

**2019**

**Sustainability Report**  
**可持續發展報告**



Devoted to  
**Ecology and Environment**  
for a **Beautiful China**

情繫 **生態環境**  
築夢 **美麗中國**





**CAI YUNGE**  
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Executive Director and  
Chairman of the Board  
執行董事兼董事會主席

## Chairman Statement

In 2019, the environmental protection industry underwent a process of intense reform amid rising uncertainties in the global markets. Being a world-renowned ecological and environmental management group, as well as a leading environmental protection enterprise in Asia, China Everbright International Limited (“Everbright International” or the “Company”) continued to forge ahead with its corporate mission of “Creating Better Investment Value and Undertaking More Social Responsibility”. It achieved economic, environmental and social harmony, as well as sustainable development, through providing quality ecological and environmental protection services.

This year, Everbright International continued to place equal emphasis on principles and profitability, and fulfilled responsibility with high standards as a corporate citizen. The Company balanced social and economic efficiency through treatment and re-use of tremendous household waste, hazardous waste and waste water, to protect the environment on which human beings depend. It proactively explored new business areas, such as waste sorting, recourse recycling and energy-saving lighting, and also crafted a broader development prospect that focuses on the areas of environment, resource and energy.

## 主席致辭

2019年，國際形勢風雲變幻，行業改革縱深推進。作為世界知名生態環境集團、亞洲環保行業領軍企業，中國光大國際有限公司（「光大國際」）繼續秉承「創造更好投資價值，承擔更多社會責任」之理念，砥礪前行，風雨兼程，通過提供優質的生態環境保護服務，成功實現經濟、環境、社會的和諧與可持續發展。

這一年，我們堅持義利並舉，高品質踐行企業公民擔當。堅持社會效益和經濟效益的有機統一，資源化處理巨量生活垃圾、危廢、污水，保護人類共同賴以生存的環境；積極拓展垃圾分類、資源回收利用、節能照明等新業務領域，圍繞「環境、資源、能源」探索「三位一體」的發展新格局。

This year, Everbright International continued its technology-driven approach and invested much in developing its green technological capabilities. With the establishment of China Everbright Green Technology Innovation Research Institute in Hong Kong, the Company enhanced its effort in technological innovation and the establishment of its research and development (“R&D”) framework. It continued to increase investment in R&D and engage in the environmental protection initiatives, injecting vitality to facilitate quality development of the industry.

This year, Everbright International continued to carry out safe production. The Company transformed the NIMBY (Not-in-my-backyard) predicament into the “community-friendly” effect. It continuously improved its discharge and emission standards by opening up its operating projects for public visits, with the cumulative number of local and foreign visitors reaching historical high. As a result, the Company has become the leader in the initiative of opening up environmental protection facilities to the public in China. Changzhou Waste-to-energy Project of the Company commenced upgrading work, which marks China’s first fenceless community-friendly waste-to-energy project. The construction work of the Company’s Hangzhou Waste-to-energy Project, which was built with the philosophy of integrating “local ecology, project operation and local communities”, was awarded the Luban Prize, the highest recognition in China’s construction sector.

This year, Everbright International continued to improve its corporate governance practices, which was well recognised for the high level of transparency. The Company regards good corporate governance as the foundation of its successful long-term development, and has been actively implementing the best practices in corporate governance. As a result, it was shortlisted in the Top 10 Firms with Highest Corporate Governance Index Scores in Hong Kong for the very first time.

This year, Everbright International continued to pursue a people-oriented approach, and enhanced its effort to build a high performing team. Regarding employees as the most valuable assets, the Company strived to develop a comprehensive talent development, management and incentive system, actively bring in and nurture industry leaders, and fully strengthen the team’s professionalism, in order to constantly boost its sustainability.

這一年，我們堅持科技引領，高投入打造綠色技術硬核。深化科技創新，加強科技研發領域佈局，在港成立中國光大綠色技術創新研究院；持續加大科研投入，積極投身大環保事業，為提高行業發展質量注入新的活力。

這一年，我們堅持安全生產，高標準化解「鄰避效應」為「鄰利效應」。以開放推動自身持續提高排放水平，旗下運營環保項目累計接待國內外參觀考察人數再創新高，成為中國環保行業公眾開放的領跑者；旗下常州垃圾發電項目啟動開放提升工程，打造全國首個無圍牆、開放鄰利的垃圾發電廠；旗下杭州垃圾發電項目工程以「生態、生產、生活」三生融合理念打造而成，獲國家建築行業最高榮譽魯班獎。

這一年，我們堅持完善公司治理，高透明度管治贏得充分肯定。將良好的企業管治作為公司長遠成功發展的基石，積極實行企業管治最佳實踐，首次榮膺香港「十大企業管治最佳上市公司」。

這一年，我們堅持以人為本，高素質隊伍建設持續加強。視員工為企業最寶貴的資產，建立完善的人才培養、管理體系和激勵機制，積極引進、培養行業領軍人才，全面強化專業化隊伍建設，不斷提升可持續發展水平。



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This year, Everbright International continued to contribute to the society and engaged in various charitable initiatives. Leveraging its industry advantages for poverty alleviation, the Company achieved remarkable results in adopting its unique integrated biomass utilisation model. The Company's waste-to-energy project in Xinhua County, a county in Hunan province that is shortlisted in the country's list of impoverished counties, progressed quickly. The Company also carried out various charitable activities in the areas of environmental protection education, environmental energy conservation and ecological conservation, demonstrating its accountability and commitment to the society.

At the end of last year and the beginning of this year, the sudden outbreak of the COVID-19 pandemic brought in different levels of impact and challenges to countries and various sectors across the globe. In face of the pandemic, Everbright International cared about its employees, government authorities, communities and business partners. It made the best of its professional advantage and processed more than 10,000 tonnes of medical waste and other types of waste in total.

We put on a brave front in face of challenges and overcome the obstacles to achieve excellence. Going forward, Everbright International will fully participate in the process of the global ecological conservation, by adhering to a green development strategy, and grasping opportunities arise from the improvement of the public hygiene and environmental management systems of different countries. The Company will continuously devote itself to the traditional environmental protection market, and pursue transformation and development steadily, in order to make sustainable achievement and excellence jointly with all the stakeholders.

這一年，我們堅持反哺社會，高水平投身慈善公益事業。發揮產業優勢扶貧助貧，獨特的生物質綜合利用一體化模式成效顯著，湖南新化生活垃圾焚燒發電標杆公益項目加快推進，持續開展環保教育、環境節能、生態保育等方面社會公益活動，彰顯時代擔當。

歲末年初，一場面對突如其來的新冠肺炎疫情給全球各國、各行各業都帶來了不同程度的衝擊和挑戰。面對疫情，我們與員工、政府、社區、合作夥伴等彼此守護，並發揮專業優勢合計處理醫療廢棄物等垃圾過萬噸。

勇立潮頭，奮楫揚帆。未來，光大國際將深度參與全球生態文明建設進程，錨定綠色發展戰略，緊抓各國在補齊公共衛生環境治理體系短板中催生的機遇，在持續深耕傳統環保市場的同時，穩步推動轉型發展，與所有持份者、利益相關方一起持續成就不凡，共繪美好！

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## Group Profile

China Everbright International Limited (“Everbright International” or the “Company”, together with its subsidiaries, the “Group”), a flagship company in the industrial investment sector of China Everbright Group Ltd., is listed on the Main Board of The Stock Exchange of Hong Kong Limited (the “Stock Exchange”) (stock code: 257). Everbright International has two listed subsidiary companies<sup>(1)</sup>: China Everbright Water Limited (“Everbright Water”), listed on the Mainboard of Singapore Exchange Securities Trading Limited (“SGX”) (stock code: U9E) and the Main Board of the Stock Exchange (stock code: 1857); and China Everbright Greentech Limited (“Everbright Greentech”), listed on the Main Board of the Stock Exchange (stock code: 1257). After over a decade of development, Everbright International has grown into a leading player in the environmental protection industries in China and Asia, as well as a world-renowned ecological and environmental management group.

## Reporting Scope

The Group believes reporting with clarity and transparency is a key to managing corporate sustainability, therefore the Group’s ongoing performance in environmental, social and governance (“ESG”) aspects are disclosed to the stakeholders proactively. The sustainability report 2019 (the “Report”) is the Group’s eighth standalone sustainability report, which covers the Group’s main sustainability initiatives and performance during 1 January 2019 to 31 December 2019 (the “Reporting Period”).

The data and information disclosed in the Report were based on materiality assessment, stakeholder engagement and other relevant sustainability reporting guidelines, covering the sustainability performance of the Group’s headquarters in Hong Kong, management offices<sup>(2)</sup>, Vietnam representative office, Singapore office, projects under the Group’s operational control from construction<sup>(3)</sup> through operation phases, and other business activities of the Group during the Reporting Period<sup>(4),(5),(6)</sup>. The delineation of reporting boundary is provided in Appendix I. The relevant entities of the Group can be found in the Company’s Annual Report 2019 (the “Annual Report 2019”): Notes to Financial Statements.

## 集團概覽

中國光大國際有限公司（「光大國際」或「本公司」，連同其附屬公司統稱「本集團」）為中國光大集團股份公司旗下實業投資之旗艦公司，香港聯合交易所有限公司（「聯交所」）主板上市公司（股份代號：257）。光大國際下轄兩家上市企業<sup>(1)</sup>：新加坡證券交易所有限公司（「新交所」）主板上市（股份代號：U9E）和聯交所主板上市（股份代號：1857）之中國光大水務有限公司（「光大水務」）以及聯交所主板上市之中國光大綠色環保有限公司（「光大綠色環保」）（股份代號：1257）。歷經十多年的發展，光大國際現已成為中國乃至亞洲環保行業的領軍企業、世界知名的生態環境集團。

## 報告範圍

本集團相信為持份者提供清晰透明的報告是企業可持續發展管理的關鍵，因此本集團持續主動披露其在環境、社會和管治方面的表現。二零一九年可持續發展報告（「本報告」）為本集團第八份獨立的可持續發展報告，涵蓋了本集團於二零一九年一月一日至二零一九年十二月三十一日（「報告期」）期間的主要可持續發展策略和表現。

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香港總部、各管理中心<sup>(2)</sup>、越南代表處、新加坡辦事處以及本集團擁有運營控制權的項目（從在建<sup>(3)</sup>到運營階段）以及本集團其他業務活動的可持續發展表現<sup>(4),(5),(6)</sup>。有關報告邊界的描述，請參閱附錄I。本集團的相關實體資料可參閱本公司二零一九年年報（「二零一九年年報」）中的財務報表附註。

## Reporting Standard and Assurance

The report has been prepared in accordance with the GRI Standards: Comprehensive option<sup>(7)</sup>, *GRI Electric Utilities Sector Disclosures* as well as Rule 13.91 and Appendix 27 *ESG Reporting Guide* of the Rules Governing the Listing of Securities on the Stock Exchange. By these means, the material issues were covered in a more comprehensive manner. Besides, the Sustainable Development Goals of the United Nations (“SDGs”) have been fully integrated into the Group’s environmental and social management strategies to reflect its commitment to tackling the world’s most pressing issues.

Relevant guidelines or standards in international or local context were used as the basis for data collection and analysis of the Report, including the use of the Clean Development Mechanism (“CDM”) approved methodologies for the estimation of the projects’ greenhouse gas (“GHG”) emissions and offset. All data included in the Report were rounded except integers and data already disclosed in the Annual Report 2019<sup>(8)</sup>.

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 the Report, and the corresponding verification statement is appended to the Report. The board of directors of Everbright International (the “Board”) reviewed and approved the content and scope of the Report to demonstrate that the Board had considered sustainability issues as part of its strategic formulation, determined the material ESG factors and overseen the management and monitoring of those factors.

## 報告準則及審核

本報告依循GRI準則：全面選項<sup>(7)</sup>、GRI《電力行業披露》及《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》所編寫，務求報告更全面涵蓋實質性議題。此外，本集團將聯合國可持續發展目標（「SDGs」）全面融入環境及社會管理戰略中，以展示應對全球最迫切議題的決心。

本報告的資料收集及分析乃根據相關國際或當地指引及準則進行，包括使用清潔發展機制（「CDM」）核准的計算方法估算項目的溫室氣體排放及抵銷。除了整數數據及二零一九年年報已公佈的數據外，本報告所載的所有數據均已作捨入調整<sup>(8)</sup>。

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計及認證，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光大國際董事會（「董事會」）審閱及批准，以證明董事會已將可持續發展議題視為戰略制定的一部份，確定了主要的環境、社會及管治議題，並對該等議題的管理和監測進行了監督。

## Accessibility and Feedback

The Report is available in both Chinese and English versions and has been uploaded onto the websites of Everbright International ([www.ebchinaintl.com](http://www.ebchinaintl.com)) and the Stock Exchange ([www.hkex.com.hk](http://www.hkex.com.hk)). 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 the Report and the Annual Report 2019, the Annual Report 2019 shall prevail unless otherwise stated.

The Group welcomes all stakeholders and the public to provide valuable comments and suggestions to [info1@ebchinaintl.com](mailto:info1@ebchinaintl.com) on the content of the Report, the reporting approach as well as the Group's sustainability performance.

### Notes:

- (1) For detailed sustainability performance of the two listed subsidiary companies of the Group (namely Everbright Water and Everbright Greentech), please refer to their standalone 2019 sustainability reports.
- (2) Includes Beijing and Shenzhen management offices.
- (3) For environmental data of projects under construction, only electricity and water consumption and the associated GHG emissions are disclosed in the Report. Other data such as fuel and materials consumption are possessed by contractors and/or subcontractors and the Group does not have access to them.
- (4) Unless otherwise specified, data of contractors and/or subcontractors is not disclosed in the Report.
- (5) Since the assets related to the 11 projects undertaken by Everbright International under engineering, procurement and construction ("EPC") approach are owned by its customers, Everbright International has no access to the environmental data of such projects, including electricity consumption and water consumption, etc. As such, the environmental performance of these projects is not disclosed in the Report.
- (6) Majority of the operations of the Group's Eco-recycling sector are operated by the outsourced service providers, therefore, the sector's environmental and social data in the Report only covers office operations
- (7) GRI refers to Global Reporting Initiative.
- (8) The numbers stated in various tables of the Report may not add up to totals or 100% due to rounding.

## 報告獲取及反饋

本報告備有中英文版本，並已上載至光大國際網站([www.ebchinaintl.com](http://www.ebchinaintl.com))及聯交所網站([www.hkex.com.hk](http://www.hkex.com.hk))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；除非另有說明，若本報告和二零一九年年報有任何抵觸或不相符之處，應以二零一九年年報為準。

歡迎各持份者及公眾就本報告內容、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，並電郵至[info1@ebchinaintl.com](mailto:info1@ebchinaintl.com)。

### 附註：

- (1) 關於本集團旗下兩家附屬公司（分別為光大水務及光大綠色環保）的詳細可持續發展表現，請參閱其二零一九年的獨立可持續發展報告。
- (2) 包括北京及深圳管理中心。
- (3) 有關在建項目的環境數據，本報告僅披露其電力及水消耗量以及相關的溫室氣體排放。其他數據如燃料消耗量和物料使用量由承包商及/或分包商擁有，本集團無權存取有關數據。
- (4) 除非另有註明，承包商及分包商的數據不會於本報告中反映。
- (5) 由於光大國際以工程總包（「EPC」）模式承接的十一個項目所涉及的資產由其客戶擁有，光大國際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。
- (6) 本集團的生態資源業務板塊的大部分運營均由外判服務商承包，故此本報告中涉及該板塊的環境和社會數據只涵蓋辦公室的運營。
- (7) GRI是指全球報告倡議組織。
- (8) 本報告所載各類表格中包含的數字，由於捨入關係，數值加起來可能不等於總數或100%。

2019 marks the 70th anniversary of the founding of China. It is also the year of deployment of China's ecological and environmental protection industry. The General Office of the State Council of the People's Republic of China (the "PRC") put forth the concept of "Zero-Waste Cities" for the first time in early 2019, in addition to a series of ecological and environmental laws and regulations including the *Soil Pollution Prevention and Control Law*. An array of important national development strategies, such as the Beijing-Tianjin-Hebei integration plan, the development of the Yangtze River Economic Belt, and the green "Belt and Road" Initiative, were promoted to foster the development of a systematic environmental management and protection framework. These initiatives signified an important step taken by the country and opened up a new blueprint for the environmental protection industry.

In the past year, despite the increasing level of uncertainty and instability shrouding the international community amidst the vicissitude of global trends and an increasingly competitive market, the Group faced challenges readily and seized opportunities to execute an effective business strategy. During the Reporting Period, the Group's consolidated revenue amounted to HK\$37,557,635,000, representing an increase of 38% comparing with 2018. While continuously broadening its horizons and connecting with the international market, the Group upholds its mission of being "Devoted to Ecology and Environment for a Beautiful China", as well as its aspiration to "Create Better Investment Value and Undertake More Social Responsibility". It continues to progress towards sustainable development along the four aspects of "Promoting Green Development", "Excelling in Talent Management", "Driving Technological Innovation", and "Engaging Communities".

Everbright International's efforts in sustainable development have once again been recognised by the industry, winning multiple domestic and international awards and accolades during the Reporting Period. For instance, it was included in the Dow Jones Sustainability Indices for the fourth year running, the Hang Seng Corporate Sustainability Index (also simultaneously in the Hang Seng (Mainland and HK) Corporate Sustainability Index) for six years straight, and the FTSE4Good Index and the Green Supply Chain CITI Index for the third and second years in a row respectively.

二零一九年是國家建國七十週年，亦是中國生態環境保護事業的部署大年。國務院辦公廳於二零一九年年初首次提出「無廢城市」概念，《土壤污染防治法》等生態環境領域多項法律法規陸續出台，京津冀協同發展、長江經濟帶發展、綠色「一帶一路」等重要國家發展戰略穩步推進，促進環境治理和保護工作系統性格局的形成，標誌著國家在推動綠色生活發展方面邁出了重要的一步，亦為環保行業描繪了新的發展藍圖。

過去一年，雖然世界格局陰晴難測，國際形勢的不確定性持續上升，本集團在競爭日趨激烈的市場環境中直面挑戰、緊抓機遇、謀篇佈局，於報告期內錄得綜合收益港幣37,557,635,000元、較二零一八年增長38%。在不斷擴寬自身視野，與國際市場接軌的同時，本集團堅持貫徹「情繫生態環境，築夢美麗中國」的企業使命，以及「創造更好投資價值，承擔更多社會責任」的企業追求，圍繞「推動綠色發展」、「精於人才管理」、「引領科技創新」及「緊密聯繫社區」四大方面，向可持續發展不斷邁進。

光大國際在可持續發展領域上的努力再次獲得業界肯定，於報告期內斬獲多個國內外獎項和榮譽，包括連續第四年獲納入道瓊斯可持續發展指數系列；連續第六年獲納入恒生可持續發展企業指數（並自動被納入恒生內地及香港可持續發展企業指數）；連續第三年獲納入富時社會責任指數，並連續第二年獲納入綠色供應鏈CITI指數。



## Promoting Green Development

As one of the leading enterprises in the PRC's environmental protection industry, Everbright International adheres to the fundamental operating philosophies of protecting the environment and fulfilling its social responsibilities, and is committed to providing stakeholders with more optimised energies and a healthier environment. During the Reporting Period, the Group processed approximately 24,739,000 tonnes of household waste, 4,636,000 tonnes of agricultural and forestry waste, and 198,000 tonnes of hazardous and solid waste. The Group's projects supplied approximately 10,713,049,000 kWh of on-grid green electricity during the Reporting Period, and offset 12,343,000 tonnes of carbon dioxide (CO<sub>2</sub>) equivalent emissions. The Group also treated approximately 1,433,805,000 m<sup>3</sup> of waste water and 5,210,000 m<sup>3</sup> of leachate, reducing chemical oxygen demand (COD) discharge by approximately 513,000 tonnes in total.

During the Reporting Period, the Group continued to seize domestic and international development opportunities, secured a total of 78 new projects and 6 supplementary agreements for existing projects, completed acquisition of 5 projects, commanding a total investment of approximately RMB31.660 billion. The Group also tapped into new business areas including waste sorting, resource recycling, energy-saving lighting and raw water protection, further enhancing its operations and expanding room for market development. Leveraging on the opportunities and advantages arising from the "Belt and Road" initiative, the Group was fortunate to participate in many international cooperation projects, exchange and learn from peers, and continue exploring its international business. Amongst them, the Group's first overseas acquisition project in Poland, NOVAGO Sp. z o.o., achieved smooth operation by strengthening its compliance practices, in response to the changes in environmental regulations in Poland.

## Excelling in Talent Management

The Group places significant emphasis on human resources management and strives for all employees to exert their strengths in appropriate positions. During the Reporting Period, the Group continued to strengthen its talent pool and improve staff capabilities through methods including diversified recruitment and staff training, and issued new measures of human resources management. To meet the needs of business development, the Group established the Ecological Environment Institute to arrange centralised, suitable training activities. At present, the Group has maintained a pool of 550 backup management personnel. The Group is committed to assisting capable employees to unleash their potentials to promote enterprise development.

## 推動綠色發展

作為中國環保產業的領軍企業之一，光大國際堅守著以環保為本、切實履行社會責任的經營理念，致力為各持份者提供更優化的能源和更健康的環境。報告期內，本集團處理了約24,739,000噸生活垃圾、4,636,000噸農林廢棄物及198,000噸危廢及固廢，項目合共提供綠色上網電量約10,713,049,000千瓦時，並抵銷了二氧化碳當量排放12,343,000噸。污水及滲濾液處理量分別為約1,433,805,000立方米及約5,210,000立方米，合共減少了約513,000噸化學需氧量(COD)排放。

報告期內，本集團繼續把握國內外發展機會，落實了78個新環保項目及簽署6個現有項目的補充協議，以及完成收購5個項目，涉及總投資額約人民幣316.60億元，業務拓展至垃圾分類、資源回收利用、節能照明、原水保護等新領域，讓整體企業運營及市場拓展空間得以充分提升。憑藉著「一帶一路」給予的機遇和優勢，本集團有幸多次參與國際性合作項目，與同業交流學習之餘，亦繼續探索海外業務。其中，本集團的首個於波蘭的海外併購項目，NOVAGO Sp. z o.o.積極應對波蘭環保法規的變化，推進合規建設，實現平穩運營。

## 精於人才管理

本集團一向高度重視人力資源管理，致力讓每位員工都能在適當的崗位發揮所長。報告期內，本集團繼續透過多元化招聘及員工培訓等不同方式鞏固人才隊伍建設，並頒發新的人力資源管理辦法，以提升僱員的專業能力。本集團更設立生態環境學院，針對集團業務發展需要，統一安排合適培訓。目前本集團已有550名後備管理人員，致力協助有能力的員工更進一步發揮潛能以推動企業發展。

## Driving Technological Innovation

To enhance its core competitiveness, the Group strives for innovation and technology and actively allocates resources to technological research and development (“R&D”). In 2019, the Group was granted a total of 181 patents and software copyright licences, including 11 invention patents, 124 utility patents, 42 software copyright licences and 4 appearance patents. By developing the PRC’s first 1,000 tonnes/day household waste grate furnace in-house, the Group filled a void in the domestic market. The Group also made great strides in the use of plasma melting technology for the treatment of fly ash, with a demonstration project commissioned in Zhenjiang Waste-to-energy Project, setting a new path for the treatment of waste incineration fly ash and hazardous waste in the industry.

In addition, the Group carried out bold reforms during the Reporting Period by establishing China Everbright Green Technology Innovation Research Institute, China Everbright Zero-Waste City Research Institute and China Everbright Ecological and Environmental Planning and Design Institute, in order to further promote the Group’s strategic plan to pursue developments that are driven by innovation and technology, and to ensure the commercialisation of technological R&D outputs.

## Engaging Communities

Everbright International has been active in various charitable activities across the fields of environmental protection education, community integration, poverty alleviation and ecological conservation, and strives to bring more value to the communities. During the Reporting Period, the Group was the lead sponsor of the “Earth Hour” event hosted by the World Wide Fund for Nature (WWF) Hong Kong for the sixth consecutive year, and supported Heifer International Hong Kong branch’s “Read to Feed” fundraising programme for the third academic year in a row. Meanwhile, employees from various project companies of the Group volunteered to organise various activities, in order to interact and integrate with local communities in a harmonised manner.

During the Reporting Period, the Group promoted the public opening of environmental protection facilities of all business sectors, becoming a leader of the opening-up initiative in the environmental protection industry in the PRC, as well as a role model showcasing high-quality construction and operations. A total of 181,752 domestic and foreign visitors from all social circles were received during the Reporting Period.

## 引領科技創新

為增強核心競爭力，本集團堅持推動創新科技，大力投入資源於科研技術。二零一九年，本集團共獲授權專利181項，包括發明專利11項、實用型專利124項、軟件著作專利42項及外觀專利4項。本集團自主研發國產首台1,000噸／日生活垃圾焚燒爐排爐成功填補了中國市場的空白；等離子飛灰融熔技術取得重大突破並於鎮江垃圾發電示範項目建成投產，開創全行業垃圾焚燒飛灰處理和危廢處置新路徑。

此外，本集團於報告期內實行了大膽的改革，成立中國光大綠色技術創新研究院、中國光大無廢城市研究院和中國光大生態環境規劃設計院，為更好推動本集團科技創新引領發展的戰略構想，保障科技研發的實效產出。

## 積極連繫社區

光大國際一直活躍於環保教育、社區共融、扶貧濟困及生態保育等方面的慈善公益活動，致力為社區居民帶來更多價值。報告期內，本集團已連續第六年擔任世界自然基金會香港分會「地球一小時」活動的首席贊助商；連續第三個學年支持「國際小母牛」香港分會舉辦的開卷助人閱讀籌款計劃，本集團位於各地的項目員工亦繼續自發組織各類活動，與當地社區高頻友好互動，完美融合。

於報告期內，本集團繼續堅定不移地推動旗下各業務板塊環保設施向公眾開放，現已成為中國環保行業公眾開放領跑者、高品質建設運營模範，報告期內共接待國內外各界人士參觀考察181,752人次。

## Our Way Forward

Starting from 2020, the society is under the shroud of various risks and impacts at local and international levels. Fortunately, all countries across the world have shared a coherent political attitude and attention towards environmental conservation, joining hands to combat global environmental issues such as climate change. The PRC has always made active contributions to ecological civilisation and ecological environmental protection, and incorporated pollution prevention as one of the key missions in the national development. Leveraging on its dual identities as a central state-owned enterprise and a foreign enterprise, the Group will continue its efforts at all levels to exercise sound environmental protection and management practices to contribute to the society, and relentlessly pursue technological innovation in line with the industry development trends. The Group will gradually expand its businesses, advancing towards the goal of becoming a global leader in the ecological and environmental management sector.

### WANG TIANYI

*Executive Director and Chief Executive Officer*

3 July 2020

## 展望將來

踏入二零二零年，國內外社會形勢仍存在各種風險和衝擊，令人欣慰的是世界各國均表現出對環境保育高度一致的政治取態和重視，務求攜手並肩處理氣候變化等全球環境議題。中國在生態文明建設和生態環境保護上將一如既往地作出積極貢獻，把污染防治納入國家發展的重點工作之一。本集團亦將努力順應發展大勢，上下同心協力，充分利用作為央企和外企的雙重身分帶來的優勢，紮實做好環境保護和治理工作，不斷實踐技術創新，回饋社會，穩妥地推進業務發展，堅定地朝著成為全球領先的生態環境集團這一目標邁進。

### 王天義

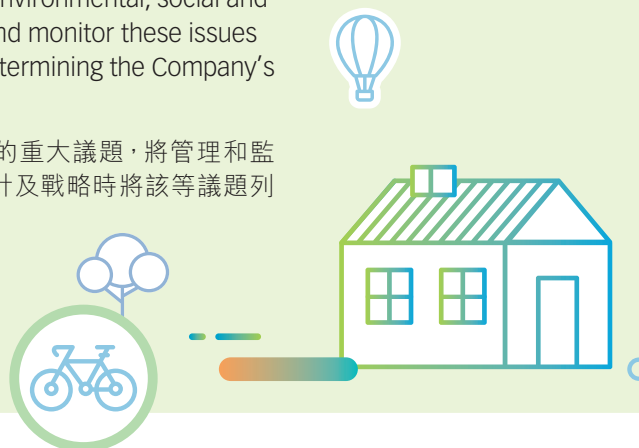
*執行董事兼行政總裁*

二零二零年七月三日

## Board Statement 董事會聲明

The Board has reviewed the material environmental, social and governance issues, and will manage and monitor these issues and take them into consideration in determining the Company's business directions and strategies.

董事會已審閱有關環境、社會及管治的重大議題，將管理和監督這些議題，並在制定本公司經營方針及戰略時將該等議題列入考慮範圍。



## ECONOMIC 經濟

As at 31 December 2019  
截至二零一九年十二月三十一日

- Secured **399** environmental protection projects  
落實環保項目數目達**399**個



In 2019  
二零一九年

- Revenue amounted to HK\$**37,557,635,000**  
收益為港幣**37,557,635,000**元
- Integrated biomass utilisation projects directly and/or indirectly created over **40,000** jobs and increased farmers' income by RMB**1.6** billion, benefiting over **7.1** million farmers

生物質綜合利用項目直接及／或間接提供工作崗位逾**40,000**個，帶動農民增收約人民幣**16**億元，受惠逾**710**萬名農民

## ENVIRONMENT 環境

In 2019  
二零一九年

- Environmental protection projects provided approximately **10,713,049,000** kWh of on-grid green electricity, offsetting approximately **12,343,000** tonnes of CO<sub>2</sub> equivalent emissions  
環保項目合共提供綠色上網電量約**10,713,049,000**千瓦時，抵銷了二氧化碳當量排放約**12,343,000**噸



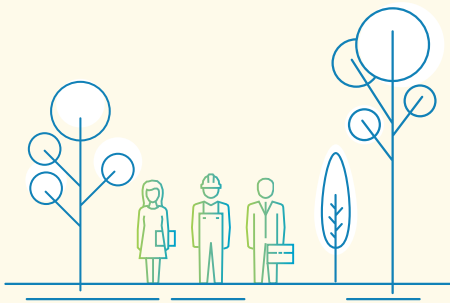
- These projects treated approximately **1,433,805,000** m<sup>3</sup> of waste water and approximately **5,210,000** m<sup>3</sup> of leachate, reducing COD discharge by approximately **513,000** tonnes in total

環保項目處理污水約**1,433,805,000**立方米及滲濾液約**5,210,000**立方米，合共減少了約**513,000**噸COD排放

## EMPLOYEE 員工

As at 31 December 2019  
截至二零一九年十二月三十一日

- **13,250** employees in total  
員工總數為**13,250**人



In 2019  
二零一九年

- Rate of work-related injuries: **0.18** (employees) and **0.07** (third-party contractors and subcontractors working onsite)  
工傷率：**0.18** (員工) 及 **0.07** (第三方承包商及分包商駐場工人)

(Rate of work-related injuries = (Total number of work-related injuries/Total working hours) x 200,000)  
(工傷率 = (工傷個案總計 / 工作總時數) x 200,000)

## COMMUNITY 社區

In 2019  
二零一九年

- The Group's environmental protection projects received a total of **181,752** domestic and foreign visitors from all social circles  
本集團的環保項目共接待國內外各界人士參觀考察共**181,752**人次
- **28** environmental protection facilities were opened up to the public  
向公眾開放**28**個環保項目
- Donations amounted to HK\$**10,772,000**  
捐款總金額為港幣**10,772,000**元



As at 31 December 2019  
截至二零一九年十二月三十一日

- "Everbright International True Love School" had accumulatively provided educational opportunities for **4,500** students  
「光大國際愛心學校」已累計為**4,500**學生提供教育機會
- "Everbright Environmental Protection Charitable Fund" had accumulatively supported a total of **1,516** beneficiaries, with a total of over RMB**6.8** million delivered as ex-gratia funds and financial aids  
「光大環保愛心基金」已累計產生**1,516**名受益者，共計已發放超過人民幣**680**萬元慰問金及救助金



恒生可持續發展企業  
指數系列 2019 - 2020成份股

Hang Seng Corporate Sustainability Index  
恒生可持續發展企業指數成份股



Dow Jones Sustainability Emerging  
Markets Index  
道瓊斯可持續發展新興國家指數成份股



FTSE4Good

FTSE4Good Index  
富時社會責任指數成份股

### Ministry of Ecology and Environment of the PRC

中華人民共和國生態環境部



- China's Ecological Civilization Award  
中國生態文明獎



- Top 10 Public Engagement Case  
Studies Award  
十佳公眾參與案例獎

### Central Committee of the Communist Party of China

中共中央組織部

- Changzhou Waste-to-energy Project recognised as an innovative case study that had resolved the not-in-my-backyard ("NIMBY") crisis, in the *Case Studies on Overcoming Obstacles Following Chinese President Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era – Ecological Civilisation Development*

常州垃圾發電項目作為破解「鄰避」困境的創新案例，入選中共中央組織部編寫的《貫徹落實習近平新時代中國特色社會主義思想在發展改革穩定中攻堅克難案例》叢書《生態文明建設篇》



### 2019 Annual Solid Waste Enterprises Ranking

2019年度固廢企業評選

- First in the "Top Ten Influential Solid Waste Treatment Enterprises in China" ranking  
中國固廢行業十大影響力企業榜首

### Ranking by the Biomass Industry branch of China Association for the Promotion of Industrial Development

中國產業發展促進會生物質能產業分會評選

- First in the "2019 Top Ten Household Waste-to-energy Enterprises" ranking  
「2019生活垃圾焚燒發電十強企業」評選榜首



### 2018-2019 Luban Prizes in China's Construction Field at the Construction Technological Innovation Conference 建築業科技創新暨2018-2019年度中國建設工程魯班獎

- Construction project of Hangzhou Waste-to-energy Project shortlisted in the second batch of Luban Prizes in the PRC's construction field for 2018-2019 (a quality construction project)  
杭州垃圾發電項目工程獲「2018-2019」年度第二批中國建設工程魯班獎(國家優質工程)



### 2019 All-Asia Executive Team Ranking by Institutional Investor 機構投資者－「2019年亞洲最佳企業管理團隊」評選



- Most Honoured Company  
最受尊崇企業
- Best CEO – Mr. Wang Tianyi  
最佳行政總裁－王天義先生
- Best CFO – Mr. Raymond Wong  
最佳首席財務官－黃錦聰先生
- Top positions in the following categories: Best Corporate Governance, Best ESG/SRI Metrics, Best Investor Relations Programme and Best IR Professional  
「最佳企業管治」、「最佳ESG/SRI指標」、「最佳投資者關係企業」、「最佳投資者關係專員」評選中躋身前列

### The Ninth Asian Excellence Award by Corporate Governance Asia 亞洲企業管治雜誌－第九屆亞洲卓越大獎

- Asia's Best CEO – Mr. Wang Tianyi  
亞洲最佳首席執行官－王天義先生
- Best Environmental Responsibility  
最佳環境責任
- Best Investor Relations Company  
最佳投資者關係公司



### The Hong Kong Management Association 香港管理專業協會

- Hong Kong Sustainability Award 2018/19  
香港可持續發展獎2018/19



### Growth Champions Greater Bay Area 2020 by South China Morning Post and Statista

《南華早報》及 Statista – 2020大灣區高增長企業排行榜

- First shortlisted in the "Growth Champions Greater Bay Area" ranking  
首度入選「大灣區高增長企業」榜單

### Good MPF Employer ranking by Mandatory Provident Fund Schemes Authority in Hong Kong 香港強制性公積金計劃管理局－基金好僱主評選

- Good MPF Employer  
基金好僱主
- E-Contribution Award  
電子供款獎
- Support for MPF Management Award  
基金推廣獎

### China Charity Festival 中國公益節

- Best Social Responsibility Brand of the Year  
年度最佳責任品牌

About Everbright International

關於光大國際

Promoting **CLEAN ENERGY** and implementing  
**LOW-CARBON DEVELOPMENT**

推動潔淨能源，落實低碳發展



**E**verbright International is the first one-stop integrated environmental solution provider in the PRC, with its main businesses covering waste-to-energy and integrated waste treatment, integrated biomass utilisation, hazardous and solid waste treatment, environmental remediation, raw water protection, municipal waste water treatment, industrial waste water treatment, reusable water, water supply, river-basin ecological restoration, sludge treatment and disposal, equipment manufacturing, waste sorting, sanitation integration, resource recycling, development of zero-waste cities, energy-saving lighting, analysis and testing, R&D relating to green technologies, ecological and environmental planning and designing, as well as environmental protection industrial parks. Everbright International is a strategic partner of the International Coalition for Green Development on the Belt and Road and the Ecological Protection and Green Development of the Yangtze River Economic Belt.

**光**大國際是中國首個一站式、全方位的環境綜合治理服務商，主營業務包括垃圾發電及協同處理、生物質綜合利用、危廢及固廢處置、環境修復、原水保護、市政污水處理、工業廢水處理、中水回用、供水、流域治理、污泥處理處置、裝備製造、垃圾分類、環衛一體化、資源循環利用、無廢城市建設、節能照明、分析檢測、綠色技術研發、生態環境規劃設計、環保產業園等。光大國際現為「一帶一路」綠色發展國際聯盟戰略合作夥伴和長江經濟帶生態大保護戰略合作夥伴。



Blossoming Development of the 8 Business Sectors 八大業務競相發展

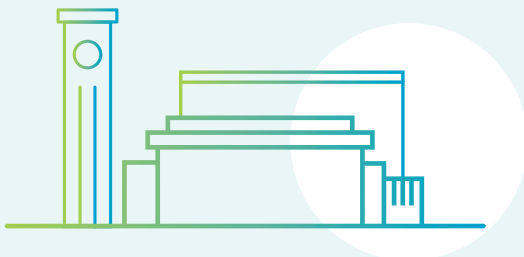


Integrated biomass utilisation, hazardous and solid waste treatment, solar energy, wind power and environmental remediation  
生物質綜合利用、危廢及固廢處置、光伏發電、風電及環境修復

1

**Environmental Energy**  
環保能源

Waste-to-energy and integrated waste treatment, and environmental protection industrial parks  
垃圾發電以及協同處理和環保產業園

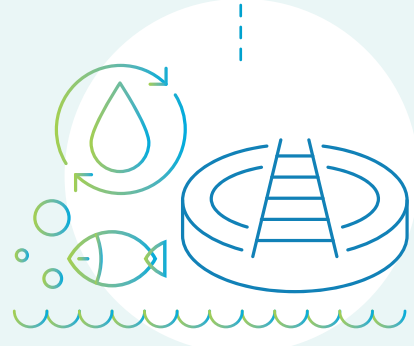


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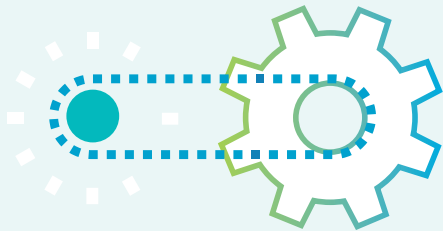
**Greentech**  
綠色環保

3

**Environmental Water**  
環保水務



Raw water protection, municipal waste water treatment, industrial waste water treatment, reusable water, water supply, river-basin ecological restoration, and sludge treatment and disposal  
原水保護、市政污水處理、工業廢水處理、中水回用、供水、流域治理及污泥處理處置



Equipment  
manufacturing  
裝備製造

4

Equipment  
Manufacturing  
裝備製造

5

Eco-recycling  
生態資源

Energy-saving lighting  
節能照明



6

Greenery  
環境節能



Ecological and  
environmental planning  
and designing  
生態環境規劃設計

8

Environmental  
Planning  
環境規劃

7

Envirotech  
綠色科創



Waste sorting, sanitation operation  
services, zero-waste cities and  
resource recycling  
垃圾分類、環衛作業服務、  
無廢城市和資源循環利用

R&D related to green technologies  
綠色技術研發



## Business Footprint

The Group's projects are located in **187** locations across **23** provinces, municipalities and autonomous regions in the PRC, as well as Germany, Poland and Vietnam.

It has secured **399** projects with an aggregated investment of approximately RMB**123.801** billion, of which total government contract value amounted to approximately RMB**104.7** billion.

## 業務分佈

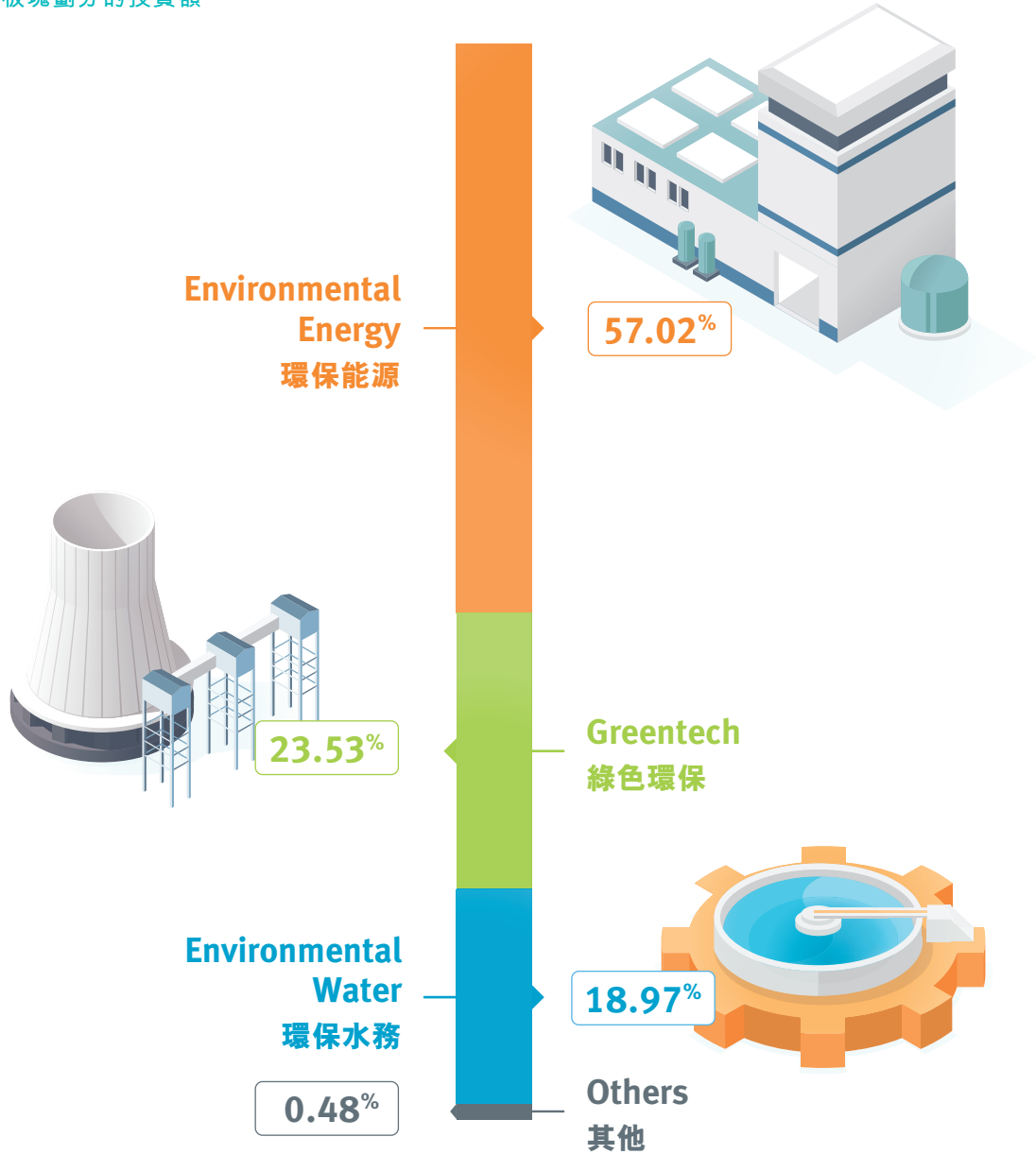
本集團項目分佈全國**23**個省(市)、自治區，遍及**187**個地區，遠至德國、波蘭及越南。

已落實**399**個項目，累計總投資人民幣**1,238.01**億元，其中與政府簽署合同總額達約**1,047**億元。





Investment by Business Sector  
業務板塊劃分的投資額



Total investment of approximately  
總投資約

RMB 123.801 billion  
人民幣 十億元

1

Environmental Energy  
環保能源

Asia's largest waste-to-energy investor and operator

亞洲最大垃圾發電投資運營商

As a core business sector of Everbright International, Environmental Energy has the largest business scale of the Group. Environmental Energy covers waste-to-energy, food waste treatment, leachate treatment, fly ash landfill, methane-to-energy, sludge treatment and disposal, fecal treatment, and the development of environmental protection industrial parks, etc. It is Asia's largest waste-to-energy investor and operator, as well as the best player in resolving NIMBY effect in the PRC's waste-to-energy industry.



環保能源是光大國際旗下規模最大的核心業務板塊，其業務範疇涵蓋垃圾發電、餐廚垃圾處理、滲濾液處理、飛灰填埋、沼氣發電、污泥處理處置、糞便處理及環保產業園的投資建設運營等，為亞洲最大的垃圾發電投資運營商，亦是中國垃圾發電領域中能化解鄰避效應的最佳企業。



**As at 31 December 2019**  
截至二零一九年十二月三十一日

**125** Waste-to-energy projects  
垃圾發電項目  
(including 2 operation and management  
("O&M") projects and 1 overseas project  
located in Vietnam)  
(包括2個委託運營(「委託運營」)項目  
及1個位於越南的海外項目)

**18** Food waste treatment projects  
餐廚垃圾處理項目

**5** Sludge treatment and disposal projects  
污泥處理處置項目

**3** Leachate treatment projects  
滲濾液處理項目

**2** Methane-to-energy projects  
沼氣發電項目

**1** Fecal treatment project  
糞便處理項目

**1** Fly ash landfill project  
飛灰填埋場項目

**1** Medical waste treatment project  
醫療廢物處理項目

**1** Solid waste treatment project  
固廢處理項目  
(overseas project located in Poland)  
(位於波蘭的海外項目)

**157** **Total Number of Projects Secured**  
總落實項目數目



**Total Designed Capacities**  
總設計規模

**41,738,000** tonnes  
噸

Annual household waste processing capacity  
年處理生活垃圾量

**865,000** tonnes  
噸

Annual food waste treatment capacity  
年處理餐廚垃圾量

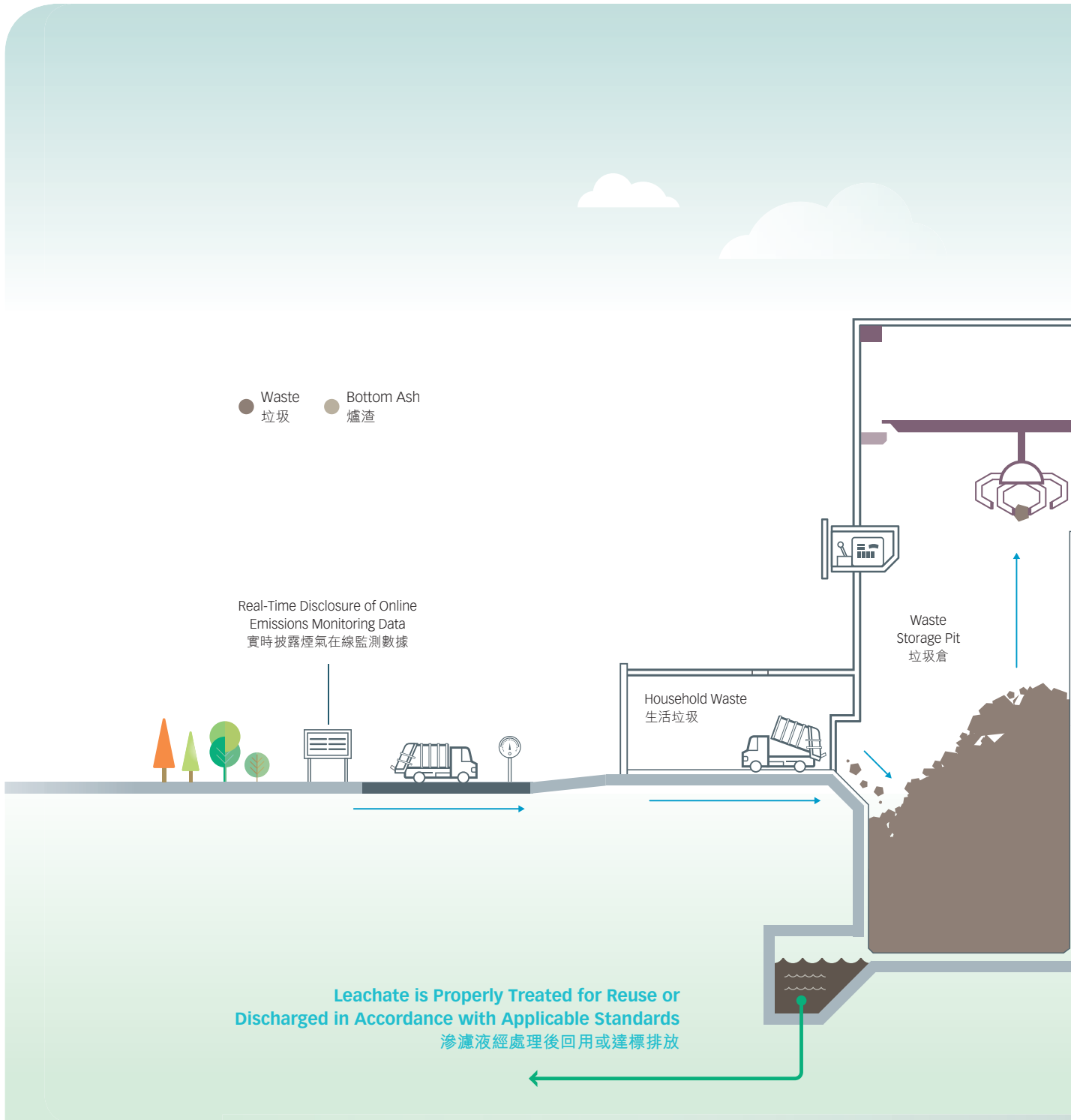
**157,000** tonnes  
噸

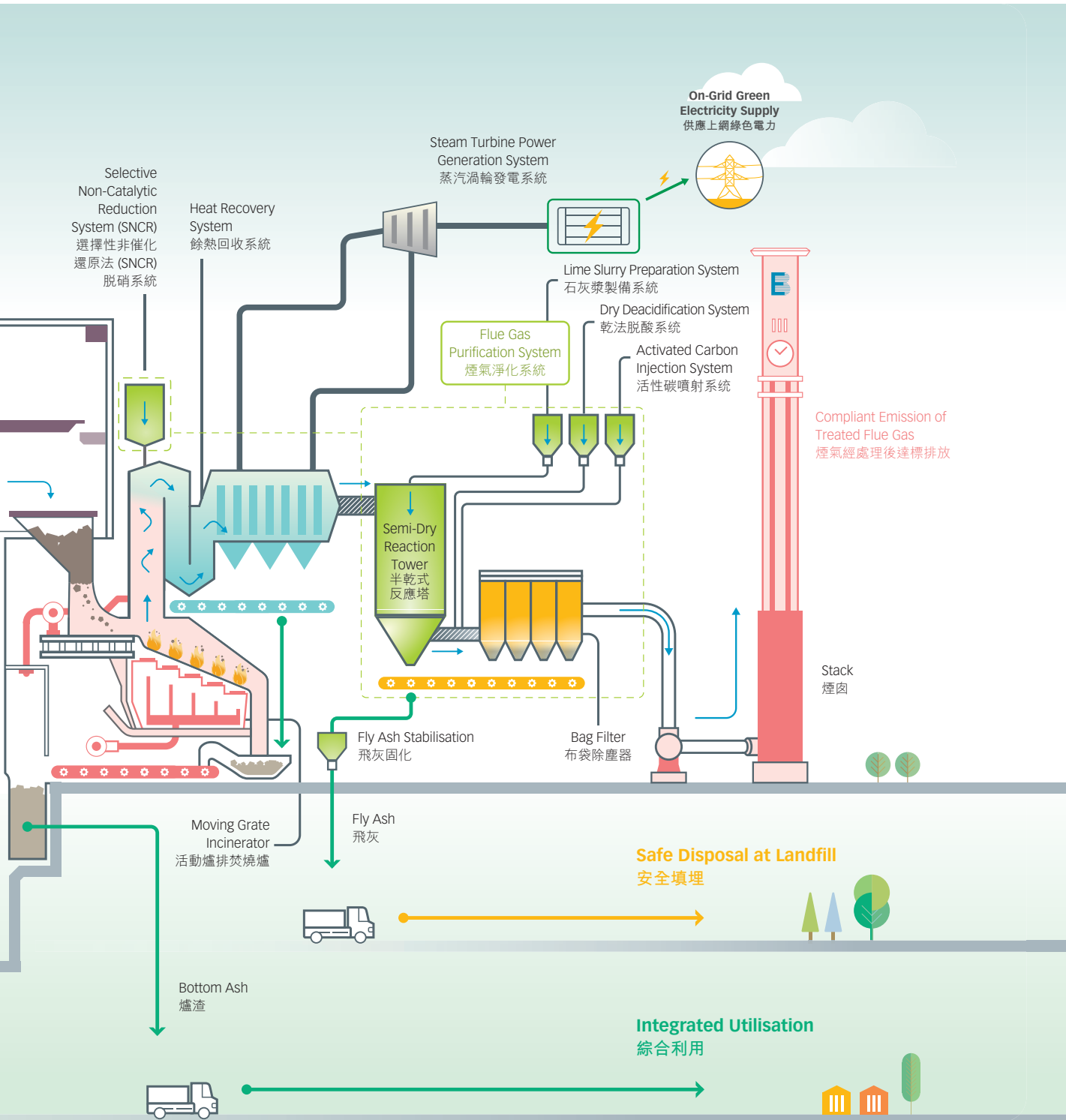
Annual sludge treatment capacity  
年處理污泥量

**4,000** tonnes  
噸

Annual medical waste treatment capacity  
年處理醫療廢物量

### Waste-to-Energy System – Typical Process Flow Diagram 垃圾發電系統－典型工藝流程圖





2

Greentech  
綠色環保

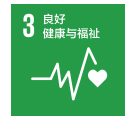
China's first-class investor and operator specialised in integrated biomass utilisation and harmless treatment of hazardous and solid waste

中國一流的生物質綜合利用、危廢及固廢無  
害化處置投資運營商

Everbright Greentech, with its controlling shareholder being Everbright International, is a company that is listed on the Main Board of the Stock Exchange (stock code: 1257) that focuses on integrated biomass utilisation, hazardous and solid waste treatment, environmental remediation, solar energy and wind power, amongst others.



光大綠色環保是光大國際控股並  
於聯交所主板上市的公司（股份  
代號：1257.HK），專注於生物質  
綜合利用、危廢及固廢處置、環境  
修復、光伏發電、風力發電等業務  
領域。





**As at 31 December 2019**  
截至二零一九年十二月三十一日

- 48** Integrated biomass utilisation projects  
生物質綜合利用項目
- 51** Hazardous and solid waste treatment projects  
危廢及固廢處置項目
- 27** Environmental remediation projects  
環境修復項目
- 7** Solar energy projects  
光伏發電項目
- 2** Wind power projects  
風電項目
- 1** Environmental protection company  
環保企業

**136** **Total Number of Projects Secured**  
總落實項目數目



**Total Designed Capacities**  
總設計規模

**8,089,800** tonnes  
噸

Annual processing capacity of biomass raw materials  
年處理生物質原材料量

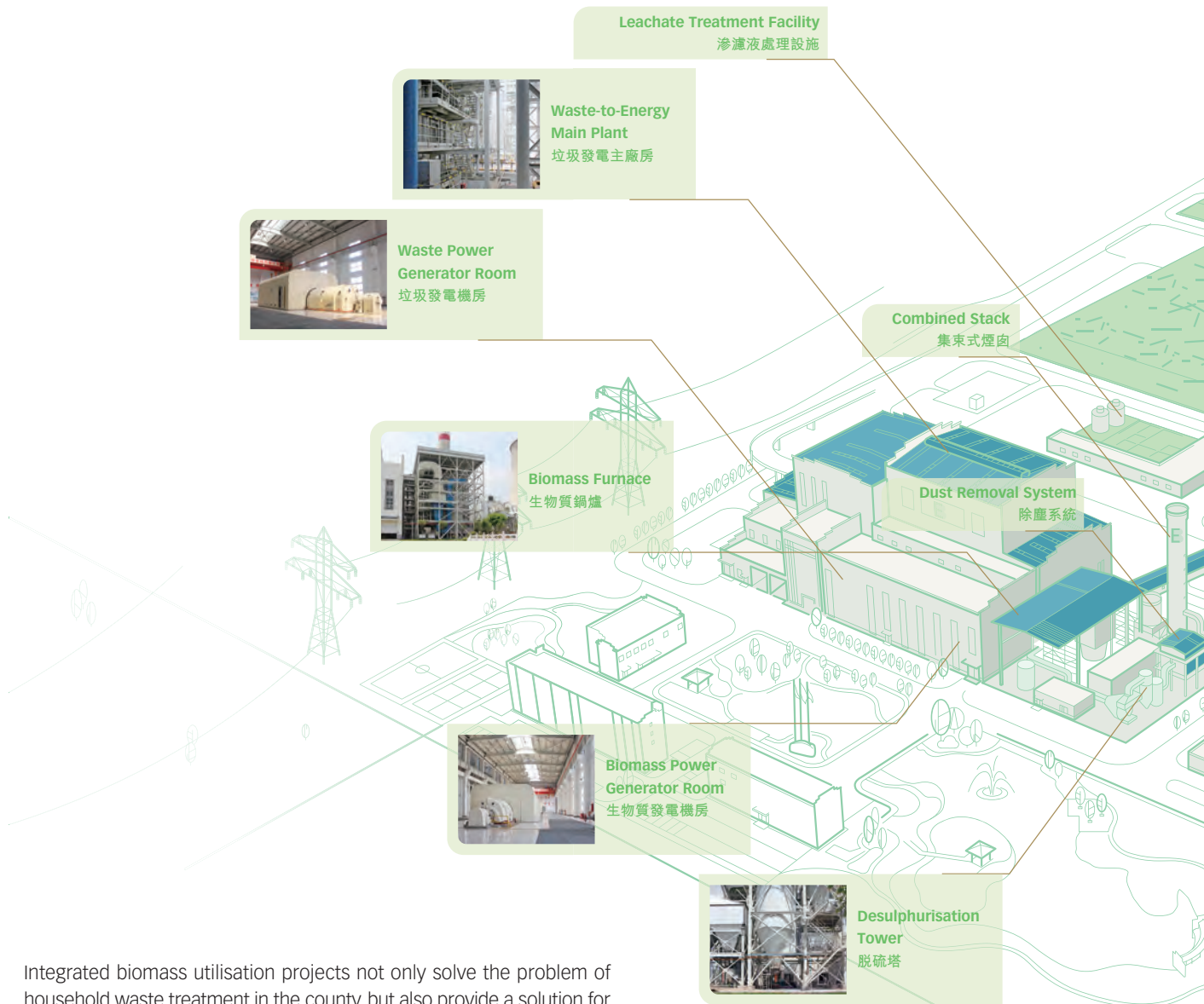
**3,230,250** tonnes  
噸

Annual aggregate household waste processing capacity  
年生活垃圾總處理量

**2,229,370** tonnes  
噸

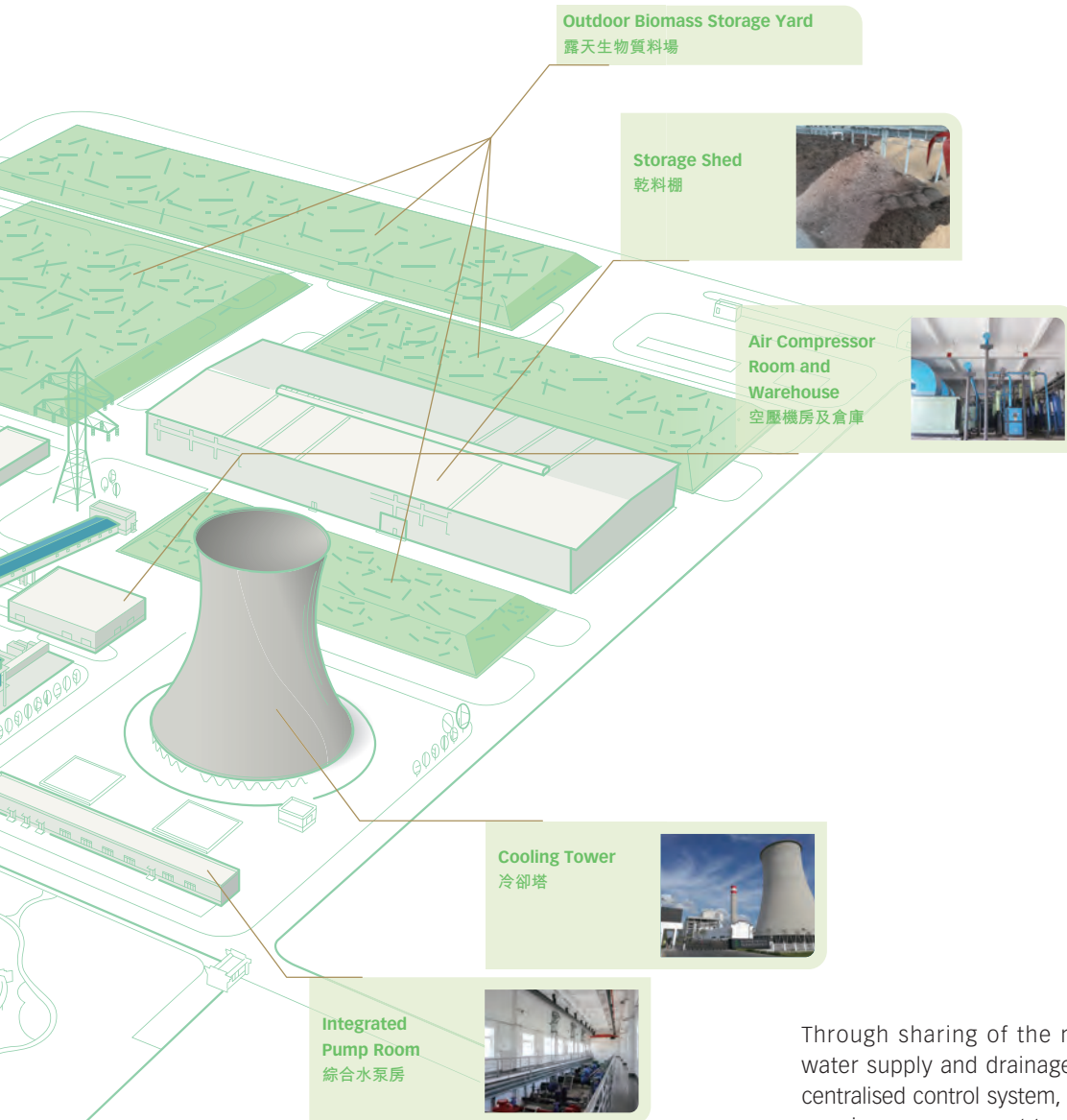
Annual hazardous and solid waste treatment capacity  
年處置危廢及固廢量

## Integrated Biomass Utilisation Project – Overview 生物質綜合利用項目 – 概覽



Integrated biomass utilisation projects not only solve the problem of household waste treatment in the county, but also provide a solution for the treatment of rural household waste. Such projects can completely solve problems associated with soil and groundwater contamination caused by landfilling and leachate, and reduce the amount of land needed for waste disposal. At the same time, such projects have greatly changed the current practices of burning straw in open space and reduce smog formation.

生物質綜合利用項目不僅可以解決縣城內的生活垃圾問題，還可以為農村生活垃圾處理提供出路，徹底解決生活垃圾填埋及滲濾液污染土壤及地下水問題，可節約因填埋垃圾佔用的大量土地，同時極大程度上改變農村露天焚燒秸稈的現狀，減少霧霾的形成。



Through sharing of the main plant, grid system, water supply and drainage system, cooling system, centralised control system, office and accommodation premises, management team, etc., integrated biomass utilisation projects not only maximise environmental service output, but also increase the overall returns on investment of the projects, and enhance the Group's competitiveness.

生物質綜合利用項目通過共用主廠房、電網系統、給排水系統、冷卻系統、中控系統、辦公住宿場所及管理團隊等，既能提高環境服務產出，也能增加項目整體投資回報並提升本集團的競爭力。

3

### Environmental Water 環保水務

#### China's top water environment management service provider

#### 中國一流的水環境治理綜合服務供應商

Everbright Water, with its controlling shareholder being Everbright International, is a company listed on the Mainboard of SGX and the Mainboard of the Stock Exchange (stock codes: U9E.SG & 1857.HK). It 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.

光大水務是光大國際控股並於新交所及聯交所主板上市的公司（股份代號：U9E.SG及1857.HK），目前已實現原水保護、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覆蓋。



**As at 31 December 2019**  
截至二零一九年十二月三十一日

- 99 Municipal waste water treatment projects  
市政污水處理項目  
(including 2 EPC projects and 1 O&M project)  
(包括2個EPC項目及1個委託運營項目)
- 12 Industrial waste water treatment projects  
工業廢水處理項目
- 8 Reusable water projects  
中水回用項目
- 6 River-basin ecological restoration projects  
流域治理項目
- 3 Water supply projects  
供水項目
- 2 Waste water source heat pump projects  
污水源熱泵項目
- 1 Raw water protection project  
原水保護項目
- 1 Leachate treatment project  
滲濾液處理項目

**132 Total Number of Projects Secured**  
總落實項目數目

**Total Designed Capacities**  
總設計規模

**1,876,684,000** m<sup>3</sup>  
立方米

Annual waste water treatment capacity  
年污水處理量

**75,409,000** m<sup>3</sup>  
立方米

Annual reusable water supply capacity  
年供中水量

**310,250,000** m<sup>3</sup>  
立方米

Annual water supply capacity  
年供水量

**295,000** m<sup>2</sup>  
平方米

Area served by waste water source heat pump  
projects' heating and cooling supply  
污水源熱泵項目供熱及供冷服務涵蓋面積



Everbright Water became officially listed on the Main Board of the Stock Exchange on 8 May 2019, achieving its dual listing status in Singapore and Hong Kong.

二零一九年五月八日，光大水務於聯交所主板正式掛牌上市，成功實現新加坡及香港兩地雙重上市地位。



4

Equipment Manufacturing  
裝備製造

China's Backbone environmental protection equipment  
R&D and manufacturing Provider

Headquartered in Changzhou City, Jiangsu Province, Everbright Environmental Technical Equipment (Changzhou) Limited represents Everbright International's Equipment Manufacturing sector, who is also a leading environmental protection equipment provider in the PRC.



中國骨幹環保裝備研發製造商

光大環保技術裝備(常州)有限公司是光大國際旗下的裝備製造板塊,總部位於江蘇常州,也是國內領先的環保裝備供貨商。



Everbright International has currently established a comprehensive waste-to-energy system with a full set of intellectual property rights, covering grate furnaces, flue gas purification systems, leachate treatment systems and automatic control systems. A series of cutting-edge products were launched to demonstrate Everbright International's technological strengths in the area of environmental protection equipment manufacturing in the PRC. Equipment Manufacturing has not only commanded a top-tier position in the domestic environmental protection industry, but has also successfully strengthened its influence in the global market.

目前光大國際已確立具有完全自主知識產權的垃圾發電整體技術體系,包括焚燒爐排爐、煙氣淨化、滲濾液處理及自動化控制,亦推出了一系列代表中國環保裝備領域核心技術的領先產品。裝備製造不僅佔據國內環保行業的技術制高點,國際行業影響力也日漸提升。



Everbright International's self-developed grate furnace  
光大國際自主研發的垃圾焚燒爐排爐



Leachate treatment system  
成套滲濾液處理系統



Flue gas purification system  
成套煙氣淨化系統

5

Eco-recycling  
生態資源

Everbright International's new business sector, focusing on waste sorting, resource recycling and environmental services

光大國際新興業務板塊，致力垃圾分類、資源回收利用、環境服務

The Eco-recycling sector mainly focuses on front-end waste management services and the utilisation of recyclable resources, with the aim to become a first-class investor, operator and services provider in the PRC in the area of integrated urban-rural environmental management.



生態資源專注於固廢處置前端廢棄物管理服務與再生資源綜合利用相關業務，定位為國內一流的城鄉環境綜合治理投資運營服務商。



Household Waste Sorting  
生活垃圾分類

Development and operation of waste sorting systems, including household waste sorting facilities, collection and transportation of segregated household waste, trade of recyclable resources, information management platform services, amongst others.

生活垃圾分類設施、分類的生活垃圾的收集與運輸、分類回收資源交易、資訊化管理平台等垃圾分類系統建設運營服務。

Environmental Sanitation Services  
環衛作業服務

Integrated environmental sanitation services, including urban-rural cleaning; development, operation, maintenance and management of household waste collection and transportation systems; environmental sanitation+ services; intelligent environmental sanitation management, etc.

城鄉清掃保潔作業、生活垃圾收轉運系統建設及運維管理、環衛+服務、智慧環衛管理等環衛一體化服務。

Recyclable Resources Utilisation  
再生資源利用

Establishing a full value chain for recyclable resources, including treatment of bulky waste, yard waste, construction and renovation waste, electronic waste, etc.; and management of a national online platform for recyclable resources trading.

大件垃圾及園林垃圾處置、建築及裝修垃圾處置、電子廢棄物處置等，提供服務全國的再生資源交易網絡管理平台，打造垃圾分類資源利用完整產業鏈。





### **Foraying into the Waste Sorting and Resources Recycling Segment** **進軍垃圾分類及資源回收領域**

In 2019, Everbright International invested RMB45 million to acquire 90% equity interests in a technology-based enterprise focusing on the waste sorting businesses, and forayed into the waste sorting and resources recycling segment.

The enterprise's main business focuses on R&D, manufacturing and sales of smart waste recycling machines; and waste sorting, collection and transportation for resources utilisation through the "Internet +" model. Leveraging on the strength of its "Dian Dian Recycling" brand, the enterprise launched waste-sorting programmes in cities such as Beijing, Ji'nan, Suzhou and Chengdu, etc., serving millions of citizens and recovering approximately 10,000 tonnes of recyclables annually. Upon collection of recyclables, the public will get reward points for cash rebate. The programme can help boost smart recycling at community levels.

二零一九年，光大國際通過注資人民幣4,500萬元以獲得一家專注於垃圾分類業務的科技型企業90%股權，正式進軍垃圾分類及資源回收領域。

該企業的主營業務包括垃圾智能回收機的研發、製造、銷售以及採用「互聯網+」模式開展垃圾分類、收運和資源再利用。其透過「點點回收」品牌在北京、濟南、蘇州、成都等城市開展垃圾分類項目，服務人口逾百萬，年分類回收可再生資源近萬噸。公眾收集可回收物品後，將獲得獎勵積分用作現金回贈。該計劃可鼓勵和促進社區推動智能回收。



6 Greenergy  
環境節能

Everbright International enters the field of energy-saving technologies and services

In 2019, Everbright International and Beijing Jinglang Photoelectric Technology Co., Ltd. signed a cooperation agreement to jointly establish Everbright Brilliant Greenergy and Lighting (Shenzhen) Limited (“Everbright Greenergy”), a joint venture company in which Everbright International holds a 60% equity stakes. Everbright Greenergy has a keen focus on energy-saving streetlights for urban roads and other energy conservation industries.

光大國際進軍節能技術與服務領域

二零一九年，光大國際與北京晶朗光電科技有限公司簽署合作協議，雙方共同出資成立光大晶朗節能照明（深圳）有限公司（「光大節能照明」），光大國際持有光大節能照明60%股權。光大節能照明專注於城市道路節能照明與其他節能產業。



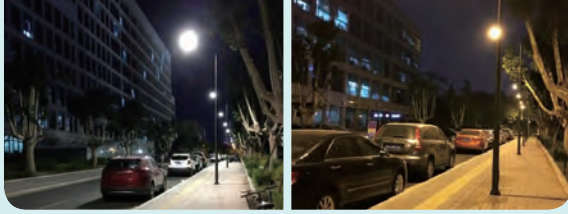
High Light Efficiency  
光效高



140W Everbright New Sodium Lamp  
140W 光大新鈉燈

250W High-pressure sodium lamp  
250W 高壓鈉燈

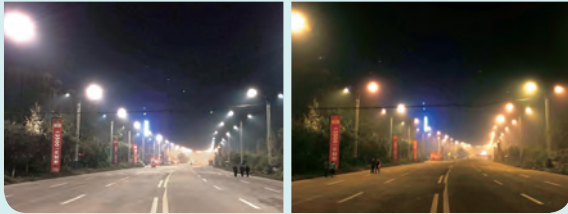
Good Color Rendition  
顯色性好



Everbright New Sodium Lamp with colour rendering index of above 70  
光大新鈉燈顯色指數70以上

High-pressure sodium lamp with colour rendering index of about 25  
高壓鈉燈顯色指數25左右

Good Color Temperature  
色溫協調



140W Everbright New Sodium Lamp  
140W 光大新鈉燈

250W High-pressure sodium lamp  
250W 高壓鈉燈

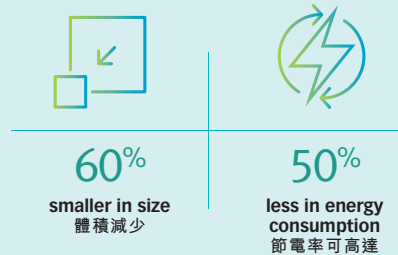
Everbright New Sodium Lamp  
光大新鈉燈

Everbright Greenergy began its business with the launch of its major product, “Everbright New Sodium Lamp”. It is devoted to facilitating cities and regions to fully upgrade their energy-saving systems through various business models such as energy management contract (“EMC”) or direct procurement of owners, “Everbright New Sodium Lamp” has been in trial use for street lighting in selected cities in China.

Compared with conventional high-pressure sodium lamps that are widely used for street lighting in the PRC, “Everbright New Sodium Lamp” has the following advantages:

光大節能照明首期業務以「光大新鈉燈」為主營產品，致力於以合同能源管理（「EMC」）或業主直接採購等合作模式幫助實現城市、區域節能照明的全面改造升級。目前，「光大新鈉燈」已在全國部分城市的街道率先試用。

相比目前普遍應用在國內道路照明的高壓鈉燈，「光大新鈉燈」有以下的好處：



7

Envirotech  
綠色科創

Pursuing development driven by technology and innovation

Envirotech is the technological R&D sector of Everbright International, focusing on solving technical process challenges and pursuing international cutting-edge technologies in the environmental protection industry. Envirotech is Everbright International's engine for development through innovation.



科技引領創新發展

綠色科創是光大國際旗下的技術研發板塊，專注於環保工藝技術難點攻關，瞄準國際環保前沿技術，是光大國際實現創新引領的引擎。



Through comprehensive review and the integration of technological R&D resources, the Group implemented a "Three Institutes" plan through the establishment of a green technology innovation and research institute, a zero-waste city research institute, and an ecological and environmental planning and design institute. Relevant technological innovation platforms were also established in Hong Kong, Shenzhen, Nanjing, Qingdao and Xiongan New Area.

通過全面梳理、整合各類技術研發資源，本集團圍繞綠色技術創新研究院、無廢城市研究院及生態環境規劃設計院打造「三院」佈局，並逐步於香港、深圳、南京、青島、雄安新區設立相關機構平台。

As at 31 December 2019

截至二零一九年十二月三十一日

The Group had been granted 773 patents and software copyright licences in total, including 105 invention patents, 588 utility model patents, 76 software copyright licences and 4 appearance patents.

本集團獲授權專利合共773項，其中發明專利105項、實用專利588項、軟件著作專利76項及外觀專利4項。



Everbright-Qingdao University of Technology  
Research Institute of Environmental Technology  
光大青島理工環境技術研究院



China Everbright Green Technology  
Innovation Research Institute  
中國光大綠色技術創新研究院



Everbright International's R&D Centre in Nanjing City  
光大國際南京研發中心



8

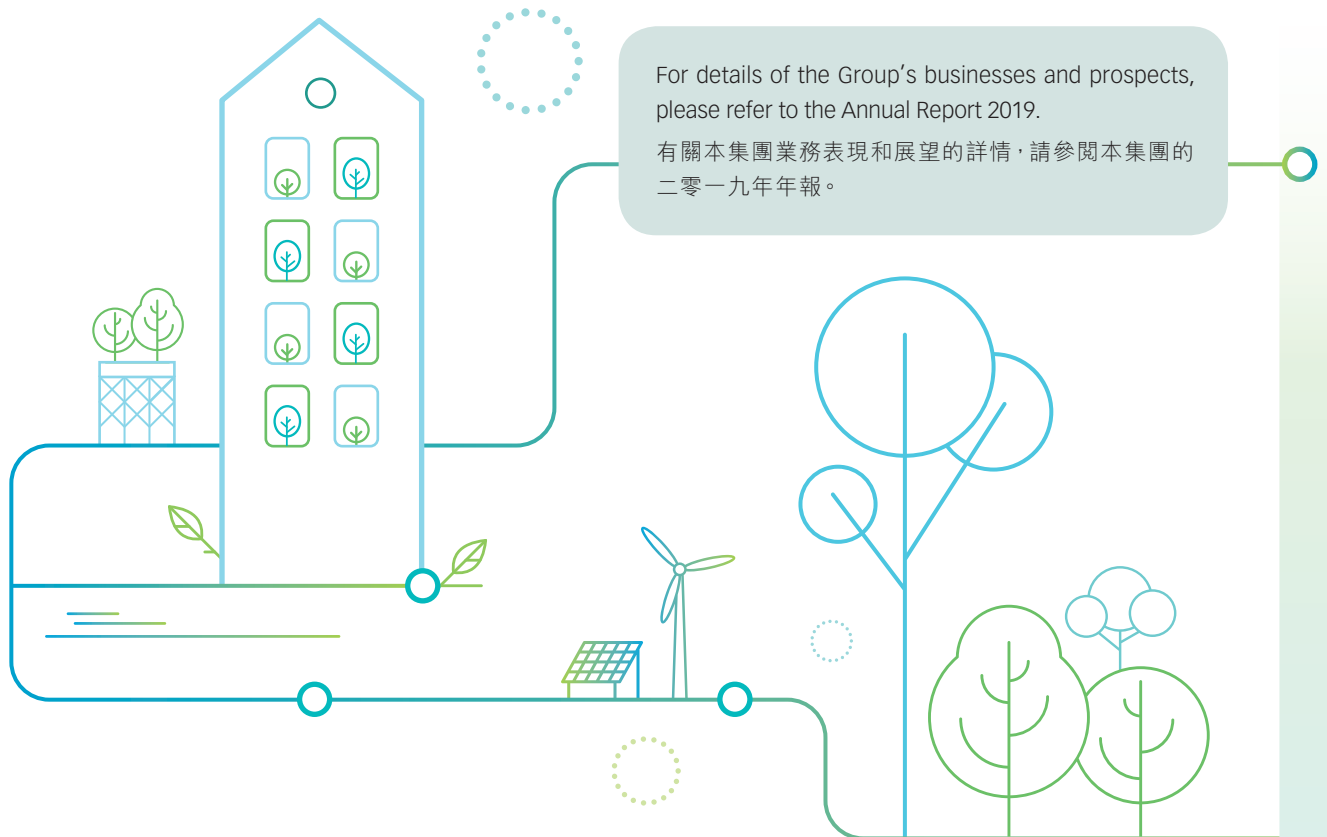
## Environmental Planning 環境規劃

### Planning for efficiency through innovative designs

In order to support the healthy development of the Group's ecological and environmental protection business, the Group has re-organised China Everbright Ecological and Environmental Planning and Design Institute (the "Environmental Planning and Design Institute") into a new business sector. Aiming at becoming a first-class planning and design institute, the Group will further improve the design qualifications of the institute and enhance its innovation capabilities. The Environmental Planning and Design Institute will adopt a market-oriented approach and also strive for breakthroughs in design quality, value creation, brand building and industry leadership.

### 通過創新設計規劃效益

為了支持本集團生態環保事業的健康發展，本集團將中國光大生態環境規劃設計院（「環境設計院」）調整為新業務板塊。本集團將進一步提升環境設計院設計資質，以發展成為一流規劃院為目標和提升創新能力。環境設計院亦以市場化引領發展，致力於在設計質量、創造效益、品牌建設、行業引領作用等方面實現新突破。



# Stakeholder Engagement 持份者參與

We draw on  
**COLLECTIVE WISDOM,**  
**ADVICE** and **SUGGESTIONS**

集思廣益，建言獻策





Having continuous communication and engagement with the Group's stakeholders is an important part of the Group's daily operation. Not only does it assist us in coping with the current and potential risks and opportunities in the market, it also serves as a basis for establishing a sustainable development strategy. The Group's business involves various stakeholder groups, including investors, shareholders, governments, customers, employees, villagers, local communities, business partners, suppliers, media, investment analysts, and non-governmental organisations.



持份者的持續溝通及參與是本集團日常運營的重要環節，有助本集團應對市場中現有及潛在的風險與機遇，更是確立可持續發展戰略的基礎。本集團的業務涉及多個持份者組別，包括投資者、股東、政府、客戶、員工、村民、當地社區、業務夥伴、供應商、媒體、投資分析員及非政府組織。

The Group identified stakeholders based on the following five principles:

本集團對持份者的界定基於以下五個原則：

**Responsibility**

**責任**

Stakeholders linked 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

**Proximity**

**鄰近性**

Stakeholders who live close to the Group's operating plants and whom the Group interacts closely with  
居於本集團運營廠房附近及與本集團的日常運作關係密切的持份者

**Representativeness**

**代表性**

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



**Influential Power**

**影響力**

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

**Dependency**

**倚靠性**

Stakeholders who are highly dependent on the Group's business operations

在很大程度上倚靠本集團業務運營的持份者

The Group regularly communicates with stakeholders of the Group throughout each project's life cycle through different channels. The Group listens carefully to their opinions and responds to their concerns. The major channels of engagement and communication are listed as below.

本集團在每個項目的全週期均定期透過不同溝通渠道與持份者交流互動，用心聆聽他們的意見和回應他們的關注。主要的溝通途徑及頻率如下：

Stakeholder Group 持份者組別	Channel of Engagement or Communication 參與或溝通途徑	Frequencies or Time of Engagement 頻率或時間
Investors, Shareholders 投資者、股東  	Annual/extraordinary general meeting 週年／特別股東大會  Press release/announcement/circular 新聞稿／公告／通函  Results presentation 業績發佈會  Interim report/annual report 中期報告／年報  Roadshow 路演  Meeting/teleconference 會議／電話會談  Site visit 現場考察	Annually/as needed 每年／根據需要  Regularly/as needed 定期／根據需要  Half-yearly/annually 半年／每年  Half-yearly/annually 半年／每年  Regularly/as needed 定期／根據需要  Regularly/as needed/upon request 定期／根據需要／根據需求  As needed/upon request 根據需要／根據需求
Governments 政府  	Progress report 進度報告  Site visit 現場考察  Meeting 會議  WeChat and QQ 微信及QQ  Phone or email 電話或電郵聯繫  Customer satisfaction survey 客戶滿意度調查	Weekly/monthly/quarterly 每週／月／季  Weekly/monthly/quarterly 每週／月／季  Weekly/monthly/quarterly 每週／月／季  As needed 根據需要  Weekly/monthly/quarterly 每週／月／季  Annually 每年





Stakeholder Group 持份者組別	Channel of Engagement or Communication 參與或溝通途徑	Frequencies or Time of Engagement 頻率或時間
Villagers, Local Communities 村民、當地社區  	Project visit/site visit 項目參觀／現場考察 Survey 意見調查 Public hearing 公聽會	Before construction/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／根據需求 Before construction/as needed 工程施工前／根據需要 Before construction/as needed 工程施工前／根據需要
Investment Analysts 投資分析員  	Project visit/site visit 項目參觀／現場考察 Meeting 會議 Press release/announcement 新聞稿／公告 Results presentation 業績發佈會 Interim report/annual report 中期報告／年報	As needed/upon request 根據需要／根據需求 As needed/upon request 根據需要／根據需求 Regularly/as needed 定期／根據需要 Half-yearly/annually 半年／每年 Half-yearly/annually 半年／每年
Business Partners, Suppliers 業務夥伴、供應商  	Pre-tender meeting 採購招標會 Phone interview 電話回訪 Questionnaire 調查問卷 WeChat and QQ 微信及QQ	Every tender event 每次招標活動 As needed 根據需要 Ad hoc 不定期 As needed 根據需要

Stakeholder Group 持份者組別	Channel of Engagement or Communication 參與或溝通途徑	Frequencies or Time of Engagement 頻率或時間
Customers 客戶  	Meeting 會議  Phone or email 電話或電郵聯繫  Customer satisfaction survey 客戶滿意度調查	Weekly/monthly/quarterly 每週/月/季  Weekly/monthly/quarterly 每週/月/季  Annually 每年
Employees 員工  	Work meeting/project meeting 工作會議/專題會議  Performance review meeting 表現評估會議  Internal publication 內部刊物  Charitable activity 公益活動  Face-to-face meeting/phone meeting 當面會談/電話會談  Email to CEO and/or the Chairman of the Audit Committee 電郵至行政總裁及/或審核委員會主席	Regularly 定期  Interim/year-end 年中/年末  Monthly 每月  As needed 根據需要  As requested by employees 根據員工需要  As needed 根據需要
Media 媒體  	Project visit/site visit 項目參觀/現場考察  Press release/announcement 新聞稿/公告  Management interview 管理層採訪  Results presentation 業績發佈會	As needed/upon request 根據需要/根據需求  Regularly/as needed 定期/根據需要  Regularly/as needed/upon request 定期/根據需要/根據需求  Half-yearly/annually 半年/每年
Non-Governmental Organisations (NGOs) 非政府組織  	Charitable activity 公益活動  Site visit 現場考察  Meeting 會議	As needed 根據需要  Regularly/as needed 定期/根據需要  As needed 根據需要

## Materiality Assessment

To ensure the economic, environmental and social impacts of the Group could be reflected in the sustainability report, as well as to foster the Group's involvement on sustainability development, a comprehensive materiality assessment is conducted on an annual basis.

The materiality assessment was conducted in four stages for 2019 as follows:

## 實質性評估

本集團每年均會進行一次全面的實質性評估，以確保可持續發展報告能反映本集團在經濟、環境和社會方面的影響，並進一步推動本集團在可持續發展上的工作。

二零一九年的實質性評估分為下列四個階段：

### Stage 第一階段

#### Identification of Sustainability Topics 識別可持續發展議題

1

Everbright International engaged an independent sustainability consultant to identify and review more than 30 sustainability topics that are most relevant to the Group's business, which covers economic, environmental, labour, human rights and other social issues (refer to "List of Sustainability Topics"). To ensure the topics identified could truly reflect the business nature of the Group as well as the results of communication with stakeholders, these topics were determined from extensive sources of information, including the GRI Standards, SDGs, opinions from stakeholders, opinions from the Board and management, internal publications, media information analysis, etc.

光大國際委聘獨立可持續發展顧問全面識別及檢視超過三十項與本集團業務最密切的可持續發展議題，涵蓋經濟、環境、勞工、人權及其他社會事項（見「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充分反映本集團的業務性質及以往與持份者溝通的結果。

### Stage 第二階段

#### Collection of Opinions from Stakeholders, Establishment of Materiality Matrix 收集持份者意見，繪製實質性矩陣

2

A stakeholder engagement survey was conducted by the Group's independent sustainability consultant to obtain the order of priority of the material topics identified in Stage 1 from the 9 key stakeholder groups. The findings were then analysed by the consultant in form of materiality matrix based on two parameters: perceived importance to the stakeholders and significance of impacts to Everbright International. The prioritised topics perceived by both the stakeholders and the Group with the highest importance become the focus of disclosure of the Report.

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取向和議題對光大國際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議題即為本報告的披露重點。

**Stage**  
第三階段

**Validation of Material Topics and Data Analysis**  
驗證實質性議題及數據分析

3



The 10 prioritised material topics and boundaries were validated by the Board to ensure the reasonableness, balance and completeness of the Report. Following this process, the Group's independent sustainability consultant reframed the material topics into the GRI Standards for reporting purpose. The established systematic data collection and monitoring mechanisms managed by the Operations Management Department ensures that all project companies provide accurate and comprehensive sustainability data on a regular basis.

董事會對這十個經優先排序的實質性議題及其邊界進行驗證，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。本集團運營管理部透過系統化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。

**Stage**  
第四階段

**Materiality Review**  
檢視實質性

4

Prior to the preparation of the Report, the Group reviewed the material topics and disclosure practices of its previous reports, and collected stakeholders' opinions through stakeholder survey on Everbright International's sustainability performance during the Reporting Period. The materiality review engages stakeholders to participate in the sustainable development management and disclosure process comprehensively and is beneficial to the Group in accomplishing long-term sustainable development goals.

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檢視，並通過持份者參與調查收集持份者對光大國際於報告期內可持續發展表現的意見。實質性檢視有助持份者更全面地參與可持續發展的管理和披露過程，同時有利於本集團踐行長遠的可持續發展目標。



List of Sustainability Topics

可持續發展列表

Economic 經濟

- Economic Performance  
經濟績效
- Market Presence  
市場地位
- Indirect Economic Impacts  
間接經濟衝擊
- Procurement Practices  
採購行為
- Technological R&D  
技術研發
- Anti-Corruption  
反貪腐
- Anti-Competitive Behaviour  
反競爭行為

Environmental 環境

- Materials Usage  
物料使用
- Energy Efficiency  
能源效益
- Water Resources Consumption  
水資源消耗
- GHG 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  
環保合規
- Suppliers' Environmental Assessment  
供應商環境評估
- Construction Management  
在建項目施工管理
- Environmental Education  
環保教育

Social 社會

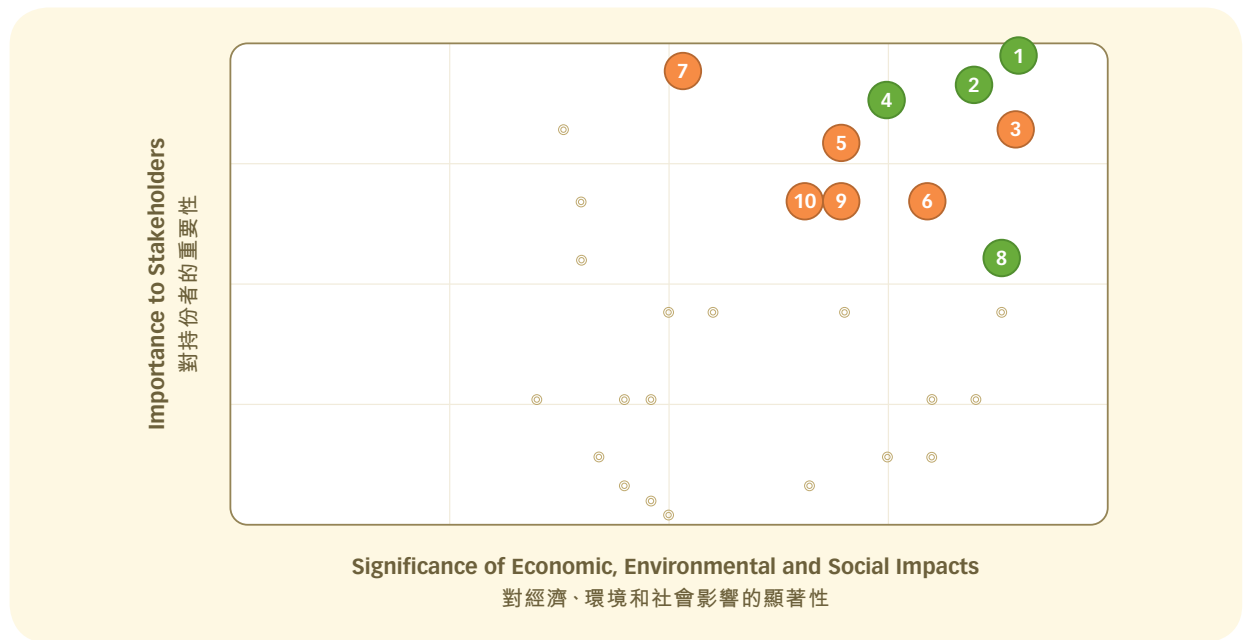
- Employee Welfare  
員工福利
- Occupational Health and Safety  
職業健康與安全
- Employee Training  
員工培訓
- Diversity and Equal Opportunity  
多元化及平等機會
- Internal Communication  
內部溝通
- Protection of Human Rights and Freedoms  
保障人權及自由
- Poverty Alleviation  
扶貧
- Social Assessment of Suppliers  
供應商社會評估
- Rights of Indigenous Peoples  
原住民權利
- Health and Safety of Communities  
社區健康及安全
- Child Labour and Forced Labour  
童工與強制勞工
- 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
- Third-Party Privacy  
第三方私隱

Materiality Matrix

Based on the result of the materiality assessment, the material topics, impacts and boundaries of the concerned impacts, the corresponding GRI Standards as well as the SDGs that are most relevant to the Group are identified.

實質性矩陣

基於實質性分析的結果，本集團識別出與本集團最具關連的實質性議題、該等議題影響及範圍、其相應的GRI準則及相關的聯合國可持續發展目標。

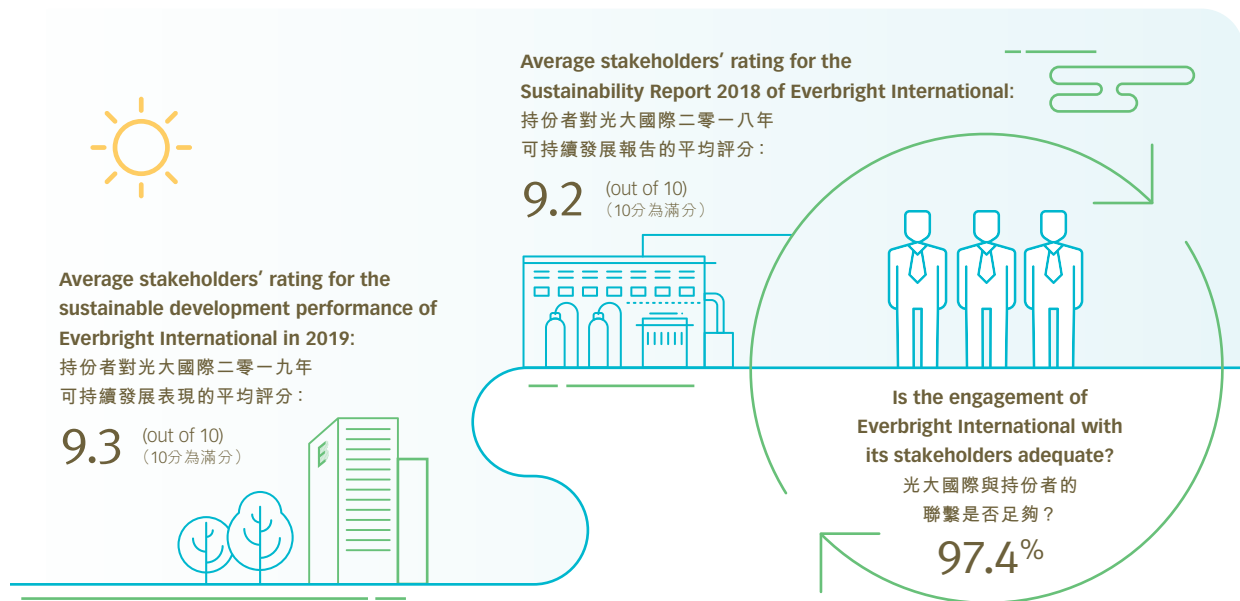




Impact and Boundary 影響及範圍	GRI Standards GRI準則										Key Relevant SDGs 主要相關的 可持續 發展目標	
	Investors, Shareholders 投資者·股東	Employees 員工	Governments 政府	Villagers, Local Communities 村民·當地社區	Customers 客戶	Business Partners, Suppliers 業務夥伴·供應商	Investment Analysts 投資分析員	Media 媒體	NGOs 非政府組織			
1 Environmental Compliance 環保合規	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>GRI 307</b> Environmental Compliance 有關環境保護的法規遵循	
2 Waste Management 廢物管理	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>GRI 306</b> Effluents and Waste 廢汗水和廢棄物	
3 Occupational Health and Safety 職業健康與安全	✓	✓	✓	✓				✓			<b>GRI 403</b> Occupational Health and Safety 職業安全衛生	
4 Waste Water Treatment 污水處理	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>GRI 306</b> Effluents and Waste 廢汗水和廢棄物	
5 Social Compliance 社會合規	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	<b>GRI 419</b> Socioeconomic Compliance 社會經濟法規遵循	
6 Disaster and Emergency Planning and Response 災難及應急預案規劃	✓	✓	✓	✓	✓	✓		✓	✓		Disaster/Emergency Planning and Response (GRI Electric Utilities Sector Disclosures) 災難／緊急應變計劃 (GRI電力行業披露)	
7 Child Labour and Forced Labour 童工及強制勞動	✓	✓						✓	✓		<b>GRI 408</b> Child Labor 童工 <b>GRI 409</b> Forced or Compulsory Labor 強迫或強制勞動	
8 Energy Efficiency 能源效益	✓	✓	✓		✓	✓					<b>GRI 302</b> Energy 能源	
9 Employee Training 員工培訓	✓	✓									<b>GRI 404</b> Training and Education 訓練與教育	
10 Employee Welfare 員工福利	✓	✓									<b>GRI 401</b> Employment 勞僱關係	

## Voice of Stakeholders

## 持份者聲音



### Investors 投資者

Everbright International's commitment to a sustainable development is impressive and laudable.  
光大國際對可持續發展的承諾令人印象深刻，值得稱讚。



### Business Partners/Suppliers 商業夥伴／供應商

Everbright International conducts continuous research to enhance energy efficiency for its waste-to-energy plants and is operationally the best in the industry.  
光大國際不斷進行研究，以提高其垃圾發電廠的能源效率，並且在運營上是業內最佳的。



### Employees 員工

Everbright International is a company with potential, actively turns waste into treasure, and contributes to environmental protection.  
光大國際是一家有潛力的公司，積極實現變廢為寶，為環境保護貢獻著自己的一份力。



# Responsible Operational Management 負責任的經營管理

Upholding **CORPORATE INTEGRITY** and fulfilling  
**SOCIAL RESPONSIBILITY**

秉持企業誠信，善盡社會責任



The Group adheres to the management principle of “People-Oriented, Pragmatism, Creativity and Systematic Management”, develops an organisational structure that clearly defines functions and responsibilities, and adopts a responsible operational management model. The Group’s management convenes Management Decision Committee meeting every month to evaluate its operations and management, in order to enhance the sustainable development of the Group. The Group strives to fully observe all relevant national and regional laws, regulations and standards, with an aim to minimise its business impacts on the environment and society.

## Business Principles

The Group has formulated prudent policies and measures to promote and maintain a culture of integrity. The Group’s *Code of Conduct* provides clear guidelines for employees’ behaviours, 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 the *Code of Conduct*, adhere to the honest and pragmatic management guidelines, and uphold ethics in business operations.

The bonuses of executive Directors and senior management are linked to metrics such as operating profit, new project investment, safety and environment performance, etc., to ensure alignment of long-term interest between management and the Group together with its shareholders. Details of the Directors’ remuneration information can be found in the Company’s Annual Report 2019.

## Anti-Corruption and Prevention of Anti-Competitive Behaviour

To strengthen the anti-corruption practice and enhance employees’ awareness of conflicts of interest and integrity issues, the Group provided employees with trainings on anti-corruption during the Reporting Period, such as “Talk on Probity”, “Training on Upholding and Implementing Probity” and “Talk on Work on Probity” were held. In addition, training related to the Group’s Code of Conduct, corporate culture, policies and management systems were also held to further reinforce the anti-corruption and prevention of anti-competitive behaviour practices throughout the Group. Striving to reduce relevant risks, the Group has actively strengthened the culture of integrity and consistently incorporated anti-corruption and prevention of anti-competitive behaviour in its governance at all business levels.

本集團貫徹「以人為本、求真務實、開拓創新、規範管理」的管理方針，訂立具有明確職能與責任的組織架構，積極採納負責任的經營管理模式。管理層每月召開管理決策委員會會議，對運營和管理情況進行檢討，以進一步提高企業的可持續發展。本集團致力於全面遵守所有相關的國家和地方法例、規則和標準，盡可能減少業務對環境和社會的影響。

## 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、反欺詐及反洗黑錢，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《行為守則》，並在業務運作中秉承誠信與務實的管理方針，堅守道德操守。

執行董事及高級管理人員的花紅以經營活動所得盈利、新項目投資及安全及環境績效等指標以釐定，確保董事和高層管理人員與公司及股東的長遠利益一致。有關各董事的薪酬資料，可參閱本公司的二零一九年年報。

## 反貪腐及反防止競爭行為

為加強反貪實踐與員工對利益衝突及誠信事宜的警覺性，本集團於報告期內為員工提供了防止貪腐的培訓，如「廉政公署講座」、「廉政建設及執行力培訓」和「廉潔工作講座」等。此外，本集團亦舉辦了有關其《行為守則》，企業文化、政策及管理體系的培訓，以進一步加強在全集團的反貪及防止反競爭行為實踐。本集團積極增進誠信文化，在各業務層面一直貫徹反貪腐及防止反競爭行為的管治，致力減低相關風險。

## Protection of Third-Party Privacy and Intellectual Property

The Group is devoted to protecting the privacy of third parties. The *Privacy Policy* of the Group 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 relevant legal requirements related to collecting, possessing, processing, disclosing and using personal data.

## Policy for Whistleblowing

To enhance the transparency, integrity and accountability of the Group and to retain a consistently high standard of corporate governance, the Group has put in place *Internal Whistleblowing and Investigation Policy* and *External Whistleblowing and Investigation Policy*. The policies are designed to provide the employees/related persons with the whistleblowing channels to report the actual or suspected illegal activities and misconducts in corporate financial reporting, internal control or other areas so that the Group's attention could be drawn and effective investigation could be conducted. The valid whistleblowing methods are posted on the Group's website. During the Reporting Period, ten reports were received through the whistleblowing channels and all such cases have been properly handled.

## 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、管有、處理、披露及使用個人資料的適用法律規定。

## 舉報政策

為提高本集團運作的透明度、廉潔度、問責性及致力保持一貫高度的企業管治標準，本集團設有《內部舉報及調查辦法》和《外部舉報及調查辦法》。該等辦法皆旨在為員工／往來人士在保密的情況下就本集團財務匯報、內部監控或其他方面可能或已發生的不正當或不合法行為提供舉報渠道，使本集團能夠關注事件並有效跟進調查。有效之舉報方法已載列於本集團網站。於報告期內，本集團通過舉報渠道收到十個個案報告，全部個案已妥善處理。

### Whistleblowing Channels 舉報方式



**Chairman of the Audit Committee**  
審核委員會主席  
ac@ebchinaintl.com

**CEO**  
行政總裁  
ceo@ebchinaintl.com

## Sustainability Approach

### Sustainable Development Policies and Systems

The Group pays close attention to the operational impacts brought to the environment and society. The Environmental and Social Management System (“ESMS”) has been established in accordance with the *Safeguard Policy Statement* of the Asian Development Bank (“ADB”) and other best practices worldwide. The ESMS covers the entire cycle of projects from early-stage planning and design till the final-stage operation and management, with specific requirements in place in relation to environmental and social impact screening and categorisation, resettlement, indigenous people, environmental impact assessment, information disclosure, consultation and participation, gender equality, grievance redress mechanism, due diligence and review, and monitoring and reporting. The system ensures the Group’s operational activities comply with the environmental and social safeguard principles and requirements internationally.

The Group has fully implemented the Environmental, Safety, Health and Social Responsibility (“ESHS”) Management System (“ESHS Management System”) since 2016, with an aim to further integrate the system requirements into operational practices. The system comprises management standards to provide procedural guidelines on the identification on significant environmental, safety, health and social issues, auditing, incident investigation and reporting, work injury treatment and contractor ESHS management. Implementation of the system has not only promoted sustainable development within the Group, but also extended its safety culture and relevant policies to the supply chain.

The Board and senior management review sustainability strategies of the Group on a regular basis, and revise the strategies when appropriate.

### 可持續發展方針

#### 可持續發展政策和體系

本集團高度重視自身運營所帶來的環境與社會影響，並已根據亞洲開發銀行（「亞發行」）的《保障政策聲明》及國際認可的常規編寫了一套環境與社會管理制度（「ESMS」）。該制度涵蓋由前期項目規劃到最終項目運營的項目全週期管理，詳細要求涉及環境和社會影響篩選和分類、搬遷安置、原住民、環境影響評價、信息披露、協商和參與、性別平等、申訴機制、盡職調查和審查，及監測和報告等範疇，以確保本集團的經營活動能滿足國際上對環境及社會保障原則和要求。

本集團已於二零一六年起全面實施環境、安全、健康及社會責任（「ESHS」）管理體系（「ESHS管理體系」），以進一步加強體制要求和運營實踐的有效結合。該體系包括重要環境、安全、健康及社會議題的識別、審核、事故調查及匯報、工傷處理及承包商ESHS管理方面等指導程序的管理標準，不僅促進本集團內部的可持續發展，更將安全文化和相關政策延伸到供應鏈中。

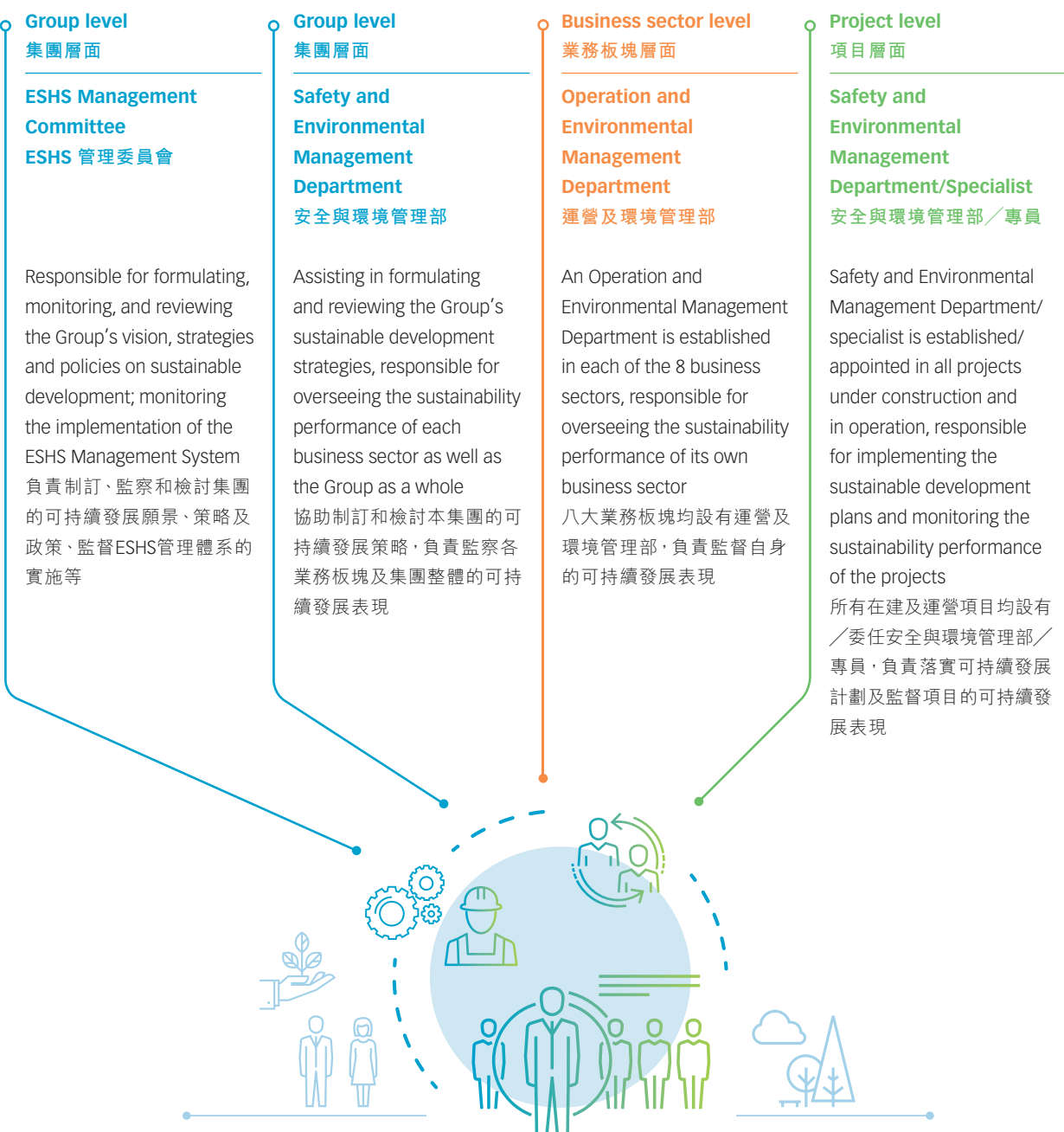
董事會和高管定期檢視本集團的可持續發展政策，並適時修訂該政策。

## Corporate Governance Structure for Sustainable Development

## 可持續發展管治架構

The Board is responsible for reviewing and supervising the plans, activities and performance of the Group in relation to sustainability. The Group established an ESHS Management Committee led by the Chief Executive Officer under Everbright International's Risk Management Committee, which provides practical guidelines and support to the Group's sustainable development work, to ensure thorough implementation of the Group's sustainable management policies in a top-down manner.

董事會負責審視及監督本集團可持續發展的計劃、活動及表現。本集團更於風險管理委員會下成立了由行政總裁牽頭的光大國際ESHS管理委員會，為本集團的可持續發展工作提供實質的領導和支持，確保本集團的可持續發展管理政策由上至下得以貫徹實施。



## Risk Management

The Group has established a sound risk management system, and promotes a risk management model that is driven by risks, based on relevant policies, and connected with relevant procedures with systems as the key to strengthen management and control risk more comprehensively.

The policy documents of the Group including the *Risk Management Policy*, *Risk Management Operation Manual* and *the Inside Information Reporting Policy* summarise the Group's detailed workflows and specific implementation requirements of risk management and internal control. During the Reporting Period, the Group amended the *Risk Management Operation Manual* according to the Company's risk management needs, and released the *2019 Annual Risk Management Instructions*. In light of the actual situation, the Company created the *Internal Control Management Manual* pursuant to the relevant requirements of risk management and internal control under the Rules Governing the Listing of the Securities on the Stock Exchange, to direct the effective implementation of internal control. In order to improve the overall risk management of investment projects, the Group's Project Advisory Committee has developed a review system for full-time and part-time committee members respectively. It has also amended and issued the *Project Review Organisation and Review Workflow*, in an effort to strengthen the risk management of investment projects in advance and in process as well as enhancing the quality and efficiency of project review.

In addition, the Group conducts annual risk identification and evaluation on our major risks, and continuously analyse the effectiveness of control methods and follow up specific control results.

## 風險管理

本集團建立了健全的風險管理體系，推行「以風險為導向、以制度為基礎、以流程為紐帶、以系統為抓手」的風險管理模式，全面強化管理和控制風險。

本集團的《風險管理制度》、《風險管理操作手冊》及《內幕消息報告政策》等政策文件概述了本集團在風險管理與內部監控的詳細工作流程和具體執行要求。報告期內，本集團根據公司風險管理需要對《風險管理操作手冊》進行了修訂，並發佈了《二零一九年度風險管理工作指導意見》，同時根據《聯交所證券上市規則》就風險管理與內部控制有關要求，結合實際情況，制定了《內部控制管理手冊》，以指導內部控制工作的有效開展。為加強投資項目的整體管控，本集團之項目評審委員會已建立項目評審專職委員及兼職委員評審制度，修訂並下發了《項目評審組織及評審流程》，以強化投資項目事前及事中的風險管理，提高項目評審品質及效率。

此外，本集團每年對主要風險進行識別和評估，並持續分析管控措施的有效性和跟進具體的管控效果。



## Risk Management Framework

## 風險管治框架

A risk management hierarchy, comprising three lines of defence, has been developed to achieve risk management at all levels:

本集團建立了三道防線風險管理組織體系，實現風險的逐級管理：



### First Line of Defence 第一道防線

(Business Sectors, Regional Management Centres and Project Companies)  
(各業務板塊、區域管理中心和項目公司)

Responsible for continuous identification, assessment, monitoring and reporting of risks and opportunities, reporting of emerging external risks and planning of risk management measures.

負責對風險和機遇進行持續識別、評估、監控及匯報，上報新興外在風險，籌劃風險管理及採取的措施。



### Second Line of Defence 第二道防線

(Everbright International's Risk Management Department, Functional Departments and Business Sectors' Risk Management Departments)  
(光大國際風險管理部、各職能部門和各業務板塊風險管理部)

Responsible for regular risk assessment and alignment of material risks with strategic plans, reporting of material risks to Management Decision Committee and the Board for assessment.

負責定期審閱並將關鍵風險與戰略計劃相配，上報關鍵風險供管理決策委員會和董事會進行審閱。



### Third Line of Defence 第三道防線

(Internal Audit Department)  
(內部審計部)

Responsible for securing the effectiveness of risk management measures by regular and conducting ad hoc assessments of implementation of Risk Management System.

負責通過定期及不定期審核，檢討風險管理體系落實情況，為管理風險措施的有效性提供保證。



Everbright International strives to foster a strong risk awareness and risk management culture, and integrate risk management culture as part of its development strategies. Everbright International has established effective control measures responsive to both major and other risks. In addition, through carrying out various types of risk education by case study and training on the Group's systems and procedures, the Group has established sound risk management concepts for employees, thereby transforming the risk management awareness into employees' actions. On the aspect of employee training, the Group has actively incorporated the elements of risk awareness and risk management requirements, so as to guide them to comply with good code of conducts and ethical standards, which could be applied in work.

光大國際致力培育和塑造良好的風險意識與風險管理文化，將風險管理文化建設作為發展戰略的組成部分。光大國際針對主要風險和其他風險均制定了有效的管控措施。此外，透過各類風險案例教育和集團制度流程培訓，本集團為員工樹立正確的風險管理理念，從而將風險管理意識轉化為員工的共同認識和自覺行動。在員工培訓方面，本集團積極融入風險意識和風險管理要求的元素，引導員工遵循良好的行為準則和道德規範，並將這種意識運用到工作當中。

For the details of risk management and risk evaluation in 2019, please refer to the Annual Report 2019.  
有關風險管理及二零一九年風險評估的詳情，請參閱二零一九年年報。

## Supply Chain Management

In addition to internal risk control, the Group has extended its excellent ESHS management practices to the entire value chain.

A procurement management centre, a budget management centre, a R&D centre, a technology management centre and a technology committee have been established at the headquarters of the Company. Meanwhile, Everbright International has developed an electronic transaction platform for tendering and procurement, to further enhance its management efficiency and risk control capability.

As at the end of the Reporting Period, the Group engaged a total of 9,979 suppliers. The principal services provided by these suppliers include equipment fitting, installation and construction. In addition, the Group outsourced services such as environmental monitoring, equipment maintenance, cleaning, security, and landscaping, involving 14,363 on-site outsourced workers.

## 供應鏈管理

除了內部風險防控，本集團更將其優秀的 ESHS 管理實踐延伸到整條價值鏈。

本公司總部設立了採購管理中心、預算管理中心、發展研究中心、技術管理中心、技術委員會，同時建立光大國際招標採購電子交易平台，以進一步提高本集團管理效能及風險防控能力。

截至報告期末，本集團共有 9,979 個供應商，主要服務包括裝備配置、建安工程。此外，本集團的外判服務包括環境監測、裝備維護、清潔、保安和綠化等，共涉及 14,363 名駐場外判工人。

As at 31 December 2019

截至二零一九年十二月三十一日

Number of Suppliers by Geographical Region

按地區劃分的供應商數目



Mainland China

中國內地

9,930

Overseas (Singapore, Vietnam, Germany and Belgium)

海外（新加坡、越南、德國及比利時）

49

Number of On-Site Outsourced Workers in 2019

二零一九年駐場外判工人數目



Environmental monitoring

環境監測

4,335

Equipment maintenance

裝備維護

6,651

Cleaning

清潔

1,720

Security

保安

838

Landscaping

綠化

280

Catering

食堂

389

Others

其他

150

Total  
總數

14,363

## Supplier Management Measures

The Group has set a fair and transparent code for the selection and management of suppliers and contractors. The *Supplier Management Measures* announced by the Group in 2015 has strengthened the management of suppliers and has requested the suppliers' products and services to meet the Group's requirements on quality and sustainability. The management measures covered topics on division of responsibilities, ranking and evaluation of suppliers, engagement of new suppliers, ongoing management of suppliers, management of unqualified suppliers, and punishment on misconduct. It covers suppliers of equipment, main materials, construction units, design units, operation centres, etc.

The Group conducts continuous evaluation on suppliers. Suppliers are categorised into four grades, namely A, B, C and D, based on their professional proficiencies, 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. In addition, the Group's *Tender Management Measures*, *Management Measures for Appraisal Expert Database for Project Construction Procurement*, *Contractor ESHS Management Standard* and *Code of Conduct for Suppliers* have further improved the Group's business partners' sustainability performance.

The Group's *Code of Conduct for Suppliers* sets out standards and practices for the Group's suppliers relating to legal and regulatory compliance, environmental protection, health and safety, labour practices, and other areas, in an effort to enhance the sustainability performance of the supply chain. The *Code of Conduct for Suppliers* also encourages the Group's suppliers to treat their sub-suppliers with the same standards so as to enhance the sustainability of the entire supply chain. To ensure proper respect for human rights throughout the Group's supply chain, any form of slavery, forced and bonded labour, child labour and abusive employment practices is prohibited within the Group's suppliers. All suppliers shall comply with the Code of Conduct for Suppliers during their course of business with the Group or participation in any events related to the Group. Suppliers that fail to comply fully with the Group's *Code of Conduct for Suppliers* risk termination of their contracts, subject to the contractual terms therein, and removal from our approved list of suppliers.

## 供應商管理準則

本集團為供應商及承包商的選擇及管理訂立了公正和透明的守則。本集團於二零一五年發佈的《供應商管理辦法》加強了供應商管理工作，確保其產品和服務符合本集團在質量和可持續發展方面的要求。該管理辦法包括職責分工、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，涵蓋裝備、主材料、施工單位、設計單位、運營中心等供應商等。

本集團對供應商進行定期評估，將他們劃分成A、B、C、D四個等級，準則包括供應商的專業水平、財務狀況及合規記錄等，最低等級的供應商若未能證明能夠達到本集團的要求，本集團或會終止與其合作。除此以外，本集團的《招標管理辦法》、《工程建設採購評審專家庫管理辦法》、《承包商ESHS管理標準》及《供應商行為準則》進一步引領業務夥伴提升其可持續發展表現。

本集團的《供應商行為準則》訂明有關法律及合規、環保、健康及安全、勞工和其他範疇的標準與措施，以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。為確保供應鏈內的所有業務層面均尊重人權原則，本集團要求所有供應商不能僱用任何形式的奴役、強迫勞動、抵押勞工、使用童工及虐待行為。本集團進行業務來往或參與任何與本集團有關的活動時都應遵守此準則。供應商如不嚴格遵守《供應商行為準則》，可能按照合約條款被終止合約及在供應商名單中被除名。

### Key Points of the Code of Conduct for Suppliers

### 供應商行為準則要點

#### Economic 經濟

The Group requires its suppliers to carry out and operate businesses with ethics and integrity. Suppliers are also obliged to comply with relevant local and international laws and regulations.

本集團規定供應商進行業務活動時應從道德觀點出發，以誠實的態度進行經營，並遵守當地和國際的相關法律法規。

#### Environmental 環境

The Group requires its suppliers to minimise the negative impacts to the environment during their operations and strengthen monitoring of environmental issues.

本集團要求供應商在其運營中盡量減少對環境的負面影響，加大監控力度，重視環境問題。

#### Social 社會

The Group requires its suppliers to comply with relevant national labour policies and legislation, which include prevention of slavery, forced and bonded labour, child labour and abusive employment practices. Suppliers are also obliged to safeguard human rights of the employees and take due considerations of public welfare.

本集團要求供應商遵守國家的有關勞工政策和法規，當中包括避免任何奴役、強迫勞動、抵押勞工、使用童工及虐待行為，保護員工基本人權，並考慮公眾社會的福利。

#### Management System 管理制度

Suppliers are encouraged to have appropriate supplier management systems to foster sustainable development of their sub-suppliers.

本集團鼓勵供應商制定適當的供應商管理體系，以促進其從屬供應商的可持續發展。

### Supplier Sustainability Risk Assessment

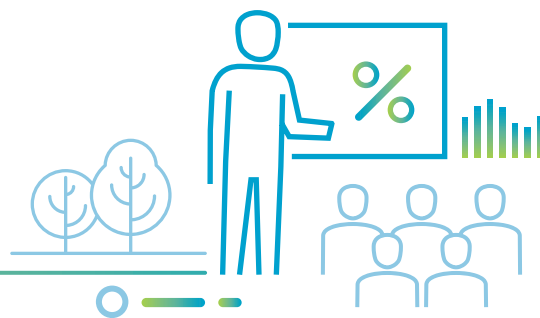
### 供應商可持續發展風險評估

To further enhance the sustainable development of supply chain and understand the ESHS performance of various categories of suppliers, the Group has commissioned an independent consultant to conduct sustainability risk assessments for the Group's suppliers. During the Reporting Period, 164 suppliers, whose businesses cover electrical equipment, construction, lifting machinery, pumping equipment, air system technology and water treatment equipment, participated in the survey. The scope of the assessment mainly includes the qualifications of suppliers in terms of production, operation and safety, etc., as well as management systems relating to quality, environment and society, etc.

為進一步提升供應鏈可持續發展，了解各類型的供應商於ESHS方面的表現，本集團特意邀請獨立顧問為本集團的供應商進行供應商可持續發展風險評估。於報告期內，共164家供應商參與了問卷調查。供應商的業務涵蓋了電力裝備、工程施工、起重機械、泵類設備、空氣系統技術、水處理裝備等。評估的範圍主要包括供應商的生產、營運及安全方面的資質，以及質量、環境和社會方面的管理體系等。

The outcome of the sustainability risk assessment reflected the effectiveness of the Group's guidance and requirement on suppliers' ESHS performance over the years. None of the suppliers assessed indicated that they were involved in any ongoing commercial litigation, or prosecuted or fined by relevant authorities on environmental and social issues. More than 80% of the surveyed suppliers have obtained the internationally certified ISO 9001 Quality Management System, the series of ISO 14001 Environmental Management Systems and OHSAS 18001/ISO 45001 Occupational Health and Safety Management System or are currently undergoing related certification work. About 70% of the suppliers surveyed have established occupational health and safety policies, with relevant trainings provided to the employees. 98% of the surveyed suppliers indicated that they had zero safety accident over the past 3 years.

本次風險評估的結果體現了本集團多年來對供應商ESHS表現的指引和規範所作的努力逐漸取得成效。被評估的所有供應商均在評估中表示企業沒有在進行中的商業訴訟，且沒有被有關部門就環境及社會問題作出檢控或罰款。超過80%的受訪供應商已獲取國際認證的ISO 9001質量管理體系、ISO 14001系列的環境管理體系及OHSAS 18001/ISO 45001職業健康和安全管理體系或現正進行相關的認證工作。約70%的受訪供應商制定了職業健康與安全政策，並為員工提供了相關培訓。98%的受訪供應商均表示在過去三年沒有發生過安全事故。



Suppliers participated in the 2019 supplier sustainability risk assessment accounted for approximately **23.50%** of the annual purchasing value of the Group

參與二零一九年供應商可持續發展風險評估的供應商佔本集團全年總採購金額約**23.50%**

In order to review the implementation and performance of its suppliers on corporate social responsibility, the Group, according to the assessment results, categorised suppliers' risks into low, medium, and high levels. In this assessment, 77% of the surveyed suppliers were classified as low risk while the rest were classified as medium risk, and no supplier fell into the high-risk category. In order to assist the suppliers with higher risks to improve their management, the Group actively investigated their situations and provided suggestions, so as to ensure that their risks could be effectively controlled. In the future, the Group will promote sustainable development along the supply chain through continuously monitoring the suppliers' performance and maintaining close communication with each other.

為了檢視供應商在企業社會責任的實踐與績效，本集團以評估結果為參考，將供應商的風險分為低、中、高三個等級。在本次評估中，77%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，保持各方的緊密溝通，促進供應鏈的可持續發展。

## Customer Satisfaction

The Group is committed to integrating excellent customer service into its daily operations management, offering a cleaner environment and a more efficient resource utilisation model for the government and local communities. As one of the Group's short-term goals in sustainable development at the social level, the Group invited an independent consultant to conduct an annual customer satisfaction survey during the Reporting Period. It aims to improve the Group's communication channels with key stakeholders and understand customers' evaluation of the Group's work to further enhance the Group's service quality.

## 客戶滿意度

本集團致力於將卓越的客戶服務融入日常運營管理中，為政府和當地社區帶來更清潔的環境和更有效的資源利用模式。作為集團的在社會層面的可持續發展短期目標之一，報告期內本集團邀請了獨立顧問進行了年度客戶滿意度調查，旨在完善本集團與重要持份者的溝通渠道，了解客戶對本集團工作的評價，以進一步提升本集團的服務品質。

### Result of the Customer Satisfaction Survey in 2019

#### 二零一九年客戶滿意度調查結果

A total of **382** valid questionnaires were collected  
共收集到 **382** 份有效問卷

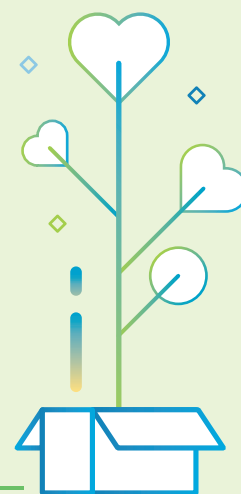
Percentage of satisfied customers  
(customers rated Everbright International's performance with an average score of 7 or above)

滿意客戶百分比  
(給予光大國際表現平均分7分或以上的客戶)

**93.19%**

Overall satisfaction rate  
整體滿意度

**9.22/10**



**Average score**  
(out of 10)  
平均分  
(滿分10分)

Experience and professionalism of project teams	項目團隊的經驗及專業程度	9.18
Environmental and safety health risk management	環境及安全健康風險管理	9.19
Outcome and quality of work	工作成果及質量	9.26
Effectiveness and timeliness in communication	有效和及時的溝通	9.26
Adherence to agreed project schedules	遵守商定的項目進度	9.22
<b>Overall satisfaction rate</b>	<b>整體滿意度</b>	<b>9.22</b>





A total of 382 valid questionnaires were collected in this survey, with the overall customer satisfaction rate of 9.22 and the percentage of satisfied customers of 93.19% (customers rated Everbright International's performance with an average score of 7 or above). Majority of the customers highly recommended Everbright International and would be happy to work with the Group again.

The strong growth of the Group's market expansion each year is contributed from exploration of and the Group's attention to new customers. Among the 382 customers surveyed, there were 229 customers who worked with the Group for the first time, accounting for 60% of the total customers surveyed; of which 88.6% of them rated the Group with an average satisfaction of 8 or above. Customers' affirmation drives the Group to move forward. In the future, the Group will continue to adhere to the customer-centric philosophy and maximise the added value of its projects.

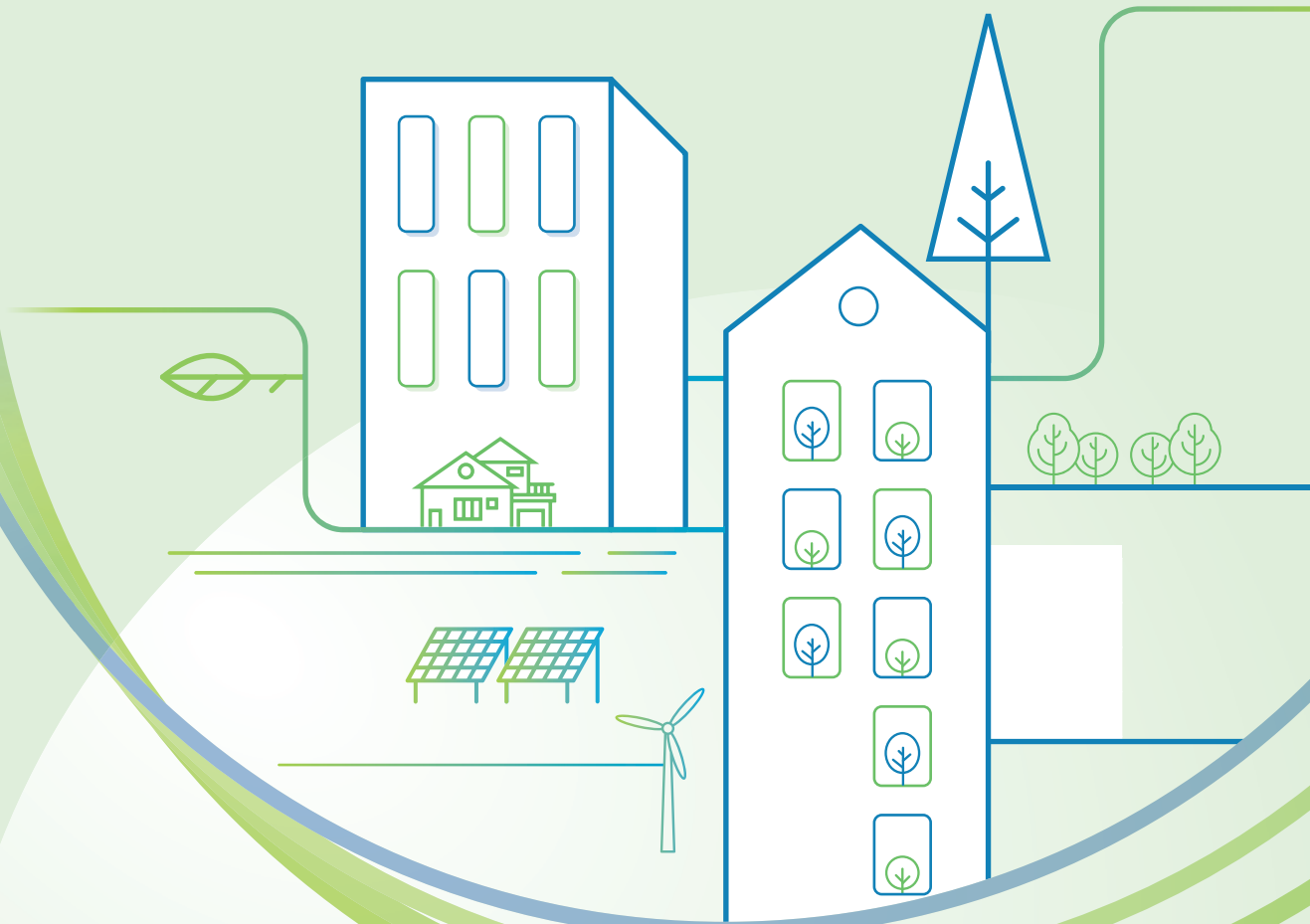
是次調查共收集到382份有效問卷，客戶整體滿意度達9.22，滿意客戶百分比（給予光大國際表現平均分7分或以上的客戶）為93.19%。絕大部分的客戶均表示非常願意推薦光大國際並樂意與本集團再次合作。

本集團的市場拓展勢頭每年得以保持強勁的增長均有賴於本集團對新客戶的開拓和重視。在382個受訪客戶中，首次與本集團合作的客戶有229人，占總受訪客戶60%。當中，平均滿意度為8分或以上的客戶占88.6%。本集團會把客戶對本集團的肯定作為鞭策本集團繼續前進的動力，在未來繼續秉承以客戶為中心的理念，最大程度發揮項目的附加價值。

# Environmental Protection 環境保護

Implementing **GREEN OPERATION**,  
protecting **BLUE SKY** and **LUSH WATER**

實行**綠色營運**，保護**藍天碧水**



As a leading company in the environmental protection industry in the PRC, the Group aims to reduce the operational impacts to the environment and natural resources. The Group's Environmental Energy business helps reduce the adverse per capita environmental impact and preserve precious land resources of cities via green incineration of municipal household waste; the Group's Greentech business improves air quality in rural areas by converting biomass raw materials such as agricultural and forestry waste into electricity and heat, hence avoids open burning of agricultural and forestry straw. Both businesses increase the share of renewable energy in the PRC's energy mix, demonstrating Everbright International's dedication to the green energy era in China. In addition, the Group created two new business sectors, Eco-recycling and Greenergy. Eco-recycling develops zero-waste cities via waste sorting and resources utilisation. Greenergy contributes to energy conservation and urban outdoor lighting projects via R&D and manufacturing of energy-saving streetlights. On the other hand, the Group's waste water treatment projects help solve the water quality and sanitation problems by effectively treating waste water, following stringent national standards and producing high-quality reclaimed water for non-potable uses.

The businesses of the Group fully aligns with the *Plan for Pilot Development of "Zero-Waste Cities"* published earlier this year by the General Office of the State Council of the PRC. The plan aims to promote green development and a green lifestyle, and to encourage reduction of solid waste at source as well as recycling and reuse of waste materials, in order to minimise landfilling and to mitigate the overall impact of solid waste on the environment. Now, Everbright International has established a systematic development model with the development of "Zero-Waste Cities" as its core mission. It is actively exploring a unique model relating to the development of "Zero-Waste Cities" that covers waste sorting, reduction of waste from source, recycling and ultimate treatment in a harmless manner.



作為中國環保行業的領軍企業，本集團致力減低其運營對環境及天然資源造成的影響。本集團的環保能源業務透過城市生活垃圾的綠色焚燒，協助減少人均環境影響及保存珍貴的城市土地資源；本集團的綠色環保業務主要透過將農林廢棄物等生物質原材料轉換為電力和熱能，避免了農林秸稈的露天焚燒，從而改善農村地區空氣質量。這兩項業務還通過增加可再生能源在能源總量的比重，為中國的綠色用電作出積極貢獻。此外，本集團新增的兩大業務板塊，生態資源業務致力從事垃圾分類及資源回收，從而建設無廢城市；環境節能業務透過研發和製造節能路燈，致力作出節能貢獻，打造城市亮化工程。另一方面，本集團的污水處理項目嚴格按照國家標準有效處理污水，並生產高質量的再生水以作非飲用用途，協助緩解水質量和衛生問題。



本集團的業務與國務院辦公廳於今年年初印發《「無廢城市」建設試點工作方案》高度契合，旨在促進綠色發展和生活方式的形成，推進固體廢物源頭減量、資源化回收利用，減少填埋量和減低固體廢物對環境造成的影響。光大國際目前已形成以「無廢城市」建設為核心的系統性發展格局，積極探索涵蓋垃圾分類、源頭減量、資源回用、末端無害化處置的光大國際「無廢城市」建設獨有模式。

### 5 Key Aspects of Environmental Protection 五大環境保護範疇



**Response to Climate Change**  
應對氣候變化



**Air and GHG Emissions Management**  
大氣及溫室氣體排放管理



**Energy and Materials Consumption**  
能源及物料使用



**Water Resources Consumption and Management**  
水資源使用及管理



**Waste Management**  
廢棄物管理

#### Since the commissioning of the first environmental protection project of the Group in 2005

自二零零五年本集團首個環保項目運行以來



Green electricity generated:  
產生綠色電力：

~ 41,374,196,000 kWh  
千瓦時

Agricultural and forestry waste processed:  
處理農林廢棄物：

~ 11,931,000 tonnes  
噸

CO<sub>2</sub> equivalent emissions offset:  
抵銷二氧化碳當量：

~ 47,668,000 tonnes  
噸

Waste water treated:  
處理污水：

~ 9,704,496,000 m<sup>3</sup>  
立方米

equivalent to planting  
相等於種植 5,378,645,000 trees  
株樹木

Household waste processed:  
處理生活垃圾：

~ 93,960,000 tonnes  
噸

Leachate treated:  
處理滲濾液：

~ 19,143,000 m<sup>3</sup>  
立方米

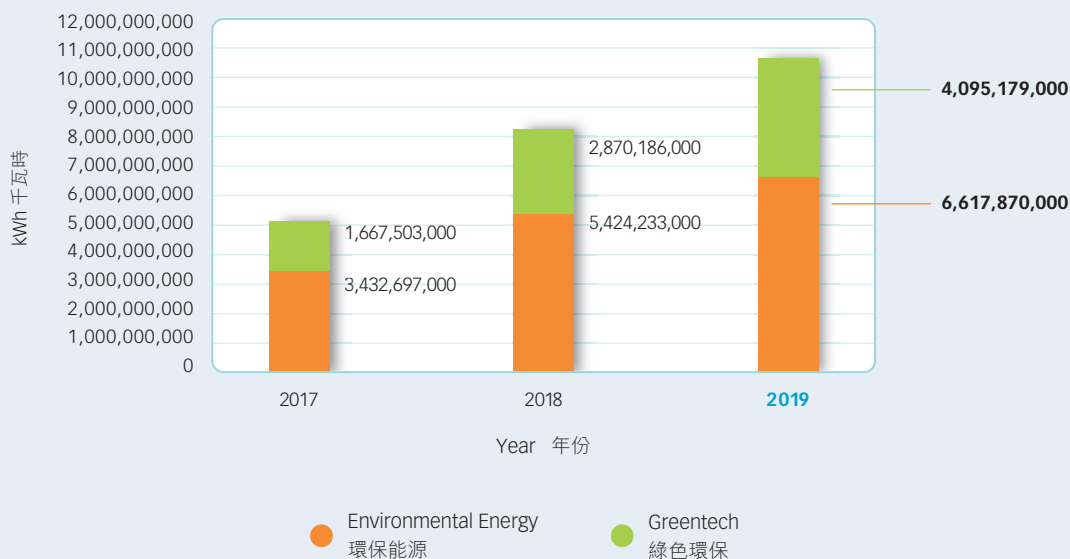
Hazardous and solid waste processed:  
處理危廢及固廢：

~ 889,000 tonnes  
噸

COD reduced:  
COD減排：

~ 3,633,000 tonnes  
噸

### On-Grid Green Electricity Supplied by Business Sector 按業務板塊分類的綠色上網電量



### Everbright International Included in Dow Jones Sustainability Indices for Fourth Year Running 光大國際連續第四年入選道瓊斯可持續發展指數

The Company has been included in the Dow Jones Sustainability Emerging Markets Index for the fourth consecutive year, as a result of its outstanding performance in sustainable development over the past year. It is one of the two companies from Mainland China that have been included in the index for this year.

According to the assessment, Everbright International falls into the commercial & professional services industry group under the emerging markets category. Among all the company participants for 2019, Everbright International received an overall score of 62, which was much higher than the industry average of 38, with particular outstanding performance in the aspects of risk management, and environmental and social performances.

本公司再度憑藉過去一年在可持續發展領域的卓越表現，連續第四年獲納入道瓊斯可持續發展新興市場指數，為該年入選的兩家中國內地公司之一。

評選機構經過審核和研究，將光大國際劃入新興市場的商務與專業服務行業，在二零一九年的所有申報企業中，光大國際總體評分62分，遠高於行業平均的38分，其中在風險管理、環境及社會表現方面較為突出。

MEMBER OF  
**Dow Jones  
Sustainability Indices**  
In Collaboration with RobecoSAM

### High-Performance Common Header Steam Reheating Technology for Waste Incineration Validated by the Chinese Society for Environmental Sciences 垃圾焚燒高參數母管制再熱技術通過中國環境科學學會鑒定



On 22 November 2019, the Chinese Society for Environmental Sciences convened an appraisal meeting on the research and application of Everbright International's high-performance common header steam reheating technology. After review and discussion, the appraisal committee agreed that the research outcome had filled the technology gap in the domestic market, and considered it as a worldwide advanced research.

After more than 3 years of scientific research, the high-performance common header steam reheating technology was successfully developed. Through "enhancing steam conditions, reheating sections of the common steam header by two boilers, adopting high-speed turbine", the technology enhances the thermal efficiency of waste incineration, coupled with alloy surfacing technology, prevents thermal degradation, reduces the chances of pipe bursting and improves the stability and safety of the operating system. Everbright International's Jiangsu Jiangyin Waste-to-energy Project Phase III, with a daily waste processing capacity of 1,000 tonnes, is the first waste-to-energy project that adopts such technology in the PRC. The system operates steadily and efficiently with overall thermal efficiency reaching 28.26% and waste-to-energy power generation capacity reaching 595 kWh per tonne of waste incinerated.

Currently, the high-performance common header steam reheating technology has already been applied to the Group's Jiangsu Suzhou Waste-to-energy Project Phase IV and Yixing Waste-to-energy Project Phase II.

二零一九年十一月二十二日，中國環境科學學會組織召開了光大國際垃圾焚燒高參數母管制再熱技術研究應用成果鑒定會。鑒定委員會專家經過研究討論後一致認為該研究成果不但填補了國內空白，而且整體達到國際先進水平。

經過三年多的科研嘗試，垃圾焚燒高參數母管制再熱技術應運而生。該技術主要通過「提高蒸汽參數、採取兩爐一機母管制中間再熱、採用高轉速汽輪機」技術的應用，提高垃圾焚燒熱效率，同時採用合金堆焊技術，有效防止高溫腐蝕，降低爆管風險，提高系統運行穩定性與安全性。光大國際旗下江蘇江陰垃圾發電項目三期（日處理垃圾1,000噸）是國內首台採用該技術的垃圾發電項目，系統運行穩定、高效，全廠熱效率高達28.69%，入爐噸垃圾發電量高達595千瓦時／噸。

目前，高參數母管制再熱技術已經在本集團旗下江蘇蘇州垃圾發電項目四期、宜興垃圾發電項目二期等項目上推廣應用。



## Can Tho Waste-to-energy Project – The Green Benchmark Project in Vietnam 芹苴垃圾發電項目－越南的綠色標竿項目

During the Reporting Period, a series of reports on Everbright International’s Can Tho Waste-to-energy Project (“Can Tho Project”) in Vietnam, under the headers of *Everbright International Supports the Belt and Road Initiative by Developing the First Green Power Plant in the Mekong Delta* and *During the Belt and Road Initiative: Household Waste-to-Energy, an Environmental Protection Concept That is Practised Overseas*, were conducted by various media including People’s Daily, China Central Television and Xinhua News Agency.

With the in-depth promotion of the “Belt and Road” Initiative and the universal recognition towards the concept of green development across the globe, the enormous demand and the development potential of the “Belt and Road” Initiative have been gradually unleashed. Can Tho Project has been actively implementing environmental protection concept in the overseas and has become the green benchmark project in Vietnam currently. The project has made significant contribution to the harmlessness, reduction, and resource recovery of household waste generated in Can Tho City. It has been paid great attention and recognised by Vietnamese government authorities at all levels, as well as received great acceptance by the local media, employees and residents.

報告期內，《人民日報》、中央電視台、新華社等多家媒體相繼以《光大環保助力一帶一路建設湄公河三角洲首座綠色電廠》、《一帶一路進行時：生活垃圾發電，海外踐行環保理念》為題，對光大國際位於越南的芹苴垃圾發電項目（「芹苴項目」）進行系列報導。

隨著「一帶一路」建設的深入推進以及全球對綠色發展理念的普遍認可，綠色「一帶一路」建設蘊藏的巨大需求和發展潛力正在逐漸釋放。芹苴項目積極在海外踐行環保理念，目前已經成為越南的綠色標竿項目。該項目為芹苴市生活垃圾無害化、減量化、資源化利用做出巨大貢獻，受到了來自越南各級政府的重視和認同，媒體、項目屬地員工、當地百姓紛紛對芹苴項目表示高度認可。



## Environmental Management Overview

The Group upholds its mission of being “Devoted to Ecology and Environment for a Beautiful China”, pays close attention to the environmental impacts brought by its operations, and strictly applies its *Corporate Policy on Environmental Management* as a gatekeeper on environmental management of all projects.

## Corporate Policy on Environmental Management

The policy provides important principles for the Group to implement environmental management and to minimise the burden that the Group may cause on the environment and natural resources. The policy also provides detailed guidance on the environmental impacts involved in the operation of the Group.

## Six Key Areas of the Policy



**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



**Supply chain management**  
供應鏈管理



**Monitoring and communication**  
監測和溝通

Air and GHG emissions  
大氣及溫室氣體  
排放

Discharges into water and land  
向水及土地的  
排污

Generation and treatment of hazardous and non-hazardous waste  
有害及無害  
廢棄物的產生  
及處置

Energy  
能源

Water resources  
水資源

Use of raw materials  
原材料使用

## 環境管理概覽

本集團始終以「情繫生態環境，築夢美麗中國」為使命，高度重視自身運營所帶來的環境影響，並嚴格遵守自訂的《環境管理企業政策》為所有項目的環境管理把關。

## 環境管理企業政策

為本集團深入落實環境管理提供了重要綱領，爭取最大程度降低本集團可能對環境及天然資源造成的負擔。政策亦對本集團運營中所涉的環境影響提供了詳細指引。

## 政策的六大核心

To practically implement environmental monitoring work, the Group has continued to promote comprehensive and in-depth implementation of the ESHS Management System and Risk Management System throughout the Group. To further enhance the efficiency and reliability of the environmental monitoring work, the Group has also set up the Safety and Environmental Management Committee, to strictly execute various environmental and safety systems, and strive to promote ISO 14001 Environmental Management System across the Group's operating projects.

為把環保監察工作落到實處，本集團繼續推動 ESHS 管理體系以及風險管理體系在全系統內的全面、深入落實。本集團更成立安全與環境管理委員會，嚴格執行各環境與安全制度，並致力於運營項目內推行 ISO 14001 環境管理體系，以進一步提升環保監察工作的效率與可靠性。



### Promote ESHS Management System 推動 ESHS 管理體系

Apply standardised management throughout project investment, construction and operation, improving overall operational efficiency and effectiveness.

實現項目投資、建設及運營管理過程中各環節管理的規範化，加強整體運營效率和成效。



### Set up Safety and Environmental Management Committee 成立安全與環境管理委員會

Regulate, monitor and supervise the implementation of environmental and safety measures across all business sectors of the Group.

重點規範、監督、督導本集團各業務板塊環境及安全工作的實施。



### Strictly implement various environmental and safety systems 嚴格執行各環境與安全制度

Comply with and implements various procedural documents, namely *Notice on Further Enhancing Environmental Management, Eliminating Operational Risk and Improving Operational Quality*, *Notice on Improving Relevant Information of Operating Projects Disclosed on the Online Environmental Monitoring Platform*, *Regulations on the Filing and Assessment Management of Safety and Environmental Management Institutions and Personnel*, *Regulations on the Management of Safety and Environmental Accidents and Incidents*, *Internal Reporting System for Environmental and Safety Accidents and Incidents*, etc.

遵守並執行《關於進一步強化環境管理，化解運營風險，提升運營品質的通知》、《關於完善運營項目環保線上監控平台相關資訊的通知》、《關於安全與環境管理機構及人員備案、考核管理的規定》、《關於安全、環境事故事件管理規定》與《環境、安全事故事件內部報告制度》等程序文件。



### Strive to promote ISO 14001 Environmental Management System in the Group's operating projects 於運營項目內致力推行 ISO 14001 環境管理體系

Reduce and where possible prevent pollution from project operations, and make great efforts to protect the environment from harm and degradation.

減少，及在可能的情況下避免項目運營帶來的污染問題，並盡最大努力保護環境免受危害和退化。

## Strengthening of Environmental Management Through Technology

The Group has continued to promote the new management models of “Internet +” and “Informatisation and Intelligence”, fully utilised new technologies such as cloud computing, Internet of Things (IoT) and big data, to develop a new online environmental management information platform.

## 以科技加強環境管理

本集團繼續推動「互聯網+」和「資訊化、智慧化」的管理新模式，充分利用雲計算、物聯網、大數據等新技術，開發全新的線上環境管理資訊化平台。



### Usage 用途

Through connecting with the database of the Ministry of Ecology and Environment, data and information regarding air emissions and effluent discharge of all projects of Everbright International could be linked directly to the platform for publishing with real-time update available.

通過與生態環境部資料庫聯網，平台可以獲得、公示並即時更新光大國際旗下各個項目的廢氣、廢水排放資料及報備資訊。

### Advantages 好處

The platform also includes various sub-platforms, which could be independently operated by each department to prevent the problems associated with redundant data extraction, data discrepancy, etc. The environmental management information system enhances the overall operational efficiency of the Group, reduces human errors, assists the Group in reaching the goal of “Zero Exceedance”, achieve “Precaution in Advance”, “Control in Process” and resolve the “Post-Event Risk”.  
該平台還包括不同子系統平台，能在各部門獨立使用，有效避免資料重複提取、不一致等問題。環境管理資訊化系統的使用提高了本集團的運行效率，減少了人為失誤，助力本集團實現環境管理「零超標」，達到「事前防範」、「事中控制」，化解「事後風險」的目的。

## Creating High-Standard Environmental Protection Projects

During project development and operational management, Everbright International has been strictly conducting relevant testing and complying with relevant emission and discharge standards, and developing garden-like plant areas that have proven performance in four aspects (plant appearance, odour management, noise control and emission standard). The Group’s 12 waste-to-energy projects, which are located in Suzhou, Nanjing, Wujiang, Changzhou, Changzhou Xinbei, Ningbo, Sanya, Boluo, Weifang, Rizhao, Yiyang and Ma’anshan were awarded the “National AAA-Rated Waste-to-Energy Plants”, signifying the Group’s unwavering pursuit in quality enhancement and environmental performance.

## 打造高標準環保項目

在項目建設與運營管理過程中，光大國際嚴格檢測達標排放，堅持打造「四個經得起」（經得起看、經得起聞、經得起聽、經得起測）的花園式廠區。本集團的蘇州、南京、吳江、常州、常州新北、寧波、三亞、博羅、濰坊、日照、益陽及馬鞍山等十二個垃圾發電項目已獲得國家「AAA級生活垃圾焚燒廠」評定，這充分肯定了本集團一直以來為提升項目品質和環境表現做出的努力。

## Environmental Enhancement of Changzhou Waste-to-energy Project 常州垃圾發電項目的環境提升

Changzhou Waste-to-energy Project invested over RMB100 million for a number of humanistic and technical improvement works to the plant area, including environmental standard upgrading, environmental improvement and energy conservation, in order to refine its management, as well as to ensure safety, stable operation, and compliance with emission standards. The project aims to become a good neighbour to the nearby communities, maintaining a harmonious relationship with the local residents.

常州垃圾發電項目先後投入超過人民幣1億元資金進行環保提標、環境提升、節能減排等廠區人性化技術改造，實現精細化管理，全力以赴確保安全、穩定運行、達標排放，使垃圾發電廠與民為鄰、和諧共處。



Photos of before and after the beautification works to the stack  
對煙囪實施美化工程的前後對比圖

Photos of before and after the demisting modification works to the cooling tower  
冷卻塔進行除霧改造前後對比圖

- 2011**

The emission standards adopted by the project were entirely upgraded to follow the standards as stipulated in the *European Union Waste Incineration Directive 2000/76/EC* ("Euro 2000 emission standards")<sup>(1)</sup>  
項目跟隨歐盟《廢物焚燒指令》(2000/76/EC)排放標準(「歐盟2000排放標準」)<sup>(1)</sup>，對煙氣排放指標實行全面提標。
- 2012**

Incorporated with the local culture of Changzhou City, beautification works was done on the external wall of the plant through paintings.  
結合常州市地域文化，對廠區外牆進行彩繪美化。
- 2014**

Expansion of the leachate treatment plant and execution of stack beautification works.  
對垃圾滲濾液處理站改擴建、煙囪美化。
- 2015**

Conduct of interior beautification and lighting improvement works of the main plant.  
對主廠房內部實施美化、亮化工程。
- 2016**

Execution of demisting modification works to the cooling tower.  
對冷卻塔進行除霧改造。
- 2017**

Completion of retrofitting works of the auxiliary burner and modification works in relation to installation of continuous emissions monitoring system ("CEMS"), real-time display of pollutant emission and operating data, and online connection of CEMS with the local environmental authorities.  
完成輔助燃燒器改造、「裝樹聯」相關技術改造工作。
- 2018**

Completion of access ramp enclosure works while effectively maintaining negative pressure of the tipping hall and waste storage pit. Introduction of new deodourisation processes and technologies to ensure no leakage of fugitive odour emissions from the waste storage pit.  
完成垃圾運輸棧橋封閉改造，有效保持垃圾傾卸區及垃圾倉負壓狀態，並引進垃圾倉除臭新工藝、新技術，確保臭氣不外溢。

Note:

<sup>(1)</sup> The *Waste Incineration Directive (2000/76/EC)* was recasted and has become part of the *Industrial Emissions Directive (2010/75/EU)* since 2014.  
《廢物焚燒指令》(2000/76/EC)自二零一四年起被重新訂定為《工業排放指令》(2010/75/EU)的一部份。



## Response to Climate Change

In recent years, climate change has raised attention from the international societies as one of the biggest global challenges. The *Global Risk Report 2019* published by the World Economic Forum depicted that extreme weather events, natural disasters and failure of climate change reduction and adaptation are among the highest risk category. As an environmental protection enterprise, the Group has continued to play a significant role against climate change. The Group strives to strengthen the organisation in response to various risks induced by climate change which rank high in the Group's agenda. In particular, a working mechanism that integrates four major levels of the Group, namely Everbright International – all business sectors – regional (business) centres – project companies, was established. The person-in-charge bears the responsibility of team leadership and signs off the annual safety and environmental management targets undertaking. The person-in-charge would perform his/her duties firmly and urge the relevant executing units to implement measures to deal with climate risks.

## Climate Risks and Opportunities

The Group made reference to the framework and recommendations from the Task Force on Climate-Related Financial Disclosures ("TCFD") to analyse the climate-related risks and opportunities of the Group, incorporated potential financial implications into the consideration of the overall operations, evaluated the grading of each risk factor, and proposed feasible recommendations for strategic planning. The Group adopts an approach in line with the disclosure recommendations of TCFD, including description of the organisation's process to identify, assess, and manage climate-related risks.

## 應對氣候變化

近年氣候變化引起了國際社會的廣泛關注，成為全球最大的環境挑戰之一。世界經濟論壇發佈的《二零一九年全球風險報告》中指出極端天氣事件、天然災害及氣候變遷減量與調適的失敗為最高的風險之一。作為環保企業，本集團繼續在抗衡氣候變化上扮演重要角色。本集團高度重視氣候變化引致的各類風險，致力強化組織領導，建立光大國際－業務板塊－區域（業務）中心－項目公司的四位一體工作機制，由主要負責人擔負領導責任，簽署年度安全、環境管理目標責任書，切實履行職責，督促相關實施單位切實落實應對氣候變化風險的措施。

## 氣候變化風險和機遇

本集團參照氣候相關財務信息披露工作組 (TCFD, Task Force on Climate-Related Financial Disclosures) 的框架及建議分析本集團正面對的氣候相關風險及機遇，把其對財務造成的潛在衝擊納入集團整體運營考量，評估各個風險因子的等級，並且對可行的策略規劃提出建議。本集團採用與TCFD披露建議一致的做法，包括描述組織識別和評估氣候相關風險的過程，描述組織管理與氣候有關的過程等。





Governance on  
Climate-Related Risks  
氣候相關風險管治

The Board set up the Risk Management Committee, which is responsible for the relevant duties. The Management Decision Committee is responsible for the implementation of the risk management system and risk management plan.

董事會下設風險管理委員會是風險管理的負責單位。管理決策委員會為對風險管理體系的落實和風險管控方案的實施負責。



Strategy  
策略

Everbright International has disclosed the potential climate risks of the Group, the impacts of climate change on the Group's strategies, financial and/or operational and implications, and the Group's approach in response to the climate-related risks.

光大國際披露本集團的潛在氣候變化風險與氣候變化對集團所屬策略與財務及／或運營構成的影響以及本集團應對氣候相關風險的方針。



Risk Management  
風險管理

The Group has listed out the potential climate risks according to the risk analysis framework of TCFD, including the development of the list of climate risk factors and climate risk parameters, conduct of climate risk assessments, the formulation and implementation of climate risk control measures, the analysis of the effectiveness of the control measures, and execution of risk audits.

本集團根據TCFD的風險分析架構列出潛在的氣候風險，包括建立氣候變化風險要素清單與氣候變化風險參數、作出氣候變化風險評估、制定和落實氣候變化風險管控措施，分析氣候變化風險的管控效果並作出風險核查。



Metrics and  
Targets  
指標和目標

The Group has used the internationally recognised CDM under the United Nations Framework Convention on Climate Change ("UNFCCC") to estimate the projects' GHG emissions and offset.

本集團使用受國際認可的《聯合國氣候變化框架公約》下的CDM的溫室氣體排放計算方法來估算項目的溫室氣體排放量及抵銷。

### Flowchart of Climate Risk Management 氣候變化風險管理流程圖



**1 First Stage**  
第一階段

Preparation for Assessment  
評估前的準備

**2 Second Stage**  
第二階段

Risk Analysis  
風險分析

**3 Third Stage**  
第三階段

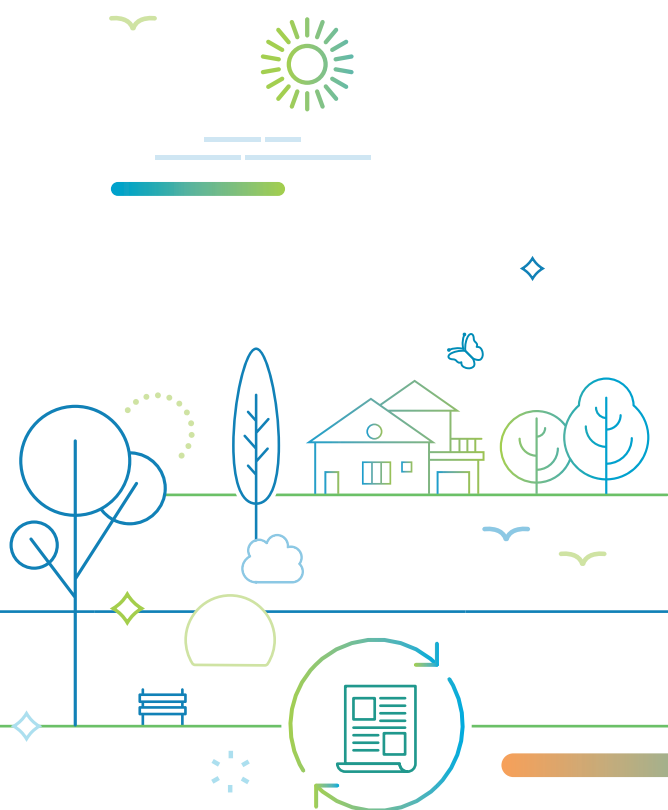
Risk Control Measures  
風險管控措施

Key Climate-Related Risks

主要氣候相關風險

Categories 類別	Major Risks 主要風險	Potential Financial and/or Operational Implications 潛在財務及／或運營影響	Management Approach 管理方針
<p><b>Policy Change Risks</b> 政策改變風險</p>	<p><b>Carbon tax, fuel/energy tax, volume and trading control</b> 碳稅、燃料／能源稅、總量管制與交易</p> <p>Affected by regulatory authorities' restrictions on GHG emissions and/or mandatory carbon trading. 受到監管部門關於溫室氣體排放的限制及／或者強制碳交易的影響。</p> <p><b>Disclosure of climate-related information</b> 氣候相關訊息披露</p> <p>The Stock Exchange, major international sustainability reporting guidelines, institutional investors and ESG rating agencies have been gradually increasing their expectations on climate-related information disclosure, covering estimation of GHG emissions, adaptation and mitigation plans in response to climate-related risks. 聯交所、主要的國際可持續報告指引、機構投資者及環境、社會及管治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>	<ul style="list-style-type: none"> <li>Increase compliance cost 增加合規成本</li> <li>Increased operating cost 增加運營成本</li> </ul>	<ul style="list-style-type: none"> <li>Strengthen communication with various regulatory authorities, and actively make adjustments according to changes in policies in a timely manner. 加強與各監管部門的溝通聯繫，及時根據法規，同時根據政策變化主動調整。</li> <li>Assign specialists to study the requirements of these parties and make corresponding disclosures. Additional studies would be carried out where necessary. 指派專才研究各方的要求並作出相應的披露，並於需要時展開額外研究。</li> </ul>

Categories 類別	Major Risks 主要風險	Potential Financial and/or Operational Implications 潛在財務及／或運營影響	Management Approach 管理方針
<p><b>Reputation Risks</b> 聲譽風險</p>	<p><b>Relations with ESG investors</b> 與環境、社會及管治投資者的關係</p> <p>Due to its incineration operations, waste-to-energy is usually misperceived as a carbon-intensive business, which may be less preferred by carbon-conscious investors compared with other renewables.</p> <p>因其焚燒的運作模式，垃圾發電常被誤認為高碳強度的業務。因此與其他可再生能源相比時，垃圾發電對於注重碳排放的投資者可能成為較次要的選擇。</p>	<ul style="list-style-type: none"> <li>Increased financing cost 增加融資成本</li> </ul>	<ul style="list-style-type: none"> <li>Conduct evidence-based, scientific calculations to estimate total GHG emissions of waste-to-energy projects and their contributions in offsetting GHG emissions through replacement of the use of fossil-fuelled power, and diversion of household waste from landfills where fugitive release of landfill gas (a strong GHG) would pose a threat to global warming; improve communication with stakeholders to help them understand the unique nature of the waste-to-energy business, as well as the overall environmental benefits brought by waste-to-energy business aspects other than GHG reduction (i.e. resolving the waste crisis and the associated environmental implications to land, groundwater, etc.).</li> </ul> <p>本集團進行循證、科學的計算，以估算垃圾發電項目的總溫室氣體排放量及其透過取代使用化石燃料生產的電力，把生活垃圾從填埋場分流，以避免釋放無組織填埋氣體（為強力的溫室氣體，嚴重導致全球變暖）而得出對溫室氣體抵銷的貢獻；改善與持份者的溝通以幫助他們了解垃圾發電業務的獨特性則以及其減少溫室氣體排放以外，所帶來的整體環境效益（解決垃圾危機及其對土地、地下水相關的環境影響等）。</p>



Categories 類別	Major Risks 主要風險	Potential Financial and/or Operational Implications 潛在財務及／或運營影響	Management Approach 管理方針
<b>Technological and Innovation Risks</b> 科技與創新風險	<p>More advanced technologies are needed to meet the increasingly stringent decarbonisation requirements.</p> <p>需要採用更先進的科技以符合日益嚴格的減碳要求。</p>	<ul style="list-style-type: none"> <li>Increased operating cost 增加運營成本</li> <li>R&amp;D expenditures in new and alternative technologies 新型和替代型技術研發支出</li> <li>Capital investments in technology development 技術開發的資本投資</li> </ul>	<ul style="list-style-type: none"> <li>Promote scientific and technological R&amp;D, actively bring in technical expertise, launch self-developed technological R&amp;D, promote the transformation of technological achievements to project applications, adhere to "Innovations Lead 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」</li> </ul>
<b>Physical Risks</b> 物理類風險	<p><b>Extreme weather</b> 極端天氣</p> <p>Natural hazards caused by climate change and extreme weather events (e.g. heavy rain, floods, typhoons, thunderstorm, sandstorm, etc.). 氣候變化和極端天氣事件（如暴雨、洪水、颱風、雷暴、沙塵暴等）引致的自然災害。</p>	<ul style="list-style-type: none"> <li>Increased operating cost 增加運營成本</li> <li>Reduction or suspension of operations (e.g., unscheduled shutdown, transportation difficulties, supply chain interruptions) 產能下降或停運（如非計劃停運、運輸困難、供應鏈阻礙）</li> <li>Negative impacts on workforce management and planning (e.g., health, safety, absenteeism) 影響勞動力管理和規劃（如健康、安全、缺勤）</li> </ul>	<ul style="list-style-type: none"> <li>In response to extreme strong convective weather events such as rainstorm and strong wind, etc., conduct targeted control measures in advance. 對暴雨、強風等極端強對流天氣事件提前採取針對性管控措施。</li> <li>Carry out measures to enhance the awareness of climate-related risks within the Group 落實提升集團上下對氣候相關風險的意識的措施。</li> </ul>

Climate-Related Opportunities

氣候相關機遇

Categories 類別	Major Opportunities 主要機遇	Potential Financial and/or Operational Implications 潛在財務及／或運營影響	Management Approach 管理方針
<b>Corporate Reputation</b> 企業商譽	<p><b>ESG investments</b> 環境、社會及管治投資</p> <p>Climate change leads to ESG investment opportunities, and investors will make investment considerations based on the corporate's ESG performances. 氣候變化帶來環境、社會及管治方面的投資機遇，投資者會依照企業的環境、社會和管治方面的績效作投資考慮。</p>	<ul style="list-style-type: none"> <li>Increase value of asset 提高資產價值</li> <li>Enhance the Group's reputation and competitiveness 提高本集團名譽及競爭地位</li> </ul>	<ul style="list-style-type: none"> <li>Adopt international best practices in sustainability reporting; increase transparency in ESG information disclosure; incorporate ESG considerations into the Group's operations. 在可持續報告中採用國際最佳實踐；增加披露環境、社會及管治資料的透明度；於本集團的營運中納入環境、社會及管治的考慮。</li> </ul>
<b>Market Change</b> 市場轉變	<p><b>Sustainable waste treatment solutions</b> 可持續的廢棄物處理方案</p> <p>Under the era of climate change, the market has been looking for more effective and sustainable waste treatment solutions that facilitate landfill diversion and generate green electricity, which is in line with Everbright International's practice. 在氣候變化的時代下，市場正在尋覓一個更有效與可持續的廢棄物處理方案，以促進廢棄物從填埋場的分流與綠色電力的生產，此市場趨勢與光大國際的業務工作一致。</p>	<ul style="list-style-type: none"> <li>Increase in demand of sustainable waste solutions 對可持續廢棄物管理方案的需求大增</li> <li>Enhance the Group's reputation and market standing 提高本集團名譽及市場地位</li> </ul>	<ul style="list-style-type: none"> <li>Waste-to-energy will remain as a core business of Everbright International. The Group will step up the efforts in technological R&amp;D in order to improve operational efficiencies in waste treatment and supply of green electricity. 垃圾發電會繼續為光大國際的核心業務。本集團將會加強在技術研發的努力，以改善其在廢棄物處理及供應綠色電力的運營效率。</li> <li>The Group will actively explore alternative waste management models such as waste sorting and resource recycling to support the development of "Zero-Waste Cities". 本集團會積極探索廢棄物管理的替代模式，如垃圾分類及資源回收，以支持「無廢城市」的發展。</li> </ul>





## Enhancing Awareness on Climate-Related Risks Across the Group

In response to the flood seasons and the occurrence of extreme weather events, the Group deployed necessary measures in advance, and issued a number of procedural documents, namely *Notice on Strengthening Work Safety in May Day Holiday*, *Notice on Commencing "Safety Production Month"*, *Notice on Sound Management of Production Safety during Flood Seasons and under Catastrophic Weather Conditions*, *Notice on Work to "Prevent Typhoon and Flood in Summer" in 2019*, *Notice on Management of Production Safety during Adverse Weather*, and *Notice on Work Measures to Prepare for Strong Wind, Rainstorm, Thunderstorm and Lightning*. The Group commenced dedicated investigation and ratification of potential hazards to ensure precautionary measures were adequately in place.

## 提升集團上下對氣候相關風險的意識

針對汛期及極端天氣多發期，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》、《關於開展「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》、《關於做好二零一九年「防颱防汛、平穩度夏」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，重點開展隱患排查和整改工作，確保提前防範到位。

### Carrying out Emergency Preparedness Drills to Improve Accident Prevention and Handling Capabilities of Staff

開展應急預案演練活動，提升員工事故防範和處理能力

To further revise and improve the emergency preparedness plans and with a focus on the key risks of the project companies, various project companies have organised emergency preparedness drills based on the potential hazards (including extreme weather hazards). Targeting key locations and positions, on-site plan and key emergency drills are carried out. In particular, the operational and practical preliminary emergency response drills for front-line employees of the workshop team are conducted to enhance their capabilities in emergency response.

各項目公司根據潛在的各類風險隱患（包括極端天氣災害），以自身重大風險為重點，組織開展項目、綜合應急預案演練，並進一步修訂完善應急預案。針對重點場所和重點崗位，開展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。

### Preparing for Emergency

做好應急準備

All project companies conduct regular inspections on adverse weather protection measures, as well as communication, logistics support and protection of emergency supplies to ensure safe operation at all times. A few days before arrival of the anticipated extreme weather event, all relevant projects companies advance their contingency plans including stocking up of emergency supplies, strengthening of backup power systems, enhancement of information exchange and operational liaison among the emergency response units (on weather, operational situation and communication, etc.). During the occurring of extreme weather events, all concerned project companies monitor and report effectiveness of their protection measures.

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，以確保時刻的安全運行。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、進一步加強天氣、營運情況、通信等應急成員單位的資訊交流與工作聯繫等。在極端天氣事件發生時，所有相關項目公司均監控並報告其保護措施的有效性。

### Following Up Treatment and Insurance Claims Promptly and Timely

及時跟進善後處理和保險理賠

If the weather hazard has caused harm or financial loss on employees, the incident unit would handle the case properly and actively follow up with the insurance claims to minimise loss to the Group and its employees.

災害天氣對人員造成傷害或對財產造成損失的，事發單位會妥善處理，積極跟進保險理賠，盡量降低給本集團及其員工造成的損失。

## Air and GHG Emissions Management

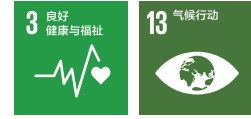
Facing the new challenges brought by air pollution to the society, Everbright International will bear more social responsibilities, improve local environmental quality and sustainable development, and strive to reduce the impacts of air emissions on the environment.



The Group enforces strict control measures to ensure compliant emissions, and have achieved five "Firsts" in the industry:

## 大氣及溫室氣體排放管理

面對空氣污染對社會帶來的挑戰，光大國際將進一步踐行更多社會責任，推動國內環境品質的改善及可持續發展，致力減低氣體排放對環境造成的影響。



本集團嚴格控制各項排放物達標排放，並在行業內做到五個「率先」：

01

The first to adopt the Euro 2000 emission standards  
率先在國內推動採用歐盟2000排放標準

02

The first to connect and share real-time project emission data with local environmental authorities  
率先推行項目排放數據與當地環保部門在線聯網

03

The first to disclose online hourly average emission rates of all operating waste-to-energy projects  
率先對外披露所有運營垃圾發電項目煙氣在線監測小時均值

04

The first to open up its operating waste-to-energy projects for public supervision  
率先實行垃圾發電項目公眾開放活動，自願主動接受公眾及社會監督

05

The first to open up environmental protection facilities across all business sectors to the public  
率先以公司整體名義向公眾開放

## Emissions Control

Through implementing stringent operational procedures with frequent inspection and extensive supervision, the Group strictly controls stack emissions such as particulate matter (PM), sulphur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) in all combustion operations. The Group also pays attention to the effective control of fugitive air emissions at our projects to prevent air pollution. In particular, all odour-generating areas are maintained under negative pressure to ensure that odorous gases are properly collected and treated.

## 排放控制

本集團採納了嚴謹的操作程序、高頻率的檢查和嚴謹的監督，嚴格控制所有在燃燒過程中所排放的顆粒物(PM)、二氧化硫(SO<sub>2</sub>)及氮氧化物(NO<sub>x</sub>)等大氣排放物。本集團亦關注項目無組織排放的有效控制，對於各臭氣產生區域採用負壓收集處理，避免造成空氣污染。

**Waste-to-energy  
Projects**  
垃圾發電項目

The Group's waste-to-energy projects are designed and operated fully in compliance with the *Standard for Pollution Control on the Municipal Solid Waste Incineration (GB18485-2014)* as well as other requirements as set forth in the environmental impact assessment reports approved by the local government<sup>(1)</sup>, while the daily average values of online continuously monitored parameters are well below the respective emission limits as stipulated under the *Industrial Emissions Directive (2010/75/EU)* and its relevant annexes and amendments ("Euro 2010 emission standards").

本集團的垃圾發電項目的設計和運營完全符合所有適用的國家環境規例和標準，當中包括《生活垃圾焚燒污染控制標準》(GB18485-2014)及獲當地政府審批的環境影響評價報告中的其他要求<sup>(1)</sup>。煙氣在線監測指標日均值更全面優於歐盟《工業排放指令》(2010/75/EU)及其相關附表／修訂中的相關排放限值（「歐盟2010排放標準」）。

**Integrated Biomass  
Utilisation Projects**  
生物質綜合利用項目

Apart from household waste incineration operations as explained above, all of the Group's biomass combustion operations meet the *Emission Standard of Air Pollutants for Thermal Power Plants (GB13223-2011)* as well as other requirements as set forth in the environmental impact assessment reports approved by the local government<sup>(2)</sup>.

除上述生活垃圾焚燒營運概況外，本集團生物質燃燒的運營則達《火電廠大氣污染物排放標準》(GB13223-2011)及獲當地政府審批的環境影響評價報告中的其他要求<sup>(2)</sup>。

In addition, other air pollutants such as dioxins and various heavy metals are tested by Everbright International with frequencies beyond national requirements. For instance, the testing of dioxins for all the Group's waste-to-energy projects in China is conducted at least four times a year, which is significantly higher than the national requirement of once per year. Dioxins concentrations of all samples are substantially lower than the emissions limits of the *Standard for Pollution Control on the Municipal Solid Waste Incineration (GB18485-2014)*. The emission monitoring reports of the Group's waste-to-energy projects can be found at the environmental information disclosure platform of Everbright International's website at [www.ebchinaintl.com](http://www.ebchinaintl.com).

此外，光大國際對煙氣二噁英和重金屬等污染物均以高於國家要求作更頻密的檢測，而當本集團位於中國的所有垃圾發電項目的煙氣二噁英的測頻率更達每年至少四次，遠高於國家每年一次的檢測要求，所有檢測樣本濃度均低於《生活垃圾焚燒污染控制標準》(GB18485-2014)中所列的限值。各垃圾發電項目的煙氣檢測報告可於光大國際企業網站環境信息披露平台([www.ebchinaintl.com](http://www.ebchinaintl.com))查看。

Notes:

- (1) Air pollutants regulated by relevant national laws and regulations mainly include dioxins, particulate matter, sulphur dioxide, nitrogen oxides, hydrogen chloride, carbon monoxide, mercury and other heavy metals (and its chemical compounds), odour pollutants.
- (2) Major air pollutants regulated by relevant national laws and regulations include particulate matter, sulphur dioxide, nitrogen oxides.

附註：

- (1) 受相關國家法律及規例規管的大氣污染物主要包括二噁英、顆粒物、二氧化硫、氮氧化物、氯化氫、一氧化碳、汞和其他重金屬（及其化合物）、惡臭污染物。
- (2) 受相關國家法律及規例規管的大氣污染物主要包括顆粒物、二氧化硫、氮氧化物。

## Jiangyin Waste-to-energy Project Keeps Dioxin Emissions under Strict Control 江陰垃圾發電項目嚴格控制二噁英排放

On 16 May 2019, China Environmental News published a full-page feature report titled “How Everbright International Achieved Outstanding Results in the Field of Waste Incineration?”. The report described the precise control of air emissions by Jiangyin Waste-to-energy Project (“Jiangyin Project”) to its audience.

The general manager of Jiangyin Project introduced the mechanical grate furnace developed in-house by Everbright International to the reporter. The relevant technologies are mature and reliable, in which the flue gas generated from the incinerator under high temperature is passed through the processes of “SNCR + Semi-Dry De-Acidification + Dry De-Acidification + Activated Carbon + Bag Filter” to achieve compliant emissions. In order to effectively control the emission of dioxins in the flue gas, the combustion temperature of the incinerator is designed to be higher than 850℃, and the actual operating temperature is currently about 950℃. The high temperature is to ensure that dioxins are fully destroyed in the incinerator, and activated carbon is injected at the entrance of the bag filters to adsorb the heavy metals and any residual dioxins.

In order to better test the various emissions indicators, Jiangyin Project has established an environmental monitoring centre (laboratory). This laboratory is the first laboratory of its kind in the domestic waste-to-energy industry accredited by the China National Accreditation Service for Conformity Assessment (CNAS).

二零一九年五月十六日，《中國環境報》的特別報導專欄全版面以江陰垃圾發電項目（「江陰項目」）為切入點，刊登了題為「光大國際如何在垃圾焚燒領域取得突出業績？」的專題報導。該報導詳細向群眾講述了江陰項目在氣體排放方面的精準把控。

江陰項目總經理向記者介紹了江陰項目使用的光大國際自主研發的機械爐排爐。相關技術成熟可靠，焚燒爐高溫焚燒產生的煙氣經SNCR脫硝+半乾法脫酸+乾法脫酸+活性炭吸附+布袋除塵器等多道工藝處理後達標排放。其中，為有效控制煙氣中二噁英的排放量，焚燒爐內溫度設計高於850℃，目前實際運行溫度大約在950℃左右，可以確保二噁英在爐內充分分解，並在布袋入口噴射活性炭，對可能殘餘的二噁英及重金屬進行吸附。

為了更好地檢測各項排放指標，江陰項目還專門組建了環境監測中心（實驗室），該實驗室是國內垃圾焚燒發電行業內首個通過中國合格評定國家認可委員會(CNAS)認可評定的實驗室。



Besides, following the application of the self-developed technologies to the Group's integrated biomass utilisation projects, e.g. low-nitrogen combustion, flue gas recirculation, enhanced selective non-catalytic reduction (SNCR) and ozone oxidation, the combustion of biomass has successfully achieved ultra-low emission (with NO<sub>x</sub> emission concentration below 50mg/m<sup>3</sup>), which can guarantee the compliant emission of flue gas from the projects.

The Group strives to ensure that people everywhere can conveniently access its projects' environmental performance information. During the Reporting Period, the Group continued timely disclosing emissions data and environmental management information of its projects on Everbright International's corporate website, including the ground-breaking initiative of online disclosure of hourly average emission rates of all the Group's operating waste-to-energy projects. The Group also devoted in improving the information sharing platforms which connects with the Group's Hong Kong headquarters and Shenzhen management office for real-time capture of projects' operational information to ensure compliant operation, and to timely report the performance of the Group's high-quality projects to the stakeholders.

此外，由本集團自主研發的低氮燃燒、煙氣再循環、選擇性非催化還原脫硝技術(SNCR)優化、活性分子氧化等技術於生物質綜合利用項目中得到全面推廣應用，生物質的燃燒實現了超淨排放(NO<sub>x</sub>排放濃度低於50mg/m<sup>3</sup>)，有力保證了項目煙氣的達標排放。

本集團致力確保所有人都能隨時隨地掌握其項目的環境信息。報告期內，本集團繼續採取主動對項目的排放數據和環境管理信息實施適時披露的舉措，包括於光大國際網站每小時更新所有運營垃圾發電項目的煙氣在線監測均值，創行業先河。本集團還積極完善信息共享平台建設，旨在讓香港總部及深圳管理中心實時掌握所有項目運營狀況，確保所有項目達標運營，及能迅速地向本集團持份者報告項目的運營表現。

### Key Air Emissions in 2019 二零一九年主要煙氣排放量

Particulate Matter  
顆粒物

330.13 tonnes  
噸

Sulphur Dioxide (SO<sub>2</sub>)  
二氧化硫

1,658.34 tonnes  
噸

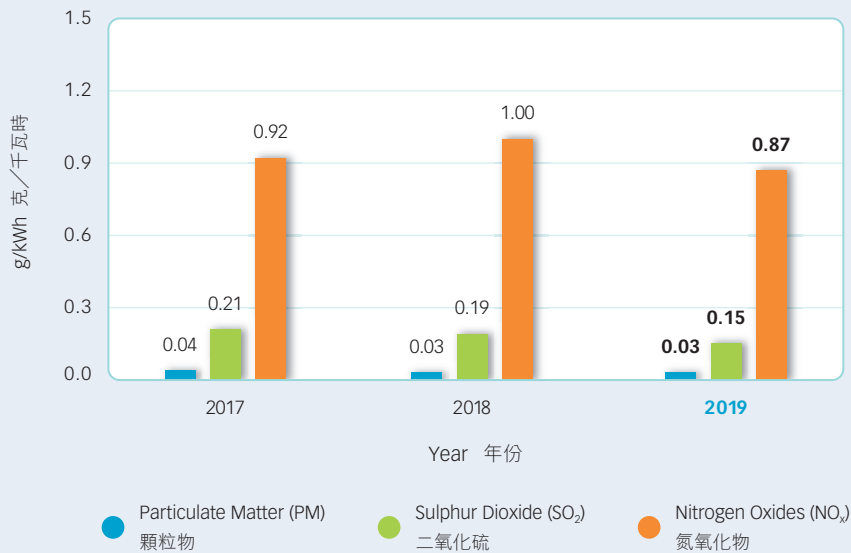
Nitrogen Oxides (NO<sub>x</sub>)  
氮氧化物

9,337.01 tonnes  
噸





### Air Emissions per kWh of On-Grid Green Electricity Supplied 每千瓦時綠色上網電量的煙氣排放量



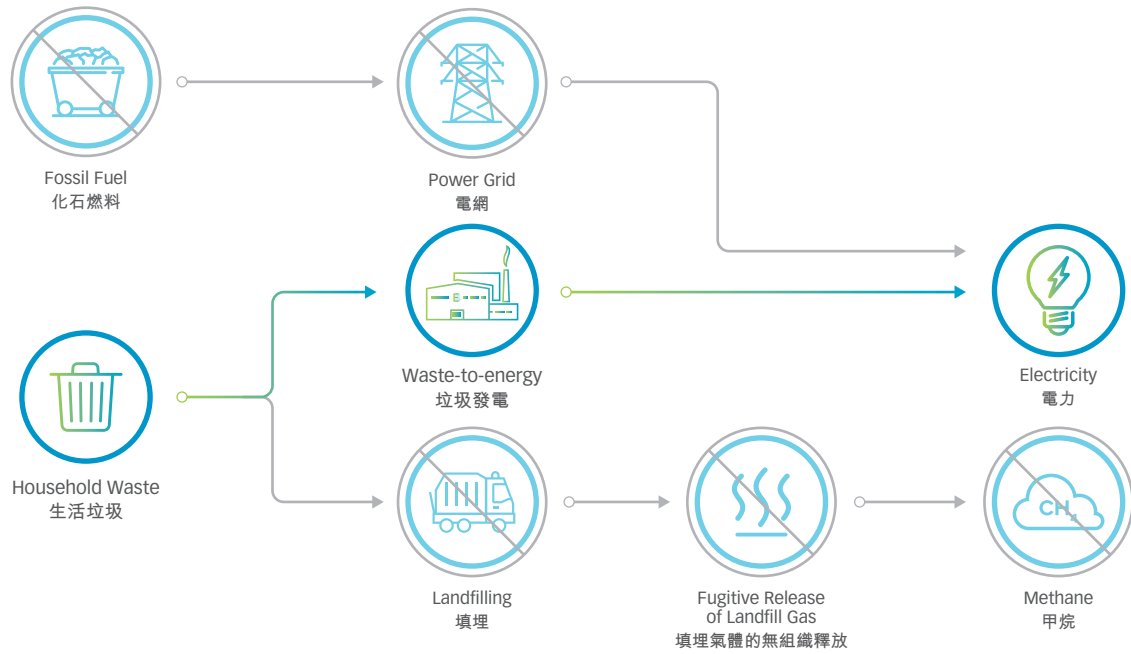
Since 2015, the Group has been adopting calculation methodologies of CDM under the UNFCCC to estimate the GHG emissions of the Group's operating projects as it is standardised, accurate, and internationally recognised. During the Reporting Period, the Group adopted the CDM methodology to estimate CO<sub>2</sub> emissions offset by the Group's operations for the first time. This methodology can better reflect the Group's efforts on emission reduction by calculating the baseline emission without the presence of waste-to-energy and integrated biomass utilisation projects, covering fugitive methane emissions of waste in landfills and the use of fossil fuelled power. Benefitted from the Group's improvements in data collection and reporting system, the Group could calculate the Group's GHG emission data in various business sectors more precisely, in quantifying the Group's achievements in emission reduction.

本集團自二零一五年起已開始使用更為標準化、準確及受國際認可的《聯合國氣候變化框架公約》CDM的溫室氣體排放計算方法來估算運營項目的溫室氣體排放量。於報告期內，本集團亦持續使用CDM方法來估算本集團的運營所抵銷的二氧化碳當量排放。該計算方法納入了在沒有垃圾焚燒發電廠的情況下的基線影響，包括垃圾在填埋場分解的無組織甲烷排放以及化石燃料能源的消耗，可更準確地反映了本集團在碳減排方面的成果。得益於本集團的數據收集機制和報告系統的日益完善，本集團得以將各大業務板塊所涉及的溫室氣體排放統計得更精準，並量化本集團的減排成果。



GHG Emissions Offset through Waste-to-Energy

以垃圾發電方式抵銷溫室氣體排放

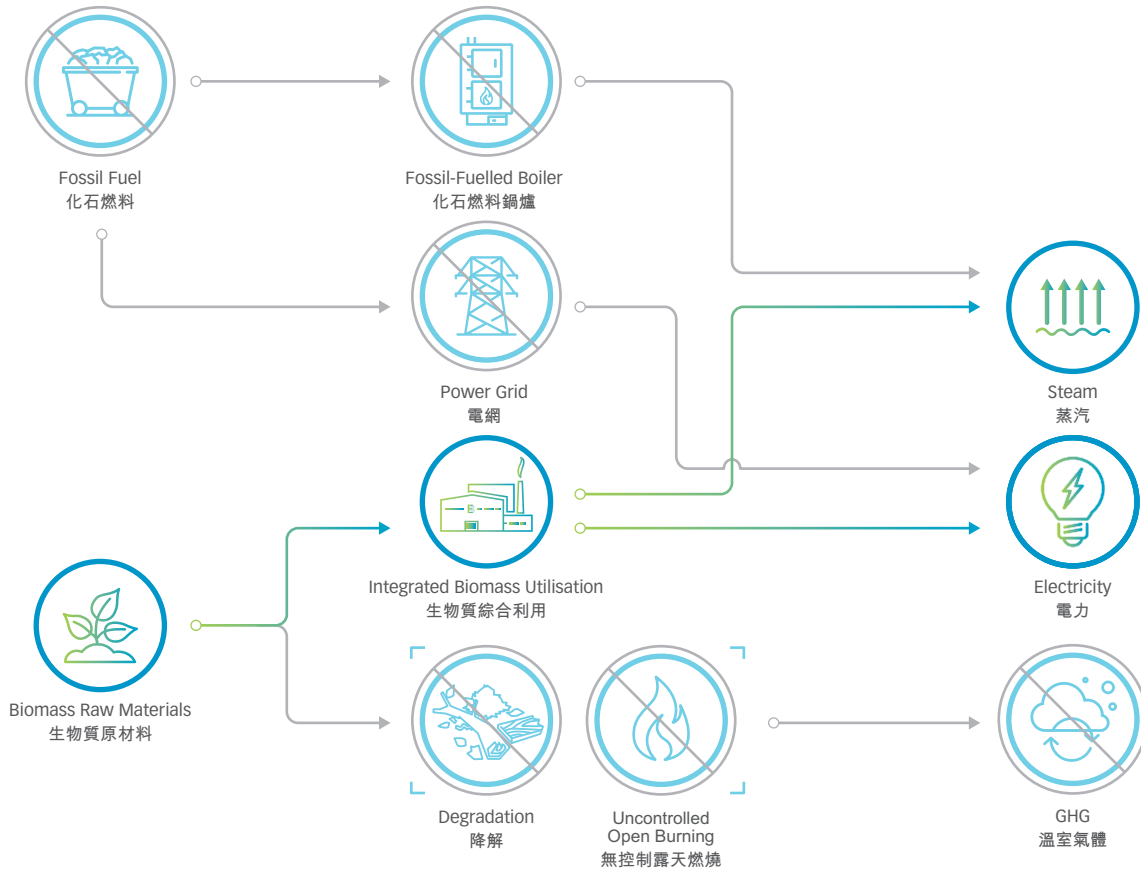


The Group's waste-to-energy projects recover the heat generated from incineration of household waste for electricity generation, thus offset GHG emissions by replacing the use of fossil fuelled power. GHG emissions offset is also achieved by diverting household waste from landfills where the anaerobic degradation of organic waste would cause fugitive release of landfill gas which is rich in methane, a strong GHG.

本集團的垃圾發電項目以生活垃圾焚燒所產生的熱量來發電，透過替代化石燃料能源的使用以抵銷溫室氣體排放。此外，把生活垃圾從填埋場分流亦避免了有機廢物在填埋場厭氧降解所引致的無組織填埋氣體（含大量甲烷，一種強力的溫室氣體）釋放。

### GHG Emissions Offset through Integrated Biomass Utilisation

以生物質綜合利用方式抵銷溫室氣體排放



Apart from waste-to-energy operations, the Group's integrated biomass utilisation projects utilise biomass raw materials for power and heat generation, which offset GHG emissions through replacement of fossil fuels and avoidance of uncontrolled open burning or degradation of biomass which would otherwise generate GHG.

除了垃圾發電運營外，本集團的生物質綜合利用項目使用生物質原材料發電及供熱，通過替代使用化石燃料及避免生物質不受管控地露天燃燒或降解，從而抵銷溫室氣體排放。

GHG Emissions in 2019

二零一九年溫室氣體排放量

Total Scope 1 (Direct Emissions):

範疇一（直接排放）排放總量：

22,558,042.11 tonnes CO<sub>2</sub>e  
噸二氧化碳當量

Operation Unit 運營單位	Emission Sources 排放來源	Emissions 排放量 (tonne CO <sub>2</sub> e) (噸二氧化碳當量)
<b>Environmental Energy</b> 環保能源	Fuel consumption by operation of facilities; incineration of household waste; fugitive methane emissions from leachate 設施運營的燃料消耗；生活垃圾焚燒；滲濾液的無組織甲烷排放	21,173,910.81
<b>Greentech</b> 綠色環保	Fuel consumption by operation of facilities; incineration of household waste; combustion of biomass raw materials; fugitive methane emissions from leachate 設施運營的燃料消耗；生活垃圾焚燒；生物質原材料燃燒；滲濾液的無組織甲烷排放	1,294,896.81
<b>Environmental Water</b> 環保水務	Fugitive methane emissions from waste water treatment projects 污水處理項目的無組織甲烷排放	5,727.71
<b>Equipment Manufacturing, Eco-recycling, Envirotech, Environmental Planning, Headquarters and Offices</b> 裝備製造、生態資源、綠色科創、環境規劃、總部、代表處、辦事處及管理中心	Fuel consumption by operation of facilities 設施運營的燃料消耗	83,506.79

Total Scope 2 (Energy Indirect Emissions):

範疇二（能源引致的間接排放）排放總量：

347,595.87 tonnes CO<sub>2</sub>e  
噸二氧化碳當量

Operation Unit 運營單位	Emission Sources 排放來源	Emissions 排放量 (tonne CO <sub>2</sub> e) (噸二氧化碳當量)
<b>Environmental Energy</b> 環保能源	Consumption of purchased non-renewable electricity 消耗的外購非再生能源電力	29,239.63
<b>Greentech</b> 綠色環保	Consumption of purchased non-renewable electricity 消耗的外購非再生能源電力	32,974.39
<b>Environmental Water</b> 環保水務	Consumption of purchased non-renewable electricity 消耗的外購非再生能源電力	283,335.27
<b>Equipment Manufacturing, Eco-recycling, Envirotech, Environmental Planning, Headquarters and Offices</b> 裝備製造、生態資源、綠色科創、環境規劃、總部、代表處、辦事處及管理中心	Consumption of purchased non-renewable electricity 消耗的外購非再生能源電力	2,046.58

**Scope 3 (Other Indirect Emissions):**  
範疇三（其他間接排放）排放總量：

**13,554.36** tonnes CO<sub>2</sub>e  
噸二氧化碳當量

Operation Unit 運營單位	Emission Sources 排放來源	Emissions 排放量 (tonnes CO <sub>2</sub> e) (噸二氧化碳當量)
<b>Environmental Energy</b> 環保能源	Air travel by employees 員工飛機差旅	474.97
<b>Greentech</b> 綠色環保	Fuel consumption for the delivery of biomass raw materials by third parties; air travel by employees 第三方運送生物質原材料的燃油消耗；員工飛機差旅	10,025.70
<b>Environmental Water</b> 環保水務	Fuel consumption for the transportation of sludge by third parties; air travel by employees 第三方運送污泥的燃油消耗；員工飛機差旅	2,581.14
<b>Equipment Manufacturing, Eco-recycling, Envirotech, Environmental Planning, Headquarters and Offices</b> 裝備製造、生態資源、綠色科創、環境規劃、總部、代表處、辦事處及管理中心	Air travel by employees 員工飛機差旅	472.55

Notes:

附註：

- (1) The calculation of GHG emissions and offset is referenced to CDM methodologies *ACM0022: Alternative Waste Treatment Processes (Version 2.0)*, *AM0080: Mitigation of Greenhouse Gases Emissions with Treatment of Wastewater in Aerobic Wastewater Treatment Plants (Version 1.0)*, *ACM0018: Electricity Generation from Biomass Residues in Power-Only Plants (Version 3.0)*, *ACM0006: Electricity and Heat Generation from Biomass (Version 14.0)* and "AMS-I.C.: Thermal Energy Production With or Without Electricity (Version 20.0)".
- (2) GHG emissions (scope 1) from the incineration of household waste are calculated based on the fraction of fossil carbon in total carbon content of the household waste. The amount of such GHG emissions may substantially fluctuate from time to time due to the varying composition of the household waste received, which is beyond Everbright International's control.
- (3) GHG emissions from air travel are calculated by International Civil Aviation Organisation Carbon Emissions Calculator.
- (1) 溫室氣體的排放及抵銷的計算參照CDM方法《ACM0022：多選垃圾處理方式（2.0版）》、《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）》、《ACM0018：純發電廠利用生物廢棄物發電（3.0版）》、《ACM0006：生物質熱電聯供（14.0版）》及《AMS-I.C.：電力或非電力用戶提供熱能（20.0版）》。
- (2) 生活垃圾焚燒引致的溫室氣體排放（範疇一）以生活垃圾中化石碳佔總碳的比例為計算基礎。因此，生活垃圾成分的差異可對此溫室氣體排放不時造成大幅波動，這不屬於光大國際的控制範圍之內。
- (3) 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。

### GHG Emissions Offset by Business Sector 按業務板塊劃分的溫室氣體抵銷量



- Environmental Energy (Waste-to-energy)  
環保能源 (垃圾發電)
- Greentech (Integrated Biomass Utilisation, Solar Energy and Wind Power)  
綠色環保 (生物質綜合利用、光伏發電及風電)
- Environmental Water (Sludge Methane-to-energy)  
環保水務 (污泥沼氣發電)

## Energy and Materials Usage

Everbright International strives to minimise its energy and material usage. The Group is committed to advocating energy saving and reducing the use of materials, such as holding energy saving competitions among project companies; and utilise biogas produced from waste water treatment processes to generate electricity for the plant's internal use, reducing the consumption of non-renewable energy. Environmental Water business sector has continued to promote "Intelligent Water" Information Management System, which can improve the efficiency and accuracy of the water system, and also manage the entire operations, management and service processes of the water system in a more refined and dynamic manner. Such system facilitates asset management with life cycle cost optimisation to promote a balanced development of the Environmental Water business sector, helping the Group achieve a green and low-carbon operation goal.



## 能源及物料使用








光大國際致力減低能源及物料消耗。本集團致力倡議節能及減低物料使用，如在各項目公司之間舉行節能比賽，以及利用污水處理過程中產生的沼氣發電供廠內使用，務求減少非再生能源在運營過程中的消耗；環保水務板塊繼續實施「智慧水務」信息管理系統，不僅提高了水務系統的效率及精準性，還能以更加精細和動態的方式管理水務系統的整個運營、管理和服務流程，以全生命週期成本優化管理資產，推動環保水務板塊均衡發展，幫助本集團實現環保低碳的運營目標。



Direct Energy Consumption Statistics in 2019

二零一九年直接能源消耗統計

Unit: GJ  
單位：吉焦

Operation Unit 運營單位	Diesel 柴油	Gasoline 汽油	Natural Gas 天然氣	Liquefied Petroleum Gas 液化石油氣	Biogas 沼氣	Non-Renewable Electricity 非再生 能源電力	Renewable Electricity 再生 能源電力
							
<b>Environmental Energy</b> 環保能源	474,587.74	8,037.68	49,899.42	69,851.02	107,705.13	164,668.47	6,548,720.46
<b>Greentech</b> 綠色環保	168,903.63	15,546.98	72,347.58	0.44	–	218,168.01	802,958.15
<b>Environmental Water</b> 環保水務	6,888.59	7,098.23	353.96	–	127,871.28	1,695,500.70	–
<b>Equipment Manufacturing, Eco-recycling, Envirotech, Environmental Planning, Headquarters and Offices</b> 裝備製造、生態資源、綠色科創、環境規劃、總部、代表處、辦事處及管理中心	1,134.54	54,653.85	1,052.63	345.83	–	11,732.08	–
<b>Total</b> 總計	<b>651,514.50</b>	<b>85,336.74</b>	<b>123,653.59</b>	<b>70,197.29</b>	<b>235,576.41</b>	<b>2,090,069.26</b>	<b>7,351,678.61</b>

Note:

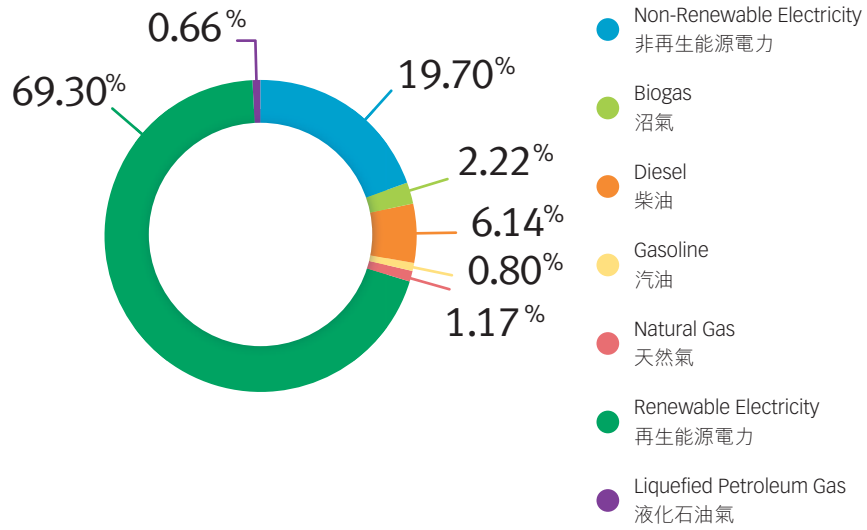
附註：

(1) Relevant energy conversion factors from *China Energy Statistical Yearbook 2018* are adopted.

(1) 能源單位根據《中國能源統計年鑒2018》的參考系數作換算。



**Direct Energy Consumption Statistics of Projects  
Under Construction and in Operation in 2019**  
二零一九年各在建及運營項目的直接能源消耗統計



**Total Direct Energy Consumed**  
直接能源消耗總量

**10,608,026.40** GJ  
吉焦

## Ideas on Energy Conservation

## 節能巧思

### Upgrading of 120,000 Streetlights in Ji'nan City 濟南市12萬盞路燈節能改造

On 17 December 2019, Everbright International signed an agreement with Ji'nan Municipal Government ("Ji'nan government"). Pursuant to the agreement, the Group will upgrade more than 120,000 streetlights in Ji'nan City and provide regular maintenance services, based on an energy management contract ("EMC") model. In the meantime, the Group will invest in and establish a base in the city that focuses on manufacturing and R&D of energy-saving streetlights.

The Group's "Everbright New Sodium Lamp" is an upgraded alternative to the conventional high-pressure sodium lamp, which is currently mainly used for streetlights. The new sodium lamp is able to significantly enhance the lighting quality while greatly reducing energy consumption by up to 50%. Considering resource conservation as the priority, the streetlight upgrading project will only replace lightbulbs and light ballasts of the existing streetlights in order to save as much resources as possible. Meanwhile, Everbright New Sodium Lamp has significant advantages in terms of light transmittance, durability and healthy lighting effect.

The collaboration with Ji'nan City is considered as the first project of its kind secured by Everbright International in a provincial capital city. According to the EMC, the Group will be responsible for the investment relating to the overall upgrading renovation of the streetlights in the city. Through developing the high quality new sodium lamp with high operational efficiency, favourable energy savings could be obtained by the Group, and such returns will be shared with the Ji'nan government. In addition, by establishing a base for the R&D, manufacturing and promotion of the new sodium lamp in Ji'nan, the Group aims to facilitate the shift of growth drivers and work with the city to develop a demonstration hub for the green and energy-saving lighting industry.

二零一九年十二月十七日，光大國際與濟南市政府簽約，以合同能源管理方式(EMC)承接濟南市區逾12萬盞路燈節能亮化改造工程與常年運營維護，同時將在濟南投資設立節能路燈生產基地與研發基地。

本集團的「光大新鈉燈」是目前道路照明主流產品高壓鈉燈的升級替代品，在大幅提升光照品質的同時顯著降低能源消耗，節電率高達50%。該改造工程貫徹節約優先方針，改造過程在保留原有燈罩和燈杆基礎上只需更換燈泡及鎮流器，最大限度節約了資源。同時，獲改造後的光大新鈉燈在透霧性、耐久性、光源健康等方面具有顯著優勢。

本次與濟南市的合作是「光大新鈉燈」產品首次落地省會城市。根據EMC協定，本集團將負責全市路燈整體升級改造的相關基金投放，通過高品質新鈉燈和高效能運營維護獲取良好回報，並與濟南政府分享節電效益。同時，光大國際將在濟南建設新鈉燈系列產品的研發、生產、推廣基地，助力濟南新舊動能轉換事業發展，共同打造綠色節能照明產業示範基地。



Everbright New Sodium Lamp  
光大新鈉燈

To ensure proper management of energy usage and materials inventories, the Group keeps detailed monthly records of every project company's energy and key materials usage, where the records are compiled in the regional management centres. With the collected records, the Group can have a clear idea on the condition of resource utilisation throughout the business development process and make corresponding adjustment on the use of energy and materials. In addition, project companies have implemented various energy saving measures, such as replacing the existing lights with LED lights, reduce the use of unnecessary electrical appliances in office and electricity use for non-office usage, etc.

本集團每月都會詳細記錄各項目公司的能源和主要物料的使用量，並由區域管理中心協調整合工作，以確保妥善的能源和庫存管理。透過所收集的數據，本集團能夠清楚了解自身在業務發展過程中的資源利用狀況，繼而對能源和物料使用作出相應的調整。數據紀錄亦有利於集團制定長遠的資源管理策略，減少資源浪費。此外，項目公司更實施各種節能措施，如更換原有的照明燈為節能LED燈，和減少使用不必要的辦公電器和非辦公用電等措施。

### Key Materials Consumption of Environmental Energy in 2019

二零一九年環保能源主要物料使用統計



Unit: Tonne  
單位：噸

Lime 石灰	Activated carbon 活性碳	Ammonia water 氨水	Acetylene 乙炔
214,528.03	11,381.03	56,118.87	60,701.56
Industrial sulphuric acid 工業硫酸	Industrial hydrochloric acid 工業鹽酸	Scale inhibitor 阻垢劑	Bactericide 殺菌劑
154,442.68	10,349.60	97,405.62	1,995.03
Cationic polyacrylamide (CPAM) 陽離子聚丙烯醯胺	Anionic polyacrylamide (APAM) 陰離子聚丙烯醯胺	Sodium hydroxide 氫氧化鈉	Sodium hypochlorite 次氯酸鈉
3,171.30	6,247.11	3,775.47	1,671.43
Liquid alkali 液鹼	Citric acid 檸檬酸	Disodium phosphate 磷酸氫二鈉	PAC 聚合氯化鋁
2,447.53	22,456.10	52.12	1,498.41
			Reducing agent (sodium bisulphite) 還原劑(亞硫酸氫鈉)
			2,601.66

### Key Materials Consumption of Greentech in 2019

二零一九年綠色環保主要物料使用統計



Unit: Tonne  
單位：噸

Lime  
石灰

1,653.97

Activated carbon  
活性炭

46.43

Ammonia water  
氨水

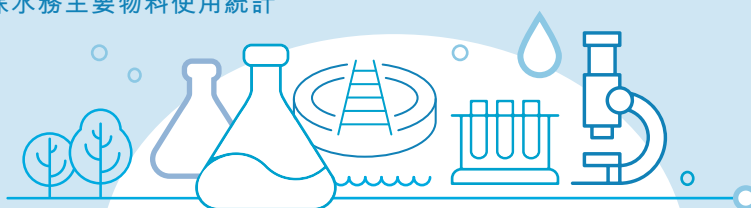
1,369.85

Chelating agent  
螯合劑

91.55

### Key Materials Consumption of Environmental Water in 2019

二零一九年環保水務主要物料使用統計



Unit: Tonne  
單位：噸

pH adjustment  
酸鹼調整

21,829.09

Coagulant & flocculant  
凝結劑及絮凝劑

180,123.42

Disinfectant  
消毒劑

19,144.86

Chemical oxidiser  
化學氧化劑

19,144.02

Carbon source  
碳源

148,886.09

Biological treatment  
生物處理

231.77

Others  
其他

1,882.12

Office Materials and Packaging Materials Consumption in 2019 二零一九年辦公室物料及包裝材料使用統計

Unit: Tonne  
單位：噸

Operation Unit 運營單位	Office Materials Consumption (Paper Products, Metal and Plastics) 辦公室物料使用 (紙製品、金屬及塑料)	Packaging Materials (Paper Products, Plastics, Foams and Board) 包裝材料 (紙製品、塑料、泡沫塑料及木板)
<b>Environmental Energy</b> 環保能源	98.94	-
<b>Greentech</b> 綠色環保	15.30	
<b>Environmental Water</b> 環保水務	11.00	
<b>Equipment Manufacturing, Eco-recycling, Envirotech, Environmental Planning, Headquarters and Offices</b> 裝備製造、生態資源、綠色科創、環境規劃、總部、代表處、辦事處及管理中心	26.69	0.7

## Water Resources Consumption and Management

As a one-stop integrated environmental solutions provider in China, the Group strives to minimise water consumption and follows up closely with the relevant national policies on water consumption and water saving. The Group's waste-to-energy projects treat leachate and municipal waste water in accordance with *Reuse of Urban Recycling Water – Water Quality Standard for Industrial Uses (GB/T 19923-2005)*, *Reuse of Urban Recycling Water – Water Quality Standard for Scenic Environment Use (GB/T 18921-2002)* or other equivalent standards. Treated leachate meeting reusable water standards will be recirculated in the Group's waste-to-energy projects, while the reverse osmosis concentrate will be used in other processes, such as lime preparation. In 2019, over 70% of the treated leachate was reused.



The third generation of the leachate treatment technology of Everbright International is adopted in the Hangzhou Jiufeng Waste-to-energy Project ("Hangzhou Jiufeng Project") of the Group. After the waste water treatment process, the "Reuse all Water, Zero Discharge" could be realised. Environmental Water, on the other hand, utilises reusable water projects to purify effluent from waste water treatment plants in accordance with *Reuse of Urban Recycling Water – Water Quality Standard for Industrial Uses (GB/T 19923-2005)* or equivalent standards<sup>(1)</sup>. Reusable water produced by reusable water projects can be used for power plants and general industrial use, reducing freshwater demand of cities.

Note:

<sup>(1)</sup> Major reclaimed water parameters regulated by relevant national laws and regulations mainly include pH, suspended solids, turbidity, biological oxygen demand, COD, iron, manganese, chloride ion, silicon dioxide, total hardness, ammoniacal nitrogen, total phosphorus, E. coli.

## 水資源使用及管理

作為一站式、全方位的環境綜合治理服務公司，本集團致力於減少項目耗水，並密切關注國家相關的用水節水政策。本集團的垃圾發電項目均依照《城市污水再生利用工業用水水質》(GB/T 19923-2005)以及《城市污水再生利用景觀環境用水水質》(GB/T 18921-2002)或其他水循環標準處理滲濾液及生活污水，滲濾液處理後的反滲透出水達到循環補充水水質標準後，將回用作為垃圾發電項目循環補充水，濃水回用於石灰漿製備等其他工藝。二零一九年，本集團經處理的滲濾液回用比例超過70%。



本集團的杭州九峰垃圾發電項目（「杭州九峰項目」）採用光大國際第三代滲濾液處理技術，污水經處理後可達到「全回用、零排放」。環保水務則致力將經污水處理廠處理後的出水透過中水回用項目，按照《城市污水再生利用工業用水水質》(GB/T 19923-2005)<sup>(1)</sup>或同等標準淨化成回用水，供廠區作冷卻水使用或供其他企業作一般工業用途，協助降低城市淡水需求。

附註：

<sup>(1)</sup> 受相關國家法律及規例規管的再用水指標主要包括酸鹼值、懸浮物、濁度、生物需氧量、COD、鐵、錳、氯離子、二氧化矽、總硬度、氨氮、總磷及糞大腸菌群數。



Water Withdrawn by Source in 2019

二零一九年按來源劃分的取水量

Unit: m<sup>3</sup>  
單位：立方米

Operation Unit 運營單位	Sea Water 海水	Rivers and Lakes 河流及湖泊	Groundwater 地下水	Municipal Water Supplies or Other Water Facilities 市政供水或 其他水務設施
<b>Environmental Energy</b> 環保能源	185,322.46	17,279,871.86	737,984.91	11,949,305.52
<b>Greentech</b> 綠色環保	–	10,105,581.08	476,808.00	2,908,958.10
<b>Environmental Water</b> 環保水務	–	3,820.00	635,069.80	1,127,668.60
<b>Equipment Manufacturing, Eco- recycling, Envirotech, Environmental Planning, Headquarters and Offices</b> 裝備製造、生態資源、 綠色科創、環境規劃、 總部、代表處、辦事處及 管理中心	–	–	–	92,086.18
<b>Total</b> 總計	<b>185,322.46</b>	<b>27,389,272.94</b>	<b>1,849,862.71</b>	<b>16,078,018.40</b>

Total Freshwater Consumed  
淡水消耗總量

**45,317,154.05** m<sup>3</sup>  
立方米

Through continuous research on the combination of advanced processes by the Group such as ultrafiltration, nanofiltration, softening, high-pressure reverse osmosis, and separating membrane, the Group embarks its research on the fourth-generation leachate treatment technology to simplify operation and maintenance workflow, reduce energy consumption and related costs, site area, as well as achieving digitised management. On the other hand, through the network of Everbright Water's project companies across the country and a series of water environment treatment services including municipal and industrial waste water treatment and reusable water, the Group continues improving the environmental and hygiene conditions of water bodies in China. The projects greatly minimise the environmental damage caused by waste water discharge, and protect the health and well-being of the public.

The Group applies stringent discharge standards to its waste water treatment projects. Through continuous upgrading works, effluent discharged from all of the Group's waste water treatment projects complies with the requirements as stipulated in the environmental impact assessment reports approved by the local governments<sup>(1)</sup>, whilst majority of the projects comply with Grade 1A standard of *Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB18918-2002)*. The independence and fairness of the Group's effluent monitoring results are guaranteed by using rapid, reliable and continuous effluent monitoring systems installed in all the Group's waste water treatment projects, as well as periodic monitoring events conducted by third-party laboratories. Also, the Group's new biological deodourisation technologies are capable of adjusting the processing parameters in response to different types of odourous gases, reducing odour released from waste water treatment plants and making the facilities more environmentally friendly.

Note:

<sup>(1)</sup> Major effluent parameters regulated by relevant national regulations and standards include COD, biological oxygen demand, suspended solids, animal fats and vegetable oils, total nitrogen, ammoniacal nitrogen, total phosphorus, pH, colour, E. coli, mercury and other heavy metals (and their chemical compounds).

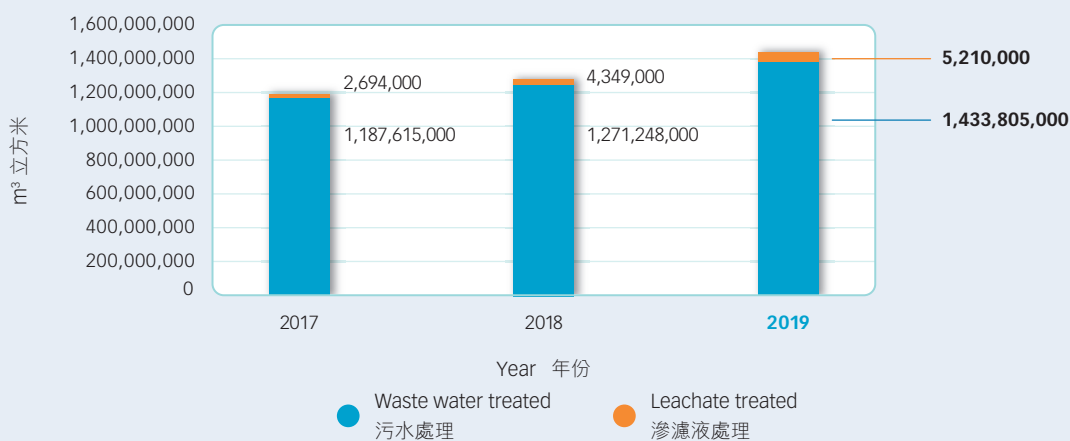
本集團不斷研究組合超濾、納濾、軟化、高壓反滲透、物料分離膜等先進工藝，研究開發第四代滲濾液處理技術，其運行維護更簡單，運行能耗費用更低，佔地面積更少，有助實現全量化處理。此外，通過光大水務遍佈全國的項目公司分佈網絡，利用市政及工業污水治理、中水回用等一系列的水環境綜合治理服務，本集團持續為中國水體狀況及其衛生標準，大幅度降低污水排放造成的環境損害，保障公眾的健康和福祉。

本集團為其污水處理項目採用嚴格的出水標準。通過持續的提標改造工程，在符合當地政府批准的環境影響評估報告中所有相關要求<sup>(1)</sup>的基礎上，大部分項目的出水水質更達到《城鎮污水處理廠污染物排放標準》(GB18918-2002)的一級A標準。本集團所有的污水處理項目均安裝了快速、可靠、能無間斷記錄出水水質資料的監測系統，並定期聘請協力廠商化驗所監測出水樣本，最大程度保證出水水質，竭力減少對環境造成的污染。在解決污水處理廠產生的臭氣問題上，本集團的新型生物除臭系統可以根據不同類型的氣體調整處理參數，減少污出處理廠釋出氣味，使設施更加高效環保。

附註：

<sup>(1)</sup> 受相關國家規例及標準規管的出水指標主要包括COD、生物需氧量、懸浮物、動植物油、總氮、氨氮、總磷、酸鹼值、色度、糞大腸菌群數、汞及其他重金屬（及其化合物）。

### Waste Water and Leachate Treated in the Past Three Years 過往三年的污水及滲濾液處理量



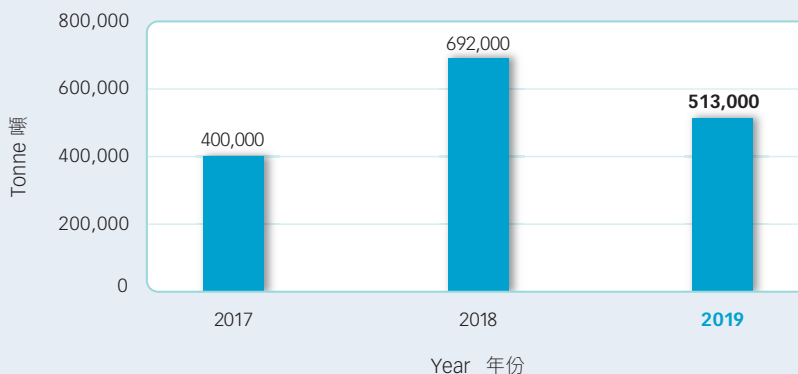
Notes:

- (1) Waste water treatment includes all operating municipal and industrial waste water treatment projects under Environmental Water.
- (2) Leachate treatment includes all operating waste-to-energy projects and integrated biomass utilisation projects.

附註：

- (1) 污水處理包括環保水務所有運營市政及工業污水處理項目。
- (2) 滲濾液處理包括所有運營垃圾發電項目及生物質綜合利用項目。

### COD Reduction in the Past Three Years 過往三年的COD減排量



Note:

- (1) Includes all operating waste-to-energy projects, municipal and industrial waste water treatment projects, integrated biomass utilisation projects.

附註：

- (1) 包括所有運營垃圾發電項目、市政及工業污水處理項目、生物質綜合利用項目。

Effluent Discharged by Destination in 2019

二零一九年按目的地劃分的排水量

Unit: m<sup>3</sup>  
單位：立方米

Operation Unit 運營單位	Surface Water 地表水	Underground Water 地下水	Sea 大海	Waste Water Treatment Plants Operated by Third Parties 第三方機構運營的 污水處理廠	Water Supplied to Third Parties for Use as Reclaimed Water and/or Reusable Water 供應至第三方作 再用水及/或 回用水使用
Environmental Energy 環保能源	3,816,744.00	-	-	2,004,428.25	-
Greentech 綠色環保	264,334.00	15,647.00	-	417,385.00	-
Environmental Water 環保水務	1,095,515,494.00	11,040.00	141,979,008.00	96,308,064.00	13,065,646.00
Equipment Manufacturing, Eco- recycling, Envirotech, Environmental Planning, Headquarters and Offices 裝備製造、生態資源、 綠色科創、環境規劃、 總部、代表處、辦事處及 管理中心	-	-	-	73,560.00	-
<b>Total 總計</b>	<b>1,099,596,572.00</b>	<b>26,687.00</b>	<b>141,979,008.00</b>	<b>98,803,437.25</b>	<b>13,065,646.00</b>

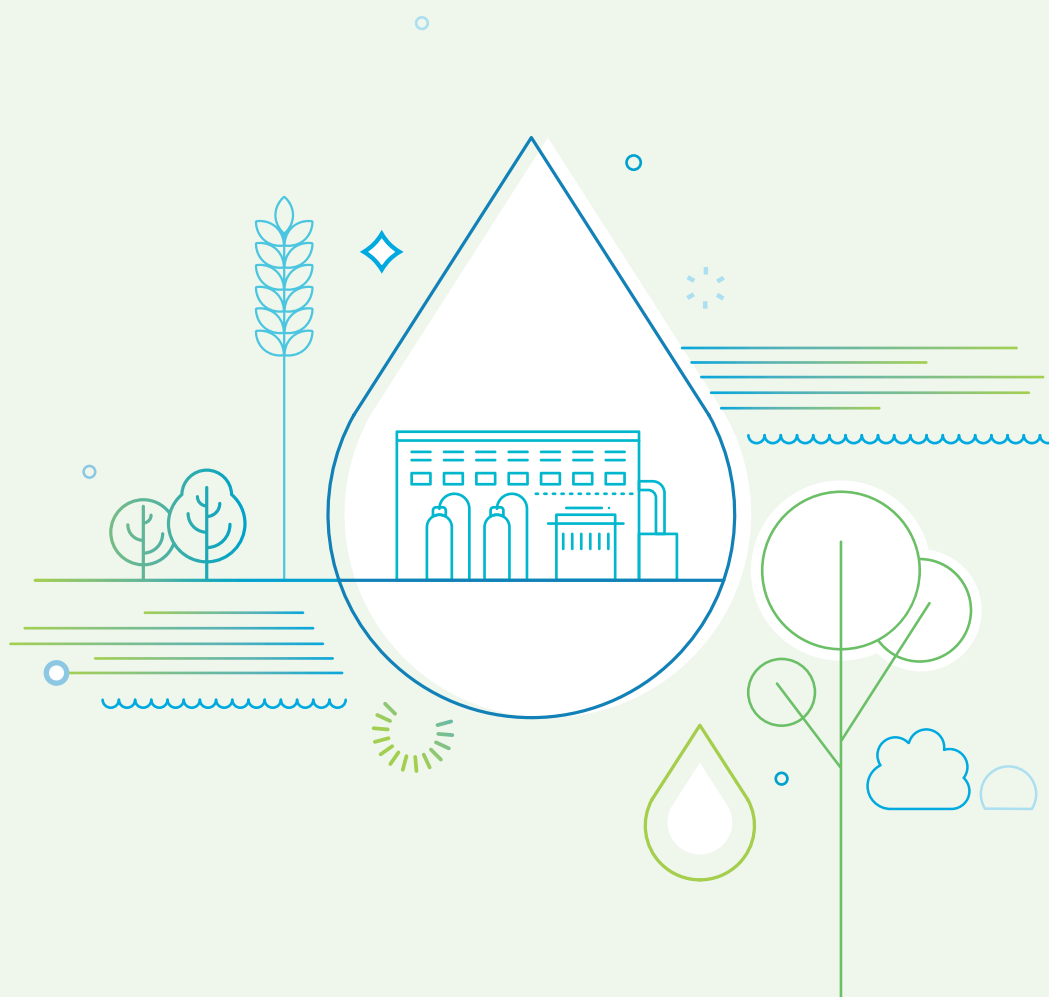
Total Effluent Discharged  
總排水量

1,353,471,350.25 m<sup>3</sup>  
立方米

### Refurbishment of Influent Pumps 進水提升泵進行翻新工程

In Chunliuhe Waste Water Treatment Project, the presence of substantial quantities of sand in waste water had caused severe wear and tear to the influent pump impellers. As a result, the project company had to turn on 5 influent pumps in parallel to keep up the normal influent flow rates. With an aim to reduce energy consumption and to improve efficiency, the project company proposed to the regional management centre for execution of an influent pump refurbishment programme. After refurbishment works, the efficiency of the influent pumps has been significantly enhanced. The normal influent flow can now be maintained with 4 influent pumps on duty. The refurbishment works have effectively boosted the project's operating efficiency and reduced energy consumption and operating costs.

春柳河污水處理項目的進水提升泵由於進水泥沙量較大導致葉輪磨損嚴重，項目公司需要同時開啟5台提升泵才能滿足正常的進水量。為減低能源耗量，提高效率，項目公司向區域管理中心提出對進水提升泵進行翻新的整改計劃。維修後的提升泵效率明顯提高，現在開啟4台提升泵已經可以滿足正常的進水量。此項翻新有效提高項目運營效率，並降低了能耗和運營成本。



## Waste Management

In 2019, the General Office of the State Council of the PRC issued the *Plan for Pilot Development of "Zero-Waste Cities"*, putting forward the concept of "Zero-Waste Cities" for the first time.

Waste reduction has always been important to the Group as an environmental protection enterprise. The Group strives to achieve environmentally sound management of all wastes throughout their life cycles, and significantly reduce their release to air, water and soil through comprehensive recycling and resource utilisation schemes.

Currently, Everbright International has established the Eco-recycling sector, with major businesses consisted of household waste sorting, integrated urban-rural environmental sanitation services and recyclable resources utilisation, to realise a full-chain business system that ranges from waste collection at source to final treatment and disposal. Everbright International is pioneering its unique business model that covers waste reduction at source, waste sorting, recycling and ultimate treatment in a harmless manner. These initiatives support reduction of solid waste at source, resource utilisation, and assist the development of zero-waste cities.

In terms of the generation of waste from the projects, the Group is committed to recycling the by-products arising from the Group's operations in various fields and contributing to green construction as well as urban greening.

## 廢棄物管理

國務院辦公廳於二零一九年年初印發《「無廢城市」建設試點工作方案》，首次提出「無廢城市」概念，而借物減廢一直是本集團作為環保企業的重要一環。本集團務求達至對所有廢物全生命週期的綠色管理，並透過全面的回收及資源化利用計劃，減少它們向空氣、水和土壤的排放。

光大國際目前已經成立生態資源板塊，主營業務為生活垃圾分類、城鄉綜合環衛服務、再生資源回收利用三大類，實現了從源頭收集至末端處置的固廢全產業鏈業務體系。光大國際正在創建源頭減量、垃圾分類、循環利用、末端無害化處置的光大國際獨有模式，以此推進固體廢物源頭減量、資源化回收利用，助力無廢城市的建設。

在項目產廢方面，本集團致力將運營中的副產物在多個領域循環利用，對綠色建設及城市綠化等方面作出貢獻。



**Bottom ash generated from waste-to-energy can be recycled to produce bricks**  
垃圾發電產生的爐渣可回用於製磚



**Furnace ash produced from biomass combustion can be used to produce fertilisers**  
生物質燃燒產生的爐灰可用於製作肥料



**Sludge generated from municipal waste water treatment can be used in compost production**  
市政污水處理產生的污泥可用於製作堆肥

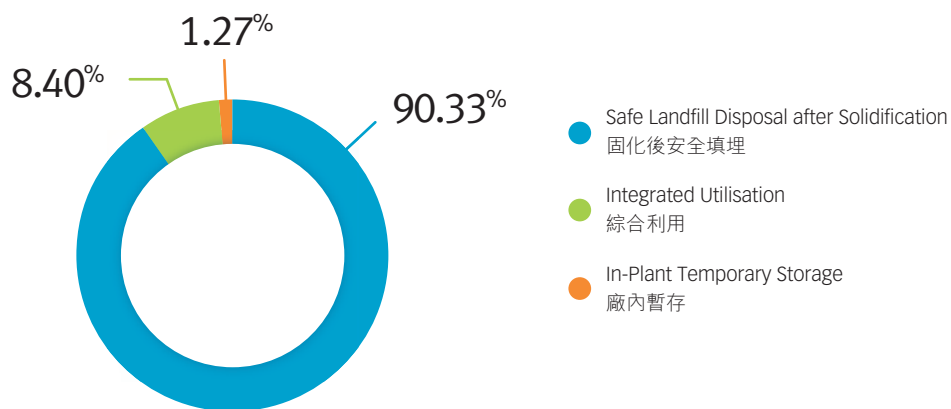




**Fly Ash and Furnace Ash Generated and Processed in 2019** 二零一九年飛灰及爐灰產生量及處置方式

Unit: Tonne  
單位：噸

Operation Unit 運營單位		Safe Landfill Disposal after Solidification 固化後安全填埋	Integrated Utilisation 綜合利用	In-Plant Temporary Storage 廠內暫存
<b>Fly Ash</b> 飛灰				
<b>Environmental Energy</b> 環保能源	Waste-to-energy Projects 垃圾發電項目	637,660.56	–	6,168.36
<b>Greentech</b> 綠色環保	Integrated Biomass Utilisation Projects (Waste-to-energy) 生物質綜合利用項目 (垃圾發電)	30,972.48	–	3,766.00
	Hazardous Waste Incineration Projects 危廢焚燒項目	1,416.54	–	–
<b>Furnace Ash</b> 爐灰				
<b>Greentech</b> 綠色環保	Integrated Biomass Utilisation Projects (Biomass) 生物質綜合利用項目 (生物質)	34,930.97	65,554.26	–
<b>Total</b> 總計		<b>704,980.55</b>	<b>65,554.26</b>	<b>9,934.36</b>



**Total Fly Ash and Furnace Ash Generated**  
飛灰及爐灰產生總量

**780,469.17** Tonnes  
噸

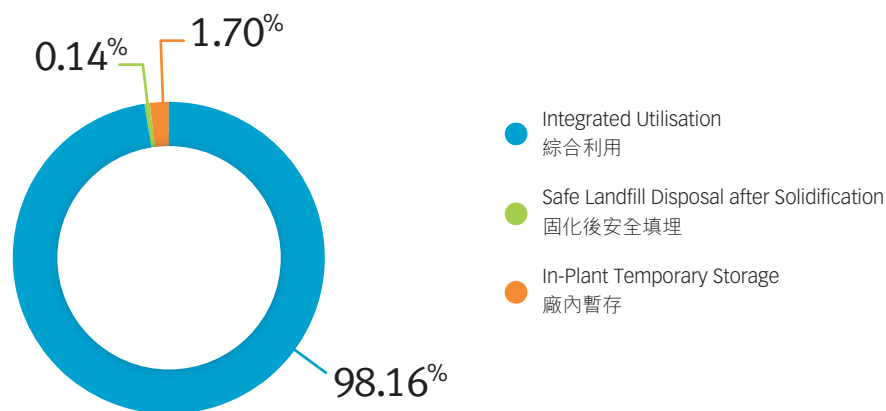
Bottom Ash Generated and Processed in 2019

二零一九年爐渣產生量及處置方式

Unit: Tonne

單位：噸

Operation Unit 運營單位		Integrated Utilisation 綜合利用	Safe Landfill Disposal after Solidification 固化後安全填埋	In-Plant Temporary Storage 廠內暫存
<b>Environmental Energy</b> 環保能源	Waste-to-energy Projects 垃圾發電項目	4,009,922.55	–	82,162.00
<b>Greentech</b> 綠色環保	Integrated Biomass Utilisation Projects 生物質綜合利用項目	743,906.79	–	–
	Hazardous Waste Incineration Projects 危廢焚燒項目	–	6,661.15	–
<b>Total</b> 總計		<b>4,753,829.34</b>	<b>6,661.15</b>	<b>82,162.00</b>



Total Bottom Ash Generated  
爐渣產生總量

4,842,652.49 Tonnes  
噸

On the other hand, the Group's hazardous and solid waste treatment projects process over 90% of hazardous waste types listed in the *National Catalogue of Hazardous Wastes* by ways of incineration, landfill, physico-chemical treatment and integrated utilisation, ensuring that hazardous chemicals are properly detoxified before disposal. All of the Group's hazardous and solid waste treatment projects operate in compliance with respective requirements stipulated in the environmental impact assessment approved by the government as well as national standards including *Standard for Pollution Control on the Security Landfill Site for Hazardous Wastes (GB18598-2001)* and the *Pollution Control Standard for Hazardous Wastes Incineration (GB18484-2001)*<sup>(1)</sup>. The Group did not import or export any hazardous waste from/to foreign countries in 2019.

另一方面，本集團的危廢及固廢處置項目通過焚燒、填埋、物化處理及綜合利用等方式安全處置《國家危險廢物目錄》中百分之九十以上的危廢種類，以確保危險化學物質在棄置前適當進行無害化工序。本集團所有危廢及固廢處置項目遵照政府部門批准的環境影響評價、《危險廢物填埋污染控制標準》(GB18598-2001)及《危險廢物焚燒污染控制標準》(GB18484-2001)等國家標準的相關要求<sup>(1)</sup>運營。本集團於二零一九年沒有從國外輸入或向其輸出任何危險廢物。

Note:

<sup>(1)</sup> Key air pollutants regulated by relevant national laws and regulations include smoke blackness, particulate matter, carbon monoxide, sulphur dioxide, hydrogen fluoride, hydrogen chloride, nitrogen oxides, mercury and other heavy metals (and their compounds), and dioxins.

附註：

<sup>(1)</sup> 受相關國家法律及條例規管的大氣污染物主要包括煙氣黑度、顆粒物、一氧化碳、二氧化硫、氟化氫、氯化氫、氮氧化物、汞和其他重金屬（及其化合物）及二噁英。

**Hazardous and Solid Waste Processed in the Past Three Years**  
過去三年危廢及固廢處置統計



The Group continues to conduct technological R&D in the fields of sludge treatment and disposal and properly dispose the sludge it produces. The municipal waste water treatment projects of the Group strictly comply with the national standards such as *Discharge Standard of Pollutants for Municipal Wastewater Treatment Plant (GB189818-2002)* for the treatment of sludge. These operating projects under Environmental Water also considers relevant international standards including the World Bank Group's *General Environmental Health and Safety Guidelines* and *Environmental, Health and Safety Guidelines for Water and Sanitation* to reduce the environmental impacts of sludge. Most of the treated sludge with satisfactory testing results is sent to qualified third parties for further treatment, reuse and/or utilisation, such as production of compost, utilisation as construction materials, etc. A small amount of sludge that cannot be utilised is sent to designated landfills for disposal after undergoing dewatering process for reduction of water content and volume.

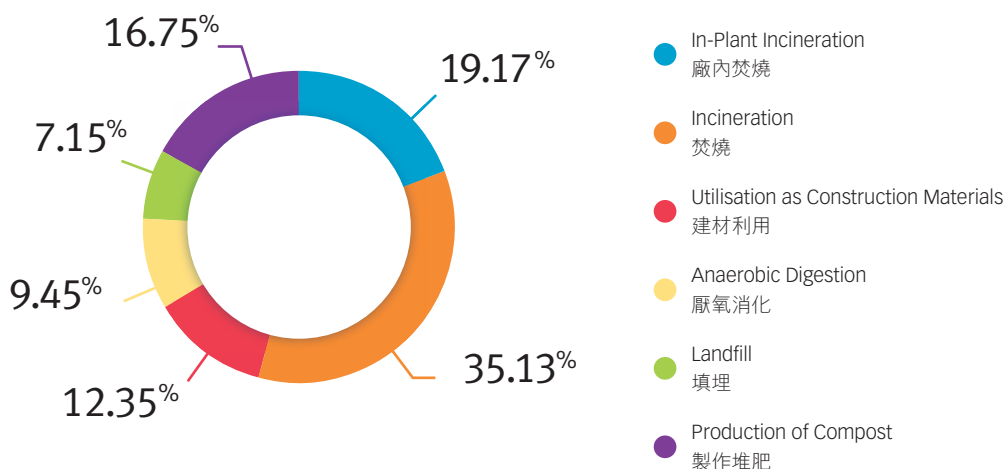
During the Reporting Period, the Group generated approximately 1,154,293.40 tonnes of sludge.

本集團在污泥處理處置等領域繼續進行技術研發和並且妥善處理其生產的污泥。本集團的市政污水處理項目嚴格遵從《城鎮污水處理廠污染物排放標準》(GB18918-2002)等國家標準處理污泥，環保水務的運營項目還把世界銀行集團的《通用環境、健康和安全管理指南》及《水與衛生環境、健康與安全管理指南》等相關國際標準納入考慮，以減少污泥對環境的影響。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，如製作堆肥、建材利用等。少數無法循環再用的污泥則會於進行脫水工序以減低含水量及體積後送到指定填埋場作填埋處理。

報告期內，本集團共產生了約1,154,293.40噸污泥。

### Ultimate Treatment/Disposal Methods of Sludge Generated in 2019

二零一九年所產生的污泥最終處理／處置的方式



Notes:

- (1) Includes all operating Environmental Energy's waste-to-energy projects, Greentech's integrated biomass utilisation projects and Environmental Water's waste water treatment projects.
- (2) Apart from in-plant incineration, all ultimate treatment/disposal of sludge were handled by qualified third parties.

附註：

- (1) 包括環保能源所有的運營垃圾發電項目、綠色環保所有的運營生物質綜合利用項目及環保水務所有的運營污水處理項目。
- (2) 除廠內焚燒外，其他污泥最終處理／處置均由合資格第三方進行。

The Group strives to reduce generation of waste, and encourage reusing and recycling as much as possible. Recycling and reusing are fully practised in the Group's facilities and even offices and staff quarters. The Group recycles wastes such as paper, metal, plastic, food waste, etc., and call on employees to support resource recycling.

本集團致力減少所產生的廢物，並鼓勵廢物重用及回收再造。本集團從生產設施及至辦公室和宿舍等全面執行廢棄物回收以及重用，回收的廢棄物包括紙張、金屬、塑料和廚餘資源回收，呼籲員工支持資源回收。

### General Waste Recycling Statistics in 2019

### 二零一九年一般廢棄物回收量統計

(Unit: kg)

(單位：公斤)



17,853.65

Waste Paper  
廢紙



187,199.21

Metal  
金屬



4,861.48

Plastics  
塑料



8,576.25

Glass  
玻璃



900.50

Electrical Appliances  
電器



54,880.91

Rechargeable Batteries  
充電池



1,015,506.50

Food Waste  
廚餘



1,078.50

Old Clothes  
舊衣物



806.16

Others  
其他

Total General Waste Recycled  
一般廢棄物回收總量

1,291,663.16 kg  
公斤

# People-Oriented 以人為本

Caring **OUR PEOPLE** and  
creating **THE PATH TO SUCCESS**

關懷員工，共創成功之路



Everbright International adheres to the “People-Oriented” philosophy, and is committed to creating an inclusive, friendly and healthy working environment for employees. The Group also pays attention to employee training and career development, allowing them to unleash their full potentials and thrive.

### The Group’s Professional Team

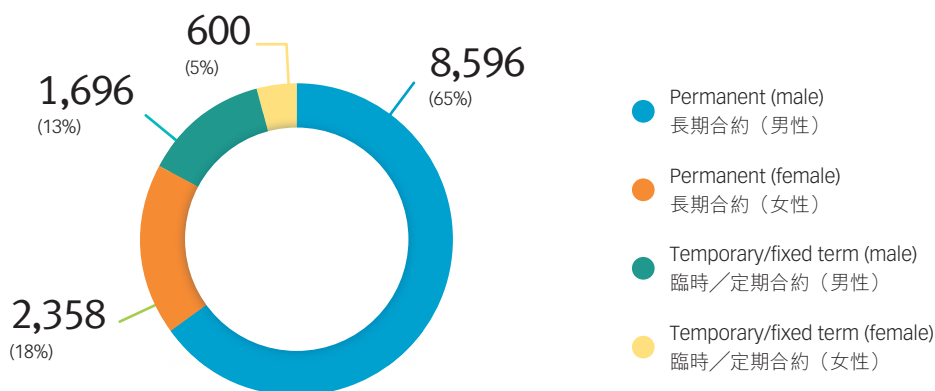
Everbright International’s success is attributed to the Group’s proud and advancing professional team. As at 31 December 2019, the Group had a total of 13,250<sup>(1)</sup> employees, who give a full play to their abilities in different areas.

光大國際秉持「以人為本」的宗旨，致力於為員工締造一個共融、友善及健康的工作環境，並注重員工的培訓及事業發展，讓員工充份發揮潛能，茁壯成長。

### 本集團的專業團隊

光大國際的成功有賴於本集團引以為傲及與時俱進的專業團隊。截至二零一九年十二月三十一日，本集團共有13,250<sup>(1)</sup>名員工於不同業務領域群策群力，各展所長。

By Employment Contract and Gender  
按合約類型及性別劃分



Note:

<sup>(1)</sup> Among them, 13,249 were full-time employees, and 1 was part-time employee.

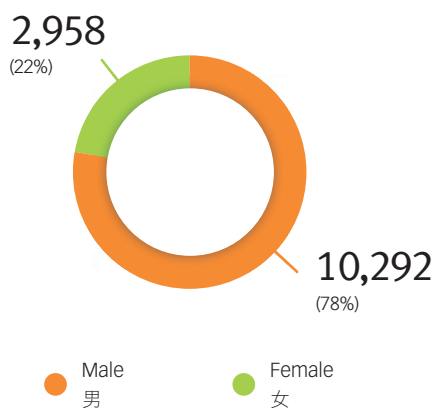
附註：

<sup>(1)</sup> 其中，13,249名為全職員工，1名為兼職員工。



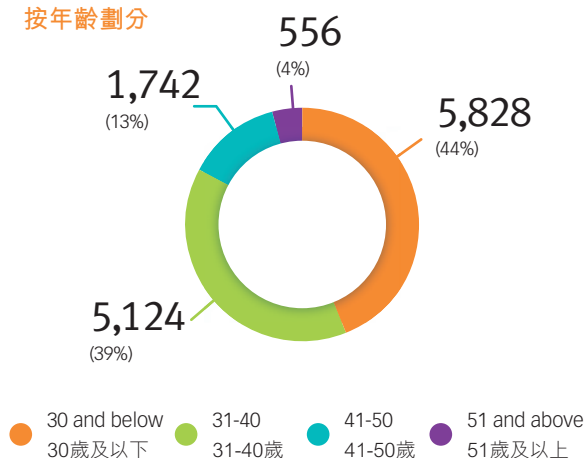
### By Gender

按性別劃分



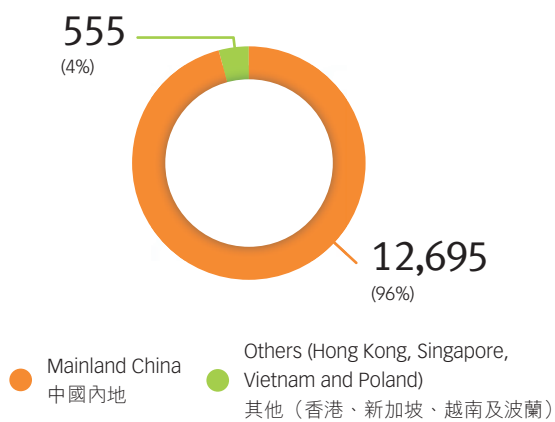
### By Age

按年齡劃分

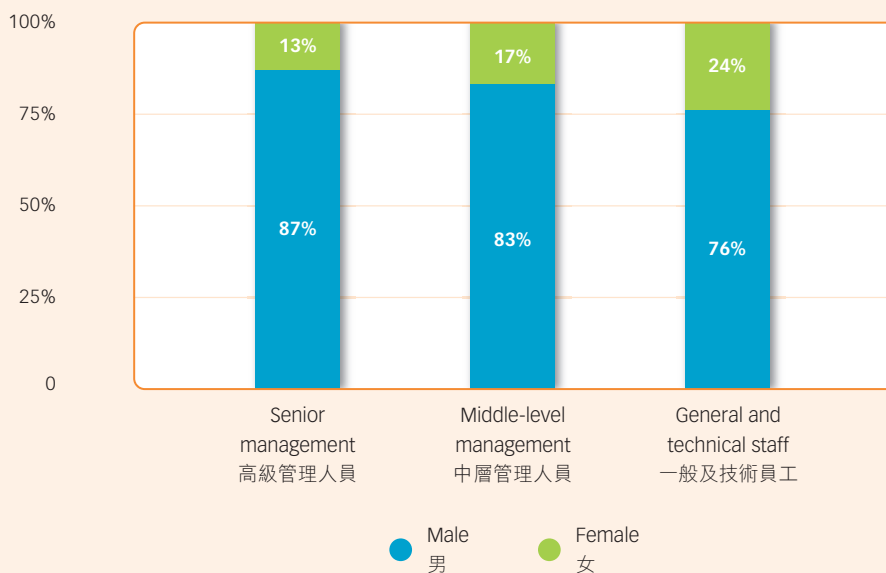


### By Geographical Region

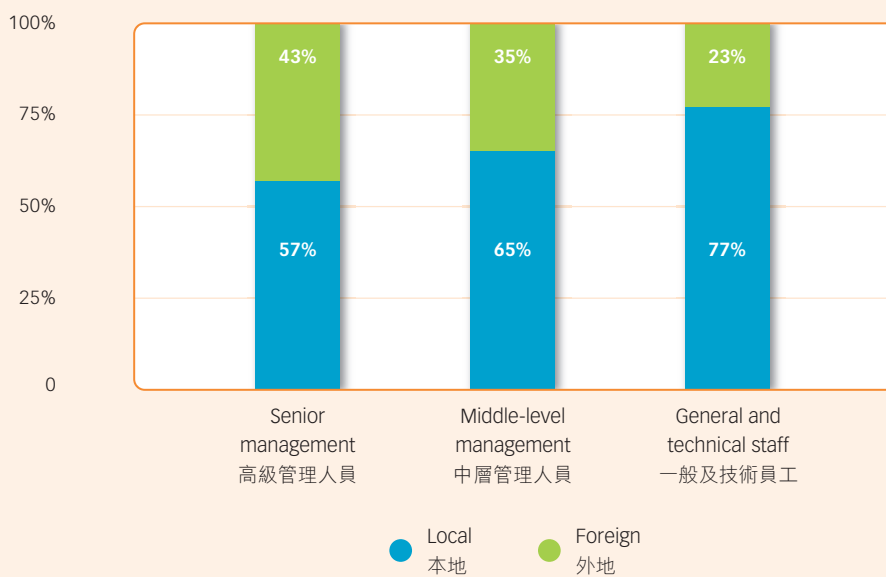
按地區劃分



### Male to Female Ratios 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



Note:

<sup>(1)</sup> 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 foreign employees.

附註：

<sup>(1)</sup> 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。

## Equal Opportunities and Integration

The Group's *Staff Handbook* covers topics such as compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, preventing child and forced labour, and other benefits and welfare, as well as promoting a fair and transparent career platform to ensure employees are not discriminated in any way due to gender, age, ethnicity, nationality, marital status, religion, etc. at work.



The Group has established the *Human Rights Policy* to support all international norms and codes regarding human rights, including the "UN's Universal Declaration of Human Rights", "Guiding Principles on Business and Human Rights" and related regulations of the "UN Global Compact" and the International Labour Organisation. The policy upholds human rights and sets specific guidelines for diversity and inclusion, equal opportunity, reasonable working hours, workplace health and safety, freedom of association, and employee-employer negotiations. The Group adopts a zero-tolerance attitude towards child labour and forced labour, and at the same time strictly follow the requirements of the main human rights declaration and labour regulations. During the Reporting Period, there were no violations of human rights or the use of child labour or forced labour.

The Group attaches great importance to the ethical, personal and professional conduct standards of its employees. All employees are obligated to comply with the Group's *Code of Conduct*, and the Group anticipates all employees to meet the highest standards set out in the Code of Conduct, including avoiding conflicts of interest, discrimination and harassment, as well as bribery (including any form of facilitating payment), extortion, fraud and money laundering, etc. Employees are also required to report any violations of the Code of Conduct to the management. In addition, employees' ethical performance is reflected in their appraisals to ensure the Group is operating ethically in the Group's businesses. During the Reporting Period, the Group did not have any violation of the *Code of Conduct*.

## 平等機會及共融

本集團的《員工手冊》涵蓋了關於薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、防止童工及強制勞動、以及其他待遇及福利等議題，更提倡公平公開的就業平台，確保員工在工作中不會因性別、年齡、種族、國籍、婚姻狀況、宗教等因素而受到任何形式的歧視。



本集團制定了《人權政策》，以支持所有有關人權的國際規範和準則，包括「聯合國世界人權宣言」、「工商業與人權指導原則」以及「聯合國全球契約」和國際勞工組織的相關規定。該政策維護人權，並為多樣性和包容性、平等機會、合理工作時間、工作場所健康和 safety、結社自由以及僱員－僱主談判制定了具體指導方針。同時，本集團對於童工及強迫勞動採取零容忍的態度，同時嚴格按照主要人權宣言及勞動法規的要求用工。於報告期內並沒有任何侵犯人權或存在使用童工或強迫／強迫勞動之事件。



本集團極為重視員工的道德、個人及專業操守準則，所有員工須承諾遵守本集團之《員工守則》，內容包括避免利益衝突、歧視或騷擾、以及賄賂（包括任何形式的通行費）、勒索、欺詐及洗黑錢等。此外，員工的道德表現與其績效評估掛鉤，以確保本集團的經營符合相關之商業道德。本集團亦會對疏於職守者、貽誤工作、洩露機密及貪污受賄者予以相應懲處。於報告期內，本集團並沒有任何違反《員工守則》的個案。

The Group implements a fair and competitive remuneration and welfare system. The remuneration is determined based on qualification, experience, nature of work, performance and market conditions to attribute to create equal employment opportunities. In view of the fact that the human resources distribution in energy and engineering sectors polarises on male, the Group pays special attention to issues including gender equality and remuneration, with an aim to reduce the impact of gender factors on pay scale and structure. Furthermore, the Group safeguards the rights of vulnerable employees, including offering pregnant employees with sufficient maternity leave and male employees with paternity leave. The Group reserves positions for employees on maternity or parental leave, encourage them to re-join the company, and ensure their career development and remuneration are unaffected.

本集團實施公平及具競爭力的薪酬福利制度，薪酬乃根據資歷、經驗、工作性質、表現以及市場情況計算釐定，致力締造平等的就業機會。有鑑於從事能源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，務求減少性別因素對薪酬水平及結構的影響。此外，本集團更傾力於維護弱勢員工的權利，包括給予懷孕員工充足的產假，以及給予男員工待產假等。本集團為在產假／待產假中的員工保留崗位，鼓勵他們再次投入公司，並保證其職業發展和薪酬不會因而受影響。

### Employee Maternity/Paternity Leave Statistics in 2019

### 二零一九年產假／待產假數據

		 Female 女	 Male 男
Number of female and male employees who took maternity/paternity leave in 2019	二零一九年放產假／待產假的男女員工數目	182	444
Number of employees who returned to work after maternity/paternity leave in 2019	二零一九年產假／待產假結束後返回工作崗位的員工數目	177	433
Number of employees who returned to work after maternity/paternity leave ended in 2018 and still employed by the end of 2019	二零一八年產假／待產假結束後返回工作崗位並於二零一九年底仍在職的員工數目	120	264
<b>Percentage of employees who returned to work after maternity/paternity leave ended in 2019</b>	二零一九年產假／待產假結束後返回崗位的員工比例	<b>100%</b>	<b>100%</b>
<b>Percentage of employees who returned to work after maternity/paternity leave ended in 2018 and still employed by the end of 2019</b>	二零一八年產假／待產假結束後並於二零一九年底仍在職的員工比例	<b>88.24%</b>	<b>94.96%</b>

## Employees' Benefits

The Group has a comprehensive welfare and safeguard system, official employees are provided with life insurance, medical insurance, disability and critical illness coverage, maternity leave and paternity leave. The Group also distributes discretionary bonuses to reward outstanding employees. In addition to providing mandatory pension insurance as required by law, the Group has developed a supplementary pension system as an additional retirement benefit.

To ensure the physical and mental health of employees, free body check and occupational disease prevention inspection are provided every year. Starting from 2019, in addition to free medical examinations, front-line workers can also receive follow-up support to safeguard their health.

## Two-way Communication

To create an ideal working environment for employees to grow, the Group proactively communicate with employees. Employees can express their thoughts about the Group through different channels, including regular staff meetings and employee satisfaction surveys. The Group also welcomes employees to communicate directly with the CEO and/or the chairman of the audit committee via email which allow them to express their views under a comfortable and private environment. The Group's grievance mechanisms covers different topics including employee relations, human rights, workplace harassment and discrimination, etc., providing employees a platform to share their views, and express their concerns on corporate governance.

### **Employee Survey 2019**

In order to further understand the views of the Group's employees on the Company's management, working environment, benefits and other aspects, the Group invited employees to participate in an online questionnaire in 2019. A total of 1,666 employees participated in the survey. Over 85% of respondents are satisfied with their current job duties and working environment.

## 員工福利

本集團擁有完善的福利和保障制度，正式員工皆享有人壽保險、醫療保險、傷殘及疾病保障、產假及侍產假等福利。本集團亦派發獎勵花紅，獎勵表現優異的員工。此外，除了提供法律規定的強制性養老保險，本集團更為員工貼心製訂了補充養老制度作為額外的退休福利。

為確保員工的身心健康，本集團每年均為員工提供免費的身體檢查及職業病防範檢查服務。二零一九年開始，前線工人除了享有免費身體檢查，亦能獲得後續的支持，確保身體健康得到保障。

## 雙向溝通

為建立一個讓員工茁壯成長的理想工作環境，本集團積極主動地與員工進行溝通。本集團透過定期舉辦員工大會、進行員工滿意度問卷調查等途徑，讓員工表達對本集團的想法。本集團更歡迎員工透過電郵與行政總裁及／或審核委員會主席直接對話，讓他們在舒適和私隱度高的環境下表達意見。而本集團所設立的申訴機制覆蓋勞資關係、人權、職場騷擾及歧視等多個方面，供員工循序提出申訴、發表意見及提出對本集團管治的關注。

### **二零一九年員工問卷調查**

為進一步了解各員工對公司的管理、工作環境、福利待遇等各方面的看法，本集團於二零一九年邀請了員工參與網上問卷調查。是次調查共有1,666名員工參與。85%以上的參與者對現有工作崗位及環境感到滿意。

The survey results show that employees generally get along well with their colleagues. They also understand the Company's development goals and how their work contributes to the Company's development. In addition, employees also actively put forward suggestions on Company policies, which helps the Group to improve its policies and systems, and helps us to fully consider the needs of employees when formulating management approaches.

調查結果顯示，員工普遍跟同事相處融洽，另外也了解公司的發展目標，以及明白自身工作如何對公司發展作出貢獻。另外，員工亦積極提出有關公司政策的建議，有助本集團完善其政策與制度，並協助本集團在制定管治方針時更能充分考慮到員工的需求。

In addition, the Group regularly publishes internal publications, such as the "Everbright International Monthly Magazine", to share the Group's updates and encourage employees to contribute articles as a way to express their opinions.

此外，本集團亦定期出版如「光大國際月刊」等內部刊物，除了分享集團資訊和動向，更鼓勵員工投稿，讓他們發表己見。



### Envirotech Staff Meeting

#### 綠色科創全體員工大會

Envirotech held a staff meeting in Nanjing R&D building on 19 March 2019 to listen to employees' opinions and suggestions. Around 300 employees from different departments participated in this meeting. The atmosphere of the meeting was enthusiastic, and the participating employees all spoke actively, and put forward suggestions, ideas and questions relating to the aspects of innovation, professional field, direction, goals and personnel. The senior management listened and recorded carefully, and answered questions and exchanged ideas with employees.

二零一九年三月十九日，綠色科創在南京研發樓召開全體員工大會，聽取員工心聲和建議。是次會議共有近三百名來自不同部門的員工參與，會上氣氛熱烈，參與員工皆踴躍發言，從創新層次、領域、方向、目標及人員等方面提出建議、想法和疑問。管理層則細心聆聽、認真記錄，並即時解答疑問、與員工交流想法。



## Talent Recruitment and Retention

Everbright International's project management team comprises members with extensive and in-depth experience in project planning, procurement, construction, operations and R&D. The Group actively develops its talent pool through local, overseas and on-campus recruitments and various internal training initiatives to attract and cultivate professional and international talents. During the Reporting Period, in order to recruit talents from more channels, the Group issued the *Management Measures and Awards for Talent Referral by Internal Staff* to encourage existing staff to refer suitable candidate(s) to the Group. In line with the Group "Technology Leads Development" ethos, the Group actively brings in management and technical expertise in technological R&D through industrial-academic collaboration and acquisition of technological companies in recent years.

The Group is committed to providing open and equal employment opportunities and platforms, where the ability and qualification of candidates remain as the most important assessment criteria in the recruitment process. Their employment opportunities are never affected by factors such as gender, age and ethnicity. In addition, as a large number of the Group projects are located in underdeveloped and remote areas, the Group pays special attention to local talents. Many new employees hired during the Reporting Period are from local, so as to promote local economic development and employment opportunities.

## 人才招募及挽留

光大國際的項目管理團隊皆由在項目規劃、採購、施工、運營及研發方面具有廣泛及深入經驗的資深成員組成。本集團一直通過社會招聘、海外招聘、校園招聘及自身培養等方式不斷加強人才隊伍建設，吸納及培養專業化和國際化的人才。報告期內，本集團更頒發了《內部員工推薦外部人才管理及獎勵辦法》，鼓勵員工引薦合適人員加入本集團發揮所長，從更多途徑招賢納士。為了配合本集團「科技引領發展」的策略，集團近年更透過產學合作、收購技術公司等方式，積極引進技術研發的管理及技術專才。

本集團致力提供公開而平等的就業機會與平台，在招聘的過程中應徵者的能力和資質為最關鍵的考核要素，應徵者的機會絕不會受到性別、年齡、種族等其他因素影響。另外，由於本集團大量項目位於尚欠發展的偏遠地區，因此為了促進當地經濟發展和就業機會，本集團特別關顧本地人才，報告期內聘請的許多新員工均來自本地。



Total Number of New Employees in 2019 :

二零一九年新聘員工總人數：

4,227

By Gender  
按性別劃分



Female

女

964

(23%)



Male

男

3,263

(77%)

By Age  
按年齡劃分

30 and below

30歲及以下

2,399

(57%)

31-40

31-40歲

1,466

(35%)

41-50

41-50歲

299

(7%)

51 and above

51歲及以上

63

(1%)

By Geographical Region  
按地區劃分

Mainland China  
中國內地

4,132

(98%)

Others (Hong Kong, Singapore,  
Vietnam and Poland)  
其他(香港、新加坡、越南及波蘭)

95

(2%)

Around **74%** of new employees were hired from local<sup>(1)</sup>

來自本地<sup>(1)</sup>的新聘員工約 **74%**

Note:

<sup>(1)</sup> 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 foreign employees.

附註：

<sup>(1)</sup> 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。

### Total Number of Employee Turnover (Resignation/Retirement) in 2019:

二零一九年流失員工（離職／退休）總人數：

# 1,168

#### By Type 按類型劃分

Resigned  
離職  
**1,134**  
(97%)

Retired  
退休  
**34**  
(3%)

#### By Gender 按性別劃分



Female  
女  
**236**  
(20%)



Male  
男  
**932**  
(80%)

#### By Age 按年齡劃分

30 and below  
30歲及以下  
**594**  
(51%)

31-40  
31-40歲  
**398**  
(34%)

41-50  
41-50歲  
**105**  
(9%)

51 and above  
51歲及以上  
**71**  
(6%)

#### By Geographical Region 按地區劃分

Mainland China  
中國內地  
**1,067**  
(91%)

Others  
(Hong Kong, Singapore,  
Vietnam and Poland)  
其他  
(香港、新加坡、  
越南及波蘭)  
**101**  
(9%)

As a leading enterprise in the green power generation industry, the Group values the professional knowledge of its employees. Knowing that training of a senior technician can take as much as 3 years, the Group monitors the number of employees who are going to be eligible for retirement every year in order to formulate a human resources strategy while providing employees with appropriate career management plans, including retirement arrangements.

作為綠色發電行業的領先企業，本集團重視員工的專業知識水平。本集團深明培育人才需時，培養一位技術骨幹需時可長達三年之久。因此，本集團每年均會統計即將合資格退休的員工數目，長遠考慮及制定人力資源政策，同時為員工提供包括退休安排的妥當職業生涯管理計劃。

### Percentage of Employees Eligible for Retirement in 5 and 10 Years

五年及十年內合資格退休的員工百分比

Employee Ranking	員工職級	In 5 years 五年內	In 10 years 十年內
Senior management	高級管理人員	8.39%	16.43%
Middle level management	中層管理人員	2.79%	7.54%
General and technical staff	一般及技術員工	2.21%	3.88%

### Training and Development

### 培訓及發展

With a view to promote mutual growth and sharing of the fruits of success between employees and the Group, Everbright International actively invests in talent training, and is committed to embedding the long-term development of the Group into the individual development of every employee and unleashing the unlimited potential of every employee.

為促進集團與員工相互成長並共享成果，光大國際積極於人才培訓上投入資源，致力將企業的長遠發展揉合每位員工的個人成長歷程，讓每位員工盡顯潛能。

The Group has a comprehensive and measurable employee assessment system to effectively enhance the working quality, competitiveness and enthusiasm of employees. In 2019, all employees received constructive feedback and career planning advice from their performance appraisals, laying a firm foundation for the talent pool and corporate sustainable development.

為有效提升員工的工作質素、競爭力及積極性，本集團設有全面、可評估的員工考核制度。二零一九年，集團的所有員工均從各自的績效考核中取得具建設性的回饋和職業生涯規劃建議，為人才儲備及企業持續發展打下了堅實的基礎。

## Talent Development Scheme

The Group incorporates employee training as a norm in management, providing regular and comprehensive training development to employees and establish training profiles to help employees reach their full potential. During the Reporting Period, the Group established Ecological Environment Institute to serve the need of its business development and arrange for appropriate training centrally. The institution actively acted in line with the career development demands of employees from all ranks, cooperated closely with universities, and successively launched training programmes for general managers and construction directors, training courses for safety and environmental management, and training courses for public communication staff and new employees, to enhance management's and staff's professional and comprehensive abilities through continuous education. Meanwhile, the Group also proactively provides employees with exchange opportunities with local and overseas industry peers to learn from each other.

## 人才發展計劃

本集團把員工培訓納入常態管理，為員工提供定期及全面的發展培訓，建立培訓檔案，務求促進員工成才。報告期內，本集團設立生態環境學院，針對集團業務需要統一安排合適培訓。學院積極配合各職級的員工在職業發展階段的需求，並與大學緊密合作，先後舉辦了總經理與總指揮培訓班、安全環境管理培訓班、通訊員培訓班、新員工培訓班等，讓管理層及員工持續進修，提升專業和綜合能力。同時，本集團亦積極為員工爭取與國內外同行交流的機會，互學相長。

### In 2019

二零一九年

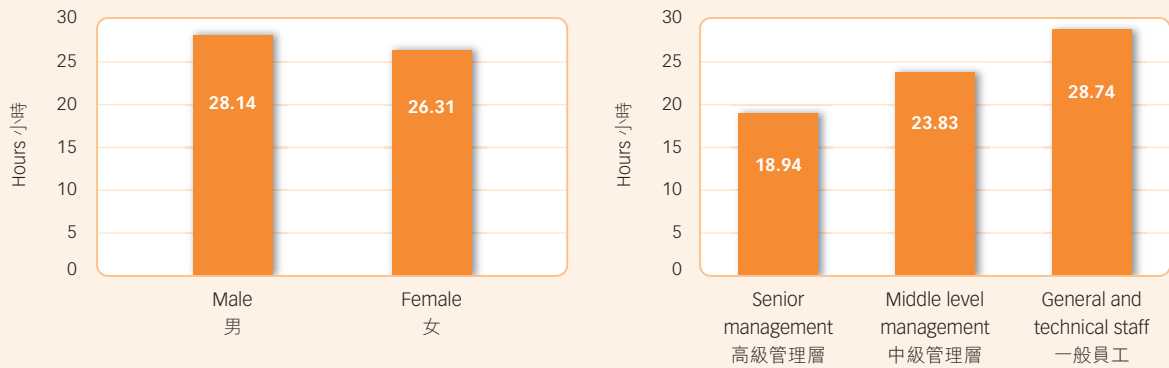
Total training hours of employees in Everbright International:  
光大國際的員工培訓總時數為

**367,447** hours  
小時

Average training hours per employee:  
人均培訓時數為 **27.73** hours  
小時



**Average Training Hours per Person by Gender and Employee Ranking<sup>(1)</sup>**  
按性別和員工職級劃分的人均培訓時數<sup>(1)</sup>



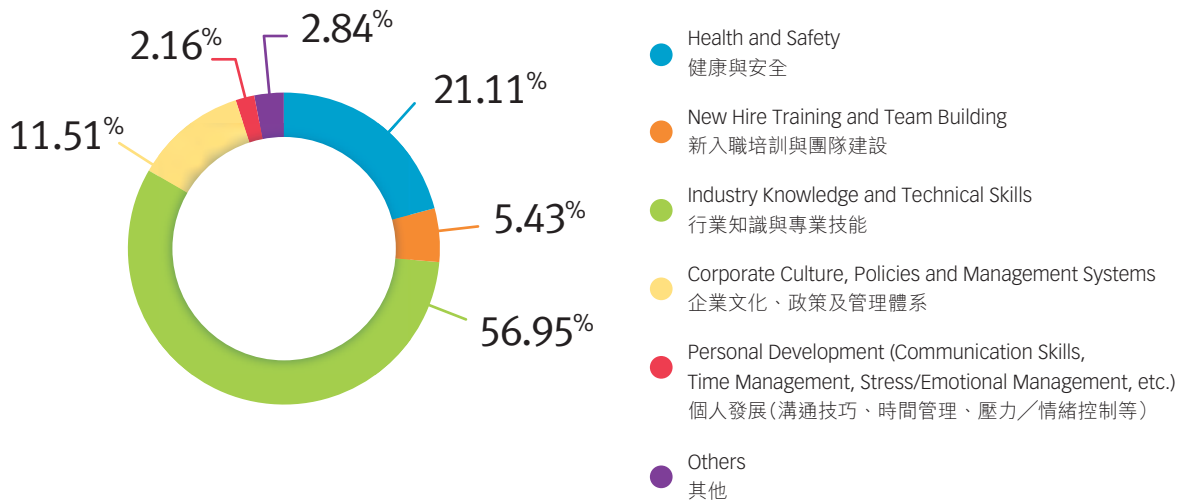
Note:

<sup>(1)</sup> This year, the Group implemented efficient and precise training according to the needs of employees at different positions, which resulted in a reduction in the total training hours.

附註：

<sup>(1)</sup> 本集團於今年度按照員工不同崗位的需求實施高效的精準培訓，因此導致培訓總時數減少。

**Percentage of Training by Category**  
培訓類別的百分比



## Featured Trainings

## 特色培訓項目

### Tsinghua University CEO Course 清華大學CEO班



The Group has always maintained close relationship with Tsinghua University, and co-organise international executive training courses to improve the leadership and management capabilities of the Group's management and core staff. In July 2019, 55 participants of the 8th session participated in the class and completed the course. The Group believes they can follow the pace of graduates over the past 9 years, from Tsinghua seminars to senior management positions of various project companies, and help promoting the company's future development.

本集團一直與清華大學保持友好關係，透過聯合舉辦企業國際化高管研修班，提升管理層及骨幹隊伍的領導才能和管理能力。二零一九年七月，第八期共55位學員參與了課題答辯、順利結業。相信他們都能追隨過去九年結業學員的步伐，從清華研修班走向各項目公司的高層次管理崗位，推動公司未來發展。

### Everbright International's Lecture Series 光大國際大講堂

The Group held the first session of Everbright International's Lecture Series in June 2019. The Lecture Series invited professionals from all industries to give speeches. Employees of Everbright International's headquarter and other departments and project companies of different business sectors can attend the lectures in person or through webcast. Lecture topics included "Zero-Waste Cities" and "Problems in the development of the Guangdong-Hong Kong-Macao Greater Bay Area". The participants were greatly benefitted, and their knowledge on related issues are important for the future development of the Group.



本集團在二零一九年六月舉行了首期光大國際大講堂。大講堂邀請各界專業人士發表演說，光大國際總部及其他部門及板塊項目公司員工皆可現場或以視頻直播的方式聽取授課。專題講座議題包括「無廢城市」及「粵港澳大灣區建設若干問題」等，參與員工皆獲益良多，而員工對相關議題的認識亦對集團的未來發展尤關重要。

### "Minxiu Initiative" – New Employee Training Course 「敏秀計劃」新員工培訓班



The newly established Everbright International Ecological Environment Institute held the 1st session of "Minxiu Initiative" – New Employee Training Course in August 2019. The newly recruited employees in 2019 from Everbright International headquarters, all business sectors and project companies participated in the four-day training in person or via webcast. The course not only provided key training skills specific to the employees' needs, but also promoted the integration of new employees into the team and strengthened employees' sense of belonging to Everbright International through team building activities and visits.

新成立的光大國際生態環境學院在二零一九年八月舉行了「敏秀計劃」第一期新員工培訓班，光大國際各板塊總部、各項目公司二零一九年新入職員工皆通過現場聽講及視頻直播的方式參與了為期四天的培訓。課程除了就工作需要對新學員進行重點培訓，亦安排了豐富的團建及參觀活動，促進新員工融入團隊、加強員工對光大國際的歸屬感。



## Back-up Talent Management

To ensure that the talent pool can coordinate with the Group's sustained development, the Group continues to enrich the Group's back-up management personnel pool across the Group's 8 business sectors. There are 566 back-up management personnel who are the major budding talents that will support the future development of the Group. The Group also provides recruitment opportunities in the form of voluntary registration and bottom-up recommendation by posting recruitment information in the talent pool, so that employees who have ability and dreams can find more suitable positions to achieve greater room for growth and development. To improve the efficiency of human resource management, the Group issued a series of management measures for human resources, including the selection of 16 operating projects as talent cultivation bases to provide internship opportunities for its future management and senior technical staff, focusing on cultivating the mainstay of the Group's future development.

## 後備人才管理

為確保人才儲備能配合本集團的持續發展，本集團不斷完善八大業務板塊的後備管理人員庫。本集團目前共有566名後備管理人員，將作為集團未來發展的主力軍和新力軍。本集團亦透過在人才庫中公開發佈招聘訊息，以自願報名及由下至上推薦等形式提供內部選聘的機會，讓有能力、有理想的員工找到更適合自己的崗位，獲得更大的成長和發展空間。同時，為提升人力資源管理效率，本集團頒發了一系列人力資源管理辦法。其中包括選出16個運營項目作為培養基地，為未來管理新力軍及技術骨幹提供實習機會，重點培育集團未來發展的中流砥柱。

### As at 31 December 2019

截至二零一九年十二月三十一日

Total number of back-up management personnel  
後備管理人員總數

566

### In 2019

二零一九年

Number of Deputy General Managers promoted to  
General Managers  
副總經理獲晉升為總經理的人數

52

Number of back-up management personnel promoted to  
General Managers, Construction Supervisors or  
Project Management Team Leaders  
後備管理人員赴任新項目的總經理、總指揮或籌備組長  
的人數

75

## Internal Inheritance and Exchange

The Group values the internal inheritance and exchange of human resources. The Group's staff from the earlier established regions provide support and training to those from the new regions, facilitating the development of new regions with the solid foundation of old regions. The Group has also formulated flexible and diversified internal personnel support and exchange policies to create a new phase of "Learning while Doing, Doing while Learning, Helping with Supporting", reinforcing the support from existing projects to the new ones through combining regional human resources.

To help young employees grow into talents, the Group makes full use of its human resources advantage to pursue the Apprenticeship Programme, in which experienced and skilled employees sign apprenticeship agreements with new employees and teach them technical skills. The mentors are responsible of imparting knowledge and skills, helping the apprentices to integrate into the working environment, driving them to learn actively and work hard, and achieve success.

## 內部承傳和交流

本集團注重人力資源的內部承傳和交流。本集團發展較早的老區域對新區域提供人才支持、培養和輸送計劃，以老區域的堅固基礎帶動新區域的發展，制定了靈活多樣的人才內部支持和交流政策，形成了「學中幹、幹中學、傳幫帶」的新局面，通過集約區域的人力資源，加強了老項目對新項目的支持。

為幫助青年員工成長成才，本集團推行「師帶徒」培訓計劃，充份利用自身人力源優勢，讓經驗豐富或技能突出的員工與新員工簽訂師徒協議，向他們傳授學藝、培養技術技能。師父們肩負著「傳幫帶」的重任：傳授知識技能、幫助徒弟融入工作環境、帶動新人積極學習、認真工作，最終達致薪火相傳。

## Work-Life Balance

Everbright International always values the health and well-being of its employees. The Group actively creates healthy lifestyles for our employees, and organise various healthy activities to fully support and encourage employees to maintain work-life balance.

## Cultivating Healthy Lifestyle

Physical and mental health are closely related to employees' work performance. Therefore, the Group is committed to providing employees with effective measures and supporting facilities to help them achieve work-life balance. The Group's project companies have provided comfortable and well-equipped staff quarters for the Group's employees with multiple recreational facilities including badminton courts, basketball courts, gymnasiums, chess and bridge rooms, libraries, etc., to help employees relax and relieve work pressure. The Group also encourages employees to maintain a healthy lifestyle, and thus various leisure and sports activities are organised every year, including outdoor activities, fun sports days, basketball friendly matches, photography classes and birthday celebrations, with an aim to promote employees' physical and mental health while enabling them to work energetically, reaching a win-win situation for both the enterprise and employees.

## 工作與生活平衡

光大國際一向重視員工的健康和福祉。本集團積極為員工締造健康生活、並舉辦各類有益身心的活動，全力支持並鼓勵員工維持工作與生活平衡。

## 締造健康生活

身心健康與員工的工作表現關係密切，因此，本集團致力為員工提供有效的措施和配套，讓員工能夠平衡工作與生活。本集團的項目公司皆為員工提供了舒適且配套完善的宿舍，包括設有羽毛球場、籃球場、健身房、棋牌室及圖書館等休閒設施，讓員工可適時放鬆、排解工作壓力。本集團亦鼓勵員工保持健康的生活方式，持續每年舉辦多項文娛休閒及體育活動，例如戶外拓展活動、趣味運動會、籃球友誼比賽、攝影班及生日慶祝活動等，促進員工身心健康之餘更讓他們活力滿滿地投入工作，實現企業和員工雙贏。



Suqian Waste-to-energy Project established the First Basketball Competition  
宿遷垃圾發電項目開展第一屆籃球聯誼賽活動



Furthermore, some projects have set up dietary committees, which are dedicated to collecting grassroots workers' opinions, continuously updating menu and providing them with nutritious and attractive meals.

此外，個別項目更設立了膳食委員會，致力聽取基層員工的意見，不斷更新菜譜，為員工提供營養豐富、款式誘人的飯菜。



**The Equipment Manufacturing Sector organised the 8 March Women's Day Flower Arrangement Activity**

裝備製造組織三八婦女節插花活動



**Xintai Waste-to-energy Project held the Fun Sports Day**

新泰垃圾發電項目開展趣味運動會



**Lantian Waste-to-energy Project organised the Employee Outing Activity**

藍田垃圾發電項目開展春節員工拓展活動

### Encouraging Reading and Knowledge Growth

As an excellent state-owned enterprise, Everbright International not only encourages employees to actively contribute in their work, but also to play an exemplary and leading role in thinking and learning, and to contribute to the society through continuous learning, self-cultivation, applying knowledge to work, surpassing oneself and devoting to career with full spirits.

### 鼓勵閱讀 增長知識

作為一家出色的國企，光大國際不僅鼓勵員工在工作上積極奉獻，同時也要在思想和學習上起到模範帶頭作用，不斷讀書修身、學以致用、超越自我，以最飽滿的精神狀態投身事業、貢獻社會。

#### “Read Good Books to Welcome National Day” Reading Day Event

「迎國慶，讀好書」主題讀書日活動



To commemorate the 70th anniversary of China's National Day, Changzhou Xinbei Waste-to-energy Project launched the “Read Good Books to Welcome National Day” Reading Day Event on 19 September 2019. The activity encouraged employees to cultivate good habit of “Read More Books, Read Good Books, and Read Books Regularly”, which can not only increase their knowledge, but also lay the foundation for personal development and contribute to the Group and the country in the future.

為迎接國慶70週年，常州新北垃圾發電項目特別於二零一九年九月十九日開展了「迎國慶，讀好書」主題讀書日活動。活動鼓勵員工養成「多讀書、讀好書、常讀書」的習慣，既能增長知識，更可為個人發展奠定基礎，在未來為集團乃至國家作出貢獻。



## Family Fun

Everbright International has held public events to help people develop a better understanding on the environmental protection industry. In 2019, the Group's project companies organised family days respectively, so that employees who usually work away from home can accompany their parents and share the joy of family life. It also helps their family members to understand the jobs of their families and strengthens their sense of belonging to the company.

## 家庭同樂

光大國際在過去經常舉辦公眾開放活動，讓民眾親身了解環保產業。在二零一九年，本集團的項目公司更分別舉行了家庭日，讓平時離家打拼的員工有機會陪伴父母、共享天倫之樂；也讓員工家屬了解家人的工作，加強員工和家屬對公司的歸屬感。

### “Parents Visiting Me at Work” Public Event 「爸媽來看我工作」主題公眾開放活動



Both Vietnam Can Tho Waste-to-energy Project and Jiangsu Rugao Biomass Direct Combustion Project organised special public events for employees' family members, respectively, inviting them to visit the projects in August 2019. Both activities were well received. The parents gained a better understanding of their sons and daughters' working environment and the companies' advantages through the visits and explanations. Family members deeply appreciated the warmth of the Group and were proud happy for their sons and daughters.

二零一九年八月，越南芹苴垃圾發電項目和江蘇如皋生物質直燃發電項目分別舉辦了一場特別的公眾開放活動，專門接待員工家屬參觀公司。兩次活動都得到熱烈反響，父母們通過參觀講解深入了解子女的工作生活環境以及公司的優勢。活動過後，家屬們都深深體會到集團的溫情，為身為員工的子女感到自豪、高興。



**“Joining Hands with Mothers and Being Devoted to Ecology” Public Event**  
「牽手母親，生態築夢」主題公眾開放活動



On 12 May 2019, Ji'nan Waste Water Treatment Project held a special public visit event with the theme of "Joining Hands with Mothers and Being Devoted to Ecology". The employees' mothers and wives were invited to visit the waste water treatment plant to celebrate Mother's Day. The staff received their mothers and wives and acted as the tour guides in the leafy plant area. The staff presented carnations and festive blessings to them after the visit, spending a memorable Mother's Day together.

二零一九年五月十二日，濟南污水處理項目舉辦了一次特別的開放活動，邀請員工的母親和妻子到污水處理廠參觀，共慶母親節。員工們親自接待自己的母親和妻子並擔任導賞講解，在枝繁葉茂的廠區留下倩影。參觀過後，員工更為她們獻上康乃馨，送上節日祝福，共渡了一個難忘的母親節。



## Supporting Environmental Protection Activities

As a leading company in the environmental protection industry, the Group actively encourages employees to bring environmental protection awareness from work to their daily lives, to start with small things and become role models in their communities. In 2019, the Group's employees enthusiastically participated in environmental protection activities outside of work, and encouraged their family, friends, and community groups to join the Group to build a better living environment for the next generation.

## 身體力行 參與環保

作為環保行業的領軍企業，本集團積極鼓勵員工把環保意識從工作帶到日常生活中，從身邊小事做起，成為群體中的模範。二零一九年，本集團的員工積極地在工作以外參與環保活動，鼓勵身邊親朋好友、社區群體共同參與環境保護工作，為下一代建設更美好的生活環境。

### “I'm an Ecological Environment Tour Guide” 「我是生態環境講解員」



On 14 May 2019, the Chinese Society of Environmental Sciences and Everbright International jointly organised the “I am the Ecological Environment Tour Guide” National Environmental Protection Science Popularisation Base Competition. The employees of the four project companies under the Group won the competition and successfully entered the finals. They not only displayed professional skills at work, but also contributed to the environmental protection industry; they also actively used their professional knowledge to spread the concepts of ecological environmental protection in their spare time, which deserves appreciation.

二零一九年五月十四日，中國環境科學學會與光大國際聯合舉辦「我是生態環境講解員」國家環保科普基地專場選拔賽。本集團旗下共有四家項目公司的員工在比賽中勝出，順利進入決賽。他們不單在工作中展現專業技能，為環保行業付出汗水；在工餘時間也積極運用專業知識傳播生態環境保護的意念，值得欣賞。

# Safety Culture 安全文化

Upholding **SAFETY OPERATION**,  
enhancing **QUALITY OF SERVICES**

堅守**安全營運**，提升**服務品質**



The Group upholds a safety-first culture in all its businesses, unremittingly improves safety performance, and promotes safety education and promotion to minimise the adverse impact of the Group's operations on the health and safety of its employees and the public. The Group practises safety continuously and is committed to preventing any potential accidents from happening, and nipping the company's safety incidents in the bud.

## Safety Management System and Policies

The ESHS Management System of the Group summarises the Group's safety management approach and standards, comprising topics including issues identification, incident investigation and reporting, work injury treatment and contractor ESHS management. All project companies adhere to the requirements of ESHS management system and established corresponding standardised operating procedures and on-site checklists. The Group has also formulated management policies such as the *Regulations on the Filing and Assessment Management of Safety and Environmental Management Institutions and Personnel* to improve the level of safety management by strictly establishing preventive mechanisms and standardising production practices.

In order to improve management proficiency, the Group has set up a three-level safety and environmental management system that covers Everbright International headquarters, business sectors and project companies. It has also established a four-level safety and environmental management model, which includes: a set of safety and environmental management departments at the headquarters and business sector levels, directors of safety and environmental management departments of the regional business management centres, safety and environmental management departments of the project companies, and safety and environmental management work that is handled by assigned departments of the Group. The Group has also signed "Letters of Responsibility for Construction Unit Safety" with the relevant construction contractors, with the principle of "Everyone Is a Safety Officer and Should be Responsible for Safety".

The project companies of the Group's business sectors have dedicated emergency plans in response to potential risks of different scopes and management processes of plants, with an aim to ensure safety management of project companies and their neighbouring communities. The emergency plans are adjusted and improved in accordance with the actual needs and the assessment mechanism.



集團在所有業務中秉持安全文化，堅持不懈地提升安全表現並推進安全教育及宣傳，盡量減輕運營對員工及公眾健康及安全產生的不良影響。本集團的安全工作每分每秒持續不斷，致力防微杜漸，將企業的安全事故扼殺於萌芽狀態。

## 安全管理體系及制度

本集團的ESHS管理體系概述了本集團的安全管理方針及標準，其中包括議題識別、審核、事故調查及匯報、工傷處理及承包商ESHS管理等內容。所有項目公司均堅守ESHS管理體系的要求，並已建立了相應的標準操作流程和現場工作檢查表。本集團亦制定了《關於安全與環境管理機構及人員備案、考核管理的規定》等管理制度、嚴格建立預防機制，規範生產行為，全面提升安全管理水平。

為提升管理效能，本集團成立了光大國際總部、業務板塊及項目公司三個主要層面的安全與環境管理委員會，搭建「三位一體」的安全與環境管理體系；建立健全的光大國際總部、業務板塊安全與環境管理部，各區域（業務）管理中心安全與環境管理（部）總監，項目公司安全與環境管理部，專職部門負責所轄範圍內的安全與環境管理工作，搭建了「四級聯動」安全與環境管理模式。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」的原則。

本集團各業務板塊的項目公司均設有專門的應急預案，對應廠區不同範圍和管理流程的潛在風險，為項目公司和鄰近社區的安全管理把關。應急方案亦會按評估機制定期按照實際需要作出相應的調整及改進。

Meanwhile, the Group has been proactively implementing the internationally certified OHSAS 18001/ISO 45001 Occupational Health and Safety Management System in operating project companies.

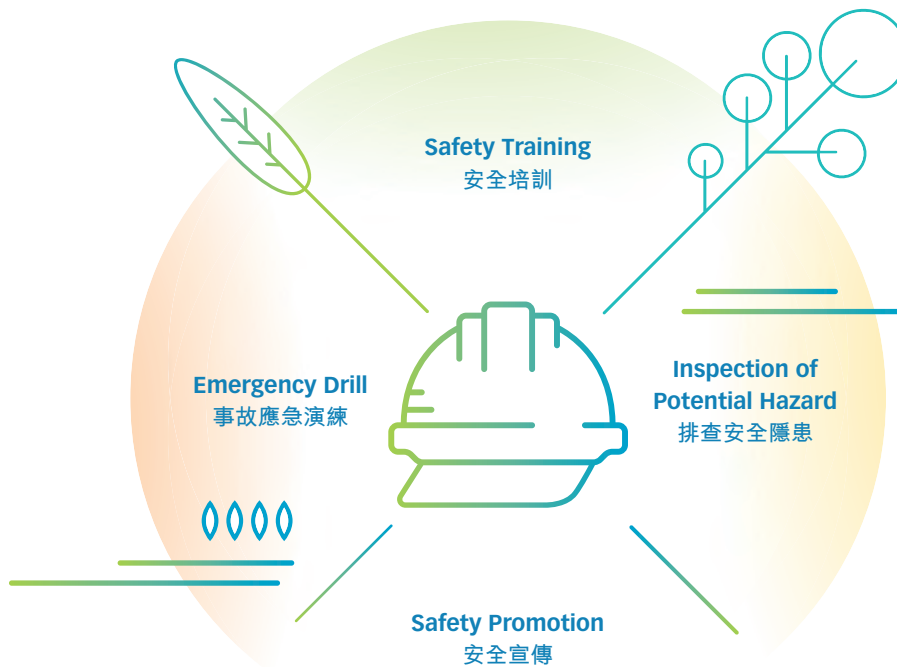
### Establishing Safety Culture and Securing Operational Safety

The Group has set up long-term targets in 2018, aiming to maintain the rate of work-related injuries of employees at 0.25 or below in every year throughout the five-year period from 2018 to 2022. Thus, the Group increased its efforts to conduct daily checks on safety, environmental and occupational health and inspect on potential hazards during the Reporting Period, so as to ensure all projects under construction or in operation comply with all safety policies. The Group also organises regular emergency drills and practices to raise employees' competency in coping with risks. Meanwhile, the annual "Safety Production Month" was launched to encourage employees to enhance safety knowledge and skills through proactive and special edutainment like publicities, trainings, seminars, emergency drill, and skills competition, to enable effective prevention of safety accidents.

同時，本集團積極於運營項目公司推行獲國際認證的OHSAS 18001/ISO 45001職業健康和安全管理體系。

### 建立安全文化保障安全運營

本集團已於二零一八年制定了長期目標，致力將工傷率於五年間（二零一八至二零二二年）每年維持在0.25或以下。因此，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。同時，本集團亦結合一年一度的「安全生產月」活動，積極透過安全宣傳、培訓、研討會、事故演練、技能比武等特色活動，推動員工積極投入增進安全知識及技能，為有效防止安全事故提供了有力保障。





## Safety Action Highlights

### “Safety Production Month” Activities in 2019

At the beginning of 2019, there were several serious accidents in the domestic chemical and power industries, resulting in a large number of casualties and property losses. To avoid similar tragedies, project companies under the Group actively participated in the “Safety Production Month” activities in June. A series of activities and drills were held with the theme of “Preventing Risks, Eliminating Hidden Hazards and Suppressing Accidents” to enhance employees’ safety consciousness and prevent accidents.

### Emergency Drill

## 安全行動重點

### 二零一九年「安全生產月」活動

二零一九年年初，國內的化工行業及電力行業不約而同出現了幾起嚴重事故，造成了大量人命傷亡及財產損失。為避免類似慘劇再次發生，本集團各項目公司皆積極投入參與六月的「安全生產月」，契合「防風險、除隱患、遏事故」的主題舉辦多項活動、演練，增強全員的安全意識、防範意外。

### 事故應急演練

#### Pei County Waste-to-energy Project launched A fire drill

#### 沛縣垃圾發電項目開展消防演練

To strengthen employees’ ability to respond to fire disasters, Pei County Waste-to-energy Project organised a fire drill with an aim in raising the staff’s awareness of potential safety hazards. Also, employees were required to be aware of the dangerous factors when they come into contact with mechanical rotating equipment, live equipment, flammable and explosive materials, or working at heights.

為加強員工應對火災的能力，沛縣垃圾發電項目組織了消防演練，旨在提高員工的安全隱患意識，要求員工意識到接觸機械轉動設備、帶電設備、易燃易爆物品、高空作業等隨時都有危險因素產生。



### Shouguang Waste-to-energy Project conducted emergency drill for flood control 壽光垃圾發電項目進行防洪防汛應急演練活動

Shouguang Waste-to-energy Project conducted an emergency drill for flood control, and stipulated flood events caused by sudden rainstorms.

In this drill, rescuers were divided into 4 teams: The warning communication team was responsible for guiding incoming vehicles to ensure traffic safety; the supply security team performed placement and installation of drainage equipment; the aftertreatment team was responsible for the start-up and checking of stormwater pump, and observing water level; the rescue team filled the sand belt and placed it in the south gate to block water flow from the road. Each team performed their duties according to the division of labour and carried out emergency rescue, which improved the emergency response speed and operation skills of employees.

壽光垃圾發電項目進行了防洪防汛應急演練活動，現場模擬了因突降暴雨發生的水災事件。

在是次的演練中，救援人員被分為四個小組，警戒通訊組疏導外來車輛，保障交通安全；物資保障組進行排水設備的放置及安裝；善後處理組負責雨水泵的啟動及檢查，並隨時觀察水位情況；搶險救援組將砂袋填滿後佈置在南門擋住道路來水。各小組按調度分工各司其職，展開應急救援，提升了員工的應急反應速度和操作水平。





## Inspection of Hidden Hazard

## 排查安全隱患

### Weifang Waste-to-energy Project conducted inspection work of hidden hazards 濰坊垃圾發電項目開展安全隱患排查工作

Each department of Weifang Waste-to-energy Project actively conducted inspection of hidden hazards, to identify and eliminate all potential hazards on-site, nipping the project company's safety incidents in the bud. Meanwhile, the project company enhanced daily safety production methods by posting safety slogans on conspicuous locations such as the control building, office and canteen, encouraging all employees to conduct safety oaths to enhance their safety awareness.



濰坊垃圾發電項目的各個部門積極開展了安全隱患排查工作，深挖現場的安全隱患，發現一處整改一處，將事故扼殺在萌芽之中，同時將日常所做的安全生產方式進一步深化，在主控樓、辦公樓、餐廳等醒目位置張貼安全標語，組織全體員工進行安全宣誓活動，增強員工的安全思想意識。



**Safety Promotion**

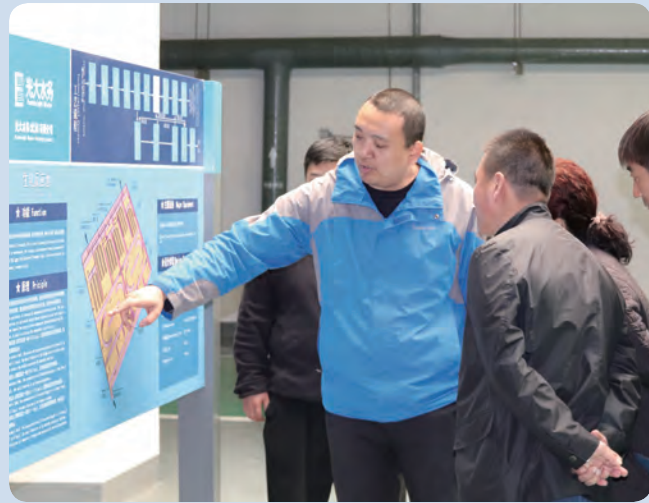
**安全宣傳**

**Beijing Daxing Tiantanghe Waste Water Treatment Project launched safety promotion event**

**北京大興天堂河污水處理項目開展安全宣傳活動**

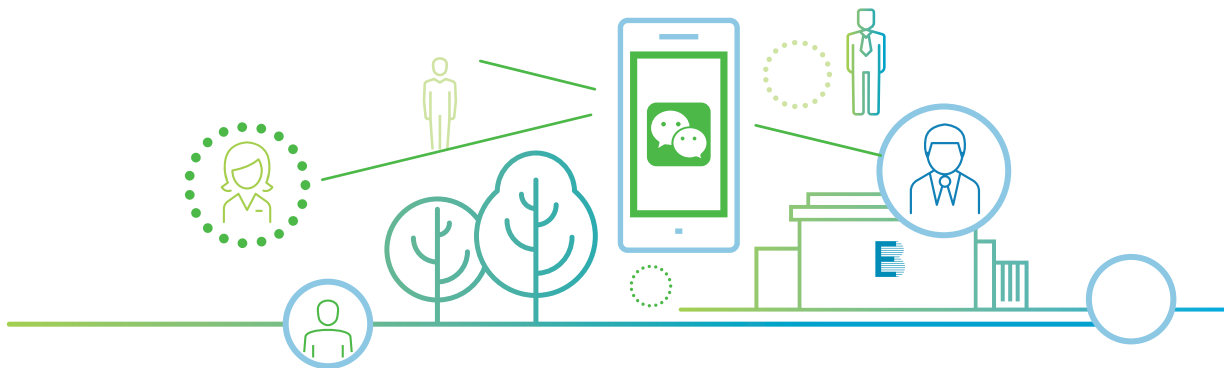
Beijing Daxing Tiantanghe Waste Water Treatment Project launched a safety promotion event during the “Safety Production Month”. Through activities such as policy presentations, photo exhibitions, and safety knowledge education, employees’ safety awareness was enhanced and efforts were made to create an atmosphere of “Everyone Pays Attention to Safety, Everyone Cares About Life”.

北京大興天堂河污水處理項目於「安全生產月」開展安全宣傳活動，通過政策宣講、圖片展覽、安全常識教育等活動，提高員工的安全意識，努力營造「人人關注安全，人人關愛生命」的氛圍。



**Innovative Technologies to Enhance Work Safety**

**創新科技提高工作安全**



Each project company of the Group has established WeChat working groups such as the “Safety, Health and Environment Group” for ESHS management and reporting on safety and environmental inspections. Any member of the WeChat group can easily send photographs of any spotted safety hazards and violations to the Group, to eliminate hazards to the maximum extent possible.

本集團各項目公司亦分別建立了「安健環管理群」等微信工作群，用於ESHS管理、安全環保檢查通報。任何群成員只要發現身邊存在安全隱患、違章操作等問題，都可以隨手拍攝發送到微信群裏，有助將隱患消除在萌芽狀態。

## Safety Training

To promote safety culture, the Group has formulated detailed work plans to conduct safety trainings for all in a planned, layered and focused manner. The Group strives to build a management team and technical team that respond quickly and operate efficiently.

Through trainings in various forms and topics, the Group aims to increase employees' cognitions and thinking about safety management, lifting safe production awareness and ensuring safe, systematic work. The Group also ensures that employees' feedbacks are collected after the trainings to evaluate the effectiveness and contents of trainings and make improvement as appropriate.

The Group health and safety trainings covers the following:

## 安全培訓

為了推廣安全文化，本集團制定了具體的工作方案，務求有計劃、有層次、有重點地組織全員安全培訓，努力建立一支反應迅速、運轉高效的管理團隊和技術團隊。

通過提供形式多樣、內容豐富的培訓活動，本集團期望提升員工對安全管理工作的認知與思考，提高安全生產意識，確保安全工作有序開展。本集團更員工對培訓活動的反饋意見，評估培訓活動的內容及成效，以便適時作出改善。

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



ESHHS Management System  
ESHHS管理體系



Safe Use of Equipment  
設備裝置的安全使用



Identification and Control of Sources of Hazards  
危險源的辨識和控制措施



Risk Control and Troubleshoot by Risk Levels  
風險分級管控和隱患排查



Procurement and Storage of Hazardous Items  
採購及貯存危險物品



Accident Contingency Plan  
事故應急管理



Occupational Health Management  
職業健康管理



First Aid  
急救





### **Everbright International held "Safety and Environmental Management Training Course"**

In June 2019, Everbright International Ecological Environmental Institute held the "Safety and Environmental Management Training Course" in Tsinghua Shenzhen International Graduate School. The three-day training course was joined by more than 110 participants, including the members of Everbright International Safety and Environmental Management Supervising Team, Safety and Environmental Management Implementation Teams of each business sector, as well as project companies and engineering safety and environmental management staff from Environmental Energy, Greentech and Everbright Water sectors.

This training course was jointly held by Everbright International Ecological Environmental Institute and the Group's Safety and Environmental Management Department, which is the first cooperation between Everbright International Ecological Environmental Institute and Tsinghua Shenzhen International Graduate School. The three-day training course focused on "Risks and Opportunities" in environment and safety management work. Based on the content of the lectures, the students reflected on the problems and potential hazards in their actual work, and actively engaged in communication with the lecturers.

The training course provided guidance and assistance to Everbright International in terms of practices relating to safety and environmental management, and provided knowledge for the promotion and development of the Group's future safety works.

### **光大國際舉辦「安全與環境管理培訓班」**

二零一九年六月，光大國際生態環境學院「安全與環境管理培訓班」在清華大學深圳國際研究生院舉行。光大國際安全與環境管理工作監管小組成員、光大國際各業務板塊安全與環境管理工作實施小組成員，環保能源、綠色環保、光大水務部分項目公司及工程安全與環境管理工作人員等超過110名人士參加了為期3天的培訓。

本次培訓班由光大國際生態環境學院、安全與環境管理部共同籌辦，是光大國際生態環境學院與清華大學深圳國際研究生院培訓學院的首次合作。為期3天的培訓班，圍繞安全與環境管理工作中存在的「風險與危機」問題展開。學員們根據授課內容思考在實際工作中存在的突出問題或隱患，積極與主講專家學者展開深入的互動交流。

這次培訓班的成功舉辦，為光大國際安全與環境管理現階段工作給予了指導與幫助，對未來安全工作的推進與開展提供了知識儲備。

## Occupational Health and Safety Statistics in 2019

二零一九年職業健康與安全數據統計<sup>(1)</sup>

### Total Working Hours

工作總時數



Employees of  
Everbright International  
光大國際員工

**26,494,032** hours  
小時

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

**16,616,000** hours  
小時

### Employees 員工



Number of work-related fatalities  
因工死亡個案

**0**

Rate of work-related fatalities <sup>(1)</sup>  
因工死亡率<sup>(1)</sup>

**0**

Number of high-consequence work-  
related injuries (excluding fatalities) <sup>(2)</sup>  
嚴重工傷個案 (不包括死亡個案) <sup>(2)</sup>

**0**

Rate of high-consequence work-  
related injuries (excluding fatalities) <sup>(3)</sup>  
嚴重工傷率 (不包括死亡個案) <sup>(3)</sup>

**0**

Number of work-related injuries <sup>(4)</sup>  
工傷個案<sup>(4)</sup>

**24**

Rate of work-related injuries <sup>(5)</sup>  
工傷率<sup>(5)</sup>

**0.18**

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

**1,343**

Number of occupational disease cases  
職業病個案

**0**

**Third-Party Contractors and  
Subcontractors Working Onsite**  
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	Rate of work-related fatalities <sup>(1)</sup> 因工死亡率 <sup>(1)</sup>
1	0.01
Number of high consequence work-related injuries (excluding fatalities) <sup>(2)</sup> 嚴重工傷個案 (不包括死亡個案) <sup>(2)</sup>	Rate of high-consequence work-related injuries (excluding fatalities) <sup>(3)</sup> 嚴重工傷率 (不包括死亡個案) <sup>(3)</sup>
0	0
Number of work-related injuries <sup>(4)</sup> 工傷個案 <sup>(4)</sup>	Rate of work-related injuries <sup>(5)</sup> 工傷率 <sup>(5)</sup>
6	0.07
Days of absence from work due to work-related injury 因工傷缺勤日數	Number of occupational disease cases 職業病個案
304	0



Notes :

- (1) Rate of work-related fatalities = (Total number of fatalities as a result of work-related injury/Total working hours) x 200,000.
- (2) 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.
- (3) Rate of high-consequence work-related injuries (excluding fatalities) = (Total number of high-consequence work-related injuries (excluding fatalities)/Total working hours) x 200,000.
- (4) Work-related injuries also include work-related fatalities and high-consequence work-related injuries.
- (5) Rate of work-related injuries = (Total number of work-related injuries/Total working hours) x 200,000.

附註：

- (1) 因工死亡率 = (因工傷所造成的死亡個案總計 / 工作總時數) x 200,000。
- (2) 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。
- (3) 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) x 200,000。
- (4) 工傷亦包含因工死亡及嚴重工傷。
- (5) 工傷率 = (工傷個案總計 / 工作總時數) x 200,000。

Community Care

關心社區

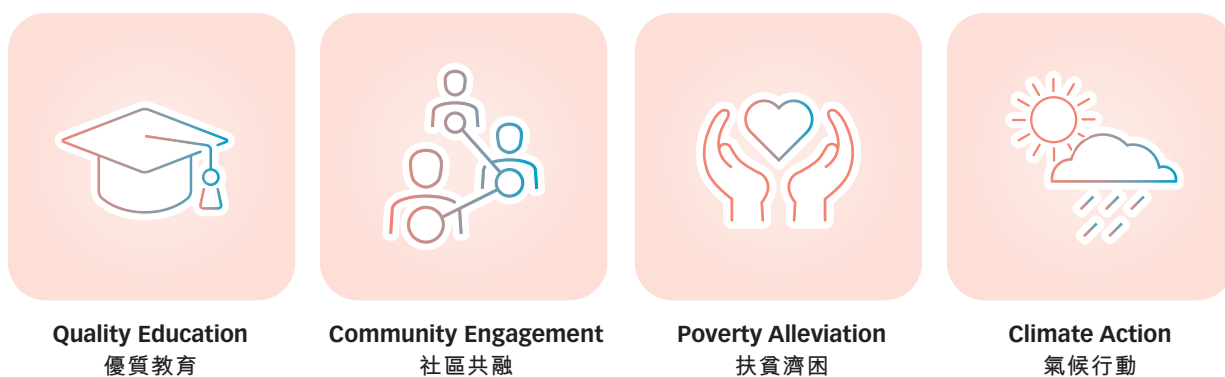
Building a **SUSTAINABLE ENVIRONMENT**  
and giving back to **THE SOCIETY**

創造**可持續環境**，回饋**社會大眾**



**E**verbright International echoes the vision of to “Create Better Investment Value and Undertake More Social Responsibility” as the Group’s corporate pursuit, the Group adheres to take up responsibilities as a social enterprise and strive to maintaining a close and sustainable relationship with the community. During the Reporting Period, the Group’s community projects mainly focused on four areas i.e., quality education, community engagement, poverty alleviation and climate action. In the Group’s daily operations, the Group is prompted to promote community’s all-rounded development in order to give back to its stakeholders, to drive the society to become more inclusive, more efficient in resource utilisation, and more resistant against climate change and natural disaster.

**光** 大國際以「創造更好投資價值，承擔更多社會責任」為企業追求，堅守作為社會企業的職責與使命，致力與社區建立密切而長遠的關係。報告期內，本集團的社區工作主要圍繞四個範疇：優質教育、社區共融、扶貧濟困及氣候行動。本集團在業務運營中積極促進社區的綜合發展，以回饋社會不同的持份者，使社區邁向更包容、資源更有效被利用、以及更能好抵禦氣候變化和自然災害的新階段。



**“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**





## Cumulative Social Contributions 累計社會貢獻

### Since 2017

自二零一七年起

Everbright International's projects received  
光大國際的項目共接待

**454,699** visitors  
參觀人士

Visitors  
參觀人士

**21,893** batches  
批次

Volunteer services of  
義工總時數

**4,889** hours  
小時

Total charitable donations (cash) of  
捐款總金額(現金)為

HK\$ **41,267,321** 元  
港幣

Participated in  
參與了

**265** charitable activities  
次慈善公益活動

### Since 2013

自二零一三年起

Ex-gratia funds and financial aids accumulatively delivered by  
Everbright Environmental Protection Charitable Foundation  
光大環保愛心基金累計發於慰問金及救助金為

approximately RMB **6,840,000** 元  
約人民幣

Total beneficiaries of Everbright Environmental  
Protection Charitable Foundation  
光大環保愛心基金累計受益人為

**1,516** people  
人

### Since 2011

自二零一一年起

"Everbright International True Love School" has  
accumulatively provided educational opportunities for  
「光大國際愛心學校」已累計提供教育機會予

**4,500** students  
學生

### Since 2002

自二零零二年起

本集團共有

**70**

項目

of the Group's projects were recognised as  
"Environmental Education Hubs" or  
"Science Popularisation and Education Hubs"  
獲得「環境教育基地」或「科普教育基地」的稱號



Since 2010  
自二零一零年起

### Integrated Biomass Utilisation Projects of Everbright International

生物質綜合利用項目

Directly and/or indirectly created  
直接或間接提供工作崗位

over  
逾

85,900

jobs  
個

### Integrated Biomass Utilisation Projects of Everbright International

生物質綜合利用項目

Increased farmers' income by  
義工帶動農民增收

approximately RMB  
約人民幣

4.16

billion  
十億元

### Integrated Biomass Utilisation Projects

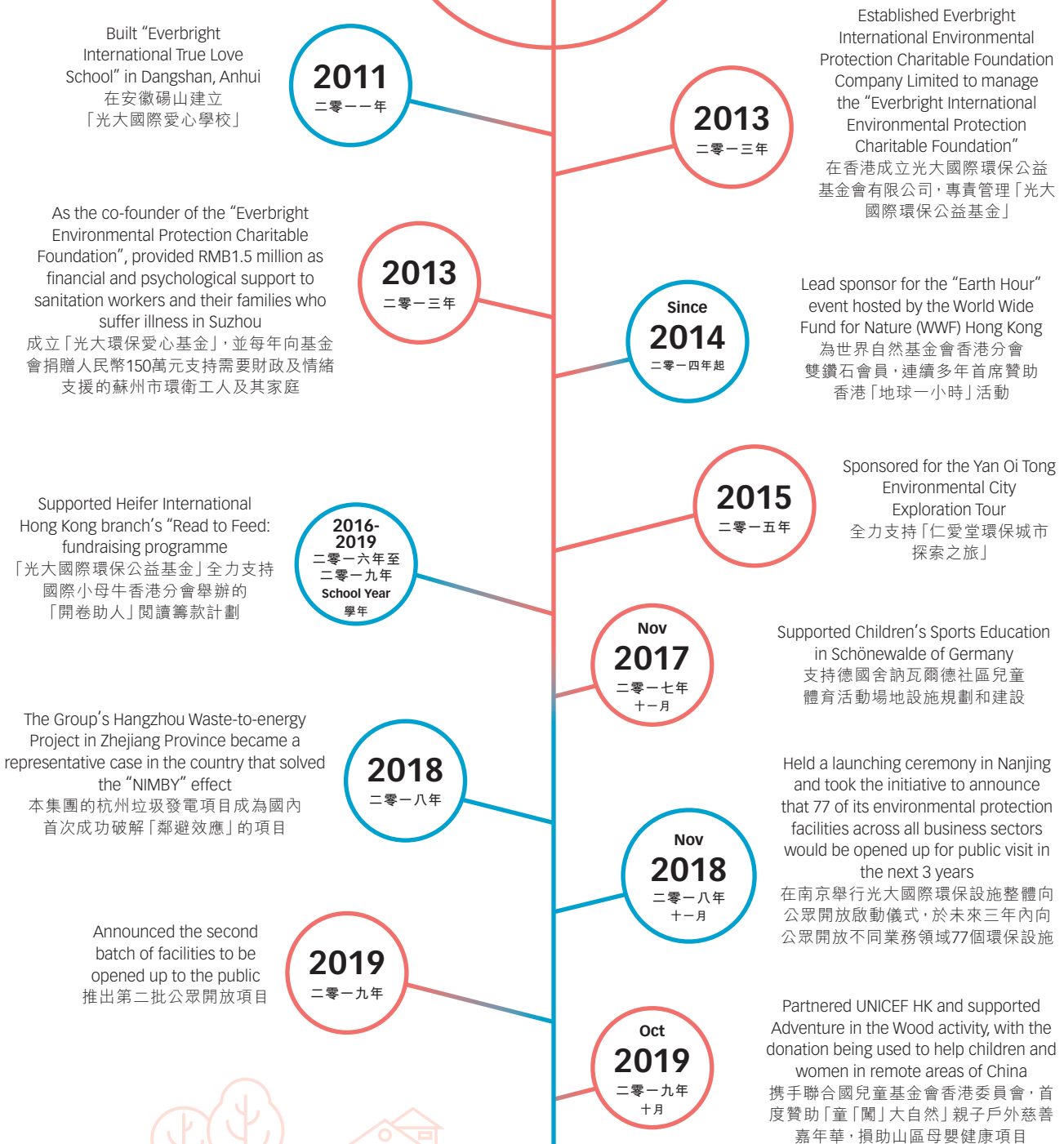
生物質綜合利用項目

benefiting over  
令逾

11.91

million farmers  
百萬名農民受益

## Key Activities 重點活動里程碑





## Quality Education

The Group is committed to fostering the next generation, continuously investing in promoting education and social cohesion, collaborating with different social stakeholders to create opportunities for underprivileged children, and raising public environmental awareness and bringing in green technology, in order to help solidify the foundation of country's sustainable development.

### Donation for the Construction of Everbright International True Love School

As at 31 December 2019

截至二零一九年十二月三十一日

"Everbright International True Love School" has accumulatively provided educational opportunities for  
「光大國際愛心學校」提供教育機會予

**4,500** students  
學生

## 優質教育

本集團一直以栽培下一代為己任，持續投入資源以促進和推廣教育機會和社會共融，與各界人士共同為弱勢兒童創造更多機會，並積極普及環保知識，推廣綠色科技，為祖國的可持續發展打下堅實基礎。

### 捐建光大國際愛心學校



While investing in environmental protection projects in Dangshan County, Everbright International has also supported the local education sector by donating RMB6,000,000 to build Everbright International Dangshan True Love School, in the county, which has opened in September 2011. During the Reporting Period, the Group sent the 14th batch of voluntary teachers, who are the employees of the Group, to the school, with the aim to provide the underprivileged students with a better opportunity.

光大國際在碭山縣投資環保項目的同時，亦支持當地教育事業，於碭山縣投資人民幣600萬元，捐建「光大國際愛心學校」，並已於二零一一年九月正式啟用。報告期內，本集團的第十四批由熱心員工組成的義務教師赴愛心學校提供教學支援，為有需要的兒童提供更好的機會。

## Establishment of Environmental Education Hubs and Science Popularisation

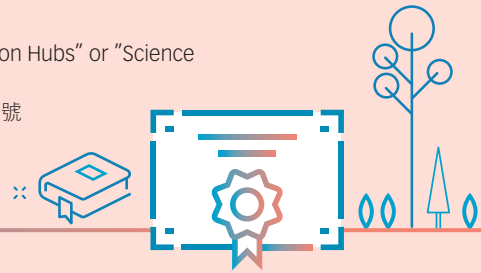
建立環境及科普教育基地，普及環保教育

2019

二零一九年

28

projects were recognised as "Environmental Education Hubs" or "Science Popularisation and Education Hubs"  
項目獲得「環境教育基地」或「科普教育基地」的稱號



Most of Everbright International's operating projects serve as hubs for environmental protection and science popularisation and education in the local areas, to greatly contribute to the local environmental protection education.

光大國際的運營項目基本上皆以環保科普基地的角色在當地建立並運營，為當地的環保教育作出巨大貢獻。

The Group has long been proactive in funding environmental protection education to establish environmental education hubs and science popularisation and educational experience centres in the Group's environmental protection facilities in various locations, with an aim to nurture the public's interest in sustainable development and green lifestyle.

一直以來，本集團積極在環保教育方面投入資金，於旗下各地環保設施中展開各類活動，培養公眾對可持續發展和綠色生活方式的興趣。

## Signing Ceremony of the Launch of New Environmental Educational Hub

簽約授牌，打造環保教育新陣地



In 2019, a signing ceremony of the establishment of the “Environmental and Science Educational Hub” was held. It was a collaboration project between the Group’s Hangzhou Waste-to-energy Project (“Hangzhou Project”) and Wuchang Middle School, Yuhang District.

Being one of the earliest waste-to-energy projects opened up at by Everbright International, Hangzhou Project has built partnership with many schools in the city to provide a new platform for students to learn about environmental protection knowledge and to participate in relevant activities.

二零一九年，杭州垃圾發電項目（「杭州項目」）與杭州市餘杭區五常中心小學舉行共建「環保科普教育實踐基地」簽約授牌儀式。

作為光大國際最早開放的垃圾發電項目之一，杭州項目已與市內多所學校達成共建協議，給予學生們一個新的平台，盡情學習環保知識、開展綜合實踐活動。

### Hong Kong Students Visiting Boluo Waste-to-energy Project 博羅垃圾發電項目迎來香港高校生參觀訪問

In March 2019, a group of students from Hong Kong visited Boluo Waste-to-energy Project ("Boluo Project"). More than 40 students from the HKU School of professional and Continuing Education ("HKU SPACE"), Wah Yan College (Kowloon) and Pui Ching Middle School of Hong Kong visited the first environmental protection ecological park featured with waste-to-energy in Guangdong province full of excitement and curiosity.

Students and teachers were amazed by the green and pleasant scenery of the park, and were surprised by how different in reality of a waste-to-energy plant to what they have always perceived. The design throughput of the first and second phases of the Boluo Project (a national AAA-rated waste-to-energy plant) is 1,050 tonnes of waste per day in total. The project is a domestically leading new environmental protection base and ecological park with strong Lingnan characteristics, integrating environmental protection education, environmental protection culture and green tourism.

The students then took a thorough tour to the main facilities in the park with the guidance of the Group's project representative, including the public education centre, the control centre that can monitor the waste incineration process and real-time flue gas emission data, the waste storage pit, the leachate treatment facility, etc. Through the in-depth explanation by the project representative and the interactive educational materials such as videos and process flow charts, students were able to understand the advanced waste incineration technologies of Everbright International.

二零一九年三月，博羅垃圾發電項目（「博羅項目」）迎來了一批來自香港三所高校的訪客。40多名來自香港大學專業進修學院、華仁書院（九龍）以及香港培正中學的莘莘學子懷著好奇而興奮的心情到訪這廣東省第一個垃圾發電環保生態園。

學生們與導師甫到埗便被項目園內翠綠怡人的景色吸引，眼前所見與想像中的垃圾發電站相去甚遠。博羅項目一期、二期設計規模為日處理垃圾1,050噸，是國家AAA級生活垃圾焚燒廠。該項目是一座具有濃郁嶺南特色，集環保教育、環保文化、綠色旅遊為一體的國內領先的新型環保基地和環保生態園。

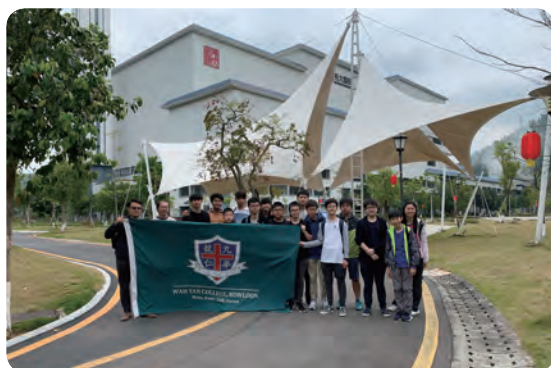
學生訪問團隨後在項目公司代表的帶領下，仔細參觀了項目園區內的主要設施，包括公共教育中心、可即時監看垃圾焚燒處理過程和煙氣排放資料的控制中心、垃圾貯存倉、滲濾液處理設施等。在項目代表深入淺出的講解以及項目公司精心製作的教育影片、工藝流程圖等互動資訊，學生們充分了解到光大國際先進的垃圾焚燒處理技術。





### Hong Kong Students Visiting Boluo Waste-to-energy Project (Continued)

博羅垃圾發電項目迎來香港高校生參觀訪問 (續)



In addition to the monitoring and control centre, students also noticed a large LED screen in the environmental protection ecological park, with the national standard, EU standard and real-time emissions monitoring data of Boluo Project displayed on the screen respectively. The flue gas emissions of Boluo Project is fully complied with the national standard, and the real-time daily average data has even surpassed the Euro 2010 emission standards. Mr. Keung, a lecturer of HKU SPACE, expressed that the real-time data on the screen provided strong evidence to prove that Everbright International's emissions are fully complied with relevant standards. The implementation of strict and effective environmental management also explains why odour control can be accomplished so well.

It was the students' first time in visiting a waste-to-energy facility, and they were amazed by the cleanliness and beauty of the park. Many of them expressed interest to learn from Everbright International's work relating to environmental protection and waste reduction in the future and contribute to the tackling of waste issues in Hong Kong in return.

除了監控中心，學生們還注意到環保生態園內設有LED大螢幕，顯示幕上分別顯示國家標準、歐盟標準及博羅項目線上即時監測的資料。博羅項目煙氣排放全面執行國家標準，煙氣線上監測指標日均值全面優於歐盟2010標準。香港大學專業進修學院導師姜先生表示，LED螢幕上一個個合規的即時資料，證明了光大國際完全做到達標排放，其嚴格環境管理措施的實行也正正解釋了為何在垃圾發電項目內完全聞不到臭味。

是次所有來訪學生均是首次參觀垃圾發電設施，他們對園內清潔優美的環境讚歎不已，更有學生希望能在將來學習光大國際參與環保和減廢工作，為香港的垃圾處理議題出一分力。

**Hong Kong Students Visiting Boluo Waste-to-energy Project** (Continued)  
博羅垃圾發電項目迎來香港高校生參觀訪問 (續)

**Comments from Visitors**  
參加者活動後感言



I always have an impression of how dirty and unsanitary a waste-to-energy plant would be but I now believe that garbage can be valuable too. I am deeply impressed by how gigantic the waste-to-energy plant is and how well the odour control has been done.

我原本以為垃圾發電肯定很髒而且不衛生。但現在，我覺得垃圾也可以是有價值的。我對廠內巨大的垃圾池印象非常深刻。我很驚訝在控制室裡聞不到一點臭味！

Leo – Wah Yan College (Kowloon)  
Leo – 華仁書院 (九龍)



Through participating in this event, I have learnt that waste treatment is very meaningful and Everbright International is a responsible enterprise who actively promotes environmental protection. I have also learnt about the advanced technology being adopted in the waste treatment process and its benefits to the environment. This event makes me realised how important environmental conservation is and how serious climate change has become. Starting from today, I will learn from Everbright International and start protecting the environment from my daily behaviours.

我通過參加這次的活動，認識到垃圾處理是十分有意義和光大國際是一間致力推動環境保育的良心企業。我也認識到從回收垃圾到變成能源的過程是十分高科技而且對環境的污染也大大降低。這次活動讓我意識到環境保育是多麼的重要和全球暖化已日益嚴重，今後我也會學習光大，保護環境，從生活做起！

Yu Hang – Wah Yan College (Kowloon)  
余杭 – 華仁書院 (九龍)



### “Little Journalists” in Zhangqiu Waste Water Treatment Project

#### 「新聞小記者」參觀章丘污水處理項目

In July 2019, Zhangqiu Morning Post organised a group of “little journalists” to visit and conduct interviews in Zhangqiu Waste Water Treatment Project. They witnessed the purification process of waste water, from which they acquired a more direct understanding on waste water treatment.

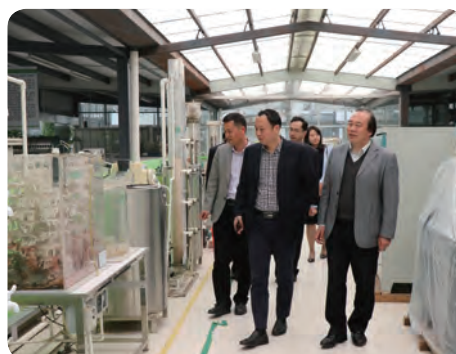
Guided by the project representative, the little journalists visited the coarse and fine screens, biological tanks, water outlets and other parts of the production line. The project representative introduced the process flow of waste water treatment and answered their enquiries with patience. Through this activity, the little journalists gained knowledge of waste water treatment and understood on the importance of protecting water resources.

二零一九年七月，章丘晨報的「新聞小記者」走進章丘污水處理項目進行參觀採訪，見證污水變成清水的過程，讓小記者們對污水處理有了更加直觀的了解。

在項目代表的帶領下，小記者們先後參觀了粗、細格柵，生物池，出水口等生產線。廠長為他們講解污水處理工藝流程，並對大家提出的疑問進行了耐心的解答。通過本次活動，新聞小記者不僅增長了污水處理及垃圾分類的環保知識，更認識到保護水資源的重要性。



### Adopting “Industrial – Academic Collaboration” Model 踐行「產學研」模式



The Group established a “Zero-Waste Cities” research team and commenced initial liaison with zero-waste city pilot areas to provide infrastructure plans and explore the “Zero-Waste Cities” development model. At the same time, the Group continues to implement the “Industrial – Academic Collaboration” model and collaborate with Tsinghua University, Zhejiang University, Qingdao University of Technology and universities in Hong Kong on solid waste management, dioxin detection technology and low emission technology issues in the Greater Bay Area.

In May 2019, a group of employees from the Group’s Changzhou Xinbei Waste-to-energy Project (“Changzhou Xinbei Project”) went to Changzhou University for the “Industrial – Academic Collaboration” exchange, and to leverage on knowledges and research skills of students to further solve technical issues and to contribute more to environmental protection.

During the exchange, the project employees made an introduction of Changzhou Xinbei Project, the company’s development strategies and obstacles they faced in industrial solid waste treatment. Moreover, the principal of Changzhou University introduced the history of the School of Environmental and Safety Engineering, talent nurturing, scientific research, social services and technological innovation cooperation, as well as their research achievements in the treatment of “Three Wastes”. The principal also hoped to apply it to real practice through cooperation with the Changzhou Xinbei Project.

本集團於報告期內設立「無廢城市」調研小組，並開始與「無廢城市」試點地區進行初步接洽，提供建設方案，共同探討「無廢城市」建設示範模式。同時繼續踐行「產學研」模式，與清華大學、浙江大學、青島理工大學及香港多家高校等就固體廢物管理、二噁英快速檢測、大灣區內超低排放技術等環保課題開展交流與合作。

二零一九年五月，本集團常州新北垃圾發電項目（「常州新北項目」）的員工前往常州大學進行「產學研」合作交流，希望借助學院的人才和科研優勢，更好地解決技術難題，與學校一起為環保工作做出更大貢獻。

在是次合作交流過程中，員工們介紹了常州新北項目的概況，公司發展計劃以及在工業固廢處理方式方面遇到的問題。另外，常州大學的院長介紹了環境與安全工程學院的歷史沿革、人才培養、科學研究、社會服務、產學研合作等方面的基本情況和「三廢」處理方面的科研成果，並希望通過與常州新北項目的合作應用於生產實踐。



### Eco-recycling Hosted Waste Sorting Science Popularisation Exhibition for the Public 生態資源舉行垃圾分類公益科普展示

In order to promote the idea of waste sorting and public awareness, as well as to facilitate the development of a “Zero-Waste City”, the Eco-recycling sector of Everbright International held a three-day public waste sorting science popularisation exhibition in October 2019.

At the exhibition, staff from the Eco-recycling sector introduced basic waste sorting knowledge and demonstrated the intelligent waste sorting machine of Everbright International to the public. The machine only requires five steps to complete the entire waste sorting process. The intelligent waste sorting machine could calculate the value of waste based on market price automatically, and each individual is able to withdraw the cash once the value reached RMB10. The Group aims to encourage public engagement in waste sorting through this machine.



為普及垃圾分類理念，提高公眾對垃圾分類的重視度，同時助力垃圾分類與「無廢城市」建設，光大國際生態資源板塊於二零一九年十月在深圳舉行了為期三天的垃圾分類知識公益科普展示。

活動現場，生態資源板塊向市民科普了垃圾分類知識，展示了光大國際垃圾分類智慧回收機。民眾只需五步就可完成垃圾分類投放，智慧回收機會根據市場價格對民眾投放的垃圾自動計價，個人公益金額滿人民幣10元後可以進行整數提現，以此來激勵全民垃圾分類，爭做環保人。



## TV Shows Themed with Waste-to-energy Project 關注垃圾發電項目的主題節目

### “Keep Running” Runs into Hangzhou Waste-to-energy Project 「跑男」跑進杭州垃圾發電項目

Zhejiang Satellite TV's new season of “Keep Running” produced an episode with the theme of environmental protection at Everbright International's Hangzhou Jiufeng Waste-to-energy Project. The project representatives provided thorough explanation in the episode to raise public awareness regarding waste treatment and waste-to-energy processes, encouraging the public to engage in environmental protection and reducing waste.



Hangzhou Jiufeng Project is the country's first waste-to-energy project that has solved the “NIMBY” effect, was rebuilt at the original site and was listed as a typical case study by the United Nations. Through filming the central control centre, facilities display room, waste unloading platform and the waste crane control room in the TV show, audiences could understand the emission standards, waste incineration process and the management of waste storage pits, which resolved their mysteries about waste-to-energy projects.

浙江衛視全新一季《奔跑吧》前往光大國際旗下杭州九峰垃圾發電項目，錄製以環保為主題的節目，介紹垃圾焚燒處理工藝流程。項目人員為節目組提供了清晰詳盡的指導，透過該節目提高了大眾對垃圾處理與焚燒發電過程的認識，呼籲民眾身體力行保護生態環境，減少製造垃圾。

杭州九峰項目是國內首個成功破解「鄰避效應」並原址重啟建成的垃圾發電項目，列入聯合國PPP項目經典案例。節目拍攝了垃圾發電廠的中央控制室大廳、設備展示大廳、垃圾卸料平台、垃圾吊控制室等，讓觀眾詳細了解項目的排放指標、垃圾焚燒處理工藝流程和垃圾貯坑的管理，揭開了垃圾發電項目的神秘面紗。



### TV Shows Themed with Waste-to-energy Project (Continued)

關注垃圾發電項目的主題節目 (續)

#### “Where Did the Garbage Go After Being Sorted?” Live Streaming Show

「垃圾分類後去哪兒了」直播節目



“Look at Suzhou”, an app from the Suzhou Broadcasting System (SBS), live streamed Suzhou Waste-to-energy Project (“Suzhou Project”) for 30 minutes in one of their episodes with the theme of “Where Did the Garbage Go After Being Sorted?”, and more than 40,000 people watched the live broadcast. The episode started with the first review of the *Suzhou Municipal Waste Sorting Management Regulations (Draft)*, introduced the waste treatment process after waste sorting and presented the advanced incineration technology of Suzhou Project and the project’s positive image of being environmentally and socially responsible.

蘇州廣電總台旗下的「看蘇州」APP直播平台以「垃圾分類後去哪兒了」為題，對蘇州垃圾發電項目（「蘇州項目」）進行了30分鐘的直播。是次直播觀看人數超過四萬多人。節目以《蘇州市生活垃圾分類管理條例（草案）》首審為切入點，介紹實施垃圾分類後垃圾的去向及處置方式，並對蘇州項目先進的焚燒發電工藝、認真履行環境社會責任的良好形象進行了深入報導。

## Community Engagement

Everbright International has been upholding its core value of “Creating Better Investment Value and Undertaking More Social Responsibility” towards to the road of sustainability. The Group not only strives to ensure safe and stable operations and compliant emissions of the projects, but also proactively integrate into neighbouring communities of the projects. The Group has been actively engaging the local communities of the rural areas where its projects are operated for joint development, such as giving priority to the local residents when the projects have job openings, in order to improve the environment and facilitate industrial upgrading locally and in the surrounding areas.

In order to ensure that the Group’s projects harmonise with the communities, the Group mainstreams social concerns into the beginning of the project life cycle, to ensure that any resettlement associated with the Group’s project development will be properly managed in compliance with applicable laws, and all affected people will receive fair and adequate compensation and rehabilitation. Moreover, the Group has introduced advanced waste treatment facilities into the rural villages through the Group’s urban-rural integration projects, thereby laying a foundation to support sustainable rural development in China by preventing improper waste disposal and related pollution problems before they arise.

## 社區共融

光大國際始終秉承「創造更好投資價值·承擔更多社會責任」的企業理念邁向可持續發展之路。本集團不但致力確保項目安全穩定運行，環保達標排放，更主動融入項目週邊社區，積極實踐村企共建，優先考慮為當地居民提供就業機會，拉動週邊區域的環境改善和產業升級。

為確保旗下運營項目與社區和諧共處，本集團將社會關注點納入項目生命週期管理的初始階段，從而確保與項目開發相關的移民安置工作按照適用法律進行妥善管理，受影響人士將獲得公平、充分的補償和修葺安排。此外，本集團亦通過城鄉一體化項目，將先進的垃圾處理設施引入農村，預防廢物胡亂棄置及其相關污染問題發生，為中國農村的可持續發展模式帶來了新方向。



Not only do the Group's projects serve as important extracurricular educational resources for universities, secondary and primary schools, the Group's environmental protection projects also actively welcome visits of people from different social sectors, with an aim to drive social and economic benefits through continuous improvement of project opening-up arrangement, promotion of industrial tourism, and encouragement of circular economy.

本集團旗下的環保項目不僅是各大高校和中小學生重要的課外教學資源，更積極接待社會各界代表團實地參觀考察，透過不斷健全公眾開放、推廣工業旅遊、鼓勵循環經濟，為當地社區帶來更佳的經濟與社會效益。

**Five Key Elements of Everbright International's Environmental Protection Projects**  
光大國際環保項目標竿示範基地五大要素



## Opening Up to the Public

The Group has continued fostering activities relating to the opening-up its environmental protection facilities of all business sectors for public visit, making improvement to standardise the opening-up activities and turn them into normal practices.

In 2018, the Group held a launching ceremony in Nanjing and took the initiative to announce that 77 of its environmental protection facilities across all business sectors would be opened up for public visits in the following three years. This has made the Group the only environmental protection enterprise strategically supported by the MEE of the PRC in relation to such an initiative. Visitors can better understand waste incineration, treatment processes and waste treatment facilities by visiting the Group's waste-to-energy projects. The promotion for public opening up events covers all primary and secondary schools, universities, local and international market peers, environmental protection organisations and communities. In order to further enhance the visiting procedures and quality, each project company has formulated policies including *Etiquette Guideline for Visits* and *Safety Guideline for Visits*, and set up a dedicated integrated management team as the core and production department as assistance to be responsible for all opening-up events.

## 公眾開放

在公眾開放方面，本集團繼續堅定地推動旗下各業務板塊環保設施向公眾開放的相關工作，提升公眾開放工作的規範化和常態化水平。

二零一八年，本集團在南京舉辦環保設施向公眾開放啟動儀式，率先宣布於未來三年內向公眾開放不同業務領域77個環保設施，為生態環境部重點支持的以企業整體名義將環保設施向公眾開放的中國唯一環保企業。參觀者能透過參觀垃圾發電項目，增進對垃圾焚燒、工廠生產過程和垃圾處理設施的了解。公眾開放的宣傳面覆蓋中小學生、大專院校、國內外同行企業、環保組織、社會民眾等。為進一步提高參觀接待流程化、標準化水平，各項目公司更先後制定了《參觀接待禮儀準則》、《參觀接待安全須知》等制度規範，成立以綜合管理部為主，生產相關部門為輔的公眾開放日接待小組。

## Going into Everbright International's Waste-to-energy Project 走進光大國際的垃圾發電項目



### Environmental Education Exhibition Hall 環保教育展廳

- Introduce various environmental issues such as solutions for the "NIMBY" effect  
介紹如何化解「鄰避效應」等情況
- Introduce environmental protection topics  
介紹各環保議題



### Equipment Models Display Room

#### 設備模型展示大廳

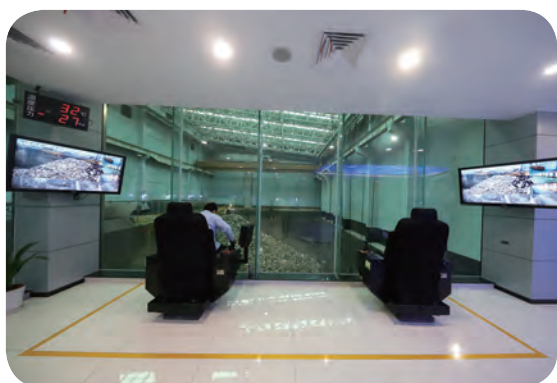
- Learn about the Group's project in terms of the waste incineration process  
供訪客參觀和了解項目，認識垃圾焚燒處理工藝流程



### Waste Unloading Platform

#### 垃圾卸料平台

- Learn about the negative pressure maintained in the waste storage pit, which prevents odour leakage  
了解垃圾貯坑內時刻保持著負壓的狀態以確保臭氣不外溢



### Waste Crane Control Room

#### 垃圾吊控制室

- Learn about the Group's project in terms of the waste incineration process  
供訪客參觀和了解項目，認識垃圾焚燒處理工藝流程



### Centralised Control Room

#### 中央控制大廳

- Learn about the process of incineration and emission data and other emission indicators  
了解垃圾焚燒處理過程和煙氣排放資料，了解各排放指標

2019  
二零一九年

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

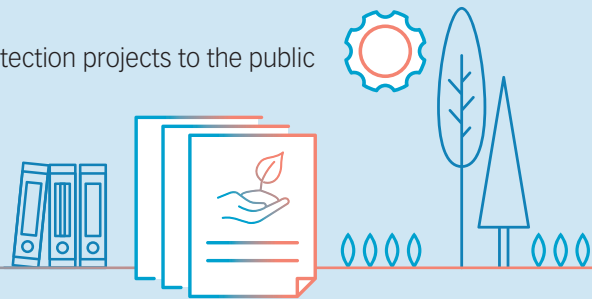
181,752 visitors  
名參觀人士

in over 8,500 batches  
超過 8,500 批次



As at 31 December 2019  
截至二零一九年十月三十一日

The Group had opened up 36 environmental protection projects to the public  
本集團已向公眾開放 36 個環保項目



## Key Projects 重點項目



### Nanjing Waste-to-energy Project 南京垃圾發電項目

Nanjing Waste-to-energy Project was among the first batch of waste processing facilities that are open for public visits in the country.

南京垃圾發電項目成為全國第一批向公眾開放的垃圾處理設施之一。





### Changzhou Waste-to-energy Project 常州垃圾發電項目

Changzhou Waste-to-energy Project has set the first weekend of every month as the Open Day for public visits, to raise public awareness and encourage them to supervise its environmental protection facilities, through appointments and other means.

常州市垃圾發電項目將每月的第一個週末設定為公眾開放日，支持公眾通過預約等形式現場參觀監督環保設施，提高公眾環保意識。

### Ji'nan Waste Water Treatment Project 濟南污水處理項目

Ji'nan Waste Water Treatment Plant set every Friday as the Open Day to offer free project tours to the public.

濟南污水處理項目將每週五設定為公眾開放日，提供免費講解。



### Ji'nan Waste-to-energy Project 濟南垃圾發電項目

Ji'nan Waste-to-energy Project was the first and largest waste-to-energy project constructed by Everbright International in Northern China, which undertakes major works relating to the opening up to the public and is also among the batch of waste processing facilities project that were opened to the public.

濟南能源環保設施向公眾開放是光大國際在北方第一個垃圾發電項目，承擔著大量的參觀接待任務，並為光大國際首批公眾開放垃圾處理設施單位。



### Solving the “NIMBY” Effect

The Group’s Hangzhou Waste-to-energy Project is the country’s first waste-to energy project that has solved the “NIMBY” Effect. Not only did the project is able to avoid resentment of residents from the neighbour, but also driving catering and hotel businesses in the nearby areas, which plays as a role model for the integration of incineration industry and social development. In 2019, Changzhou Waste-to-energy Project (“Changzhou Project”) was recognised as another typical case study on successfully solving the “NIMBY” effect, recognising the Group’s leading management model and efforts in environmental protection in the country.

### 破解「鄰避效應」

本集團的杭州垃圾發電項目是國內首次成功破解「鄰避效應」的典型案列。項目不但沒有讓鄰近的居民產生厭惡感，而所帶來的旅遊效應更拉動了廠區週邊餐飲與酒店業的發展，為國內垃圾發電行業的與社區共融的發展模式起了示範作用。二零一九年，常州垃圾發電項目（「常州項目」）也被認為成功破解「鄰避效應」又一個典型案列，體現了集團全國領先的管理模式和環保表現。

### Changzhou Waste-to-energy Project Successfully Resolved the “NIMBY” Effect 常州垃圾發電項目成功化解「鄰避效應」

*Everbright International’s Changzhou Project was selected as a study case by Organisation Department of the Communist Party of China in the 18th National Congress*  
中組部編選十八大以來攻堅克難典型案例·光大國際常州項目入選

In 2019, Changzhou Project was recognised as an innovative case study that has resolved the “NIMBY” effect, published in the Case Studies on *Overcoming Obstacles Following Chinese President Xi Jinping’s Thought on Socialism with Chinese Characteristics for a New Era*. With the theme of “Opening up and resolving “NIMBY” Effect”, the case study explains how the Group’s Changzhou Project adheres to be people-oriented, and plays an important role in demonstrating how to build a community that bring benefits to “government, enterprise and people”. Through successfully resolving the “NIMBY” effect, the project has also helped to transform the environmentally enclosed place from being “strictly restricted” to “a living room in the city”.

二零一九年，中共中央組織部編寫的《貫徹落實習近平新時代中國特色社會主義思想在發展改革穩定中攻堅克難案列》叢書出版發行，常州項目破解「鄰避」困境的創新案列入選叢書《生態文明建設篇》。該案列以《敞開大門主動開放破解「鄰避」困境》為題，講述了常州項目堅持以人民為中心、充分發揮企業主體作用、打造「政—企—民」利益共同體，成功破解「鄰避」難題，從「閒人免進」的環保封閉場所變成面向市民開放的「城市客廳」的先進經驗。





## Changzhou Waste-to-energy Project Successfully Resolved the “NIMBY” Effect (Continued) 常州垃圾發電項目成功化解「鄰避效應」(續)

### Awards 屢獲殊榮



Changzhou Project is located in Yaoguan Town, Wujin District, Changzhou City, at the intersection point of residential area, commercial area, industrial area and tourist area. The original site of the project was a comprehensive environmental sanitation plant. Due to negative environmental impacts brought by the technical and management issues such as open-air waste disposal and outdated incineration technology brought from the sanitation plant, resentments from the surrounding neighbors aroused and the “NIMBY” effect occurred.

As a result, the Changzhou government actively sought for new environmental management system and corporation opportunities with enterprises, to innovate the “Outreaching and Bringing in” policy in order to enhance the communication channels with communities. The tourism effect brought by the project has stimulated the development of catering and hotel industry for the nearby areas and vigorously promoted the development of the industry by demonstrating how the new waste-to-energy project can resolve the “NIMBY” effect. Moreover, the project also created job opportunities for the local communities, increased residential income and achieved the integration of economic development and environmental protection. A “three-win” situation in environmental protection, economic development and social benefit was achieved and solid positive influences on industry, enterprises and social were made. The project has been listed as a National Green Industrialisation Demonstration Unit, a Jiangsu Industrial Tourism Demonstration Area, a National Environmental Protection Facility and Urban Wastewater Treatment Facility Opened Up to the Public, etc.

常州項目位於常州市武進區遙觀鎮，為居民區、商業區、工業區和旅遊景區四區交匯處。項目原址是一座環境衛生綜合廠，該廠存在垃圾露天堆放、垃圾焚燒工藝落後等技術和管理問題，對週邊環境產生了負面影響，存在著嚴重的「鄰避效應」。

為此，常州市政府謀劃嶄新的環境治理模式，與企業通力合作，積極奉行「走出去，請進來」的開放策略，拓展與市民的溝通渠道。項目所帶來的旅遊效應拉動了廠區週邊餐飲與酒店業的消費，推動了服務業的蓬勃發展，為國內垃圾發電行業的發展和化解「鄰避效應」起到了示範效應。同時，項目為當地居民創造了就業機會，增加了居民收入，實現了經濟發展與環境保護協同共進，最終達到環境效益、經濟效益與社會效益的共贏，對企業、行業和社會產生了深遠的正面影響。項目先後被列為全國綠色產業化示範單位、江蘇省工業旅遊示範區（點）、全國環保設施和城市污水垃圾處理設施向公眾開放單位等。

## Changzhou Waste-to-energy Project Successfully Resolved the "NIMBY" Effect (Continued) 常州垃圾發電項目成功化解「鄰避效應」(續)

### Information Disclosure 資訊公開

The Group's waste-to-energy plants have incorporated internet technologies to establish a comprehensive monitoring system. Flue gas emissions real-time data from Changzhou Project is available to access online and the Group has adopted a proactive approach in accepting supervision from the government. Emissions data are also displayed on the LED screen outside the project area for public's monitoring 24/7. The gas emission data has been able to be accessed by the public online since 1 January 2017.

垃圾發電項目主動公開資訊，利用互聯網等技術建立全過程的監測體系。常州項目煙氣排放的各項指標與常州市環保部門即時線上聯網，並主動接受政府部門的監督。廠區大門外豎立的LED液晶屏幕顯示工廠高標準、即時的煙氣排放指標，24小時不間斷接受公眾監督。自二零一七年一月一日起，線上煙氣排放小時均值向社會公示。

### Looking Forward – Building China's first Fenceless Community-Friendly Waste-to-energy Project

展望未來—打造全國首個無圍牆的「鄰利」垃圾發電廠

On 23 September 2019, the Group secured the upgrading project of Changzhou Project. The upgrading work would dismantle the fences and build several community-friendly facilities in the project area, such as library, environmental educational hub (which may include a science popularisation and education centre, a café and book lounge, and eco-restrooms). In the meantime, the upgrading work would enable the project to further comply with the ultra-low emission standards and

to become the first fenceless, fully opened and community friendly waste-to-energy project in China. Changzhou Waste-to-energy Project will become the representative and benchmark for the waste-to-energy industry.

二零一九年九月二十三日，本集團取得常州項目開放提升工程，是次開放提升工程將拆除項目現有圍牆，並在廠區新建圖書館、環保科普館（含科普教育廳、小型咖啡廳及書吧、生態廁所）等設施，同時進一步實現超低排放。此提升工程將打造中國首個沒有圍牆且建有便民惠民設施的垃圾發電廠，為中國排放標準最高的「鄰利」垃圾發電廠。常州垃圾發電項目將進一步成為垃圾發電行業的高地、旗幟和標杆。

常州光大國際公司園地景觀視力家



**Everbright International was awarded “China’s Ecological Civilisation Award” and  
“Top 10 Public Engagement Case Studies Award”**

光大國際榮獲「中國生態文明獎」和「十佳公眾參與案例」



The annual meeting of the “World Environment Day” 2019 and the China Environmental and Development International Co-operation Committee was held from 2-5 June in Hangzhou. Everbright International was awarded the “Advanced Group on Ecological Civilisation in China Award” and “Top 10 Public Engagement Case Studies” Award.

二零一九年「世界環境日」全球主場活動暨中國環境與發展國際合作委員會年會於六月二日至五日在杭州市盛大召開。光大國際於主場活動上榮獲「中國生態文明獎」及「十佳公眾參與案例」兩大獎項。

## Poverty Alleviation

### Poverty Alleviation Industry Chain

The Group consistently encourages and promotes effective public and civil society partnerships to address local problems. The Group’s biomass business has not only helped to resolve the pollution issues caused by straw burning, but also has helped to creating local job opportunities, increasing residential income and proactively responding to the country’s poverty policy by adopting the “agricultural waste storing and delivering system”. The local governments arrange underprivileged households to collect and sell biomass materials to the Group’s operating projects, as a way to provide extra income to the needed while helping to address the local waste treatment problem. The collaboration model breaks new ground to create a situation that benefits the environment, society and economy.

## 扶貧濟困

### 扶貧產業鏈

本集團透過不斷鼓勵和發展有效的公共和公民社會合作，解決當地問題。本集團的生物質業務除了解決當地農林秸稈焚燒帶來的污染問題，更通過成立農林廢棄物收貯運體系，為當地農民創造就業機會，增加收入來源，積極響應國家的精準扶貧方針。政府透過此模式組織貧困戶收集生物質原料出售予本集團的運營項目，為人們提供額外收入的同時有助解決當地的廢物處理問題，開創環境、社會和經濟效益三豐收的新格局。

**In 2019, Integrated Biomass Utilisation Projects of  
Everbright International**  
二零一九年，光大國際的生物質綜合利用項目



Directly and/or indirectly created  
直接或間接提供工作崗位：

over **40,000** jobs  
逾 **40,000** 個

Increased farmers' income by approximately  
義工帶動農民增收：

RMB **1.6** billion  
約人民幣 **1.6** 十億元

Benefiting over  
令逾 **7.1** million farmers  
百萬名農民受益



### Charitable Activities

The Group established Everbright International Environmental Protection Charitable Foundation Company Limited in Hong Kong in 2013. The foundation company manages the "Everbright International Environmental Protection Charitable Foundation" and coordinates all the Group's charitable projects in environmental protection education, energy-saving, ecological conservation and community caring, etc.

The Group's project company in Suzhou is a co-founder of the "Everbright Environmental Protection Charitable Foundation" together with Suzhou Environmental and Municipal Administration Bureau and Suzhou Charity Federation. During the Reporting Period, the foundation continued to provide financial and psychological support to sanitation workers and their families in Suzhou who are experiencing financial hardship or critical illness. As of the end of 2019, the foundation has supported a total of 1,516 beneficiaries, with a total of over RMB6.84 million delivered as ex-gratia funds and financial aids.

### 慈善與公益

本集團於二零一三年在香港成立光大國際環保公益基金會有限公司，專責管理「光大國際環保公益基金」及協調本集團於環保教育、節能、生態保育及社區關懷等方面的所有慈善公益活動。

本集團的蘇州項目公司與蘇州市市容市政管理局及蘇州市慈善總會共同發起成立「光大環保愛心基金」。報告期內，該基金繼續為蘇州環境衛生工人及其家庭就他們的財務困難或嚴重疾病提供經濟及心理支持。截至二零一九年底，該基金已累計產生1,516名受益者，共計已發放超過人民幣684萬元慰問金及救助金。



Besides, the Group supported Heifer International Hong Kong Branch's "Read to Feed" fundraising programme between the 2016 to 2019 academic years. Through this programme, the Group encouraged Hong Kong students to develop reading habits, deepening their understanding on poverty and environmental protection issues, and develop a sense of empathy. On the other hand, the Group offered financial assistance to the poor farmers in Mainland China, raising their living standard.

此外，本集團自二零一六年至二零一七學年全力支持國際小母牛香港分會舉辦的開卷助人閱讀籌款計劃，一方面鼓勵香港學童養成閱讀習慣，通過閱讀加深對貧窮、環保等議題的了解，培養同理心，拓展視野，關注地球的可持續發展；另一方面通過資金捐助的形式幫助國內山區農戶擺脫貧窮，改善生活質素。

### Overview of Charity Work in 2019 二零一九年慈善公益活動概覽



Participated in 參與  <b>88</b> charitable activities 慈善公益活動	Volunteer services 義工總時數  <b>1,203</b> hours 小時
Volunteering during paid working hours 義工有薪工時為  HK\$ <b>82,058</b> 元 港幣	Total charitable donation (cash) 捐款總金額(現金)為  HK\$ <b>10,772,308</b> 元 港幣
In-kind giving 物資捐贈為  HK\$ <b>190,959</b> 元 港幣	Management overheads 管理費用為  HK\$ <b>3,774,845</b> 元 港幣

**The 12th Batch of “Everbright Environmental Protection Charitable Fund”  
was distributed to Sanitation Workers in Difficulties**  
第十二批「光大環保愛心基金」發放至困難環衛工人手中



On 18 September 2019, representatives of Suzhou Project, Suzhou City Appearance and Municipal Administration Bureau, Suzhou Charity Federation and Suzhou Sanitation Department distributed the twelfth batches of “Everbright Environmental Protection Charitable Fund” to sanitation workers in difficulties, while bringing care and love.

After several years of operation and promotion, the number of sanitation workers benefiting from the “Everbright Environmental Protection Charitable Fund” has increased gradually, and the covered area and personnel have continued to increase. Starting from 2019, the fund has donated RMB1 million every year on free health check ups for frontline sanitation workers, and provide follow-up care and safeguard their health, along with “Love Fund Management Approach”.

Suzhou Project will continue to play a leading role to provide care to more front-line sanitation workers and make them feel being cared from the industry and society.

二零一九年九月十八日，蘇州項目會同蘇州市城市管理局、蘇州市慈善總會以及蘇州市環衛處等相關單位負責人將第十二批「光大環保愛心基金」發放至困難環衛工人家庭，送去了慰問和愛心。

經過幾年的運作和宣傳，因「光大環保愛心基金」受益的環衛工人人數和金額逐年增長，覆蓋的區域和人員不斷擴大。從二零一九年開始，「光大環保愛心基金」每年捐出人民幣100萬元用於一線環衛工人的免費體檢項目，結合「愛心基金管理辦法」，給予後續的困難慰問，為他們的身體健康提供保障。

蘇州項目也將一如既往發揮模範帶頭作用，讓更多的環衛一線職工感受到來自行業、來自社會的關愛。



### Everbright International Environmental Protection Charitable Foundation Supports UNICEF HK Charitable Activities

光大國際環保公益基金會贊助UNICEF HK慈善活動



In October 2019, co-operated with UNICEF HK, the Group's Everbright International Environmental Protection Charitable Foundation successfully launched the "Everbright International: Adventure in the Woods", which was an outdoor charity event aiming to cultivate the ecological and environmental protection awareness of the children. Over 800 Hong Kong residents joined the event and all the donation was given to support the Maternal and Child Health Services Improvement in Rural Area Project of UNICEF HK.

二零一九年十月，光大國際環保公益基金會攜手聯合國兒童基金會香港委員會(UNICEF HK)在香港粉嶺高爾夫球場成功舉辦了「光大國際呈獻：「童」闖大自然」親子戶外嘉年華慈善活動，旨在培養兒童生態環保意識與責任意識。當天現場吸引了800多名香港居民參與，活動籌得善款全數捐獻給聯合國兒童基金會的山區母嬰健康項目。



### "Run for Girls" Charity Run Event 「愛·女孩」起跑!慈善跑活動

In response to the "International Day of the Girl Child" on 17 March 2019, the Group participated in the "Run for Girls" Charity Run Event, which was organised by Plan International Hong Kong, in order to raise fund for the girls in Rwanda Refugee Camp and improve their living standard. The aim of the event was to fight for and promote girls' rights and justice, to protect girls in developing countries from discrimination, inequality and violence.

二零一九年三月十七日，本集團在香港參加了由國際培幼會主辦的「愛·女孩」起跑!慈善跑活動，以回應「國際女童日」，為盧安達難民營的女孩們籌款，改善她們的生活環境。是次活動目希望爭取及推動女孩權益及公義，幫助發展中國家的女孩免受歧視、不平等及粗暴對待。

## Climate Action

The Group highly regards public advocacy for sustainable development and climate resilience, aiming to popularise environmental protection knowledge at all ages. To raise public attention on climate change, “Everbright International Environmental Protection Charitable Foundation” had supported the “Earth Hour” Event in Hong Kong, which was hosted by the World Wide Fund for Nature (WWF) Hong Kong, as the lead sponsor for the sixth consecutive year.

## 氣候行動

本集團非常重視有關環保和氣候抗禦能力的公眾倡議，以在各年齡層普及環保知識為己任。為喚起大眾對氣候變化的關注，「光大國際環保公益基金會」連續第六年作為首席贊助機構，全力支持由世界自然基金會（「WWF」）香港分會主辦的「地球一小時」活動。

### Everbright International Environmental Protection Charitable Foundation as Lead Sponsor of Earth Hour Hong Kong for the 6th Consecutive Year 光大國際環保公益基金會連續第六年首席贊助香港「地球一小時」



On 30 March 2019, the light-off and countdown of the Earth Hour Hong Kong, which Everbright International Environmental Protection Charitable Foundation had supported as lead sponsor for the sixth consecutive year, was held at the Hong Kong Cultural Centre at Tsim Sha Tsui at 8:30 pm.

Themed with “Abandoning Single-used Plastic Products”, the 2019 event aimed to urge different sectors of Hong Kong to recognise ocean pollution and reduce the public and the catering industry plastic consumption.

二零一九年三月三十日，由「光大國際環保公益基金會」連續第六年首席贊助的香港「地球一小時」熄燈倒數活動於晚上8時30分在尖沙咀香港文化中心露天廣場舉行。

二零一九年活動的重點是提倡棄用即棄塑膠，旨在持續呼籲香港各界人士正視本地的海洋垃圾問題，鼓勵大眾及餐飲業減少使用非必要的即棄塑膠製品。

During the Reporting Period, the Group's project companies also conducted various environmental protection activities, such as voluntary activities to promote science popularisation knowledge, and to support a series of environmental protection events such as the "World Water Day" and World Environment Day on 5 June. Also, in response to the "I am the Enabler for a Beautiful China" initiative of the MEE of the PRC, the Group encouraged its employees to actively adopt an environmental friendly lifestyle, such as promoting paperless working environment and bringing one's own shopping bag, combining individual efforts into a momentum that thrusts a change.

報告期內，本集團的項目公司亦組織了多項環保活動，如參與環保志願者活動以宣傳科普知識，響應「世界水日」及「六·五」世界環境日等的環保節日。此外，為響應中國環境保護部門「美麗中國，我是行動者」計劃，集團積極鼓勵員工從生活上實踐環保，例如推行工作環境無紙化和自備購物袋等，希望將各人的努力匯聚成一股改變環境的動力。

### Environment Day 2019 Events held by Changzhou Xinbei Waste-to-energy Project

#### 常州新北垃圾發電項目開展二零一九年世界環境日環保主題活動

On 5 June 2019, around 100 students and teachers from Nanjing Xiaozhuang University participated in the environmental event with the theme of "We Are in Action of Defending Blur Sky" hosted by Changzhou Xinbei Waste-to-energy Project. During the event, students and teachers listened to introduction to the process of waste incineration, looked at the waste cranes, the craning room and central control room along with the tour guide answering any enquires raised by the visiting group. After the event, a student was picked to share her feelings towards the event, and she said that: "I hope that I will reduce the consumption of plastic bags so that our land and ocean will be free from plastic pollution. I will also try to use my grocery bag again and stop using single-use plastic items, to have more environmentally friendly lifestyle".

二零一九年六月五日，常州新北垃圾發電項目策劃了主題為「藍天保衛戰，我們在行動」的活動，與南京曉莊學院師生一行百餘人共同完成了此次的環境日活動。是次活動過程中，帶隊老師和同學們聽取了生活垃圾焚燒工藝流程介紹，參觀了垃圾吊、抓斗室和中央控制室等，並由講解員解答同學們的疑問。活動完結後，主辦單位隨機採訪了一位同學，她表達了對此次活動的感想：「我希望以後少用塑膠袋，讓我們身邊的土壤不受塑膠污染，江海不被塑膠侵害。我也會試著重提菜籃子，使用各色環保袋，告別對一次性塑膠生活製品的依賴，選擇更綠色的購物生活方式。」

# Business Developments and Operational Strategies 業務發展及運營策略

Joining hands in pursuit of  
**THE SUSTAINABLE DEVELOPMENT GOALS**

攜手邁向**可持續發展目標**





## SUSTAINABLE DEVELOPMENT GOALS

In 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, which included 17 SDGs and emphasised the need to achieve overall sustainable development. With the vision to become a world-leading ecological and environmental management group in the next 5 to 10 years, the Group is committed to formulate and report the SDGs that are closely related to the Group. The Group is devoted to help address the world's most pressing environmental, social and economic problems by actively connecting our decision-making process with the SDGs.

### Environment



#### 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, 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。

## 可持續發展目標

聯合國於二零一五年通過二零三零年可持續發展議程，內容包括17項可持續發展目標，強調要全面達至整體可持續發展。懷著在未來五到十年將集團打造成全球領先的生態環境集團的宏願，本集團致力制定及匯報本集團認為與集團最息息相關的可持續發展目標。本集團將可持續發展目標逐步融入企業核心決策過程，以助緩解世界上最迫切的環境、社會和經濟議題。

### 環境

#### Businesses of Everbright International

光大國際的業務

As a one-stop integrated environmental solution provider, the Group accords top priority to environmental protection performance of the Group's projects. Therefore, the Group strictly controls air emissions in all incineration and combustion operations by implementing stringent operational procedures with frequent inspections and extensive supervision. The Group also pays particular attention to the effective control of fugitive emissions at the Group's projects to prevent air pollution. The Group's waste-to-energy projects are designed and operated fully in compliance with the *Standard for Pollution Control on the Municipal Solid Waste Incineration (GB18485-2014)* with the daily average values of online continuously monitored parameters well below the respective emission limits as stipulated under the Euro 2010 standards; all of the Group's biomass combustion operations meet the *Emission Standard of Air Pollutants for Thermal Power Plants (GB13223-2011)*.

作為一間全方位的環境綜合治理服務商，本集團十分重視其項目的環境表現。故此本集團採納了嚴謹的操作程序和高頻率的檢查，嚴格控制所有焚燒和燃燒運營的煙氣排放量。本集團亦特別關注項目無組織排放的有效控制，避免造成空氣污染。本集團的垃圾發電項目的設計及運營完全符合《生活垃圾焚燒污染控制標準》(GB18485-2014)，當中煙氣在線監測指標日均值全面優於歐盟2010標準中的相關排放限值；所有生物質燃燒的運營則達《火電廠大氣污染物排放標準》(GB13223-2011)。

The Group's hazardous and solid waste treatment business can safely handle over 90% of hazardous waste types listed in the *National Catalogue of Hazardous Wastes*, hence effectively minimising public health risk.

本集團的危廢及固廢處置業務亦可安全處置《國家危險廢物名錄》超過90%的危廢種類，大大減低大眾的健康風險。



**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, 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。

**Businesses of Everbright International**  
光大國際的業務

The Group's waste water treatment projects effectively treat waste water strictly in compliance with national standards and produce high quality industrial reusable water to help soothe water quality and sanitation problems.

本集團的污水處理項目嚴格按照國家標準有效處理污水，並生產高質量的工業回用水，以協助舒緩水質量和衛生問題。

Environmental Water treated a total of 1,433,805,000 m<sup>3</sup> of waste water and produced 17,652,000 m<sup>3</sup> of reusable water in 2019.

環保水務於二零一九年共處理了約1,433,805,000立方米的污水和生產了約17,652,000立方米的回用水。



**Ensure access to affordable, reliable, sustainable and modern energy for all**

確保人人獲得負擔得起的、可靠和可持續的現代能源

#### 7.1

By 2030, ensure universal access to affordable, reliable and modern energy services  
到二零三零年，確保人人都能獲得負擔得起的、可靠的現代能源服務。

**Businesses of Everbright International**  
光大國際的業務

The Group generates clean energy by utilising household waste and agricultural and forestry waste, thus relieving pressure on landfills and save precious land resources.

本集團利用生活垃圾和農林廢棄物生產清潔能源，減少填埋量壓力，從而節省寶貴的土地資源。

Everbright Greenergy began its business with the launch of its major product, "Everbright New Sodium Lamp". It is devoted to facilitating cities and regions to fully upgrade their energy-saving streetlights. To date, "Everbright New Sodium Lamp" has been in trial use for street lighting in selected cities in the country.

光大節能照明首期業務以「光大新鈉燈」為主營產品，幫助實現城市、區域節能照明的全面改造升級。目前，「光大新鈉燈」已在全國部分城市的街道率先試用。





### **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 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, all countries taking action 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。

### **Businesses of Everbright International**

光大國際的業務

The Group developed a unique business model of urban-rural integration combining biomass utilisation projects and waste-to-energy projects, providing one-stop services for integrated treatment of agricultural and forestry waste as well as rural household waste in a pioneering attempt to ecological environmental management in county areas.

本集團開發出獨特的城鄉一體化業務模式，將生物質處理項目與垃圾發電項目融為一體建設，統籌處理農林廢棄物及農村生活垃圾，開創了縣域生態環境治理的先河。

In addition, the Group has developed China's first 1,000 tonnes/day household waste grate furnace in-house, filling a void in the domestic market. It also made great strides in the use of plasma melting technology for the treatment of fly ash.

此外，本集團自主研發國產首台1,000噸／日生活垃圾焚燒爐排爐成功填補了中國市場的空白，並在離子飛灰融熔技術取得重大突破。

In addition, the Group's two new business sectors, Eco-recycling and Greenergy, aims to develop zero-waste cities via waste sorting and resources recycling, and contribute to energy conservation and urban outdoor lighting projects via R&D and manufacturing of energy-saving streetlights respectively.

此外，本集團新增的兩大業務板塊，生態資源業務致力從事垃圾分類及資源回收，從而建設無廢城市；而環境節能業務透過研發和製造節能路燈，致力貢獻環境節能，建造城市亮化工程。

In 2019, the Group has established the China Everbright Green Technology Innovation Research Institute, Zero-Waste City Research Institute and Ecological and Environmental Planning and Design Institute, to ensure the commercialisation of technological R&D outputs.

本集團也於二零一九年籌建光大國際綠色技術創新研究院、無廢城市研究院和生態環境規劃設計院，保障科技研發的實效輸出。

11 SUSTAINABLE CITIES AND COMMUNITIES



**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, reduce the adverse per capita environmental impact of cities, including by 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，包括特別關注空氣品質，以及城市廢物管理等。

**Businesses of Everbright International**

光大國際的業務

Waste disposal is one of the most pressing environmental problems faced by modern society. The Group's waste-to-energy projects effectively reduce the volume of household waste through thermal treatment, while the majority of bottom ash produced from waste incineration can be used to produce bricks, thus relieving pressure on landfills and resolving the waste crisis. Through its integrated biomass utilisation projects, the Group introduced advanced waste processing facilities into the rural villages, thereby laying a foundation to support sustainable rural development in China by preventing waste disposal and related pollution problems before they arise.

廢物處置是現代社會中面臨最逼切的环境問題之一。本集團的垃圾發電項目透過熱處理有效地減少生活垃圾體積，而焚燒垃圾產生的爐渣則可用於製磚，從而減輕填埋場壓力。通過生物質綜合利用項目，本集團將先進的垃圾處理設施引入農村，預防垃圾及其相關污染問題發生，從而為中國農村的可持續發展奠定了基礎。

The Group's sponge city projects aims to improve a city's ability in absorption, infiltration, retention, release and purification of rainwater, and to strengthen the urban ecosystem through building systems that can effectively control surface runoff and relieve pressure on urban river channels.

本集團的海綿城市項目能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。

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



**Ensure sustainable consumption and production patterns**

採用可持續的消費和生產模式

**12.2**

By 2030 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。

**Businesses of Everbright International**

光大國際的業務

The Eco-recycling sector is committed to expanding business in the areas of household waste sorting, environmental sanitation services and recyclable resources utilisation, aiming to provide front-end waste management services and the utilisation of recyclable resources.

本集團的生態資源板塊主要致力於拓展生活垃圾分類、環衛作業服務以及再生資源利用三個領域的相關業務，旨在提供固廢處置前端服務與再生資源綜合利用相關業務。



### 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

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。

### Businesses of Everbright International

光大國際的業務

The Group's waste-to-energy projects and integrated biomass utilisation projects offset GHG emissions through avoidance of fugitive release of methane generated from the degradation of household waste and biomass raw materials and the production of green electricity that replaces the use of fossil fuel power.

本集團的垃圾發電項目及生物質綜合利用項目透過避免生活垃圾和生物質原材料的降解所引致的無組織甲烷釋放及產生綠色電力以替代化石燃料能源的使用，從而抵銷溫室氣體排放。



### 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, 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。

### Businesses of Everbright International

光大國際的業務

The Group's project site selection practice complies with stringent environmental impact assessment requirements, which prevent the water bodies and ecological sites nearby the project site from adverse impact.

本集團的項目選址均符合嚴格的環評準則，防止對項目週邊的水體和動物棲息地帶來不利影響。



**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**

By 2020, 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.

到二零二零年，根據國際協定規定的義務，保護、恢復和可持續利用陸地和內陸的淡水公司及其服務，特別是森林、濕地、山麓和旱地。

**Businesses of Everbright International**

**光大國際的業務**

The Group's waste-to-energy projects help tackle the waste problem in an environmentally sound manner. This results in the avoidance of waste in landfills which would otherwise cause environmental problems and affect ecosystems.

本集團的垃圾發電項目以無害環境的方式應對垃圾問題，避免了垃圾於填埋傾倒所導致的環境問題及對生態系統的影響。



**Strengthen the means of implementation and revitalise the global partnership for sustainable development**

加強執行手段，重振可持續發展全球夥伴關係

**17.8**

Fully operationalise the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology. 促成最不發達國家的技術庫和科學、技術和創新能力建設機制到二零一七年全面投入運行，加強促成科技特別是資訊和通信技術的使用。

**Businesses of Everbright International**

光大國際的業務

The Group has been partnering with institutions such as ADB, China Development Bank, etc., to collaboratively promote clean energy and environmental protection.

本集團一直與亞發行及國家開發銀行等機構合作，攜手宣揚清潔能源及環境保護。

## Social



### End poverty in all its forms everywhere

在全世界消除一切形式的貧困

#### 1.2

By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions. 到二零三零年，按各國標準界定的陷入各種形式貧困的各年齡段男女和兒童至少減半。執行適合本國國情的全民社會保障制度和措施、企業發展、多方共贏」的戰略，包括最低標準，到二零三零年在較大程度上覆蓋窮人和弱勢群體。

## 社會

### Businesses of Everbright International

光大國際的業務

The Group's biomass utilisation business not only solve the pollution problems caused by the burning of local agricultural and forestry straws, but also create jobs opportunities for local farmers and increase their sources of income through the establishment of the collection, storage and transportation of agricultural wastes. The Group has actively responded to the country's precision poverty alleviation policy. With the commencement of project operations and the establishment, improvement and development of the biomass intake and storage systems, the Group has developed a strategy of "Increasing Income for Farmers, Ensuring Development for the Enterprise, and Procuring Mutual Success for Multiple Parties" which will drive the rural economy in direct and indirect ways to lift villagers from poverty.

本集團的生物質業務除了解決當地農林秸稈焚燒帶來的污染問題，更通過成立農林廢棄物收貯運體系，為當地農民創造就業機會，增加收入來源，積極響應國家的精準扶貧方針。隨著項目的投產以及生物質收貯體系的建立、完善和發展，本集團打造出「農民增收、企業發展、多方共贏」的戰略，直接和間接帶動農村經濟，幫助人口脫貧。



### End hunger, achieve food security and improved nutrition and promote sustainable agriculture

消除饑餓，實現糧食安全，改善營養狀況和促進可持續農業

#### 2.1

By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round.

到二零三零年，消除饑餓，確保所有人，特別是窮人和弱勢群體，包括嬰兒，全年都有安全、營養和充足的食物。

### Businesses of Everbright International

光大國際的業務

The Group's food waste processing projects can turn food waste into compost, which can in turn support the agricultural development of the Group's project neighbourhoods.

本集團的餐廚垃圾處理項目把餐廚垃圾轉換為堆肥，從而支持鄰近地區的農業發展。





### Ensure healthy lives and promote wellbeing 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

#### 3.5

Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

加強對濫用藥物包括濫用麻醉藥品和有害使用酒精的預防和治療。

### Businesses of Everbright International

光大國際的業務

The Group proactively cooperates with the government to promote good health and well-being, including working with local governments on the promotion of anti-drug messages and formulating destruction plans on drugs and expired medicines.

本集團積極與政府合作，宣揚健康和福祉，包括與地方政府合作推廣禁毒訊息、展開毒品及過期藥品焚毀計劃等。



### 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, 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。

### Businesses of Everbright International

光大國際的業務

The Group's environmental protection projects have been selected as environmental popularisation and education hubs and act as demonstration sites for circular economy and industrial tourism. The Group also proactively opens up its projects for public visits, offering every individual with opportunities to understand how environmental infrastructures tackle pollution and improve the community's living environment. In 2019, the Group's environmental protection projects received a total of 181,752 visitors, in over 8,500 batches.

本集團的環保項目被選為環保科普教育基地，並作為循環經濟和工業旅遊的示範項目。本集團亦積極開放項目供公眾參觀，給予大眾機會以了解環保基礎設施如何處理污染及改善社區的居住環境。於二零一九年，本集團的項目共接待超181,752名參觀人士，超過8,500批次。

As at 31 December 2019, the Group's "Everbright International True Love School" provided educational opportunities to 4,500 students.

截至二零一九年十二月三十一日，本集團的「光大國際愛心學校」為4,500學生提供教育機會。



### **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**

End all forms of discrimination against women and girls everywhere.

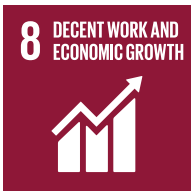
在全球消除對婦女和女童一切形式的歧視。

### **Businesses of Everbright International**

光大國際的業務

The Group ensures that its human resources management structure, including compensation, training opportunity, career prospect, etc., is not affected by gender biases, thus achieving gender equality.

本集團確保其人力資源管理架構，如薪酬水平、訓練機會及就業前景等不受性別影響，從而實現性別平等。



### **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**

Achieve higher levels of productivity of economies through diversification, technological upgrading and innovation, including through a focus on high value added and labor-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，實現更高水準的經濟生產力。

### **Businesses of Everbright International**

光大國際的業務

Through investment, construction and operation of advanced waste-to-energy facilities, the Group drives the development of upstream waste collection industries as well as downstream metal and bottom ash recycling industries, completing a sustainable waste management industry chain.

本集團透過投資、建造及運營先進的垃圾發電設施帶動了上游垃圾清運行業及下游金屬和爐渣回收行業，形成完整的可持續廢物管理產業鏈。

The Group's integrated biomass utilisation projects are located in rural areas, where the Group's operations can foster local economic development through job opportunities and improved infrastructure services.

本集團的生物質綜合利用項目都是位於市郊地區，因此本集團的運營可以提供當地就業機會及改善基礎設施，從而推動當地經濟發展。

In addition, to foster local economic development and employment opportunities, the Group has paid special attention to local talents. During the Reporting Period, many new employees hired are from local regions.

另外，為了促進當地經濟發展和就業機會，本集團特別關顧本地人才，報告期內聘請的許多新員工均來自本地。



### 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, 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、族裔、出身、宗教信仰、經濟地位或其他任何區別。

### Businesses of Everbright International

光大國際的業務

The Group implements a fair and competitive remuneration and welfare system. The remuneration is determined based on qualification, experience, nature of work, performance and market conditions to strive to create equal employment opportunities.

本集團實施公平及具競爭力的薪酬福利制度，薪酬乃根據資歷、經驗、工作性質、表現以及市場情況計算釐定，致力締造平等的就業機會。

The Group pays special attention in adopting methods to ensure that the Group's project operations do not affect the dignity, rights, livelihood, or culture of indigenous peoples.

本集團亦特別關注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。



**Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels**

創建和平、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

**16.5**

Substantially reduce corruption and bribery in all their forms.  
大幅減少一切形式的腐敗和賄賂行為。

**16.10**

Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.  
根據國家立法和國際協議，確保公眾獲得各種資訊，保障基本自由。

**Businesses of Everbright International**

光大國際的業務

To uphold the public's right to know and to appreciate the importance of public supervision, the Group promotes environmental justice by initiating disclosure of air emissions data of the Group's operating waste-to-energy projects on the public domain on an hourly basis.

為了維護公眾的知情權和公眾監督的重要性，本集團通過按小時向大眾公佈各垃圾發電運營項目的煙氣排放數據，從而倡導環境正義。

In terms of social justice, the Group follows the requirements of ADB to mainstream social concerns into the entire project life cycle, thus ensuring that any resettlement associated with the Group's project development will be properly managed in compliance with applicable laws, and all affected people will receive fair and adequate compensation and rehabilitation.

在社會正義方面，本集團遵循亞發行的要求，將社會關注點納入項目生命週期的整個階段，從而確保與項目開發相關的搬遷安置工作將按照適用法律進行妥善管理，受影響人士將得到公平、充分的補償和修復安排。

The Group also strives to promote a peaceful and inclusive working environment. The Group's *Staff Handbook* and *Code of Conduct* prohibit unethical issues such as corruption, bribery (including any form of facilitating payment), conflict of interest and discrimination within the Group's working environment.





本集團亦致力創建和平及包容的工作環境。本集團的《員工手冊》及《員工守則》禁止本集團的工作環境內出現貪污、賄賂（包括任何形式的通行費）、利益衝突和歧視等不道德問題。

Alignment to SDGs is an important management approach of the Group. In order to review the Group's existing measures and to explore more opportunities to contribute to sustainable development, in 2019, the Group has conducted a comprehensive review and developed long-term business targets connecting to relevant SDGs. This would strengthen the Group's role in promoting sustainable development in China and worldwide. In addition, the Group has fully achieved its 2019 targets. Setting targets will drive the Group's continuous innovation and improvement in performance as well as value creation.

與可持續發展目標相關聯為本集團重要的管治方針。為了檢視本集團的現行措施和尋求更多為可持續發展目標作貢獻的機會，本集團於二零一九年進行了全面的檢討，繼續制定長期目標，並與相關的可持續發展目標相連繫，以便於本集團在推動中國乃至全球的可持續發展擔當重要角色。此外，本集團已全面達成了其二零一九年目標。目標的設立將推動本集團持續提升其表現和價值創造。

## Long-Term Targets

## 長期目標

Material Topics 實質性議題	Targets 目標	Progress as at 31 December 2019 截至二零一九年 十二月三十一日的進度	Relevant SDGs 相關 可持續發展目標
<b>Technological R&amp;D</b> 科研及開發	To reach accumulated technological R&D investment of RMB1 billion throughout the 5-year period of 2018-2022 科研及開發於五年間 (二零一八至二零二二年)的累計 投放資金達人民幣10億元	Accumulated technological R&D investment reached RMB418 million (i.e. about 42% of the target achieved) 累計投放科研及開發資金 達人民幣4.18億元 (已完成目標約42%)	
<b>Social Integration</b> 社區共融	To receive 120,000 visitors at our environmental protection facilities in every year throughout the 5-year period of 2018-2022 環保設施於五年間 (二零一八至二零二二年) 每年接待參觀人數達120,000人次	In 2019, the Group's environmental protection facilities received a total of 181,752 domestic and foreign visitors from all social circles 於二零一九年，本集團的 環保設施共接待國內外各 界人士參觀考察181,752 人次	 
<b>Occupational Health and Safety</b> 職業健康與安全	To maintain the rate of work-related injuries of employees at 0.25 or below in every year throughout the 5-year period of 2018-2022 工傷率於五年間 (二零一八至二零二二年) 每年維持在0.25或以下	The rate of work-related injuries of employees was 0.18 in 2019 二零一九年的員工工傷率 為0.18	

## Review of 2019 Targets

## 二零一九年目標回顧

Aspect 範疇	Targets 目標	Achieved 已達成	
Environment 環境	Total GHG emissions offset 總溫室氣體排放抵銷量	increase by 10% compared with the previous year 較去年增長10%	✓
	Air emissions intensities (in terms of particulate matter, sulphur dioxide and nitrogen oxides) of waste-to-energy and integrated biomass utilisation projects 垃圾發電項目及生物質綜合利用項目的主要煙氣(顆粒物、二氧化硫和氮氧化物)排放密度	at levels not higher than the respective averages of the past three years 分別不高於過去其三年的平均水平	✓
	Direct GHG emissions (scope 1) from sources other than household waste incineration <sup>(1)</sup> 由生活垃圾焚燒以外來源引致的直接溫室氣體排放(範疇一) <sup>(1)</sup>	not more than 288,000 tonnes CO <sub>2</sub> e 不多於288,000噸二氧化碳當量	✓
	Energy indirect GHG emissions (scope 2) 能源引致的間接溫室氣體排放(範疇二)	not more than 463,000 tonnes CO <sub>2</sub> e 不多於463,000噸二氧化碳當量	✓
	Total non-renewable energy consumption 非再生能源消耗總量	not more than 4,800,000 GJ 不多於4,800,000吉焦	✓
	Total fresh water consumption 淡水消耗總量	not more than 51,200,000 m <sup>3</sup> 不多於51,200,000立方米	✓
	Total waste disposed 廢棄物棄置總量	not more than 1,040,000 tonnes 不多於1,040,000噸	✓



Aspect 範疇	Targets 目標	Achieved 已達成	
<b>Society</b> 社會	Farmers' income from integrated biomass utilisation projects 生物質綜合利用項目帶動農民收入	increase by 30% compared with the previous year 較去年增長30%	✓
	Average training hours per employee 健康與安全培訓平均員工時數	10 hours 10小時	✓
	Rate of work-related fatalities (employees) 因工死亡率(員工)	at a level not higher than the average of the past three years 不高於過去三年的平均水平	✓
	Overall customer satisfaction rate 客戶整體滿意度	score 8.5 out of 10 8.5分(滿分為10分)	✓
<b>Operation</b> 運營	Effective complaints from the public 有效的公眾投訴	not more than 5 cases 不多於5宗	✓
	Contractors and suppliers participated in sustainability risk assessment 參與可持續風險評估的供應商和承包商	amounting to 10% of the total contract values 佔總合同價值的10%	✓

Note:

(1) GHG emissions (scope 1) from the incineration of household waste are calculated based on the fraction of fossil carbon in total carbon content of the household waste. The amount of such GHG emissions may substantially fluctuate from time to time due to the varying composition of the household waste received, which is beyond Everbright International's control.

附註：

(1) 生活垃圾焚燒引致的溫室氣體排放(範疇一)以生活垃圾中化石碳佔總碳的比例為計算基礎。因此,生活垃圾成分的差異可對此溫室氣體排放不時造成大幅波動,這不屬於光大國際的控制範圍之內。

## Economic Performance

## 經濟表現

		2019 HK\$'000 港幣千元	2018 HK\$'000 港幣千元	2017 HK\$'000 港幣千元
<b>Direct Economic Value Generated</b>	<b>產生的直接經濟價值</b>			
Revenue	收益	37,557,635	27,227,998	20,043,116
Other income	其他收益	765,649	738,914	555,232
Other income and gains/(losses), net	其他收入及收益/(虧損)淨額	(30,211)	(57,139)	56,936
<b>Economic Value Distributed</b>	<b>分配的經濟價值</b>			
Staff costs	員工開支	2,484,700	1,819,874	1,354,891
Other costs <sup>(1)</sup>	其他成本 <sup>(1)</sup>	24,840,127	17,087,553	12,412,569
Finance costs	財務費用	1,830,798	1,376,010	938,280
Dividends	股息	1,597,174	1,275,082	1,075,852
Taxes <sup>(2)</sup>	稅項 <sup>(2)</sup>	644,192	507,194	386,921
Profit attributable to non-controlling interests	非控股權益應佔盈利	1,164,871	950,540	541,857
Charitable donations <sup>(3)</sup>	慈善捐款 <sup>(3)</sup>	10,772	7,558	24,615
<b>Economic Value Retained</b>	<b>留存的經濟價值</b>			
Retained for Everbright International's sustainable operation and development	留存作光大國際的可持續運營和發展	5,720,439	4,885,962	3,920,299

## Operational Performance

## 運營表現

		Unit 單位	2019	2018	2017
<b>Business Performance</b>	<b>業務表現</b>				
On-grid green electricity supplied	綠色上網電量	kWh 千瓦時	10,713,049,000	8,294,419,000	5,100,200,000
Household waste processed	生活垃圾處理量	Tonne 噸	24,739,000	20,062,000	11,992,000
Biomass raw materials processed	生物質原材料處理量	Tonne 噸	4,636,000	3,160,000	1,685,000
Hazardous and solid waste processed	危廢及固廢處置量	Tonne 噸	198,000	127,000	113,000
Waste water treated <sup>(4)</sup>	污水處理量 <sup>(4)</sup>	m <sup>3</sup> 立方米	1,433,805,000	1,271,248,000	1,187,615,000
Leachate treated <sup>(5)</sup>	滲濾液處理量 <sup>(5)</sup>	m <sup>3</sup> 立方米	5,210,000	4,349,000	2,694,000
COD reduction <sup>(6)</sup>	COD減排量 <sup>(6)</sup>	Tonne 噸	513,000	692,000	400,000
Average on-grid green electricity supplied per tonne of waste (Environmental Energy – Waste-to-energy Projects)	平均每噸垃圾綠色上網電量 (環保能源—垃圾發電項目)	kWh/Tonne 千瓦時/噸	302.75	297.01	292.32
<b>Project Overview</b>	<b>項目概覽</b>				
Total number of projects	項目總數	No. 個	399	324	268
Total length of aboveground transmission lines	地上輸電線路總長度	km 公里	348.77	292.99 (re-stated 經重列)	229.75
Total length of underground transmission lines	地下輸電線路總長度	km 公里	89.23	63.83 (re-stated 經重列)	63.11

Environmental Performance<sup>(7)</sup>環境表現<sup>(7)</sup>

		Unit 單位	2019	2018	2017
<b>GHG Emissions<sup>(8)</sup></b>		<b>溫室氣體排放<sup>(8)</sup></b>			
Scope 1 (direct emissions)	範疇一 (直接排放)	Tonne CO <sub>2</sub> e 噸二氧化碳當量	<b>22,558,042.11</b>	22,125,837.27	10,288,917.31
– incineration of household waste <sup>(9)</sup>	– 生活垃圾焚燒 <sup>(9)</sup>	Tonne CO <sub>2</sub> e 噸二氧化碳當量	<b>22,291,223.92</b>	21,946,297.95	10,184,768.13
– other sources	– 其他來源	Tonne CO <sub>2</sub> e 噸二氧化碳當量	<b>266,818.19</b>	179,539.32	104,149.18
Scope 2 (energy indirect emissions)	範疇二 (能源引致的間接排放)	Tonne CO <sub>2</sub> e 噸二氧化碳當量	<b>347,595.87</b>	366,340.00	270,864.60
Scope 3 (other indirect emissions) <sup>(10)</sup>	範疇三 (其他間接排放) <sup>(10)</sup>	Tonne CO <sub>2</sub> e 噸二氧化碳當量	<b>13,554.36</b>	27,317.40	23,170.34
Total GHG emissions	溫室氣體排放總量	Tonne CO <sub>2</sub> e 噸二氧化碳當量	<b>22,919,192.34</b>	22,519,494.67	10,582,952.25
GHG emissions intensity	溫室氣體排放強度	kg CO <sub>2</sub> e/kWh 公斤二氧化碳當量/千瓦時	<b>2.14</b>	2.72	2.08
GHG emissions offset	溫室氣體抵銷量	Tonne CO <sub>2</sub> e 噸二氧化碳當量	<b>12,342,607.47</b>	10,811,827.04	7,115,107.57
Net GHG emissions	淨溫室氣體排放量	Tonne CO <sub>2</sub> e 噸二氧化碳當量	<b>10,576,584.87</b>	11,707,667.63	3,467,844.68
Net GHG emissions intensity	淨溫室氣體排放強度	kg CO <sub>2</sub> e/kWh 公斤二氧化碳當量/千瓦時	<b>0.99</b>	1.41	0.68
<b>Key Air Emissions</b>		<b>主要煙氣排放</b>			
Particulate matter	顆粒物	Tonne 噸	<b>330.13</b>	275.82	204.00
Sulphur dioxide (SO <sub>2</sub> )	二氧化硫	Tonne 噸	<b>1,658.34</b>	1,497.44	1,069.00
Nitrogen oxides (NO <sub>x</sub> )	氮氧化物	Tonne 噸	<b>9,337.01</b>	7,993.22	4,709.00
<b>Direct Energy Consumption<sup>(11)</sup></b>		<b>直接能源消耗<sup>(11)</sup></b>			
Natural gas	天然氣	GJ 吉焦	<b>123,653.59</b>	64,175.16	40,866.13
Diesel	柴油	GJ 吉焦	<b>651,514.50</b>	2,425,927.64	125,890.82
Gasoline	汽油	GJ 吉焦	<b>85,336.74</b>	468,537.30	Data not available 沒有相關數據
Liquefied Petroleum Gas	液化石油氣	GJ 吉焦	<b>70,197.29</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Biogas	沼氣	GJ 吉焦	<b>235,576.41</b>	181,488.69	150,176.12
Non-renewable electricity	非再生能源電力	GJ 吉焦	<b>2,090,069.26</b>	1,687,357.22	1,307,232.70
Renewable electricity	再生能源電力	GJ 吉焦	<b>7,351,678.61</b>	3,618,791.23	2,499,211.81
Total non-renewable energy consumed	非再生能源消耗總量	GJ 吉焦	<b>3,020,771.38</b>	4,645,997.32	1,473,989.65
Non-renewable energy intensity	非再生能源消耗強度	kJ/kWh 千焦/千瓦時	<b>281.97</b>	560.14	289.01
Total energy consumed	能源消耗總量	GJ 吉焦	<b>10,608,026.40</b>	8,446,277.24	4,123,377.58
Energy intensity	能源消耗強度	kJ/kWh 千焦/千瓦時	<b>990.20</b>	1,018.31	808.47

## Key Statistics

## 主要數據

		Unit 單位	2019	2018	2017
<b>Water Consumption</b>		<b>水消耗</b>			
Total freshwater consumed	淡水消耗總量	m <sup>3</sup> 立方米	<b>45,317,154.05</b>	49,894,568.65	54,770,444.79
Freshwater intensity	淡水消耗強度	m <sup>3</sup> /kWh 立方米/千瓦時	<b>0.004</b>	0.01	0.01
Total water consumed	總耗水量	m <sup>3</sup> 立方米	<b>45,502,476.51</b>	49,894,568.65	54,770,444.79
Water intensity	耗水強度	m <sup>3</sup> /kWh 立方米/千瓦時	<b>0.004</b>	0.01	0.01
<b>Hazardous Waste Generated</b>		<b>有害廢棄物產生</b>			
Fly ash generated from waste-to-energy projects and integrated biomass utilisation projects (waste-to-energy)	垃圾發電項目和生物質綜合利用項目(垃圾發電)所產生的飛灰	Tonne 噸	<b>678,567.40</b>	634,277.55	413,975.77
Fly ash and bottom ash generated from hazardous waste incineration projects	危廢焚燒項目所產生的飛灰及爐渣	Tonne 噸	<b>8,077.69</b>	7,633.81	6,578.15
Total hazardous waste generated	有害廢棄物產生總量	Tonne 噸	<b>686,645.09</b>	641,911.36	420,553.92
Hazardous waste intensity	有害廢棄物強度	Tonne/MWh 噸/兆瓦時	<b>0.06</b>	0.08	0.08
<b>Non-Hazardous Waste Generated</b>		<b>無害廢棄物產生</b>			
Furnace ash generated from integrated biomass utilisation projects (biomass)	生物質綜合利用項目(生物質)所產生的爐灰	Tonne 噸	<b>100,485.23</b>	163,431.90	92,644.69
Bottom ash generated from waste-to-energy projects and integrated biomass utilisation projects	垃圾發電項目和生物質綜合利用項目所產生的爐渣	Tonne 噸	<b>4,835,991.34</b>	4,337,424.15	2,872,461.88
Sludge generated from waste water treatment projects, waste-to-energy projects and integrated biomass utilisation projects <sup>(12)</sup>	污水處理項目、垃圾發電項目及生物質綜合利用項目所產生的污泥 <sup>(12)</sup>	Tonne 噸	<b>1,158,264.40</b>	980,411.55	756,249.14
General waste	一般廢棄物	Tonne 噸	<b>3,230.45</b>	604.00	Data not available 沒有相關數據
Total non-hazardous waste generated	無害廢棄物產生總量	Tonne 噸	<b>6,097,971.42</b>	5,481,871.60	3,721,355.71
Non-hazardous waste intensity	無害廢棄物強度	Tonne/MWh 噸/兆瓦時	<b>0.57</b>	0.66	0.73

## Social Performance

## 社會表現

Employee Profile<sup>(13)</sup>員工概況<sup>(13)</sup>

		2019	2018	2017
<b>Total Number of Employees</b>	<b>員工總數</b>	<b>13,250</b>	9,821	7,627
<b>By Gender</b>	<b>按性別劃分</b>			
Male	男性	<b>10,292</b>	7,686	5,952
Female	女性	<b>2,958</b>	2,135	1,675
<b>By Age</b>	<b>按年齡劃分</b>			
30 and below	30歲及以下	<b>5,828</b>	4,488	3,575
31 – 40	31 – 40歲	<b>5,124</b>	3,653	2,726
41 – 50	41 – 50歲	<b>1,742</b>	1,319	1,050
51 and above	51歲及以上	<b>556</b>	361	276
<b>By Employment Contract</b>	<b>按合約類別劃分</b>			
Permanent contract	長期合約	<b>10,954</b>	8,439	Data not available
Temporary/fixed-term contract	臨時/定期合約	<b>2,296</b>	1,382	沒有相關數據
<b>By Employment Type</b>	<b>按受聘類別劃分</b>			
Full-time	全職	<b>13,249</b>	9,818	Data not available
Part-time	兼職	<b>1</b>	3	沒有相關數據
<b>By Employee Ranking</b>	<b>按員工職級劃分</b>			
Senior management	高級管理人員	<b>574</b>	477	407
Middle-level management	中層管理人員	<b>1,579</b>	1,264	895
General and technical staff	一般及技術員工	<b>11,097</b>	8,080	6,325
<b>By Geographical Region</b>	<b>按地區劃分</b>			
Mainland China	中國內地	<b>12,695</b>	9,730	7,567
Hong Kong	香港	<b>71</b>	68	56
Singapore	新加坡	<b>4</b>	4	4
Vietnam	越南	<b>49</b>	19	0
Poland	波蘭	<b>431</b>	Data not available	Data not available
			沒有相關數據	沒有相關數據
Local employees <sup>(14)</sup>	本地員工 <sup>(14)</sup>	<b>9,965</b>	7,341	5,739
Foreign employees <sup>(14)</sup>	外地員工 <sup>(14)</sup>	<b>3,285</b>	2,480	1,888
<b>By Ethnicity</b>	<b>按民族劃分</b>			
Chinese (Han)	中國人(漢族)	<b>12,458</b>	9,641 (re-stated 經重列)	7,421 (re-stated 經重列)
Chinese (minority group)	中國人(少數族裔)	<b>312</b>	163 (re-stated 經重列)	206 (re-stated 經重列)
Vietnamese (non-minority group)	越南人(非少數族裔)	<b>49</b>	17 (re-stated 經重列)	Data not available
			沒有相關數據	沒有相關數據
Polish (non-minority group)	波蘭人(非少數族裔)	<b>431</b>	Data not available	Data not available
			沒有相關數據	沒有相關數據

## New Employees and Employee Turnover

## 新聘及離職員工

		2019		2018		2017	
		Total number of persons 總人數	Percentage of employees in this category 佔該類別員工百分比	Total number of persons 總人數	Percentage of employees in this category 佔該類別員工百分比	Total number of persons 總人數	Percentage of employees in this category 佔該類別員工百分比
<b>Total Number of New Employees</b>	<b>新聘員工總數</b>	<b>4,227</b>	<b>31.9%</b>	2,914	29.67%	2,650	34.74%
<b>By Gender</b>	<b>按性別劃分</b>						
Male	男性	3,263	31.70%	2,317	30.15%	2,159	36.27%
Female	女性	964	32.59%	597	27.96%	491	29.31%
<b>By Age</b>	<b>按年齡劃分</b>						
30 and below	30歲及以下	2,399	41.16%	1,809	40.31%	1,676	46.88%
31 – 40	31 – 40歲	1,466	28.61%	906	24.80%	744	27.29%
41 – 50	41 – 50歲	299	17.16%	171	12.96%	212	20.19%
51 and above	51歲及以上	63	11.33%	28	7.76%	18	6.52%
<b>By Geographical Region</b>	<b>按地區劃分</b>						
Mainland China	中國內地	4,132	32.55%	2,899	29.79%	2,638	34.86%
Hong Kong	香港	6	8.45%	13	19.12%	11	19.64%
Singapore	新加坡	1	25.00%	0	0%	1	25.00%
Vietnam	越南	18	36.73%	2	10.53%	0	0%
Poland	波蘭	70	16.24%	Data not available 沒有相關數據	Data not available 沒有相關數據	Data not available 沒有相關數據	Data not available 沒有相關數據
Local employees <sup>(14)</sup>	本地員工 <sup>(14)</sup>	3,126	31.37%	2,106	28.69%	1,919	33.44%
Foreign employees <sup>(14)</sup>	外地員工 <sup>(14)</sup>	1,101	33.52%	808	32.58%	731	38.72%
<b>Total Number of Employee Turnovers (Resignation/Retirement)</b>	<b>員工流失(離職/退休)總數</b>	<b>1,168</b>	<b>8.82%</b>	801	8.16%	563	7.38%
<b>By Gender</b>	<b>按性別劃分</b>						
Male	男性	932	9.06%	634	8.25%	441	7.41%
Female	女性	236	7.98%	167	7.82%	122	7.28%
<b>By Age</b>	<b>按年齡劃分</b>						
30 and below	30歲及以下	594	10.19%	422	9.40%	301	8.42%
31 – 40	31 – 40歲	398	7.77%	246	6.73%	172	6.31%
41 – 50	41 – 50歲	105	6.03%	70	5.31%	54	5.14%
51 and above	51歲及以上	71	12.77%	63	17.45%	36	13.04%
<b>By Geographical Region</b>	<b>按地區劃分</b>						
Mainland China	中國內地	1,067	8.40%	797	8.19%	551	7.28%
Hong Kong	香港	6	8.45%	4	5.88%	11	19.64%
Singapore	新加坡	1	25.00%	0	0%	1	25.00%
Vietnam	越南	12	24.49%	0	0%	0	0%
Poland	波蘭	82	19.03%	Data not available 沒有相關數據	Data not available 沒有相關數據	Data not available 沒有相關數據	Data not available 沒有相關數據



## Training and Development

## 培訓及發展

		2019 Hours 小時	2018 Hours 小時	2017 Hours 小時
<b>Total Training Hours<sup>(15)</sup></b>	<b>總培訓時數<sup>(15)</sup></b>	<b>367,447</b>	774,006.01	789,842.76
<b>Average Training Hours per Employee<sup>(15)</sup></b>	<b>人均培訓時數<sup>(15)</sup></b>	<b>27.73</b>	78.81	103.60
<b>By Gender</b>	<b>按性別劃分</b>			
Male	男性	<b>28.14</b>	79.12	114.00
Female	女性	<b>26.31</b>	77.72	66.47
<b>By Employee Ranking</b>	<b>按員工職級劃分</b>			
Senior management	高級管理人員	<b>18.94</b>	58.89	30.30
Middle-level management	中層管理人員	<b>23.83</b>	71.32	38.82
General and technical staff	一般及技術員工	<b>28.74</b>	81.16	117.53

## Health and Safety

## 健康與安全

		2019	2018	2017
<b>Employees</b>	<b>員工</b>			
Number of work-related fatalities	因工死亡個案	<b>0</b>	2	0
Rate of work-related fatalities <sup>(16)</sup>	因工死亡率 <sup>(16)</sup>	<b>0</b>	0.02	0
Number of occupational disease cases	職業病個案	<b>0</b>	0	0
Number of high-consequence work-related injuries (excluding fatalities) <sup>(17)</sup>	嚴重工傷個案 (不包括死亡個案) <sup>(17)</sup>	<b>0</b>	3	1
Rate of high-consequence work-related injuries (excluding fatalities) <sup>(18)</sup>	嚴重工傷率 (不包括死亡個案) <sup>(18)</sup>	<b>0</b>	0.03	0.01
Number of work-related injuries <sup>(19)</sup>	工傷個案 <sup>(19)</sup>	<b>24</b>	12	11
Rate of work-related injuries <sup>(20)</sup>	工傷率 <sup>(20)</sup>	<b>0.18</b>	0.13	0.17
Days of absence from work due to work-related injury	因工傷缺勤日數	<b>1,343</b>	651	731
<b>Third-Party Contractors and Sub-Contractors Working Onsite</b>	<b>第三方承包商及分包商駐場工人</b>			
Number of work-related fatalities	因工死亡個案	<b>1</b>	0	0
Rate of work-related fatalities <sup>(16)</sup>	因工死亡率 <sup>(16)</sup>	<b>0.01</b>	0	0
Number of occupational disease cases	職業病個案	<b>0</b>	0	0
Number of high-consequence work-related injuries (excluding fatalities) <sup>(17)</sup>	嚴重工傷個案 (不包括死亡個案) <sup>(17)</sup>	<b>0</b>	0	0
Rate of high-consequence work-related injuries (excluding fatalities) <sup>(18)</sup>	嚴重工傷率 (不包括死亡個案) <sup>(18)</sup>	<b>0</b>	0	0
Number of work-related injuries <sup>(19)</sup>	工傷個案 <sup>(19)</sup>	<b>6</b>	7	15
Rate of work-related injuries <sup>(20)</sup>	工傷率 <sup>(20)</sup>	<b>0.07</b>	0.12	0.24
Days of absence from work due to work-related injury	因工傷缺勤日數	<b>304</b>	109	664

## Remuneration

## 薪酬

		2019	2018	2017
<b>Annual Remuneration and Ratio</b>	<b>年度總薪酬及比例數據</b>			
Total remuneration of the highest-paid individual (HK\$)	最高薪人士的薪酬總額 (港幣元)	<b>7,808,000.00</b>	7,174,400.00	12,564,000.00
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) (港幣元)	<b>91,359.77</b>	90,215.48	88,447.99
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	<b>85.46:1</b>	79.53:1	142.05:1
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	<b>6.96:1</b>	-21.47:1 (re-stated 經重列)	Data not available 沒有相關數據
<b>Average Remuneration by Employee Ranking (HK\$)</b>	<b>各級員工職級的平均薪酬 (港幣)</b>			
<b>Senior Management</b>	<b>高級管理人員</b>			
Basic salary of senior management (male)	高級管理人員的基本工資 (男)	<b>279,807.95</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Basic salary of senior management (female)	高級管理人員的基本工資 (女)	<b>319,200.96</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Ratio of the basic salary of senior management (female) to the basic salary of senior management (male)	高級管理人員的基本工資 (女) 與高級管理人員的基本工資 (男) 的比例	<b>1.14:1</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Basic salary and bonus of senior management (male)	高級管理人員的基本工資和獎金 (男)	<b>480,660.75</b>	503,071.59	601,760.42
Basic salary and bonus of senior management (female)	高級管理人員的基本工資和獎金 (女)	<b>568,618.08</b>	416,087.14	501,485.96
Ratio of the basic salary and bonus of senior management (female) to the basic salary and bonus of senior management (male)	高級管理人員的基本工資和獎金 (女) 與高級管理人員的基本工資和獎金 (男) 的比例	<b>1.18:1</b>	0.83:1	0.83:1
<b>Middle-Level Management</b>	<b>中層管理人員</b>			
Basic salary of middle-level management (male)	中層管理人員的基本工資 (男)	<b>184,359.41</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Basic salary of middle-level management (female)	中層管理人員的基本工資 (女)	<b>168,640.59</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Ratio of the basic salary of middle-level management (female) to the basic salary of middle-level management (male)	中層管理人員的基本工資 (女) 與中層管理人員的基本工資 (男) 的比例	<b>0.91:1</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Basic salary and bonus of middle-level management (male)	中層管理人員的基本工資和獎金 (男)	<b>278,859.53</b>	253,679.25	269,987.60
Basic salary and bonus of middle-level management (female)	中層管理人員的基本工資和獎金 (女)	<b>252,064.74</b>	242,957.34	266,896.50
Ratio of the basic salary and bonus of middle-level management (female) to the basic salary and bonus of middle-level management (male)	中層管理人員的基本工資和獎金 (女) 與中層管理人員的基本工資和獎金 (男) 的比例	<b>0.90:1</b>	0.96:1	0.99:1
<b>General and Technical Staff</b>	<b>一般及技術員工</b>			
Basic salary of general and technical staff (male)	一般及技術員工的基本工資 (男)	<b>92,922.97</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Basic salary of general and technical staff (female)	一般及技術員工的基本工資 (女)	<b>78,521.80</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Ratio of the basic salary of general and technical staff (female) to the basic salary of general and technical staff (male)	一般及技術員工的基本工資 (女) 與一般及技術員工的基本工資 (男) 的比例	<b>0.85:1</b>	Data not available 沒有相關數據	Data not available 沒有相關數據
Basic salary and bonus of general and technical staff (male)	一般及技術員工的基本工資和獎金 (男)	<b>116,027.47</b>	99,998.80	102,452.25
Basic salary and bonus of general and technical staff (female)	一般及技術員工的基本工資和獎金 (女)	<b>99,621.18</b>	91,597.86	93,343.24
Ratio of the basic salary and bonus of general and technical staff (female) to the basic salary and bonus of general and technical staff (male)	一般及技術員工的基本工資和獎金 (女) 與一般及技術員工的基本工資和獎金 (男) 的比例	<b>0.86:1</b>	0.92:1	0.91:1

Notes:  
附註:

- (1) Represents other costs, share of profits of joint ventures and share of profits/losses of associates but excludes depreciation and amortisation for the year.  
代表年度的其他成本、所佔合營企業盈利及所佔聯營公司盈利／虧損，但不包括年度的折舊及攤銷。
- (2) Represents current income tax and the under or over provision in prior years but excludes deferred tax for the year.  
代表本期所得稅及過往年度撥備過剩／撥備不足，但不包括本年度的遞延稅項。
- (3) All donations in 2019 are in cash.  
二零一九年所有捐款均為現金。
- (4) Waste water treatment includes all operating municipal and industrial waste water treatment projects under Environmental Water.  
污水處理包括環保水務所有運營市政及工業污水處理項目。
- (5) Leachate treatment includes all operating waste-to-energy projects and integrated biomass utilisation projects.  
滲濾液處理包括所有運營垃圾發電項目及生物質綜合利用項目。
- (6) Includes all operating waste-to-energy projects, municipal and industrial wastewater treatment projects, integrated biomass utilisation projects.  
包括所有運營垃圾發電項目、市政及工業污水處理項目、生物質綜合利用項目。
- (7) Due to rounding, the numbers may not add up to total, and there may be a slight discrepancy between the items of the statistics table and the corresponding analysed data as shown in other chapters of the Report.  
由於捨入關係，數值加起來可能不等於總計，而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。
- (8) The calculation of GHG emissions and offset is referenced to CDM methodologies *ACM0022: Alternative Waste Treatment Processes (Version 2.0)*, *AM0080: Mitigation of Greenhouse Gases Emissions with Treatment of Wastewater in Aerobic Wastewater Treatment Plants (Version 1.0)*, *ACM0018: Electricity Generation from Biomass Residues in Power-Only Plants (Version 3.0)*, *ACM0006: Electricity and Heat Generation from Biomass (Version 14.0)* and *AMS-I.C.: Thermal Energy Production With or Without Electricity (Version 20.0)*.  
溫室氣體的排放及抵銷的計算參照CDM方法《ACM0022：多選垃圾處理方式（2.0版）》、《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）》、《ACM0018：純發電廠利用生物廢棄物發電（3.0版）》、《ACM0006：生物質熱電聯供（14.0版）》及《AMS-I.C.：電力或非電力用戶提供熱能（20.0版）》。
- (9) GHG emissions (scope 1) from the incineration of household waste are calculated based on the fraction of fossil carbon in total carbon content of the household waste. The amount of such GHG emissions may substantially fluctuate from time to time due to the varying composition of the household waste received, which is beyond Everbright International's control.  
生活垃圾焚燒引致的溫室氣體排放（範疇一）以生活垃圾中化石碳佔總碳的比例為計算基礎。因此，生活垃圾成分的差異可對此溫室氣體排放不時造成大幅波動，這不屬於光大國際的控制範圍之內。
- (10) GHG emissions from air travel are calculated by International Civil Aviation Organisation Carbon Emissions Calculator.  
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。
- (11) Relevant energy conversion factors from *China Energy Statistical Yearbook 2018* are adopted.  
能源單位根據《中國能源統計年鑒2018》的參考系數作換算。
- (12) Includes all operating Environmental Energy's waste-to-energy projects, Greentech's integrated biomass utilisation projects and Environmental Water's waste water treatment projects.  
包括環保能源所有的運營垃圾發電項目、綠色環保所有的運營生物質綜合利用項目及環保水務所有的運營污水處理項目。
- (13) Data as at 31 December 2019.  
數據截至二零一九年十二月三十一日。
- (14) 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 foreign employees.  
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。
- (15) This year, the Group implemented efficient and precise training according to the needs of employees at different positions, which resulted in a reduction in the total training hours.  
本集團於今年按照員工不同崗位的需求實施高效的精準培訓，因此導致培訓總時數減少。
- (16) Rate of work-related fatalities = (Total number of fatalities as a result of work-related injury/Total working hours) x 200,000.  
因工死亡率 = (因工傷所造成的死亡個案總計 / 工作總時數) x 200,000
- (17) 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.  
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。
- (18) Rate of high-consequence work-related injuries (excluding fatalities) = (Total number of high-consequence work-related injuries (excluding fatalities)/Total working hours) x 200,000.  
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) x 200,000。
- (19) Work-related injuries also include work-related fatalities and high-consequence work-related injuries.  
工傷亦包含因工死亡及嚴重工傷。
- (20) Rate of work-related injuries = (Total number of work-related injuries/Total working hours) x 200,000  
工傷率 = (工傷個案總計 / 工作總時數) x 200,000



## VERIFICATION STATEMENT

### Scope and Objective

Hong Kong Quality Assurance Agency (“HKQAA”) was commissioned by China Everbright International Limited (“Everbright International”) to undertake an independent verification for the Sustainability Report 2019 (“the Report”). The Report stated the sustainability performance of Everbright International in the period of 1<sup>st</sup> January 2019 to 31<sup>st</sup> December 2019.

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 Initiatives (“GRI”) Standards: Comprehensive option, the GRI G4 Electric Utilities Sector Disclosure document, as well as Rule 13.91 and Appendix 27 “Environmental, Social and Governance Reporting Guide (“ESG Guide”)” of the Main Board Listing Rules of The Stock Exchange of Hong Kong Limited.

### 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 in the GRI Standards: Comprehensive option, the GRI G4 Electric Utilities Sector Disclosure document, and the ESG 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 International 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 where our verification activities were entirely independent and there was no relationship between HKQAA and Everbright International 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 GRI G4 Electric Utilities Sector Disclosure document and the ESG Guide;
- The Report illustrates the sustainability performance of Everbright International, 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 International’s sustainability performance that is commensurate with the sustainability context and materiality of the company

Signed on behalf of Hong Kong Quality Assurance Agency

KT Ting

Director, Strategic Services Development

June 2020





香港品質保證局

## 核實聲明

### 範圍及目的

香港品質保證局已對中國光大國際有限公司（「光大國際」）二零一九年可持續發展報告（「報告」）的全部內容進行獨立驗證。該報告陳述了光大國際於二零一九年一月一日至二零一九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）的《可持續發展報告標準》的全面選項、GRI G4《電力行業披露》文件，及香港聯合交易所有限公司主板上市規則第 13.91 條及附錄二十七所載的《環境、社會及管治報告指引》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。收集核實證據的幅度是參考國際準則所訂定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 的《可持續發展報告標準》的全面選項、GRI G4《電力行業披露》文件，及《環境、社會及管治報告指引》而定。

香港品質保證局的核實過程包括驗證了光大國際在收集、計算和彙報可持續發展表現資料的機制，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

光大國際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國際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 的《可持續發展報告標準》的全面選項、GRI G4《電力行業披露》文件，及《環境、社會及管治報告指引》的要求編制；
- 報告平衡、清晰、具比較性和及時地將光大國際的可持續發展表現包括所有重要的可持續發展範疇闡述；
- 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主要範疇作出披露。

總體而言，此報告能如實地反映光大國際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

丁國滔  
策略服務發展總監  
二零二零年六月

Environmental Statistics 環境數據

	GHG Emissions 溫室氣體排放	GHG Emissions Offset 溫室氣體排放 抵消	Air Emissions 空氣排放	Direct Energy Consumption 直接能源消耗	Water Consumption and Discharge 耗水及排水	Hazardous Waste Generated 有害廢棄物產生	Non-Hazardous Waste Generated 無害廢棄物產生	Materials Consumption 物料使用	Waste Recycling 廢棄物回收
Business Sector 業務板塊	Waste-to-energy 垃圾發電	✓	✓	✓	✓	Fly ash generated from waste-to-energy projects and integrated biomass utilisation projects (waste-to-energy) 垃圾發電項目和生物質綜合利用項目 (垃圾發電) 所產生的飛灰	Sludge generated from waste water treatment projects, waste-to-energy projects and integrated biomass utilisation projects 污水處理項目、垃圾發電項目和生物質綜合利用項目所產生的污泥	✓	✓
	Food waste treatment 餐厨垃圾處理	✓	△	✓	✓		Bottom ash generated from waste-to-energy projects and integrated biomass utilisation projects 垃圾發電項目和生物質綜合利用項目所產生的爐渣	✓	✓
	Sludge treatment and disposal 污泥處理處置	✓	△	△	✓			✓	✓
	Leachate treatment 滲濾液處理	✓	△	△	✓			△	✓
	Methane-to-energy 沼氣發電	✓	△	△	✓			△	✓
	Fecal treatment** 糞便處理*								
	Fly ash landfill 飛灰填埋	✓			✓			△	✓
	Medical waste treatment** 醫療廢物處理*								
	Solid waste treatment 固廢處理	✓	△	△	✓			△	✓
	Integrated biomass utilisation 生物質綜合利用	✓	✓	✓	✓				✓
GreenTech 綠色科技	Hazardous waste and solid waste treatment 危險及固廢處置	✓		✓	✓				✓
	Environmental remediation 環境修復	✓		✓	✓				✓
	Solar energy 光伏發電	✓	✓	✓	✓				✓
	Wind power 風電	✓	✓	✓	✓				✓
	Environmental protection company 環保企業								

\* Under preparatory stage  
在籌備階段

✓ Fully disclosed  
全面披露

△ Insignificant  
不顯著

Not applicable  
不適用



	GHG Emissions 溫室氣體排放	GHG Emissions Offset 溫室氣體排放抵銷	Air Emissions 廢氣排放	Direct Energy Consumption 直接能源消耗	Water Consumption and Discharge 耗水及排水	Hazardous Waste Generated 有害廢棄物產生	Non-Hazardous Waste Generated 無害廢棄物產生	Materials Consumption 物料使用	Waste Recycling 廢棄物回收
<b>Business Sector 業務範疇</b>									
Municipal waste water treatment 市政污水處理	✓	✓		✓	✓		Sludge generated from waste water treatment projects, waste-to-energy projects and integrated biomass utilisation projects 污水處理項目、垃圾發電項目及生物質綜合利用項目所產生的污泥	✓	✓
Industrial waste water treatment 工業廢水處理	✓	✓		✓	✓		Bottom ash generated from waste-to-energy projects and integrated biomass utilisation projects 垃圾發電項目和生物質綜合利用項目所產生的爐渣	✓	✓
Reusable water 中水自用	✓	✓		✓	✓		Furnace ash generated from integrated biomass utilisation projects (biomass) 生物質綜合利用項目(生物質)所產生的爐灰	✓	✓
River basin ecological restoration 流域治理	✓	✓		✓	✓		Fly ash and bottom ash generated from waste-to-energy projects and hazardous waste incineration projects (hazardous waste) 垃圾發電項目和危險廢物焚燒項目所產生的粉灰及爐渣	✓	✓
Water supply 供水	✓	✓		✓	✓		Sludge generated from waste water treatment projects, waste-to-energy projects and integrated biomass utilisation projects 污水處理項目、垃圾發電項目及生物質綜合利用項目所產生的污泥	✓	✓
Waste water source heat pump 污水源熱泵	✓	✓		✓	✓		Bottom ash generated from waste-to-energy projects and integrated biomass utilisation projects 垃圾發電項目和生物質綜合利用項目所產生的爐渣	✓	✓
Raw water protection* 原水保護*							Furnace ash generated from integrated biomass utilisation projects (biomass) 生物質綜合利用項目(生物質)所產生的爐灰		
Leachate treatment 滲濾液處理	✓	△	△	✓	✓		Sludge generated from waste water treatment projects, waste-to-energy projects and integrated biomass utilisation projects 污水處理項目、垃圾發電項目及生物質綜合利用項目所產生的污泥	✓	✓
Equipment Manufacturing 設備製造	✓			✓	✓		Bottom ash generated from waste-to-energy projects and integrated biomass utilisation projects 垃圾發電項目和生物質綜合利用項目所產生的爐渣	✓	✓
Eco-recycling 生態資源	✓			✓	✓		Fly ash and bottom ash generated from waste-to-energy projects and hazardous waste incineration projects (hazardous waste) 垃圾發電項目和危險廢物焚燒項目所產生的粉灰及爐渣	✓	✓
Geenergy 環境節能							Sludge generated from waste water treatment projects, waste-to-energy projects and integrated biomass utilisation projects 污水處理項目、垃圾發電項目及生物質綜合利用項目所產生的污泥		
Envotech 綠色科技	✓			✓	✓		Bottom ash generated from waste-to-energy projects and integrated biomass utilisation projects 垃圾發電項目和生物質綜合利用項目所產生的爐渣	✓	✓
Environmental Planning 環境規劃	✓			✓	✓		Furnace ash generated from integrated biomass utilisation projects (biomass) 生物質綜合利用項目(生物質)所產生的爐灰	✓	✓
Headquarters and Offices 總部、代表處、辦事處及营销中心	✓			✓	✓		Sludge generated from waste water treatment projects, waste-to-energy projects and integrated biomass utilisation projects 污水處理項目、垃圾發電項目及生物質綜合利用項目所產生的污泥	✓	✓

\* Under preparatory stage  
在籌建階段

✓ Fully disclosed  
全面披露

△ Insignificant  
不顯著

Not applicable  
不適用

Social Statistics 社會數據

Business Sector 業務板塊	Employee Profile 員工概況			Training Hours 培訓時數	Maternity/Paternity Leave Statistics 產假/陪產假數據	Health and Safety Statistics 健康及安全數據		Community Engagement 社區貢獻		Supply Chain 供應鏈	
	Total number of employees 員工總數	New employees 新進員工	Employee turnover 員工流失			Employees eligible for retirement 合資格退休的員工	Employees 員工	Third-party contractors and sub-contractors working on-site 第三方承包商及分包商駐場工人	Visitors received by our environmental projects 獲派項目參與人次	Volunteer services 義工服務	Number of suppliers 供應商數目
Environmental Energy 環保能源	Waste-to-energy 垃圾發電	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Food waste treatment 餐飲垃圾處理	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Sludge treatment and disposal 污泥處理處置	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Leachate treatment 滲濾液處理	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Methane-to-energy 沼氣發電	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Fecal treatment* 糞草處理*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Fly ash landfill 飛灰填埋	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Medical waste treatment* 醫療廢物處理*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Solid waste treatment 固廢處理	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Integrated biomass utilisation 生物質綜合利用	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GreenTech 綠色科技	Hazardous waste and solid waste treatment 危險及固廢處置	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Environmental remediation 環境修復	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Solar energy 光伏發電	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Windpower 風電	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Environmental protection company 環保企業	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

\* Under preparatory stage  
在籌備階段

✓ Fully disclosed  
全面披露

Not applicable  
不適用

Business Sector 業務板塊	Employee Profile 員工狀況				Training Hours 培訓時數	Maternity/Paternity Leave Statistics 產假/陪產假數額	Health and Safety Statistics 健康及安全數據		Community Engagement 社會貢獻		Supply Chain 供應鏈	
	Total number of employees 員工總數	New employees 新進員工	Employee turnover 員工流失	Employees eligible for retirement 合資格退休的員工			Employees 員工	Third-party contractors and sub-contractors working onsite 第三方承包商及分包商駐場工人	Visitors received by our environmental projects 環保項目參觀人次	Volunteer services 義工總時數	Number of suppliers 供應商數目	Number of outsourced service workers 外判服務工人數目
Environmental Water 環保水務	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Equipment Manufacturing 設備製造	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Eco-cycling 生態循環	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Greenery 環境綠能	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Envirotech 綠色科技	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Environmental Planning 環境規劃	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Headquarters and Offices 總部、代表處、辦事處及管理中心	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

\* Under preparatory stage  
在籌備階段

✓ Fully disclosed  
全面披露

Not applicable  
不適用

### Key Associations Joined by

#### Everbright International

光大國際參與的主要協會

#### **Biomass Energy Industry Branch of China Association for the Promotion of Industrial Development**

中國產業發展促進會生物質能產業分會

#### Association's Vision

##### 協會抱負

To explore the innovative development of biomass energy and foster energy transition in China.

探索生物質能創新發展，

推動中國能源轉型。

### Key Activities in 2019

#### 二零一九年重點活動

- Participated in the “Biomass Industry Subsidy Policy Adjustment Plan”, “the Transformation and Upgrade of Agricultural and Forestry Biomass Power”, “Feedback on the Emission Standard of Biomass Energy”, “Waste Incineration Fund Support”, “National Energy Administration Bio and Natural Gas Key Project Research”, “Bio and Natural Gas Back-End Proposal Design”, “Bio and Natural Gas Industry Issue Feedback and Raw Material Safeguard Research”, and several other policy researches. 參與國家部委「生物質發電補貼政策調整方案」討論、「農林生物質發電存量項目轉型升級路徑」、「生物質能清潔供熱環保和排放標準問題反饋」、「生活垃圾焚燒發電國補資金支持相關意見」、「國家能源局生物天然氣重大課題研究」、「生物天然氣後端獎補方案設計」、「生物天然氣行業問題反饋和原料保障研究」等多項政策研究和建議。
- Held the “2019 National Large-scale Bio and Natural Gas Technology Innovation Exchange Conference”, “the State of Brandenburg Entrepreneurs Exchange Conference in Germany”, “the Agricultural and Forestry Biomass Thermal Power Conservation and Environmental Protection Technology Exchange Conference of the National Biomass Energy Industry Seminar”, “the 3rd Waste Incineration Industry Innovation and Development of the Yangtze River Protection Forum in 2019”, the “Global Biomass Energy Innovation and Development Forum” and other large-scale conferences. 召開「二零一九全國規模化生物天然氣技術創新交流大會」、「德國布萊登堡州企業家代表團交流會」、「全國生物質能行業組織產業發展研討會暨農林生物質熱電廠節能環保技術交流大會」、「二零一九第三屆垃圾焚燒發電產業創新發展暨長江大保護污染治理高峰論壇」、「二零一九全球生物質能創新發展高峰論壇」等大型會議。

**Key Associations Joined by  
Everbright International**  
光大國際參與的主要協會

**Key Activities in 2019**  
二零一九年重點活動

- Participated in the compilation of:  
參與編製：
  - *China Biomass Energy Industry Ranking Report*  
《中國生物質發電產業排名報告》
  - *China Urban Domestic Waste Incineration Power Generation Industry Report 2019*  
《中國城鎮生活垃圾焚燒發電行業報告(2019)》
  - *Agricultural and Forestry Biomass Power Generation and Co-generation Industry Development Report 2019*  
《二零一九農林生物質發電及熱電聯產產業發展報告》
  - *The Enlightenment of Germany and Sweden’s Biogas Industry Development to China*  
《德國、瑞典生物天然氣產業發展對我國的啟示》

**Total amount contributed in 2019 (RMB): 200,000**  
二零一九年總貢獻費用(人民幣): 200,000

**E20 Environmental Platform –  
China Solid Waste Web**  
E20 環境平台—中國固廢網

**Association’s Vision**  
協會抱負

To leverage on the platform’s ability to help environmental protection enterprises grow and assist local government to actively explore environmental solutions.

利用平台的力量幫助環保企業成長·協助地方政府積極探索環境解決方案。

- Attended the annual Solid Waste Forum  
參與年度固廢論壇

**Total amount contributed in 2019 (RMB): 300,000**  
二零一九年總貢獻費用(人民幣): 300,000

**Key Associations Joined by  
Everbright International**  
光大國際參與的主要協會

**E20 Environmental Platform –  
China Water Web**  
E20 環境平台 – 中國水網

**Association's Vision**  
協會抱負

To leverage on the platform's ability to help environmental protection enterprises grow and assist local government to actively explore environmental solutions.  
利用平台的力量幫助環保企業成長，協助地方政府積極探索環境解決方案。

**Key Activities in 2019**  
二零一九年重點活動

- Participated in the selection of the "Top Ten Most Influential Enterprises" in China's water industry in 2019  
參與二零一九年度中國水業最具「十大影響力企業」評選

**Total amount contributed in 2019 (RMB): 120,000**  
二零一九年總貢獻費用(人民幣): 120,000

**Chinese Society for Environmental  
Sciences**  
中國環境科學學會

**Association's Vision**  
協會抱負

To improve scientific knowledge of the public and cultivate a rich scientific atmosphere to contribute to ecological civilisation and environmental protection.  
提高全民科學知識，營造良好科學文化氛圍，為生態文明建設和環保事業貢獻力量。

- Hosted an eco-environmental interpreter contest  
舉辦生態環境講解員大賽
- Attended the annual meeting  
參加年會
- Participated in the declaration of the National Environmental Protection Education Base in 2019  
參與二零一九年全國環保科普教育基地的申報工作
- Participated in academic appraisal  
參與學術鑒定工作

**Total amount contributed in 2019 (RMB): 1,500,000**  
二零一九年總貢獻費用(人民幣): 1,500,000

**China Ecological Civilisation  
Research and Promotion  
Association**  
中國生態文明研究與促進會

**Association's Vision**  
協會抱負

To develop thorough understanding of the challenges of ecological conservation and actively promote ecological civilisation development.  
深入研究生態文明建設的挑戰，積極推進生態文明建設。

- Participated in the selection of China Ecological Civilisation Award  
參與中國生態文明獎評選
- Participated in the Annual Meeting of Ecological Civilisation  
參與生態文明年會
- Carried out on-site assessment of the "2019 Green Development Benchmarking Enterprises in the Domestic Waste Incineration Industry"  
展開二零一九年度「生活垃圾焚燒行業綠色發展標杆企業評定」現場核査

**Total amount contributed in 2019 (RMB): 1,500,000**  
二零一九年總貢獻費用(人民幣): 1,500,000



**Key Associations Joined by  
Everbright International**  
光大國際參與的主要協會

**All-China Environment Federation**  
中華環保聯合會

**Association's Vision**  
協會抱負

To gather strengths from all social circles and jointly participate in environmental protection to promote the development of China environmental industry  
團結各方面的力量，共同參與環保工作，促進中國環境事業發展。

**Key Activities in 2019**  
二零一九年重點活動

- Held the "Compliance Training in the Third Phase of Advanced Training for the Operation and Maintenance in the Waste Incineration Plant"  
舉辦「垃圾焚燒電廠第三期運行維護與達標排放高級培訓班暨違規排放法律責任培訓班」
- Held an annual conference on sustainable development  
舉辦可持續發展年會

**Total amount contributed in 2019 (RMB): 400,000**  
二零一九年總貢獻費用（人民幣）：400,000

**World Environment Magazine**  
世界環境雜誌社

**Association's Vision**  
協會抱負

To stay align with the latest global environmental trend and provide China's decision-makers with constructive advice on environmental issues.  
緊貼全球最新的環境趨勢，為中國的環境決策者提供富建設性的意見。

- Held a campaign of the "Battle for Prevention and Control of Pollution"  
舉辦「打好污染防治攻堅戰」宣傳報導活動
- Submitted a report to the Ministry of Ecology and Environment on issues related to the "Battle for Prevention and Control of Pollution"  
向生態環境部提交「打好污染防治攻堅戰」相關問題的報告

**Total amount contributed in 2019 (RMB): 500,000**  
二零一九年總貢獻費用（人民幣）：500,000

## Appendix III – GRI Content Index 附錄III – GRI內容索引



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 the report. The service was performed on the English version of the report.

GRI於本次實質性披露服務確認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 References/Explanation 有關章節或其他參考/說明	Page Number 頁數
<b>GRI 101: Foundation 基礎 2016</b>			
GRI 101 does not include any disclosures 不包含任何揭露			
<b>GRI 102: General Disclosures 一般揭露 2016</b>			
<b>Organizational Profile 組織概況</b>			
102-1	Name of the organization 組織名稱	About this Report 關於本報告	5-7
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102-3	Location of headquarters 總部位置	About this Report 關於本報告	5-7
102-4	Location of operations 營運活動地點	About Everbright International 關於光大國際	16-37
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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	Responsible Operational Management 負責任的經營管理	49-51
102-23	Chair of the highest governance body 最高治理單位的主席	Responsible Operational Management 負責任的經營管理	49-51
102-24	Nominating and selecting the highest governance body 最高治理單位的提名與遴選	Responsible Operational Management 負責任的經營管理	49-51
102-25	Conflicts of interest 利益衝突	Responsible Operational Management 負責任的經營管理	49-51
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	Responsible Operational Management 負責任的經營管理	49-51
102-27	Collective knowledge of highest governance body 最高治理單位的群體智識	Responsible Operational Management 負責任的經營管理	49-51
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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	Responsible Operational Management; Annual Report 2019 負責任的經營管理；二零一九年年報	49-51
102-30	Effectiveness of risk management processes 風險管理程序的有效性	Responsible Operational Management; Annual Report 2019 負責任的經營管理；二零一九年年報	53-55
102-31	Review of economic, environmental, and social topics 經濟、環境和社會主題的檢視	Responsible Operational Management 負責任的經營管理	49-50
102-32	Highest governance body's role in sustainability reporting 最高治理單位於永續性報導的角色	Responsible Operational Management; Annual Report 2019 負責任的經營管理；二零一九年年報	49-50
102-33	Communicating critical concerns 溝通重要關鍵議題	Responsible Operational Management 負責任的經營管理	49-50
102-34	Nature and total number of critical concerns 關鍵議題的性質與總數	Responsible Operational Management 負責任的經營管理	50
102-35	Remuneration policies 薪酬政策	Responsible Operational Management; Annual Report 2019 負責任的經營管理；二零一九年年報	49
102-36	Process for determining remuneration 薪酬決定的流程	Annual Report 2019 二零一九年年報	–
102-37	Stakeholders' involvement in remuneration 利害關係人的參與	Responsible Operational Management 負責任的經營管理	49-50
102-38	Annual total compensation ratio 年度總薪酬比率	Key Statistics 主要數據	198
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	198
<b>Stakeholder Engagement 利害關係人溝通</b>			
102-40	List of stakeholder groups 利害關係人團體	Stakeholder Engagement 持份者參與	39
102-41	Collective bargaining agreements 團體協約	There are no formal collective bargaining agreements in place within the Group. 本集團內部沒有正式的集體談判協約。	–
102-42	Identifying and selecting stakeholders 鑑別與選擇利害關係人	Stakeholder Engagement 持份者參與	39
102-43	Approach to stakeholder engagement 與利害關係人溝通的方針	Stakeholder Engagement 持份者參與	40-42
102-44	Key topics and concerns raised 提出之關鍵主題與關注事項	Stakeholder Engagement 持份者參與	45-46

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<b>Reporting Practice 報導實務</b>			
102-45	Entities included in the consolidated financial statements 合併財務報表中所包含的實體	Annual Report 2019 – Notes to Financial Statements (Pg 322-333) 二零一九年年報 – 財務報表附註 (322-333頁)	–
102-46	Defining report content and topic Boundaries 界定報告書內容與主題邊界	Stakeholder Engagement 持份者參與	45-46
102-47	List of material topics 重大主題表列	Stakeholder Engagement 持份者參與	45-46
102-48	Restatements of information 資訊重編	The total length of aboveground and underground transmission lines in 2018, the ethnicity data in 2017 and 2018, and the 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) in 2018 were restated in this Report. 本報告涉及於二零一八年的地上輸電線路和地下輸電線路的總長度，於二零一七年有關民族，以及於二零一八年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數據的重列。	192, 195, 198
102-49	Changes in reporting 報導改變	Stakeholder Engagement 持份者參與	45-46
102-50	Reporting period 報導期間	About this Report 關於本報告	5
102-51	Date of most recent report 上一次報告書的日期	About this Report 關於本報告	5-7
102-52	Reporting cycle 報導週期	About this Report 關於本報告	5-7
102-53	Contact point for questions regarding the report 可回答報告書相關問題的聯絡人	About this Report 關於本報告	7
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	6
102-55	GRI Content Index GRI內容索引	Appendix III – GRI Content Index 附錄III – GRI內容索引	210-215
102-56	External assurance 外部保證/確信	Verification Statement 審核聲明	200-201

## Topic-specific Disclosure

## 特定主題準則

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<b>GRI 300: Environmental 環境</b>			
<b>Energy 能源</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
103-2	The management approach and its components 管理方針及其要素	Environmental Protection 環境保護	62-107
103-3	Evaluation of the management approach 管理方針的評估	Environmental Protection 環境保護	62-107
<b>GRI 302: Energy 能源 2016</b>			
302-1	Energy consumption within the organization 組織內部的能源消耗量	Environmental Protection 環境保護	89-91
302-2	Energy consumption outside the organization 組織外部的能源消耗量	Environmental Protection 環境保護	89-91
302-3	Energy intensity 能源密集度	Key Statistics 主要數據	193
302-4	Reduction of energy consumption 減少能源消耗	Environmental Protection 環境保護	62-107
302-5	Reductions in energy requirements of products and services 降低產品和服務的能源需求	Environmental Protection 環境保護	62-107

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<b>Effluents and Waste 廢汗水和廢棄物</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
103-2	The management approach and its components 管理方針及其要素	Environmental Protection 環境保護	62-107
103-3	Evaluation of the management approach 管理方針的評估	Environmental Protection 環境保護	62-107
<b>GRI 306: Effluents and Waste 廢汗水和廢棄物 2016</b>			
306-1	Water discharge by quality and destination 依水質及排放目的地所劃分的排放量	Environmental Protection 環境保護	98-100
306-2	Waste by type and disposal method 按類別及處置方法劃分的廢棄物	Environmental Protection 環境保護	102-107
306-3	Significant spills 嚴重洩漏	Environmental Protection 環境保護	98-100
306-4	Transport of hazardous waste 廢棄物運輸	Environmental Protection 環境保護	105
306-5	Water bodies affected by water discharges and/or runoff 受放流水及其它(地表)逕流排放而影響的水體	Environmental Protection 環境保護	98-100
<b>Environmental Compliance 有關環境保護的法規遵循</b>			
<b>GRI 307: Environmental Compliance 有關環境保護的法規遵循 2016</b>			
307-1	Non-compliance with environmental laws and regulations 違反環保法規	Appendix V – Compliance with Relevant Laws and Regulations That Have a Significant Impact on Everbright International 附錄V –對光大國際有重大影響的相關法律及規例的遵守情況	221
<b>GRI 400: Social 社會</b>			
<b>Employment 勞雇關係</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
103-2	The management approach and its components 管理方針及其要素	People-Oriented 以人為本	108-131
103-3	Evaluation of the management approach 管理方針的評估	People-Oriented 以人為本	108-131
<b>GRI 401: Employment 勞雇關係 2016</b>			
401-1	New employee hires and employee turnover 新進員工和離職員工	People-Oriented 以人為本	108-131
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees 提供給全職員工(不包含臨時或兼職員工)的福利	People-Oriented 以人為本	108-131
401-3	Parental leave 育嬰假	People-Oriented 以人為本	108-131
<b>Electric Utilities Sector Disclosures 電力行業披露</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
103-2	The management approach and its components 管理方針及其要素	People-Oriented 以人為本	108-131
103-3	Evaluation of the management approach 管理方針的評估	People-Oriented 以人為本	108-131

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<b>Electric Utilities Sector Disclosures 電力行業披露</b>			
<b>EU15</b>	Percentage of employees eligible to retire in the next 5 and 10 years broken by job category and by region 按地區和性質劃分未來5年及10年符合資格退休的僱員比例	People-Oriented 以人為本	119
<b>EU17</b>	Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities 參與建設、運營及維護的承包商及分包商僱員的工作天數	Safety Culture 安全文化	141
<b>Occupational Health and Safety 職業安全衛生</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
<b>103-1</b>	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
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<b>103-3</b>	Evaluation of the management approach 管理方針的評估	Safety Culture 安全文化	132-143
<b>GRI 403: Occupational Health and Safety 職業安全衛生 2018</b>			
<b>403-1</b>	Occupational health and safety management system 職業安全衛生管理系統	Safety Culture 安全文化	132-143
<b>403-2</b>	Hazard identification, risk assessment, and incident investigation 危害辨識、風險評估、及事故調查	Safety Culture 安全文化	132-143
<b>403-3</b>	Occupational health services 職業健康服務	Safety Culture 安全文化	132-143
<b>403-4</b>	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	Safety Culture 安全文化	132-143
<b>403-5</b>	Worker training on occupational health and safety 有關職業安全衛生之工作者訓練	Safety Culture 安全文化	132-143
<b>403-6</b>	Promotion of worker health 工作者健康促進	Safety Culture 安全文化	132-143
<b>403-7</b>	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	Safety Culture 安全文化	132-143
<b>403-8</b>	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	Safety Culture 安全文化	132-143
<b>403-9</b>	Work-related injuries 職業傷害	Safety Culture; Key Statistics 安全文化: 主要數據	132-143, 197
<b>403-10</b>	Work-related ill health 職業病	Safety Culture; Key Statistics 安全文化: 主要數據	132-143, 197
<b>Training and Education 訓練與教育</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
<b>103-1</b>	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
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<b>GRI 404: Training and Education 當地社區 2016</b>			
<b>404-1</b>	Average hours of training per year per employee 每名員工每年接受訓練的平均時數	People-Oriented 以人為本	120-121
<b>404-2</b>	Programs for upgrading employee skills and transition assistance programs 提升員工職能及過渡協助方案數	People-Oriented 以人為本	119-125
<b>404-3</b>	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	People-Oriented 以人為本	119-125



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<b>Child Labor 童工</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
103-2	The management approach and its components 管理方針及其要素	People-Oriented 以人為本	112-123
103-3	Evaluation of the management approach 管理方針的評估	People-Oriented 以人為本	112-123
<b>GRI 408: Child Labor 童工 2016</b>			
408-1	Operations and suppliers at significant risk for incidents of child labor 運營據點和供應商使用童工之重大風險	People-Oriented 以人為本	112-123
<b>Forced or Compulsory Labor 強迫或強制勞動</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
103-2	The management approach and its components 管理方針及其要素	People-Oriented 以人為本	112-123
103-3	Evaluation of the management approach 管理方針的評估	People-Oriented 以人為本	112-123
<b>GRI 409: Forced or Compulsory Labor 強迫或強制勞動 2016</b>			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor 具強迫或強制勞動事件重大風險的運營據點和供應商	People-Oriented 以人為本	112-123
<b>Socioeconomic Compliance 社會經濟法規遵循</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
103-2	The management approach and its components 管理方針及其要素	Community Care 關心社區	144-175
103-3	Evaluation of the management approach 管理方針的評估	Community Care 關心社區	144-175
<b>GRI 419: Socioeconomic Compliance 社會經濟法規遵循 2016</b>			
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	Appendix V – Compliance with Relevant Laws and Regulations That Have a Significant Impact on Everbright International 附錄V – 對光大國際有重大影響的相關法律及規例的遵守情況	221-224
<b>Disaster/Emergency Planning and Response 災難/緊急應變計劃</b>			
<b>GRI 103: Management Approach 管理方針 2016</b>			
103-1	Explanation of the material topic and its Boundary 解釋重大主題及其邊界	Stakeholder Engagement 持份者參與	45-46
103-2	The management approach and its components 管理方針及其要素	Community Care 關心社區	144-175
103-3	Evaluation of the management approach 管理方針的評估	Community Care 關心社區	144-175

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<b>Electric Utilities Sector Disclosures 電力行業披露</b>			
<b>EU1</b>	Installed capacity, broken down by primary energy source and by regulatory regime 按一次能源細分的裝機容量	About Everbright International 關於光大國際	16-37
<b>EU2</b>	Net energy output broken down by primary energy source and by regulatory regime 按一次能源細分的淨能源輸出	About Everbright International 關於光大國際	16-37
<b>EU3</b>	Number of residential, industrial, institutional and commercial customer accounts 機構及商業客戶賬戶數目	As of 31 December 2019, the Group had a total of 113 government customers who purchased electricity from us. 截至二零一九年十二月三十一日，本集團共有113個向本集團購買電力的政府客戶。	-
<b>EU4</b>	Length of above and underground transmission and distribution lines by regulatory regime 地上及地下輸電及配電線路長度	Key Statistics 主要數據	192
<b>EU5</b>	Allocation CO <sub>2</sub> e emissions allowances or equivalent, broken down by carbon trading framework 按碳交易框架細分的二氧化碳當量排放量配額	The Group did not participate in carbon emissions trading scheme during the Reporting Period. 本集團於報告期內沒有參與任何碳排放交易計劃。	-

## Appendix IV – Stock Exchange ESG Reporting Guide Content Index 附錄IV – 聯交所《環境、社會及管治報告指引》內容索引

Subject Areas, Aspects, General Disclosures and KPIs 主要範疇、層面、一般披露及關鍵績效指標	Description 描述	Relevant Chapter(s) of the Report and/or Other Explanation(s) 有關章節或其他說明
<b>A. Environment 環境</b>		
<b>Aspect A1: Emissions 層面A1: 排放物</b>		
<b>General Disclosure 一般披露</b>	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 Protection; Appendix V – Compliance with Relevant Laws and Regulations That Have a Significant Impact on Everbright International 環境保護；附錄V – 對光大國際有重大影響的相關法律及規例的遵守情況
<b>KPI A1.1</b>	The types of emissions and respective emissions data. 排放物種類及相關排放數據。	Environmental Protection 環境保護
<b>KPI A1.2</b>	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility). 溫室氣體總排放量（以噸計算）及（如適用）密度（如以每產量單位、每項設施計算）。	Environmental Protection; Key Statistics 環境保護；主要數據
<b>KPI A1.3</b>	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 Protection; Key Statistics 環境保護；主要數據
<b>KPI A1.4</b>	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 Protection; Key Statistics 環境保護；主要數據
<b>KPI A1.5</b>	Description of measures to mitigate emissions and results achieved. 描述減低排放量的措施及所得成果。	Environmental Protection 環境保護
<b>KPI A1.6</b>	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved. 描述處理有害及無害廢棄物的方法、減低產生量的措施及所得成果。	Environmental Protection 環境保護 Hazardous waste is mainly comprised of fly ash generated from the incineration of household waste. The amount of fly ash generated is highly dependent on the quantity and composition of household waste received, which are beyond Everbright International's control. 有害廢棄物生要包括焚燒生活垃圾所產生的飛灰。飛灰的數量主要取決於接收生活垃圾的數量及成分，而這些因素均不在光大國際的控制範圍之內。
<b>Aspect A2: Use of Resources 層面A2: 資源使用</b>		
<b>General Disclosure 一般披露</b>	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 Protection 環境保護
<b>KPI A2.1</b>	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 Protection; Key Statistics 環境保護；主要數據
<b>KPI A2.2</b>	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 Protection; Key Statistics 環境保護；主要數據
<b>KPI A2.3</b>	Description of energy use efficiency initiatives and results achieved. 描述能源使用效益計劃及所得成果。	Environmental Protection; Business Developments and Operational Strategies 環境保護；業務發展及運營策略
<b>KPI A2.4</b>	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved. 描述求取適用水源上可有任何問題，以及提升用水效益計劃及所得成果。	Environmental Protection; Business Developments and Operational Strategies 環境保護；業務發展及運營策略 Regarding water sourcing, all of the Group's projects under construction and operation have obtained the respective environmental impact assessment approvals and water-drawing permits. There are no issues related to sourcing water that is fit for purpose. 在取水方面，本集團的所有在建及運營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。
<b>KPI A2.5</b>	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 services do not involve the use of packaging materials. 本集團的主要產出物為清潔能源，並不使用包裝物料。
<b>Aspect A3: The Environment and Natural Resources 層面A3: 環境及天然資源</b>		
<b>General Disclosure 一般披露</b>	Policies on minimising the issuer's significant impact on the environment and natural resources. 減低發行人對環境及天然資源造成重大影響的政策。	Environmental Protection 環境保護
<b>KPI A3.1</b>	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 Protection 環境保護

Subject Areas, Aspects, General Disclosures and KPIs 主要範疇、層面、一般披露及關鍵績效指標	Description 描述	Relevant Chapter(s) of the Report and/or Other Explanation(s) 有關章節或其他說明
<b>Aspect A4: Climate Change 層面 A4：氣候轉變</b>		
<b>General Disclosure 一般披露</b>	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相關減緩措施的政策。	Environmental Protection 環境保護
<b>KPI A4.1</b>	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，及其應對的行動。	Environmental Protection 環境保護
<b>B. Social 社會</b>		
<b>Employment and Labour Practices 僱傭及勞工常規</b>		
<b>Aspect B1: Employment 層面 B1：僱傭</b>		
<b>General Disclosure 一般披露</b>	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, antidiscrimination, 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。	People-Oriented; Appendix V – Compliance with Relevant Laws and Regulations That Have a Significant Impact on Everbright International 以人為本；附錄V—對光大國際有重大影響的相關法律及規例的遵守情況
<b>KPI B1.1</b>	Total workforce by gender, employment type, age group and geographical region. 按性別、僱傭類型、年齡組別及地區劃分的僱員總數。	People-Oriented; Key Statistics 以人為本；主要數據
<b>KPI B1.2</b>	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。	People-Oriented; Key Statistics 以人為本；主要數據
<b>Aspect B2: Health and Safety 層面 B2：健康與安全</b>		
<b>General Disclosure 一般披露</b>	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。	Safety Culture; Appendix V – Compliance with Relevant Laws and Regulations That Have a Significant Impact on Everbright International 安全文化；附錄V—對光大國際有重大影響的相關法律及規例的遵守情況
<b>KPI B2.1</b>	Number and rate of work-related fatalities. 因工作關係而死亡的人數及比率。	Safety Culture; Key Statistics 安全文化；主要數據
<b>KPI B2.2</b>	Lost days due to work injury. 因工傷損失工作日數。	Safety Culture; Key Statistics 安全文化；主要數據
<b>KPI B2.3</b>	Description of occupational health and safety measures adopted, 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。	Safety Culture 安全文化
<b>Aspect B3: Development and Training 層面 B3：發展及培訓</b>		
<b>General Disclosure 一般披露</b>	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。	People-Oriented 以人為本
<b>KPI B3.1</b>	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。	People-Oriented 以人為本
<b>KPI B3.2</b>	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。	People-Oriented; Key Statistics 以人為本；主要數據
<b>Aspect B4: Labour Standards 層面 B4：勞工準則</b>		
<b>General Disclosure 一般披露</b>	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。	People-Oriented; Appendix V - Compliance with Relevant Laws and Regulations That Have a Significant Impact on Everbright International 以人為本；附錄V—對光大國際有重大影響的相關法律及規例的遵守情況
<b>KPI B4.1</b>	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。	The Group regularly reviews its employment practice to ensure compliance with 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。
<b>KPI B4.2</b>	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. Violations are 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。

Subject Areas, Aspects, General Disclosures and KPIs 主要範疇、層面、一般披露及關鍵績效指標	Description 描述	Relevant Chapter(s) of the Report and/or Other Explanation(s) 有關章節或其他說明
<b>Operating Practices 營運慣例</b>		
<b>Aspect B5: Supply Chain Management 層面B5: 供應鏈管理</b>		
<b>General Disclosure 一般披露</b>	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。	Responsible Operational Management 負責任的經營管理
<b>KPI B5.1</b>	Number of suppliers by geographical region. 按地區劃分的供應商數目。	Responsible Operational Management 負責任的經營管理
<b>KPI B5.2</b>	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored. 描述有關聘用供應商的慣例、向其執行有關慣例的供應商數目、以及有關慣例的執行及監察方法。	Responsible Operational Management 負責任的經營管理
<b>Aspect B6: Product Responsibility 層面B6: 產品責任</b>		
<b>General Disclosure 一般披露</b>	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress. 有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的： (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。	Responsible Operational Management; Environmental Protection; Appendix V – Compliance with Relevant Laws and Regulations That Have a Significant Impact on Everbright International 負責任的經營管理；環境保護；附錄V—對光大國際有重大影響的相關法律及規例的遵守情況 The Group has not identified material concerns in its operations regarding advertising and labelling matters, thus dedicated policies are not in place. 本集團並未發現營運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。 There are no laws and regulations that have a significant impact on the Group regarding advertising and labelling matters relating to products and services provided by the Group. 本集團並無有關廣告及標籤事宜的相關法律及規例對其構成重大影響。
<b>KPI B6.1</b>	Percentage of total products sold or shipped subject to recalls for safety and health reasons. 已售或已運送產品總數中因安全與健康理由而須回收的百分比。	The Group did not have products recalled for safety and health reasons in 2019. 本集團於二零一九年沒有因安全與健康理由而須回收產品。
<b>KPI B6.2</b>	Number of products and service related complaints received and how they are dealt with. 接獲關於產品及服務的投訴數目以及應對方法。	The Group did not receive complaints relating to products and services in 2019. 本集團於二零一九年沒有接獲關於產品及服務的投訴。
<b>KPI B6.3</b>	Description of practices relating to observing and protecting intellectual property rights. 描述與維護及保障知識產權有關的慣例。	Responsible Operational Management 負責任的經營管理
<b>KPI B6.4</b>	Description of quality assurance process and recall procedures. 描述質量檢定過程及產品回收程序。	Responsible Operational Management 負責任的經營管理 Environmental Protection 環境保護 Due to the specific nature of the Group's integrated environmental solutions business, recall procedures are not applicable to our products and services provided. 本集團業務性質為環境綜合治理服務，當中並沒有適用的產品及服務回收程序。
<b>KPI B6.5</b>	Description of consumer data protection and privacy policies, how they are implemented and monitored. 描述消費者資料保障及私隱政策，以及相關執行及監察方法。	Responsible Operational Management 負責任的經營管理
<b>Aspect B7: Anti-corruption 層面B7: 反貪污</b>		
<b>General Disclosure 一般披露</b>	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。	Responsible Operational Management; Appendix V – Compliance with Relevant Laws and Regulations That Have a Significant Impact on Everbright International 負責任的經營管理；附錄V—對光大國際有重大影響的相關法律及規例的遵守情況 No loyalty payment was made to any governments in 2019. 本集團於二零一九年沒有向任何政府支付任何特許權費用。
<b>KPI B7.1</b>	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the Reporting Period and the outcomes of the cases. 於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果。	In 2019, there was no confirmed case of non-compliance in relation to corrupt practices that would have a significant impact on the Group. 二零一九年並沒有任何與反貪污相關並對本集團有重大影響的已確認違規事件。
<b>KPI B7.2</b>	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored. 描述防範措施及舉報程序，以及相關執行及監察方法。	Responsible Operational Management 負責任的經營管理

Subject Areas, Aspects, General Disclosures and KPIs 主要範疇、層面、一般披露及關鍵績效指標	Description 描述	Relevant Chapter(s) of the Report and/or Other Explanation(s) 有關章節或其他說明
<b>Community 社區</b>		
<b>Aspect B8: Community Investment 層面B8: 社區投資</b>		
<b>General Disclosure</b> 一般披露	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests. 有關以社區參與來了解營運所在社區需要和確保其業務活動會考慮社區利益的政策。	Community Care 關心社區
<b>KPI B8.1</b>	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 Care 關心社區
<b>KPI B8.2</b>	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 Care 關心社區



## Stock Exchange ESG Reporting Guide Subject Area

## 聯交所《環境、社會及管治報告指引》範疇

### Aspect A1: Emissions

### 層面A1：排放物

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 and regulations to protect environmental resources. Key laws and regulations applicable to the Group's business include the *Environmental Protection Law of the PRC*, *Law of the PRC on Environmental Impact Assessment*, the *Water Pollution Prevention and Control Law of the PRC*, *Atmospheric Pollution Prevention and Control Law of the PRC*, *Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste*, the *Measures for the Administration of Permit for Operation of Dangerous Wastes*, the *Measures for the Administration of the Transfer of Dangerous Wastes*, the *Regulation on Medical Wastes Management*, the *Measures for the Administration of Environmental Surveillance* and the *Measures for the Administration of Automatic Monitoring of Pollution Sources*. 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 understands that it is important to meet these statutory obligations as violation of any of applicable environmental laws and regulations may result in penalties, suspension of operation, and/or legal action against the Group by regulatory authorities.

In 2019, 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 Protection" of the Report on how Everbright International ensures compliance with applicable environmental laws and regulations.

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及法規。適用於本集團的主要法律及規例包括《中國環境保護法》、《中國環境影響評價法》、《中國水污染防治法》、《中國大氣污染防治法》、《中國固體廢物污染環境防治法》、《危險廢物經營許可證管理辦法》、《危險廢物轉移聯單管理辦法》、《醫療廢物管理條例》、《環境監測管理辦法》及《污染源自動監控管理辦法》。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。本集團深明履行該等法律及法規的重要性，因為違反任何適用的環境法律和法規均可能會導致監管機構對本集團作出罰款、勒令停運及／或採取法律行動。

二零一九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。如欲了解更多光大國際遵守相關環境法律法規的情況，請參閱本報告的「環境保護」一章。

### Aspect B1: Employment

The *Labour Law of the PRC*, *Labour Contract Law of the PRC*, and the *Employment Ordinance* of Hong Kong 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 Regulation on the 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 2019, 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 "People-Oriented" of the Report on how Everbright International ensures compliance with applicable employment laws and regulations.

### Aspect B2: Health and Safety

The *Labour Law of the PRC*, *Work Safety Law of the PRC* and *Criminal Law of the PRC* commit to the protection of occupational safety and health and industrial 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 paramount as workplace safety is of critical importance to each and every employee of the Group. As a socially responsible enterprise, the Group complies with relevant health and safety laws and regulations to provide employees with a safe workplace and suitable insurance.

### 層面B1：僱傭

《中國勞動法》、《中國勞動合同法》及《香港僱傭條例》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。

二零一九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。如欲了解更多光大國際遵守相關僱傭法律法規的情況，請參閱本報告的「以人為本」一章。

### 層面B2：健康與安全

《中國勞動法》、《中國安全生產法》及《中國刑法》旨在維護勞動安全健康及工業安全，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本集團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。

In 2019, 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 “Safety Culture” of the Report on how Everbright International ensures compliance with applicable laws and regulations relating to health and safety.

#### Aspect B4: Labour Standards

The *Labour Law of the PRC* and the *Employment Ordinance* of Hong Kong set out clear rules for preventing child labour and forced labour, and elaborate on the legal liabilities of employers who violate the relevant laws and regulations. Everbright International highly values human rights and aims to demonstrate its “People-Oriented” corporate spirit through strictly complying with the relevant labour standards.

In 2019, 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 “People-Oriented” of the Report on how Everbright International ensures compliance with applicable laws and regulations relating to labour standards.

#### Aspect B6: Product Responsibility

Relevant laws and regulations applicable to the Group mainly include the *Patent Law of the PRC*, *Criminal Law of the PRC*, *Environmental Protection Law of the PRC*, *Atmospheric Pollution Prevention and Control Law of the PRC*, *Water Pollution Prevention and Control Law of the PRC*, *Law of the PRC on the Prevention and Control of Environmental Pollution by Solid Waste* and *Administrative Penalty Law of the PRC*. These laws and regulations provide clear requirements on health and safety, and remedial methods relating to products and services provided. It is the Group’s core value to abide by these rules in providing safe and reliable products and services.

In 2019, 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 chapters entitled “Responsible Operational Management” and “Environmental Protection” of the Report on how Everbright International ensures compliance with applicable laws and regulations relating to product responsibility.

二零一九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。如欲了解更多光大國際遵守相關健康與安全法律法規的情況，請參閱本報告的「安全文化」一章。

#### 層面B4：勞工準則

《中國勞動法》及《香港僱傭條例》對防止童工或強制勞動列有明確規定，並詳細地闡述違反相關法律及法規的僱主的法律責任。光大國際高度重視人權，透過遵守相關勞工準則，充分反映其「以人為本」的企業精神。

二零一九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。如欲了解更多光大國際遵守相關勞工準則法律法規的情況，請參閱本報告的「以人為本」一章。

#### 層面B6：產品責任

與本集團相關的法律法規主要包括《中國專利法》、《中國刑法》、《中國環境保護法》、《中國大氣污染防治法》、《中國水污染防治法》、《中國固體廢物污染環境防治法》及《中國行政處罰法》。該等法律及規例對產品和服務的健康與安全以及補救方法提供了明確的要求。提供安全可靠的產品和服務是本集團的核心價值。

二零一九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。如欲了解更多光大國際遵守相關產品責任法律法規的情況，請參閱本報告的「負責任的經營管理」及「環境保護」章節。

### Aspect B7: Anti-Corruption

The *Anti-Unfair Competition Law of the PRC*, *Criminal Law of the PRC*, *Anti-Money Laundering Law of the PRC*, and the *Prevention of Bribery Ordinance* of Hong Kong 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 relevant anti-corruption laws and regulations to maintain a good reputation and enhance its competitiveness.

It is the Group's policy to avoid making any kind of political contribution. In 2019, the group did not make payment to any lobbying, interest representation, or political campaigns or organisations.

In 2019, there was no confirmed case of non-compliance in relation to anti-corruption practices (including any form of facilitating payment) that would have a significant impact on the Group. Please refer to the chapter entitled "People-Oriented" of the Report on how Everbright International ensures compliance with applicable laws and regulations relating to anti-corruption practices.

### 層面B7：反貪污

《中國反不正當競爭法》、《中國刑法》、《中國反洗錢法》及《香港防止賄賂條例》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競爭力。

本集團政策是避免作出任何形式的政治捐款。在二零一九年，本集團沒有向任何遊說、利益代表和政治活動或組織支付款項。

二零一九年並無任何與反貪污相關（包括支付任何形式的通行費）並對本集團有重大影響的已確認違規事件。如欲了解更多光大國際遵守相關反貪污法律法規的情況，請參閱本報告的「以人為本」一章。

# 2019

## Sustainability Report

### 可持續發展報告

CHINA EVERBRIGHT INTERNATIONAL LIMITED

中國光大國際有限公司

Stock Code 股份代號 : 257



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