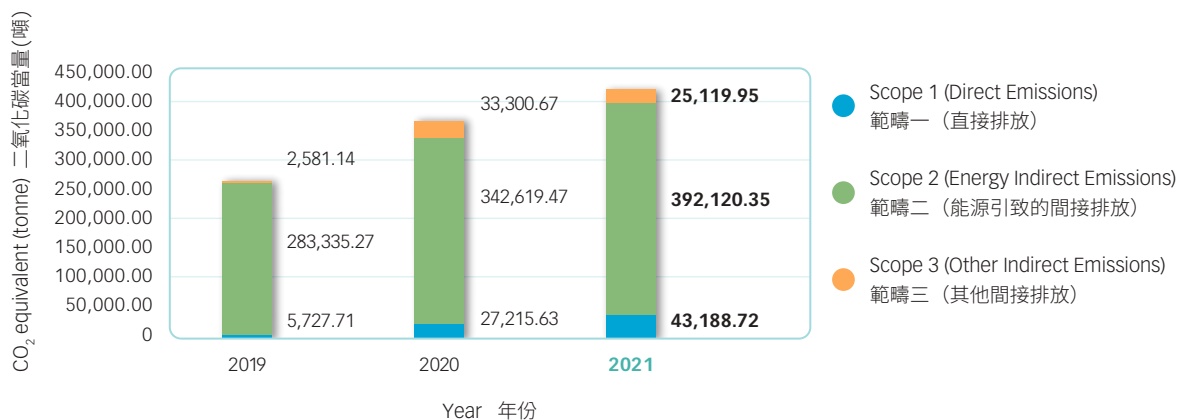
本集團透過一系列的水環境綜合治理服務，為建設可持續城市和社區貢獻智慧和力量。本集團的原水保護、市政污水處理、工業廢水處理、供水、中水回用及污泥處理處置項目可有效緩減城市供水壓力，並大幅降低有害污染物對水體和陸上生態的影響。流域治理項目則透過建立控制表面徑流和防洪排澇的系統，創建更優質的生態環境，加強城市應對水患的抗禦能力。

從二零一二年國家首次提出「海綿城市」的概念以來，「海綿城市」的建設逐漸走進人們的視野並成為城市防洪排澇的優先改造方案。本集團參建的「海綿城市」項目旨在透過建造一系列控制表面徑流和生態環境治理的工程，提升城市對雨水的吸納、蓄滲、緩釋和淨化能力，加強城市內澇防治、污染削減以及雨水利用能力。二零二一年，鎮江海綿城市項目在聯合國歐經會「更好重建」基礎設施獎項(Building Back Better Infrastructure Award)評選中躋身五強，並作為最佳「以人為本」(People-first)PPP項目之一在聯合國歐經會第五屆國際PPP論壇上進行案例展示。該項目通過綠色基礎設施解決了當地的積水問題，確保鎮江市即使面對五十年一遇的暴雨天氣，也不會發生洪澇災害和初雨污染。

In 2021, the Group's operating projects offset a total of 111,865.01 tonnes of CO₂ equivalent emissions.

二零二一年，本集團的運營項目共抵銷了111,865.01噸二氧化碳當量排放。

GHG Emissions by Scope in 2021
二零二一年按範疇劃分的溫室氣體排放



Notes:

- The calculation of GHG emissions from operating projects is referenced to CDM methodology *AM0080: Mitigation of Greenhouse Gases Emissions with Treatment of Wastewater in Aerobic Wastewater Treatment Plants (Version 1.0)*, the *GHG Protocol Corporate Accounting and Reporting Standard*, *ISO 14064-1: Specification with Guidance at the Organisation Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*, and *2006 IPCC Guidelines for National Greenhouse Gas Inventories (2019 Revision)*.
- The calculation of scope 1 emissions covers all of the operating waste water treatment projects' fugitive methane emissions, nitrous oxide emissions from biological treatment process and direct emissions released from the direct use of fuel.

附註：

- 本集團的溫室氣體計算參照CDM方法《AM0080：透過在有氧污水處理廠處理污水減少溫室氣體排放（1.0版）》、《溫室氣體核算體系企業核算與報告標準》、及《ISO 14064-1：組織層級溫室氣體排放與移除之量化及報告附指引》之規範，並參考IPCC《二零零六年IPCC國家溫室氣體清單指南》（二零一九年改進版）核准的計算方法。
- 範疇一的計算包括所有運營中的污水處理項目的無組織甲烷排放、生物處理過程中的氧化亞氮排放及經直接使用燃料而產生的直接排放。

3. The calculation of scope 2 emissions includes the indirect emissions from energy consumption. The calculation boundary of scope 2 emissions covers all the waste water treatment projects, reusable water projects, waste water source heat pump projects, sludge treatment and disposal projects, water supply projects, leachate treatment project and water environment management projects that were under construction and operation.
4. The calculation of scope 3 emissions includes fuel consumption for the transportation of sludge by third parties, indirect emissions from air travel by employees and nitrous oxide released from effluent. GHG emissions from air travel are calculated by using International Civil Aviation Organisation Carbon Emissions Calculator. Nitrous oxide released from effluent is newly included in the scope 3 emissions for the year under review.
3. 範疇二的計算為經使用電力而產生的間接排放。範疇二的計算邊界包括所有在建與運營中的污水處理、中水回用、污水源熱泵、污泥處理處置、供水、滲濾液處理項目與水環境治理項目。
4. 範疇三的計算包括污泥運送的燃油消耗、員工飛機差旅的間接排放及從出水中釋放的氧化亞氮。飛機差旅的溫室氣體排放以國際民航組織的碳排放計算器計算得出。從出水中釋放的氧化亞氮為回顧年度被新納入範疇三的間接排放。

This Report discloses the emission factor of GHG emissions due to electricity used for treating waste water and the remaining GHG intensity, to facilitate GHG reporting by the clients due to waste water discharge. Such data is available in the chapter entitled “Key Statistics” of this Report.

本報告披露用於處理污水的電力消耗所致的溫室氣體排放的排放因子及溫室氣體排放強度因子，旨在促進客戶報告其因處理污水所致的溫室氣體排放。該數據可在本報告的「主要數據」章節中取得。



We protect
LUSH MOUNTAINS AND LUCID WATER,
and devote to implementing green commitments
保護青山綠水，
致力實踐綠色承諾



With the mission of being “Devoted to Ecology and Environment for a Beautiful China”, Everbright Water is committed to promoting the construction of national ecological civilisation and sustainable urban development through high-quality water environment management services. The Group persistently develops sustainable development plans from the perspectives of environmental protection and compliance to continuously improve resource utilisation and environmental performance, and promote the harmonious integration and healthy development of corporate projects and community culture.

In order to establish effective communication channels and understand the views of the local community on the environmental impact of the projects, each project under the Group has established an effective grievance mechanism to deal with the concerns and complaints of the affected people on the environmental impact of the project activities. During the year under review, the Group did not receive any complaints related to environmental impact and nuisance.

By actively exploring innovative technologies, the Group promotes industry reform and upgrading of industrial structure and ensures the green implementation of projects with a comprehensive testing and management system to minimise the impact of harmful pollutants on the ecological environment. The Group is deeply committed to the water environment in China, focusing on the improvement of the water ecosystem in order to better serve the people and make greater contributions to pollution prevention and ecological protection.

Environmental Management Approach

Amidst the increasing environmental challenges, the Group follows the pace of the country, strictly complies with the latest environmental laws and regulations promulgated by the government, and actively responds to the government’s initiatives to contribute to environmental development. The Group continues to improve its environmental management policy system and uses it as a guide to refine its work and responsibilities to ensure its sustainable development.

光大水務心繫環保，以「情繫生態環境、築夢美麗中國」為使命，致力於通過優質的水環境綜合治理服務，推動國家生態文明的建設與城市的可持續發展。本集團堅持從環保合規的角度勾畫企業發展藍圖，持續提高資源利用率及環保表現，促進企業項目與社區文化的和諧共融與健康發展。

為建立有效的溝通渠道，了解當地社區民眾對項目所帶來環境影響的意見，本集團旗下的各個項目均已設立有效的申訴機制，以處理受影響人對項目活動環境影響的關注和投訴。於回顧年度內，本集團並沒有收到任何與環境影響和滋擾相關的投訴。

本集團積極探索創新科技，促進行業改革及產業結構升級，並以全面的檢測及管理體系為項目的綠色實施保駕護航，將有害污染物對生態環境的污染降到最低。本集團深耕中國水環境領域，專注水生生態系統的改善，務求更好地服務人民，為污染防治及生態環境的保護作出更大的貢獻。

環境管理方針

面對日益嚴峻的環境挑戰，本集團緊跟國家步伐，嚴格遵循政府最新頒佈的環境法規，並積極響應政府的號召，為環境建設添磚加瓦。本集團持續完善環境管理政策體系，以此指導細化工作內容及責任落實，保障本集團的可持續發展。

Policies and Systems

Under the leadership of a strong management team, the Group upholds the sustainable development philosophy of “Taking Quality as the Top Mission and Keeping Efficiency as the Priority with Support by Scale” and strictly enforces the *Corporate Policies on Environmental Management* formulated by Everbright Water.

政策及體系

在強大的管理團隊的帶領下，本集團秉持「品質第一、效益優先、規模助力」的可持續發展理念，嚴格遵守光大水務所訂立的《環境管理企業政策》。

Corporate Policies on Environmental Management – The policies set out important principles for the Group to implement environmental management and minimise the burden that the Group may cause on the environment and natural resources. They also provide detailed guidance on the environmental impacts involved in the operation of the Group.

環境管理企業政策 — 該等政策為本集團落實環境管理提供了重要綱領，爭取最大程度降低本集團對環境及自然資源可能造成的負擔。政策亦對本集團運營中所涉及的环境影響提供詳細指引。

Six key areas of the policies:
政策的六大核心：



Compliance
合規



Risk management and due diligence
風險管理和盡職調查



Environmental protection
環境保護



Health and safety
健康和安全



Supply chain management
供應商管理



Monitoring and communication
監測和溝通

Six key environmental guidelines of the policies:
政策提出的六大環境指引：

Air and GHG emissions
廢氣及溫室氣體排放

Discharges into water bodies and land
向水及土地的排污

Generation and disposal of hazardous and non-hazardous waste
有害及無害廢棄物的產生及處置方法

Energy
能源

Water resources
水資源

Use of raw materials
原材料使用

The Group has established the following commitments to implement the concept of sustainable development:

- Implementing the environmental management system
- Environmental protection policies are all approved by the senior management or the Board
- Developing a more comprehensive GHG audit framework
- Setting more realistic carbon reduction targets
- Strictly monitoring the Group's environmental performance
- Striving to protect the environment
- Striving to promote environmental awareness
- Effectively utilising natural resources and energy
- Striving to reduce the generation of wastes and emissions
- Actively engaging with various stakeholders regarding environmental protection topics
- Actively providing reports on environmental matters

In order to standardise the operating practices of its projects and incorporate social responsibility into its business operation process and daily enterprise management, the Group formulated and implemented the ESHS Management System, Risk Management System and "Intelligent Water" Information Management System. The Group continuously enhances the ESHS Management System and Risk Management System and has implemented the *Contractors ESHS Management Measures* to ensure that suppliers and contractors comply with its environmental management policies. These two management systems provide more comprehensive frameworks and regulations, effectively reducing the probability of risks occurrence and ensuring the fulfilment of environmental social responsibility in both upward and downward of the supply chain. The Group also actively responded to the country's "Achieving Carbon Neutrality" policy by promoting the large-scale application of the "Intelligent Water" Information Management System which automatically controls and systematically optimises the operation of waste water treatment plants and their electricity consumption. As such, the Group is able to further achieve energy saving and emission reduction, laying a solid technological foundation to implement green strategies in the future.

本集團為實踐可持續發展理念，定立了以下承諾：

- 堅決落實環境管理系統
- 環保政策均由高級管理層或董事會許可
- 制定更加全面的溫室氣體審計框架
- 設立更切實的減碳目標
- 嚴格監控本集團的環保表現
- 致力保護環境
- 致力推廣環保意識
- 有效地使用天然資源和能源
- 致力減少廢物及排放的產生
- 積極與各持份者討論環保相關議題
- 主動提交環境相關事項的報告

為規範本集團項目的經營實踐，將社會責任落實到業務運營過程和企業日常管理當中，本集團制定並落實了ESHS管理體系、風險管理體系及「智慧水務」信息管理體系。本集團持續優化ESHS管理體系和風險管理體系，並制定了《承包商ESHS管理標準》，以確保供應商和承包商遵守本集團的環境管理政策。兩大管理體系為企業運作提供了全面的指導及規範，有效降低風險發生的概率，保證供應鏈上下游對環境社會責任的履行。本集團亦積極響應國家的「碳中和」政策，通過促進「智慧水務」信息管理系統的大規模應用，對污水處理廠的運作情況和用電耗能進行智能把控及系統性優化，進一步節能減排，為未來綠色戰略的實施奠定科技基礎。

The Group upholds the business philosophy of green development and considers environmental performance as a key indicator for assessing the operation of its projects. The Group has been actively evaluating its environmental and social performance against internationally recognised standards, including the World Bank Group’s *Environmental, Health, and Safety Guidelines*, and since 2016, has been annually submitting to IFC the monitoring reports, which were audited by independent third-party technical consultant. Such monitoring reports cover all projects of the Group, including projects in the preparatory stage, projects under construction, projects that completed construction and projects in operation. All of the Group’s projects have obtained or are actively applying for international management standard certificates, including ISO 9001 Quality Management System, ISO 14001 Environmental Management System, and ISO 45001 Occupational Health and Safety Management System. In addition, the Group will analyse and evaluate the projects’ environmental and social risks prior to investment, and will ensure all necessary permits and environmental assessment reports approvals are duly obtained prior to the commencement of construction.

本集團以綠色發展為經營理念，視環境表現為項目投運的一大重要評估指標。本集團積極按照世界銀行集團《環境、健康和 safety 指南》等國際認可的標準評估其環境及社會表現，並自二零一六年起每年向IFC提交經獨立第三方技術顧問審核過的監測報告。監測報告的範圍涵蓋本集團的所有項目，包括籌建項目、在建項目、建成完工項目及運營項目。本集團旗下所有項目均已獲得或正在積極申請各類相關體系管理證書，包括ISO 9001質量管理體系、ISO 14001環境管理體系及ISO 45001職業健康安全體系。此外，本集團在投資項目之前均會篩查其環境及社會風險，並確保於施工前獲得所需的許可及環評報告批覆。

Environmental Management System Requirements 環境管理體系要求	Description 描述
Monitoring, measurement, analysis and evaluation 監督、量測、分析與評估	Monitor, measure, analyse and evaluate the environmental performance. 監督、量測、分析與評估其環境績效。
Leadership and commitment 領導與承諾	Top management should assess the effectiveness of the environmental management system, and ensure that the established environmental policies and environmental objectives are compatible with the Group’s strategic direction, which shall be integrated into its business processes. Additionally, the importance of effective environmental management and compliance with the environmental management system requirements are effectively communicated within the Group. 最高管理層應評估環境管理系統的有效性，確保已建立的環保政策和目標與本集團的策略方向相同，并與運營流程整合，有效地傳達環境和遵守環境管理系統要求的重要性。

Environmental Management System Requirements 環境管理體系要求	Description 描述
Internal and external audit 內部和外部審核	Conduct internal and external audits at planned intervals to determine its compliance with the environmental management system and international standards. 按規劃的時間間隔進行內部和外部審核，以判斷是否符合環境管理系統及國際標準的要求。
Training and awareness 培訓和認知	Employees should receive training on the environmental management system and fully understand the Group's environmental policies and the significant environmental aspects associated with their work. 員工應接受環境管理系統相關培訓，並應了解本集團的環境政策和他們工作有關的重大環境考量面。
Remedial actions 矯正措施	Take appropriate actions based on the severity of the effects of the non-compliance and the environmental impacts arising therefrom. 根據不符合政策而造成影響的大小和對環境衝擊的程度採取適當的行動。
Roles and responsibilities 角色和職責	Clarify the relevant roles and responsibilities of the environmental management system. 釐清環境管理系統各相關角色和職責架構。
Legal register and environmental impact register 法律法規登記冊和環境影響登記冊	Clearly define, maintain and regularly update all applicable laws, regulations and other requirements, and prepare and update the environmental impact register based on the Group's activities, products and services. 清晰界定、維持及定期更新所有適用的法律法規和其他要求，以及根據本集團的活動、產品及服務來編製及更新環境影響登記表。
Environmental objectives 環境目標	Establish environmental objectives, consider their risks and opportunities, and set deadlines to achieve those objectives. 建立環境目標，考量其風險和機會，並設立達到目標的限期。
Compliance with regulations 遵守法規	Evaluate the status of compliance with the relevant regulations and take appropriate actions as needed. 評估遵守法規的狀態並按需採取適當的行動。
Environmental performance records 環境績效記錄	Record and maintain documents which monitor, measure, analyse and evaluate the environmental performance. 記錄和保留監督、量測、分析與評估環境績效的文件。

Occupational Health and Safety Management System Requirements 職業健康與安全管理系統要求	Description 描述
Regular training 定期培訓	<p>Employees should receive training regularly on occupational health and safety management system and fully understand the Group's occupational health and safety policies.</p> <p>員工應接受定期職業健康與安全管理系統相關培訓，並應了解本集團的職業健康與安全政策。</p>
Occupational health and safety objectives 職業健康安全目標	<p>Establish occupational health and safety objectives, and commit to providing safe and healthy working conditions to prevent any work-related injuries and health damage, complying with applicable laws, regulation and other requirements, and involving employees and employee representatives in the decision-making process relating to the occupational health and safety management system.</p> <p>建立職業健康安全目標，並承諾提供安全健康的工作條件以預防與工作相關的傷害和健康損害、滿足適用的法律法規要求和其他要求、讓員工及員工代表參與職業健康安全管理體系決策過程等。</p>
Internal and external audit 內部和外部審核	<p>Conduct internal and external audits at planned intervals to determine its compliance with the occupational health and safety management system and international standards.</p> <p>按規劃的時間間隔進行內部和外部審核，以判斷是否符合職業健康與安全管理系統及國際標準的要求。</p>
Occupational health and safety policy 職業健康安全政策	<p>Top management establishes, implements and maintains an occupational health and safety policy after discussing it with the employees from all levels of the Group.</p> <p>經本集團各級員工協商後，最高管理層制定、實施、及維持職業健康安全政策。</p>
Leadership and commitment 領導與承諾	<p>Top management assesses the applicability, adequacy and effectiveness of the occupational health and safety management system at planned intervals, and analyses if the occupational health and safety performance could reach the objectives.</p> <p>最高管理層按規劃的時間間隔對職業健康與安全管理系統的適宜性、充分性和有效性進行評估，分析職業健康安全績效能否達到本集團的職業健康安全目標。</p>

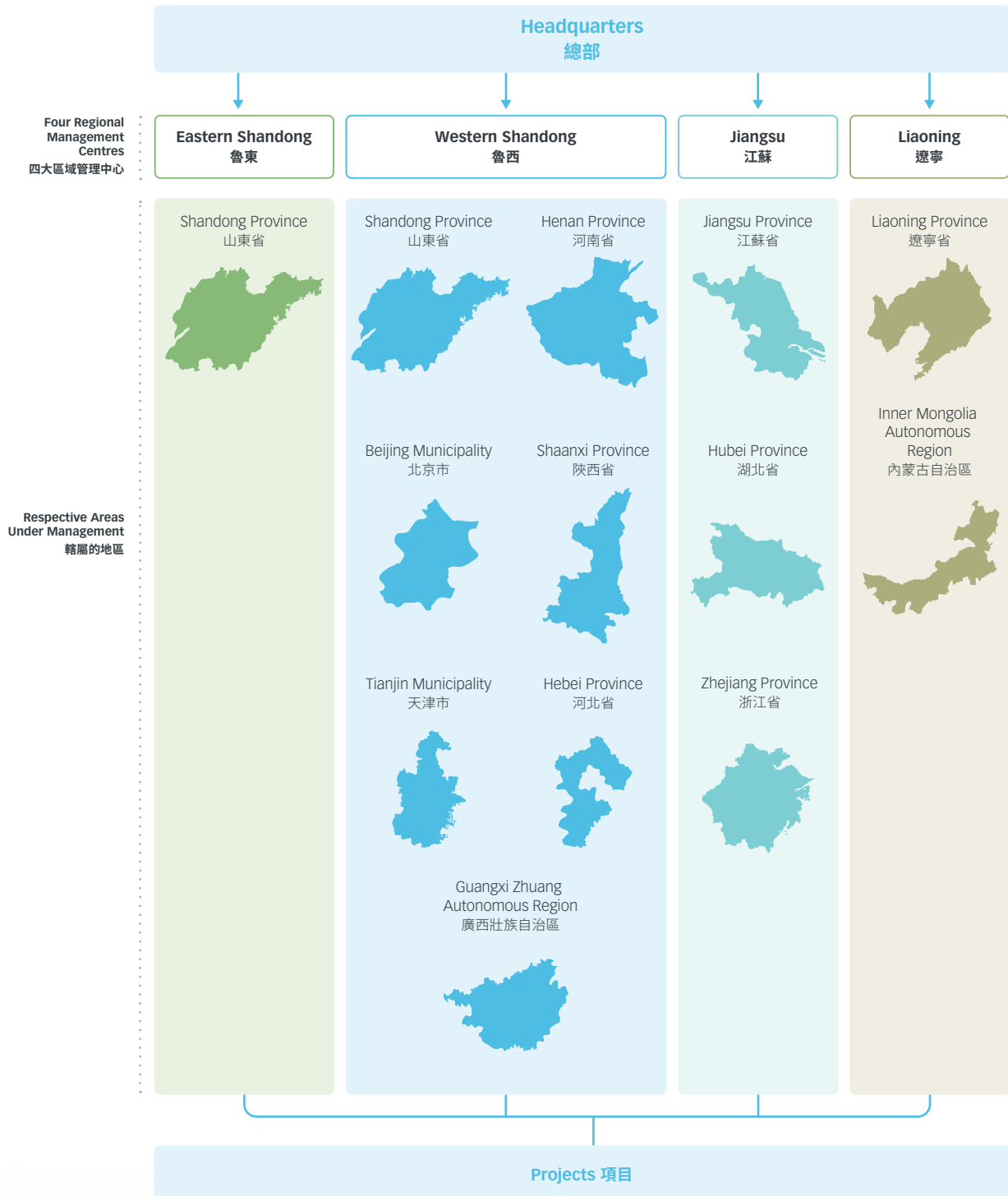
Occupational Health and Safety Management System Requirements 職業健康與安全管理系統要求	Description 描述
Monitoring, measurement, analysis and evaluation 監督、量測、分析與評估	Monitor, measure, analyse and evaluate the occupational health and safety performance. 監督、量測、分析與評估職業健康安全績效。
Hazard identification and risk assessment 危險源辨識和風險評價	Establish, implement an ongoing and proactive process(es) for hazard identification, and identify and evaluate the relevant occupational health and safety risks. 建立、實施一個程序持續積極地對產生的危險源進行辨識，並識別與評價其中的職業健康安全風險。
Emergency preparedness and response 應急準備和響應	Identify potential emergencies, evaluate occupational health and safety risks associated with these emergencies, and prevent or minimise the risks arising therefrom. 識別潛在的緊急情況，評價與這些緊急情況相關的職業健康安全風險並預防或儘可能降低因潛在的緊急情況帶來的職業健康安全風險。

Responsibilities and Division of Labour

In order to ensure the effective implementation of its core management concepts and policies, the Group has established a clear division of work and a system of separation of responsibilities. Based on the management model of Headquarters-Regional Management Centres-Projects management approach, the Group has set up four regional management centres in Eastern Shandong, Western Shandong, Jiangsu and Liaoning, and set up safety and environmental management organisations at the level of each region and project company. As such, the Group is able to optimise the distribution of corporate resources according to the characteristics of projects in different regions, enhance communication between regions and improve environmental management efficiency and operation benefit, which will significantly enhance its efficiency in terms of decision-making and risk management capabilities.

責任與分工

為保證其核心理念與政策的有效落實，本集團已建立分工明確的管理結構與責任劃分系統。以總部—區域—項目為管理模式，本集團在魯東、魯西、江蘇和遼寧設立了四大區域管理中心，並在各區域和項目公司層面設置了安全與環境管理機構，可根據不同地區的項目特點優化企業資源分佈，加強區域之間的溝通交流，提高環境管理效率及經營效益，從而大幅提升其整體的決策運行效率和風險管控能力。



Note: Only projects in operation are managed by the Regional Management Centres while projects in preparatory stage or under construction are managed by the Construction Centre of the Group.

附註：僅運營項目由區域管理，籌建項目或在建項目由本集團的工程中心管理。

Environmental Disclosure

The Group strives to provide the public with transparent, reliable and comprehensive environmental performance associated with its project operations, such as environmental impact assessment reports, annual environmental monitoring plans, environmental emergency preparedness and response plans, waste water/sludge/air/noise monitoring results, etc. All such information is also uploaded to corporate website of Everbright Water or the relevant local official websites for public inspection. Meanwhile, the Group actively opens its waste water treatment facilities for public scrutiny in response to the requirement of the Ministry of Ecology and Environment and the Ministry of Housing and Urban-Rural Development of the People's Republic of China (the "PRC") so as to promote environmental protection to the general public while accepting monitoring from the public.

Environmental-friendly Design

In the process of project planning and design, Everbright Water considers the impact of the project on the overall water cycle and ecosystem, and incorporates eco-friendly elements into the design to address issues such as ecosystem resilience, flood risk, water security, water pollution etc. Everbright Water supports the ecological protection and management of lakes and river basins by improving the effluent quality of waste water treatment projects. The Group's river-basin ecological restoration projects play an important role in improving the water quality of river basins by providing a series of river-basin ecological restoration services such as river dredging, waste water outfall improvement, and environmental improvement along the river. These improvements also provide suitable habitats for wild animals and plants on the riverbanks and contribute to the protection of biodiversity.

The Group also attaches great importance to the impacts of the projects on local residents. Therefore, when planning each project, the potential impacts of the project on local residents are fully considered, and the impacts on other public facilities and roads are minimised to ensure that residents can continue to enjoy a decent living environment.

環境披露

本集團堅持為公眾披露透明、可靠、全面的項目運營環境表現，如環評報告、年度環境監測計劃、突發環境事件應急預案、廢水/污泥/廢氣/噪聲監測結果等。該等信息也被上載於光大水務網站或當地官方指定網站供公眾查閱；同時，本集團積極響應中華人民共和國（「中國」）生態環境部及住房和城鄉建設部的要求，加入光大水務環保設施整體開放計劃，將污水處理設施向公眾開放，對大眾進行環保科普的同時接受來自公眾的監督。

環境友善設計

光大水務在項目規劃及設計過程中，綜觀考慮項目對整體水循環及生態系統的影響，並在設計中納入生態友善的元素，以應對生態系統復原力、洪水風險、水資源安全、水質污染等重要議題。光大水務透過提高污水處理項目的出水水質，支持湖泊及河流域的生態環境保護和治理。本集團的河道流域治理項目通過提供河流疏浚、排污口整治、沿河環境提升等一系列河道流域治理服務，對改善河流域的水質發揮重要作用；項目亦透過綠化坡岸及改善沿河的環境，為河岸的野生動植物提供合適的生存環境，為保護生物多樣性作出貢獻。

本集團亦相當重視項目對當地居民的影響，因此在規劃每個項目時充分考慮項目對當地居民的潛在影響，並致力把對其他公用設施及道路的影響減至最低，以確保居民能繼續享有合宜的居住環境。

Environmental Performance

As a leading water environment management enterprise in China, the Group ensures its project operations strictly comply with the relevant standards and requirements as set out in the environmental impact assessment reports. In addition, the Group selects suitable waste water treatment processes to continuously improve the quality and hygiene of freshwater resources in China and substantially reduce the environmental impacts brought by untreated waste water discharge. The Group also takes into consideration the livelihood of surrounding communities and adopts appropriate alleviation measures to resolve the “Not in My Back Yard Syndrome”. During the Reporting Period, there was no record of breach of the relevant laws and regulations that would have a significant impact on the Group. In view of its business nature, the Group reported its environmental performance in the following seven aspects:

環境表現

作為中國領先的水環境綜合治理企業，本集團嚴格參照相關環境標準及環境影響評估報告的要求進行項目運營，並選用合適的污水處理工藝，持續改善中國的淡水品質和衛生狀況，最大程度減少污水排放給環境帶來的負面影響。本集團亦致力於將項目實施與周邊社區的民生相結合，採取充分、適當的緩解措施以化解「鄰避效應」。報告期內，本集團無任何因違反相關法律法規而造成重大影響的記錄。根據業務性質，本集團依據以下七個範疇報告其環境表現：



Waste water Treatment and Discharge Monitoring

Being a water treatment service provider, the quality and quantity of waste water treatment are the Group's top priority. Through its nationwide project companies, the Group has built a mature water sector network and is actively promoting the development of "Intelligent Water", upgrading of water resources protection measures, construction of sludge treatment and disposal facilities and quality enhancement of municipal waste water pipeline network. By adopting stringent effluent standards for the Group's waste water treatment projects, the majority of the Group's projects comply with or is better than Grade 1A standard of the *Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant* (GB18918-2002). Therefore, the environmental damage caused by the discharge of effluent is substantially reduced, and public health and the sustainability of the water environment are safeguarded.

Waste water Treatment Process and Performance Indicators

In order to ensure compliance with discharge standards, Everbright Water adopts a series of waste water treatment technologies to remove water pollutants through physical, chemical and biological processes. Its waste water treatment projects mainly include pre-treatment, primary treatment, secondary treatment and tertiary treatment. Pre-treatment removes solid wastes from the waste water via screening and degritting. Primary treatment removes settleable suspended solids from the waste water through sedimentation process, during which, chemical are added to enhance the removal efficiency. Such treatment process can reduce SS, COD and biological oxygen demand ("**BOD**"). Secondary treatment is a biological treatment process in which the organic pollutants are decomposed by micro-organisms, which can further remove SS, COD and BOD, and achieve the removal of nitrogen and phosphorus. Tertiary treatment is the highest level of treatment that suppresses the organic pollutants, SS and nutrients through UV radiation, chlorination/de-chlorination or other post-treatment waste water disinfection means.

污水處理與出水監測

對污水進行保質保量的處理是本集團作為水治理服務商的首要任務。通過遍佈全國的項目公司，本集團建設成熟的水務行業網絡，並積極推動「智慧水務」建設、水資源安全保護措施升級、污泥處理處置設施建設、城鎮污水管網提質等產業升級工作。本集團對污水處理項目採用嚴格的出水標準，大部分項目的出水水質執行或優於《城鎮污水處理廠污染物排放標準》(GB18918-2002)的一級A標準，從而大幅度降低污水排放對環境造成的損害，保障公眾的健康與水環境的可持續。

污水處理流程及表現指標

光大水務採用了一系列的污水處理技術，結合物理、化學及生物過程除污淨水，做到達標排放。本集團的污水處理流程主要包括預處理、一級處理、二級處理及三級處理。在預處理階段，污水中的固體廢物和砂礫透過隔濾移除。一級處理使用沉澱過程去除污水中可沉澱的懸浮固體，並加入藥劑以強化除污的效果。此處理程序可減少污水中懸浮固體、化學需氧量及生化需氧量。二級處理為生物污水處理程序，利用微生物分解污水中的有機污染物，進一步降低污水中懸浮固體、化學需氧量及生化需氧量，並達到脫氮除磷。三級處理是最後一道除污淨水程序，利用紫外線、加氯/除氯處理或其他方法為處理後的污水消毒，將有機污染物、懸浮固體和營養物減至極低水平。



The performance indicators of the Group's waste water treatment projects are listed below:
以下為本集團的污水處理項目表現指標：

Unit: Tonne
單位：噸

Screenings removed from waste water
從污水中移除的隔濾物量

12,394.86

Grits removed from waste water
從污水中移除的沙礫量

10,363.42

Suspended solids (SS) removed from waste water
從污水中移除的懸浮固體量

370,046.37

Chemical oxygen demand (COD) removed from waste water
從污水中移除的化學需氧量

417,317.00

Biochemical oxygen demand (BOD) removed from waste water
從污水中移除的生化需氧量

188,002.59

Total phosphorus (TP) removed from waste water
從污水中移除的總磷量

6,906.07

Total nitrogen (TN) removed from waste water
從污水中移除的總氮量

50,908.22

Ammonia nitrogen (NH₃-N) removed from waste water
從污水中移除的氨氮量

50,592.79

Improving Discharge Standards

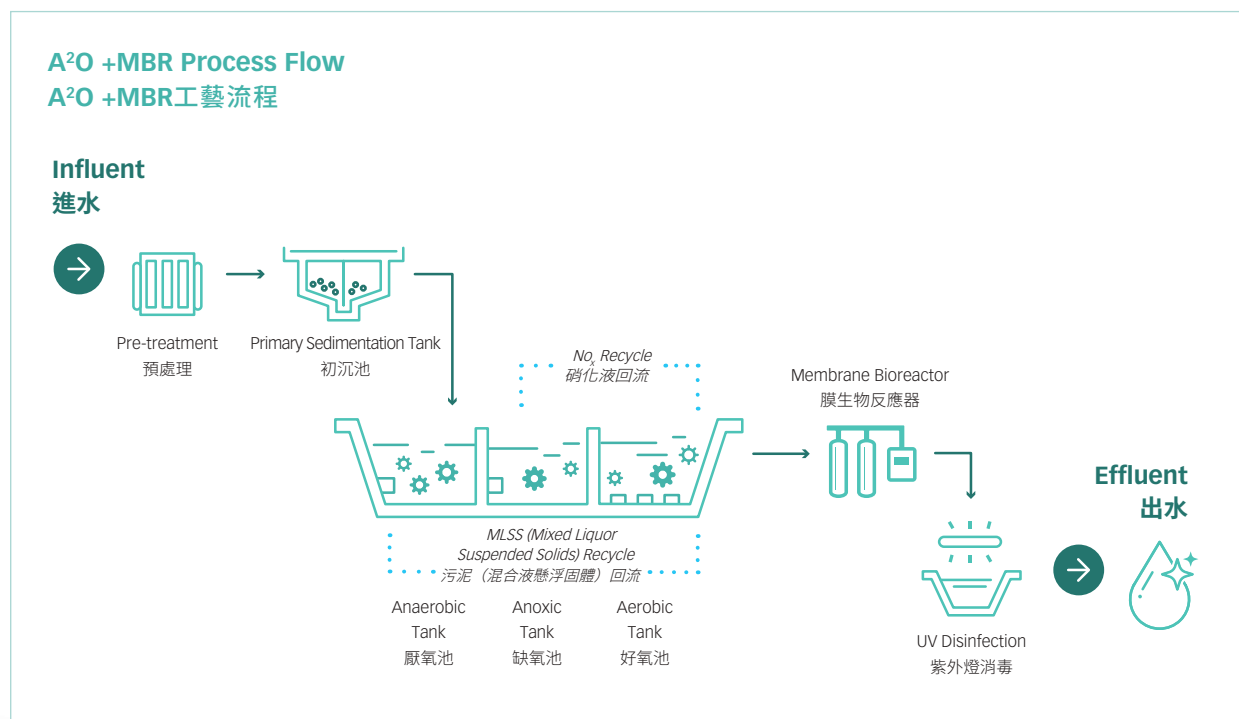
提升出水標準

Anaerobic-Anoxic-Aerobic (“A²O”) Process and Membrane Bioreactor (“MBR”)

厭氧-缺氧-好氧法 (“A²O”) 工藝+膜生物反應器 (“MBR”)

Ji’nan Waste Water Treatment Project is the first project in a provincial capital in China that fully complies with the national Grade 1A standard for its discharged water. As a “National Municipal Golden Cup Demonstration Project”, it has also won the first place in the national waste water treatment competition for 36 large- and medium-sized cities organised by the Ministry of Housing and Urban-Rural Development of the PRC for two consecutive years. Apart from the expansion projects for the Ji’nan Waste Water Treatment Plants 1 and 2 and Ji’nan Tangye New Area Waste Water Treatment PPP Project which have been put into operation in the past two years, Ji’nan East Station Area Underground Waste Water Treatment Project has also adopted the process of pre-treatment, A²O, MBR and UV disinfection, so as to improve the discharge standards and stability. The A²O plus MBR technology combines the merits of A²O and MBR processes, so that nitrogen, phosphorus and other main pollutants can be effectively removed, improving the effluent standard and stability.

濟南污水處理項目是國內首個省會城市全部執行國家一級A排放標準的項目，亦是「國家市政金杯示範工程」，連續兩年獲中國住房和城鄉建設部組織的全國36個大中城市污水處理評比第一名。除前兩年投入運營的濟南污水處理項目一廠、二廠的擴建項目及濟南唐冶新區污水處理PPP項目外，濟南東站片區地下污水處理項目亦採用了預處理+A²O工藝+MBR+紫外線消毒的除污工藝，結合多種技術優點，能夠同時達到脫氮除磷，以提高出水標準及穩定性。



Nanning Shuitang River Water Quality Treatment Plant EBAF® Generation III Aeration Biofilter Tank

Located in Nanning City, the Group's Nanning Shuitang River Water Quality Treatment Plant is the first waste water treatment using aeration biofiltration as the main biochemical treatment method, with treatment capacity over ten-thousand tonnes per day. Under the conditions where the influent water quality has low carbon to nitrogen ratio, the plant applies EBAF® aeration biofilter which has a higher filtration rate and load, and is able to complete the coating and domestication in only 50 days under the winter water temperature of about 20°C. At the same time, after the dynamic control of carbon injection and reflux ratio, the effluent indexes all meet the Grade 1A standard of the *Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant* (GB18918-2002). The rapid start-up and stable operation of this technology can provide a new process and commissioning experience for treating southern domestic waste water with low concentration.

南寧水塘江水質淨化廠EBAF®第三代曝氣生物濾池

本集團南寧水塘江水質淨化廠位於南寧市，為廣西第一座運用曝氣生物濾池作為主要生化處理手段的萬噸級污水處理廠。在低碳氮比的進水水質條件下，採用了更高設計濾速與負荷的EBAF®曝氣生物濾池，可在冬季水溫約為攝氏20度的情況下，50日即完成掛膜與馴化，同時在經過動態控制碳源投加量和回流比後，出水各項指標均滿足《城鎮污水處理廠污染物排放標準》(GB18918-2002)的一級A標準。這個技術的快速啟動、穩定運行可為處理低濃度南方生活污水提供新的工藝思路和調試運行經驗。



Everbright Water's Measures on Effluent Quality Control
光大水務在控制水質方面的舉措

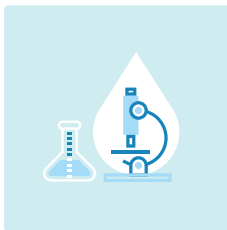


Continuous Effluent Monitoring System

持續出水監測系統

All of the Group's waste water treatment projects have installed continuous water monitoring systems which are able to promptly, accurately and continuously record effluent data.

本集團已在所有污水處理項目安裝了持續出水監測系統，以便能夠迅速、可靠和持續地記錄出水水質數據。



Regular Monitoring by Third-Party Laboratories

由第三方化驗所定期檢測出水樣本

To ensure the independence and impartiality of effluent monitoring results, each project company of the Group engages a third-party laboratory to regularly test effluent samples. 為確保所有污水處理項目的出水監測結果均透過獨立與公正的檢測程序得出，本集團旗下每間項目公司均聘請第三方化驗所定期檢測出水樣本。

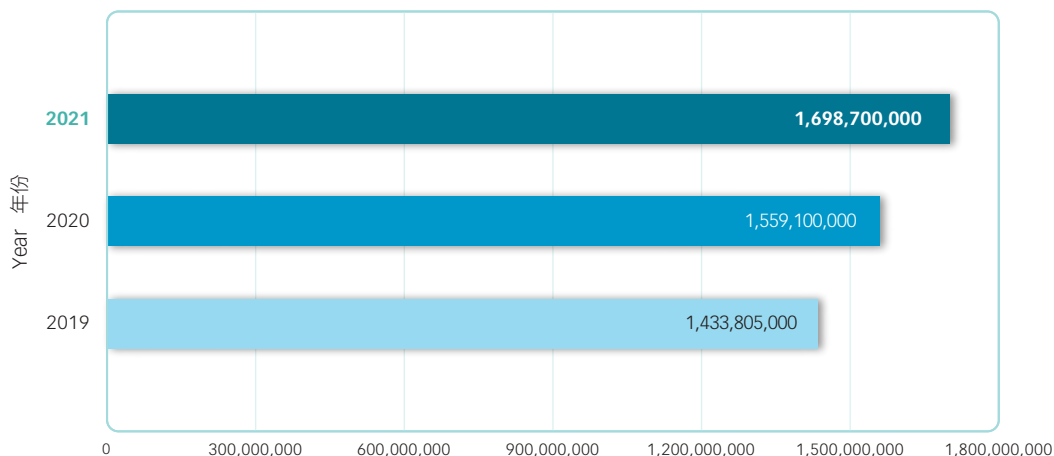
In 2021, the Group treated an aggregate of approximately 1,698,700,000 m³ waste water and reduced an aggregate of approximately 417,371 tonnes COD.

二零二一年，本集團共處理約1,698,700,000立方米污水，
同時減少了約417,371噸的化學需氧量排放。

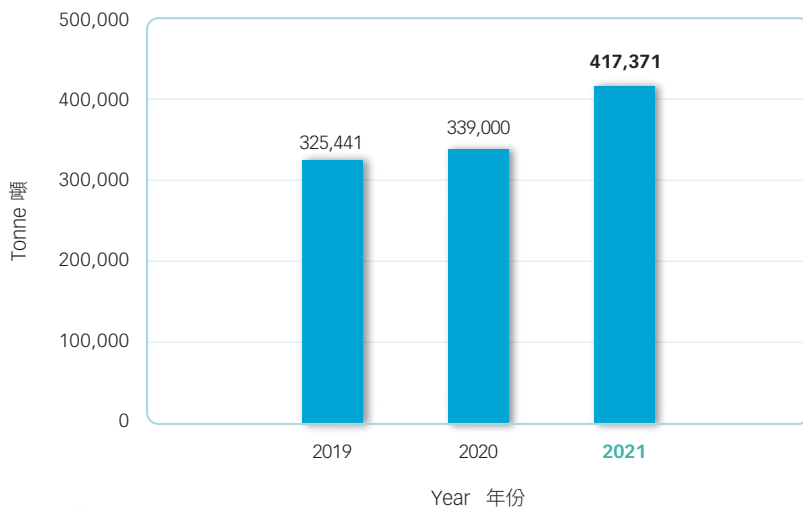
In 2021, the Group's reusable water projects produced an aggregate of approximately 28,530,000 m³ reusable water.

二零二一年，本集團的中水回用項目共生產了約28,530,000立方米的回用水。

Waste Water Treated in the Past Three Years (Unit: m³)
過往三年的污水處理量 (單位：立方米)



COD Reduction in the Past Three Years
過往三年的化學需氧量減排量



Odour Control

The Group appoints third-party laboratories to regularly test the air emissions to ensure that its waste water treatment projects strictly comply with *Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant* (GB18918-2002), *Emission Standards for Odor Pollutants* (GB14554-93) or equivalent standards, including ammonia (NH₃), hydrogen sulphide (H₂S), ozone (O₃), methane (CH₄), etc. The Group utilises new biological deodorisation technologies, which are able to adjust the processing parameters in response to different types of odourous gases to reduce odour released from waste water treatment plants, making the plants more environmental and “community-friendly”.

Sludge Treatment

Sludge is a by-product arising from waste water treatment process, which is mainly produced in the process of sedimentation and biological treatment. It is a semi-solid precipitation material. Sludge contains bacteria, pathogenic sources, organic and inorganic pollutants, etc. At the same time, the organic matter in the sludge contains a large amount of recyclable energy. The policy basis and requirements of the “14th Five-Year Plan” for *Urban Waste Water Treatment and Resources Utilisation Development* demonstrate the country’s unwavering determination and unrelenting standards for pollution control. In accordance with the requirements as set out in the “14th Five-Year Plan”, the Group has fully implemented the harmless sludge disposal, accelerated reducing the scale of sludge landfills and actively promoted the utilisation of sludge resources. In addition, the Group has been strictly adhering to the national standards such as *Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant* (GB18918-2002), actively evaluating its environmental and social performance against internationally recognised standards, including the World Bank Group’s *Environmental, Health, and Safety Guidelines* and *Environmental, Health, and Safety Guidelines for Water and Sanitation*, and regularly submitting monitoring reports to IFC since 2016, so as to reduce environmental impacts of sludge treatment and disposal.

氣味控制

本集團聘請第三方化驗所定期檢測旗下項目的大氣污染物排放，包括氨、硫化氫、臭氧濃度及甲烷等，以確保污水處理項目嚴格遵守《城鎮污水處理廠污染物排放標準》(GB18918-2002)、《惡臭污染物排放標準》(GB14554-93)或同等標準中的大氣污染物排放要求。本集團採用新型生物除臭系統，能根據不同類型的氣體進行調整處理，減少污水處理廠所釋放出的氣味，使工廠更加高效環保，真正達到「鄰利」。

污泥處理

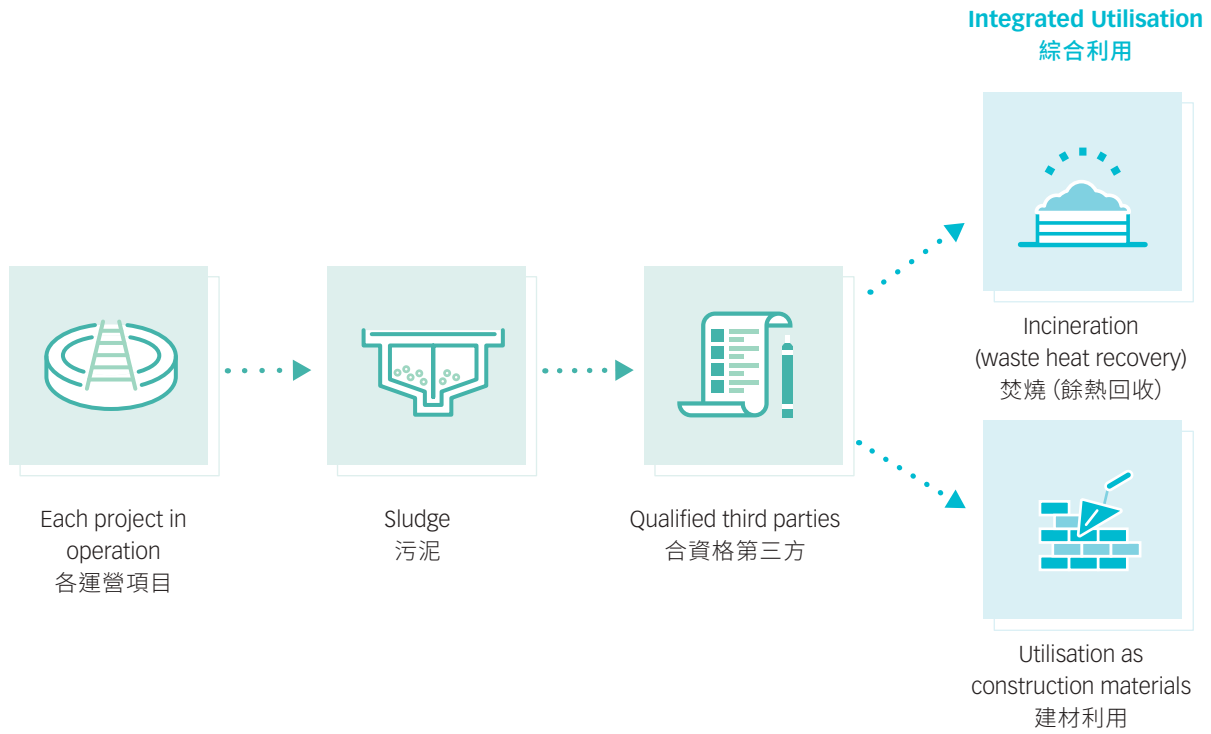
污泥是污水處理過程中的副產物，主要從沉澱及生物處理過程中產生，是半固體的沉澱物質。污泥含有細菌、致病源、有機及無機污染物等，同時污泥中的有機物蘊含大量可回收的能源。《「十四五」城鎮污水處理及資源化利用發展規劃》等政策基調和要求顯示出國家治污決心不移、標準不減。本集團按照「十四五」規劃綱要要求，污泥處置設施全面實現無害化處置，加快壓減污泥填埋規模，及積極推進污泥資源化利用。此外，亦嚴格執行《城鎮污水處理廠污染物排放標準》(GB18918-2002)等有關國家標準處理污水處理項目所產生的污泥外，本集團更積極按照世界銀行集團《環境、健康和安全管理指南》及《水與衛生環境、健康與安全指南》等國際認可的標準評估其環境及社會表現，並自二零一六年起定期向IFC提交監測報告，以減少污泥處理與處置對環境的影響。

Sludge Treatment Process

Most of the treated sludge with satisfactory testing results is sent to qualified third parties for further treatment, reuse and/or integrated utilisation, such as incineration (waste heat recovery), utilisation as construction materials, etc.

污泥處理流程

大部分經處理並通過檢測的污泥會被送到合資格第三方作進一步處理、循環再用及/或作綜合利用，如焚燒（餘熱回收）、建材利用等。



The remaining sludge that cannot be utilised is sent to designated landfills for disposal after undergoing dewatering process for reduction of water content and volume.
少數無法進行綜合利用的污泥則會先進行脫水以減少含水量及體積後再送到指定填埋場作填埋處理。



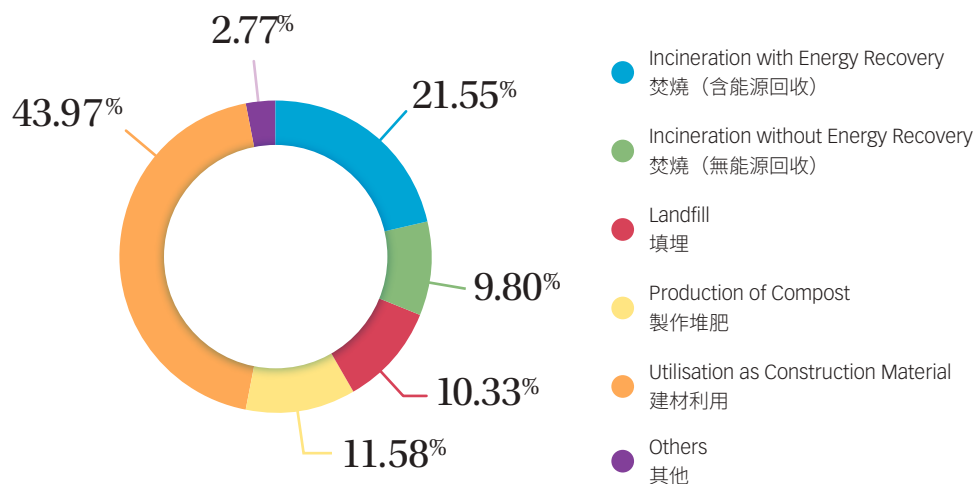
By adhering to the principle of “Development Driven by Technology and Innovation”, the Group continued boosting its investment and efforts in the field of technology R&D. As such, the Group achieved significant breakthrough in the low-temperature sludge drying technology. Such technology shall effectively reduce sludge weight by 60% and it is believed that high efficiency and stability of sludge treatment will be the leading-edge technologies in the water sector. As such, the Group will continue exploring low-cost and efficient sludge treatment and comprehensive utilisation technologies (such as protein and phosphorus recovery technologies), further promoting the water industry towards technological transformation and sustainable development.

本集團堅持「創新引領科技，科技引領發展」，持續加大在技術研發領域的投資及探索，在污泥低溫乾化技術上取得重大的突破，能有效將污泥重量減少60%。污泥的高效和穩定處理勢必成為領先水行業的革新技術，因此本集團將繼續探索更低成本、高效率的污泥處理和綜合利用技術（如蛋白質和磷回收技術），務求進一步推動水務行業的技術改革和可持續發展。

**In 2021, the Group generated a total of approximately
1,068,207 tonnes of sludge.**

二零二一年，本集團共產生了約1,068,207噸污泥。

**Sludge Generated from Waste Water Treatment Projects in 2021:
Ultimate Off-site Treatment/Disposal by Third Parties**
二零二一年污水處理項目所產生的污泥：經第三方最終場外處理/處置的方法



Total Sludge Generated
污泥產生總量

1,068,207 tonnes
噸

In order to promote the concept of sustainable waste management to the downstream of its value chain, the Group hires qualified third parties for further treatment of the sludge produced by its project companies, and conducts regular audits to ensure that the sludge treatment and disposal process complies with the national environmental protection laws and regulations. Majority of the sludge treatment techniques incorporate re-circulation measures to enhance energy recovery and material reuse to further promote sustainable waste management.

Waste Management

Waste recycling is an effective way to avoid waste and significantly improve resource efficiency. The Group widely practised recycling and reusing in its operational facilities, offices and dormitories, etc. The Group recycles wastes such as paper, metal, plastics, food waste, and actively encourages employees to reduce waste at source, cultivate the habit of waste separation and recycling, so as to put into practice the concept of optimising the use of limited resources. At the same time, the Group regularly records relevant information on various types of recycled waste in the monthly production or environmental protection reports, and conducts monitoring and verification. All general wastes are handled by qualified external waste collectors and recyclers to ensure proper waste disposal and compliant reuse.

為了把可持續廢棄物管理理念推廣至價值鏈下游，本集團僱用合資格的第三方組織進一步處理項目公司所產生的污泥，並透過定期審核以確保污泥處理及處置流程遵循國家環保法規。大部份的污泥處理技術更包含循環措施，做到能源回收及物料再生利用，推動可持續廢棄物管理。

廢物管理

廢物回收利用能有效避免浪費，大幅提高資源利用率。本集團從生產設施至辦公室和宿舍等地均進行廢棄物回收以及重用，回收的廢棄物包括紙張、金屬、塑料和廚餘等。本集團積極鼓勵員工源頭減廢，培養垃圾分類、回收利用的生活習慣，以實際行動貫徹善用有限資源的理念。同時，本集團將各類回收廢棄物的相關資料定期記錄在月度生產或環保報告內，並進行監察核實。所有一般廢物均由合資格的外部廢物收集商和回收商處理，以確保廢棄物的妥善處理及合規二次利用。



Office Waste Recycling Statistics in 2021 (Unit: kg)
二零二一年辦公室廢棄物回收量統計(單位：公斤)



4,504.70
Waste Paper
廢紙



20,694.00
Metal
金屬



3,303.50
Plastics
塑料



4,752.50
Glass
玻璃



1,097.00
Electrical Appliances
電器



2,724.50
Rechargeable Batteries
充電池



15,438.00
Food Waste
廚餘



1,627.50
Old Clothes
舊衣物



223.00
Others
其他

In 2021, the Group recycled a total of 54,364.70 kg office waste.
二零二一年，本集團的辦公室廢棄物回收總量為**54,364.70**公斤。



Energy and Materials Usage

In pursuing the goals of “Dual Carbons”, the transformation of the water management industry to low-carbon or even carbon negative has become a top priority. Everbright Water continues exploring energy-saving and emission reduction measures in all aspects of its business operations, and reduces unnecessary resource consumption during operation and construction. For example, the project companies organise energy-saving competitions, and adopt energy-saving equipment such as light guide beams and new sodium lamps at the plants. Recycling energy from waste water is also an important method to improve resource efficiency, such as utilising methane produced from sludge digestion to generate electricity for in-plant use, so as to reduce the consumption of non-renewable energy. As the demonstration projects in energy saving, the Group’s waste water source heat pump projects extract thermal energy from the organic materials in waste water to provide heat service for the surrounding buildings in winter.

To implement a long-lasting and sustainable strategy for resource management, each of the Group’s project companies keeps detailed monthly records for its energy and key materials usage, and such records are compiled and submitted to the regional management centres for compilation. The Group can adjust the use of energy and materials accordingly by analysing the resource usage of each aspect. At the same time, the application of the “Intelligence Water” digital system allows the management of the entire production, management and service processes of the water system in a more refined and dynamic approach through big data analysis. This enables the management of assets with life-cycle cost optimisation and provides effective support for decision-making on energy resources.

能源及物料使用

伴隨著「雙碳」願景的提出，水治理行業向低碳乃至負碳方向轉型成為重中之重。光大水務持續在業務經營的各方面探索節能減排舉措，在運營和建設期間減少不必要的資源消耗，如在項目公司層面舉辦節能比賽，在處理廠採用導光束、新鈉燈等節能設備。回收利用污水中的能源亦是本集團提高資源利用率的重要手段，如利用污泥消化過程中產生的甲烷進行發電供廠內使用，以減少使用非再生能源。此外，本集團的污水源熱泵項目透過提取蘊藏於污水有機物內的熱能，為周邊建築提供冬季供暖服務，是環保節能示範工程。

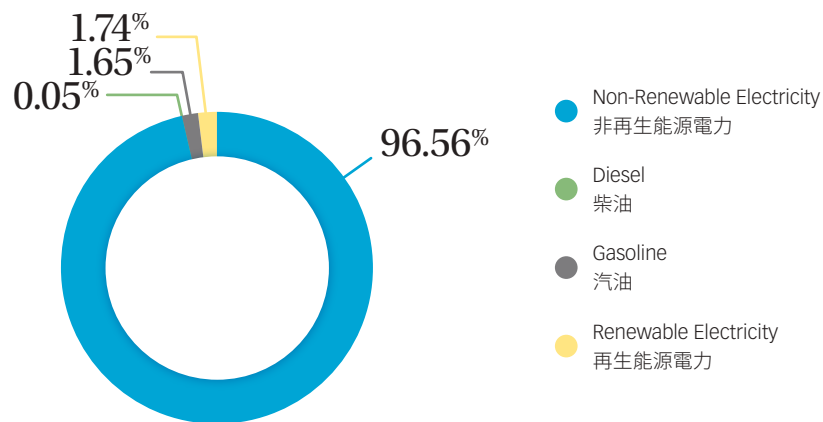
為配合制定長遠及可持續的資源管理策略，本集團的各項目公司每月都詳細記錄能源和主要物料的使用情況，並上交至區域管理中心進行整合。本集團能透過分析各層面的資源利用情況，繼而對能源和物料使用做出相應的調整。同時，「智慧水務」數字化系統的應用，可通過大數據分析，以更加精細和動態的方式來管理水務系統的全線生產、管理和服務流程，以全生命週期成本優化來管理資產，為能源資源的決策制定提供有效支持。

The Group also promotes a green low-carbon working environment and encourages employees to adopt energy-saving measures, such as switching computers to energy-saving mode, turning off computers, printers and other electrical appliances after working hours, as well as unplugging all electrical devices when leaving offices for long holidays.

本集團更提倡綠色低碳工作模式，鼓勵員工採用節能措施，包括將電腦調至節能模式，於工作日結束時關掉電腦、打印機及其他電器，並於長假前離開辦公室時拔掉電器的電源。

In 2021, the Group consumed energy in total of 2,372,227.09 GJ.
二零二一年，本集團共耗用**2,372,227.09吉焦**能源。

Energy Consumption Statistics of Projects Under Construction and in Operation in 2021
二零二一年各在建及運營項目的能源消耗統計



Note:

Energy consumption is calculated based on the reference coefficients given by *China Energy Statistical Yearbook 2018*.

附註：

能源消耗量是根據《中國能源統計年鑒2018》的參考系數所計算。

Key Materials Consumption Statistics of Operating Projects in 2021
二零二一年各運營項目的主要物料使用統計

Materials/Usage
物料/用途

Unit: Tonne
單位：噸

pH adjustment 酸鹼調整	Coagulant & flocculant 凝結劑及絮凝劑	Disinfectant 消毒劑	Chemical oxidiser 化學氧化劑
33,699.69	177,801.56	26,283.41	33,230.93
Carbon source 碳源	Biological treatment 生物處理	Others 其他	
191,306.16	369.94	2,489.22	

Note:

Including the key materials consumption from municipal waste water treatment projects, industrial waste water treatment projects, reusable water projects and leachate treatment projects.

附註：

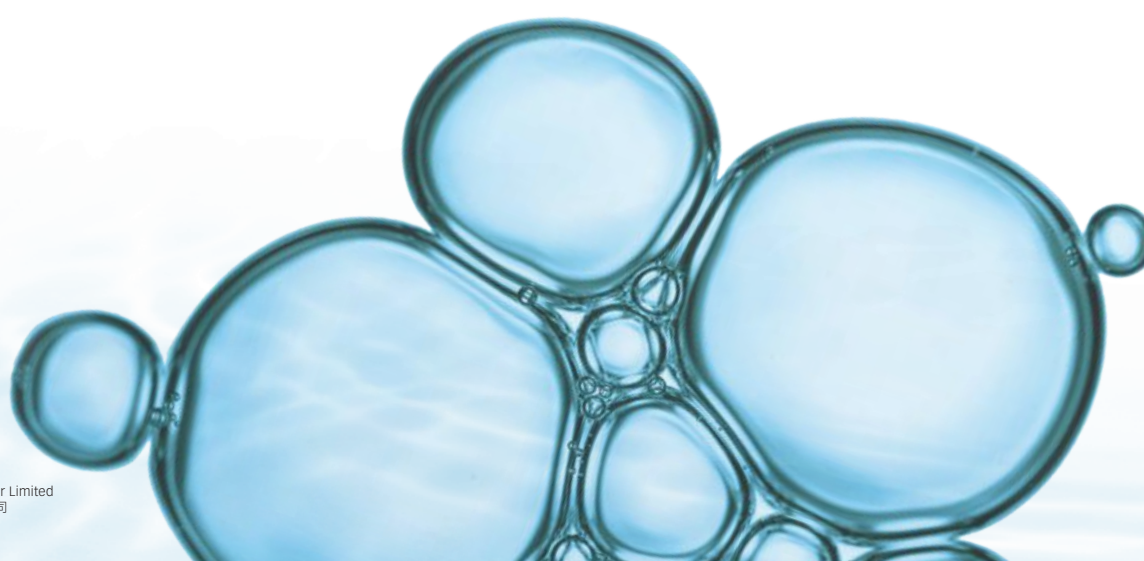
主要物料使用統計包括生活污水處理、工業廢水處理、中水回用與滲濾液處理項目。

Water Use

As a leading water treatment enterprise in the PRC, the Group implements the ideology of water conservation in the utilisation, protection and allocation of water resources, and reduces the use of freshwater and the water consumption of its projects through water re-circulation. As such, all these steps improve the utilisation of water resources and reduce the pressure on local water resources. The Group's freshwater usage is mainly sourced from its own re-circulation system, followed by municipal water supply utilities and groundwater source, which are generally used for conventional industrial use within the waste water treatment plants. During the Reporting Period, the re-circulating water usage in the Group's operating waste water treatment projects and reusable water projects accounted for 95.85% of the total water use.

水資源使用

作為國內領先的水處理企業，本集團在水資源的利用、保護、配置方面貫徹節約用水的思想理念，透過利用循環用水來減少淡水的的使用需求，提高水資源利用率，緩解地方水資源壓力。本集團使用的淡水主要源自循環水，其次為市政供水及地下水，一般用作污水處理廠內工業用途。報告期內，本集團所有運營污水處理項目及中水回用項目的循環水量佔總耗水量的95.85%。



In addition, the Group's highly efficient waste water treatment projects produce reclaimed water which can be used for purposes such as street cleaning, vehicle washing, landscaping, toilet flushing, firefighting, etc.

此外，本集團高效的污水處理項目亦產生再生水以作其他用途，如街道清潔、車輛清洗、園林美化、廁所沖洗和救火等。

<p>Re-Circulating Water 循環水</p> <p>Water is re-circulated within the waste water treatment system as far as practical to reduce the use of freshwater. 為了減少對淡水的需求，將水盡可能在污水處理系統內循環使用。</p>	<p>Reclaimed Water 再生水</p> <p>Reclaimed water refers to the effectively treated effluent water which is clear and safe for general industrial use or non-drinking purposes such as street cleaning, vehicle washing, landscaping, toilet flushing, firefighting, etc. 再生水是指經過高效處理的排放水，水質清澈並可安全用於一般工業用途或非飲用用途，包括街道清潔、車輛清洗、園林美化、廁所沖洗和救火等。</p>
<p>26,724,751 <small>m³ 立方米</small></p>	<p>32,196,538 <small>m³ 立方米</small></p>

In order to contribute towards water conservation and management, the Group will continue exploring and enhancing its projects' water use efficiency through increasing the proportion of re-circulating and reclaimed water, and other water conservation measures.

本集團將持續增加循環水及再生水的使用比例，並實施多種節約用水舉措，探索進一步提高項目用水效益的可能性，為水資源保護和治理貢獻一份力量。

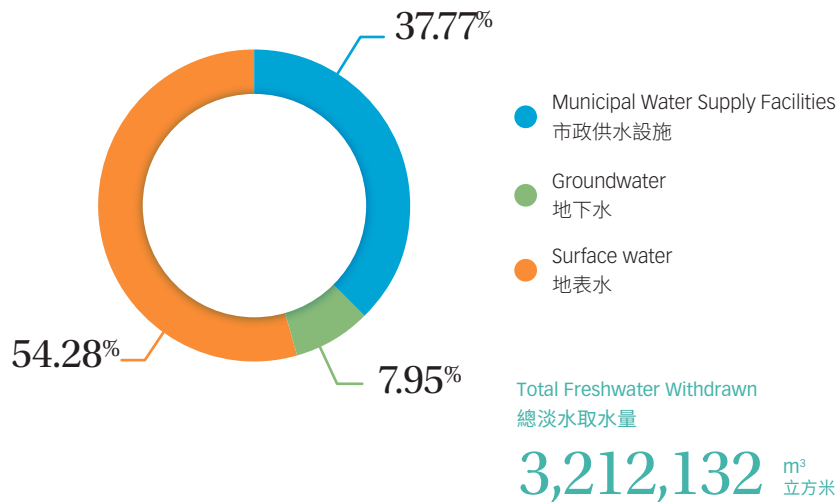
The Group's reusable water projects purify effluent from waste water treatment plants in accordance with the *Reuse of Urban Recycling Water – Water Quality Standard for Industrial Uses* (GB/T19923-2005) or equivalent standards. To reduce freshwater consumption in cities, reusable water produced by reusable water projects can be used as in-plant cooling water or for general industrial use by other corporations. The Group's *Operations Manual* sets out the standards for reusable water produced from the reusable water projects. Employees are required to continuously monitor the quality of the reusable water to ensure the health and safety of the customers in addition to complying with the relevant standards.

本集團將污水處理廠處理後的出水供給中水回用項目，將其按照《城市污水再生利用工業用水水質》(GB/T19923-2005)或同等標準淨化成回用水，用作廠區冷卻水或供其他企業作一般工業用途，從而減少城市的淡水消耗。本集團的《運營手冊》列明中水回用項目所產生的回用水須符合的標準，員工須持續監控回用水的水質，確保符合相關國家標準，保障客戶的健康及安全。

In 2021, the Group's reusable water projects produced approximately 28,530,000 m³ reusable water.

二零二一年，本集團的中水回用項目共生產了約28,530,000立方米的回用水。

Freshwater Withdrawal Statistics of Projects Under Construction and in Operation in 2021 二零二一年各在建及運營項目的淡水取水統計



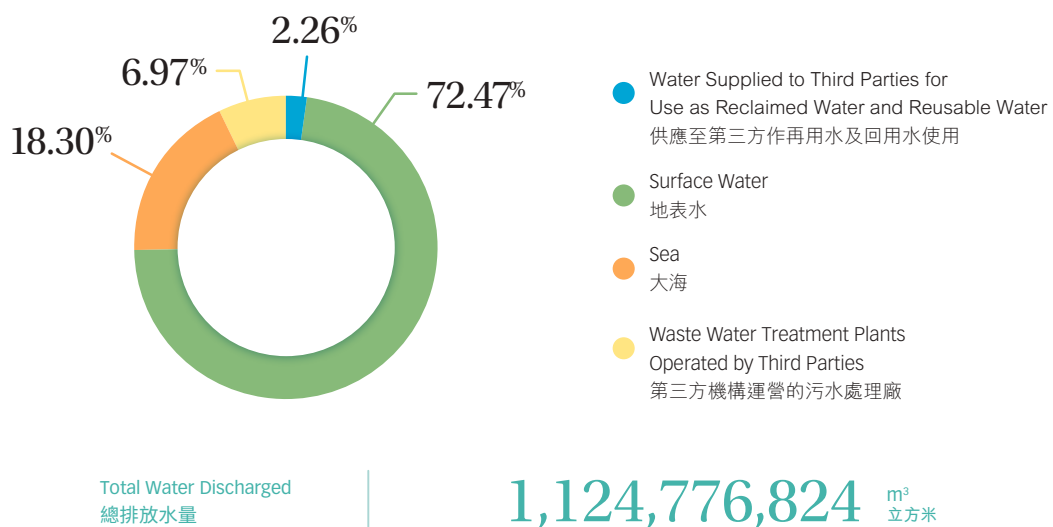
Note:

During the year under review, the Group did not directly withdraw any water from sea.

附註：

本集團於回顧年度內沒有取用海水。

Water Discharge Statistics of Projects Under Construction and in Operation in 2021 二零二一年各在建及運營項目的排放水統計



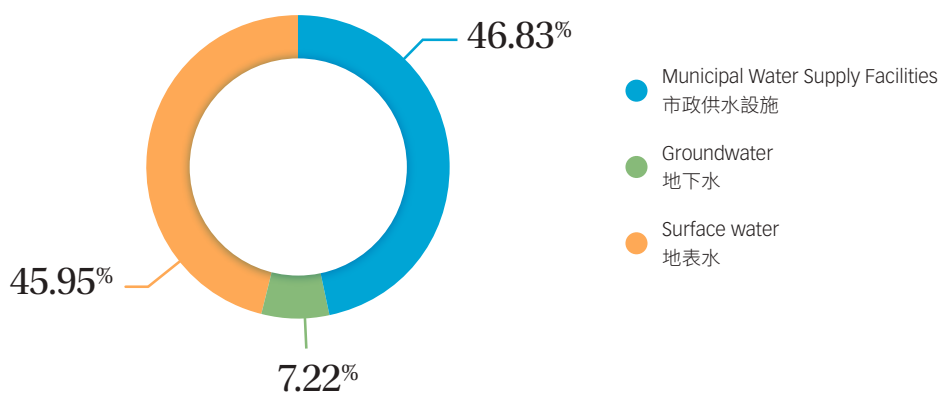
Apart from being supplied to third parties as reclaimed and/or reusable water, the Group's effluents are mainly discharged as surface water, to the sea, and to waste water treatment plants operated by third parties. All discharge water strictly complies with the applicable discharge standards to ensure that no negative impacts would be caused on downstream users of the water bodies (including agricultural, public recreation or potable uses, etc.). The different types and conditions of receiving bodies will be taken into consideration when assessing the environmental impact for individual projects.

本集團的排放水除了供應至第三方作再用水及/或回用水使用外，其餘主要排放至第三方機構運營的污水處理廠、大海及地表。所有排放均嚴格遵循排水標準以確保水體的下游使用者（包括農業灌溉、公眾休憩或飲用等）皆不會受到負面影響。本集團亦會根據接收各項目出水的水體類別和狀況，在進行環境影響評估時作相應考量。

This year, by referring to the Aqueduct 3.0 published by the World Resources Institute ("WRI") in 2019, the Group assessed water stress of its projects, and formulated action plan for its project companies under high water stress, such as regular inspections of pipes, to avoid wasting water resources due to leakage or damage to the pipes. WRI assesses the water stress of an area with the ratio of total water withdrawals to available renewable surface and groundwater supplies, and higher values indicate more competition among users.

本年度，本集團參照世界資源研究所在二零一九年發佈的Aqueduct 3.0，評估本集團各項目的水資源壓力，並為存在高水資源壓力的項目公司制定應對計劃，例如定期檢查喉管，避免因喉管滲漏或損毀而浪費水資源。世界資源研究所根據地區的總取水量與可用及可再生地表水供應量的比率判斷該地區的水資源壓力，水資源壓力越高，代表用戶之間的競爭越大。

Freshwater Withdrawal Consumption Statistics of Projects Under Construction and in Operation in Areas with Water Stress in 2021
二零二一年各在建及運營項目於具水資源壓力的地區的淡水取水統計



Case Study**個案分享****Everbright Water (Nanjing) Limited (“EB Water Nanjing”) organised clean-up to maintain water safety****光大水務(南京)有限公司(「光大水務南京」)組織清污維護水環境安全**

With the continuous rainfall in Nanjing at end of February 2021, the companies around EB Water Nanjing’s plant continued to carry out “rain drainage”. In addition, the Yulian River is polluted due to an environmental incident of a nearby enterprise, whose rainwater in the rainwater drainage is mixed with excessive oil. As the Yulian River is connected to the Shizishan River which runs directly into the Yangtze River, the pollution of the Yulian River will cause an incalculable environmental impact and loss on the Nanjing National Green Bay Wetland Park.



二零二一年二月底，南京持續降水，光大水務南京水廠周邊公司持續開啟「雨排」，加上對面的企業突發環境事件，其雨水排口排出的雨水中混入大量油脂，導致水廠附近的玉蓮河受到污染。由於玉蓮河與石磧河相連直通長江，如果玉蓮河發生環境污染，將同時對南京市綠水灣國家城市濕地公園等組成難以估計的環境影響和損失。

Although such incident was not caused by the company, with the corporate mission of being “Devoted to Ecology and Environment for a Beautiful China”, EB Water Nanjing immediately activated the emergency plan. After seven hours of work, the pollution in the Yulian River was under control. Thus, the water surface has become clearer, and the water quality improved significantly.

雖然並非自身原因造成的環境，光大水務南京踐行「情繫生態環境、築夢美麗中國」的企業使命，立即啟動了應急預案。經過七個小時的奮戰，很快遏制了玉蓮河污染的擴散，水面明顯變得清澈，水質也得到顯著改善。

Biodiversity Risk

The Group is very concerned about the protection of the ecological environment and biodiversity risks. At the 26th Conference of the Parties to the *United Nations Framework Convention on Climate Change* (COP26) held in 2021, a great amount of attention was given on the issues relating to nature conservation and biodiversity. In the same year, the 15th Conference of the Parties to the *Convention on Biological Diversity* (CBD COP 15) was also held and the Information Office of the State Council of China published a white paper on *Biodiversity Conservation in China*. These initiatives fully reflect the international community's recognition that the ecosystem is an inseparable whole, and that the challenges of climate change and biodiversity loss require the cooperation of all parties. The way humans use the land, and the geographical distribution of endangered species are major threats to biodiversity.

Everbright Water actively practices ecological environment conservation from the planning stage to the operation stage, by evaluating the local ecological environment and biodiversity before constructing new projects, and avoiding building project facilities near natural habitats and highly ecologically sensitive areas as possible. The Group's raw water protection and river-basin ecological restoration projects are equipped with ecological buffer areas to minimise the impact on the local ecological environment.

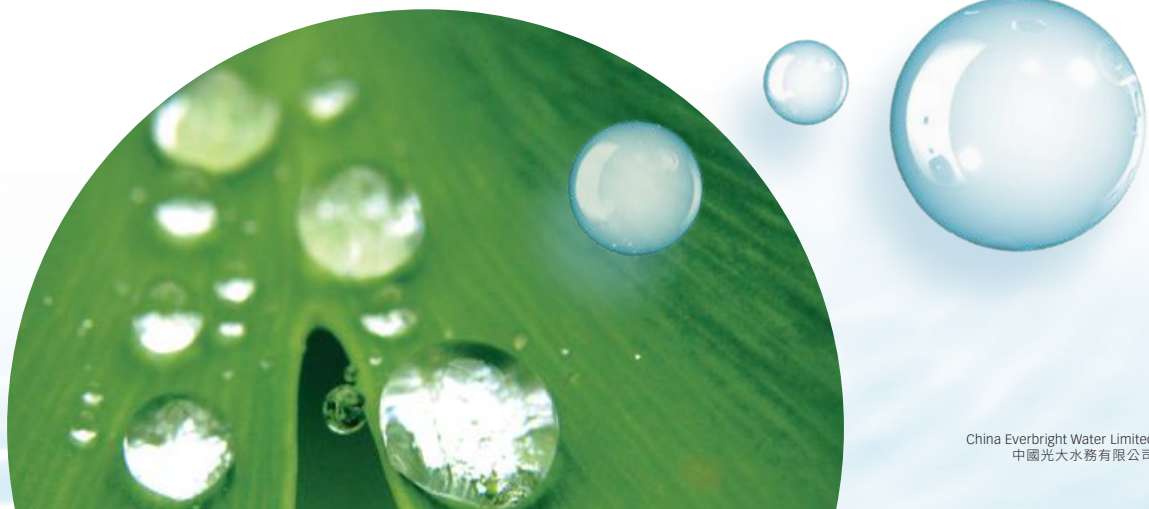
The Group uses the Integrated Biodiversity Assessment Tool ("IBAT") to assess the impact of its economic activities on biodiversity using contextual analysis based on the IUCN Red Book of Endangered Species, the World Database of Protected Areas and the Biodiversity Critical Areas Database, in order to develop effective investment and operational strategies to combat the loss of biodiversity.

生物多樣性風險

本集團非常關注生態環境保護及生物多樣性風險。二零二一年舉行的《聯合國氣候變化框架公約》第二十六次締約方大會(COP26)中，關於自然保護和生物多樣性的議題備受關注。同年亦舉行了《生物多樣性公約》締約方大會第十五次會議(CBD COP 15)，中國國務院新聞辦公室發表了《中國的生物多樣性保護》白皮書。這些舉措都充分反映出國際社會意識到地球生態系統是一個不可分割的整體，同時應對氣候變化及生物多樣性喪失的挑戰，有賴社會各方攜手合作。人類使用土地的方式、瀕危物種的分佈地區等，都是對生物多樣性構成威脅的主要因素。

光大水務從規劃到運營階段都積極實踐生態環境保育，在建設新項目前充分評估當地生態環境及生物多樣性，盡量避免在自然棲息地及高度生態敏感地區附近興建項目設施；本集團的原水保護項目及流域治理項目均設有生態緩衝區，以減低項目對當地生態環境的影響。

本集團使用綜合生物多樣性評估工具（「IBAT」），按照世界自然保育聯盟瀕危物種紅皮書、世界保護區資料庫及生物多樣性關鍵區域資料庫，以評估本集團的經濟活動對生物多樣性的影響，從而制定有效的投資及運營策略，遏止生物多樣性的喪失。



Findings of IBAT Assessment

Protected areas are areas recognised and managed through legal or other effective means to achieve the long-term conservation of nature with associated ecosystem services and cultural values. From the Group's analysis, 74% of the Group's projects are not located in or adjacent to any protected area. 15% and 11% of the Group's projects are recognised to be located within 50 km to 1 and 2 protected areas, respectively.

Number of Protected Areas within 50 km of Projects, by % of Number of Projects

Number of Protected Areas within 50 km of Projects 項目50公里範圍內的保護區數目

0
1
2

IBAT評估調查結果

保護區是通過法律或其他有效手段劃分和管理的地區，用作實現具有相關生態系統服務和文化價值的長期自然保育。根據本集團的分析，74%本集團旗下的項目並不位於或鄰近保護區。15%及11%項目的50公里範圍內有一至兩個保護區。

項目50公里範圍內的保護區數目，按項目數目百分比

% of Number of Projects 項目數目百分比

73.7%
15.3%
11.0%

100.0%



Key biodiversity areas are sites contributing significantly to the global persistence of biodiversity, in terrestrial, freshwater and marine ecosystems. 50% of the Group's projects are not located in or adjacent to any key biodiversity area. 20% and 21% of the Group's projects are recognised to be located within 50 km to 1 and 2 key biodiversity areas, respectively. Only 9% of the Group's projects are located in proximity to 3 or more key biodiversity areas.

生物多樣性關鍵區是對維持全球生物多樣性具有重要意義的地區，當中包括陸地、淡水及海洋生態系統。50%本集團旗下的項目並不位於或鄰近任何生物多樣性關鍵區。20%及21%項目的50公里範圍內有一至兩個生物多樣性關鍵區域。本集團的項目當中只有9%鄰近於三個或以上的生物多樣性關鍵區域。

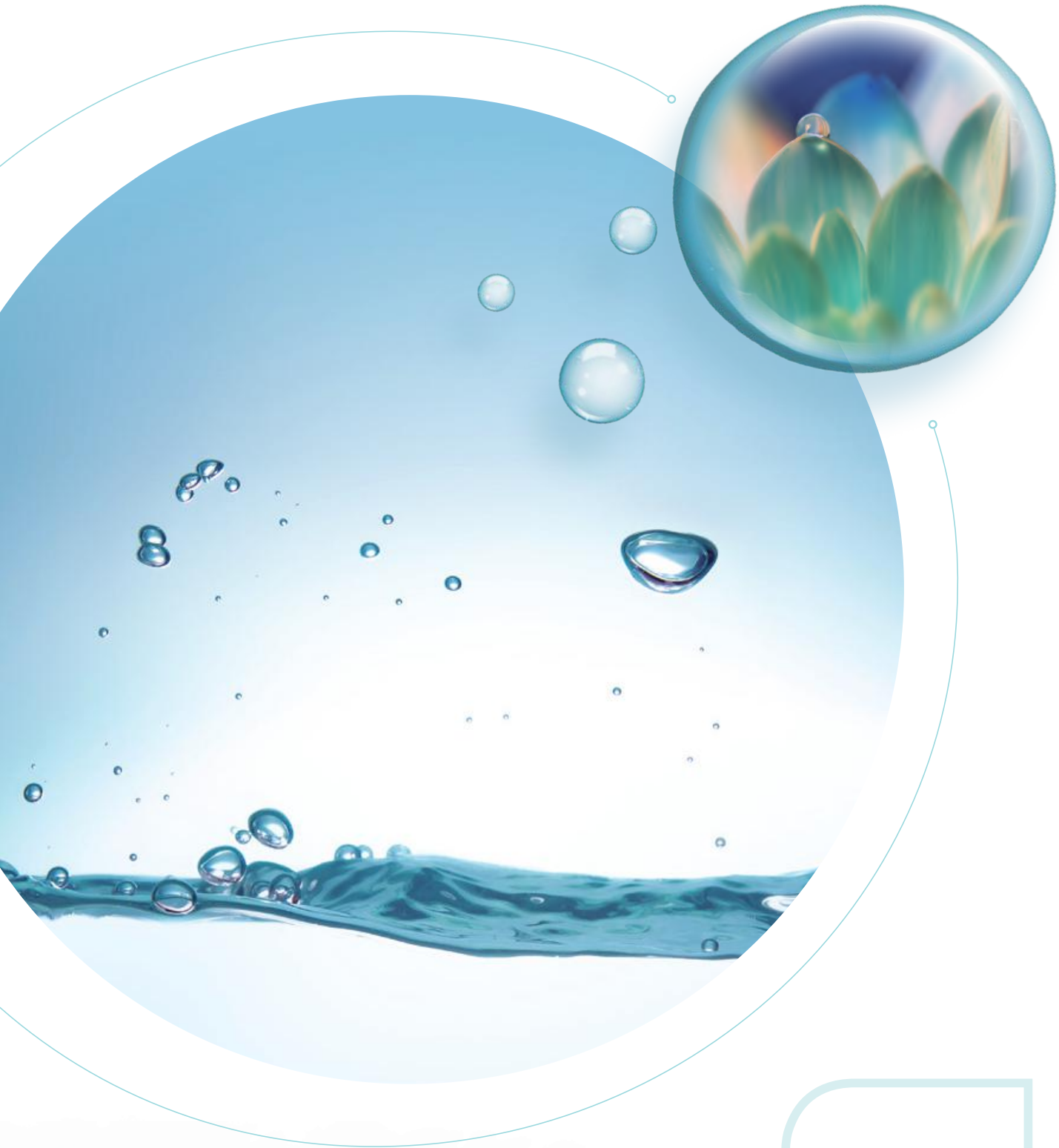
Number of Key Biodiversity Areas within 50 km of Projects, by % of Number of Projects

項目50公里範圍內的生物多樣性關鍵區數目，按項目數目百分比

Number of Key Biodiversity Areas within 50 km of Projects 項目50公里範圍內的生物多樣性關鍵區域數目	% of Number of Projects 項目數目百分比
0	49.6%
1	20.4%
2	21.2%
3	6.6%
4	1.5%
5	0.7%
100.0%	

The Group's projects strictly comply with the national and international environmental standards to ensure that no adverse impact would be caused to the nearby ecosystems and wildlife. During the Reporting Period, no significant impact on biodiversity and species on IUCN Red List of Threatened Species from the Group was observed. The Group will continue to monitor any potential impact of its projects on biodiversity in the future.

本集團的項目嚴格遵循國家及國際環境標準，以確保項目不會對鄰近的生態系統及野生生物造成負面影響。於報告期間，本集團並沒有發現對生物多樣性及瀕危物種紅皮書上的物種造成顯著影響。本集團將於未來繼續監察其項目對生物多樣性的潛在影響。



We care for our employees and
GROW TOGETHER

關懷員工，共同成長

The Group firmly believes that an excellent and stable team is the key to its business development. Therefore, it has been continuously promoting the cultivation and retention of outstanding talents. By adhering to the "People-Oriented" philosophy, the Group formulates its human resources strategies based on the needs arising from its long-term business development goals, establishes a scientific talent management system, strives to provide its employees with a platform for self-improvement and capability demonstration, and creates a fair, diverse and caring working environment.

本集團堅信一支優秀、穩健的人才團隊是企業發展的核心驅動器，一直以來持續推進優秀人才的培養和儲備。本集團秉承「以人為本」的理念，制定符合企業長遠發展目標需求的人力資源策略，建立科學的人才管理系統，致力於為員工提供增進自我、展示能力的平台，打造公平、多元及充滿關懷的工作環境。

Employment Profile

員工概覽

As at 31 December 2021, Everbright Water had a total of **2,328** employees.⁽¹⁾
截至二零二一年十二月三十一日，光大水務共有**2,328**名員工。⁽¹⁾

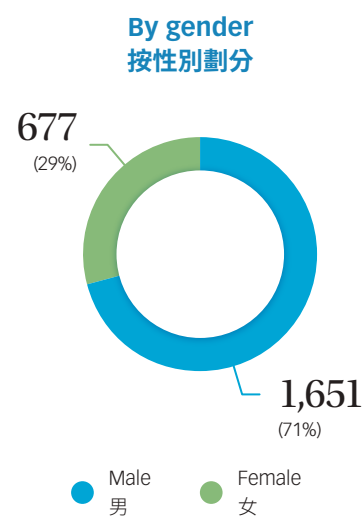
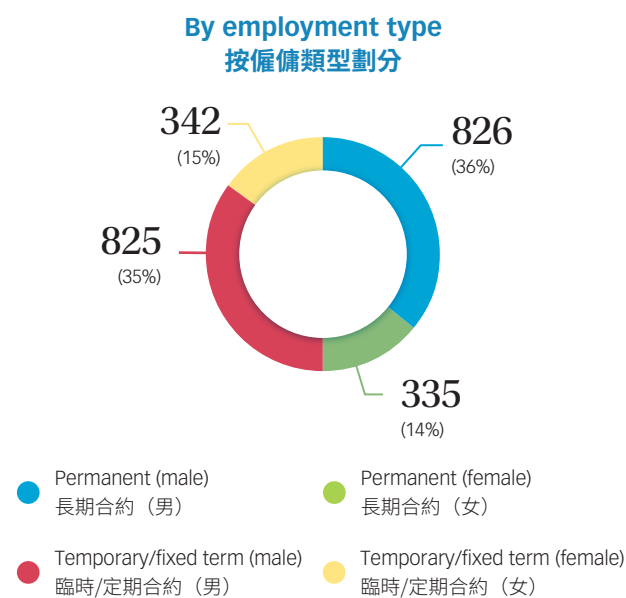
Note:

附註：

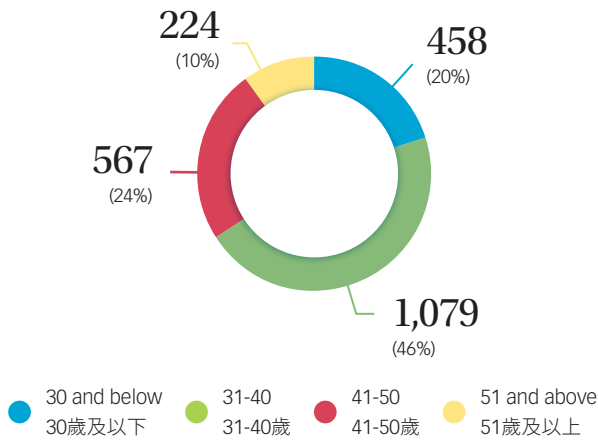
⁽¹⁾ All the employees were full-time employees.

⁽¹⁾ 所有員工均為全職員工。

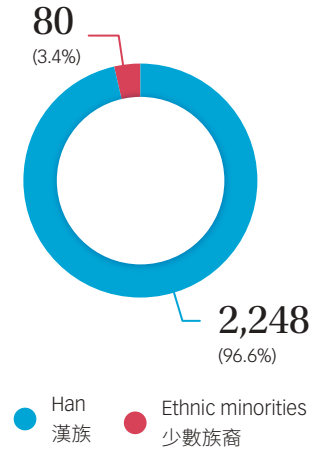
Statistics on Diversity of Employees in 2021 二零二一年員工多元化統計



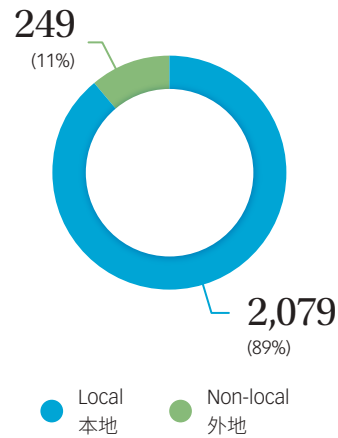
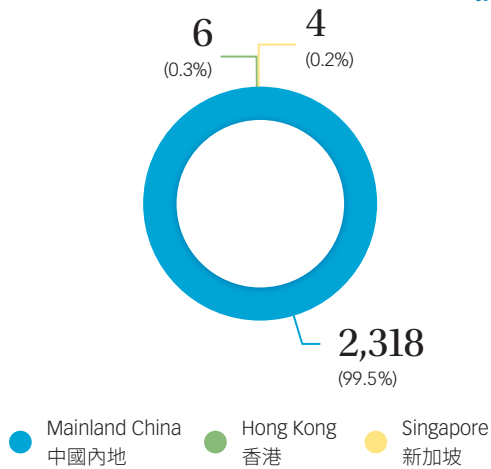
By age
按年齡劃分



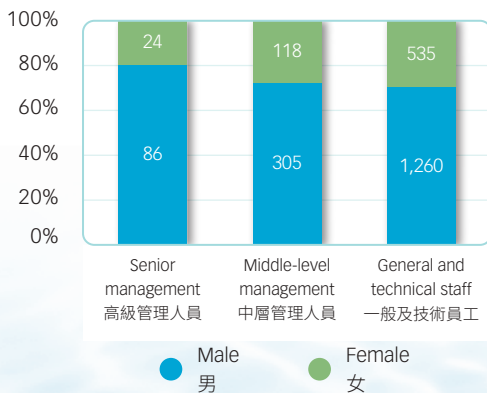
By ethnicity
按民族劃分



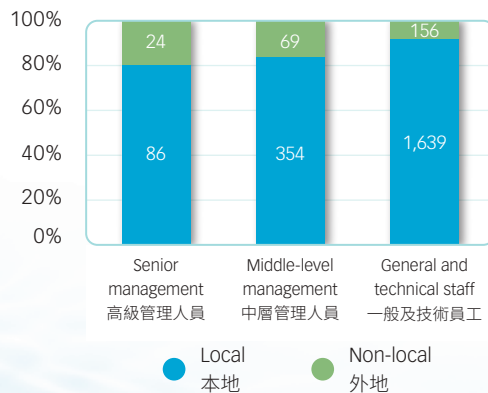
By geographical region
按地區劃分



Male to female ratio by employee ranking
各員工職級的男女比例



Employees hired by geographical region
按地區劃分的受僱員工



Notes:

- (1) For mainland China, employees hired from the same Province are regarded as local employees, whereas the employees hired from other Provinces are regarded as non-local employees.
- (2) As at 31 December 2021.

Talent Recruitment and Retention

High-quality talent recruitment is the foundation for “Innovation-Driven Development” of business. The Group collaborates with various talent recruitment agencies and higher education institutions to bring in talents through local, overseas, and on-campus recruitments. In addition, Everbright Water actively recruits local and foreign technical and management professionals through “Industrial-Academic” collaboration and acquisition of technology companies. At the same time, the Group pays close attention to the employment situation in project development areas, emphasises the recruitment and cultivation of local talents, and promotes local economy as well as employment in remote areas.

The Group has formulated various employment measures, including competitive remuneration packages, comprehensive employee benefits and development opportunities, in order to retain talents. The Group also regularly reviews and adjusts remuneration packages based on labour market trends. During the Reporting Period, the Group has conducted a review and adjustment (if appropriate) of remuneration for all employees.

Moreover, the Group monitors the number of employees who are eligible for retirement every year. Such information allows the Group to formulate its human resource policies for the long term, while providing employees with appropriate career management plans, including retirement arrangements. The Group provides mandatory pension fund for its employees according to the national and local laws, and establishes a supplementary pension system to provide additional retirement benefits.

附註：

- (1) 在中國內地同省份受聘的員工被視為本地員工，而在中國內地外省份受聘的員工則被視為外地員工。
- (2) 截至二零二一年十二月三十一日。

吸引及保留人才

引才納賢是企業「創新引領發展」的根本。本集團與多方人才招聘機構及高等院校合作，透過本地招聘、海外招聘、校園招聘等方式招攬多方位人才。此外，光大水務更積極透過「產學研」合作、收購技術公司等方式引進國內外的技術和管理專才。本集團亦密切關注項目發展地區的就業情況，重視當地人才的聘用及培養，促進偏遠地區的項目經濟和就業發展。

本集團制定了多項僱傭措施，包括具競爭力的薪酬待遇、完善的員工福利及發展機會，致力保留人才。本集團亦根據勞工市場趨勢，定期檢討及調整薪酬待遇。於報告期內，本集團已經為所有員工進行薪酬待遇的檢討及調整（如適當）。

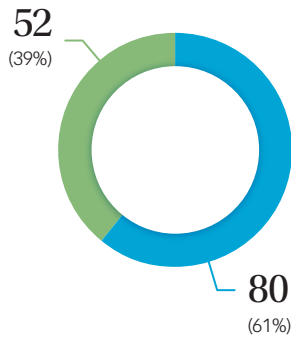
此外，本集團每年均會統計即將符合退休資格的員工數目，長遠考慮、制定及調整人力資源政策，同時為員工妥善提供包括退休安排在內的職業生涯管理計劃。本集團根據僱員受聘的國家或地區的法律規定提供強制性養老保險，更為員工貼心訂立了補充養老制度作為額外的退休福利。

In 2021, there were 132 new employees, accounting for 5.67% of the Group's total workforce, while staff turnover (including resignation and retirement) was 193, accounting for 8.29% of the Group's total workforce.

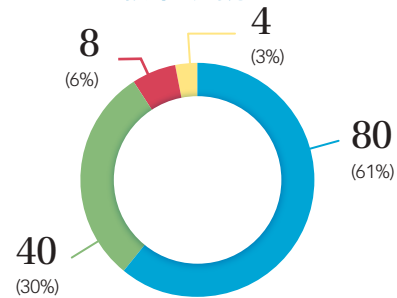
二零二一年，本集團新聘員工132名，佔員工總數的5.67%，員工流失數目（包括離職或退休）為193名，佔員工總數的8.29%。

New Employees Statistics in 2021

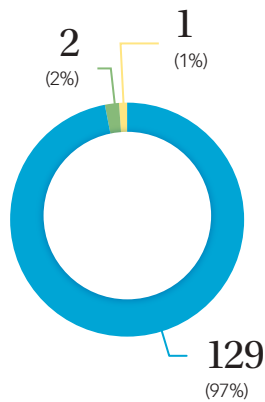
二零二一年新聘員工數據統計

By gender
按性別劃分

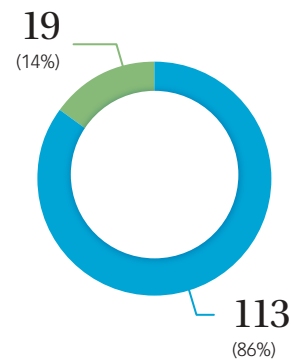
● Male 男
● Female 女

By age
按年齡劃分

● 30 and below 30歲及以下
● 31-40 31-40歲
● 41-50 41-50歲
● 51 and above 51歲及以上

By geographical region
按地區劃分

● Mainland China 中國內地
● Hong Kong 香港
● Singapore 新加坡



● Local 本地
● Non-local 非本地

Note :

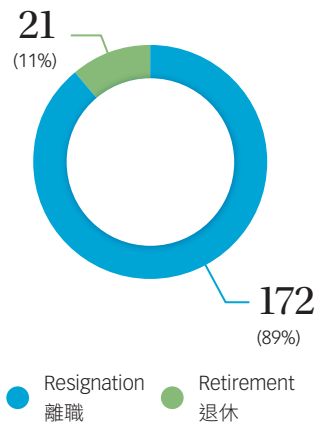
For mainland China, employees hired from the same Province are regarded as local employees, whereas the employees hired from other Provinces are regarded as non-local employees.

附註：

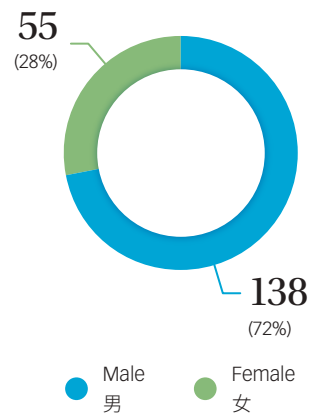
在中國內地同省份受聘的員工被視為本地員工，而在中國內地外省份受聘的員工則被視為外地員工。

Employee Turnover (Resignation/Retirement) Statistics in 2021
二零二一年員工流失(離職/退休)數據統計

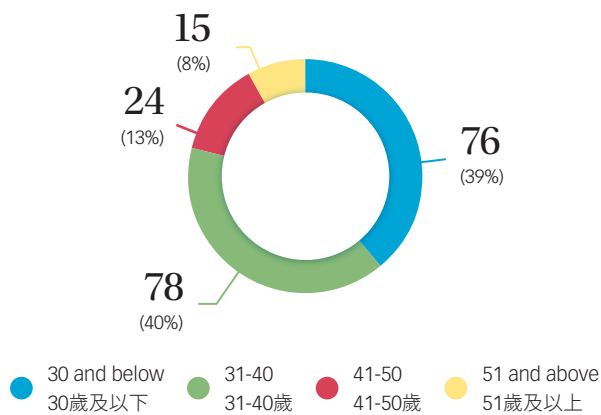
By classification
按類別劃分



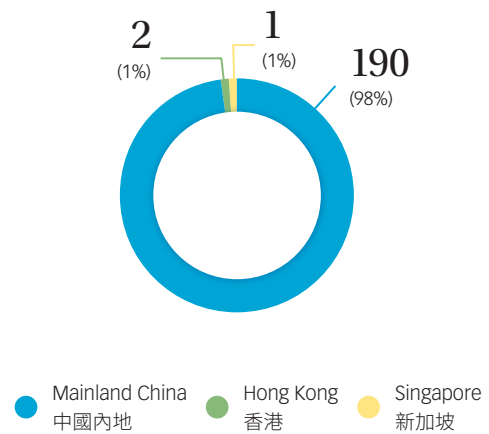
By gender
按性別劃分



By age
按年齡劃分



By geographical region
按地區劃分



Percentage of Employees Eligible for Retirement in Five and Ten years
未來五年及十年內合資格退休的員工百分比

Employee ranking 員工職級	in five years 五年內	in ten years 十年內
Senior management 高級管理人員	10.9%	30.9%
Middle-level management 中層管理人員	5.0%	11.3%
General and technical staff 一般及技術員工	7.3%	14.7%

Talent Development



The Group attaches great importance on the career planning and personal development needs of employees. Based on the principle of talent cultivation, the Group has formulated *Human Resource Management and Capacity Building Policy* and a systematic talent development framework, which provide guidance on the development of its employees' professional quality and skills. The Group continues to improve its human resources management system by establishing an internal training team and a backup talent training system. Additionally, the Group endeavours to provide its employees with a broad career development platform and diversified learning opportunities, enhance their core competencies that could last for a lifetime, and improve the working quality of employees at different positions and career stages.

人才發展



本集團重視每位員工的職業生涯規劃及個人發展需求。以樹人為本，本集團制定了《人力資源管理培訓政策》及系統性人才發展框架，為培養員工專業素質及技能提供指導。本集團持續完善人力資源管理制度，建立內部培訓團隊及後備人才培養體系，致力於為員工提供寬廣的職業發展平台以及貫穿職業生涯的多元學習機會，建立員工終生受用的核心能力，務求提升在不同崗位及職涯階段的員工的工作品質。

In 2021, the Group provided on-the-job training for all the employees. The total training hours were 245,454.00 hours, while the average training hours per employee were 105.44 hours.

二零二一年，本集團為每位員工均提供在職培訓。培訓總時數為245,454.00小時，員工人均培訓時數為105.44小時。

Statistics on employee training and development in 2021

二零二一年員工培訓與發展數據統計

Average training hours per person by gender

平均培訓小時按性別劃分



Female
女

82.74



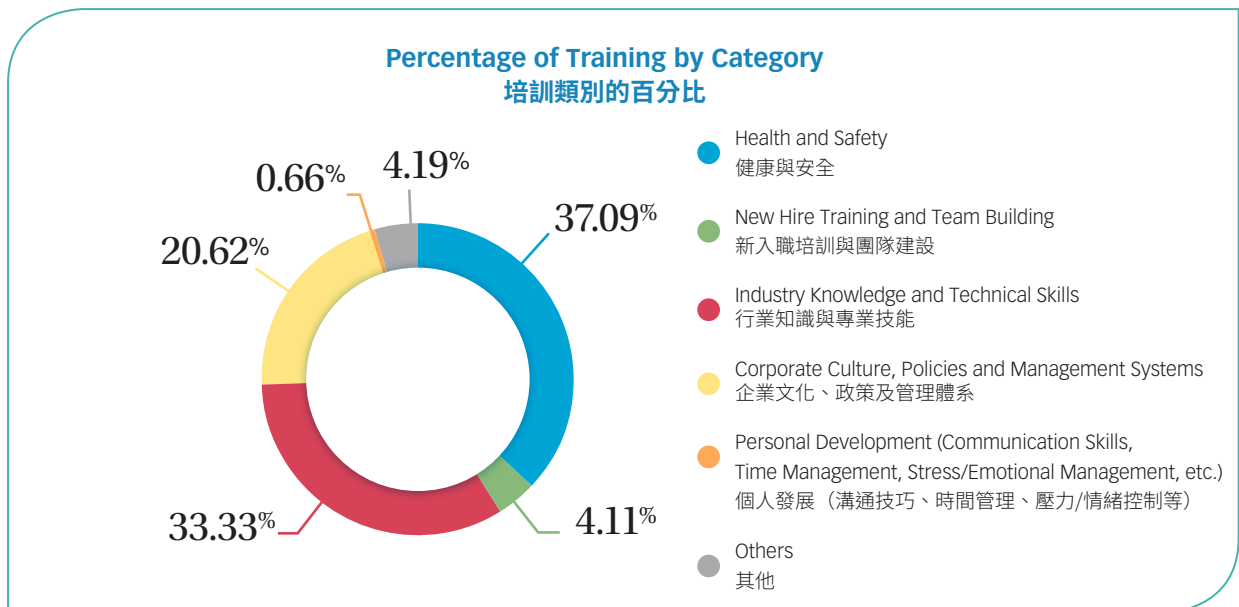
Male
男

114.74

Average training hours per person by employee ranking

按員工職級劃分的人均培訓時數

Senior management 高級管理人員	72.10
Middle-level management 中層管理人員	113.21
General and technical staff 一般及技術員工	105.65



In 2021, the Group initiated the following measures to promote employee development, aiming to establish a proactive and creative employee team.

二零二一年，本集團推行了下列員工發展計劃，務求建立一支積極主動且富有創造力的團隊。

Safety Production On-the-job Training 安全生產全員持證上崗培訓

With its emphasis on the importance of safety, all employees from Everbright Water (Juxian) Limited have, during the pandemic period, completed the training in relation to the certificate on safety production in response to the requirement of Shandong Provincial Emergency Management Department. Such training allowed employees to enhance knowledge related to occupational diseases, safety production regulations and laws, and prevention and response to safety accidents, etc.

安全無小事，在這全國抗疫的特殊時期，光大水務(莒縣)有限公司全體員工應山東省應急管理廳要求，完成企業安全生產全員持證上崗培訓。是次培訓旨在使員工更深入了解職業病相關知識、安全生產法律法規、安全事故預防及應對等。

A total of 75 people participated in this training with 100% participation rate. To enable employees to have a better understanding of the content, the lecturer carried out analysis based on the real accidental cases, allowing the employees to learn from experience and improve capability to understand, prevent and handle safety issues. This can effectively prevent various accidents in production.

本次培訓參加人數共計75人，參與率達到100%。為使員工更好地了解並掌握培訓內容，講師列舉真實事故案例進行分析，從中吸取經驗教訓，提高員工自身安全素質和自我防範能力，有效預防和遏制各類生產事故。



Comprehensive Appraisal System

綜合考核機制

The Group's internal assessment system closely monitors its employees' career development by setting achievable goals along with on-going evaluation. The system also cultivates outstanding employees who embrace the core values of the Group.

內部考核機制通過向員工制定切實的工作目標及持續性的評估來緊密監察員工的職業發展。通過此機制，本集團能夠培養擁護其核心價值的優秀員工。

Tiered Talent Development Strategy

梯隊式人才佈局

The Group established a managerial and technical backup talent pool to recognise high-performing talents and provide them with prioritised internal promotion opportunities.

建立後備幹部人才庫，以表彰高績效人才並優先向他們提供內部晉升機會。

Apprenticeship Programme

「師帶徒」計劃

The apprenticeship programme enables the skilled workers to lead newcomers, which effectively passes valuable skills and knowledge to the new employees and helps them establish practical career plans.

讓熟練技工帶領新技工工作，有效地把寶貴的技術知識傳承下去，並協助新人制定可行的職業生涯計劃。

Technical Talent Training Programme

技術型人才培訓計劃

Through "Industrial-Academic" collaboration, the Group invited local and overseas technical experts to provide training for both managerial and technical employees of the Group's projects, thus widening their horizons.

透過「產學研」合作模式，積極組織海內外技術專家對項目管理層及技術人員進行培訓、交流，不斷提升自身人才隊伍的視野水平。

Safeguarding Employees

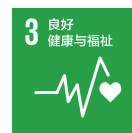


Employee Diversity and Equal Opportunity

To establish equal and transparent assessment and employment opportunities for all the employees and job applicants, the Group has formulated the *Staff Handbook* and *Code of Conduct*, which cover topics including salary and dismissal, recruitment and promotion, working hours, holidays, equal opportunities, diversity, anti-discrimination, prevention of child labour and forced labour, and other benefits and welfare, ensuring that the remuneration, training opportunities and

career prospects of employees and job applicants will not be biased by gender, age, race, nationality, marital status, religion and other factors. The Group's *Code of Conduct* stipulates its expectation on the employees' moral behaviour and integrity. Such code also covers topics such as anti-bribery, anti-extortion, anti-fraud and anti-money laundering. The Group also provides training to help its employees better understand various employment policies and measures and provides guidance on their implementation. In addition, the Group reviews its recruitment procedures from time to time and ensures that the staff employed are of legal working age. The Group complies with international conventions on labour and human rights, respects and protects the legitimate rights and interests of employees, and has established a comprehensive remuneration and welfare system to ensure the employees receive reasonable remuneration. During the Reporting Period, there was no case related to discrimination, or violation of human rights, and no incident of child or forced labour. By implementing the above series of measures, the Group's risk of human rights violations and use of child labour or forced/compulsory labour is low.

保障員工



員工多元化與平等機會

為確保員工及求職者獲得公平透明的考核與就業機會，本集團制定了《員工手冊》及《行為守則》，內容涵蓋薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視、防止童工及強制勞動以及其他待遇及福利等議題，並保障員工及求職者的報酬、培訓機會和職業前景等不會受性別、年齡、種

族、國籍、婚姻狀況、宗教等因素所限。《行為守則》亦訂明本集團對員工道德行為及誠信的期望，涵蓋防賄賂、防勒索、反欺詐及反洗錢等議題。本集團定期舉辦培訓課程，協助加深員工對各僱傭政策及措施的了解並給予實行指導。本集團不時檢討其招聘程序，並在招聘時確保所聘用的員工符合法定工作年齡。本集團遵守有關勞工和人權的國際公約，尊重和保護員工合法權益，並設有完善的薪酬福利體系，保障員工得到合理的薪酬。報告期內，本集團沒有出現任何與歧視相關的事件，亦未發現使用童工或強迫/強制勞動之案例，以及沒有任何侵犯人權或存在使用童工或強迫/強制勞動之事件。透過執行以上一系列的措施，本集團在侵犯人權和使用童工或強迫/強制勞動方面的風險為低。



In view that the water and engineering industries are mainly dominated by male, the Group pays special attention to gender equality and remuneration issues, striving to ensure employees' remuneration levels and composition are not affected by gender. Meanwhile, various measures are implemented to encourage female talents to join and continue contributing to the Group. The Group has established a sound human resources management system, with a dedicated working group in the Human Resources Department dealing with matters related to equal opportunities. It has also built a culture of inclusiveness within the organisation, and immediately reports any inequality or discrimination to the relevant management personnel with timely correction of misconduct to ensure multiculturalism is practised. During the Reporting Period, the Group held a series of training such as "Corporate Culture Training" and "Caring for the Health of Female Employees and Creating a Harmonious Life Together" to strengthen the culture of diversity and inclusion in the team.

Two-Way Communication

The Group attaches great importance to the transparency and integrity of its operations and encourages its employees to report illegal or improper conducts that have occurred or are suspected to be occurring or are of potential occurrence to maintain healthy corporate governance and efficient daily operations. The employees can directly communicate with the CEO and/or the Chairman of the Audit Committee via email in accordance with the *Reporting Policies and Procedures for Misconduct* and file anonymous grievance or express opinions in areas such as labour relations, human rights, workplace harassment and discrimination, and all information collected will be kept confidential. In addition, the Group invited its employees to complete an online questionnaire in 2021 in order to further understand its employees' views on certain issues, such as corporate management, working environment, welfare to continue promoting a positive reformation of corporate systems.

Employee Benefits

The Group continuously improves its employee welfare system. The Group strictly adheres to its "People-Oriented" philosophy and complies with the legal requirements of the operating regions, providing its employees with adequate welfare protection in various areas.

鑒於從事水務和工程相關行業的人力資源分佈側重於男性，本集團特別關注性別平等與薪酬待遇等議題，務求使員工的薪酬水平及結構不受性別因素影響，同時積極採取多種措施吸引更多女性加入，全力支持及協助她們在本集團中的職業發展和留任。本集團已經建立健全的人力資源管理制度，由人力資源部的專責工作小組處理平等機會的相關事宜，以及在機構內建立共融文化，並且在發現任何不平等或歧視行為時即時向相關管理階層人員報告，及時糾正不當行為，以確保多元文化得以實踐。本集團於報告期內舉辦了一系列「企業文化培訓」、「關愛女性職工健康，共創和諧生活」等培訓活動，以強化團隊中的多元及包容文化。

雙向溝通

本集團高度重視企業運營過程中的行政透明與廉潔，鼓勵員工舉報已發生或懷疑已發生、有可能發生的違法不當行為，保障健康的企業管治及高效的日常運轉。員工可根據《不當行為的舉報政策及程序》透過電郵與總裁及/或審計委員會主席直接進行溝通，在勞資關係、人權、職場騷擾及歧視等範疇上提出匿名申訴或發表意見，過程中所收集的資料均會保密。此外，本集團於二零二一年邀請全體員工參加在線問卷調查，以進一步了解員工對公司管理、工作環境及福利等若干範疇的看法及意見，持續推動企業制度的良性改革。

員工福利

本集團不斷完善員工的福利制度，秉持「以人為本」的理念，嚴格按照運營地區的法定要求，為員工在各個方面提供充足的福利保障。

Provision of Employee Benefits and Protection 為員工提供的主要福利與保障

Providing adequate welfare and safeguard to regular employees 為正式員工提供足夠的福利保障



Life insurance
人壽保險



Medical insurance
醫療保險



Disability insurance
傷殘保險



Maternity and paternity leave benefits
產假及侍產假等福利



Distributing bonuses based on the employees' performance
按員工表現派發獎勵花紅

Assisting employees in retirement planning 協助員工規劃退休生活



Compulsory pension insurance
法律規定的強制性養老保險



Employee supplementary pension benefits are established as additional retirement benefits
建立了員工補充養老補貼作為額外的退休福利

Ensuring physical and mental health of employees 促進員工的身心健康



Various entertainment facilities are set up in the project companies
在項目公司設置了各種文娛設施



Regularly organise various team building activities, such as sports competitions and outings
定期舉辦體育競賽和郊遊等康體活動



Free medical check-ups and occupational disease surveillance examinations for the employees every year
每年為員工提供免費的身體檢查服務及職業病防範檢查



Provide employees with physical and mental health seminars to enhance employees' ability for work-life balance
為員工提供身心健康講座，增強員工平衡好工作和生活的能力

Improving female staff's welfare 提升女性福利



Provide the employees with adequate maternity leave
給予員工充足的產假



Reserve positions for female employees who are on maternity leave and encourage them to return to work after delivery, and ensure that their career development and salary are not affected
為正在放產假的女性員工保留職位，鼓勵她們分娩過後重返崗位，並保證其職業發展和薪酬不會因此而受影響

Maternity/Paternity Leave Statistics in 2021

二零二一年產假/侍產假數據

	 Female 女	 Male 男
Number of female and male employees who took maternity/paternity leave in 2021 二零二一年放產假/侍產假的男女員工數目	29	41
Number of employees who returned to work after maternity/paternity leave in 2021 二零二一年產假/侍產假結束後重返工作崗位的員工數目	16	38
Number of employees who returned to work after maternity/paternity leave ended in 2020 and were still employed by the end of 2021 二零二零年產假/侍產假結束後重返工作崗位並於二零二一年底仍在職的員工總數	25	48
Percentage of employees who returned to work after maternity/paternity leave ended in 2021 二零二一年產假/侍產假結束後重返崗位的員工比例	94.1%	91.7%
Percentage of employees who returned to work after maternity/paternity leave ended in 2020 and were still employed by the end of 2021 二零二零年產假/侍產假結束後並於二零二一年底仍在職的員工比例	92.6%	90.6%

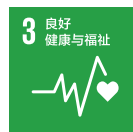
Occupational Health and Safety



3 GOOD HEALTH AND WELL-BEING

Creating a healthy and safe working environment for employees is the primary corporate responsibility, which is the basis for ensuring the Group's project implementation. In order to reduce operational risks and safeguard the health and safety of its employees, the Group has implemented high-quality health and safety management systems in its projects.

職業健康與安全



3 良好健康与福祉

為員工創造一個健康安全的工作環境是企業的首要職責，也是保障本集團項目實施的基礎。本集團在旗下多個項目推行優質的健康與安全管理體系，以降低運營風險並保障員工的健康與安全。

Health and Safety Management System

The Group continues implementing ESHS Management System and Risk Management System at all levels and achieves standardised management in all processes of project investment, construction and operation through SOP. Each project company has established ESHS management team and a sound emergency notification system to identify and manage the potential safety risks in the entire project cycle. A comprehensive investigation will be conducted after a serious accident, including the cause of the accident and related risks, accident prevention and rectification measures, and lessons learned from production safety management, so as to prevent possible future accidents. In addition, the Group has incorporated the climate change risks into Risk Management System to minimise the potential risk of natural disasters to future business operations. The Group's Safety and Environmental Management Committee is responsible for regulating, supervising, and leading the implementation of environmental and safety work in each project of the Group, and holds meetings annually to review the Group's ESHS Management System. Meanwhile, the Group also refers to the internationally recognised ISO 45001 Occupational Health and Safety Management System to ensure operational safety.

健康與安全管理體系

本集團持續在各級單位實施ESHS管理體系和風險管理體系，並通過SOP的方法，規範各個環節的內部管理及風險管控。每個項目公司均建有ESHS管理團隊及完善的事務通報系統，以及時識別和管理整個項目週期中的潛在安全風險。本集團在嚴重意外事故發生後會進行全面的調查，內容包括事故發生原因及相關風險、事故防範和整改措施、總結安全生產管理方面的教訓等，以防止事故再次發生。此外，本集團亦將氣候變化風險納入風險管理體系中，從而最大程度降低自然災害對企業未來運營的潛在威脅。本集團設立的安全與環境管理委員會負責重點規範、督導本集團各項目環境及安全工作的實施，並每年定期召開會議檢討完善本集團的ESHS管理體系。同時，本集團鼓勵各級員工積極反饋關於ESHS管理體系、運營安全制度及措施的建議。本集團參照國際認可的ISO 45001職業健康安全管理体系，保障運營安全。



The Group has extended the ESHS Management System to its supply chain by specifying the relevant requirements in the contracts with suppliers, on-site third-party contractors and subcontractors, and has continuously carried out in-depth evaluation of the health and safety performance of its major suppliers. In order to identify and control the relevant environmental, social and safety risks derived from the supply chain, the Group has specifically formulated and implemented the *Contractors ESHS Management Measures* to review the background, qualifications and the performance of the contractors on construction operations and environmental protection.

The Group will conduct an annual internal ESHS on-site audit for all of its projects, both in operation and under construction. The scope of the audit covers the environment (such as pollution discharge, temporary storage of hazardous waste), safety (such as fire services design, vehicle use), occupational health (such as occupational hazards review, annual body check), and social responsibility (such as supplier screening, charitable activities), and evaluate the high, medium and low risk factors based on their severity and impact to minimise the impacts of projects on local environment, safety, health and social aspects.

對於供應商、駐場第三方承包商及分包商，本集團會將ESHS管理體系的相關要求納入合約中，並對主要合作商的健康與安全績效進行深入持續的評估。本集團擬訂並落實了《承包商ESHS管理標準》，透過審視承包商的公司背景、資質、施工作業及環保等各方面的表現，辨識和管控供應鏈中與環境、社會和安全相關的風險。

本集團旗下所有其他的運營及在建項目均會每年進行一次內部ESHS現場審核，審核範圍涵蓋環境（例如污染排放、危險廢物暫存）、安全（例如消防設計、車輛使用）、職業健康（例如職業病危害因素、年度體檢）及社會責任（例如供應商篩選、公益活動），根據嚴重性及影響評定低、高、中風險因素，將項目對當地環境、安全、健康和社會方面的影響降至最低。



Constructing Projects with High Safety Standard

The Group continues strengthening project management and strives to apply the highest safety standard in designing and constructing projects to ensure safety at work in all projects. The Group has formulated a sound construction guidance system to emphasise the importance of safety of constructors and suppliers through management and audit, as well as provided scientific master programme for construction with guidance for multiple dedicated safety and environmental inspection to enhance the level of on-site standardised management. The Group has also signed *Letters of Safety Responsibility for Construction Unit* with the relevant construction contractors, promoting the principle of "Everyone is a Safety Officer who Should be Responsible for Safety".

Safety Measures in Place at Project Facilities

The Group has implemented a series of safety measures, including erecting fences at the edges of waste water tanks, and using materials with non-slip surfaces for passages near water. In response to the pandemic, the Group strengthened disinfection, frequently cleaned and disinfected high-touch surfaces, and kept the air circulated and clean to protect the employees' health.

Safe Protection Programmes

The Group protected its employees' health by providing annual medical check-ups and occupational disease surveillance. Moreover, the Group set up an Employee Safeguard and Safety Fund, which can be disbursed upon application to support employees who suffer from accidents or diseases, relieving financial burden of their families.

項目安全施工高標準化

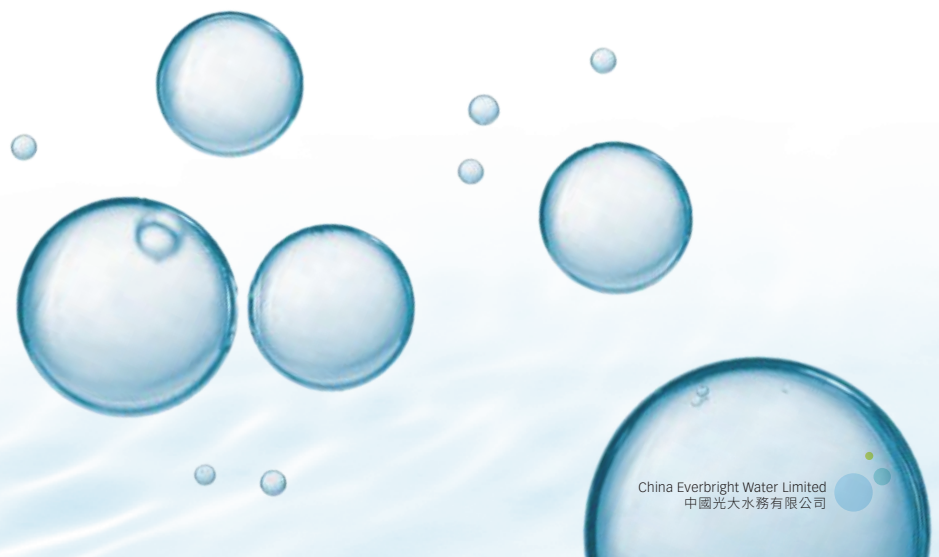
本集團持續強化項目管理，堅持以最高的安全標準設計及建設項目，保障所有項目的施工安全。本集團訂立了完善的工程建設規章制度，強調對施工方、供應商的管理與考核，為科學編製工期計劃，多種安全與環境專項檢查工作提供指引，從而提升工程現場的標準化管理水平。本集團更與施工單位簽訂《施工單位安全責任書》，提倡「人人都是安全員、人人都為安全負責」。

項目設施已採用的安全措施

本集團已實施一系列的安全措施，包括在污水缸邊緣豎立圍欄、近水的通道採用有防滑表面的物料等。為應對疫情，本集團加強環境消毒，經常清潔和消毒常接觸的表面，並保持環境空氣流通和清潔，以保障員工的健康。

安全保障計劃

本集團每年為員工提供醫療檢查及職業病監測，保障員工健康。此外，本集團設立了員工保障及安全基金，在員工不幸遭遇意外或患病時，可以申領基金以緩解員工家庭的經濟壓力。



Emergency Management and Safety Training

Each of the Group's operating projects has implemented emergency response plans for all types of accidents that may occur at different stages of the project to assist its employees in responding to accidents and emergencies. Such emergency response plan is executed by the project safety management team, while the scope of safety risk management includes the project company and neighbouring communities. The team is responsible for regular provision of health and safety training for its employees, covering emergency response plans, operational hazards, legal issues, etc., with the aim of improving its employees' crisis handling skills and knowledge, and ensuring that emergency plans can be swiftly and efficiently activated when needed.

The Group puts the safety of its employees as priority, and encourages employees and outsourced workers to leave the place immediately when they encounter any situation which, in their belief, may lead to danger or disease during work. Accordingly, they should report the relevant situation to the project safety management team and the employees will not be subject to disciplinary or other adverse treatment as a result.

緊急事故應對及安全培訓

本集團各運營項目皆專門設有應對不同階段所發生事故的應急預案，以協助員工應對緊急事故。應急預案由項目安全管理團隊執行，安全風險管理範圍包含項目公司及鄰近社區。該團隊負責定期為員工舉辦健康與安全培訓，涵蓋緊急應對計劃、運營操作危害、法律等議題，務求提高員工應對危機時的處理技巧和知識，確保能在需要時迅速高效地啟動應急預案。

本集團把員工安全放在首位，鼓勵員工及外判工人在工作中遇到任何他們認為可能導致危險或疾病的狀況時，應馬上離開該環境，並向項目安全管理團隊報告相關狀況；保障他們不會因此而遭受處分或其他不利的對待。

Through comprehensive trainings, the Group aims to inspire its employees to acknowledge the importance of safety management, laying foundation for a better daily safe production at workplace. The Group's health and safety trainings cover the following topics:

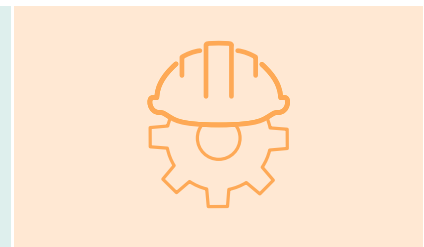
本集團希望透過全面的培訓活動激發全員對安全管理工作的認識與思考，為更好地開展作業場所日常安全生產管理工作奠定基礎。本集團的健康與安全培訓涵蓋以下內容：



Health and Safety Laws
and Regulations
健康與安全方面的
法律法規



ESHS Management System
ESHs管理體系



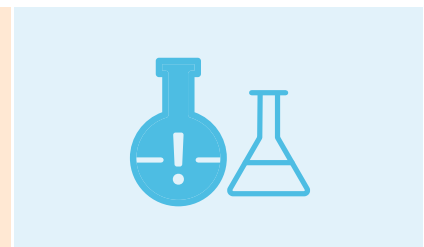
Safe Use of
Equipment
設備裝置的安全使用



Recognition and Control of
Hazard Sources
危險源的辨識和
控制措施



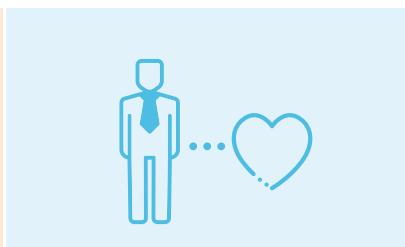
Risk Monitoring and Assessment
at Different Risk Levels
風險分級管控和
隱患排查



Procurement and
Storage of
Hazardous Items
採購及儲存危險物品



Emergency Management
事故應急管理



Occupational Health
Management
職業健康管理



First Aid
急救

The Group also provides trainings for third-party contractors' and subcontractors' on-site workers, and training topics include the ESHS Management System and incidents response management, etc.

本集團亦向第三方承包商及分包商駐場工人提供培訓，內容涵蓋ESHs管理體系及事故應急管理等。

In 2021, the total health and safety training hours of the Group were approximately 124,033.5 hours.

二零二一年，本集團的健康與安全培訓總時數約為124,033.5小時。

During the Reporting Period, the Group continued carrying out the “Safe Production Month” initiative and fully implementing the “Three Zeros” goal (zero work safety accident, zero excessive discharge of pollutants and zero case for violation of laws and regulations) through themed activities, training and education, safety inspection and emergency drills across all project companies.

報告期內，本集團繼續開展「安全生產月」活動，透過主題宣講、培訓教育、安全檢查、應急演練等方式，在所有項目公司深入貫徹「三個零」目標（零安全事故、零超標排放、零違法違規）。

Case Study

個案分享

“Safety Production Team Mobile Red Flag Evaluation” by EB Water Ji’nan Xike Waste Water Treatment Project (Plant 4) and Ji’nan Xike Waste Water Treatment Project (Plant 4) Phase II
光大水務濟南西客污水處理項目（四廠）、濟南西客污水處理項目（四廠）二期創新「安全生產班組流動紅旗評比」

During the 2021 Annual Working Meeting and Commendation Conference of EB Water Ji’nan, its Ji’nan Xike Waste Water Treatment Project (Plant 4) and Ji’nan Xike Waste Water Treatment Project (Plant 4) Phase II were awarded the “Management Innovation Award” for their “Safety Production Team Mobile Red Flag Evaluation”.

光大水務濟南二零二一年度工作會議暨表彰大會為濟南西客污水處理項目（四廠）、濟南西客污水處理項目（四廠）二期的「安全生產班組流動紅旗評比」項目頒發「管理創新獎」。

Under the “Safety Production Team Mobile Red Flag Evaluation”, its Ji’nan Xike Waste Water Treatment Project (Plant 4) and Ji’nan Xike Waste Water Treatment Project (Plant 4) Phase II innovatively integrate ESHS Management System, SOP, Risk Management System and EB Water Ji’nan’s management system of quality, environment, occupational health and safety into their daily safety production. Such evaluation enables the daily operation works of the safety production team to be more scientific and standardised, enhances the motivation among the safety and environmental production work and creates a positive working atmosphere.

濟南西客污水處理項目（四廠）、濟南西客污水處理項目（四廠）二期的「安全生產班組流動紅旗評比」創新性地用實際工作做尺規，將光大水務ESHS管理、SOP、風險管理體系與光大水務濟南品質、環境、職業健康安全一體化管理體系重點落實到日常安全生產之中。安全生產班組流動紅旗既讓安全生產班組日常工作進一步實現科學化、規範化，又使評先選優工作在安全與環境生產工作中發揮了更大的激勵作用，創造了良好的工作氛圍。



Case Study 個案分享

Safety Inspection conducted by EB Water Nanjing 光大水務南京開展專項安全大檢查



In May 2021, extreme convective weather, such as thunderstorms, was very likely to occur in Nanjing. To effectively ensure the safe operation of power distribution facilities before and after flood seasons at every plant under EB Water Nanjing, the equipment centre organised a four-day safety inspection of equipment for electricity, lightning and flood protection, commencing from 13 May 2021. A comprehensive investigation of potential safety hazards on power consumption was carried out, including inspections of electricity consumption condition, equipment operation and safety protection in power distribution rooms of five subsidiaries under EB Water Nanjing. No major problem affecting safe operation of electrical equipment was found in the process except potential electrical failure of some of the capacitor compensation cabinets that might be caused by dust accumulation in individual switchboard rooms. The equipment centre urged the duty personnel to clean the floor of power distribution rooms and strengthened the inspection and management of power distribution rooms.

二零二一年五月，南京遭遇雷暴等強對流天氣襲擊的概率極大。為了有效保障光大水務南京所轄各廠配電設施設備在汛期前後的安全運行，設備中心從二零二一年五月十三日起組織開展了為期四天的防電、防雷、防汛專項設備安全大檢查。該次檢查對光大水務南京所轄五個項目子公司配電室的用電基本情況、設備運行、安全防護等進行了全面的用電安全隱患排查。過程中沒有發現影響用電設備安全運行的重大問題，但發現個別配電房存在較多灰塵，導致部分電容補償櫃出現帶病運行的問題。對此，設備中心現場督促高壓值守人員對配電房地面進行了清掃，並加強對配電房運行環境的檢查管理。

In mid-to-late May 2021, with the careful safety inspections done by EB Water Nanjing, no accident of equipment safety happened when strong convective weather occurred in Jiangsu Province. As such, the team went through the flood season peacefully.

二零二一年五月中下旬，江蘇省迎來強對流天氣，光大水務南京憑藉仔細的安全排查，沒有發生一起設備安全事故，平穩度汛。

Establish a Safety Culture to Ensure Safe Operation

The Group has set a long-term goal in 2020 and is committed to maintaining the average work injury rate at 0.25 or below from 2020 to 2030. During the Reporting Period, the Group continued carrying out daily inspections on safety, environment and occupational health, and investigations of potential safety hazards. These inspections ensure that various safety systems are strictly implemented in all projects under construction and in operation. The Group also regularly organises emergency drills to improve the employees' skills in responding to crisis.

建立安全文化 保障安全運營

本集團已於二零二零年制定了長期目標，致力將工傷率於二零二零至二零二零年間平均維持於0.25或以下。本集團於報告期內繼續加大力度開展安全、環境與職業健康的日常檢查工作，排查安全隱患，確保各在建及運營項目嚴格執行各項安全制度，並定期舉辦應急演習和演練，務求提高員工應對危機時的處理技巧。

Occupational Health and Safety Statistics in 2021

二零二一年職業健康與安全數據統計

Total working hours

工作總時數

Employees of Everbright Water
光大水務員工

4,767,360 hours
小時

Third-party contractors and subcontractors working on-site
第三方承包商及分包商駐場工人

845,824 hours
小時

Employees

員工

Number of work-related fatalities
因工死亡個案

0

Number of high-consequence work-related injuries (excluding fatalities) ⁽¹⁾
嚴重工傷個案 (不包括死亡個案) ⁽¹⁾

0

Number of work-related injuries
工傷個案

0

Number of occupational disease cases
職業病個案

0

Rate of work-related injuries ⁽²⁾
工傷率 ⁽²⁾

0

Days of absence from work due to work-related injury
因工傷缺勤日數

0

Number of fatalities due to occupational disease
因職業病死亡個案

0

Third-party contractors and subcontractors working on-site 第三方承包商及分包商駐場工人

Number of work-related fatalities 因工死亡個案	Number of high-consequence work-related injuries (excluding fatalities) ⁽¹⁾ 嚴重工傷個案 (不包括死亡個案) ⁽¹⁾	Number of work-related injuries 工傷個案	Number of occupational disease cases 職業病個案
0	0	0	0
Rate of work-related injuries ⁽²⁾ 工傷率 ⁽²⁾	Days of absence from work due to work-related injury 因工傷缺勤日數		Number of fatalities due to occupational disease 因職業病死亡個案
0	0		0

Notes:

- ⁽¹⁾ High-consequence work-related injuries (excluding fatalities) refer to work-related injuries causing the worker being unable to recover fully to pre-injury health status within 6 months.
- ⁽²⁾ Rate of work-related injuries = (Total number of work-related injuries/Total working hours) × 200,000.

附註：

- ⁽¹⁾ 嚴重工傷(不包括死亡個案)是指導致工作者無法或難於六個月內恢復至受傷前健康狀態的工傷。
- ⁽²⁾ 工傷率 = (工傷個案總計 / 工作總時數) × 200,000。





*We closely co-operate with
stakeholders and*
**MAKE ACCOMPLISHMENTS
HAND IN HAND**

*與持份者緊密合作，
攜手共創輝煌*

GRI 102-40 GRI 102-42

Everbright Water is committed to fulfilling its responsibilities and obligations as a corporate citizen, striving to promote environmental protection and sustainable development in communities. As a leading water environment management enterprise, the Group also takes part in charitable events, aiming to spread warmth and positive energy through organising community activities.

光大水務堅定履行企業公民的責任與義務，致力於推動社區的環保建設及可持續發展。作為中國水環境治理的龍頭企業，本集團亦持續關注社會公益事業，透過積極組織社區關懷活動等方式，為社區傳遞溫暖及正能量。

Stakeholder Engagement Plan

The Group actively fulfils its corporate social responsibility and pays attention to the impacts of its business on the stakeholders. The Group has formulated a comprehensive stakeholder engagement plan at the project level, such that the impacts of each project on the local stakeholder groups could be sufficiently considered and evaluated. As a response to the stakeholders' concerns, corresponding strategies will be formulated based on the evaluation results in order to reduce project risks and create shared value for the stakeholders. The Group's stakeholder engagement plan consists of the following five steps: identification of stakeholder groups, stakeholder analysis, formulation of project stakeholder engagement strategy, implementation of stakeholder engagement activities, and analysis and review of stakeholder engagement strategy.

持份者參與計劃

本集團積極履行企業社會責任，並重視業務對各個持份者帶來的影響。本集團已在項目層面制訂了完善的持份者參與計劃，充分考慮及評估每個項目對當地持份者群組的影響，並根據評估結果擬定相應的策略，回應持份者的關注、減低項目風險及建立共同價值。本集團的持份者參與計劃由以下五個步驟組成：識別持份者群組、持份者分析、制訂項目的持份者參與策略、落實持份者參與活動及分析與檢討持份者參與策略。



1 Step 1: Identification of stakeholder groups

第一步：識別持份者群組

The Group uses a systematic approach to identify stakeholders who are directly or indirectly affected by each project. The first step of identifying stakeholders is to delineate the geographical boundaries of the area influenced by the project. Besides the construction site and the area at which the project facilities located, the Group also considers all nearby facilities that could potentially be affected by the project, such as other local public utilities and roads. Other sources of impact on stakeholders include the project's air emissions, effluent, off-site transportation of materials and waste, and the impact on the local economy from the job opportunities created along the supply chain. In addition, the Group attaches great importance to the impacts of the projects on the local ecology, thus it will actively engage local NGOs, experts, universities and government departments that are involved in biodiversity initiatives during the process of stakeholder identification. Based on the results of the comprehensive identification process, the Group establishes a list of stakeholder groups for each project, which provides a basis for stakeholder analysis in the next step.

本集團透過系統化的方法識別每個項目中直接或間接受到影響的持份者。本集團在識別持份者的過程中，首先劃定項目的地理影響範圍，除了項目的施工現場及廠區的土地佔用外，還考慮了周邊所有有機會受到項目影響的設施，包括當地其他公用設施、交通道路等。其他對持份者的影響來源包括項目的氣體排放、出水、物料及廢棄物的場外運輸，以及供應鏈各環節所創造的就業機會對當地的經濟影響等。此外，本集團高度重視項目對當地生態造成的影響，所以在識別持份者的過程中，亦會積極明確當地參與生物多樣性倡議的非政府組織、專家和大學及政府部門。本集團基於全面的識別過程結果，建立項目的持份者群組列表，為下一步的持份者分析提供基礎。

2 Step 2: Stakeholder analysis

第二步：持份者分析

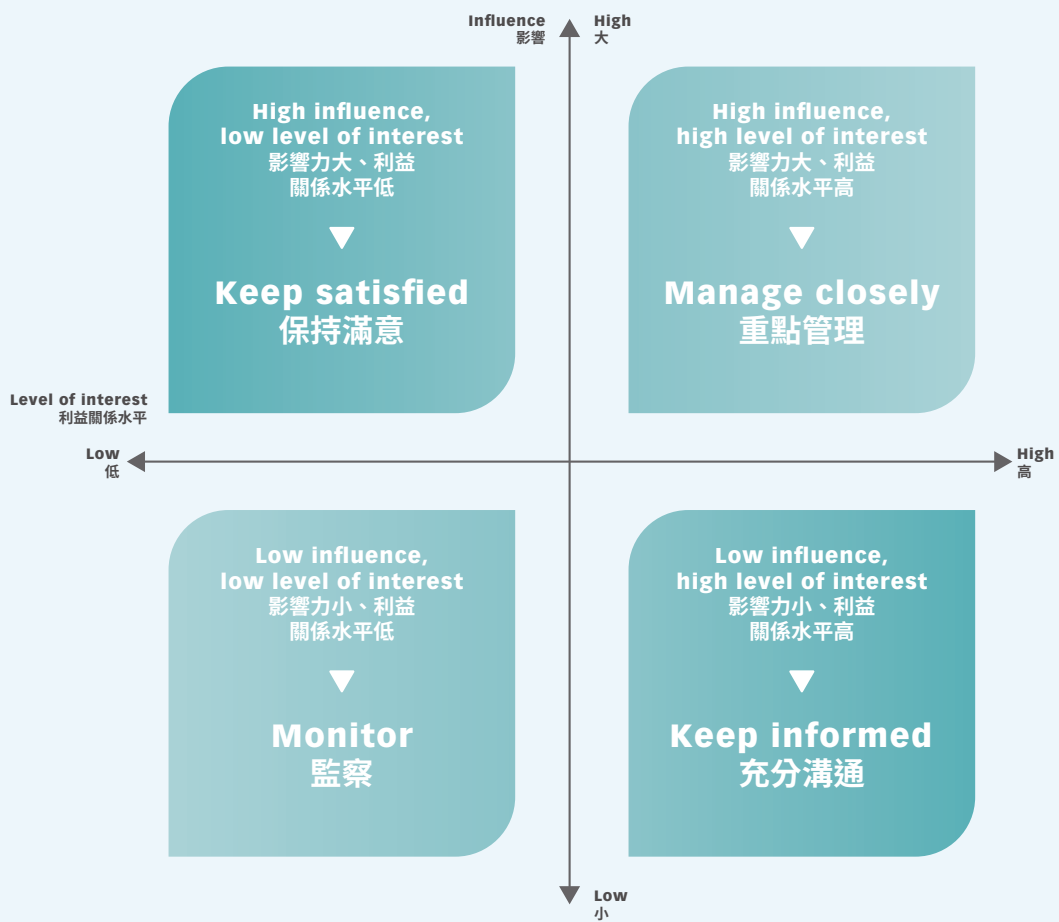
Stakeholders have significant influences on the risks and successes of the projects and the Group's overall business, so the views of stakeholders are paramount in the Group's decision-making. The major purpose of stakeholder analysis is to understand the needs, interests and influence of various stakeholder groups. Stakeholder analysis provides detailed information which is required for the formulation of project stakeholder engagement strategies and activities, so as to balance the interests of all parties and facilitate successful project delivery.

持份者能夠影響項目及本集團整體業務的風險及成敗，因此持份者的意見是本集團作決策時的關鍵考慮因素。持份者分析的核心目的是了解各個持份者組別的需要、利益和影響力，為制訂項目的持份者參與策略和活動提供詳盡的資訊，達致平衡各方利益，使項目得以順利交付。

It is inefficient and generally unnecessary to maintain the same level of intensity and frequency in communication and interaction with all stakeholder groups. Therefore, the Group sorts out the priorities of its stakeholder groups and formulates corresponding communication strategies for different types of stakeholders. The Group uses a stakeholder influence/interest matrix to divide stakeholders into four categories according to the stakeholder groups' level of interest and influence on the project.

與所有的持份者組別進行同樣水平及頻密的溝通互動是不合符效益的，在一般情況下亦是不必要的。因此，本集團為持份者群組排列優先次序，並為不同類型的持份者制訂相應的溝通策略。本集團按照持份者群組與項目的利益關係和他們在項目中的影響力，使用持份者影響力/利益矩陣，把持份者分為四個類別。

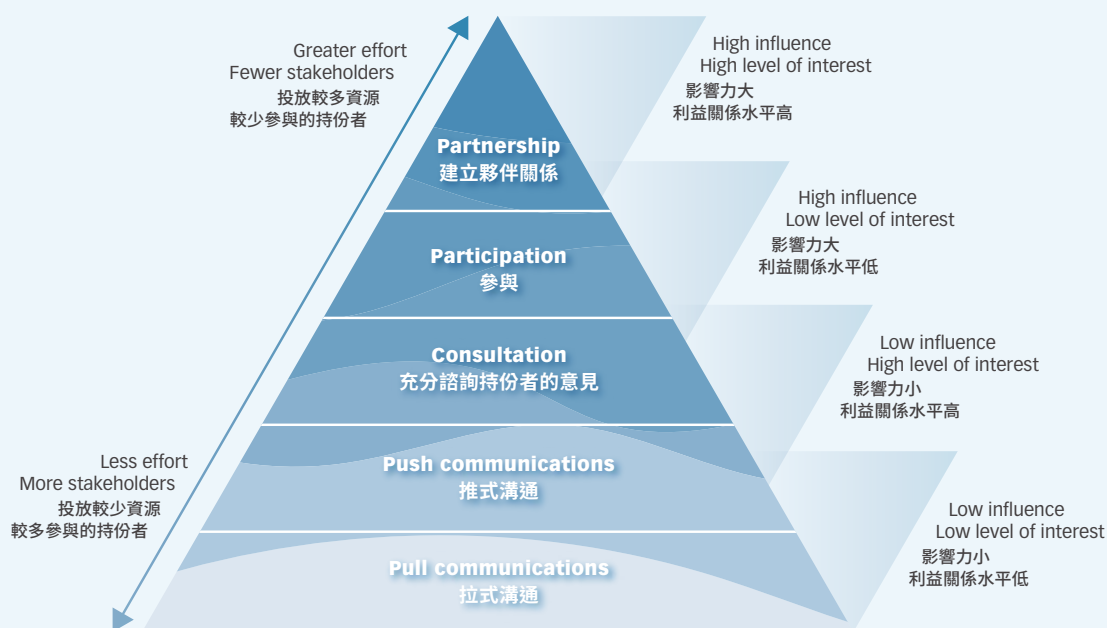
Influence/interest matrix
持份者影響力/利益矩陣



3 Step 3: Formulation of project stakeholder engagement strategy 第三步：制訂項目的持份者參與策略

Based on the stakeholder analysis and the influence/interest matrix, the Group has formulated corresponding stakeholder engagement strategies for different types of stakeholders in the project. Stakeholder engagement strategies are divided into the following five levels:

基於持份者分析及持份者影響力／利益矩陣，本集團為項目不同類別的持份者制訂相應的持份者參與策略，持份者參與策略分為以下五個層級：



- Partnership: These stakeholders include the Group's shareholders, business partners and local government departments, who have high levels of interest and influence in the project. To maximise their involvement, these stakeholders are invited to participate in different stages of decision-making in the project development process.

夥伴關係：這些持份者包括本集團的股東、業務夥伴及當地政府部門等，他們與項目的利益關係水平高，亦具有影響力。為了最大限度地提高他們的參與度，本集團會邀請他們參與項目每個階段的決策過程，讓他們參與項目開發。
- Participation: The Group encourages stakeholder participation by assigning them specific roles in the projects according to the project aspects identified to be closely related to the stakeholders. Stakeholder participation leverages the influence of stakeholders to facilitate a successful project delivery.

參與：本集團識別出與這些持份者有密切關係的項目領域，並賦予他們特定的職責，以提高他們的參與度，並運用其影響力促成項目的交付。

- Consultation: The Group frequently consults with stakeholders to seek their support and obtain their feedbacks on project development.
諮詢：本集團經常與持份者協商及諮詢他們的意見，以確保得到他們支持，並收集有助於項目開發的反饋。
- Push communication: The Group regularly provides project-related information to stakeholders via email or other communication channels to encourage stakeholder participation and keep stakeholders informed of the latest project developments.
推式溝通：本集團定期通過電子郵件或其他溝通渠道向持份者發送項目相關信息，有利於持份者參與項目，並隨時了解項目的發展情況。
- Pull communication: For stakeholders with low levels of interest and influence, the Group provides project-related information on its website or other publicly accessible platforms to reduce cost and time for communication.
拉式溝通：持份者對項目開發的興趣或能夠施加任何影響的機會較低，本集團透過在網站或其他公共平台上提供信息，以減少溝通的成本和時間。

4 Step 4: Implementation of stakeholder engagement activities 第四步：落實持份者參與活動

The Group's stakeholder communication and consultation guidelines specify the responsibilities of project companies on stakeholder consultation and the frequency of consultation activities. Project companies can organise stakeholder participation activities through appropriate communication channels according to the local conditions and in accordance with its stakeholder engagement strategy. Project companies also regularly invite stakeholders to express their views on the projects, so that the expectations of stakeholders could be met through effective project development strategies.

本集團的持份者溝通及諮詢指引，訂明了項目公司於持份者諮詢工作的責任分配，以及諮詢活動的頻率。項目公司可以因應當地環境及情況，並按照其持份者參與策略，安排合適的溝通渠道和持份者參與活動，定期邀請持份者對項目發表意見，從而有效達到持份者的期望，並制定項目發展戰略。

In order to fully protect the rights and interests of local residents, indigenous people and other affected groups, the Group communicates with these stakeholders at the early stages of the projects and ensures that there are sufficient stakeholder communication activities conducted in the local dialect to cater for the needs of the indigenous people. The Group is committed to maintaining the high transparency of project-related information through disclosing the nature of project, project scope and the reasons for land acquisition to the public. Through disclosing adequate information, the Group enables the affected groups to fully understand the compensation and resettlement plan for land acquisition, the impacts of the resettlement plan on their future lives, their rights and the grievance mechanisms related to environmental/social compliance.

為充分保障當地居民、原住民及其他受影響群組的權益，本集團積極於項目的早期階段展開對話，更確保有足夠的持份者溝通活動是以當地方言進行，以照顧原住民的需要。本集團致力保持項目相關資訊透明，向公眾公開項目的性質、範圍及徵用土地的原因，並讓受影響群組能夠充分了解收地補償安置方案、安置方案對他們往後生活的影響、他們的權益及與環境/社會合規相關的申訴機制。

The Group's stakeholder communication and consultation activities are carried out in an open and transparent manner, and all affected persons are free to express their views without any external manipulation, interference or threat of retaliation. The Group also encourages women and vulnerable groups to participate in consultation activities. Their opinions and concerns will be taken into consideration during project development.

本集團的持份者溝通和諮詢活動以公開透明的形式進行，所有受影響的人士可以自由表達自己的觀點，不受任何外部操縱、干涉或報復威脅。本集團亦鼓勵婦女和弱勢群體參與諮詢活動，並把他們的意見和關注的議題納入項目發展的考量中。

5 Step 5: Analysis and review of stakeholder engagement strategy

第五步：分析與檢討持份者參與策略

The Group regularly reviews the stakeholder participation activities, stakeholder communication records and analyses grievances (if any) made by stakeholders, as well as continuously obtains stakeholders' feedbacks on the project impacts through consultations and questionnaires at the middle and later stages of project development. Thereafter, the Group analyses and reviews the effectiveness of the stakeholder engagement strategy of the projects and makes improvements to the existing project strategy accordingly.

本集團透過定期回顧持份者參與活動、檢視持份者溝通記錄及分析持份者作出的申訴(如有)，並且在項目發展的中、後期階段繼續透過諮詢及問卷調查獲得持份者對項目影響的評價，從而分析與檢討項目持份者參與策略的成效，並按照檢討分析結果改善項目現有的策略。



Promotion of Environmental Protection and Education

宣揚環境保護及教育



The Group actively responds to the initiatives announced by the Ministry of Ecology and Environment and the Ministry of Housing and Urban-Rural Development of the PRC by continuous opening its waste water treatment facilities to the public. This further enhances the Group as an advanced hub for public visits and environmental protection promotion that provides on-site visits, practical learnings and technical training concurrently. Multiple waste water treatment plants of the Group received recognition at state, province and city levels, such as “Science Hub for Ecological Environment”, “Environmental Protection



Science Hub”, “Ecological Civilisation Education Hub”, “Education Base for Ecological Civilisation Development” and “Science Popularisation and Education Hub”.

Due to the ongoing pandemic, the Group continues to open to the public in various virtual forms. For the treatment plants located at regions where the pandemic is effectively controlled, various physical activities are organised in accordance with relevant safe distancing regulation. Such activities enhance public knowledge in protection of water resources and raise awareness in water conservation.



光大水務積極響應國家生態環境部與住房和城鄉建設部的號召，持續面向公眾開放污水處理設施及廠區，進一步發揮本集團集參觀、實踐、培訓為一體的環保宣傳基地作用。本集團旗下有多座污水處理廠榮獲國家、省、市級「生態環境科普基地」、「環保科普基地」、「生態文明教育基地」、「生態文明教育實踐基地」和「科普教育基地」等榮譽稱號。

因疫情持續，本集團繼續以各類線上形式進行對外開放。在疫情得到有效控制的地區，處理廠亦會在確保安全防疫的條件下，適當組織線下參觀活動，從而增加民眾的水資源環保知識，提升其節水意識。

As at 31 December 2021
截至二零二一年十二月三十一日

A total of
本集團共有

13

projects of the Group were recognised as “Environmental Education Hub” or “Science Popularisation and Education Hub”
個項目獲封「環境教育基地」或「科普教育基地」稱號

A total of
本集團已有

31

projects of the Group were open to the public
個項目向公眾正式開放

Everbright Water (Suzhou) Limited (“EB Water Suzhou”) recognised in the first batch of “Jiangsu Education Base for Ecological Civilisation Development” and “Suzhou Environmental Protection Model Enterprise”

光大水務(蘇州)有限公司(「光大水務蘇州»)入選首批「江蘇省生態文明教育實踐基地」和「蘇州市環保示範性企業」

In early 2021, EB Water Suzhou was recognised in the first batch of “Jiangsu Education Base for Ecological Civilisation Development” and “Suzhou Environmental Protection Model Enterprise”. “Jiangsu Education Base for Ecological Civilisation Development” is jointly selected by Jiangsu Provincial Department of Ecology and Environment, the Office of Jiangsu Guidance Commission on Building Spiritual Civilisation, Jiangsu Department of Education and Jiangsu Department of Culture and Tourism. EB Water Suzhou was the only company in Suzhou that received such award. “Suzhou Environmental Protection Model Enterprise” is awarded by Suzhou Ecological Environment Bureau, in which EB Water Suzhou was listed as a Top 100 Model Enterprise.

二零二一年年初，光大水務蘇州獲評首批「江蘇省生態文明教育實踐基地」和「蘇州市環保示範性企業」。首批「江蘇省生態文明教育實踐基地」由江蘇省生態環境廳、江蘇省精神文明建設指導委員會辦公室、江蘇省教育廳、江蘇省文化和旅遊廳共同評選而出，光大水務蘇州是蘇州市唯一獲此殊榮的單位。首批「蘇州市環保示範性企業」由蘇州市生態環境局評選並公佈，光大水務蘇州名列蘇州市首批100家示範企業行列。



In 2021

二零二一年

The Group's projects received over
本集團的項目共接待超過

9,430

visitors
名參觀人士

in
合計

267

batches
批次

List of environmental projects that were open to the public
已向公眾開放的環保項目列表

Ji'nan Waste Water Treatment Project (Plant 1) 濟南污水處理項目 (一廠)	Ji'nan Waste Water Treatment Project (Plant 2) 濟南污水處理項目 (二廠)
Ji'nan Licheng Waste Water Treatment Project (Plant 3) 濟南歷城污水處理項目 (三廠)	Ji'nan Xike Waste Water Treatment Project (Plant 4) 濟南西客污水處理項目 (四廠)
Ji'nan Huashan Waste Water Treatment Project 濟南華山水質淨化項目	Xianyang Waste Water Treatment Project 咸陽東郊污水處理項目
Zhangqiu Waste Water Treatment Project (Plant 1) 章丘污水處理廠項目 (第一廠)	Dezhou Nanyunhe Waste Water Treatment Project 德州南運河污水處理項目
Beijing Daxing Tiantanghe Waste Water Treatment Project 北京大興區天堂河污水處理項目	Binzhou Development Zone Waste Water Treatment Project 濱州開發區污水處理項目
Nanjing Liuhe Waste Water Treatment Project 南京六合污水處理項目	Suzhou Wuzhong Chengnan Waste Water Treatment Project 蘇州吳中城南污水處理項目
Lianyungang Dapu Waste Water Treatment Project 連雲港大浦污水處理項目	Nanjing Pukou Industrial Waste Water Treatment Project 南京浦口工業廢水處理項目
Jiangyin Waste Water Treatment Project 江陰污水處理項目	Xinyi Economic Development Zone Waste Water Treatment Project 新沂經濟開發區廢水處理項目
Dalian Quanshui Waste Water Treatment Project 大連市泉水污水處理項目	Dalian Malanhe Waste Water Treatment Project 大連市馬欄河污水處理項目
Dalian Siergou Waste Water Treatment Project 大連寺兒溝污水處理項目	Dalian Chunliuhe Waste water Treatment Project 大連市春柳河污水處理項目
Zhangqiu Waste Water Treatment Project (Plant 3) 章丘污水處理項目 (第三廠)	Sanmenxia Waste Water Treatment Project 三門峽污水處理項目
Ju County Shudong Waste Water Treatment Project 莒縣洙東污水處理項目	Zibo Waste Water Treatment Project (Northern Plant) 淄博污水處理項目 (北廠)
Zibo High-tech Zone Waste Water Treatment Project 淄博韓廟高新區污水處理項目	Zhangdian East Chemical Industry Park Industrial Waste Water Treatment Project 張店東部化工區工業廢水處理項目
Jiangyin Chengxi Waste Water Treatment Project 江陰澄西污水處理項目	Xinyi City Waste Water Treatment Project 新沂城市污水處理項目
Zhenjiang Zhengrunzhou Waste Water Treatment Plant Operation and Management Project 鎮江征潤州污水處理廠委託運營項目	Zhuanghe Waste Water Treatment Project 莊河市污水處理項目
Nanjing Pukou Waste Water Treatment Project 南京浦口區珠江污水處理項目	

Teachers and Students of Hohai University visited EB Water Nanjing

河海大學師生參觀光大水務南京

On 9 April 2021, 115 teachers and students from Nanjing Pukou District Urban Construction Group and School of Environment of Hohai University, visited the waste water treatment plant of EB Water Nanjing in Zhujiang Town, Pukou District. The students learned about waste water and reusable water treatment process and technology and also visited several on-site facilities under the guidance of a professional commentator of EB Water Nanjing. Unlike primary and secondary school student visits, this event was open to university students majoring in water affairs, allowing students to gain practical knowledge of the industry.

二零二一年四月九日，南京市浦口區城建集團、河海大學環境學院師生約115人，來到光大水務南京浦口珠江污水處理廠進行參觀學習。同學們在光大水務南京專業解說員的帶領下，對污水處理、中水回用處理的流程和工藝進行了了解，對於多個設施進行了實地參觀。與中小學參觀團隊不同，此次活動的開放對象是高等學府水務專業的大學生。通過本次研學實習之旅，學生們得以進一步理解書本上的專業知識及問題。



EB Water Ji'nan's Plant No. 4 hosted a field trip and received more than 80 primary school students

光大水務濟南四廠接待80餘名小學生到廠研學

On 14 April 2021, EB Water Ji'nan's Plant No. 4 received 84 teachers and students from Danshantun Primary School. This was the first large-scale public activity of the plant since the pandemic. The staff of the plant explained the process of waste water flowing through the sewers to the waste water treatment plants at which waste water is being treated into reusable water. Such trip also enabled the students to visit various parts of the plant and deepen their understanding on waste water treatment.

二零二一年四月十四日，光大水務濟南四廠接待了擔山屯小學84名師生。這也是四廠自疫情爆發以來開展的第一次大規模對外開放活動。過程中，四廠的工作人員結合工藝流程展板，向學生們細細講解了污水經由下水道流到污水處理廠、經過種種工藝環節最後處理成中水的過程，並帶領大家正式參觀了生產廠區的各工藝流程，讓孩子們對生活污水的處理有了更深入的認識。

EB Water Ji'nan's Plant No. 2 received students and teachers from the University of Jinan

光大水務濟南二廠接待濟南大學師生

On 25 May 2021, more than 260 teachers and students majoring in environmental engineering and environmental science visited EB Water Ji'nan's Plant No. 2. The staff of the plant briefly introduced the distribution of treatment plants in Ji'nan, and explained in detail the service area and process flow of EB Water Ji'nan's Plant No. 2. It was followed by a 2-hour on-site visit, including visiting deodourisation equipment and the greenery of the plant. Students believed the trip not only expanded their knowledge on treatment facilities, but also changed their conventional impression on waste water treatment industry.

二零二一年五月二十五日，濟南大學環境工程、環境科學與技術等相關環境專業師生共計260餘人來到光大水務濟南二廠，進行參觀學習。講解人員首先對濟南市的污水處理廠分佈情況進行了簡單介紹，並結合展板對光大水務濟南二廠的服務區域和工藝流程進行了詳細解說，隨後帶領師生分別開展實地參觀，包括全覆蓋式除臭設備、廠內綠化等，歷時約兩小時。參觀結束後，同學們表示此次污水處理廠之行既實踐和拓展了課本知識，又顛覆了他們對污水處理行業的傳統印象。



Advocating Environmental Protection Promotional Campaign

As an environmental protection enterprise focusing on water environment management, Everbright Water has been collaborating with environmental protection, technology associations and government organisations to initiate environmental protection promotional campaigns. At the same time, the Group participates in local and overseas environmental technology activities, and also encourages employees to adopt a low-carbon lifestyle. While ensuring all the safe distancing regulations in relation to pandemic prevention are complied with, the Group organises various online and offline environment activities in conjunction with annual events such as “World Water Day”, “Earth Day” and “World Environment Day” and promotes environment protection concepts, enhancing the soft power of sustainable development in the community.

推動環保主題公益宣傳

光大水務作為一家以水環境綜合治理為主業的環保企業，多年來積極聯同各環保、科技協會及政府機構開展環保主題公益宣傳活動，參與國內外的環保科技活動，鼓勵員工實行低碳生活。在積極配合疫情防控常態化工作要求的的前提下，本集團圍繞「世界水日」、「世界地球日」、「世界環境日」等環保主題節日，開展了線上線下相結合的主題環保公益活動，向當地社區傳遞環保理念和知識，提升社區可持續發展軟實力。

Everbright Water initiates environmental protection promotional campaigns in conjunction with “World Water Day” and “China Water Week” in 2021

光大水務全面開展2021年「世界水日」及「中國水週」環保公益活動

As the 2021 “World Water Day” and “China Water Week” approached, Everbright Water created a good educational environment by hanging promotion banners and utilising the internal promotion platform. In addition, project companies promoted such event by utilising external resources in both online and offline methods. For example, Everbright Water (Zhangqiu) Limited promoted water resources and water ecology on *Zhangqiu Today*; Everbright Water (Zibo) Limited collaborated with science popularisation events to promote volunteer services and educate the public about waste water treatment; Everbright Water (Laiyang) Limited cooperated with the local water department to host water conservation promotional campaigns in school campuses, and issued water conservation proposals. The water conservation and water saving awareness of the public was raised after a series of promotional activities.

二零二一年世界水日及中國水週到來，光大水務通過懸掛宣傳橫幅，利用廠區宣傳欄等內部宣傳平台營造了良好的教育氛圍。此外，各項目公司積極聯動外部資源，以線上與線下結合的形式進行有力宣傳。例如，光大水務（章丘）有限公司在《今日章丘》日報進行水資源與水生態專題宣傳報導；光大水務（淄博）有限公司攜手科普宣傳志願服務活動，向市民講解污水處理過程；光大水務（萊陽）有限公司聯合當地水務局走進公園和校園開展節水宣傳活動，發放節水倡議書。經過一系列的環保主題宣傳，市民的節水、護水與愛水意識得到了提高。

Please refer to the chapter entitled “Major Recognitions, Awards and Memberships” of this Report for the details of projects with major education recognitions and major science, technology, and environmental protection education activities in 2021.

有關二零二一年主要項目教育榮譽與主要科技及環保教育活動詳情，請查看本報告的「主要嘉許、獎項及會籍」章節。

Caring for the Community and Creating a Harmonious and Inclusive Society

關愛社區，共創和諧共融社會



In 2021
二零二一年



In order to minimise the impacts of project development on the surrounding environment and communities, the Group complies with the relevant IFC guidelines and local laws and regulations. The Group also organises and participates in community charitable activities, and strengthen the connection with the community, thus ensuring the projects are in harmony with the surrounding environment and the community. In addition, during the design and operation stages of the projects, the Group considers community concerns and highly respects indigenous peoples' values on their own identity, dignity, human rights, lifestyle and culture. This protects and enables them to gain socio-economic benefits that fulfil their culture and tradition. If any inevitable impacts on such communities are identified during the early stage, the Group will provide adequate and fair compensation and resettlement arrangements to the affected groups such as indigenous peoples in accordance with the applicable laws. At the same time, the Group has a confidential grievance mechanism for the relevant parties to raise their concerns. All information collected will be handled properly and all grievances will be responded in a timely manner. In 2021, the Group did not receive any grievance.

為了最大程度降低項目開發對周邊環境和社區的影響，本集團積極遵循相關的IFC指引和當地法律與法規要求，組織參與多項社區公益活動，強化旗下項目與社區的聯繫，確保項目能夠與周邊環境和諧共融。此外，在設計和實施項目時，本集團將社區的關注點納入考量，並對原住民自主定義的身份特徵、尊嚴、人權、生活方式和文化特點予以充分尊重，從而保護及創造符合他們文化傳統的社會和經濟利益。若本集團於早期階段確定項目將為社區群體帶來不可避免的影響，本集團會按照適用法律為原住民等受影響人士提供公平、充分的補償和安置安排。同時，本集團設立保密申訴機制，以供有需要人士進行申訴，所收集的資料將會被妥善處理，並適時作出回應。於2021年，本集團並沒有收到任何申訴。

In terms of public welfare and charity, the Group follows its *Donations and Sponsorships Management Measures* and endeavours to understand society's needs. The Group promotes integration of social, economic and environmental to prevent unfair treatment due to various factors such as age, gender, disability, and ensures the well-being of the underprivileged and the needy. In order to contribute to environmental protection and create a harmonious society, the Group always encourages employees to participate in charitable activities such as donations, visits, volunteering, blood donations and tree planting, undertaking responsibility for poverty alleviation, education improvement, hazards reduction and environmental protection. During the Reporting Period, the employees of the Group took part in various charitable activities, including fund-raising, visiting disadvantaged groups and volunteering.

在公益慈善方面，本集團以其制定的《對外捐贈、贊助管理辦法》為指引，積極了解社區需要，推動社會、經濟和環境共融，使人們不會因年齡、性別、殘疾與否等因素受到不公對待，為弱勢社群和有需要的人士謀取福祉。此外，本集團一直鼓勵支持員工積極參與捐款、探訪、義工、捐血、植樹等公益活動，重點支持國家定點扶貧、愛心教育、災害救助以及生態環境保護等，為環境保護及和諧社會出一份力。報告期內，本集團的員工身體力行參與各個範疇的慈善及公益活動，包括自願籌款、到弱勢群體家中進行探訪、進行義務勞動等。



The Group strives to create and promote development on social and economic aspects, and has aligned its policies with the United Nations' 17 SDGs to address the most pressing environmental, social and economic issues. As a leading water environment management enterprise in China, Everbright Water has launched a series of sustainable development plans and project designs to safeguard the water supply and protect the environment, as well as to create a high-quality living environment for the public. The summary below depicts how the Group's operational policies and activities are closely related to the SDGs.

本集團竭力創造及促進社會和經濟效益，配合聯合國的17項SDGs，制定一系列政策以應對世界上最迫切的環境、社會和經濟議題。作為中國水環境綜合治理的領先企業，光大水務透過落實一系列可持續發展計劃和項目設計，保障水資源供應、維護生態環境，同時為大眾打造一個優質的生活環境。以下概要描述了本集團的運營方針與本集團的活動如何與SDGs相關。

Environment

SDGs

可持續發展目標



Ensure healthy lives and promote well-being for all at all ages

確保健康的生活方式，促進各年齡段人群的福祉

3.9

By 2030, to substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.

到二零三零年，大幅減少危險化學品以及空氣、水和土壤污染導致的死亡和患病人數。

環境

The Group's Contributions

本集團的貢獻

The effluent discharged from most of the Group's waste water treatment plants complies with or is better than Grade 1A standard of *Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant* (GB18918-2002).

本集團大部分污水處理廠的出水均符合或優於《城鎮污水處理廠污染物排放標準》(GB18918-2002)的一級A標準。

SDGs**可持續發展目標**

Ensure availability and sustainable management of water and sanitation for all

為所有人提供水和環境衛生並對其進行可持續管理

6.4

By 2030, to substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.

到二零三零年，所有行業大幅提高用水效率，確保可持續取用和供應淡水，以解決缺水問題，大幅減少缺水人數。

The Group's Contributions**本集團的貢獻**

The Group treated a total of approximately 1,698,700,000 m³ of waste water and produced approximately 28,530,000 m³ of reusable water in 2021.

本集團於二零二一年共處理了約1,698,700,000立方米的污水和生產了約28,530,000立方米的回用水。

SDGs

可持續發展目標



Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
 建造具備抵禦災害能力的基礎設施，促進具有包容性的可持續工業化，推動創新

9.4

By 2030, to upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking actions in accordance with their respective capabilities. 到二零三零年，所有國家根據自身能力採取行動，升級基礎設施，改進工業以提升其可持續性，提高資源使用效率，更多採用清潔和環保技術及產業流程。

The Group's Contributions

本集團的貢獻

The Group's river-basin ecological restoration projects construct a more stable ecological environment, and thus improving the cities' resilience against regional water environment pollution; meanwhile, its "Sponge City" project facilitates effective drainage and rainwater reuse, strengthens the urban ecosystem and promotes sustainable development.

本集團的流域治理項目通過構建更穩固的生態環境從而提升城市水污染抵禦能力；海綿城市項目則有助疏導和回用雨水、改善城市生態系統及促進可持續發展。

In addition, Ji'nan Huashan Waste Water Treatment Project, which is the Group's first fully underground waste water treatment project, commenced operations in August 2018. The project conserves valuable land resources.

此外，本集團首個全地下式污水處理項目—濟南華山水質淨化項目於二零一八年八月正式投運，節省了寶貴的土地資源。

SDGs

可持續發展目標



Make cities and human settlements inclusive, safe, resilient and sustainable
建設包容、安全、有抵禦災害能力和可持續的城市和人類住區

11.6

By 2030, to reduce the adverse per capita environmental impact of cities, including paying special attention to air quality, municipal and other waste management.

到二零三零年，減少城市的人均負面環境影響，包括特別關注空氣質量，以及城市廢物管理等。



Ensure sustainable consumption and production patterns
採用可持續的消費和生產模式

12.2

By 2030, to achieve sustainable management and efficient use of natural resources.

到二零三零年，實現自然資源的可持續管理和高效利用。

The Group's Contributions

本集團的貢獻

The Group provides a series of water environment management services, such as raw water protection, municipal waste water treatment, industrial waste water treatment, water supply, reusable water, and sludge treatment and disposal, contributing to the development of sustainable cities and communities and minimising the impact of harmful substances on the aquatic and terrestrial ecosystems.

本集團透過一系列的水環境綜合治理服務，包括原水保護、市政污水處理、工業廢水處理、供水、中水回用及污泥處理處置等，為建設可持續城市和社區作出貢獻，並將有害污染物對水體和陸上生態的影響降至最低。

The Group engages qualified third parties to turn sludge into useful materials for the production of compost, construction material, or energy recovery via incineration so as to reduce the environmental impact.

本集團聘請具有資質第三方把污泥回收加工以作堆肥、建材利用，或透過焚燒回收能源，從而減低其對環境的影響。

SDGs

可持續發展目標



Take urgent action to combat climate change and its impacts

採取緊急行動應對氣候變化及其影響

13.1

To strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

加強各國抵禦和適應氣候相關的災害和自然災害的能力。

The Group's Contributions

本集團的貢獻

The Group's waste water treatment project in Qingdao generates green electricity with biogas produced from sludge treatment so as to replace the consumption of fossil fuel and offset GHG emissions. Meanwhile, the Group utilises waste water nitrogen removal treatment progress to reduce nitrogen concentration in effluent and the associated nitrous oxide emission, thus offsetting GHG emission. The Group's operations offset 111,865.01 tonnes of carbon dioxide equivalent emissions in 2021.

本集團位於青島的污水處理項目利用污泥處理時所產生的沼氣產生綠色電力，以代替化石燃料的使用，從而抵銷溫室氣體排放；而本集團亦透過污水除氮處理工藝降低污水出水的氮含量以及其所引致的氧化亞氮排放，以抵銷溫室氣體排放。二零二一年，本集團的運營共抵銷了111,865.01噸二氧化碳當量排放。

Furthermore, the Group has included climate change risks as part of its existing risk management system, in order to formulate a more comprehensive emergency and natural disaster response plan.

此外，本集團更將氣候變化風險納入現有的風險管理體系中，以制定更完善的緊急與自然災害應變方案。



Conserve and sustainably use the oceans, seas and marine resources for sustainable development

保護和可持續利用海洋和海洋資源以促進可持續發展

14.1

By 2025, to prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution.

到二零二五年，預防和大幅減少各類海洋污染，特別是陸上活動造成的污染，包括海洋廢棄物污染和營養鹽污染。

In an effort to protect the marine ecosystem, the Group ensures that all effluents discharged to seas are effectively treated in strict compliance with relevant discharge standards.

本集團確保其排放至大海的排放水均經過高效的污水處理，並嚴格滿足相關排放要求，從而保護海洋生態。

SDGs

可持續發展目標



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

保護、恢復和促進可持續利用陸地生態系統，可持續管理森林，防治荒漠化，制止和扭轉土地退化，遏制生物多樣性的喪失

15.1

To ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular, forests, wetlands, mountains and drylands, in line with obligations under international agreements

根據國際協議規定的義務，保護、恢復和可持續利用陸地和內陸的淡水生態系統及其服務，特別是森林、濕地、山麓和旱地。

By 2025, to strengthen the Group's disclosure of biodiversity risks.

到二零二五年，加強本集團對生物多樣性風險的披露。

The Group's Contributions

本集團的貢獻

The Group's river-basin ecological restoration projects improve the health of river ecosystems, including riparian habitats with a total investment of approximately RMB3.1 billion.

本集團的流域治理項目改善和強健河道生態系統，其中包括河岸棲息地，總投資額超過31億元人民幣。

Biodiversity risk assessment is included in this Report for the first time to analyse the impact of the Group's economic activities on biodiversity, so as to formulate effective investment and operation strategies to prevent loss of biodiversity.

本報告首次加入了生物多樣性風險評估，以分析本集團的經濟活動對生物多樣性的影響，從而制定有效的投資及運營策略，遏止生物多樣性的喪失。

Social

社會

SDGs

可持續發展目標



Ensure healthy lives and promote well-being for all at all ages

確保健康的生活方式，促進各年齡段人群的福祉

3.9

By 2030, to substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination.

到二零三零年，大幅減少危險化學品以及空氣、水和土壤污染導致的死亡和患病人數。



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

確保包容和公平的優質教育，讓全民終身享有學習機會

4.4

By 2030, to substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

到二零三零年，大幅增加掌握就業、體面工作和創業所需相關技能，包括技術性和職業性技能的青年和成年人數。

The Group's Contributions

本集團的貢獻

During the COVID-19 epidemic, the Group has put the safety of the water environment as first place and deployed manpower and resources to the front line for pandemic control, ensuring the stable and uninterrupted operation of the projects with the discharge standards met. At the same time, the Group assisted the local government to process and treat the medical waste water and waste water from quarantine sites so as to effectively prevent the secondary transmission of viruses through waste media such as waste water.

新冠疫情期間，本集團將保障水環境安全放在首位，第一時間調集人力物力投入抗疫前線，確保項目穩定運營、達標排放，保障項目服務地區的污水處理暢通無阻；同時助力當地政府做好醫療廢水及隔離點廢水的處理工作，有效阻斷病毒通過污水等廢棄物媒介進行二次傳播。

In order to promote environmental education, the Group continuously opens more environmental protection facilities to the public. During the year under review, the Group received 9,430 visitors in 267 batches in aggregate.

為了推動環保教育，本集團不斷加強環保設施公眾開放。於回顧年度內，本集團的項目共接待267批次，合計9,430人次。

Given the "new normal" of the regular pandemic control, the Group has been adopting a more flexible and innovative approach in opening up its environmental protection facilities for public visits and actively promoting environmental protection awareness via online platforms.

伴隨疫情時代的新冠疫情防控常態化趨勢，本集團圍繞環保設施公眾開放活動採取了更加靈活、創新的安排，積極透過「線上」平台向民眾宣傳環保理念。

SDGs**可持續發展目標**

Achieve gender equality and empower all women and girls

實現性別平等，增強所有婦女和女童的權能

5.1

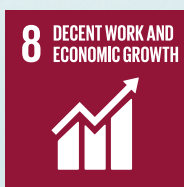
To end all forms of discrimination against women and girls everywhere.

在全球消除對婦女和女童一切形式的歧視。

The Group's Contributions**本集團的貢獻**

The Group ensures that its human resources management structure (including compensation, training opportunity and promotion opportunity) is not gender-biased, in order to achieve gender equality.

本集團力求人力資源管理架構（如薪酬水平，培訓機會及晉升機會）不受性別所限，實現男女性別平等。



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

促進持久、包容和可持續經濟增長，促進充分的生產性就業和人人獲得體面工作

8.2

To achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value-added and labour-intensive sectors.

通過多樣化經營、技術升級和創新，包括重點發展高附加值和勞動密集型行業，實現更高水平的經濟生產力。

Through investment, construction and operation of advanced waste water treatment projects, the Group facilitates the development of the downstream industry in sludge transportation and treatment, forming a comprehensive and sustainable water treatment industrial chain.

本集團透過投資、建造及營運先進的污水處理項目，帶動了下游污泥運輸及處置行業，形成完整的可持續水處理產業鏈。

SDGs**可持續發展目標****Reduce inequality within and among countries****減少國家內部和國家之間的不平等****10.2**

By 2030, to empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

到二零三零年，增強所有人的權能，促進他們融入社會、經濟和政治生活，而不論其年齡、性別、殘疾與否、種族、民族、出身、宗教信仰、經濟地位或其他任何區別。

The Group's Contributions**本集團的貢獻**

The Group pays special attention and adopts measures to ensure that its project operations do not affect the dignity, rights, livelihood, or culture of indigenous peoples. Local ethnic minorities and Han majority are respected and treated equally.

本集團特別關注及採取措施以確保項目運營不會影響原住民族的尊嚴、權利、生計或文化。當地少數族裔和漢族在工作上均受到同樣尊重和對待。

SDGs

可持續發展目標



Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
 倡建和平、包容的社會以促進可持續發展，讓所有人都能訴諸司法，在各級建立有效、負責和包容的機構

16.2

End abuse, exploitation, trafficking and all forms of violence against and torture of children.

終結對兒童進行虐待、剝削、販賣以及一切形式的暴力和酷刑。

16.5

Substantially reduce corruption and bribery in all their forms.

大幅減少各種形式的貪污賄賂。

The Group's Contributions

本集團的貢獻

The Group regularly reviews its recruitment practices to ensure the compliance with applicable laws and regulations on the avoidance of child labour and forced labour, and requires suppliers to comply with such regulations, in order to avoid any forced labour and child labour and to safeguard the human rights of employees. 本集團定期檢討其招聘措施以確保遵守適用於有關避免童工及強制勞工的法律及規例，並要求供應商遵守相關規例，避免任何強迫勞動、使用童工等行為，維護員工的人權。

To enhance employees' awareness of anti-corruption, the Group regularly provides its employees with relevant training on corruption prevention, and incorporates corruption risks into its risk assessment and internal control mechanisms, thereby reducing the corruption risks of all employees and enhancing the Group's integrity culture.

為加強員工對反貪污的警覺性，本集團定期為員工提供防止貪污相關的培訓，並把貪污風險納入風險評估及內部控制機制內，從而減低員工貪污風險，增進本集團的誠信文化。

The Group's Targets

本集團的目標

Review on 2021 Targets

二零二一年目標回顧

Aspect 範疇	2021 Target 二零二一年目標	Achieved 已達成
Discharge Compliance 排放合規	To maintain zero substantial non-compliance case in relation to effluent discharge 有關排放的嚴重違規個案維持於零宗	✓
Occupational Health and Safety 職業健康與安全	To maintain the rate of work-related injuries of employees below the level of 0.25 員工工傷率維持低於0.25水平	✓
Employment Practice 僱傭行為	To maintain zero case in relation to slavery, forced and bonded labour, child labour and abusive employment practices 有關任何奴役、強迫勞動、抵押勞工、使用童工及虐待行為維持於零宗	✓

Short and Medium/Long-Term Targets of the Group

本集團的短期及中長期目標

Aspect 範疇	Target 目標
GHG Management and Climate Change Mitigation 溫室氣體管理及氣候變化的應對	To establish and implement GHG management procedures, and prepare mitigation measures for potential climate change risks identified. 制定及實行溫室氣體管理程序及應對潛在氣候變化風險的緩解措施。
Environmental Compliance 環境合規	To strictly comply with relevant local environmental regulations. 嚴格遵守項目所在地區的相關環境法規。
Water Resources Consumption and Waste Water Treatment 水資源消耗與污水處理	To provide high-quality water environment management services and minimise the environmental impacts arising from operations. Through the use of re-circulating water and reclaimed water, the water consumption of projects is reduced. 提供高質素的水環境綜合治理服務，將運營的環境影響減至最低。並透過使用循環水及再用水，降低項目的水資源消耗。
Child Labour and Forced Labour 童工與強制勞工	To strictly prohibit any use of child labour and forced labour. 嚴格禁止任何童工與強制勞工。
Occupational Health and Safety 職業健康與安全	To ensure that the occupational health and safety of all the Group's employees are well protected in accordance with relevant regulations. 確保本集團所有員工的職業健康和 safety 受到充分保障，並遵守有關法規。

Aspect 範疇	Target 目標
Anti-Corruption 反貪腐	To enhance the awareness of the Group's employees and on-site third-party workers towards anti-corruption through training. 透過培訓以加強本集團員工及駐場第三方工人的反貪腐意識。
Waste Management 廢物管理	To minimise the generation of wastes and maximise recycling rate. 減少廢物產生及增加回收率。
Disaster and Emergency Planning and Response 災難及應急預案規劃	To reduce the number of unplanned shutdowns at operating projects. 降低運營項目非計劃停運的次數。
Social Compliance 社會法規的遵循	To strictly comply with the relevant local social regulations and ensure that the Group is not involved in any misconducts, such as bribery, extortion and money laundering, etc. 嚴格遵守項目所在地區的相關社會法規，確保本集團沒有涉及賄賂、勒索或洗黑錢等不當行為。
Economic Performance 經濟績效	To create long-term and sustainable economic growth. 創造長遠及可持續的經濟增長。
Rights of the Indigenous Peoples 原住民權利	To protect the rights of the indigenous peoples during the planning and operation of projects. 於項目規劃和運營過程中保障原住民的權利。
Anti-Competitive Behaviour 反競爭行為	To not be involved in any legal actions for anti-competitive behaviour, anti-trust and monopoly practices. 不參與任何反競爭行為、反托拉斯和壟斷行為的法律進程中。
Energy Efficiency 能源效益	To continuously reduce energy consumption of operating projects and actively explore various energy-efficient solutions. Electricity generated from renewable energy sources is used to reduce the consumption of fossil-based electricity during the operation. 提升生產效率從而減低能源消耗，並透過採用廠內的可再生能源發電，減低運營時所耗用的化石燃料電量。
Employee Training 員工培訓	To continuously increase resources on employee training, to provide employees with career development and diversified training opportunities throughout their careers. 持續增加投入培訓資源，為員工提供職業發展及貫穿職業生涯的多元培訓機會。

The Group has fully achieved its 2021 targets. Setting targets drives the continual improvement of the Group in sustainable development of its business. The Group has set the following major sustainable development targets for 2022 and the long term.

此外，本集團已實現了其二零二一年目標。設立目標大大推動本集團持續改善業務的可持續發展。本集團設立了以下二零二二年與長遠的主要可持續發展目標。

Major Sustainable Development Targets

主要可持續發展目標

Aspect 範疇	2022 Target 二零二二年目標	Long-Term Target (2030) 長遠目標 (二零三零年)
Occupational Health and Safety 職業健康與安全	To maintain the rate of work-related injuries of employees below the level of 0.25 員工工傷率維持低於0.25水平	To maintain the rate of work-related injuries of employees at an average level of 0.25 or below throughout the period of 2020-2030 員工工傷率於二零二零至二零三零年間平均維持於0.25或以下水平
Discharge Compliance 排放合規	To maintain zero substantial non-compliance case in relation to effluent discharge 有關排放的嚴重違規個案維持於零宗	To maintain zero substantial non-compliance case in relation to effluent discharge consistently throughout the period of 2020-2030 有關排放的嚴重違規個案於二零二零至二零三零年間持續維持於零宗
Employment Practice 僱傭行為	To maintain zero case in relation to slavery, forced and bonded labour, child labour and abusive employment practices 有關任何奴役、強迫勞動、抵押勞工、使用童工及虐待行為維持於零宗	To maintain zero case in relation to slavery, forced and bonded labour, child labour and abusive employment practices consistently throughout the period of 2020-2030 有關任何奴役、強迫勞動、抵押勞工、使用童工及虐待行為於二零二零至二零三零年間持續維持於零宗

Received Numerous Awards in the Aspect of Corporate Social Responsibility

The year 2021 represents a fruitful year for Everbright Water. Thanks to its excellent operation, the Group was shortlisted as one of the “Top 10 Influential Enterprises in China’s Water Industry” for the fourth consecutive year and received the “ListCo Excellence Award” for the second consecutive year. The Company also, for the first time, won awards conferred by authoritative organisations in Hong Kong such as the Chamber of Hong Kong Listed Companies and Hong Kong Institute of Certified Public Accountants. Such awards included: the “Award of Excellence in Corporate Governance”, the “Award of Excellence in Environmental, Social and Governance” (category for newly-listed companies) and a Special Mention for ESG in the Non-Hang Seng Index (small market capitalisation) category. In addition, Zhenjiang Sponge City Project was shortlisted as a Top 5 and received an Honorary Mention in the “Building Back Better Infrastructure Award” of the UNECE. A technological and application project, in which the Company’s subsidiary joined as a key participant, received the second prize of the 2020 State Scientific and Technological Progress Award.

於企業社會責任範疇屢獲殊榮

二零二一年是光大水務發展成果豐碩的一年。憑藉出色的經營，本集團不僅連續第四年入選「中國水業十大影響力企業」榜單、連續第二年獲得「傑出上市公司大獎」，更首次獲得香港上市公司商會、香港會計師公會等香港權威機構授予的各類獎項，包括：新上市公司類別「公司管治卓越獎」、「環境、社會及管治卓越獎」以及非恒指成份股公司類別（小市值企業組別）「環境、社會及管治特別提名獎」；鎮江海綿城市項目入圍聯合國歐經會「更好重建」基礎設施獎項評選五強並獲得榮譽提名獎；本公司附屬公司作為主要單位之一參與的技術及應用項目獲得二零二零年度「國家科學技術進步獎」二等獎。

Major Awards and Recognitions in 2021

二零二一年主要獎項及榮譽

Awards and Recognitions 獎項及榮譽	Awarding Organisation(s) 頒發機構
One of the Top 10 Influential Enterprises in China's Water Industry (for the fourth consecutive year) 「中國水業十大影響力企業」之一 (連續第四年)	E20 Environment Platform E20環境平台
Award of Excellence in Corporate Governance (category for newly-listed companies) 公司管治卓越獎 (新上市公司類別)	The Hong Kong Corporate Governance and ESG Excellence Awards 2021 by organisations including the Chamber of Hong Kong Listed Companies ("CHKLC") 香港上市公司商會等聯合舉辦的「香港公司管治與環境、社會及管治卓越獎2021」
Award of Excellence in ESG (category for newly-listed companies) 環境、社會及管治卓越獎 (新上市公司類別)	The Hong Kong Corporate Governance and ESG Excellence Awards 2021 by organisations including CHKIC 香港上市公司商會等聯合舉辦的「香港公司管治與環境、社會及管治卓越獎2021」
A Special Mention for ESG in the Non-Hang Seng Index (Small Market Capitalisation) Category 非恒指成份股公司類別 (小市值企業組別) 「ESG 特別提名獎」	The Best Corporate Governance and ESG Awards 2021 organised by the Hong Kong Institute of Certified Public Accountants 香港會計師公會舉辦的二零二一年度「最佳企業管治與環境、社會及管治大獎」
ListCo Excellence Award 2021 (for the second consecutive year) 傑出上市公司大獎2021 (連續第二年)	The annual "ListCo Excellence Awards" by organisations including Hong Kong stock channel of <i>ifeng.com</i> and Hong Kong media "am730" 《鳳凰網港股》、香港媒體《am730》等機構聯合舉辦的「傑出上市公司大獎」年度評選
The project on "Key Technologies and Applications for Intelligent Monitoring and Optimal Operation of Municipal Waste Water Treatment Plants", in which Everbright Water (Shenzhen) limited joined as a key participant, received the second prize of the 2020 State Scientific and Technological Progress Award 光大水務 (深圳) 有限公司作為主要單位之一參與的「城鎮污水處理廠智能監控和優化運行關鍵技術及應用」項目獲得二零二零年度「國家科學技術進步獎」二等獎	The National Office for Science and Technology Awards 國家科學技術獎勵工作辦公室
The whole process technology research on the construction of sponge city in Zhenjiang City received the third prize of the Huaxia Construction Science and Technology Award 2020 鎮江海綿城市建設全過程技術研究獲得二零二零年度「華夏建設科學技術獎」三等獎	Huaxia Construction Science and Technology Award Committee 華夏建設科學技術獎勵委員會
Second Prize at the "Narrators for Ecology and Environment" Competition 「我是生態環境講解員」二等獎	Ministry of Ecology and Environment of the PRC 中國生態環境部

Projects with Major Recognitions in 2021

二零二一年主要項目榮譽

Project 項目	Recognition 殊榮
Zhenjiang Sponge City Project 鎮江海綿城市項目	Shortlisted as Top 5 in the Building Back Better Infrastructure Award of UNECE and received an Honorary Mention 入圍聯合國經會「更好重建」基礎設施獎項評選五強，並獲榮譽提名獎
Xianyang Waste Water Treatment Project 咸陽東郊污水處理項目	National Environmental Protection Facilities and Urban Waste Water and Waste Treatment Facilities Opened to the Public 環保設施和城市污水垃圾處理設施向公眾開放單位
Zhangqiu Waste Water Treatment (Plant 4) PPP Project 章丘第四水質淨化廠PPP項目	Safe, Model and Standard Construction Site 標準化文明工地
Suzhou Wuzhong Chengnan Waste Water Treatment Project Phase I 蘇州吳中城南污水處理項目一期	Ecological Civilisation Education Practice Base in Jiangsu Province 江蘇省生態文明教育實踐基地
Jiangyin Waste Water Treatment Project 江陰污水處理項目	Outstanding Unit of Jiangsu Urban Waste Water Treatment Plant 江蘇省城鎮污水處理廠優秀單位
Ji'nan Huashan Waste Water Treatment Project 濟南華山水質淨化項目	2021-2022 Public Benchmarking Waste Water Treatment Plant 2021-2022年度受公眾歡迎標杆污水廠
Dezhou Lingcheng Waste Water Treatment Project 德州陵城區污水處理項目	Outstanding engineering projects in urban water supply and drainage industry in Shandong Province in 2021 山東省城鎮供水排水行業2021年優秀工程項目案例

Major Associations Participated by Everbright Water

光大水務參與的主要協會

Major Associations Joined by Everbright Water 光大水務參與的主要協會	Highlighted Activities in 2021 二零二一年重點活動
E20 Environment Platform E20環境平台	Awarded one of the “Top 10 Influential Enterprises in the Water Industry of China” for 2021 獲二零二一年度「中國水業十大影響力企業」之一
China Integrated Environmental Protection and Education Alliance 中國生態環境產教聯盟	Attended relevant meetings 參加會議
China Exploration and Design Association, Municipal Engineering Section 中國勘察設計協會市政工程設計分會	Attended relevant meetings 參加會議
China Urban Water Supply Association 中國城鎮供水排水協會	Attended relevant meetings 參加會議
Shandong Provincial Urban Water Supply Association 山東省城鎮供水排水協會	Attended the third meeting of the first council on 9 December 2021 二零二一年十二月九日參加第一屆三次理事會
Shandong Provincial Urban Construction Management Association 山東省城市建設管理協會	Participated in the “2021 Selection of Excellent Organisations and Individuals for the Urban Water Supply and Drainage Industry of Shandong Province” in November 2021, and Everbright Water (Dezhou) Limited’s Department of Safety and Environment Management was awarded the title of Excellent Organisation, and two employees were awarded the title of Excellent Individual. 二零二一年十一月參與「二零二一年山東省城鎮供排水行業先進集體和個人評選」，光大水務(德州)有限公司安全與環境管理部獲選先進集體，兩名員工獲選先進個人
Shandong Provincial Urban Water Association 山東省供水排水協會	Attended relevant meetings 參加會議
Shandong Provincial Water Association 山東省水協	Attended relevant meetings 參加會議
Jiangsu Provincial Municipal Engineering Association 江蘇省市政工程協會	Attended relevant meetings 參加會議

Major Associations Joined by Everbright Water 光大水務參與的主要協會	Highlighted Activities in 2021 二零二一年重點活動
Jiangsu Provincial Exploration and Design Association 江蘇省勘察設計行業協會	Participated in the selection and approval of the Jiangsu Provincial Exploration and Design Quality Management Advanced Unit and the Jiangsu Provincial Engineering Survey and Design Industry Integrity Unit organised by the association; participated in the provincial excellent design selection activity organised by the association, and 4 projects were awarded 參加協會組織的江蘇省勘察設計質量管理先進單位及江蘇省工程勘察設計行業誠信單位評選並通過；參加協會組織的省優秀設計評選活動，4項工程獲獎
Jiangsu Provincial Association of Engineering Consultants 江蘇省工程諮詢協會	Attended the ninth and tenth meeting of the fourth council 參加第四屆第九、十次理事會議
Jiangsu Association of Landscape Architecture 江蘇省風景園林協會	Attended relevant meetings 參加會議
Xuzhou Municipal Civil Engineering Society 徐州市土木建築學會	Attended relevant meetings 參加會議
Ji'nan Municipal Association for Science and Technology 濟南市科學技術協會	Attended relevant meetings 參加會議
Ji'nan Municipal Urban Water Supply and Drain Association 濟南市城鎮供水排水協會	Attended relevant meetings 參加會議
Qingdao Municipal Water Supply, Conservation and Drainage Association 青島市城鎮供水節水排水協會	Attended relevant meetings 參加會議
Drainage Branch of Wuxi Municipal Public Utility Association 無錫市市政公用協會排水分會	Attended relevant meetings 參加會議
Jiangyin Municipal Society for Environmental Sciences 江陰市環境科學學會	Attended relevant meetings 參加會議
Jiangyin Municipal Waste Water Treatment Industry Association 江陰市污水處理行業分會	Attended relevant meetings 參加會議
Explosive Chemicals Association 易制爆化學品協會	Attended relevant meetings 參加會議
Kunshan Environmental Protection Industry Association 昆山環保產業協會	Attended relevant meetings 參加會議
Lainyungang Municipal Water Supply and Drainage Association 連雲港市給排水協會	Attended relevant meetings 參加會議
Yangzhou Municipal Water Supply and Drainage Association 揚州市給排水協會	Attended relevant meetings 參加會議

Major Associations Joined by Everbright Water 光大水務參與的主要協會	Highlighted Activities in 2021 二零二一年重點活動
Yangzhou Jiangdu Environmental Protection Industry Association 揚州市江都區環保產業協會	Attended relevant meetings 參加會議
Nanjing Hypertoxic and Explosive Chemical Management Association 南京劇毒易制爆化學品管理協會	Attended relevant meetings 參加會議
Panjin Municipal Association of Environmental Protection Industry 盤錦市環境保護產業協會	Attended relevant meetings 參加會議
Dalian Environmental Protection Volunteers Association 大連市環保志願者協會	Attended relevant meetings 參加會議
Xuzhou Municipal Exploration and Design Association 徐州市勘察設計協會	Participated in the city's excellent design selection activity organised by the association, and 5 projects were awarded 參加協會組織的市優秀設計評選活動，5項工程獲獎
Xuzhou Municipal Engineering Association 徐州市市政工程協會	Attended relevant meetings 參加會議
Environmental Protection Association 環境保護聯合會	Attended relevant meetings 參加會議
Kunshan Water Society 昆山水務學會	Attended relevant meetings 參加會議
Kunshan Finance and Accounting Society 昆山財政會計學會	Attended relevant meetings 參加會議
Xuzhou City Association of Enterprise Credit Management 徐州市企業信用管理協會	Through the "2020 City Contract-abiding and Credit-Reliable Enterprise" publicity work organised by the association 通過協會組織的「2020年度市級守合同重信用企業」公示工作
Jiangsu Association of Enterprise Credit Management 江蘇省企業信用管理協會	Through the "2019-2020 Provincial Contract-abiding and Credit-Reliable Enterprise" publicity work organised by the association 通過協會組織的「2019-2020年度省級守合同重信用企業」公示工作
The Third Urban Traffic Professional Committee of China Engineering Construction Standardization Association 中國工程建設標準化協會第三屆城市交通專業委員會	Attended relevant meetings 參加會議
Shandong Water Supply, Conservation and Drainage Association 山東省城鎮供水節水排水協會	Attended relevant meetings 參加會議
Panjin Toxic and Chemicals Association 盤錦市易制毒化學品行業自律協會	Attended relevant meetings 參加會議

Total economic contributions to the major associations in 2021 amounted to RMB238,100.

二零二一年對各協會的總經濟貢獻為238,100元人民幣。



VERIFICATION STATEMENT

Scope and Objective

Hong Kong Quality Assurance Agency (“HKQAA”) was commissioned by China Everbright Water Limited (“Everbright Water”) to undertake an independent verification for the Sustainability Report 2021 (hereinafter called the “Report”). The Report stated the sustainability performance of Everbright Water in the period of 1st January 2021 to 31st December 2021.

The aim of this verification is to provide a reasonable assurance on the reliability of the report contents. The Report has been prepared in accordance with the Global Reporting Initiative (“GRI”) Standards: Comprehensive option, Rule 13.91 and Appendix 27 “Environmental, Social and Governance Reporting Guide (“ESG Reporting Guide”)” of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the “SEHK Listing Rules”), as well as the Singapore Exchange Securities Trading Limited (“SGX”) Listing Manual (Rules 711A, 711B and Practice Note 7.6 Sustainability Reporting Guide).

Level of Assurance and Methodology

The process applied in this verification was based on the International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. Our evidence gathering process was designed to obtain a reasonable level of assurance as set out in the standard for the purpose of devising the verification conclusion. The extent of this verification process undertaken covered the criteria set out in the GRI Standards: Comprehensive option, the SEHK Listing Rules (Rule 13.91 and Appendix 27 the ESG Reporting Guide), and the SGX Listing Manual (Rules 711A, 711B and Practice Note 7.6 Sustainability Reporting Guide).

HKQAA’s verification process included verifying the mechanisms for collecting, calculating and reporting the sustainability performance information, reviewing relevant documented information, interviewing responsible personnel with accountability for preparing the Report and verifying selected representative samples of data and information. Raw data and supporting evidence of the selected samples were also thoroughly examined during the verification process.

Independence

Everbright Water is responsible for the collection and preparation of the information presented. HKQAA did not involve in the collection and calculation of data or the compilation of the reporting contents. Our verification activities were entirely independent and there was no relationship between HKQAA and Everbright Water that would affect the impartiality of the verification.

Conclusion

Based on the verification results and in accordance with the verification procedures undertaken, HKQAA has obtained reasonable assurance and is in the opinion that:

- The Report has been prepared in accordance with the GRI Standards: Comprehensive option, the SEHK Listing Rules (Rule 13.91 and Appendix 27 the ESG Reporting Guide), as well as the SGX Listing Manual (Rules 711A, 711B and Practice Note 7.6 Sustainability Reporting Guide);
- The Report illustrates the sustainability performance of Everbright Water, covering all material aspects, in a balanced, comparable, clear and timely manner; and
- The data and information disclosed in the Report are reliable and complete.

Nothing has come to HKQAA’s attention that the selected sustainability performance information and data contained in the Report has not been prepared and presented fairly and honestly, in all material aspects, in accordance with the verification criteria. In conclusion, the Report reflects truthfully of Everbright Water’s sustainability performance that is commensurate with the sustainability context and materiality of the company.

Signed on behalf of Hong Kong Quality Assurance Agency

Meico Cheong
Senior General Manager, Innovation Business
20 May 2022



核實聲明

範圍及目的

香港品質保證局已對中國光大水務有限公司（「光大水務」）二零二一年可持續發展報告（「報告」）的全部內容進行獨立驗證。該報告陳述了光大水務於二零二一年一月一日至二零二一年十二月三十一日期間，有關可持續發展方面工作的表現。

此核實聲明的目的是對報告所記載之內容提供合理保證。報告是根據全球報告倡議組織（GRI）：全面選項、香港聯合交易所有限公司證券上市規則（「聯交所上市規則」）第 13.91 條及附錄二十七所載的《環境、社會及管治報告指引》，及新加坡證券交易所有限公司（「新交所」）上市手冊（第 711A 條、第 711B 條和第 7.6 項應用指引《可持續發展報告指引》）的要求編制。

保證程度和核實方法

此次驗證工作是依據 International Auditing and Assurance Standards Board（國際審計與核證準則委員會）發佈的 International Standard on Assurance Engagements 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information（《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》）執行。收集核實證據的過程是參考國際準則所訂立進行合理保證的原則而制定以確保能擬定核實結論。此外，核實的內容是按照 GRI 準則：全面選項、聯交所上市規則（第 13.91 條和附錄二十七《環境、社會及管治報告指引》），及新交所上市手冊（第 711A 條、第 711B 條和第 7.6 項應用指引《可持續發展報告指引》）而定。

香港品質保證局的核實過程包括驗證了光大水務的可持續發展表現資料收集、計算和彙報的機制，檢閱有關文件資料，與負責編制報告的代表面談，選取具有代表性的數據和資料進行查核。相關原始數據和支援證據亦於核實過程中經過詳細審閱。

獨立性

光大水務負責收集和準備所有在報告內陳述的資料。香港品質保證局不涉及收集和計算此報告內的數據或參與編撰此報告。就提供此核實服務而言，香港品質保證局與光大水務之間並無任何會影響核實公正的關係，我們的核實過程是完全獨立的。

結論

基於是次的核實結果，香港品質保證局對報告作出合理保證並總結：

- 報告是按照 GRI 準則：全面選項，聯交所上市規則（第 13.91 條和附錄二十七《環境、社會及管治報告指引》），及新交所上市手冊（第 711A 條、第 711B 條和第 7.6 項應用指引《可持續發展報告指引》）的要求編制；
- 報告平衡、清晰、具比較性和及時地將光大水務的可持續發展表現包括所有重要的可持續發展範疇闡述；及
- 報告內的數據和資料可靠完整。

根據驗證準則，香港品質保證局沒有發現在報告內闡述的可持續發展表現資訊和資料並非公平和如實地按照核實標準在主要範疇作出披露。總體而言，此報告能如實地反映光大水務的可持續發展表現並與其具體的可持續發展情況和重要性相稱。

香港品質保證局代表簽署

蔣齊仲
創新業務高級總經理
二零二二年五月二十日



14808655-OTH

Verification Opinion

Scope and Objectives

Hong Kong Quality Assurance Agency ("HKQAA") has been commissioned by China Everbright Water Limited ("CEWL") to conduct an independent verification of the Greenhouse Gases ("GHG") emissions inventory ("Emissions Inventory") for the period 1st January 2021 to 31st December 2021. The aim of this verification is to provide a reasonable assurance on the data consolidated in the Emissions Inventory compiled by CEWL using the operational control approach against the requirements of ISO 14064-1:2018 *'Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals'*.

Based on the preparation of the "CEWL SR21 GHG Inventory Revision 2" by CEWL in accordance with the criteria of ISO 14064-1:2018, an opinion was concluded by the verification team from the verification activities, including:

- Offsite verification with the aid of Information Communication Technology (ICT) of the GHG emission data associated to mobile emissions, electricity consumption as well as GHG emissions from activities of water treatment facilities; and
- Desk-top review of documentation and supporting evidence.

Methodology

The verification was conducted in accordance with ISO 14064-3: 2019 *'Specification with guidance for the verification and validation of greenhouse gas statements'*. The process included the assessment of:

- reporting boundaries selected;
- quantification methodology and emission factors used;
- integrity of the historical activity data used;
- accuracy and completeness of the GHG calculations; and
- conformance with the requirements of the ISO 14064-1:2018.

Integrity and accuracy of the aggregated data was tested by tracing the sampled data to its sources. The underlying processes for data collection, aggregation, estimation, calculation and internal checking were reviewed and undergone reliability test. Materiality threshold of 5% was adopted for this verification. HKQAA verification team did not partake in the GHG data preparation process.

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Remarks:

This verification opinion includes page <1> to page <5>



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Conclusion

Total GHG emissions and removals of China Everbright Water Limited in 2021:

2021 GHG Emissions and Removals	Tonnes (T) of CO ₂ equivalent
Category a): Direct GHG emissions (excluding anthropogenic biogenic GHG emissions)	13,635.9
Anthropogenic biogenic GHG emissions	29,552.7
Category a): Direct GHG removals (excluding anthropogenic biogenic GHG removals)	8,724.4
Anthropogenic biogenic GHG removals	103,140.7
Indirect GHG emissions	417,240.3
Category b): Imported Energy	392,120.4
Category c): Transportation	2,409.4
Category d): Products used	/
Category e): Use of products	/
Category f): Other sources	22,710.5
Total (Direct + Indirect Emissions excluding anthropogenic biogenic GHG emissions)	430,876.0
Total (Direct + Indirect Removals excluding anthropogenic biogenic GHG removals)	8,724.4

Signed on behalf of Hong Kong Quality Assurance Agency:

Lead Verifier:

Tommy Lo

Date of Issuance: 24 May 2022

Senior General Manager:

Meico Cheong

Hong Kong Quality Assurance Agency
19/F., K. Wah Centre, 191 Java Road, North Point, Hong Kong
Contact detail www.hkqaa.org

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Remarks:

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Verification Opinion (Continued)

Introduction:

HKQAA has been commissioned by China Everbright Water Limited (“CEWL”, address: 36/F., Far East Finance Centre, 16 Harcourt Road, Hong Kong) for the verification of its direct and indirect Greenhouse Gas emissions and removals in accordance with ISO14064-3: 2019 as provided by CEWL in its GHG Statement in form of “CEWL SR21 GHG Inventory Revision 2” covering GHG emissions and removals of the reporting period 1st January 2021 to 31st December 2021.

Roles and responsibilities:

CEWL is responsible for the organization’s GHG information system, the development and maintenance of records and reporting procedures in accordance with the system, including the calculation and determination of GHG emissions and removals information, and the reported GHG emissions and removals. HKQAA verification team is responsible for providing an independent GHG verification opinion on the GHG Statement provided by CEWL for the reporting period.

HKQAA conducted a third-party independent verification of the provided GHG Statement against the requirements of ISO 14064-1:2018 from March to May 2022. The verification was based on the verification scope, objectives and criteria as agreed between CEWL and HKQAA.

Detail of the Scope:

- The organizational boundary was established following the operational approach.
- The reporting boundaries were established including the identification of direct and indirect GHG emissions and removals associated with the following CEWL’s operations of various water facilities.
- Title or description activities: Verification of GHG Inventory 2021 for CEWL
- Location/boundary of the activities:
 - o Totally 108 wholly owned facilities (94 in operation stage and 14 in construction stage) for domestic and industrial wastewater treatment, reusable water treatment and river-basin ecological restoration etc. in China for over 99.9% of GHG emissions

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Remarks:

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- Physical infrastructure, activities, technologies and processes of the organization:
 - o Stationary combustion sources such as fuel combustion for generator set and machinery equipment
 - o Mobile combustion sources such as plant vehicles and mobile machines
 - o Indirect energy emissions from purchased energy
 - o Anthropogenic biogenic emissions of methane emissions from treatment of wastewater
 - o Anthropogenic biogenic emissions of N₂O emissions from biological treatment of wastewater
 - o N₂O emissions in effluent discharged
 - o Contractor transportation of sludge generated from wastewater treatment facilities
 - o Air travel by employees
- GHG sources, sinks and/or reservoirs included: GHG sources as presented in the "CEWL SR21 GHG Inventory Revision 2" of CEWL
- Types of GHGs included: CO₂, CH₄ and N₂O, where NF₃, SF₆, HFCs and PFCs are either not used by CEWL or not in significant amount.
- The data and information supporting the GHG Statement were hypothetical, projected and/or historical in nature.
- GWP adopted: 100-year global warming potentials (GWPs) identified in the IPCC's Sixth Assessment Report.
- GHG information for the following period was verified: 1st January 2021 to 31st December 2021
- Intended user of the verification opinion: Stakeholders identified by CEWL

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Remarks:
This verification opinion includes page <1> to page <5>



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Conclusion:

CEWL provided the GHG Statement in form of “*CEWL SR21 GHG Inventory Revision 2*” based on the requirements of ISO14064-1:2018. The GHG information for the reporting period disclosing the total direct and indirect greenhouse gas emissions of 430,876.0 tonnes of CO₂ equivalent (excluding anthropogenic biogenic GHG emissions), and anthropogenic biogenic GHG emissions of 29,552.7 tonnes of CO₂ equivalent, direct greenhouse gas removals of 8,724.4 tonnes of CO₂ equivalent (excluding anthropogenic biogenic GHG removals), and anthropogenic biogenic GHG removals of 103,140.7 tonnes of CO₂ equivalent are verified by HKQAA to a reasonable level of assurance (within 5%), consistent with the agreed verification scope, objectives and criteria.

HKQAA adopted a risk-based approach for the verification. Our examination includes assessment of evidence relevant to the amounts and disclosures in relation to CEWL’s reported GHG emissions.

The verification team assessed the GHG Statement in form of “*CEWL SR21 GHG Inventory Revision 2*” of CEWL including the GHG information system and reporting protocol. This assessment covered the collection of supporting evidence of the reported data and verified the consistency and appropriateness of the provided protocol reference.

Based on the verification process and procedures conducted, there is no evidence that the GHG Statement in form of “*CEWL SR21 GHG Inventory Revision 2*” prepared by CEWL:

- is not materially correct and is not a fair representation of GHG data and information for the reporting period;
- has not been prepared in accordance with ISO 14064-1:2018 on GHG quantification, monitoring and reporting.

HKQAA shall be responsible, and shall remain authority to forthwith suspend or withdraw CEWL’s verification opinion under the scheme or reduce the scope of such verification or terminate the contract if CEWL is unable to comply with the requirements of the “Terms and Conditions”.

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Remarks:

This verification opinion includes page <1> to page <5>

Economic Performance

經濟表現

		2021	2020	2019
		HKS'000	HKS'000	HKS'000
		港元千元	港元千元	港元千元
Direct Economic Value Generated	產生的直接經濟價值			
Revenue	收入	6,912,371	5,663,292	5,550,773
Other income and (losses)/gains, net	其他收入及(虧損)/收益淨額	(22,492)	53,068	113,465
Share of profits and losses of associates	所佔聯營公司盈利及虧損	(6,758)	4,224	614
Economic Value Distributed	分配的經濟價值			
Staff costs	員工開支	519,429	324,940	343,291
Other costs ⁽¹⁾	其他成本 ⁽¹⁾	4,140,444	3,477,880	3,693,877
Net finance costs	財務費用淨額	413,303	332,988	334,939
Dividends	股息	360,099	280,230	211,828
			(經重列)	(經重列)
Taxes ⁽²⁾	稅項 ⁽²⁾	203,264	207,289	156,657
Profit attributed to non-controlling interests	非控股權益應佔盈利	82,657	62,093	51,246
Charitable donations	慈善捐款	12	2,192	968
Economic Value Retained	留存的經濟價值			
Retained for Everbright Water's sustainable operation and development	留存作光大水務的可持續運營和發展	1,163,913	1,032,972	872,046
			(經重列)	(經重列)

Operational Performance ⁽³⁾運營表現⁽³⁾

		Unit 單位	2021	2020	2019
Total Designed Capacity		總設計規模			
Waste water treatment	污水處理	m ³ /day 立方米/日	5,960,600	5,471,600	5,141,600
Reusable water	中水回用	m ³ /day 立方米/日	250,600	196,600	206,600
Water supply	供水	m ³ /day 立方米/日	250,000	250,000	850,000
Raw water protection	原水保護	m ³ /day 立方米/日	600,000	600,000	Data not available 沒有相關數據
Business Performance		業務表現			
Waste water treatment	污水處理	m ³ 立方米	1,698,700,000	1,559,100,000	1,433,805,000
Chemical oxygen demand (COD) reduction	化學需氧量減排	tonne 噸	417,371	339,000	325,441
Reusable water	中水回用	m ³ 立方米	28,530,000	24,330,000	17,652,000
Screenings removed from waste water	從污水中移除的隔濾物量	tonne 噸	12,394.86	11,310.81	Data not available 沒有相關數據
Grits removed from waste water	從污水中移除的沙礫量	tonne 噸	10,363.42	9,996.67	Data not available 沒有相關數據
Suspended solids (SS) removed from waste water	從污水中移除的懸浮固體量	tonne 噸	370,046.37	295,102.77	Data not available 沒有相關數據
Biochemical oxygen demand (BOD) removed from waste water	從污水中移除的生化需氧量	tonne 噸	188,002.59	155,475.61	Data not available 沒有相關數據
Total phosphorus (TP) removed from waste water	從污水中移除的總磷量	tonne 噸	6,906.07	6,693.41	Data not available 沒有相關數據
Total nitrogen (TN) removed from waste water	從污水中移除的總氮量	tonne 噸	50,908.22	41,566.22	Data not available 沒有相關數據
Ammonia nitrogen (NH ₃ -N) removed from waste water	從污水中移除的氨氮量	tonne 噸	50,592.79	43,647.17	Data not available 沒有相關數據
GHG Emissions ^{(4),(5),(6)}		溫室氣體排放^{(4),(5),(6)}			
Scope 1 (Direct emissions)	範疇一 (直接排放)	tCO ₂ e 噸二氧化碳當量	43,188.72	27,215.63	5,727.71
Scope 2 (Energy indirect emissions)	範疇二 (能源引起的 間接排放)	tCO ₂ e 噸二氧化碳當量	392,120.35	342,619.47	283,335.27
Scope 3 (Other indirect emissions)	範疇三 (其他間接排放)	tCO ₂ e 噸二氧化碳當量	25,119.95	33,300.68	2,581.14
Total GHG emissions	溫室氣體排放總量	tCO ₂ e 噸二氧化碳當量	460,429.01	403,135.78	291,644.12
GHG emission intensity	溫室氣體排放強度	kgCO ₂ e/m ³ of waste water treated 公斤二氧化碳當量/ 立方米 (污水處理)	0.27	0.26	0.20
GHG emissions offsets	溫室氣體抵銷量	tCO ₂ e 噸二氧化碳當量	111,865.01	93,967.65	10,263.88
Remaining GHG emissions	剩餘溫室氣體排放量	tCO ₂ e 噸二氧化碳當量	348,564.00	309,168.13	281,380.24
Remaining GHG emission intensity	剩餘溫室氣體排放強度	kgCO ₂ e/m ³ of waste water treated 公斤二氧化碳當量/ 立方米 (污水處理)	0.21	0.20	0.20

		Unit 單位	2021	2020	2019
Energy Consumption ⁽⁷⁾		能源消耗⁽⁷⁾			
Non-renewable electricity	非再生能源電力	GJ 吉焦	2,290,657.61	1,993,845.90	1,695,500.70
Renewable electricity	再生能源電力	GJ 吉焦	41,224.17	35,487.07	127,871.28
Natural gas	天然氣	GJ 吉焦	0	0	353.96
Diesel	柴油	GJ 吉焦	1,151.60	1,682.75	6,888.59
Gasoline	汽油	GJ 吉焦	39,193.70	8,027.17	7,098.23
Total energy consumed	總能源消耗	GJ 吉焦	2,372,227.09	2,039,042.89	1,837,712.77
Energy intensity	能源強度	kJ/m ³ 千焦/立方米	1,396.49	1,307.83	1,281.70
Emission factor of GHG emissions due to electricity used for treating waste water	用於處理污水的電力消耗導致的溫室氣體排放的排放因子	kgCO ₂ e/m ³ of waste water treated 公斤二氧化碳當量/立方米 (污水處理)	0.23	0.21	0.19
Water Consumption		耗水			
Total freshwater consumed [#]	總淡水耗水量 [#]	m ³ 立方米	3,212,132.00	1,160,311.00	1,766,558.40
Freshwater intensity	淡水耗水強度	m ³ /1,000 m ³ 立方米/千立方米	1.89	0.74	1.23

Note:

附註：

Direct freshwater withdrawal from surface water and groundwater by projects under construction during the Reporting Period is newly included in this Report.

本報告新增了在建項目於報告期內直接從地表水及地下水取水的淡水取水量。

		Unit 單位	2021	2020	2019
Key Materials Used	所用主要物料				
Function 用途	Material 物料				
Absorbent 吸附劑	Pulverised coal ash 粉煤灰	Tonne 噸	0	0	0
Biological treatment 生物處理	Magnetic powder 磁粉	Tonne 噸	369.94	19.29	231.77
Carbon source 碳源	Manure 糞土		0	0	142.74
	Refined methanol 精甲醇		897.14	782.15	206.57
	Sodium acetate 乙酸鈉		145,170.99	85,920.60	123,960.76
	Waste methanol 廢甲醇		0	0	0
	Glucose 葡萄糖	Tonne 噸	29,343.69	25,986.83	21,672.93
	Activated carbon 活性炭		97.57	0	52.50
	Compound carbon source 複合碳源		12,167.54	1,141.71	158.79
	Xylose 木糖		3,629.23	3,412.18	2,691.80
	Brown sugar 紅糖		0	18.00	Data not available 沒有相關數據
Chemical oxidiser 化學氧化劑	Hydrogen peroxide 雙氧水		11,184.42	12,446.13	10,097.46
	Calcium hypochlorite 次氯酸鈣	Tonne 噸	2,652.77	3,074.47	1,497.09
	Liquid oxygen 液氧		19,393.75	5,868.27	7,549.47
Coagulant & flocculant 凝結劑及絮凝劑	Ferrous sulphate 硫酸亞鐵		14,520.15	18,170.36	39,768.01
	Iron (III) chloride 三氯化鐵		66,558.95	49,577.99	60,139.73
	PAFC 聚合氯化鋁鐵		12,569.72	15,072.31	19,858.12
	PFC 聚合氯化鐵	Tonne 噸	10,381.51	5,060.43	189.91
	PFS 聚合硫酸鐵		16,735.16	23,500.69	30,276.69
	Flocculant 絮凝劑		1,368.95	957.80	1,151.21
	PAC 聚合氯化鋁		54,342.72	32,408.49	28,739.75
	Iron (III) chloride 改性氯化亞鐵		1,324.39	758.09	Data not available 沒有相關數據

		Unit 單位	2021	2020	2019
Key Materials Used	所用主要物料				
Disinfectant 消毒劑	Hypochlorous acid 次氯酸		0	0	0
	Sodium hypochlorite 次氯酸鈉		26,257.42	18,757.97	19,093.01
	Liquid chlorine 液氯		0	137.07	0
	Sodium chlorate 氯酸鈉		0	0	11.87
	Disinfectant 消毒劑	Tonne 噸	25.90	0	37.48
	Non-oxidising biocide 非氧化殺菌劑		0	1.36	1.21
	Sodium dodecyl benzene sulphonate 十二烷基苯磺酸		0.09	0.14	0.04
	EDTA 乙二胺四乙酸		0	1.68	1.25
pH adjustment 酸鹼調整	Citric acid 檸檬酸		85.98	55.72	101.68
	Sodium carbonate 碳酸鈉		0	462.05	36.58
	Sodium bicarbonate 碳酸氫鈉		0	0	36.04
	Sodium phosphate 磷酸鈉		0	0	11.00
	Sulphuric acid 硫酸	Tonne 噸	669.89	894.83	665.18
	Lime 石灰		25,226.86	16,667.8	16,523.09
	Sodium hydroxide 氫氧化鈉		6,996.87	5,125.34	4,449.73
	Hydrochloric acid 鹽酸		182.96	203.28	3.15
	Sodium tripolyphosphate 三聚磷酸鈉		71.84	3	2.65
	Caustic soda 液鹼		465.29	2.14	Data not available 沒有相關數據
Others 其他		Tonne 噸	2,489.22	9,278.84	1,882.12
Non-hazardous Wastes Generated	所產生的無害廢棄物				
Sludge generated from waste water treatment projects	污水處理項目所產生的污泥	Tonne 噸	1,068,207.02	1,169,196.41	936,070.67
Sludge generation intensity	污泥產生強度	Tonne/1,000 m ³ of waste water treated 噸/千立方米 (污水處理)	0.63	0.75	0.65
General wastes generated from office	辦公室一般廢棄物產生量	Tonne 噸	1,362.19	857.55	1,598.29
Total amount of non-hazardous wastes generated	無害廢棄物產生總量	Tonne 噸	1,069,291.09	1,170,053.96	937,668.96

Water Withdrawal, Water Discharge and Water Consumption in 2021

2021年取水量、排水量及耗水量

GRI 303-3 GRI 303-4 GRI 303-5

Water Withdrawal 取水量		All Areas 所有地區	Areas with Water Stress 具水資源壓力的地區
Water withdrawal by source (m ³) 依來源劃分取水量 (立方米)	Surface water (total) 地表水 (總量)		
	≤1,000 mg/L Total Dissolved solids ≤1,000毫克/升總溶解固體	1,743,476	925,704
	>1,000 mg/L Total Dissolved solids >1,000毫克/升總溶解固體	0	0
	Groundwater (total) 地下水 (總量)		
	≤1,000 mg/L Total Dissolved solids ≤1,000毫克/升總溶解固體	255,474	145,474
	>1,000 mg/L Total Dissolved solids >1,000毫克/升總溶解固體	0	0
	Seawater (total) 海水 (總量)		
	≤1,000 mg/L Total Dissolved solids ≤1,000毫克/升總溶解固體	0	0
	>1,000 mg/L Total Dissolved solids >1,000毫克/升總溶解固體	0	0
	Produced water (total) 產出水 (總量)		
	≤1,000 mg/L Total Dissolved solids ≤1,000毫克/升總溶解固體	32,210,018	8,450,490
	>1,000 mg/L Total Dissolved solids >1,000毫克/升總溶解固體	0	0
	Third-party water (total) 第三方的水 (總量)		
	≤1,000 mg/L Total Dissolved solids ≤1,000毫克/升總溶解固體	1,724,485,561	1,506,305,357
>1,000 mg/L Total Dissolved solids >1,000毫克/升總溶解固體	0	0	
Total third-party water withdrawal by withdrawal source 依取水來源劃分第三方的總取水量			
Surface water 地表水	467,543	341,071	
Groundwater 地下水	8,254	8,254	
Seawater 海水	0	0	
Produced water 產出水	1,724,009,764	1,505,956,032	
Total water withdrawal (m³) 總取水量 (立方米)	Surface water (total) + groundwater (total) + seawater (total) + produced water (total) + third-party water (total) 地表水 (總量) + 地下水 (總量) + 海水 (總量) + 產出水 (總量) + 第三方的水 (總量)	1,758,694,528	1,515,827,024

GRI 306-3

GRI 306-4

GRI 306-5

Water Discharge 排水量		All Areas 所有地區	Areas with Water Stress 具水資源壓力的地區
Water discharge by destination (m ³) 依終點劃分排水量 (立方米)	Surface water 地表水	815,093,175	675,083,407
	Groundwater 地下水	16,000	16,000
	Seawater 海水	205,824,676	197,909,514
	Third-party water (total) 第三方的水 (總量)	103,842,973	103,690,955
	Third-party water sent for use to other organisations 供其他組織使用的第三方的水	25,448,959	25,448,959
Total water discharge (m³) 總排水量 (立方米)	Surface water + groundwater + seawater + third-party water (total) 地表水 + 地下水 + 海水 + 第三方的水 (總量)	1,124,776,824	976,699,876
Water discharge by freshwater and other water (m ³) 依總溶解固體濃度劃分之排水量 (立方米)	Freshwater (≤1,000 mg/L Total Dissolved Solids) ≤1,000毫克/升總溶解固體	1,124,776,824	976,699,876
	Other water (>1,000 mg/L Total Dissolved Solids) >1,000毫克/升總溶解固體	0	0
Water Consumption 耗水量			
Total freshwater consumption (m ³) 總淡水耗水量 (立方米)		3,212,132	2,014,796
Total water consumption (m ³)# 總耗水量 (立方米)#		633,917,704	539,127,149

Note:

The total water consumption is calculated based on GRI 303 standard:

$$\text{Water consumption} = \text{Total water withdrawal} - \text{Total water discharge}$$

The total water withdrawal includes waste water received from third parties for treatment in the Group's projects.

附註：

總耗水量按照GRI 303準則計算：

$$\text{總耗水量} = \text{總取水量} - \text{總排水量}$$

總取水量包含第三方排入本集團項目作處理的污水。

GRI 306-3

GRI 306-4

GRI 306-5

Waste Generation, Disposal and Recycling in 2021

2021年廢棄物產生、處置量和回收量

Waste Generation 廢棄物產生		Unit 單位	Waste Generation 廢棄物產生量	Waste Disposal 廢棄物處置量	Waste Recycling 廢棄物回收量
Non-hazardous waste	無害廢棄物				
A. Waste paper (e.g. newspapers and periodicals, office paper, cardboard)	A. 廢紙 (如報紙書刊、辦公室用紙、紙皮等)		1,166.64	1,162.13	4.50
B. Metals (e.g. iron/aluminium cans, food containers)	B. 金屬 (如鐵/鋁罐、食品容器)		57.10	36.41	20.69
C. Plastics (e.g. water bottles, beverage bottles, personal care bottles)	C. 塑料 (如瓶裝水、飲品塑料瓶、個人護理用品瓶等)		7.52	4.21	3.30
D. Glass (e.g. beverage bottles, cooking oil/condiment bottles, etc.)	D. 玻璃 (如飲品玻璃瓶、食油/調味醬料玻璃瓶等)		9.94	5.19	4.75
E. Electrical appliances (e.g. phones, computers, printers, air conditioners, washing machines, televisions)	E. 電器 (如電話、電腦、打印機、冷氣機、洗衣機、電視機等)	Tonne 噸	2.24	1.14	1.10
F. Batteries (including individual batteries and batteries attached to electrical appliances)	F. 充電池 (包括一般獨立充電池及電器附設充電池)		2.93	0.21	2.72
G. Kitchen waste	G. 廚餘		71.78	56.35	15.44
H. Used clothing (clothing, accessories, textiles)	H. 舊衣物 (衣服、飾物、紡織物)		3.29	1.67	1.63
I. Sludge (non-hazardous waste)	I. 污泥 (無害廢棄物)		1,067,928.90	461,513.61	606,415.29
J. Others	J. 其他		40.74	40.52	0.22
Sub-total (non-hazardous waste)	無害廢棄物總量	Tonne 噸	1,069,291.09	462,821.43	606,469.65
Hazardous waste	有害廢棄物	Unit 單位	Waste Generation 廢棄物產生量	Waste Disposal 廢棄物處置量	Waste Recycling 廢棄物回收量
Sludge (hazardous waste)	污泥 (有害廢棄物)		278.13	278.13	0
Hazardous waste (such as waste acid, waste alkali, waste organic solvent, waste liquid, waste reagent, waste engine oil, etc.)	有害廢棄物 (例如廢酸、廢鹼、廢有機溶劑、廢液、廢試劑、廢機油等)	Tonne 噸	342.55	339.57	2.97
Sub-total (hazardous waste)	有害廢棄物總量	Tonne 噸	620.67	617.70	2.97
Total waste	廢棄物總量	Unit 單位	Waste Generation 廢棄物產生量	Waste Disposal 廢棄物處置量	Waste Recycling 廢棄物回收量
Total waste	廢棄物總量	Tonne 噸	1,069,911.76	463,439.13	606,472.63

Waste Treated by Recycling Operations
按回收作業從處置中移轉的廢棄物

		Unit 單位	On-site 現場	Off-site 離場	Total 總量
Hazardous Wastes		有害廢棄物			
Prepared for recycling	再使用準備		0	0	0
Recycling	再生利用	Tonne	0	2.97	2.97
Other recycling operations	其他回收作業	噸	0	0	0
Total	總量		0	2.97	2.97
Non-hazardous Wastes		非有害廢棄物			
Prepared for recycling	再使用準備		0	1,071.63	1,071.63
Recycling	再生利用	Tonne	5.90	11,071.56	11,077.45
Other recycling operations	其他回收作業	噸	0	594,320.57	594,320.57
Total	總量		5.90	605,463.75	606,469.65

Waste Disposed by Disposal Operations
按處置作業直接處置的廢棄物

		Unit 單位	On-site 現場	Off-site 離場	Total 總量
Hazardous Wastes		有害廢棄物			
Incineration (including energy recovery)	焚化 (含能源回收)		0	160.54	160.54
Incineration (excluding energy recovery)	焚化 (不含能源回收)		0	448.45	448.45
Landfill	掩埋	Tonne	0	3.56	3.56
Other disposal operations	其他處置作業	噸	0	5.15	5.15
Total	總量		0	617.70	617.70
Non-hazardous Wastes		非有害廢棄物			
Incineration (including energy recovery)	焚化 (含能源回收)		0	231,401.71	231,401.71
Incineration (excluding energy recovery)	焚化 (不含能源回收)		0	104,435.06	104,435.06
Landfill	掩埋	Tonne	0	110,340.75	110,340.75
Other disposal operations	其他處置作業	噸	47.11	16,596.80	16,643.91
Total	總量		47.11	462,774.32	462,821.43

Social Performance⁽³⁾社會表現⁽³⁾Employee Profile⁽⁸⁾員工概況⁽⁸⁾

		2021	2020	2019			
Total Number of Employees	員工總數	2,328	2,231	2,317			
By Gender	按性別劃分						
Male	男性	1,651	1,588	1,655			
Female	女性	677	643	662			
By Age	按年齡劃分						
30 and below	30歲及以下	458	463	573			
31 – 40	31–40歲	1,079	1,034	1,013			
41 – 50	41–50歲	567	520	533			
51 and above	51歲及以上	224	214	198			
By Employee Ranking	按員工職級劃分						
Senior management	高級管理人員	110	127	121			
Middle-level management	中層管理人員	423	347	302			
General and technical staff	一般及技術員工	1,795	1,757	1,894			
By Geographical Region	按地區劃分						
Hong Kong	香港	6	6	7			
Singapore	新加坡	4	4	4			
Mainland China	中國內地	2,318	2,221	2,306			
Including: Local employees ⁽⁹⁾	其中：本地員工 ⁽⁹⁾	2,079	1,982	2,093			
Non-local employees ⁽⁹⁾	外地員工 ⁽⁹⁾	249	249	224			
By Ethnicity	按民族劃分						
Han	漢族	2,248	2,162	2,246			
Ethnic minorities	少數族裔	80	69	71			
By Employment Contract	按合約類別劃分						
Permanent Contract	長期合約	Male	826	855	720		
		男性					
		Female	335	363	292		
		女性					
		Mainland China	1,151	1,003	1,001		
		中國內地					
		Hong Kong	6	6	7		
		香港					
		Singapore	4	4	4		
		新加坡					
		Temporary/ Fixed-term Contract	臨時/定期合約	Male	825	723	935
				男性			
Female	342			290	370		
女性							
Mainland China	1,167			1,218	1,305		
中國內地							
Hong Kong	0	0	0				
香港							
Singapore	0	0	0				
新加坡							

New Employees and Employee Turnover

新聘及離職員工

		2021		2020		2019	
		Total Number 總人數	Percentage of employees in this category (%) 佔該類別員工百分比(%)	Total Number 總人數	Percentage of employees in this category (%) 佔該類別員工百分比(%)	Total Number 總人數	Percentage of employees in this category (%) 佔該類別員工百分比(%)
Total Number of New Hires	新聘員工總數	132	5.67	130	5.83	445	19.21
By Gender	按性別劃分						
Male	男性	80	4.85	87	5.48	308	18.61
Female	女性	52	7.68	43	6.69	137	20.69
By Age	按年齡劃分						
30 and below	30歲及以下	80	17.47	67	14.47	216	37.70
31 – 40	31–40歲	40	3.71	46	4.45	187	18.46
41 – 50	41–50歲	8	1.41	13	2.50	37	6.94
51 and above	51歲及以上	4	1.79	4	1.87	5	2.53
By Geographical Region	按地區劃分						
Hong Kong	香港	2	33.33	0	0.00	0	0.00
Singapore	新加坡	1	25.00	0	0.00	1	25
Mainland China	中國內地	129	5.57	130	5.83	444	19.25
Including: Local employees ⁽⁹⁾	其中：本地員工 ⁽⁹⁾	113	5.44	120	6.05	399	19.06
Non-local employees ⁽⁹⁾	外地員工 ⁽⁹⁾	19	7.63	10	4.02	46	20.54
Total Number of Employee Turnover (Resignation/Retirement)	員工流失總數 (離職/退休)	193	8.29	156	6.99	148	6.39
By Gender	按性別劃分						
Male	男性	138	8.36	118	7.43	105	6.34
Female	女性	55	8.12	38	5.91	43	6.50
By Age	按年齡劃分						
30 and below	30歲及以下	76	16.59	47	10.15	39	6.81
31 – 40	31–40歲	78	7.23	46	4.45	55	5.43
41 – 50	41–50歲	24	4.23	37	7.12	26	4.88
51 and above	51歲及以上	15	6.70	26	12.15	28	14.14
By Geographical Region	按地區劃分						
Hong Kong	香港	2	33.33	0	0.00	0	0.00
Singapore	新加坡	1	25.00	0	0.00	1	25.00
Mainland China	中國內地	190	8.20	156	6.99	147	6.37

Training and Development

培訓及發展

		2021	2020	2019
Total Training Hours	總培訓時數	245,454.00	91,461.60	57,066.50
Average Training Hours Per Employee	員工平均培訓時數	105.44	41.00	24.63
By Gender	按性別劃分			
Male	男性	114.74	42.04	24.89
Female	女性	82.74	38.41	23.97
By Employee Ranking	按員工職級劃分			
Senior management	高級管理人員	72.10	38.52	19.63
Middle-level management	中層管理人員	113.21	39.95	28.97
General and technical staff	一般及技術員工	105.65	41.38	24.26

Health and Safety

健康與安全

		2021	2020	2019
Employee	員工			
Number of work-related fatalities	因工死亡個案	0	0	0
Rate of work-related fatalities ⁽¹¹⁾	因工死亡率 ⁽¹¹⁾	0	0	0
Number of occupational disease cases	職業病個案	0	0	0
Number of high-consequence work-related injuries (excluding fatalities) ⁽¹²⁾	嚴重工傷個案 (不包括死亡個案) ⁽¹²⁾	0	0	0
Rate of high-consequence work-related injuries (excluding fatalities) ⁽¹³⁾	嚴重工傷率 (不包括死亡個案) ⁽¹³⁾	0	0	0
Number of work-related injuries ⁽¹⁴⁾	工傷個案 ⁽¹⁴⁾	0	3	2
Rate of work-related injuries ⁽¹⁵⁾	工傷率 ⁽¹⁵⁾	0	0.14	0.09
Days of absence from work due to work-related injury	因工傷缺勤日數	0	207	52
Third Party Contractors and Subcontractors Working on-site	第三方承包商及分包商駐場工人			
Number of work-related fatalities	因工死亡個案	0	0	1
Rate of work-related fatalities ⁽¹¹⁾	因工死亡率 ⁽¹¹⁾	0	0	0.34
Number of occupational disease cases	職業病個案	0	0	0
Number of high-consequence work-related injuries (excluding fatalities) ⁽¹²⁾	嚴重工傷個案 (不包括死亡個案) ⁽¹²⁾	0	0	0
Rate of high-consequence work-related injuries (excluding fatalities) ⁽¹³⁾	嚴重工傷率 (不包括死亡個案) ⁽¹³⁾	0	0	0
Number of work-related injuries ⁽¹⁴⁾	工傷個案 ⁽¹⁴⁾	0	0	2
Rate of work-related injuries ⁽¹⁵⁾	工傷率 ⁽¹⁵⁾	0	0	0.68
Days of absence from work due to work-related injury	因工傷缺勤日數	0	0	135

Remuneration

薪酬

		2021	2020	2019
Annual Total Remuneration and Ratio Figures 年度總薪酬及比例數據				
Total remuneration of the highest-paid individual (HK\$)	最高薪人士的薪酬總額 (港元)	4,908,978⁽³⁾	3,404,560	4,360,000
The median of the total remuneration of all employees (excluding the highest-paid individual) (HK\$)	全體員工薪酬總額的中位數 (不包括最高薪人士) (港元)	103,269	88,173	78,109
The ratio of the total remuneration of the highest-paid individual to the median of the total remuneration of all employees (excluding the highest-paid individual)	最高薪人士的薪酬總額與全體員工 (不包括最高薪人士) 薪酬總額的中位數的比例	47.54	38.61	55.82
Ratio of the annual percentage increase in total remuneration of the highest-paid individual to the median percentage increase in annual total remuneration of all employees (excluding the highest-paid individual)	最高薪人士薪酬總額的年度百分比增長與全體員工 (不包括最高薪人士) 薪酬總額中位數的年度百分比增長的比例	2.58	-1.70	4.19
The Average Remuneration by Employee Ranking (HK\$) 各級員工職級的平均薪酬 (港元)				
Senior management (male)	高級管理人員 (男)	578,346	478,354	324,277
Senior management (female)	高級管理人員 (女)	425,776	335,926	309,989
Middle-level management (male)	中層管理人員 (男)	238,567	183,730	254,369
Middle-level management (female)	中層管理人員 (女)	217,359	180,488	179,061
General and technical staff (male)	一般及技術員工 (男)	114,777	93,802	87,095
General and technical staff (female)	一般及技術員工 (女)	104,199	84,239	83,014

Notes:

附註：

- (1) Represents other costs but excludes depreciation, amortisation and charitable donations for the year. (1) 代表該年度的其他成本，但不包括該年度的折舊、攤銷及慈善捐款。
- (2) Represents current income tax but excludes deferred tax for the year. (2) 代表該年度所得稅，但不包括該年度的遞延稅項。
- (3) Due to rounding, there may be a slight discrepancy between the items of the statistics table and the relevant analysed data as shown in other chapters of this Report. (3) 由於捨入關係，數據表內個別項目的數字經分析計算後可能與本報告其他章節內的相關數據略有出入。
- (4) The calculation of scope 1 emissions covers all of the operating waste water treatment projects' fugitive methane emissions, nitrous oxide emissions from biological treatment process and direct emissions released from the direct use of fuel. In order to further improve the calculation of GHG emissions, emissions from biological treatment and direct emissions from the direct use of fuel are newly included in the scope 1 emissions for the year under review. (4) 範疇一的計算包括所有運營中的污水處理項目的無組織甲烷排放、生物處理過程中的氧化亞氮排放及經直接使用燃料而產生的直接排放。為進一步完善溫室氣體排放量的估算，生物處理過程及直接使用燃料的相關排放於回顧年度被新納入範疇一的直接排放。

The calculation of scope 2 emissions includes the indirect emissions from purchased energy consumption. The calculation boundary of scope 2 emissions covers all waste water treatment projects, reusable water projects, waste water source heat pump projects, sludge treatment and disposal projects, water supply projects, leachate treatment project and water environment management projects that were under construction and operation.

範疇二的計算為使用電力而產生的間接排放。範疇二的計算邊界包括所有在建與運營中的污水處理、中水回用、污水源熱泵、污泥處理處置、供水、滲濾液處理項目與水環境治理項目。

- (5) The highest-paid individual joined the Group in the fourth quarter of 2021. For purpose of clearer illustration of comparison, the figure herein refers to his full-year remuneration.
- (6) The calculation of GHG emissions from operating waste water treatment projects is referenced to CDM methodology *AM0080: Mitigation of Greenhouse Gases Emissions with Treatment of Wastewater in Aerobic Wastewater Treatment Plants (Version 1.0)*, the *GHG Protocol Corporate Accounting and Reporting Standard, ISO 14064-1: Specification with Guidance at the Organisation Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*, and *2006 IPCC Guidelines for National Greenhouse Gas Inventories (2019 Revision)*.
- (7) The calculation of scope 3 emissions includes fuel consumption for the transportation of sludge by third parties, indirect emissions from air travel by employees and nitrous oxide released from effluent. GHG emissions from air travel are calculated by International Civil Aviation Organisation Carbon Emissions Calculator. Nitrous oxide released from effluent is newly included in the scope 3 emissions for the year under review.
- (8) Energy consumption is calculated based on the reference coefficients as stated in *China Energy Statistical Yearbook 2018*.
- (9) As at 31 December 2021.
- (10) Employees hired from the same province in mainland China are regarded as local employees, whereas the employees hired from other provinces in mainland China are regarded as non-local employees.
- (11) Rate of work-related fatalities = (Total number of work-related fatalities/Total working hours) × 200,000
- (12) High-consequence work-related injuries (excluding fatalities) refer to work-related injuries that result in an injury from which the worker cannot, does not, or is not expected to recover fully to pre-injury health status within 6 months.
- (13) Rate of high-consequence work-related injuries (excluding fatalities) = (Total number of high-consequence work-related injuries (excluding fatalities)/Total working hours) × 200,000
- (14) Work-related injuries also include work-related fatalities and high-consequence work-related injuries.
- (15) Rate of work-related injuries = (Total number of work-related injuries/Total working hours) × 200,000
- (5) 最高薪人士於二零二一年第四季度加入本集團。為使對比更清晰，此處的數據指其全年薪酬。
- (6) 運營污水處理項目的溫室氣體排放計算參照CDM方法《AM0080：透過在有氧污水處理廠處理污水減少溫室氣體排放（1.0版）》、《溫室氣體核算體系企業核算與報告標準》、及《ISO 14064-1：組織層級溫室氣體排放與移除之量化及報告附指引》之規範，並參考IPCC《二零零六年IPCC國家溫室氣體清單指南》（二零一九年改進版）核准的計算方法。
- (7) 範疇三的計算包括第三方運送污泥的燃料消耗、員工飛機差旅的間接排放及從出水中釋放的氧化亞氮。飛機差旅的溫室氣體排放以國際民航組織的碳排放計算器計算得出。從出水中釋放的氧化亞氮於回顧年度被新納入範疇三的直接排放。
- (8) 能源消耗量是根據《中國能源統計年鑒2018》的參考系數所計算。
- (9) 截至二零二一年十二月三十一日。
- (10) 在中國內地同省受聘的員工被視為本地員工，而在中國內地外省受聘的員工則被視為外地員工。
- (11) 因工死亡率 = (因工死亡個案總計/工作總時數) × 200,000
- (12) 嚴重工傷(不包括死亡個案)是指導致工作者無法或難於六個月內恢復至受傷前健康狀態的工傷。
- (13) 嚴重工傷率(不包括死亡個案) = (嚴重工傷個案總計(不包括死亡個案)/工作總時數) × 200,000
- (14) 工傷亦包含因工死亡及嚴重工傷。
- (15) 工傷率 = (工傷個案總計/工作總時數) × 200,000



For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102-40 to 102-49 align with appropriate sections in the body of this Report. The service was performed on the English version of this Report.

GRI於本次實質性披露服務 (Materiality Disclosures Service) 確認GRI內容索引清晰，披露項102-40至102-49亦與本報告相應的章節相符。本次服務按本報告的英文版本進行。

Disclosure Number 披露編號	Description 描述	Relevant Chapter(s) or Other Reference/Explanation 有關章節或其他參考/說明	Page Number 頁數
GRI 101: Foundation 基礎 2016			
Does not include any disclosures 不包含任何揭露			
GRI 102: General Disclosures 一般揭露 2016			
Organisational Profile 組織概況			
102-1	Name of the organisation 組織名稱	About This Report 關於本報告	8-21
102-2	Activities, brands, products, and services 活動、品牌、產品與服務	About Everbright Water 關於光大水務 Annual Report 2021 二零二一年度報告	22-33 -
102-3	Location of headquarters 總部位置	About This Report 關於本報告 Annual Report 2021 二零二一年度報告	8-21 -
102-4	Location of operations 營運活動地點	About Everbright Water 關於光大水務 Annual Report 2021 二零二一年度報告	22-33 -
102-5	Ownership and legal form 所有權與法律形式	Annual Report 2021 二零二一年度報告	-
102-6	Markets served 提供服務的市場	About Everbright Water 關於光大水務 Annual Report 2021 二零二一年度報告	22-33 -
102-7	Scale of the organisation 組織規模	About Everbright Water 關於光大水務 Talent Development 人才發展 Annual Report 2021 二零二一年度報告	22-33 126-147 -
102-8	Information on employees and other workers 員工與其他工作者的資訊	Sustainability Governance 可持續發展管治 Talent Development 人才發展 Key Statistics 主要數據	34-51 126-147 189-202
102-9	Supply chain 供應鏈	Sustainability Governance 可持續發展管治	34-51
102-10	Significant changes to the organisation and its supply chain 組織與其供應鏈的重大改變	Message from CEO 總裁寄語 About Everbright Water 關於光大水務 Sustainability Governance 可持續發展管治 Annual Report 2021 二零二一年度報告	3-7 22-33 34-51 -

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102-11	Precautionary Principle or approach 預警原則或方針	Environmental Responsibility 環境責任	94-125
102-12	External initiatives 外部倡議	Controlling shareholder of the Group, China Everbright Environment Group Limited, has signed up to become a TCFD supporter 本集團的控股股東－中國光大環境(集團)有限公司－已成為了TCFD的支持者	–
102-13	Membership of associations 公協會的會員資格	Major Recognitions, Awards and Memberships 主要嘉許、獎項及會籍	176-181
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102-14	Statement from senior decision-maker 決策者的聲明	Message from CEO 總裁寄語	3-7
102-15	Key impacts, risks, and opportunities 關鍵衝擊、風險及機會	Message from CEO 總裁寄語 Annual Report 2021 二零二一年度報告	3-7 –
Ethics and Integrity 倫理與誠信			
102-16	Values, principles, standards, and norms of behavior 價值、原則、標準及行為規範	Sustainability Governance 可持續發展管治 Annual Report 2021 二零二一年度報告	34-51 –
102-17	Mechanisms for advice and concerns about ethics 關於倫理之建議與顧慮的機制	Sustainability Governance 可持續發展管治 Annual Report 2021 二零二一年度報告	34-51 –
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102-18	Governance structure 治理結構	Sustainability Governance 可持續發展管治 Annual Report 2021 二零二一年度報告	34-51 –
102-19	Delegating authority 委任權責	Sustainability Governance 可持續發展管治	34-51
102-20	Executive-level responsibility for economic, environmental and social topics 管理階層負責經濟、環境和社會主題	Sustainability Governance 可持續發展管治	34-51
102-21	Consulting stakeholders on economic, environmental and social topics 與利害關係人諮商經濟、環境和社會主題	About This Report – Communicate with Stakeholders 關於本報告－與持份者溝通	13-21
102-22	Composition of the highest governance body and its committees 最高治理單位與其委員會的組成	Sustainability Governance 可持續發展管治 Annual Report 2021 二零二一年度報告	34-51 –
102-23	Chair of the highest governance body 最高治理單位的主席	Annual Report 2021 二零二一年度報告	–
102-24	Nominating and selecting the highest governance body 最高治理單位的提名與遴選	Annual Report 2021 二零二一年度報告	–
102-25	Conflict of interest 利益衝突	Annual Report 2021 二零二一年度報告	–
102-26	Role of highest governance body in setting purpose, values and strategy 最高治理單位在設立宗旨、價值觀及策略的角色	Sustainability Governance 可持續發展管治 Annual Report 2021 – Corporate Governance Report 二零二一年度報告－企業管治報告	34-51 –
102-27	Collective knowledge of highest governance body 最高治理單位的群體知識	Annual Report 2021 – Corporate Governance Report 二零二一年度報告－企業管治報告	–
102-28	Evaluating the highest governance body's performance 最高治理單位的績效評估	Annual Report 2021 – Corporate Governance Report 二零二一年度報告－企業管治報告	–

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102-29	Identifying and managing economic, environmental, and social impacts 鑑別與管理經濟、環境和社會衝擊	Sustainability Governance 可持續發展管治	34-51
102-30	Effectiveness of risk management processes 風險管理程序的有效性	Sustainability Governance 可持續發展管治	34-51
102-31	Review of economic, environmental, and social topics 經濟、環境和社會主題的檢視	Sustainability Governance 可持續發展管治	34-51
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102-34	Nature and total number of critical concerns 關鍵議題的性質與總數	Annual Report 2021 – Corporate Governance Report – Risk Management and Internal Controls 二零二一年度報告—企業管治報告—風險管理和內部控制	-
102-35	Remuneration policies 薪酬政策	Annual Report 2021 – Corporate Governance Report – Remuneration Matters 二零二一年度報告—企業管治報告—薪酬事項	-
102-36	Process for determining remuneration 薪酬決定的流程	Annual Report 2021 – Corporate Governance Report – Remuneration Matters 二零二一年度報告—企業管治報告—薪酬事項	-
102-37	Stakeholders' involvement in remuneration 利害關係人的參與	Annual Report 2021 – Corporate Governance Report – Remuneration Matters 二零二一年度報告—企業管治報告—薪酬事項	-
102-38	Annual total compensation ratio 年度總薪酬比率	Key Statistics 主要數據 The Group's main operation involves over 95% of employees originate from mainland China, therefore the Group does not disclose remuneration data by region. 本集團的主要業務，以及超過95%的員工均位於中國內地，因此本集團沒有匯報按地區劃分的薪酬數據。	189-202
102-39	Percentage increase in annual total compensation ratio 年度總薪酬比率之增加百分比	Key Statistics 主要數據 The Group's main operation involves over 95% of employees originate from mainland China, therefore the Group does not disclose remuneration data by region. 本集團的主要業務，以及超過95%的員工均位於中國內地，因此本集團沒有匯報按地區劃分的薪酬數據。	189-202
Stakeholder Engagement 利害關係人溝通			
102-40	List of stakeholder groups 利害關係人團體	Stakeholder Engagement 持份者參與	148-162
102-41	Collective bargaining agreements 團體協約	None of the employees of the Group are covered by collective bargaining agreements. 本集團的員工並不包含在集體談判協定中。	-
102-42	Identifying and selecting stakeholders 鑑別與選擇利害關係人	Stakeholder Engagement 持份者參與	148-162
102-43	Approach to stakeholder engagement 與利害關係人溝通的方針	About This Report – Communicate with Stakeholders 關於本報告—與持份者溝通 Stakeholder Engagement 持份者參與	13-21 148-162
102-44	Key topics and concerns raised 提出之關鍵主題與關注事項	About This Report – Report Scope 關於本報告—報告範圍 Appendix I – GRI Content Index – Reporting Practice 附錄I—GRI內容索引—報導實務	12 206

Disclosure Number 披露編號	Description 描述	Relevant Chapter(s) or Other Reference/Explanation 有關章節或其他參考/說明	Page Number 頁數
Reporting Practice 報導實務			
102-45	Entities included in the consolidated financial statements 合併財務報表中所包含的實體	Annual Report 2021 – Notes to the Financial Statements (P.155-306) ⁽¹⁾ 二零二一年度報告 – 財務報表附註 (155-306頁) ⁽¹⁾ About This Report 關於本報告	– 8-21
102-46	Defining report content and topic boundaries 界定報告書內容與主題邊界	About This Report – Report Scope 關於本報告 – 報告範圍	12
102-47	List of material topics 重大主題表列	About This Report – Report Scope 關於本報告 – 報告範圍	12
102-48	Restatements of information 資訊重編	The Economic Performance data on “Dividends” and “Retained for Everbright Water’s sustainable operation and development” for 2019 were restated in this Report. 本報告涉及於二零一九年有關經濟表現「股息」及「留存作光大水務的可持續運營和發展」的重列。	–
102-49	Changes in reporting 報導改變	About This Report 關於本報告 About Everbright Water 關於光大水務 In 2021, topics including GHG Management and Climate Change Management, Disaster and Emergency Planning and Response, Social Compliance and Anti-Competitive Behaviour are added to the Group’s Material Topics; and topics including Materials Usage and Poverty Alleviation are removed. 二零二一年，本集團新增的實質性議題包括能源效益、員工培訓及水資源消耗；而被移除的議題包括災難及應急預案規劃、原住民權利及反競爭行為。	8-21 22-33
102-50	Reporting period 報告期間	About This Report 關於本報告	8-21
102-51	Date of most recent report 上一次報告書的日期	31st May 2021 二零二一年五月三十一日	–
102-52	Reporting cycle 報導週期	About This Report 關於本報告	8-21
102-53	Contact point for questions regarding this Report 可回答報告書相關問題的聯絡人	About This Report 關於本報告	8-21
102-54	Claims of reporting in accordance with the GRI Standards 依循GRI準則報導的宣告	About This Report 關於本報告	8-21
102-55	GRI content index GRI內容索引	Appendix I – GRI Content Index 附錄I – GRI內容索引	203-214
102-56	External assurance 外部保證/確信	Verification Statements 審核聲明	182-188

Note:

⁽¹⁾ Annual Report 2021 can be accessed via the following link:
<https://doc.irasia.com/listco/hk/cewater/annual/2021/car2021.pdf>

附註:

⁽¹⁾ 二零二一年度報告可於以下連結瀏覽:
<https://doc.irasia.com/listco/hk/cewater/annual/2021/car2021.pdf>

Topic-specific Disclosures

特定主題準則

Disclosure Number 披露編號	Description 描述	Relevant Chapter(s) or Other References/Explanation 有關章節或其他參考/說明	Page Number 頁數
GRI 200: Economic 經濟			
Economic Performance 經濟績效			
GRI 103: Management Approach 管理方針 2016			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Sustainability Governance 可持續發展管治	34-51
103-3	Evaluation of the management approach 管理方針的評估	Sustainability Governance 可持續發展管治	34-51
GRI 201: Economic Performance 經濟績效2016			
201-1	Direct economic value generated and distributed 組織所產生及分配的直接經濟價值	Key Statistics 主要數據	189-202
201-2	Financial implications and other risks and opportunities due to climate change 氣候變遷所產生的財務影響及其他風險與機會	Sustainable Development Strategies to Address Climate Change Risks 應對氣候變化風險的可持續發展策略 The Group is actively evaluating and measuring the financial impact of climate change risks on its business and will add climate-related financial disclosures in the near future. 本集團正積極評估衡量氣候變化風險為業務帶來的財務衝擊，並會在不久的將來加入氣候相關財務信息披露。	52-93
201-3	Defined benefit plan obligations and other retirement plans 定義福利計劃義務與其他退休計畫	Talent Development 人才發展 Annual Report 2021 – Directors’ Statement 二零二一年度報告—董事會聲明	126-147 –
201-4	Financial assistance received from government 取自政府之財務補助	Annual Report 2021 – Other Income and (losses)/gains, net 二零二一年度報告—其他收入及(虧損)/收益淨額	–
Anti-corruption 反貪腐			
GRI 103: Management Approach 管理方針 2016			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Sustainability Governance 可持續發展管治	34-51
103-3	Evaluation of the management approach 管理方針的評估	Sustainability Governance 可持續發展管治	34-51
GRI 205: Anti-corruption 反貪腐 2016			
205-1	Operations assessed for risks related to corruption 已進行貪腐風險評估的營運據點	Annual Report 2021 – Audit Committee 二零二一年度報告—審計委員會 The risk assessments and internal control conducted by the Group for all operating projects have already included risks of corruption. 本集團為所有運營項目進行的風險評估及內部控制已包含貪腐的風險。	–

Disclosure Number 披露編號	Description 描述	Relevant Chapter(s) or Other References/Explanation 有關章節或其他參考/說明	Page Number 頁數
205-2	Communication and training about anti-corruption policies and procedures 有關反貪腐政策和程序的溝通及訓練	Sustainability Governance 可持續發展管治 Number of employees participated in anti-corruption training – Number of senior management (percentage): 7 (6.36%) – Number of middle-level management (percentage): 9 (2.13%) – Other employees (percentage): 13 (0.72%) 已接受反貪腐培訓的員工數據 – 高管員工人數 (百分比): 7 (6.36%) – 中層員工人數 (百分比): 9 (2.13%) – 其他員工人數 (百分比): 13 (0.72%) In 2021, 6 out of 7 of the Directors participated in anti-corruption training. 於二零二一年, 7名董事中共有6名參與了反貪腐培訓。 All trained employees are located within mainland China. 所有受培訓員工均位於中國內地。	34-51
205-3	Confirmed incidents of corruption and actions taken 已確認的貪腐事件及採取的行動	Appendix III – Compliance with Relevant Laws and Regulations that Have a Significant Impact on Everbright Water 附錄III – 對光大水務有重大影響的相關法律及規例的遵守情況	221-224
GRI 300: Environmental 環境			
Energy 能源			
GRI 103: Management Approach 管理方針 2016			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Environmental Responsibility 環境責任	94-125
103-3	Evaluation of the management approach 管理方針的評估	Environmental Responsibility 環境責任	94-125
GRI 302: Energy 2016 能源 2016			
302-1	Energy consumption within the organisation 組織內部的能源消耗量	Environmental Responsibility 環境責任 Key Statistics 主要數據	94-125 189-202
302-2	Energy consumption outside of the organisation 組織外部的能源消耗量	The products and services of Everbright Water's core business will not cause additional energy consumption to customers. 光大水務核心業務的產品及服務不會對客戶造成額外的能耗。	–
302-3	Energy intensity 能源強度	Key Statistics 主要數據	189-202
302-4	Reduction of energy consumption 減少能源消耗量	Key Statistics 主要數據	189-202
302-5	Reductions in energy requirements of products and services 降低產品和服務的能源需求	Key Statistics 主要數據	189-202

Disclosure Number 披露編號	Description 描述	Relevant Chapter(s) or Other References/Explanation 有關章節或其他參考/說明	Page Number 頁數
GRI 300: Environmental 環境			
Water and Effluents 水與放流水			
GRI 103: Management Approach 管理方針 2016			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Environmental Responsibility 環境責任	94-125
103-3	Evaluation of the management approach 管理方針的評估	Environmental Responsibility 環境責任	94-125
GRI 303 : Water and Effluents 水與放流水2018			
303-1	Interactions with water as a shared resource 共享水資源之相互影響	Environmental Responsibility 環境責任	94-125
303-2	Management of water discharge-related impacts 與排水相關衝擊的管理	Environmental Responsibility 環境責任	94-125
303-3	Water withdrawal 取水量	Key Statistics 主要數據	189-202
303-4	Water discharge 排水量	Key Statistics 主要數據	189-202
303-5	Water consumption 耗水量	Key Statistics 主要數據	189-202
Emissions 排放			
GRI 103: Management Approach 管理方針 2016			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Environmental Responsibility 環境責任	94-125
103-3	Evaluation of the management approach 管理方針的評估	Environmental Responsibility 環境責任	94-125
GRI 305: Emissions 排放 2016			
305-1	Direct (Scope 1) GHG emissions 直接 (範疇1) 溫室氣體排放	Sustainable Development Strategies to Address Climate Change Risks 應對氣候變化風險的可持續發展策略 Key Statistics 主要數據 Calculations are based on the global warming potentials published in the IPCC <i>Sixth Assessment Report</i> (AR6); calculation of GHG emissions include carbon dioxide (CO ₂), methane (CH ₄) and nitrous oxides (N ₂ O). 計算參考IPCC《第六次評估報告》(AR6)中發佈的相 對全球變暖潛能。計算的溫室氣體排放量包括二 氧化碳(CO ₂)、甲烷(CH ₄)及氧化亞氮(N ₂ O)。 GHG emissions by biogenic/non-biogenic source: Biogenic emissions: 29,552.7 tonnes CO ₂ equivalent 由生物活動所產生的溫室氣體排放：29,552.7噸二 氧化碳當量 Non-biogenic emissions: 13,635.9 tonnes CO ₂ equivalent 由非生物活動所產生的溫室氣體排放：13,635.9噸二 氧化碳當量	52-93 189-202

Disclosure Number 披露編號	Description 描述	Relevant Chapter(s) or Other References/Explanation 有關章節或其他參考/說明	Page Number 頁數
305-2	Energy indirect (Scope 2) GHG emissions 能源間接 (範疇2) 溫室氣體排放	Sustainable Development Strategies to Address Climate Change Risks 應對氣候變化風險的可持續發展策略	52-93
		Key Statistics 主要數據	189-202
305-3	Other indirect (Scope 3) GHG emissions 其他間接 (範疇3) 溫室氣體排放	Sustainable Development Strategies to Address Climate Change Risks 應對氣候變化風險的可持續發展策略	52-93
		Key Statistics 主要數據 Calculations are based on the global warming potentials published in the IPCC <i>Sixth Assessment Report</i> (AR6); calculation of GHG emissions include carbon dioxide (CO ₂), methane (CH ₄) and nitrous oxides (N ₂ O) 計算參考IPCC《第六次評估報告》(AR6)中發佈的相對全球變暖潛能。計算的溫室氣體排放量包括二氧化碳(CO ₂)、甲烷(CH ₄)及氧化亞氮(N ₂ O)。 GHG emissions by biogenic/non-biogenic source: Biogenic emissions: 22,710.5 tonnes CO ₂ equivalent 由生物活動所產生的溫室氣體排放: 22,710.5噸二氧化碳當量 Non-biogenic emissions: 2,409.4 tonnes CO ₂ equivalent 由非生物活動所產生的溫室氣體排放: 2,409.4噸二氧化碳當量	189-202
305-4	GHG emissions intensity 溫室氣體排放強度	Sustainable Development Strategies to Address Climate Change Risks 應對氣候變化風險的可持續發展策略	52-93
		Key Statistics 主要數據	189-202
305-5	Reduction of GHG emissions 溫室氣體減排量	Sustainable Development Strategies to Address Climate Change Risks 應對氣候變化風險的可持續發展策略	52-93
		Key Statistics 主要數據	189-202
305-6	Emissions of ozone-depleting substances (ODS) 臭氧消耗物質 (ODS) 的排放	The Group's operation do not involve emissions of significant ozone-depleting substances (ODS). 本集團的運營並不涉及顯著的臭氧消耗物質 (ODS) 排放。	–
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions 氮氧化物 (NO _x)、硫化物 (SO _x) 和其他重大氣體排放	Environmental Responsibility 環境責任 Qingdao Maidaow Waste Water Treatment Plant uses the biogas generated from sludge to generate electricity through cogeneration. During the Reporting Period, this process emitted approximately 6.6 tonnes of NO _x , 0.3 tonnes of SO ₂ , 0.5 tonnes of suspended particulates and 0.7 tonnes of carbon monoxide. 青島市麥島污水處理廠透過熱電聯產, 使用污泥產生的沼氣發電。於報告期內, 此過程約排放6.6噸NO _x 、0.3噸SO ₂ 、0.5噸懸浮粒子及0.7噸一氧化碳。 The Group does not keep an inventory of volatile organic compounds (VOCs) and odour emissions as they are fugitive in nature. Nevertheless, the amount of VOCs emissions is negligible, while the Group strictly complies with prevailing local standards in odour emissions control. 本集團沒有保留揮發性有機化合物 (VOC) 及氣味排放的紀錄, 因為它們是無組織的排放。儘管如此, VOC的排放量極微, 與此同時本集團嚴格遵守氣味控制方面的現行當地標準。	94-125

Disclosure Number 披露編號	Description 描述	Relevant Chapter(s) or Other References/Explanation 有關章節或其他參考/說明	Page Number 頁數
Waste 廢棄物			
GRI 103: Management Approach 管理方針 2016			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告 – 報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Environmental Responsibility 環境責任	94-125
103-3	Evaluation of the management approach 管理方針的評估	Environmental Responsibility 環境責任	94-125
GRI 306: Waste 廢棄物 2020			
306-1	Waste generation and significant waste-related impacts 廢棄物的產生及廢棄物相關重大影響	Environmental Responsibility 環境責任	94-125
306-2	Management of significant waste-related impacts 廢棄物相關重大影響的管理	Environmental Responsibility 環境責任	94-125
306-3	Waste generated 產生的廢棄物	Environmental Responsibility 環境責任 Key Statistics 主要數據	94-125 189-202
306-4	Waste diverted from disposal 從處置中轉移的廢棄物	Environmental Responsibility 環境責任 Key Statistics 主要數據	94-125 189-202
306-5	Waste directed to disposal 進入處置的廢棄物	Environmental Responsibility 環境責任 Key Statistics 主要數據	94-125 189-202
Environmental Compliance 有關環境保護的法規遵循			
GRI 103: Management Approach 管理方針 2016			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告 – 報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Environmental Responsibility 環境責任	94-125
103-3	Evaluation of the management approach 管理方針的評估	Environmental Responsibility 環境責任	94-125
GRI 307: Environmental Compliance 有關環境保護的法規遵循2016			
307-1	Non-compliance with environmental laws and regulations 違反環保法規	During the Reporting Period, the Group did not find any violation of environmental protection regulations. 本集團於報告期內並沒有發現任何違反環保法規事故。	–

Disclosure Number 披露編號	Description 描述	Relevant Chapter(s) or Other References/Explanation 有關章節或其他參考/說明	Page Number 頁數
GRI 400: 社會			
Occupational Health and Safety 職業安全衛生			
GRI 103: Management Approach 管理方針 2016			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report - Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Talent Development 人才發展	126-147
103-3	Evaluation of the management approach 管理方針的評估	Talent Development 人才發展	126-147
GRI 403: Occupational Health and Safety 職業安全衛生2018			
403-1	Occupational health and safety management system 職業安全衛生管理系統	Sustainability Governance 可持續發展管治 Talent Development 人才發展 The Group's ESHS management system was formulated in accordance to the <i>Labour Law of the PRC</i> , <i>Work Safety Law of the PRC</i> , <i>Criminal Law of the PRC</i> , the <i>Social Insurance Law of the PRC</i> , <i>Occupational health and safety management systems—Requirements with guidance for use (GB/T 45001-2020)</i> , <i>Environmental management systems—Requirements with guidance for use (GB/T 24001-2016)</i> , etc. 本集團的ESHS管理體系乃依據《中華人民共和國勞動法》、《中華人民共和國安全生產法》、《中華人民共和國刑法》、《中華人民共和國社會保險法》、《職業健康安全管理體系 要求及使用指南》(GB/T 45001-2020)、《環境管理體系 要求及使用指南》(GB/T 24001-2016)等編制。	34-51 126-147
403-2	Hazard identification, risk assessment, and incident investigation 危害辨識、風險評估、及事故調查	Talent Development 人才發展	126-147
403-3	Occupational health services 職業健康服務	Talent Development 人才發展	126-147
403-4	Worker participation, consultation, and communication on occupational health and safety 有關職業安全衛生之工作者參與、諮商與溝通	Talent Development 人才發展	126-147
403-5	Worker training on occupation health and safety 有關職業安全衛生之工作者訓練	Talent Development 人才發展	126-147
403-6	Promotion of worker health 工作者健康促進	Talent Development 人才發展	126-147
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships 預防和減輕與業務關係直接相關聯之職業安全衛生的衝擊	Talent Development 人才發展	126-147
403-8	Workers covered by an occupational health and safety management system 職業安全衛生管理系統所涵蓋之工作者	Talent Development 人才發展 The Group's ESHS management system covers all employees of the Group, third-party contractors and subcontractors working onsite. 本集團的ESHS管理體系覆蓋了本集團所有員工、第三方承包商及分包商駐場工人。 The Group conducts annual internal audit for the ESHS system, but has not yet conducted external audits. 本集團每年對ESHS體系進行內部審核，但暫未進行外部審核。	126-147

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403-9	Work-related injuries 職業傷害	Talent Development 人才發展	126-147
		Key Statistics 主要數據 The major risks of work-related injuries in the water industry include slips and falls, and hearing loss. 水務行業的主要工傷風險則包括滑倒、跌倒、及聽力損害。	189-202
403-10	Work-related ill health 職業病	Talent Development 人才發展	126-147
		Key Statistics 主要數據 The major risks of work-related ill health in the water industry include waterborne diseases, airborne infections, and skin ailments. 水務行業的主要職業病風險包括水源性疾病、空氣傳播疾病及皮膚病。	189-202

Employee Training 員工培訓

GRI 103: Management Approach 管理方針 2016

103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Talent Development 人才發展	126-147
103-3	Evaluation of the management approach 管理方針的評估	Talent Development 人才發展	126-147

GRI 404: Training and Education 2016 訓練與教育 2016

404-1	Average hours of training per year per employee 每名員工每年接受訓練的平均時數	Talent Development 人才發展	126-147
		Key Statistics 主要數據	189-202
404-2	Programs for upgrading employee skills and transition assistance programs 提升員工職能及過渡協助方案	Talent Development 人才發展	126-147
404-3	Percentage of employees receiving regular performance and career development reviews 定期接受績效及職業發展檢核的員工百分比	Talent Development 人才發展	126-147

Child Labour 童工

GRI 103: Management Approach 管理方針 2016

103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Talent Development 人才發展	126-147
103-3	Evaluation of the management approach 管理方針的評估	Talent Development 人才發展	126-147

GRI 408: Child Labour 2016 童工 2016

408-1	Operation and suppliers at significant risk for incidents of child labour 運營據點和供應商使用童工之重大風險	Talent Development 人才發展	126-147
		Sustainability Governance 可持續發展管治	34-51

Disclosure Number 披露編號	Description 描述	Relevant Chapter(s) or Other References/Explanation 有關章節或其他參考/說明	Page Number 頁數
Forced or Compulsory Labour 強迫或強制勞動			
GRI 103:	Management Approach 管理方針 2016		
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Talent Development 人才發展	126-147
103-3	Evaluation of the management approach 管理方針的評估	Talent Development 人才發展	126-147
GRI 409:	Forced or Compulsory Labour 強迫或強制勞動 2016		
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour 具強迫或強制勞動事件重大風險的運營據點和供應商	Talent Development 人才發展 Sustainability Governance 可持續發展管治	126-147 34-51
Socioeconomic Compliance 社會經濟法規遵循			
GRI 103:	Management Approach 管理方針 2016		
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	About This Report – Report Scope 關於本報告—報告範圍	12
103-2	The management approach and its components 管理方針及其要素	Talent Development 人才發展	126-147
103-3	Evaluation of the management approach 管理方針的評估	Talent Development 人才發展	126-147
GRI 419:	Socioeconomic Compliance 社會經濟法規遵循 2016		
419-1	Non-compliance with laws and regulations in the social and economic area 違反社會與經濟領域之法律和規定	During the Reporting Period, the Group did not find any violation of laws and regulations in the social and economic area. 本集團於報告期內並沒有發現任何違反社會與經濟領域之法律和規定的事故。	–

ESG Aspects ESG層面	Requirements 描述	Relevant Chapter(s) and/or Explanation 報告章節/聲明
A. Environmental 環境		
Aspect A1: Emissions 層面A1：排放物		
General Disclosure 一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and GHG emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. 有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害廢棄物的產生等的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。	Environmental Responsibility 環境責任 Appendix III – Compliance with Relevant Laws and Regulations that Have a Significant Impact on Everbright Water 附錄III—對光大水務有重大影響的相關法律及規例的遵守情況
KPI A1.1	The types of emissions and respective emissions data. 排放物種類及相關排放數據。	Environmental Responsibility 環境責任 Qingdao Waste Water Treatment Project (Maidao Plant) and Qingdao Waste Water Treatment Project (Maidao Plant) Upgrading use the biogas generated from sludge to generate electricity through cogeneration. During the Reporting Period, this process emitted approximately 6.6 tonnes of NO _x , 0.3 tonnes of SO ₂ , 0.5 tonnes of suspended particles and 0.7 tonnes of carbon monoxide. 青島污水處理項目(麥島廠)及青島污水處理項目(麥島廠)提標改造透過熱電聯產，使用污泥產生的沼氣發電。於報告期內，此過程約排放6.6噸NO _x 、0.3噸SO ₂ 、0.5噸懸浮粒子及0.7噸一氧化碳。 The Group is committed to reducing air emissions. Except for Qingdao Waste Water Treatment Project (Maidao Plant) and Qingdao Waste Water Treatment Project (Maidao Plant) Upgrading, the Group's operations do not generate significant gas emissions. 本集團致力減低大氣排放。除青島污水處理項目(麥島廠)及青島污水處理項目(麥島廠)提標改造外，本集團的運營不涉及顯著的氣體排放。
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) GHG 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)。	Sustainable Development Strategies to Address Climate Change Risks 應對氣候變化風險的可持續發展策略 Key Statistics 主要數據
KPI 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)。	Environmental Responsibility 環境責任 Key Statistics 主要數據
KPI 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)。	Environmental Responsibility 環境責任 Key Statistics 主要數據
KPI 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。	Environmental Responsibility 環境責任 Devoted to Achieving Sustainable Development Goals 致力實踐可持續發展目標
KPI 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。	Environmental Responsibility 環境責任 Devoted to Achieving Sustainable Development Goals 致力實踐可持續發展目標 The Group's operations do not generate significant amount of hazardous waste, hence no targets were set for hazardous wastes reduction. 本集團的運營不會產生顯著數量的有害廢棄物，故此沒有訂立有害廢棄物減廢目標。

ESG Aspects ESG層面	Requirements 描述	Relevant Chapter(s) and/or Explanation 報告章節/聲明
Aspect A2: Use of Resources 層面A2：資源使用		
General Disclosure 一般披露	Policies on the efficient use of resources, including energy, water and other raw materials. 有效使用資源（包括能源、水及其他原材料）的政策。	Environmental Responsibility 環境責任
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）。	Environmental Responsibility 環境責任 Key Statistics 主要數據
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility). 總耗水量及密度（如以每產量單位、每項設施計算）。	Environmental Responsibility 環境責任 Key Statistics 主要數據
KPI 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。	Environmental Responsibility 環境責任 Devoted to Achieving Sustainable Development Goals 致力實踐可持續發展目標
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them. 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。	Environmental Responsibility 環境責任 Regarding water sourcing, all of the Group's projects have obtained the respective environmental impact assessment approvals and water-drawing permits. There are no associated issues in sourcing water that is fit for purpose. 在取水方面，本集團的所有項目均已獲得相關的環評批覆及取水證，本集團在獲得適用水源上沒有發現任何問題。
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced. 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。	The Group's main product is treated waste water, which do not involve the use of packaging material. 本集團的主要產品為已處理的污水，並不涉及使用包裝物料。
Aspect A3: The Environment and Natural Resources 層面A3：環境及天然資源		
General Disclosure 一般披露	Policies on minimising the issuer's significant impacts 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。	Environmental Responsibility 環境責任
KPI 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。	Environmental Responsibility 環境責任
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。	Sustainable Development Strategies to Address Climate Change Risks 應對氣候變化風險的可持續發展策略
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them. 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。	Sustainable Development Strategies to Address Climate Change Risks 應對氣候變化風險的可持續發展策略

ESG Aspects ESG層面	Requirements 描述	Relevant Chapter(s) and/or Explanation 報告章節/聲明
B. Social 社會		
Employment and Labour Practices 僱傭及勞工常規		
Aspect B1: Employment 層面B1：僱傭		
General Disclosure 一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare. 有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。	Talent Development 人才發展 Appendix III – Compliance with Relevant Laws and Regulations that Have a Significant Impact on Everbright Water 附錄III—對光大水務有重大影響的相關法律及規例的遵守情況
KPI B1.1	Total workforce by gender, employment type (for example, full- or part-time), age 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。	Talent Development 人才發展 Key Statistics 主要數據
KPI B1.2	Employee turnover rate by gender, age group and geographical region. 按性別、年齡組別及地區劃分的僱員流失比率。	Talent Development 人才發展 Key Statistics 主要數據
Aspect B2: Health and Safety 層面B2：健康與安全		
General Disclosure 一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards. 有關提供安全工作環境及保障僱員避免職業性危害的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。	Talent Development 人才發展 Appendix III – Compliance with Relevant Laws and Regulations that Have a Significant Impact on Everbright Water 附錄III—對光大水務有重大影響的相關法律及規例的遵守情況
KPI 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（包括匯報年度）每年因工亡故的人數及比率。	Talent Development 人才發展 Key Statistics 主要數據
KPI B2.2	Lost days due to work injury. 因工傷損失工作日數。	Talent Development 人才發展 Key Statistics 主要數據
KPI 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。	Talent Development 人才發展
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。	Talent Development 人才發展
KPI 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。	Talent Development 人才發展
KPI 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。	Talent Development 人才發展 Key Statistics 主要數據

ESG Aspects ESG層面	Requirements 描述	Relevant Chapter(s) and/or Explanation 報告章節/聲明
Aspect B4: Labour Standards 層面B4：勞工準則		
General Disclosure 一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour. 有關防止童工或強制勞工的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。	Talent Development 人才發展 Appendix III – Compliance with Relevant Laws and Regulations that Have a Significant Impact on Everbright Water 附錄III – 對光大水務有重大影響的相關法律及規例的遵守情況
KPI 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。	Talent Development 人才發展 The Group regularly reviews its employment practice to ensure compliance with the applicable laws and regulations in preventing child and forced labour. 本集團定期檢討其招聘措施以確保遵守適用於有關避免童工及強制勞工的法律及規例。
KPI 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。	The Group has zero tolerance towards such practice and such violation (if any) will be subject to internal disciplinary actions or handled by relevant authorities. 本集團並不容忍此違規情況。如有發現，將根據內部處分或交給有關部門處理。
Operating Practices 運營慣例		
Aspect B5: Supply Chain Management 層面B5：供應鏈管理		
General Disclosure 一般披露	Policies on managing environmental and social risks of the supply chain. 管理供應鏈的環境及社會風險政策。	Sustainability Governance 可持續發展管治 Talent Development 人才發展
KPI B5.1	Number of suppliers by geographical region. 按地區劃分的供應商數目。	Sustainability Governance 可持續發展管治
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored. 描述有關聘用供應商的慣例，向其執行有關慣例的供應商數目，以及相關執行及監察方法。	Sustainability Governance 可持續發展管治 Talent Development 人才發展
KPI 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。	Sustainability Governance 可持續發展管治
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored. 描述在揀選供應商時促使多用環保產品及服務的慣例，以及相關執行及監察方法。	Sustainability Governance 可持續發展管治

ESG Aspects ESG層面	Requirements 描述	Relevant Chapter(s) and/or Explanation 報告章節/聲明
Aspect B6: Product Responsibility 層面B6：產品責任		
General Disclosure 一般披露	<p>Information on:</p> <p>(a) the policies; and</p> <p>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</p> <p>relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.</p> <p>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：</p> <p>(a) 政策；及</p> <p>(b) 遵守對發行人有重大影響的相關法律及規例的資料。</p>	<p>Sustainability Governance 可持續發展管治</p> <p>Environmental Responsibility 環境責任</p> <p>Appendix III – Compliance with Relevant Laws and Regulations that Have a Significant Impact on Everbright Water 附錄III—對光大水務有重大影響的相關法律及規例的遵守情況</p> <p>The Group has not identified material concerns in its operations regarding advertising and labelling, dedicated policies are not in place.</p> <p>本集團並未發現運營中有關廣告及標籤事宜的重大問題，故此，本集團並無相關專門政策。</p> <p>There is no law or regulation that has a significant impact on the Group regarding advertising, labelling and privacy matters relating to products and services provided by the Group.</p> <p>本集團並無有關所提供產品和服務的廣告、標籤及私隱事宜的相關法律或規例對其構成重大影響。</p>
KPI B6.1	<p>Percentage of total products sold or shipped subject to recalls for safety and health reasons.</p> <p>已售或已運送產品總數中因安全與健康理由而須回收百分比。</p>	<p>The Group did not have any products recalled for safety and health reasons in 2021.</p> <p>本集團於二零二一年沒有因安全與健康理由而須回收產品。</p>
KPI B6.2	<p>Number of products and service related complaints received and how they are dealt with.</p> <p>接獲關於產品及服務的投訴數目以及應對方法。</p>	<p>The Group did not receive complaints relating to its products and services in 2021.</p> <p>本集團於二零二一年沒有接獲關於其產品及服務的投訴。</p>
KPI B6.3	<p>Description of practices relating to observing and protecting intellectual property rights.</p> <p>描述與維護及保障知識產權有關的慣例。</p>	<p>Sustainability Governance 可持續發展管治</p>
KPI B6.4	<p>Description of quality assurance process and recall procedures.</p> <p>描述質量檢定過程及產品回收程序。</p>	<p>Environmental Responsibility 環境責任</p> <p>Due to the specific nature of the Group's water environment management business, recall procedures are not applicable to its products and services provided.</p> <p>本集團業務性質為水環境綜合治理，當中並沒有適用的產品及服務回收程序。</p>
KPI B6.5	<p>Description of consumer data protection and privacy policies, and how they are implemented and monitored.</p> <p>描述消費者資料保障及私隱政策，以及相關執行及監察方法。</p>	<p>Sustainability Governance 可持續發展管治</p>

ESG Aspects ESG層面	Requirements 描述	Relevant Chapter(s) and/or Explanation 報告章節/聲明
Aspect B7: Anti-corruption 層面B7：反貪污		
General Disclosure 一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering. 有關防止賄賂、勒索、欺詐及洗黑錢的： (a) 政策；及 (b) 遵守對發行人有重大影響的相關法律及規例的資料。	Talent Development 人才發展 Appendix III – Compliance with Relevant Laws and Regulations that Have a Significant Impact on Everbright Water 附錄III – 對光大水務有重大影響的相關法律及規例的遵守情況
KPI 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. 於報告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。	Appendix III – Compliance with Relevant Laws and Regulations that Have a Significant Impact on Everbright Water 附錄III – 對光大水務有重大影響的相關法律及規例的遵守情況
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored. 描述防範措施及舉報程序，以及相關執行及監察方法。	Sustainability Governance 可持續發展管治 Talent Development 人才發展
KPI B7.3	Description of anti-corruption training provided to directors and staff. 描述向董事及員工提供的反貪污培訓。	Sustainability Governance 可持續發展管治
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運營所在社區需要和確保其業務活動會考慮社區利益的政策。	Community Engagement 社區參與
KPI 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)。	Community Engagement 社區參與
KPI 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)。	Community Engagement 社區參與

Aspect A1: Emissions

In order to protect and improve the environment, prevent pollution and other public hazards, safeguard public health, promote the development of ecological civilisation, and promote sustainable economic and social development, China has enacted a large number of laws to protect environmental resources. Key laws and regulations applicable to the Group include the *Environmental Protection Law of the PRC*, *The Environmental Impact Assessment Law of the PRC*, *Water Pollution Prevention and Control Law of the PRC*, *Marine Environment Protection Law of the PRC*, *Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste*, *Law of the PRC on Prevention and Control of Environmental Noise Pollution and Atmospheric Pollution Prevention and Control Law of the PRC*. These laws and regulations provide clear requirements on air and GHG emissions, discharges into water and land, and generation of hazardous and non-hazardous waste. The Group shall comply with all the above laws and regulations, otherwise it may be subject to penalties, suspension of operation, and/or legal actions against the Group by regulatory authorities.

In 2021, there was no confirmed case of non-compliance in relation to environmental protection that would have a significant impact on the Group. Please refer to the chapter entitled “Environmental Responsibility” of this Report on how Everbright Water ensures compliance with the applicable environmental laws and regulations.

層面A1：排放物

為保護和改善環境，防治污染和其他公害，保障公眾健康，推進生態文明建設，促進經濟和社會的可持續發展，中國制定實施了大量環境資源保護的法律。適用於本集團的主要法律及規例包括《中華人民共和國環境保護法》、《中華人民共和國環境影響評價法》、《中華人民共和國水污染防治法》、《中華人民共和國海洋環境保護法》、《中華人民共和國固體廢物污染環境防治法》、《中華人民共和國環境噪聲污染防治法》及《中華人民共和國大氣污染防治法》。該等法律及規例對廢氣及溫室氣體排放、向水及土地的排污以及有害及無害廢棄物的產生等方面提供了明確要求。本集團必須遵循以上相關的環境法律法規，否則監管機構有權對本集團作出罰款、勒令停運及/或採取法律行動。

二零二一年並無任何與環境保護相關並對本集團有重大影響的已確認違規事件。如欲了解更多光大水務遵守相關環境法律法規的情況，請參閱本報告的「環境責任」一章。

Aspect B1: Employment

The *Labour Law of the PRC*, *Labour Contract Law of the PRC*, the *Employment Ordinance* of Hong Kong and the *Employment Act* of Singapore stipulate the legal obligations and responsibilities of employers to provide employment protection and benefits covering compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare. The *Social Insurance Law of the PRC* is formulated for the purpose of regulating sickness insurance, occupational injury insurance, maternity insurance, medical care insurance, retirement insurance, and death insurance, and also clarifies the legal liabilities of the employers. The *Regulations on Management of Housing Provident Fund* of the PRC is formulated for the purpose of maintaining the lawful rights and interests of housing provident fund owners. These laws and regulations provide relevant protection for the Group's employees and safeguard their lawful rights. The Group will continue to comply with all relevant employment laws and regulations to protect the Group's most valuable asset – employees.

In 2021, there was no confirmed case of non-compliance in relation to the Group's employment practices that would have a significant impact on the Group. Please refer to the chapter entitled "Talent Development" of this Report on how Everbright Water ensures compliance with the applicable employment laws and regulations.

層面B1：僱傭

《中華人民共和國勞動法》、《中華人民共和國勞動合同法》、香港《僱傭條例》及新加坡《僱傭法令》提供了全面的僱傭保障和福利，涵蓋對薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利方面的要求，明確了僱主的法定義務和責任。《中華人民共和國社會保險法》規定了疾病、工傷、生育、醫療、退休及死亡保險，並釐清了僱主的相關法律責任。中國《住房公積金管理條例》則維護了住房公積金所有者的合法權益。以上法律法規為本集團的員工提供相關保障，保護員工的合法權利。本集團將繼續遵守所有相關的僱傭法律法規，保障本集團最寶貴的財富—員工。

二零二一年並無任何與僱傭相關並對本集團有重大影響的已確認違規事件。如欲了解更多光大水務遵守相關僱傭法律法規的情況，請參閱本報告的「人才發展」一章。

Aspect B2: Health and Safety

The *Labour Law of the PRC*, and *Work Safety Law of the PRC* commit to the protection of labour safety and production safety, and require manufacturing organisations and employers to provide a safe working environment and protect employees from occupational hazards. The *Social Insurance Law of the PRC* is formulated for the purpose of regulating sickness insurance, occupational injury insurance, maternity insurance, medical care insurance, retirement insurance, and death insurance, and also clarifies the legal liabilities of the employers. Compliance with these laws and regulations is the Group's top priority as workplace safety is of critical importance to each and every employee of the Group. As a socially responsible enterprise, the Group complies with the relevant health and safety laws to provide employees with a safe workplace and suitable insurance.

In 2021, there was no confirmed case of non-compliance in relation to health and safety that would have a significant impact on the Group. Please refer to the chapter entitled "Talent Development" of this Report on how Everbright Water ensures compliance with the applicable laws and regulations relating to health and safety.

Aspect B4: Labour Standards

The *Labour Law of the PRC*, the *Employment Ordinance of Hong Kong* and the *Employment Act* of Singapore set out clear rules for preventing child labour and forced labour, and provide the legal liabilities of employers who violate the relevant laws and regulations. Everbright Water highly values human rights and aims to demonstrate its "People-Oriented" corporate spirit through strictly complying with the relevant labour standards.

In 2021, there was no confirmed case of non-compliance in relation to labour standards that would have a significant impact on the Group. Please refer to the chapter entitled "Talent Development" of this Report on how Everbright Water ensures compliance with the applicable laws and regulations relating to labour standards.

層面B2：健康與安全

《中華人民共和國勞動法》及《中華人民共和國安全生產法》旨在維護勞動安全衛生及生產安全，要求生產經營單位及僱主提供安全工作環境及保障僱員避免職業性危害。《中華人民共和國社會保險法》則規定了疾病、工傷、生育、醫療、退休及死亡保險，並釐清了僱主的相關法律責任。遵守這些法律法規是本集團的首要任務，因為工作場所的安全對本集團每一位員工都十分重要。為員工提供安全工作環境及合適保險是光大水務作為良心企業的實踐，本集團會嚴守相關健康與安全法律法規。

二零二一年並無任何與健康與安全相關並對本集團有重大影響的已確認違規事件。如欲了解更多光大水務遵守相關健康與安全法律法規的情況，請參閱本報告的「人才發展」一章。

層面B4：勞工準則

《中華人民共和國勞動法》、香港《僱傭條例》及新加坡《僱傭法令》對防止童工和強制勞工列有明確規定，並詳細地闡述了違反相關法律及法規的僱主的法律責任。光大水務高度重视人權，透過遵守相關勞工準則，充分反映其「以人為本」的企業精神。

二零二一年並無任何與勞工準則相關並對本集團有重大影響的已確認違規事件。如欲了解更多光大水務遵守相關勞工法律法規的情況，請參閱本報告的「人才發展」一章。

Aspect B6: Product Responsibility

The *Product Quality Law of the PRC* is formulated with the aim of strengthening product quality monitoring, improving product quality, specifying product quality responsibility, safeguarding legal rights of customers, as well as protecting social and economic order. These laws and regulations provide clear requirements on health and safety matters and remedial methods relating to products and services provided. The Group complies with the relevant laws and regulations in relation to product responsibility to ensure customers receive safe, reliable and private service.

The *Water Pollution Prevention and Control Law of PRC* stipulated the specific requirements on effluent. The Group is a leading integrated water environment management enterprise in China that provides integrated water environment management services. The Group ensures that all of its effluents undergo high efficiency waste water treatment and strictly comply with prevailing requirements on effluents.

In 2021, there was no confirmed case of non-compliance in relation to product responsibility that would have a significant impact on the Group. Please refer to the chapter entitled “Environmental Responsibility” of this Report on how Everbright Water ensures compliance with the applicable laws and regulations relating to product responsibility.

Aspect B7: Anti-corruption

The *Anti Unfair Competition Law of the PRC*, the *Prevention of Bribery Ordinance of Hong Kong* and the *Prevention of Corruption Act of Singapore* set out clear rules on preventing bribery, extortion, fraud, and money laundering. These laws and regulations aim to maintain social integrity and fairness, prevent unfair competition, and protect the legal rights of service providers and customers. The Group firmly believes that misconduct such as corruption has significant negative impact to the business development. Therefore, the Group strictly complies with the relevant anti-corruption laws and regulations to maintain a good reputation and enhance its competitiveness.

In 2020, there was no confirmed case of non-compliance in relation to corruption and anti-competitive practices that would have a significant impact on the Group, and there was no legal case related to corruption raised and trial concluded towards the Group or its employees. Please refer to the chapter entitled “Talent Development” of this Report on how Everbright Water ensures compliance with the applicable laws and regulations relating to anti-corruption practices.

層面B6：產品責任

《中華人民共和國產品質量法》的制定旨在加強對產品質量的監督管理，提高產品質量水準，明確產品質量責任，保護消費者的合法權益，維護社會經濟秩序。該等法律對產品和服務的健康與安全事宜以及救濟方式提供了明確的要求。本集團遵循相關的產品責任法律法規以確保顧客獲得安全可靠及私隱的服務。

《中華人民共和國水污染防治法》對排放水方面提供了明確要求。本集團作為領先的水環境綜合治理企業，業務主要為提供水環境綜合治理服務。本集團確保其水治理服務的排放水均經過高效的污水處理，並嚴格遵從相關排放要求。

二零二一年並無任何與產品責任相關並對本集團有重大影響的已確認違規事件。如欲了解更多光大水務遵守相關產品責任法律法規的情況，請參閱本報告的「環境責任」一章。

層面B7：反貪污

《中華人民共和國反不正當競爭法》、香港《防止賄賂條例》及新加坡《防止貪污法令》對防止賄賂、勒索、欺詐及洗黑錢行為提供了明確的規定，旨在維護社會廉潔公平，制止不正當競爭行為，保護服務提供者和消費者的合法權益。本集團深信貪污等不當行為對業務發展百害而無一利，因此嚴格遵循相關的反貪污法律法規，致力維持本集團良好的聲譽及提升公司競爭力。

二零二一年並無任何與貪污及反競爭相關並對本集團有重大影響的已確認違規事件，亦沒有對本集團或其僱員提出及審結的貪污訴訟案件。如欲了解更多光大水務遵守相關反貪污法律法規的情況，請參閱本報告的「人才發展」一章。

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可持續發展報告

CHINA EVERBRIGHT WATER LIMITED
中國光大水務有限公司



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