



An enterprise is not only the **Creator of Wealth**  
but also the **Safeguard of Environmental**  
and **Social Responsibility**

企業不僅是**物質財富**的**創造者**  
更應成為**環境與責任**的**承擔者**

SUSTAINABILITY REPORT | 2013 | 可持續發展報告



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The most  
**RELIABLE BRAND** in the  
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金色的品牌 綠色的事業

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Love the Earth  
Love the Planet we live in

讓我們關愛地球

關愛人類賴以生存的家園



# About this Report

## 有關本報告

China Everbright International Limited (“CEIL”), headquartered in Hong Kong, focuses on its core business in environmental protection and alternative energy. These mainly include waste-to-energy, methane-to-energy, biomass power generation, solar photovoltaic energy, industrial solid waste and hazardous waste treatment, waste water treatment, reusable water, environmental protection equipment manufacturing as well as planning and construction of environmental protection industrial parks.

This second Sustainability Report outlines our approaches, commitment and strategies to sustainability, highlights our economic, environmental and social performance, and sets out our future plans and targets to be achieved in short-term and long-term. The reporting period is from 1 January 2013 to 31 December 2013.

The report covers the sustainability performance of all operating plants and landfills with operational control. Employees of contractors and subcontractors are not included as part of our workforce. We have presented all numerical data as absolute figures and all financial data are in Hong Kong Dollars unless otherwise stated. Data collection and analysis are conducted based on relevant guidelines or standards, such as Global Reporting Initiative (“GRI”) Indicator Protocol for calculating energy consumption.

We have followed the internationally recognized GRI’s G3.1 Guidelines and its Electric Utilities Sector Supplement at the “A+” Application level as well as the Environmental, Social and Governance (“ESG”) Reporting Guide published by Hong Kong Exchanges and Clearing Limited (“HKEx”). GRI Content Index and HKEx ESG Guidelines have been uploaded to our company website. The coverage of this report is selected based on the materiality test, stakeholder engagement exercise, and other GRI’s principles and guidance. Our independent assurance provider, Hong Kong Quality Assurance Agency (“HKQAA”), has reviewed our report, verified the performance data of our operating plants, and provided GRI application level check to give our report credibility. Please refer to the Verification Statements at the end of this report.

The report, both in English and Chinese versions, can also be downloaded from our company website at <http://www.ebchinaintl.com>.

We welcome any comments and suggestions regarding to this report and our sustainability performance. Please send us your feedback to [info1@ebchinaintl.com](mailto:info1@ebchinaintl.com).

中國光大國際有限公司(「光大國際」)的總部位於香港，核心業務為投資環保和新能源，項目主要包括垃圾發電、沼氣發電、生物質能發電、太陽能光伏發電、工業固廢及危廢處理、污水處理、中水回用、環保設備製造以及環保產業園的規劃及興建。

本報告是光大國際第二份可持續發展報告，內容概述我們對可持續發展的方法、承諾和策略，重點報告我們在經濟、環境及社會方面的表現，並載列我們短期及長遠的計劃及目標。報告期限為二零一三年一月一日至二零一三年十二月三十一日。

本報告涵蓋我們擁有運營控制權並運營中的廠房及填埋場的可持續發展表現。承包商及分包商的僱員並不計入我們員工的一部分。除另有說明外，我們把所有數值數據作為絕對數值呈列，而所有財務數據均以港元計算。數據收集及分析是根據相關指引或準則進行，例如採用全球報告倡議組織(「GRI」)的指標規章計算能源耗用量。

我們已按照國際認可的「GRI G3.1 指南」及其「電力行業補充指南」訂定的原則和指引撰寫本報告，並達致「A+」應用等級；以及遵守香港交易及結算有限公司(「香港交易所」)發佈的《環境、社會及管治報告指引》。我們的GRI內容索引及香港交易所《環境、社會及管治報告指引》已上載至本公司網站。本報告所涵蓋部份及根據實質性測試、持份者參與及其他GRI原則及指引挑選。我們的獨立審核機構香港品質保證局已審閱我們的報告，核實我們運營項目的表現數據，並協助核對符合GRI要求，以證明報告的可信性。有關詳情請參閱本報告末所載的核實聲明。

本報告(備有中英文版本)亦可於本公司網頁 <http://www.ebchinaintl.com> 下載。

我們歡迎各界人士就本報告及我們的可持續發展表現提供意見及建議。請將閣下的意見電郵至 [info1@ebchinaintl.com](mailto:info1@ebchinaintl.com)。

# Message from the CEO

## 行政總裁致辭

An enterprise is not only the **Creator of Wealth**, but also the **Safeguard of Environmental and Social Responsibility**.

企業不僅是**物質財富的創造者**，更應成為**環境與責任的承擔者**。



**W**e are delighted to present our second sustainability report. Throughout this report, we focus on the aspects that are material to stakeholders and also share our commitment and initiatives that we have implemented to strive for sustainability.

Year 2013 was another prosperous year for us as we have successfully secured 12 environmental protection projects with a total investment of approximately RMB2.48 billion. Moreover, we have further developed closer relationships in the fields of energy conservation, alternative energy and environmental protection industrials parks, with local governments by signing strategic cooperation agreements with governments in Shandong, Shenzhen, Beijing, Nanjing, Sichuan, Jiangxi, Jiangsu and Zhuhai.

With several projects started commencing commercial operation, we have further enhanced our capability in waste-to-energy, waste water treatment and hazardous waste treatment. In 2013, we have processed 4.42<sup>1</sup> million tonnes of household waste and 68,000<sup>1</sup> tonnes of industrial and hazardous waste. Our waste-to-energy, solar photovoltaic energy, biomass power generation and methane-to-energy

**我**們欣然呈上第二份可持續發展報告。報告內容環繞對各持份者具關鍵意義的事項，以及分享我們為支持可持續發展所作出的承諾及所實施的措施。

二零一三年是我們的另一個豐收年，我們成功取得12個環保項目，涉及總投資約人民幣24.8億元。此外，我們與山東、深圳、北京、南京、四川、江西、江蘇及珠海當地政府簽署戰略合作協議，在節能、新能源及環保產業園的範疇上進一步加強與地方政府的合作關係。

隨着多個環保項目陸續投入運營，進一步提升了我們在垃圾發電、污水處理及危廢處理方面的能力。二零一三年，我們分別處理了4.42百萬噸<sup>1</sup>生活垃圾及68,000噸<sup>1</sup>工業及危險廢棄物。我們的垃圾發電項目、太陽能光伏發電項目、生物質能發電項目及沼氣發電項目合共提供綠色電力15.5298億千瓦時<sup>1</sup>，可供129萬個

projects have provided a total of 1,552.98<sup>1</sup> GWh green electricity for 1.29<sup>1</sup> million households, which is equivalent to a saving of 621,000<sup>1</sup> tonnes of standard coal consumption and a reduction of 1.86<sup>1</sup> million tonnes of carbon dioxide emissions. We have also treated 526.48<sup>1</sup> million m<sup>3</sup> of waste water and 0.92<sup>1</sup> million m<sup>3</sup> of leachate to reduce COD emissions by 0.19<sup>1</sup> million tonnes.

Since the energy conservation and environmental protection industry is listed first among the Seven Strategic Emerging Industries in the State's 12th Five-Year Plan, and *Air Pollution Control Action Program 2013 – 2017* was released by the State government in 2013, we believe these national policies and strategies will serve as a catalyst to boost the development of environmental protection industry in the People's Republic of China ("PRC"). We will continue to grasp the new development opportunities and also keep an open mind in overseas opportunities to further expand our business presence.

The health and safety of our workforce are always our top priorities and we are committed to providing a safe workplace for our staff. We are happy to see we can successfully keep our excellent safety record by achieving a zero injury and accident record for four consecutive years. Regarding community participation, as an environmental protection enterprise, we are keen to leverage our technology and resources to convey message of environmental protection. Meanwhile, we are committed to developing close long-term relationship with the community. We successfully set up two charitable foundations in Hong Kong and the PRC respectively to promote environmental protection and community care.

Our endeavour to shaping a sustainable environment is widely recognized. We have been selected as a constituent member of the Hang Seng Corporate Sustainability Benchmark Index Series for three consecutive years. Other than that, we have been selected as a constituent stock of the MSCI China Index and Hang Seng China-Affiliated Corporations Index for the first time. Our Jinan waste-to-energy project also won Luban Award, which is the highest construction and engineering award in the PRC.

Last year, we celebrated the 20th anniversary of CEIL and the 10th anniversary of our transformation as an environmental solution provider. Looking forward, we will continue to act responsibly as a corporate citizen by adhering to the principle that An Enterprise is not only the Creator of Wealth, but also the Safeguard of Environmental and Social Responsibility. We are determined to strive for continuous improvement in our project execution to create a better living environment.

**CHEN Xiaoping**  
Chief Executive Officer

28 April 2014

<sup>1</sup> Figures are derived from Annual Report 2013.

家庭<sup>1</sup>使用，相當於節約標煤621,000噸<sup>1</sup>及減少二氧化碳排放186萬噸<sup>1</sup>。我們亦處理污水5.2648億立方米<sup>1</sup>及滲濾液920,000立方米<sup>1</sup>，COD減排190,000噸<sup>1</sup>。

繼節能環保產業被列入國家「十二·五」規劃中的七大新興產業之首，中央政府發佈的「大氣污染防治行動計劃2013 – 2017」亦於二零一三年相繼出台。我們相信，有關的國家政策及戰略將成為促進中華人民共和國（「中國」）環保行業發展的催化劑。我們將繼續抓緊發展新機遇，同時對拓展海外業務版圖保持開放態度。

員工的健康與安全一直是我們最關注的事項，我們致力為員工提供安全的工作場所。我們很高興能夠連續四年保持零工傷及零意外的佳績，使我們優異的安全紀錄得以延續。在社區參與方面，作為一家環保企業，我們積極善用我們的技術及資源，努力傳播環保信息。同時，我們致力與社區建立緊密而長遠的關係。我們分別於香港及中國成立兩個公益基金，宣揚環保及社區關懷。

我們為創造可持續發展環境所付出的努力是有目共睹的。我們已連續第三年獲選為恒生可持續發展企業基準指數系列成份股。除此以外，光大國際亦首次獲納入MSCI明晟中國指數成份股及恒生香港中資企業指數成份股。我們的濟南垃圾發電項目亦奪得中國建設工程質量的最高獎項「魯班獎」。

去年是光大國際成立二十週年，亦是我們轉型綠色環保業務十週年。展望將來，我們將堅守「企業不僅是物質財富的創造者，更應成為環境與責任的承擔者」的使命，履行作為社會企業的應有責任。我們決心繼續完善項目運營水平，為社會營造更理想的生活環境。

**陳小平**  
行政總裁

二零一四年四月二十八日

<sup>1</sup> 數據來自二零一三年年報。

# Highlights 2013

## 二零一三年摘要

### Our Operation

- Secured 4 new waste-to-energy projects in Zhenjiang, Heze, Rizhao and Ninghai cities.



### 我們的業務

- 取得鎮江市、菏澤市、日照市及寧海市4個新的垃圾發電項目。



- Obtained 3 hazardous solid waste treatment projects in Binhai, Zibo and Shouguang cities.
- Acquired Lianyungang Suzukigumi Waste Treatment Co., Ltd., entering the medical waste treatment sector.
- Secured a waste water treatment project in Zhangqiu city.
- Invested in the construction of Changzhou Equipment Manufacturing Project Phase II.
- Established a joint venture company with the Nanjing Jiangning Government to further advance the development of Nanjing Jiangnan Veinous Industrial Park.

- 取得濱海市、淄博市及壽光市3個危廢處理項目。
- 收購連雲港鈴木組廢棄物處理有限公司，進軍醫療廢物處理行業。
- 取得章丘市污水處理項目。
- 投資建設常州設備製造項目二期。
- 與南京江寧政府成立合資公司，共同推進南京市江南靜脈產業園開發工作。



- Hanshan Biomass Power Generation Project re-launched after receiving the approval from the National Energy Administration.
- 含山生物質能發電項目通過國家能源局批准後重新啟動。



- Suzhou Waste-to-energy Project Phase III commenced commercial operation.
- 蘇州垃圾發電項目三期投入商業運營。
- Signed strategic cooperation framework agreements with provincial and municipal governments including Shandong, Shenzhen, Beijing, Nanjing, Sichuan, Jiangxi, Jiangsu and Zhuhai, in the fields of energy conservation, alternative energy and environmental protection industrial parks.
- 先後與山東、深圳、北京、南京、四川、江西、江蘇及珠海等地多個省市政府就節能、新能源及環保產業園簽訂戰略合作框架協議。
- Selected as constituent stocks of MSCI China Index and the Hang Seng China – Affiliated Corporations Index
- 獲納入MSCI明晟中國指數成份股及恒生香港中資企業指數成份股。
- Selected as a constituent member of the Hang Seng Corporate Sustainability Benchmark Index for three consecutive years.
- 連續第三年獲選為恒生可持續發展企業基準指數成份股。



## Highlights 2013 | 二零一三年摘要

- Inked a licensing agreement with MARTIN GmbH für Umwelt-und Energietechnik (“MARTIN GmbH”) on utilising the grate furnace technology and signed a cooperation framework agreement with Suez Environnement Group to enhance the technical and management level of environmental protection projects.
- 與德國馬丁公司簽署垃圾焚燒爐排技術引進協議及與法國蘇伊士環境集團簽訂合作框架協議，提升環保項目的技術及管理水平。



- Entered into a strategic cooperation agreement with China Development Bank (“CDB”) to support the development of the environmental protection business.
- 與國家開發銀行(「國開行」)簽署戰略合作協議以支持發展環保業務。
- Obtained a loan facility from the International Finance Corporation (“IFC”) to support the development of environmental water business.
- 獲得國際金融公司提供貸款支持發展環保水務業務。

### Environmental Protection Initiatives

- Generated a total of 1,552.98 GWh of electricity and helped to reduce 1.86 million tonnes of CO<sub>2</sub> emissions, showing an increase of electricity generation and CO<sub>2</sub> emission avoided by 18.8% and 17.8% respectively, compared to 2012.
- Treated a total of 526.48 million m<sup>3</sup> of waste water and 0.92 million m<sup>3</sup> of leachate to reduce 0.19 million tonnes of COD emission.
- Granted 21 patents, of which 5 were invention patents and 16 were utility invention patents.
- 82% of our total water consumption was from recycled water.

### 環保改革措施

- 合共生產綠色電力15.5298億千瓦時，有助減少186萬噸二氧化碳排放，對比二零一二年，發電量及避免二氧化碳排放分別增加18.8%及17.8%。
- 處理污水5.2648億立方米及滲濾液920,000立方米，減少了190,000噸COD排放。
- 新獲授權發明專利21項，其中發明專利5項，實用型專利16項。
- 我們總用水量的82%來自循環再用水。

## Maintaining Close Relationship with our People and the Community

## 與員工及社區維持緊密關係

- Offered training courses to assist newcomers to become familiar with and adapt to our corporate culture. A total of 371 employees joined the outward bound training in 2013.
- 提供培訓課程以協助新員工熟悉及融入我們的企業文化。於二零一三年，共有371名僱員參加執行力拓展訓練。



- Each of our employees received approximately 310 training hours in 2013.
- 每名僱員於二零一三年接受約310小時培訓。
- Around 21,830 people visited our operating plants in 2013.
- 二零一三年約有21,830人參觀我們的運營廠房。

## Ensuring Health and Safety

## 確保健康及安全

- No injury or accident was reported in 2013. Successfully maintained a zero injury and accident rate for four consecutive years.
- 二零一三年並無工傷或意外紀錄。連續四年成功維持零工傷及零意外率。

# Stakeholder Engagement

## 持份者的參與

An organization cannot be successful without support from its stakeholders. We strive to maintain a good relationship with our stakeholders through open communication in both formal and informal occasions. We believe a genuine stakeholder engagement can strengthen mutual trust and respect between CEIL and stakeholders. The criteria we used for stakeholder identification are shown as below:

- Responsibility – stakeholders linked to us through legal, financial, operational regulations, contracts, and/or policies.
- Influence – stakeholders with formal decision-making power or informal influence.
- Proximity – stakeholders who live close to our operating plants and that we interact closely with.
- Dependency – stakeholders who are most dependent on our operations.
- Representation – stakeholders who are representatives from various sectors.

After identifying stakeholders, a simple assessment exercise is conducted to prioritize our stakeholders. The identified stakeholders who are strongly influence or be strongly influenced are considered first for consultations or dialogue. Our key stakeholder groups include employees, governments, shareholders, business partners, non-governmental organizations (“NGOs”) and local communities.

一家機構的成功不可能沒有持份者的支持。我們透過在不同的正式及非正式場合與持份者進行坦誠溝通，致力保持良好關係。我們相信持份者的實質參與有助加強光大國際與持份者之間的互信及尊重。我們根據下列準則區分持份者：

- 責任－通過法律、財務、運營規則、合約及／或政策與我們連繫的持份者。
- 影響力－具有正式決策權或非正式影響力的持份者。
- 距離接近－居於我們運營廠房附近及與我們相互關係密切的持份者。
- 倚靠性－在很大程度上倚靠我們業務運營的持份者。
- 代表性－為不同界別代表的持份者。

在區分持份者後，通過簡單的評估為我們的持份者排列優先次序。獲界定為具有很大影響力的持份者或受很大影響的持份者，會獲優先安排進行諮詢或對話。我們主要的持份者組別包括僱員、政府、股東、業務夥伴、非政府組織及本地社區。

## Ongoing Stakeholder Engagement

## 持份者的持續參與

We have developed a stakeholder participation plan to describe our strategy and programme for engaging with stakeholders in a culturally appropriate manner. We engage with stakeholders at different stages in the project cycle including project concept stage, detailed assessment stage, project construction stage and project operation stage. The goal is to provide opportunities for stakeholders to express their views and concerns, and allows us to consider and respond to them.

我們已制定持份者參與計劃，以說明我們的策略及如何以切合持份者文化的方式與他們進行溝通。我們讓持份者於項目周期的各個階段，包括項目概念階段、詳細的評估階段、項目建設階段及項目運營階段都能夠參與其中，以及給予他們機會表達其意見及所關注的事項，好讓我們考慮並作出回應。

Stakeholder Group 持份者組別	Method of Engagement/ Communication 參與/溝通方法	Frequency/ Time of Engagement 參與頻密度/時間	Issues of Highest Concern 最關注事項
Employees 僱員	<ul style="list-style-type: none"> <li>Annual performance management meeting 年度評估會議</li> <li>Regular site visits made by senior management 高級管理人員作定期實地探訪</li> <li>Workshops (accounts department, human resources department, marketing department) 工作坊(會計部、人力資源部、市場推廣部)</li> </ul>	<ul style="list-style-type: none"> <li>Year End 年終</li> <li>Ad-hoc 就特定議題進行</li> <li>Before/after construction work and important milestones 建造工程及重要里程碑前後</li> <li>At the commencement of the operation 開始運營時</li> </ul>	<ul style="list-style-type: none"> <li>Remuneration and fringe benefit 薪酬及其他福利</li> <li>Employee development 僱員發展</li> <li>Occupational health and safety 職業健康與安全</li> </ul>
Governments 政府	<ul style="list-style-type: none"> <li>Progress reports 進度報告</li> <li>Meetings 會議</li> </ul>	<ul style="list-style-type: none"> <li>Weekly, monthly, quarterly 每週、每月、每季</li> <li>Ad-hoc 就特定議題進行</li> </ul>	<ul style="list-style-type: none"> <li>Operation performance 運營表現</li> <li>Community impacts 對社區的影響</li> <li>Policy update 最新政策</li> </ul>
Shareholders 股東	<ul style="list-style-type: none"> <li>Website 網站</li> <li>Press release/announcements 新聞稿/公告</li> <li>Annual/Interim Reports 年報/中期報告</li> <li>Circulars 通函</li> <li>Annual/extraordinary general meetings 週年/特別股東大會</li> <li>Meetings 會議</li> </ul>	<ul style="list-style-type: none"> <li>Regular 定期</li> </ul>	<ul style="list-style-type: none"> <li>New project development 新項目的開發</li> <li>Other price sensitive information 其他股價敏感資料</li> <li>Project construction and operation status 項目建設及運營狀況</li> <li>Business prospects 業務前景</li> </ul>

## Stakeholder Engagement | 持份者的參與

Stakeholder Group 持份者組別	Method of Engagement/ Communication 參與/溝通方法	Frequency/ Time of Engagement 參與頻密度/時間	Issues of Highest Concern 最關注事項
Business Partners 業務夥伴	<ul style="list-style-type: none"> <li>Meetings 會議</li> </ul>	<ul style="list-style-type: none"> <li>Weekly 每週</li> </ul>	<ul style="list-style-type: none"> <li>Project progress and performance 項目進度及表現</li> <li>Working environment 工作環境</li> </ul>
NGOs 非政府組織	<ul style="list-style-type: none"> <li>Site visits 實地參觀</li> </ul>	<ul style="list-style-type: none"> <li>Upon request 於提出要求時</li> <li>Ad-hoc 就特定議題進行</li> </ul>	<ul style="list-style-type: none"> <li>Environmental and social performance 環境及社會表現</li> </ul>
Communities 社區	<ul style="list-style-type: none"> <li>Site visits 實地參觀</li> <li>Public opinion survey 公眾意見調查</li> <li>Discussion forum 論壇</li> <li>Symposium 研討會</li> <li>Hearing meetings 公聽會</li> </ul>	<ul style="list-style-type: none"> <li>Ad-hoc 就特定議題進行</li> </ul>	<ul style="list-style-type: none"> <li>Operational risk management 運營風險管理</li> <li>Job opportunities 就業機會</li> <li>Environmental impacts 環境影響</li> </ul>

We evaluate the effectiveness of our engagement exercise regularly and identify if there is any room for further improvement. We are committed to undertaking more extensive stakeholder engagement exercise to identify and respond to our stakeholders' key concerns.

我們會定期評估各參與活動的有效性並探討有否可進一步改善的空間。我們致力開展更廣泛的持份者參與活動，以識別及回應持份者所關注的事項。



## Ad hoc Stakeholder Engagement Exercise 特別安排的持份者參與活動

In December 2013, we once again appointed a third party consultant to conduct an ad hoc stakeholder engagement exercise for preparing this sustainability report. We conducted face-to-face and phone interviews with 5 key stakeholder groups, including employees, governments, business partners, investors and suppliers. All interviewees were invited to answer few questions concerning our sustainability performance as well as their expectations on this sustainability report.

為了更好地編製本可持續發展報告，於二零一三年十二月我們再次委任第三方顧問進行特別安排的持份者參與活動。我們與5個主要持份者類別(包括僱員、政府、業務夥伴、投資者及供應商)進行面談及電話訪問。所有受訪者均獲邀回答有關我們過去於可持續發展的表現的相關問題，以及表達他們對本可持續發展報告的期望。

Stakeholder Group 持份者類別	Priority Issues 優先考慮事項
Employees 僱員	<ul style="list-style-type: none"> <li>• Industry partnership 業界關係</li> <li>• Health and safety 健康與安全</li> <li>• Environmental education 環境教育</li> </ul>
Governments 政府	<ul style="list-style-type: none"> <li>• Business growth 業務發展</li> <li>• Corporate governance 企業管治</li> <li>• Natural habitat conservation 保護自然生態</li> </ul>
Business Partners 業務夥伴	<ul style="list-style-type: none"> <li>• Business growth 業務發展</li> <li>• Research and development 技術研發</li> <li>• Environmental protection 環境保育</li> </ul>
Suppliers 供應商	<ul style="list-style-type: none"> <li>• Corporate governance 企業管治</li> <li>• Business growth 業務發展</li> <li>• Environmental protection 環境保育</li> </ul>
Investors 投資者	<ul style="list-style-type: none"> <li>• Equal opportunities 平等機會</li> <li>• Air pollution control 維持空氣質素</li> <li>• Corporate governance 企業管治</li> <li>• Climate change mitigation 應對氣候變化</li> </ul>

The information collected from stakeholder engagement exercise, together with the comments on our previous sustainability report we received earlier, could be a good reference for us to determine the structure of this sustainability report.

從持份者參與活動中收集得來的資料，連同我們早前接獲對上一份可持續發展報告的意見，對我們釐定本報告內容提供很好的參考價值。



# Our Business

我們的業務



Committed to Creating a  
**More Sustainable Environment**

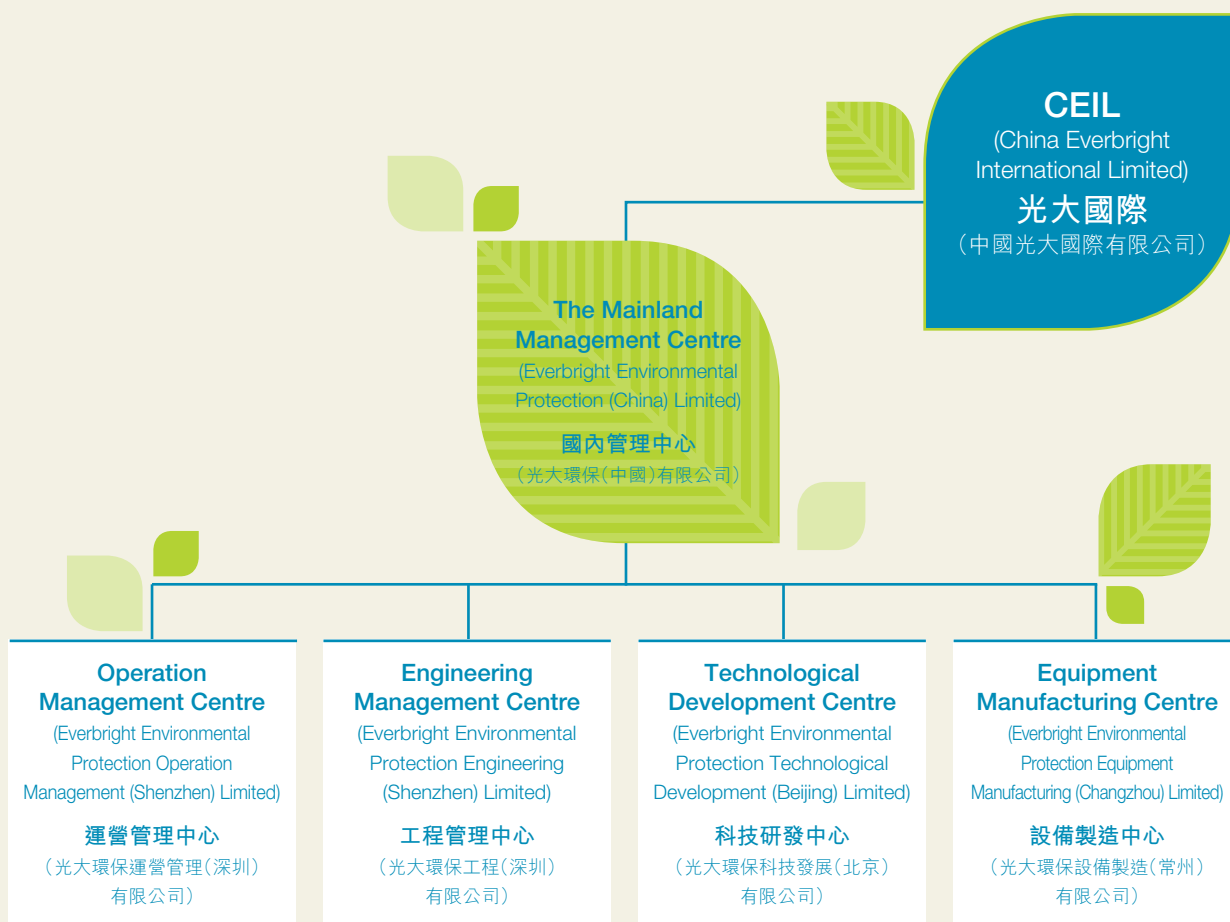
致力環保產業 創造美好環境





# Our Business

## 我們的業務



CEIL, listed on the main board of the Stock Exchange of Hong Kong Limited (“SEHK”), is the flagship company for business investment of China Everbright Holdings Company Limited (“CEHCL”), specializing in environmental protection and alternative energy businesses.

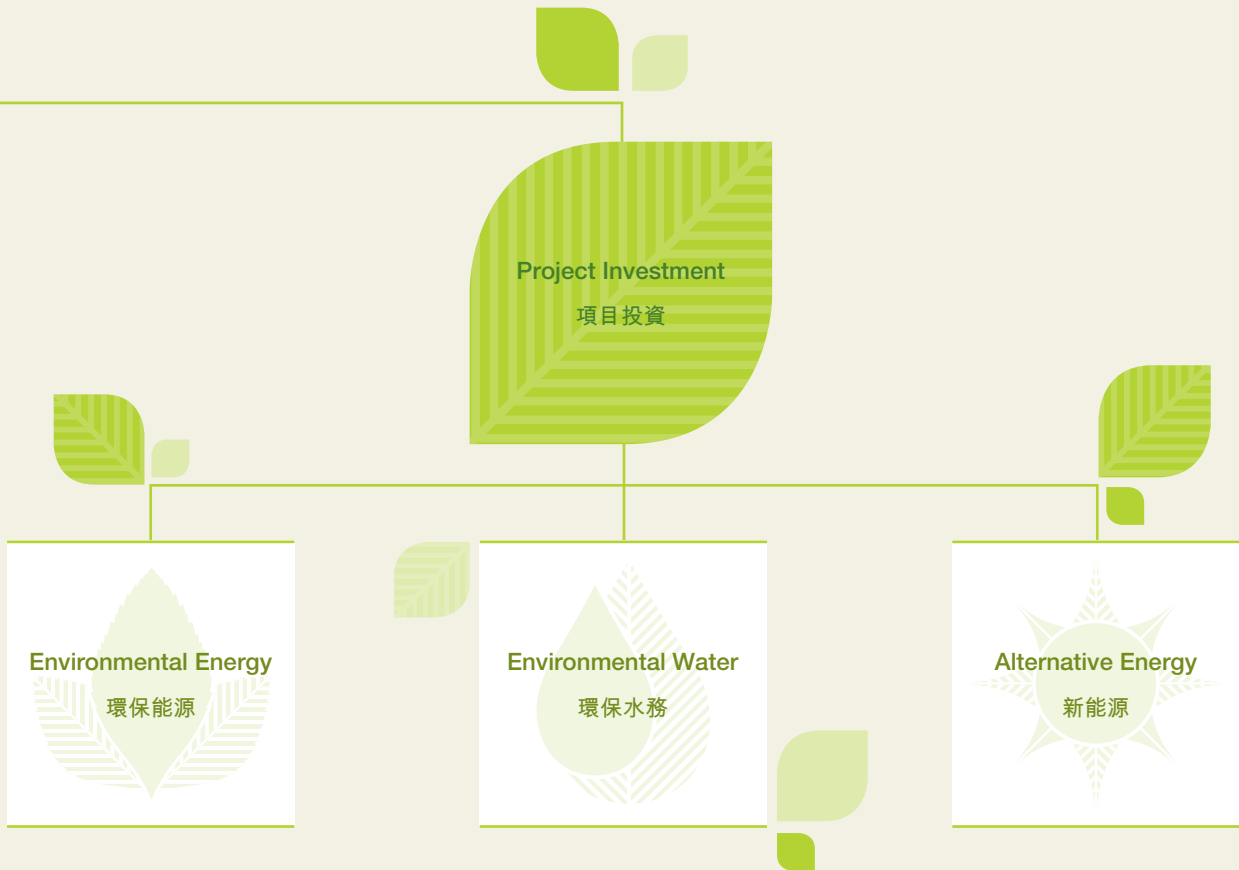
Since the transformation to the green industry in 2003, we have gradually established an integrated business model for environmental project investment, construction and engineering, operational management, technology and development and equipment manufacturing, and pioneered a multi-dimensional development model of the 3 business sectors, including environmental energy, environmental water and alternative energy. In time, we have formed a complete value chain of equipment manufacturing, engineering management and operation management, and become the first one-stop integrated environmental solution provider in the PRC.

As at 31 December 2013, we had a total of 1,319 permanent full-time employees working at the operating plants and landfills in the PRC.

光大國際於香港聯合交易所有限公司(「聯交所」)主板上市，為中國光大集團有限公司(「光大集團」)投資實業之旗艦公司，主力從事環保及新能源業務。

自二零零三年轉型綠色環保業務以來，我們逐漸形成集環保項目投資、工程建設、運營管理、技術研發及設備製造為一體的綜合業務模式，並創建以環保能源、環保水務及新能源3個業務板塊的多元化發展模式。時至今日，我們已形成以設備製造、工程管理及運營管理業務的完整價值鏈，成為國內首家可提供一站式綜合環保解決方案的供應商。

截至二零一三年十二月三十一日，我們在中國的運營廠房及填埋場僱用了1,319名全職員工。



Investment Types  
投資類別



- 64% Environmental Energy  
環保能源
- 19% Environmental Water  
環保水務
- 15% Alternative Energy  
新能源
- 2% Others  
其他

Note : Figures as of 31 December 2013  
註：數字截至二零一三年十二月三十一日

## Our Vision

To develop CEIL as a green environmental protection conglomerate with leadership and significant market influence in the PRC.

## Our Mission

Creating a Beautiful Environment and Rewarding the Public.

## Core Values

An enterprise is not only the Creator of Wealth, but also the Safeguard of Environmental and Social Responsibility.

Our key environmental protection projects cover waste-to-energy, waste water treatment, industrial solid waste and hazardous waste treatment, biomass power generation, solar photovoltaic energy, methane-to-energy and reusable water. As at 31 December 2013, we had secured 80 environmental protection projects in Jiangsu, Shandong, Zhejiang, Hainan, Guangdong, Anhui provinces in the PRC and Germany with a total investment of approximately RMB19 billion.

## New Projects Announcement

### Environmental Energy

- Zhenjiang Waste-to-energy Project Phase II
- Heze Waste-to-energy Project Phase I
- Rizhao Waste-to-energy Project Phase I
- Ninghai Waste-to-energy Project Phase I
- Binhai Hazardous Solid Waste Landfill Project
- Shouguang Integrated Hazardous Solid Waste Treatment Project
- Zibo Integrated Hazardous Solid Waste Treatment Project
- Lianyungang Suzukigumi Waste Treatment Project

### Environmental Water

- Zhangqiu Waste Water Treatment Project
- Upgrade of Ling County Waste Water Treatment Project (Plant 1)

### Equipment Manufacturing

- Changzhou Equipment Manufacturing Project Phase II

## 我們的願景

致力發展成為中國環保領軍企業，務求成為舉足輕重的環保綠色企業集團。

## 我們的使命

創造美好環境，回饋社會大眾。

## 核心價值

企業不僅是物質財富的創造者，更應成為環境與責任的承擔者。

我們的主要環保項目涵蓋垃圾發電、污水處理、工業固廢及危廢處理、生物質能發電、太陽能光伏發電、沼氣發電及中水回用。截至二零一三年十二月三十一日，我們取得江蘇省、山東省、浙江省、海南省、廣東省、安徽省等多個國內省份及德國共80個環保項目，總投資額約人民幣190億元。

## 新項目公佈

### 環保能源

- 鎮江垃圾發電項目二期
- 菏澤垃圾發電項目一期
- 日照垃圾發電項目一期
- 寧海垃圾發電項目一期
- 濱海危廢填埋項目
- 壽光危廢綜合處理項目
- 淄博危廢綜合處理項目
- 連雲港鈴木組危廢處理項目

### 環保水務

- 章丘污水處理項目
- 陵縣污水處理項目(一廠)升級

### 設備製造

- 常州設備製造項目二期

Project Distribution  
項目分佈



**7.65** million tonnes  
百萬噸

Annual household waste processing capacity  
年生活垃圾處理規模

**668** million m<sup>3</sup>  
百萬立方米

Annual waste water treatment capacity  
年污水處理規模

Project Highlights

項目亮點

Environmental Energy

環保能源

Project 項目		Daily processing capacity (tonne) 日處理規模(噸)	Annual processing capacity (tonne) 年處理規模(噸)
<b>In the operation stage:</b>		<b>運營階段：</b>	
Suzhou Waste-to-energy Project Phases I, II & III	蘇州垃圾發電項目一期、二期及三期	3,550	
Yixing Waste-to-energy Project Phase I	宜興垃圾發電項目一期	500	
Jiangyin Waste-to-energy Project Phase I & II	江陰垃圾發電項目一期及二期	1,200	
Changzhou Waste-to-energy Project	常州垃圾發電項目	800	
Zhenjiang Waste-to-energy Project Phase I	鎮江垃圾發電項目一期	1,000	
Jinan Waste-to-energy Project	濟南垃圾發電項目	2,000	
Suqian Waste-to-energy Project	宿遷垃圾發電項目	600	
Suzhou Industrial Solid Waste Landfill Project Phase I & II	蘇州工業固廢填埋項目一期及二期	Storage capacity (m <sup>3</sup> ): 儲存量規模(立方米): 512,000	40,000
Suqian Hazardous Solid Waste Landfill Project Phase I	宿遷危廢填埋項目一期	Storage capacity (m <sup>3</sup> ): 儲存量規模(立方米): 340,000	20,000
<b>Under construction or in preparatory stage:</b>		<b>處於在建或籌建階段：</b>	
Nanjing Waste-to-energy Project Phase I	南京垃圾發電項目一期	2,000	
Ningbo Waste-to-energy Project Phase I	寧波垃圾發電項目一期	1,000	
Pizhou Waste-to-energy Project Phase I	邳州垃圾發電項目一期	600	
Sanya Waste-to-energy Project Phase I	三亞垃圾發電項目一期	700	
Shouguang Waste-to-energy Project Phase I	壽光垃圾發電項目一期	600	
Weifang Waste-to-energy Project Phase I	濰坊垃圾發電項目一期	1,000	
Yixing Waste-to-energy Project Phase II	宜興垃圾發電項目二期	300	
Wujiang Waste-to-energy Project	吳江垃圾發電項目	1,500	
Boluo Waste-to-energy Project Phase I	博羅垃圾發電項目一期	700	
Huidong Waste-to-energy Project	惠東垃圾發電項目	600	
Ninghai Waste-to-energy Project Phase I	寧海垃圾發電項目一期	700	
Rizhao Waste-to-energy Project Phase I	日照垃圾發電項目一期	600	
Zhenjiang Waste-to-energy Project Phase II	鎮江垃圾發電項目二期	400	
Heze Waste-to-energy Project Phase I	荷澤垃圾發電項目一期	600	



Suzhou Waste-to-energy Project  
蘇州垃圾發電項目



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



Suzhou Industrial Solid Waste Landfill Project  
蘇州工業固廢填埋項目

Project Highlights

項目亮點

Environmental Energy

環保能源

Project 項目		Storage capacity (m <sup>3</sup> ) 儲存量規模(立方米)	Annual processing capacity (tonne) 年處理規模(噸)
<b>Under construction or in preparatory stage:</b>			
Guanyun Hazardous Solid Waste Landfill Project Phase I	處於在建或籌建階段： 灌雲危廢填埋項目一期	300,000	20,000
Binhai Hazardous Solid Waste Landfill Project	濱海危廢填埋項目	600,000	30,000
Zibo Integrated Hazardous Solid Waste Treatment Project	淄博危廢綜合處理項目	Not applicable 不適用	Annual incineration processing capacity: 40,000 Annual physico- chemical processing capacity: 50,000 年焚燒處理：40,000 年物化處理：50,000
Shouguang Integrated Hazardous Solid Waste Treatment Project	壽光危廢綜合處理項目	500,000	20,000
Lianyungang Suzukigumi Hazardous Waste Treatment Project (Acquisition and upgrade)	連雲港鈴木組危廢處理項目 (收購及升級改造)	Not applicable 不適用	Annual industrial hazardous waste treatment capacity: 9,000 Annual medical waste treatment capacity: 1,650 年工業危廢處理：9,000 年醫療廢物處理：1,650



Zhenjiang Waste-to-energy Project  
鎮江垃圾發電項目



Jiangyin Waste-to-energy Project  
江陰垃圾發電項目

Project Highlights

項目亮點

Environmental Water:

環保水務：

Project 項目		Daily treatment capacity/ water supply capacity (m <sup>3</sup> ) 日處理規模／供水量(立方米)
<b>In the operation stage:</b>		
Qingdao Maidao Waste Water Treatment Project & Haibohe Waste Water Treatment Project	青島麥島污水處理項目及海泊河污水處理項目	220,000
Zibo Waste Water Treatment Project (Southern and Northern Plants)	淄博污水處理項目(南郊廠及北廠)	250,000
Zibo High-tech Zone Waste Water Treatment Project	淄博高新區污水處理項目	100,000
Jinan Waste Water Treatment Project (Plant 1, 2, 3 and 4)	濟南污水處理項目(一廠、二廠、三廠及四廠)	730,000
Zibo Zhoucun Waste Water Treatment Project	淄博周村污水處理項目	40,000
Jiangyin Waste Water Treatment Project (4 Plants)	江陰污水處理項目(共四廠)	190,000
Binzhou Boxing Waste Water Treatment Project	濱州博興污水處理項目	60,000
Dezhou Ling County Waste Water Treatment Project (Plant 1 & 2)	德州陵縣污水處理項目(一廠及二廠)	60,000
Dezhou Nanyunhe Waste Water Treatment Project Phase I	德州南運河污水處理項目一期	75,000
Jinan Licheng Reusable Water Project	濟南歷城中水項目	42,000
Zibo Reusable Water Project Phase I	淄博中水項目一期	4,800
Jiangyin Reusable Water Project	江陰中水項目	10,000
<b>Under Construction or in preparatory stage:</b>		
Dezhou Nanyunhe Waste Water Treatment Project Phase II	德州南運河污水處理項目二期	75,000
Zhangqiu Waste Water Treatment Project	章丘污水處理項目	30,000
Dezhou Ling County Waste Water Treatment Project Plant 1 (Upgrade)	德州陵縣污水處理項目一廠(升級改造)	Not applicable 不適用
Zibo Reusable Water Project Phase II	淄博中水項目二期	4,800



Qingdao Waste Water Treatment Project  
青島污水處理項目



Jinan Waste Water Treatment Project  
濟南污水處理項目



Zibo Waste Water Treatment Project  
淄博污水處理項目

Project Highlights

項目亮點

Alternative Energy:

新能源：

Project	項目
<p><b>In the operation stage:</b></p> <p>Suzhou Methane-to-energy Project (Phase I &amp; II)</p> <p>Zhenjiang Rooftop Solar Photovoltaic Energy Project</p> <p>Suqian Rooftop Solar Photovoltaic Energy Project (Phase I &amp; II)</p> <p>Changzhou Rooftop Solar Photovoltaic Energy Project</p> <p>Huaining Ground Solar Photovoltaic Energy Project</p> <p>German Ground Solar Photovoltaic Energy Project</p> <p>Zhenjiang Ground Solar Photovoltaic Energy Project</p> <p>Dangshan Biomass Power Generation Project</p> <p>Zibo Waste Water Heat Pump Project Phase I</p> <p>Zibo Ceramic Technology Development Park Heat Pump Project</p>	<p><b>運營階段：</b></p> <p>蘇州沼氣發電項目(一期及二期)</p> <p>鎮江屋頂太陽能光伏發電項目</p> <p>宿遷屋頂太陽能光伏發電項目(一期及二期)</p> <p>常州屋頂太陽能光伏發電項目</p> <p>懷寧地面太陽能光伏發電項目</p> <p>德國地面太陽能光伏發電項目</p> <p>鎮江地面太陽能光伏發電項目</p> <p>礪山生物質能發電項目</p> <p>濰博污水源熱泵項目一期</p> <p>濰博陶瓷園熱泵項目</p>
<p><b>Under construction or in preparatory stage:</b></p> <p>Hanshan Biomass Power Generation Project</p> <p>Xinyi Biomass Power Generation Project</p> <p>Shuyang Biomass Power Generation Project</p> <p>Linyi Biomass Power Generation Project</p> <p>Laiyang Biomass Power Generation Project</p>	<p><b>處於在建或籌建階段：</b></p> <p>含山生物質能發電項目</p> <p>新沂生物質能發電項目</p> <p>沭陽生物質能發電項目</p> <p>臨邑生物質能發電項目</p> <p>萊陽生物質能發電項目</p>



Changzhou Rooftop Solar Photovoltaic Energy Project  
常州屋頂太陽能光伏發電項目



Huaining Ground Solar Photovoltaic Energy Project  
懷寧地面太陽能光伏發電項目



Zhenjiang Rooftop Solar Photovoltaic Energy Project  
鎮江屋頂太陽能光伏發電項目



Suqian Rooftop Solar Photovoltaic Energy Project  
宿遷屋頂太陽能光伏發電項目



German Ground Solar Photovoltaic Energy Project  
德國地面太陽能光伏發電項目



Dangshan Biomass Power Generation Project  
礪山生物質能發電項目



## Corporate Governance

We strive to maintain a high standard of corporate governance as we believe good corporate governance practices are critical for building the confidence of our shareholders and other stakeholders. We strictly adhere to our management principle of People-oriented, Pragmatism, Creativity and Systematic Management and keep reviewing and strengthening our internal controls and risk management. We also disclose information to the public in a way that is comprehensive and timely so as to maintain high degree of transparency and accountability.

Our Code of Conduct is established to clearly state our expectations for employees' behaviour. It promotes honest and ethical conduct among our employees. We distribute the Code of Conduct to all new employees on their first day at CEIL and they are expected to understand and be familiar with these requirements. The Code of Conduct covers provisions of anti-corruption, anti-bribery and conflict of interest, gift policy, norm of data confidentiality and security, and fund management policy. We maintain a zero tolerance toward corruption and no cases of corruption were recorded in 2013. Employees are also required to strictly follow our guidelines and procedures of procurement of products and/or services and employee recruitment to ensure that there is open and fair competition.

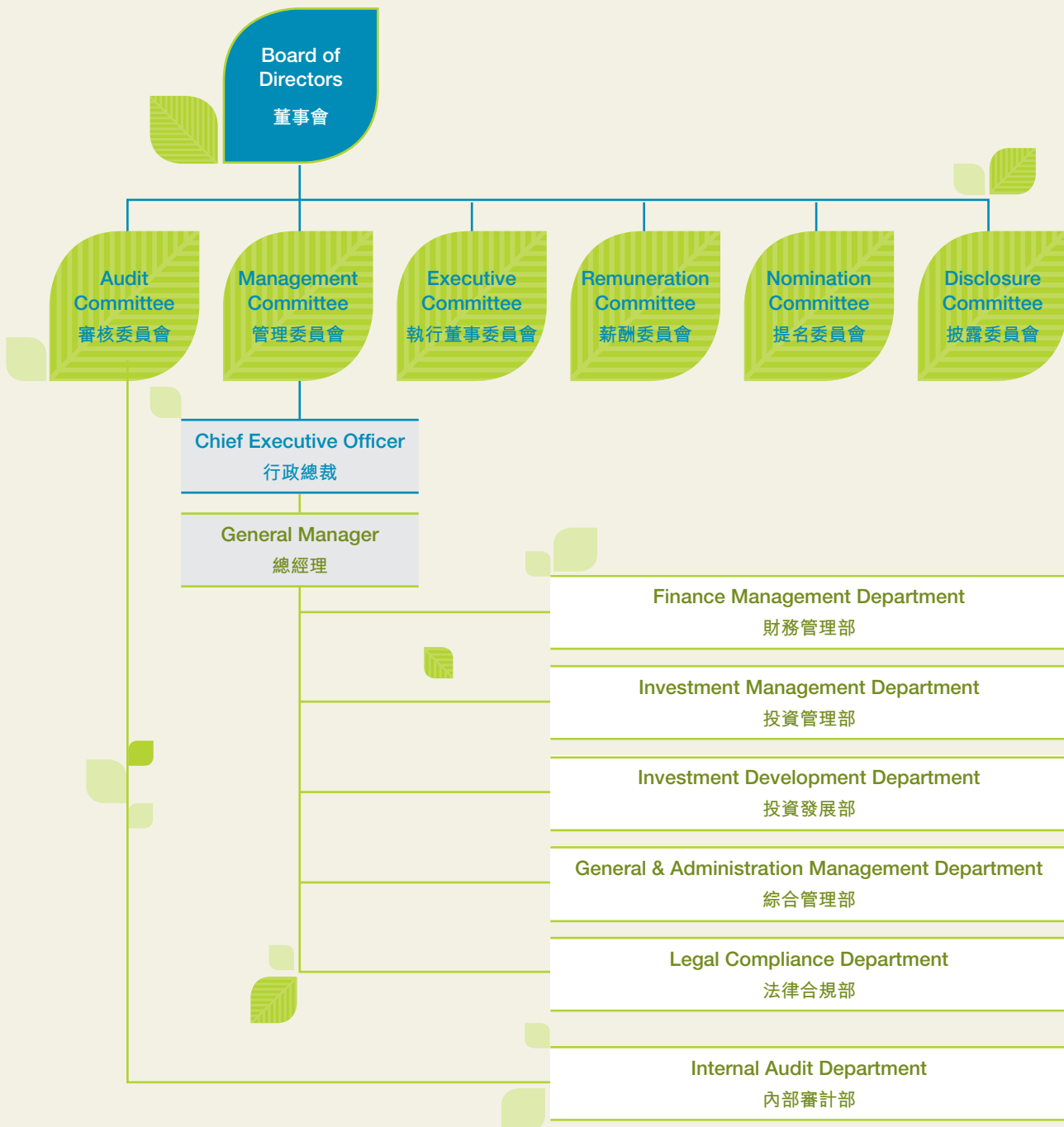
The board of directors of CEIL (the "Board") has set up 6 committees, namely Executive Committee, Audit Committee, Nomination Committee, Remuneration Committee, Management Committee and Disclosure Committee. Under Management Committee, 3 sub-committees including Risk Management Advisory Committee, Engineering Technical Management Committee and Budget Approval Management Committee have been set up. In addition, an Internal Audit Department has also been set up to perform internal audits on investment projects and review whether the internal control procedures are implemented appropriately.

## 企業管治

我們深信良好的企業管治常規對建立股東及其他持份者的信心日益重要，故致力維持高水平的企業管治。我們嚴格奉行「以人為本、求真務實、開拓創新、規範管理」的管理理念，並不斷檢討及加強我們的內部監控及風險管理。我們亦全面、適時地向公眾披露資訊，以保持高度透明及高度問責。

我們的行為守則清楚列明我們對僱員行為的期望，並提倡僱員必須言行誠實及符合品德操守。我們會向所有新僱員派發行為守則，以便各新員工了解及熟識有關要求。行為守則涵蓋反貪污、反賄賂及利益衝突、收授禮物政策、資料保密及保安準則，以及資金管理政策等方面的規定。我們絕不容許任何貪污行為，而我們公司於二零一三年並無任何貪污個案紀錄。此外，僱員亦須嚴格遵守我們在採購產品及／或服務及招聘員工方面的指引及程序，確保競爭屬公開及公平。

光大國際董事會（「董事會」）設立了6個委員會，即執行董事委員會、審核委員會、提名委員會、薪酬委員會、管理委員會及披露委員會。管理委員會下設3個小組委員會，包括風險管理評審委員會、工程技術管理委員會及預算審核管理委員會。此外，我們亦成立了內部審計部，專責對投資項目進行內部審計，並定期進行內部審核以檢討內部監控程序是否如實執行。



The Corporate Governance Code as set out in Appendix 14 to the Rules Governing the Listing of Securities on the SEHK has been duly adopted by the Board as the code on corporate governance practices of CEIL. More information about our governance and the Board can be found in our annual report 2013, which is also available online at <http://www.ebchinaintl.com/>.

董事會已採納聯交所證券上市規則附錄十四載列的企業管治守則，作為光大國際的企業管治常規守則。關於我們的企業管治及董事會的其他資料，請參閱我們二零一三年年報，亦可於網上(網址：<http://www.ebchinaintl.com/>)瀏覽。

## Our Business Partners

We are committed to doing business with ethics, honesty and integrity in compliance with our Environmental and Social Management System and applicable laws and regulations. This is also the basic requirement that our business partners need to follow suit if they are interested in doing business with us. We have developed a comprehensive assessment system to assess the potential suppliers and contractors and only our registered suppliers and contractors are eligible to bid for our contract. In tender evaluation stage, we assess our business partners based on their credibility, reliability, technical competence, cost to deliver products or services, and track records. We encourage our business partners to adopt the best environmental and social practices. The products and services with environmentally friendly and socially responsible features will be given a higher technical score.

## Integrating Sustainability into Business Considerations

To be a responsible corporate citizen, while we are trying to maximise our shareholders' interest, we are also committed to protecting the environment and caring the community. We strictly adhere to our core value that An Enterprise is not only the Creator of Wealth, but also the Safeguard of Environmental and Social Responsibility. Sustainability is a serious consideration for our business operation. The Management Committee is responsible for reviewing our sustainability performance and also formulating and implementing sustainability related plans and activities. We have identified the following key risks and challenges facing our operation:

Climate change	Extreme weather such as high temperature due to the changes in the climate can lead to physical risk to our employees.
Keen market competition	The competition in environmental protection industry is fierce as more strong competitors entering the market.
Economic uncertainty	Though the economic prospects in the PRC remain auspicious, there is still uncertainty about the economic conditions in other countries.

## 我們的業務夥伴

我們在業務經營中，致力緊守職業操守，誠實守信，以符合我們的環境及社會管理制度及適用法律及法規。這些原則亦是我們對有意合作的業務夥伴的基本要求。我們已建立全面的評估系統以對潛在供應商及合約商作出評估，且只有我們的註冊供應商及合約商方有資格投標我們的合約。在招標評估階段，我們會根據業務夥伴的信譽、可靠程度、技術才能、交付產品或服務的成本、往績記錄來評估各業務夥伴。我們鼓勵業務夥伴採納最佳環保及社會慣例，並會對有環保及社會責任特色的產品給予較高的技術評分。

## 將可持續發展因素納入商業考慮

作為一名負責任的企業公民，我們除了提升股東利益外，亦同樣致力環境保護及社區關懷。我們時刻堅守「企業不僅是物質財富的創造者，更應成為環境與責任的承擔者」的核心價值。可持續發展能力是我們業務運營中的一個重要考慮因素。管理委員會負責審視我們的可持續發展表現，並制定及實施相關可持續發展計劃及活動。我們的運營業務主要面對下列風險及挑戰：

氣候變化	氣候變化所導致高溫等極端天氣，影響我們僱員的健康。
市場競爭激烈	更多實力強勁的競爭對手進入市場，令環保行業競爭白熱化。
經濟前景不明	雖然中國經濟前景向好，但其他地區的經濟狀況仍未明朗。

Rising expectations from stakeholders

Higher stakeholder expectations of our operation, particularly in the areas of environmental protection performance, safety control, stakeholder engagement and corporate governance.

持份者期望日漸提高

持份者不斷提升對我們業務的期望，特別是環保表現、安全控制、持份者參與程度及企業管治等領域。

To address the above-mentioned challenges and help build a sustainable world, we are committed to embedding sustainable practices in all aspects of our daily operations.

我們為了迎接上述挑戰及共同建設一個可持續發展的世界，我們致力在日常業務各方面加入多項可持續發展措施。

### Environmental Protection 環保

- Reduce air emissions  
減少氣體排放
- Minimise resource consumption  
降低資源消耗量
- Promote measures for proper waste management  
推行適當的垃圾管理措施
- Improve efficiency and environmental performance through R&D and partnership with various parties  
透過與各方建立的研發及合作關係提升效率及環保表現

### Community 社區

- Enhance transparency of operation  
增強業務的透明度
- Build a harmonious relationship with the community  
與社區建立和諧關係
- Provide comprehensive social impact assessment  
提供全面社會影響評估
- Raise public awareness on environmental protection  
加深公眾對環保的認知

### CEIL – Sustainability

光大國際 – 可持續性

### Employees 僱員

- Ensure a safe and healthy working environment  
確保工作環境安全
- Promote work-life balance  
鼓勵在工作和生活之間取得平衡
- Provide on-the-job training  
提供在職培訓
- Enhance two-way communication with employees  
增強與僱員互相溝通





# Striving for Green Operation

致力綠色運營



We Pride Ourselves on the  
**Highest Operating Standards**  
and **Innovative Technology**

以安全運營為基礎 以達標排放為天職  
以科技創新為龍頭



# Striving for Green Operation

## 致力綠色運營

As a responsible corporate citizen, we are keen to reduce impacts on environment from our daily operations. To fulfil and even exceed the expectations of our stakeholders, we have implemented various measures to strengthen our environmental performance. All our operating plants have been ISO 14001 certified to demonstrate our dedication in meeting the international standards of environmental management system. A structured and systematic mechanism has been established to integrate environmental safeguards in project planning, preparation, design and implementation stage. We are committed to ensuring that our operations adhere to the requirements of national standards and international financial institutions such as Asian Development Bank (“ADB”) and IFC.

### Protecting Environment, Combating Climate Change

In 2013, our waste-to-energy projects, biomass power generation projects, solar photovoltaic projects and methane-to-energy projects generated a total of 1,552.98 GWh of electricity from renewable sources to offset 1.86 million tonnes of CO<sub>2</sub>, recording an increase by 18.8% and 17.8% respectively from 2012. We keep trying our utmost efforts, via advanced technology and better management, to improve our operational efficiency and take an even important role in protecting the environment. Regarding our 7 operating waste-to-energy plants, we processed a total of 4.42 million tonnes of household waste and generated 1,266.57 GWh of green electricity. On average a tonne of household waste could generate 286.34 kWh of green electricity.

作為一名負責任的企業公民，我們致力在日常業務中減少對環境的影響。為了達到甚至遠超持份者的期望，我們已實施多項措施，務求在環保方面有卓越表現。我們的所有運營中的廠房均已取得ISO 14001資格認證，這足以顯示我們矢志達到國際環保管理系統標準的決心。我們亦已建立有系統的體制，在項目規劃、編制、設計及實行各階段滲入環保元素。我們致力確保業務符合國家標準及亞洲開發銀行（「亞發行」）及國際金融公司等國際金融機構的規定。

### 保護環境， 抗衡氣候變化

二零一三年，我們運營的垃圾發電項目、生物質能發電項目、太陽能光伏發電項目及沼氣發電項目利用再生能源合共提供綠色電力15.5298億千瓦時，抵消了186萬噸二氧化碳量，分別較二零一二年增加18.8%及17.8%。我們一直努力不懈，致力透過採用先進技術及優化管理，全面提升運營效率，在環保方面承擔更大責任。至於我們現時運營的7家垃圾發電廠，我們共處理生活垃圾442萬噸，提供的綠色電力12.6657億千瓦時。平均每噸生活垃圾可提供286.34千瓦時綠色電力。

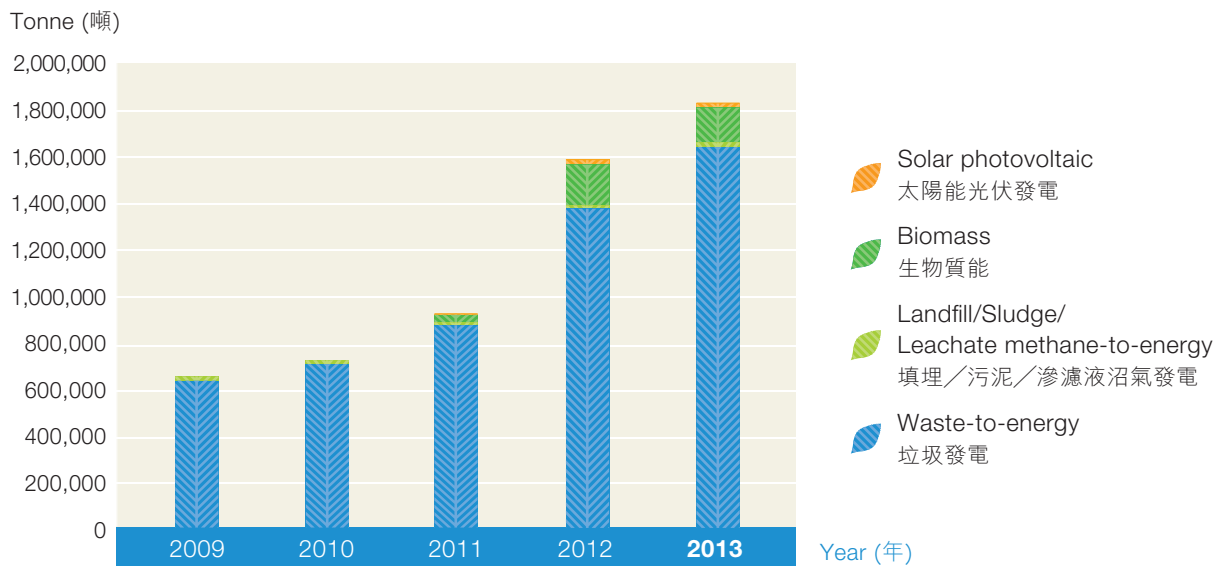
## Electricity generated per tonne of waste combusted as compared to 2012

焚燒每噸垃圾所得的發電量較二零一二年



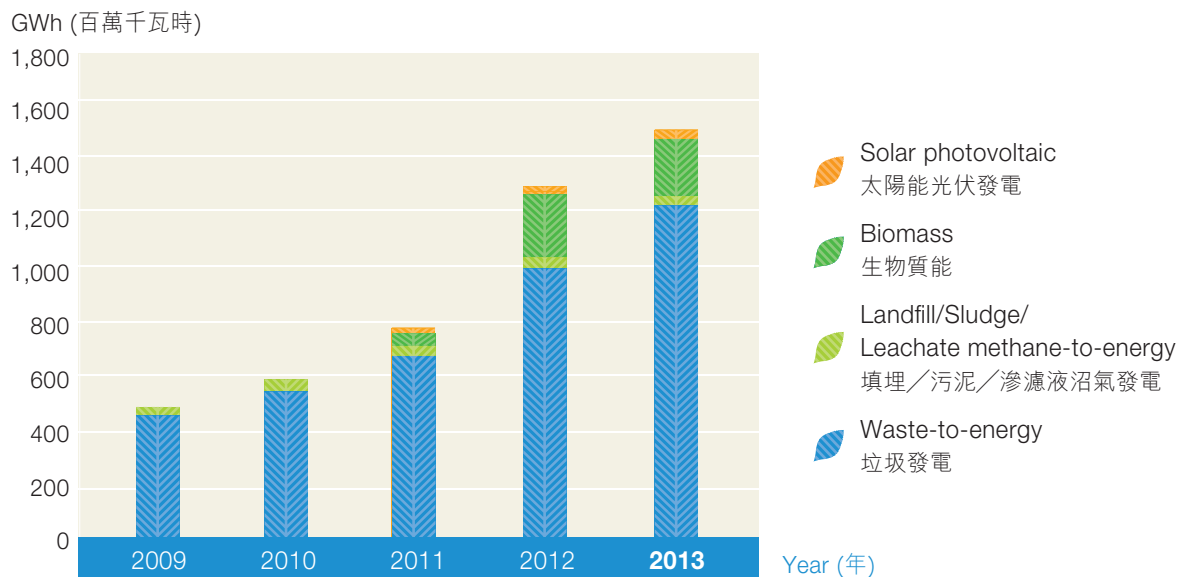
## Carbon Dioxide Emission Avoided by Types of Operation

按運營類型劃分的避免二氧化碳排放



## Green Electricity Generation by Types of Operation

按運營類型劃分的綠色發電量



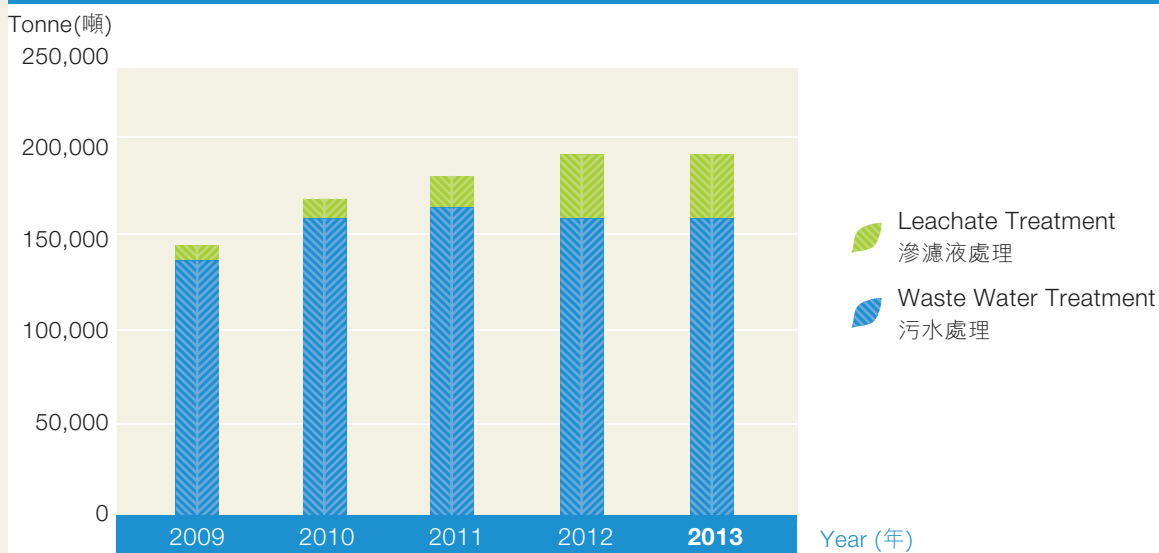


## Striving for Green Operation | 致力綠色運營

Our waste water treatment operation in 2013 treated a total of 526.48 million m<sup>3</sup> of waste water and 0.92 million m<sup>3</sup> of leachate and reduce 0.19 million tonnes of COD emission. The sources of incoming waste water for our waste water treatment projects include household and industrial effluent. In 2013, we conducted more frequent sampling of incoming waste water from factories and reported non-compliance cases to environmental protection agencies. Our action served as an effective deterrent to surrounding industrial facilities leading to significant reduction of the concentration of pollutants in incoming waste water.

我們的污水處理業務於二零一三年共處理污水5.2648億立方米及滲濾液920,000立方米，減少了190,000噸COD排放。我們污水處理項目的進水主要包括家居及工業廢水。於二零一三年，我們多次抽取從工廠流出的污水樣本，並向環保機構舉報違規個案。此舉能有效遏止周邊工業設施污染環境，將流入污水的污染物濃度大大降低。

COD Emission Avoided by Types of Operation  
按運營類型劃分的避免COD排放



Since the commissioning of the first electricity generation project in 2006

自首個發電項目於二零零六年投產以來

Electricity generated • 提供電力

**5,178** GWh  
百萬千瓦時

CO<sub>2</sub> emissions avoided • 避免CO<sub>2</sub>排放

**6,416,000** tonnes  
噸

Since the commissioning of the first waste water treatment project in 2005

自首個污水處理項目於二零零五年投產以來

Waste water treated • 處理污水

**3,180** million m<sup>3</sup>  
百萬立方米

Leachate treated • 處理滲濾液

**2.64** million m<sup>3</sup>  
百萬立方米

COD emissions avoided • 避免COD排放

**1.22** million tonnes  
百萬噸

## Controlling Our Emissions

Our major air emissions come from waste-to-energy and biomass power generation projects. We keep trying our utmost efforts, via advanced technology and better management, to improve our operational efficiency and thus reducing the level of emission. Our air emission performance in 2013 was as follows:

Total particulate matter (PM10) emissions were recorded as 116.42 tonnes in 2013, representing a decrease of 11.18% compared to 2012.

Total SO<sub>2</sub> emissions were 443.12 tonnes 2013, showing a decrease of 25.68% compared to 2012.

Total NO<sub>x</sub> emissions were 2,177.44 tonnes in 2013, decreasing 9.81% from 2012.

## 監控排放量

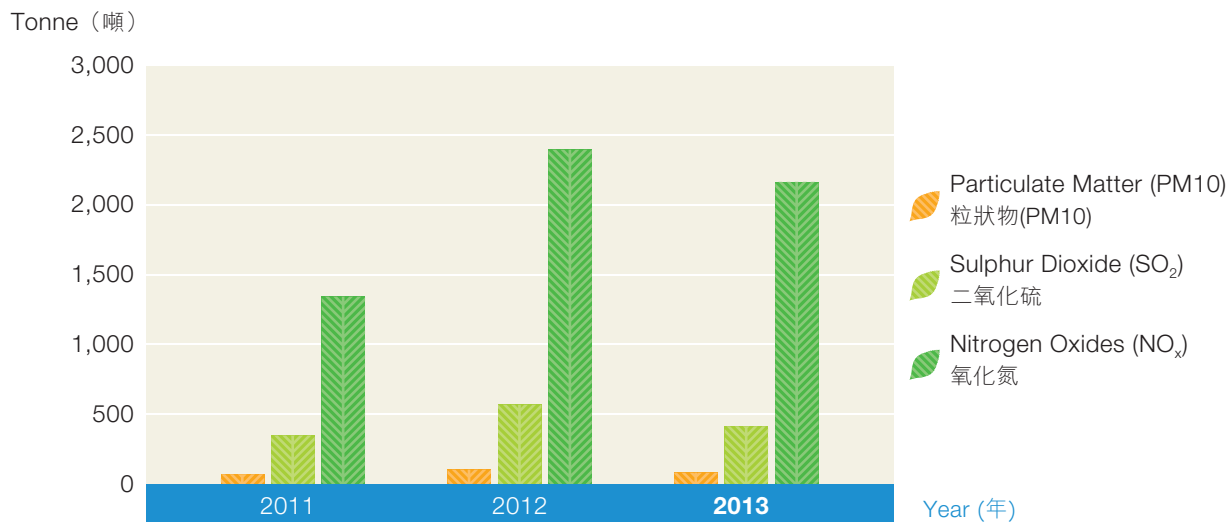
我們主要的氣體排放來自垃圾發電及生物質能發電項目。我們繼續透過先進技術及更完善的管理，以最大力度提升運營效率，從而降低排放量。我們二零一三年的氣體排放表現如下：

二零一三年錄得的粒狀物(PM10)總排放量為116.42噸，較二零一二年減少11.18%。

二零一三年二氧化硫總排放量為443.12噸，較二零一二年減少25.68%。

二零一三年氧化氮總排放量為2,177.44噸，較二零一二年減少9.81%。

### Emissions from Waste-to-energy and Biomass Power Generation Projects 垃圾發電及生物質能發電項目的排放量



The PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> emissions data reveal downward trends in 2013 compared to 2012, which can be derived by advanced environmental protection technology, such as upgraded gas treatment system and improvement of operation efficiency. All our waste-to-energy projects have met the national standard for Pollution Control on the Municipal Solid Waste Incineration (GB18485-2001), Integrated Emission Standard of Air Pollutants (GB16297-1996), Emission Standard of Air Pollutants for Thermal Power Plants (GB13223-2003 & GB13223-2011), applicable ADB guidelines and stringent European Union's emission performance standards (Directive 2000/76/EC and relevant Annexes/Amendments).

Government officials can monitor the air emissions data as our gas emissions monitoring systems installed at each waste-to-energy plant have been connected to the network of the government's environmental protection departments. In order to improve the level of transparency and build up the public confidence in our operation, LED display screens

相比二零一二年，二零一三年的粒狀物 (PM<sub>10</sub>)、二氧化硫及氧化氮排放數據均有減少的趨勢。這主要由於我們採用了更先進的環保技術，例如優化氣體處理系統及提升運營效益。我們所有垃圾發電項目均符合國家制定的「生活垃圾焚燒污染控制標準」(GB18485-2001)、「大氣污染物綜合排放標準」(GB16297-1996)、「火電廠大氣污染物排放標準」(GB13223-2003及GB13223-2011)、適用的亞發行指引及歐盟就排放表現確立的嚴格標準(指引2000/76/EC及相關附表/修訂)。

隨著我們於各垃圾發電廠安裝氣體排放監測系統與政府環保部門的網絡互相連結，政府人員可監測氣體排放數據。為了提高透明度，以及加強公眾對我們業務運作的信心，我們在廠房

have been installed outside the plants to provide instant air emissions data to the nearby public. Among the various items monitored include dust, temperature of boiler, oxygen, hydrochloric acid, sulphur dioxide and carbon dioxide etc.

外面安裝了液晶顯示屏，向鄰近公眾提供包括塵埃、鍋爐溫度、氧、氫氯酸、二氧化硫及二氧化碳等氣體排放數據。



## Investing in Research and Development

We recognize the importance of science and technology development to our environmental protection performance. In September 2012, we invested RMB89 million to set up Phase 1 of the environmental equipment manufacturing centre in Changzhou to design and manufacture grate furnaces, leachate treatment system, sludge treatment and flue gas purification system for our waste-to-energy projects. Taking into account our ever-expanding business, we decided to invest approximately RMB120 million to expand the existing equipment manufacturing centre. This Phase 2 development will include the construction of a manufacturing plant, a R&D building, an innovative technology and a testing centre.

## 科研的投入

我們明白科技研發對我們的環保表現非常重要。二零一二年九月，我們在常州耗資人民幣8,900萬元設立環保設備製造中心一期，負責為我們的垃圾發電項目設計及製造爐排爐、滲濾液處理系統、污泥處理及煙氣淨化系統。由於業務不斷增長，因此我們決定投資約人民幣1.2億元擴建現有設備製造中心。第二期工程將包括興建一座生產廠房、一座研發大樓及一個創新技術測試中心。

Enhance core competence through continuous R&D  
通過不斷研究與開發提升核心競爭力



## Striving for Green Operation | 致力綠色運營

Our experienced R&D team strives for excellent design, state-of-art technology and advanced equipment. In 2013, the team mainly focused on the following 8 key areas with a total budget of more than RMB20 million:

- Incinerator and boiler
- Leachate treatment system
- Flue gas treatment system
- Waste-to-energy automatic control system
- Rural biomass collection-storage-transportation system
- Food waste and sludge integrated processing technology
- Waste plastic treatment
- Undissolved COD removal technology

Our self-developed grate furnace, which conforms to the international standards, is specially designed to treat the waste generated in the PRC. The equipment has been successfully used in our waste-to-energy projects in Zhenjiang, Jiangyin, Suqian and Suzhou. The operational performance of our third generation anaerobic leachate treatment system has also proved to meet international standards. These demonstrate our capability to tap into the mid-to-up stream markets and enhance our efficiency and competitiveness in the ever-changing business environment.

To enhance the technical and management levels of environmental protection projects, we have signed a cooperation framework agreement with Suez Environnement Group, which is an environmental protection enterprise with over 120 years experience in water treatment and solid waste management. The two parties have agreed to strengthen cooperation in the fields of environmental planning, operation management, research and development and environmental equipment design. Meanwhile, we have also signed a license agreement with MARTIN GmbH which is a waste combustion system supplier in Germany, to integrate their latest grate furnace technology into our grate furnace.

To further promote a culture of research and innovation in CEIL, we have developed incentive schemes for successful patent applications and commercialization of R&D. In 2013, we were granted 5 invention patents and 16 utility invention patents.

我們經驗豐富的研發團隊致力追求一流的設計，一流的技術及一流的設備。二零一三年，研發重點包括下列8項，研發經費超過人民幣2,000萬元：

- 焚燒爐和鍋爐
- 滲濾液處理系統
- 煙氣處理系統
- 垃圾發電自動控制系統
- 農村生物質能收儲運系統
- 廚餘與污泥綜合處理技術
- 廢舊塑料處理
- 清除不溶解COD技術

我們自主研發的爐排爐專為處理國內的垃圾而設，符合國際標準，並已成功應用在鎮江、江陰、宿遷及蘇州的垃圾發電項目上。我們的第三代厭氧滲濾液處理系統的營運表現亦經測試達到國際標準，標誌著我們具備進軍中上游市場的實力，並且能夠在瞬息萬變的商業環境中提升效率及競爭力。

為了提升環保項目的技術及管理，我們已與法國蘇伊士環境集團簽訂合作框架協議。法國蘇伊士環境集團是一家在水處理及固廢處理方面擁有逾120年經驗的環保企業。雙方均已同意在環保規劃、運營管理、研發及環保設備設計領域加強合作。同時，我們亦與德國垃圾焚燒系統供應商—德國馬丁公司簽訂一份特許協議，將其最新的爐排爐技術與我們的爐排爐技術結合起來。

為了進一步在光大國際推廣研究與創新文化，公司制訂了獎勵機制，獎勵成功獲批的專利申請，並把研發成果商品化。我們於二零一三年獲授權了5項發明專利及16項實用發明專利。

## Ensuring Sustainable Operation

Fly ash and bottom ash are the two major wastes generated from our waste-to-energy and biomass power generation projects. These wastes can cause severe damage to the environmental problem if they are not properly treated. All fly ash generated from our waste-to-energy projects was treated properly onsite by solidification to ensure that it meets the national fly ash standards before disposing of at hazardous waste landfill. For bottom ash generated from waste-to-energy projects, 91% of it was reused for making bricks. In addition, we once again achieved a 100% recycling rate of fly ash and bottom ash generated from the biomass power generation project.

## 確保可持續發展營運

飛灰和爐渣是我們垃圾發電和生物質能發電項目所產生的兩大廢物，不妥善處理會對我們的環境造成嚴重後果。我們垃圾發電項目所產生的所有飛灰會即場予以固化妥善處理，以確保其棄置於危廢填埋場前符合飛灰處理的相關國家標準。至於垃圾發電項目所產生的爐渣，其中91%會循環用作製磚。此外，我們生物質能發電項目所產生的飛灰和爐渣，均再度實現了100%循環利用。

Project 項目	Final outlet for fly ash 飛灰的最終去向	Final outlet for bottom ash 爐渣的最終用途
Suzhou Waste-to-energy Project 蘇州垃圾發電項目	Suzhou Industrial Solid Waste Landfill 蘇州工業固廢填埋場	Used for making bricks 用作製磚
Yixing Waste-to-energy Project 宜興垃圾發電項目	Landfill 填埋場	Used for making bricks 用作製磚
Jiangyin Waste-to-energy Project 江陰垃圾發電項目	Government-designated fly ash landfill 政府指定的飛灰填埋場	Used for making bricks 用作製磚
Changzhou Waste-to-energy Project 常州垃圾發電項目	Landfill 填埋場	Reused as earth covering 用作覆土
Jinan Waste-to-energy Project 濟南垃圾發電項目	Landfill 填埋場	Used for making bricks 用作製磚
Zhenjiang Waste-to-energy Project 鎮江垃圾發電項目	Landfill 填埋場	For making bricks and road bed material 用作製磚及路基物料
Suqian Waste-to-energy Project 宿遷垃圾發電項目	Landfill 填埋場	Used for making bricks 用作製磚
Dangshan Biomass Power Generation Project 礪山生物質能發電項目	Used for making cement 用作生產混凝土	Used for making bricks 用作製磚

In addition, we successfully achieved a zero leachate discharge from our waste-to-energy projects since all leachate from waste-to-energy projects was treated by our self-developed leachate system and reused it for electricity generation.

此外，垃圾發電項目所產生的滲濾液均經由我們自主研發的滲濾液處理系統處理，然後循環用作發電，從而成功達成滲濾液「零排放」。

## Striving for Green Operation | 致力綠色運營

Proper treatment of sludge arising from our waste water treatment plants is another key issue. We treat our sludge in accordance with IFC's Environmental, Health and Safety General Guidelines and other applicable laws and regulations. In general, there are four major outlets for sludge, including incineration, landfill, fertilizer and electricity generation. In 2013, nearly half (47%) of the total sludge generated was recycled. For sludge which eventually needs to be disposed of at the landfill, we will reduce their water content and volume by dewatering process onsite to alleviate landfill burden.

妥善處理污水處理廠產生的污泥是我們的另一重要課題。我們按照國際金融公司的《環境、健康和 safety 通用指南》及其他適用法例及規例處理污泥。一般而言，處理污泥主要有四種方法，包括焚化、填埋、施肥及發電。二零一三年，近半數(47%)已產生的污泥獲循環再用。至於最終需作填埋處理的污泥，我們會先進行脫水處理以減少水份及體積，減輕對填埋場的負擔。

Project 項目	Final outlet for treated sludge 經處理污泥的最終去向
Jinan Waste Water Treatment Project 濟南污水處理項目	Designated fertilizer plant 指定的化肥廠
Zibo Waste Water Treatment Project 淄博污水處理項目	Incineration/landfill 焚燒爐/填埋場
Binzhou Boxing Waste Water Treatment Project 濱州博興污水處理項目	Landfill 填埋場
Zibo Zhoucun Waste Water Treatment Project 淄博周村污水處理項目	Landfill 填埋場
Jiangyin Waste Water Treatment Project 江陰污水處理項目	Delivered to Jiangyin waste-to-energy plant for incineration and electricity generation 交付江陰垃圾發電廠焚燒及用作發電
Dezhou Ling County Waste Water Treatment Project 德州陵縣污水處理項目	Landfill 填埋場
Dezhou Nanyunhe Waste Water Treatment Project Phase I 德州南運河污水處理項目一期	Landfill 填埋場
Qingdao Maidaowang Waste Water Treatment Project 青島麥島污水處理項目	Delivered to government-designated areas for greening purpose 交付政府指定的地區作綠化之用

We believe an innovative technology can strengthen operational efficiencies, reduce costs and mitigate environmental impacts. Our Jinan Water Project Company's study on a system of municipal sludge drying, biological deodorisation and generation of bio-fertilizer was awarded a Jinan Science Technology Progress Award – Second Prize in February 2013. This new integrated sludge treatment system, which is being used in our Jinan Waste Water Treatment Project, makes use of reusable water generated from the waste water treatment plant and solar energy for sludge drying. Biological agent is added during the sludge treatment process to deodorise the sludge, and eventually

我們相信，創新技術能提升運營效能、降低成本及緩減對環境的影響。二零一三年二月，我們濟南水務項目公司有關城市污泥的乾化程序、生物除臭及生產生物肥料方面的研究榮獲「濟南市科學技術進步獎二等獎」。我們的濟南污水處理項目現正使用這項嶄新的污泥綜合處理系統。這系統利用污水處理廠產生的中水及太陽能乾化污泥。污泥處理過程中會加入生物製劑去除污泥臭味，最終製成高效生物肥料，

high efficiency bio-fertilizer, which meet the standard of agricultural microbial fertilizer of China (NY227-94), is produced as a by-product of this system.

一種由本系統製造並符合中國農用微生物肥料標準(NY227-94)的副產品。

All waste water generated during the operation is treated via on-site waste water treatment facilities. Our operating plants have complied with the stringent national waste water discharge standards – Integrated Wastewater Discharge Standard (GB 8978-1996), as well as the requirements described in the approved Environmental Impact Assessment (“EIA”) report and stipulated in the EIA approvals. Our operating plants are exercising their best effort to reuse treated waste water as much as possible so as to minimise the consumption of fresh water and achieve zero Discharge of waste water. The recycled waste water is reused in accordance with the Reuse of Urban Recycling Water – Water Quality Standard for Industrial Uses (GB/T 19923-2005) and the Reuse of Urban Recycling Water – Water Quality Standard for Landscape Environmental Use (GB/T 18921-2002). In 2013, we purchased a total of 1,507,799 m<sup>3</sup> of water from municipal water suppliers and recycled 6,787,140 m<sup>3</sup> of water in our operation, representing 82% of our total water consumption.

運營所產生的所有污水均經由廠房內的污水處理設施處理。我們所有的運營廠房均符合嚴格的國家污水排放標準「污水綜合排放標準」(GB 8978-1996)，以及經批准的環境影響評估(「環評」)報告所述及環評批文所訂明的規定。我們的運營廠房致力將已處理的污水循環再用，以減少食用水的消耗及達致污水「零排放」。污水是根據「城市污水再生利用工業用水水質」(GB/T 19923-2005)及「城市污水再生利用景觀環境用水水質」(GB/T 18921-2002)標準循環再用。於二零一三年，我們自城市供水商購入的水量合共1,507,799立方米，而運營中循環再用水達6,787,140立方米，相當於總用水量的82%。

All effluent from our operating plants is discharged to different destinations in accordance with the contract requirements. The effluent meeting National Grade 1A standard will be applied to greening and landscaping while the National Grade 3 standard effluent will be discharged to municipal waste water treatment plants for further treatment.

我們運營的廠房的所有排出物會根據合約規定排放至指定地點。符合國家一級A標準的排放水將作綠化及園林用途，而屬國家三級標準的排放水將排放至城市污水處理廠作進一步處理。

**Total volume of water discharged by destinations in 2013 (m<sup>3</sup>)**


二零一三年按排放地點劃分的總排水量(立方米)

Greening and Landscaping 綠化及園林	Discharged into natural water bodies 排放至海洋或河流	Municipal sewage pipelines 城市污水渠
4,802,146	519,926,142	2,515,531





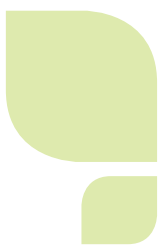
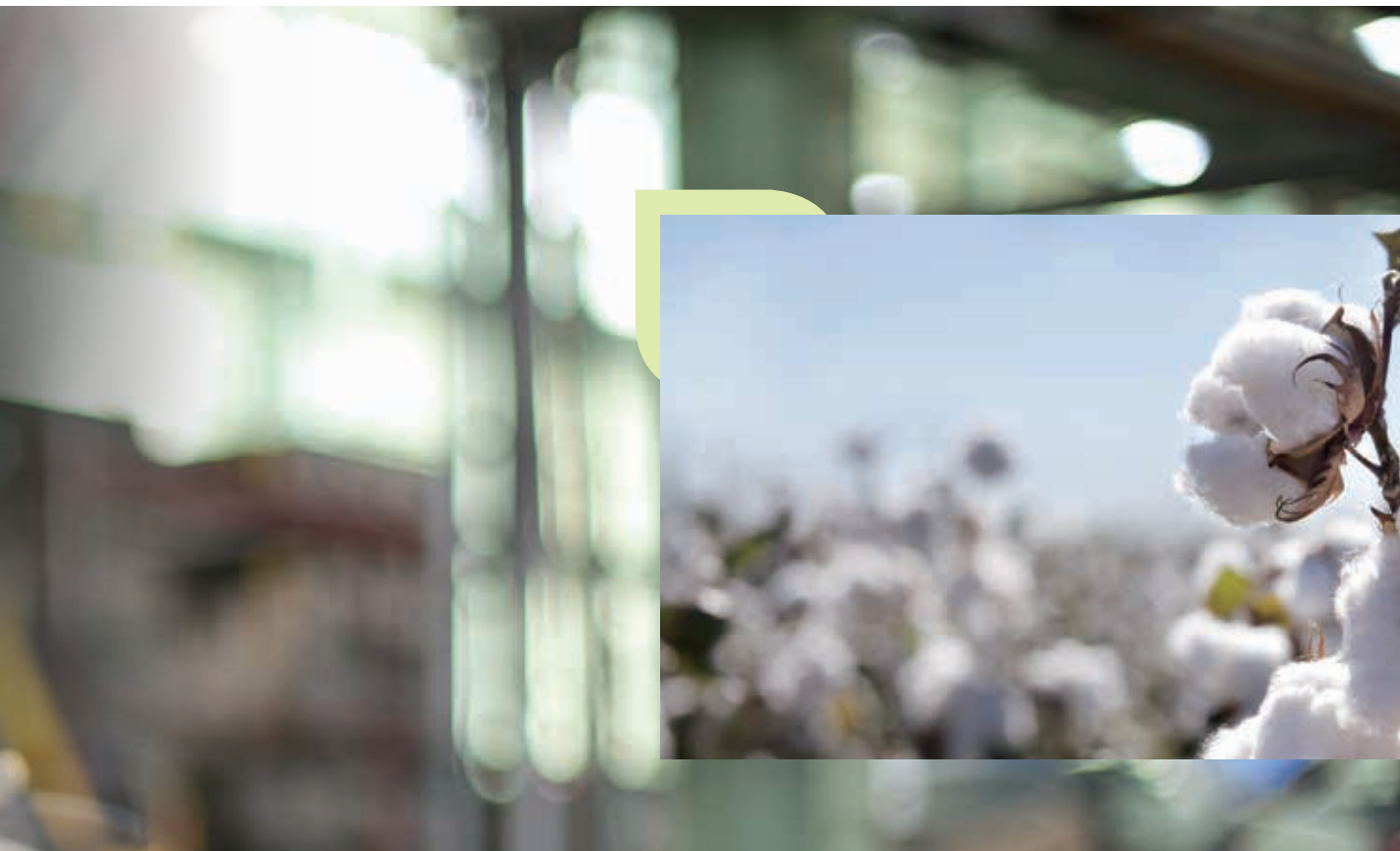
# Health and Safety

健康與安全 



**Safety and Quality**  
are Our Top Priorities

安全重於泰山 質量生存之本



# Health and Safety

## 健康與安全

Safety is a core value in all aspects of our business, from generating safe and green energy, to ensuring the highest safety standards in our workplace. We are committed to operating in a way that protects the health and safety of our employees. All our operating project companies have developed occupational health and safety management systems with internationally recognised OHSAS 18001 (GB/T28001-2001) certification. We have also developed a risk management system which identifies and manages all potential risk associated with our operations.

Each project company has a senior management team comprising a general manager, who is designated to oversee all health and safety issues to ensure strong commitment among our employees. Management officers are responsible for convening a safety meeting quarterly to ensure the safety production. Regular emergency drills and exercises are organised to raise our employees' capability to handle various kind of contingency scenarios.

We work closely with our business partners to ensure that they also adhere to our safety principles. We continually review our health and safety policies and have made the provisions necessary for planning, organizing, monitoring and reviewing health and safety precautions to ensure high safety performance of all parties.

### Preparing for the Worst

To build the capacity of our employees to tackle different contingency scenarios timely and properly as well as improving coordination among different teams and departments in various situations, all our project companies are required to conduct emergency drills and exercises on a regular basis. In 2013, we arranged a number of emergency drills and exercises following the company's emergency response plans and applicable national laws and regulations including Fire Protection Law, Regulations on the Safety Administration of Dangerous Chemicals, Production Safety Law and Environmental Protection Law. We have developed an evaluation mechanism to measure the competence and effectiveness of the emergency drills and exercises. Correction of emergency response plan will be made accordingly once the weakness is identified.

安全是我們業務發展的重要核心，這涵蓋從生產安全綠色能源及確保工作場所符合最高安全標準。我們在經營業務過程中致力為僱員締造健康安全的工作環境。我們所有運營中的項目公司已分別制定職業健康和安全管理體系，並獲發國際認可的OHSAS 18001 (GB/T28001-2001)職業健康和安證書。我們亦已制定風險管理體系，用以識別及管理業務運營的潛在風險。

各項目公司均擁有一支高級管理團隊，團隊成員以總經理為首，負責監管整體健康及安全事宜，確保我們的僱員可充分投入工作。管理層負責每季召開安全會議，以確保項目生產安全。項目公司更定期安排緊急演習，加強僱員在不同緊急情況下的應變能力。

我們與業務夥伴緊密合作，確保各方同樣堅守我們的安全準則。我們不斷檢討現行健康及安全政策，制定有關規劃、組織、監控以及檢討健康及安全預防措施的所需條文，確保各方均達致高安全水平。

### 防患於未然

為建立僱員以及時及妥善的方法應對緊急情況的能力，並改善不同團隊及部門之間在不同情況下的協調情況，我們的所有項目公司均必須定期進行緊急演習。我們按照公司的應急預案及遵從《消防法》、《危險化學品安全管理條例》、《安全生產法》及《環境保護法》等適用的國家法律及規例，於二零一三年安排了多次緊急演習。我們已制定評估機制以衡量緊急演習能否應付我們的需要及是否有效。一旦發現不足之處，我們將對應急預案作出相應修正。



A contingency drill simulating leakage of hydrochloric acid at Everbright Environmental Energy (Suzhou) Limited  
光大環保能源(蘇州)有限公司進行模擬洩漏氫氯酸的應變演習

Fire safety and evacuation exercise at Everbright Environmental Energy (Changzhou) Limited  
光大環保能源(常州)有限公司進行消防安全疏散演習



Emergency exercise simulating leakage of leachate at Everbright Environmental Energy (Jiangyin) Limited  
光大環保能源(江陰)有限公司進行模擬洩漏滲濾液的應急演習

## Managing Health and Safety

We are dedicated to minimise our employees' exposure to health and safety risks in the workplace so as to provide our employees with a safe and healthy work environment. Sufficient protective equipment and measures are provided for our employees in accordance with the applicable laws and regulations to ensure their safety during operations. When an injury occurs, employees need to report to their supervisors or managers for appropriate action following the company's policy on incident reporting and investigation of the incident. Our goal is to eventually return all injured employees to work while incorporating meaningful and appropriate work opportunities during the recovery period.

We offer body check and occupational health check for all our employees annually. In addition, we are also concerned about our employees' diet and keen to promote healthy eating at staff canteens, by offering more healthy food choices. Food ingredient suppliers are carefully selected to ensure food safety. We have also renovated our staff canteens to provide our employees with a comfortable environment to enjoy their meals.

Our contractors are also required to comply with our safety policy, which is listed as part of the contractual terms in the agreement. A zero injury rate has been set as a target for each operation and construction project to strive towards. We are proud to proclaim that our company has successfully maintained a zero injury and accident rate in 2013.

## 健康與安全管理

我們銳意減低僱員在工作場所承擔有關健康安全的風險，從而為他們提供安全健康的工作環境。我們按照適用法例及規例為僱員提供充足的保護裝備和實施足夠措施，確保他們在業務運作期間的安全。僱員需要於發生工傷事故時匯報相關主管或經理，以便按照公司政策就意外呈報及意外調查採取適當行動。我們的目標是希望所有受傷僱員最終可重返工作崗位，並於康復期間獲安排有意義及合適的工作。

我們每年為所有僱員提供身體檢查及職業健康檢查。此外，我們亦關心僱員的飲食，在員工餐廳提供更健康的食品選擇，積極宣傳健康飲食之道。我們精挑食材供應商以確保食物安全。我們亦翻新員工餐廳，務求為僱員提供舒適的用餐環境。

承包商亦須遵守我們的安全政策，有關政策已列為協議的部分合約條款。就各運營及建設項目而言，我們一直以零工傷為目標，並一直努力達致有關目標。我們於二零一三年年成功保持零工傷及零意外紀錄，這項佳績令我們引以自豪。

Injury and accident records  
for 4 CONSECUTIVE YEARS  
連續四年錄得工傷及意外紀錄



**Case story: Keeping our employees safe in extreme weather**

Various provinces in the PRC suffered from extreme weather in 2013, including heat wave that lasted for more than two weeks in July and the maximum temperature in Changzhou, Jiangyin, Yixing and Suzhou etc. where our plants are located even reached above 40°C as well as stormy weather hit Zibo for days. To protect our employees who are exposed to extreme weather, we have implemented various protective measures including:

- Ensuring clean and adequate supplies of drinking water are available to the workers.
- Preparing food, such as green bean soup and drinks that can help relieve summer heat at workers' canteen.
- Maintaining sufficient stocks of medicine which could help relieve the symptoms of heat-related illnesses.
- Rescheduling work time based on weather conditions and avoid arranging labour intensive and outdoor works for a time when the temperature is extremely high and the weather is in bad condition.

**個案分享：極端天氣下保障僱員安全**

二零一三年中國多個省份飽嘗極端天氣之苦。七月份熱浪持續兩個多星期，我們位於常州、江陰、宜興、蘇州等地的廠房最高溫度更達致攝氏40度以上，淄博更連續多天遭暴風雨吹襲。為保護需要在極端天氣下工作的員工，我們實施了多項保護措施，其中包括：

- 確保工人獲供應足夠的乾淨食水。
- 工人餐廳內提供有助消暑的食品(例如綠豆湯)及飲料。
- 存放足夠並有助舒緩發熱徵狀的藥物。
- 根據天氣情況重新安排工作時間，並避免安排工人在炙熱及惡劣天氣下在戶外從事體力勞動的工作。



## Raising Health and Safety Awareness

## 加強健康與安全意識

We strongly believe that education and training are the most effective way to spread the occupational health and safety message to our employees and help keep the perfect safety record. Health and safety awareness training, manual handling training, seminar and talks organised in 2013 covered the following topics:

我們相信教育和培訓是向僱員灌輸健康安全訊息的最有效方法，亦相信兩者有助我們保持完美的安全紀錄。於二零一三年舉辦的健康安全意識培訓班、人手操作培訓班、研討會及講座涵蓋下列題目：

- |  |                      |
|--|----------------------|
| 1. Safety use of equipment   | 1. 設備裝置的安全使用         |
| 2. Procurement and storage of dangerous goods                          | 2. 採購及儲存危險物品         |
| 3. Fire prevention   | 3. 防火                |
| 4. Hazardous waste management  | 4. 危廢管理              |
| 5. Prevention and control of occupational diseases (e.g. hearing loss) | 5. 預防及監控職業病 (例如聽覺受損) |
| 6. Health care   | 6. 健康護理              |
| 7. First-aid   | 7. 急救                |



### Case story: Safety Production Month

Safety operation is the foundation and prerequisite for sustainable corporate development. Project companies are required to kick off their own Safety Production Month with the ultimate goal to enhance employees' safety awareness and attitude. It is an annual campaign that covers a wide range of activities including seminars, trainings, drills and inspection. Employees' feedback on these activities will be gathered and the effectiveness of the campaign will be fully evaluated to identify if there is a room for further improvement at both the corporate and individual level.

### 個案分享：安全生產月

安全操作是企業可持續發展的基石和先決條件。各項目公司陸續為自己的「安全生產月」揭開序幕，以提升僱員的安全意識和態度為最終目標。「安全生產月」活動每年舉行一次，涵蓋範圍廣闊，包括研討會、培訓班、演習及檢測。有關活動進行後將收集僱員的反饋意見進行全面評估，以求確定在企業及個人層面上有否存在進一步改善的空間。







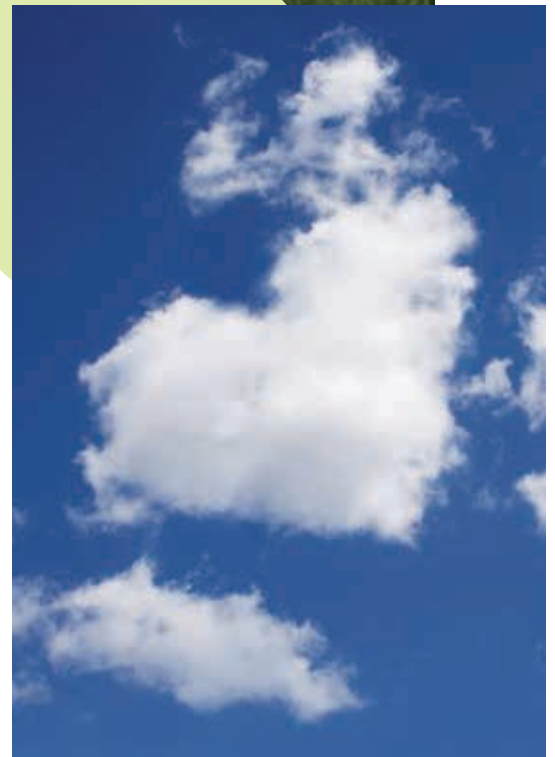
# Our People

我們的僱員



People-Oriented  
以人為本





# Our People

## 我們的僱員

Employees are our most valuable assets. In an era of a keen competition for talented, we are determined to attract and retain top talent for our long term success by providing our employees with a safe, fair, discrimination-free, diverse and harmonious work atmosphere as well as rewarding career path. We have invested substantial resources in training to provide room for our employees to grow professionally and personally, also organising a broad range of leisure programmes to promote work life balance. We have developed code of conduct for all employees, which clearly set out all standards for us to comply with. We value and encourage honest and receptive channel of communications between management and staff for the successful implementation of the code of conduct and other company policies.

### Recruiting our People

Through our talent acquisition process, we aim to create an environment that reflects diversity and competence in our workplace. The decision making process in our recruitment does not take into consideration of the seniority, place of residence, gender, age and other facts irrelevant in assessing the candidates' competencies and qualifications. In 2013 alone, 58 employees were transferred from operating plants to projects which are under construction or in preparatory stage. Meanwhile, we hired a total of 127 new staff across our operating plants.

Retaining our talent is one of our high priorities. We are dedicated to motivate our employees by providing them with opportunities to develop long-term career at CEIL. Besides recruiting new blood from outside, our project companies also invite our employees to participate in internal recruitment campaigns to fill the middle-to-senior positions. The whole internal recruitment process normally consists of three parts: presentation, written test and interview, which are conducted in a fair, open and impartial way. To help our employees to develop their career paths, we also offer internal transfer opportunities for them to gain new knowledge and experience from new responsibilities.

僱員是我們最寶貴的資產。在這求才若渴的年代以及為公司的長遠發展，我們為僱員提供安全、公平、反歧視、多元及和諧的工作氣氛及晉升機會，吸引及挽留業界精英。我們在培訓方面投放大量資源，為僱員提供專業及個人發展的空間，亦舉辦各式各樣的消閒節目，推廣工作之餘亦不忘娛樂的生活概念。我們已為全體員工制定行為守則，清楚列明我們須遵守的所有規定。我們重視並鼓勵管理層及員工以坦誠包容的方式互相溝通，致使有關行為守則及其他公司政策得以成功執行。

### 聘用員工

透過招攬人才，我們銳意建立一個多元化及精英雲集的工作環境。我們在招聘的過程中，不會考慮年資、居住地、性別、年齡及其他與評估應徵者能力及資歷無關的其他事項。二零一三年公司從運營廠房調動58名員工到在建或籌建項目。同時，各運營廠房共新聘了127名員工。

挽留人才是我們其中一項首要工作。我們致力為員工提供長遠在光大國際開拓事業的機會，以作激勵。除了從外部吸納新血外，我們的項目公司亦會邀請僱員參與內部競聘，填補中高層職位。整個內部競聘過程一般包括三個部分：演講、筆試及面試，三個部分均在公平、公開、公正的情況下進行。為幫助僱員開拓事業，我們亦給予內部調職機會，讓他們在新職務中汲取新知識和經驗。



Internal recruitment campaign at Everbright Water (Jinan) Limited.

光大水務(濟南)有限公司內部競聘活動。

We are also committed to recruiting staff locally in order to increase employment opportunity and make us in a better position to understand the local needs and expectations. In 2013, 86.7% of our staff was recruited in the province where our operating plants locate. In response to the keen competition in labour market and facilitate the internal transfer of staff, we have established a unified remuneration system and comprehensive performance appraisal system, both of these two systems are reviewed on a regular basis. All our employees receive annual performance review and appraisal.

我們亦致力在項目當地招聘員工以增加本土就業機會，同時令我們更容易掌握當地的需求及期望。二零一三年，86.7%的員工乃於我們經營廠房所在的省份招聘。為應對勞動市場的激烈競爭及理順內部人員調動，我們成立了統一的薪酬機制及整體表現評估體制，並定期就此兩個系統進行檢討。我們的全體僱員每年均會接受表現檢討及評估。

## Equal Opportunities

In striving to become the best employer, we believe it is important to provide equal opportunities to our employees regardless of race, ethnic background, sexual orientation, political affiliation, gender identify, religion, marital status, age, nationality, disability, veteran status, citizen status, or other protected group status as defined by applicable national, provincial and local legislations.

In particular, our company upholds gender equality and provides equal employment opportunities for men and women during the stages of project design, construction supervision and plant operation. We pay equal attention to the protection of the rights and interests of female employees, and comply strictly with the Laws of the PRC on the Protection of Rights and Interests of Women.

Our zero tolerance to discrimination approach is embedded in our corporate culture and to date, there have been no reported cases of discrimination.

In total, our entire workforce consists of 70% male and 30% female, 0.45% of our workforce belongs to ethnic minority groups.

## 機會均等

我們致力成為最佳僱主。我們相信，為每個僱員提供平等的機會十分重要，絕不會因為僱員的種族、民族背景、性取向、政治立場、性別、宗教、婚姻狀況、年齡、國籍、殘疾、資歷、公民身份或其他受保護組織狀況(定義見適用國家、省份及地方法例)而有所影響。

我們尤其堅持性別平等。在項目設計、施工監督及廠房運營等方面，我們會為男性及女性僱員提供平等的機會。我們同樣重視保障女性僱員的權利及權益，並嚴格遵守國內有關保障女性權利及權益的法例。

我們的公司文化不容歧視存在，而至今亦無出現任何歧視個案。

整體而言，在我們的全體員工中，70%為男性及30%為女性，其中0.45%的屬少數族裔。

### Employees by Age Group 按年齡組別劃分的僱員



- 43% 30 or below  
三十歲或以下
- 36% 31-40  
三十一歲至四十歲
- 18% 41-50  
四十一歲至五十歲
- 3% 51 or above  
五十一歲或以上

# Our People

## 我們的僱員



### Employee Engagement

We believe in building strong relationship with our employees by encouraging communications between employees at all level of operations and company levels. In demonstrating our commitment to maintain an environment of openness between all levels of employees, we encourage direct channel of communications among our employees and managers and to keep them informed of the company's development direction and strategies. Our two internal publications: biweekly newsletter, Everbright Environmental Protection News and monthly Everbright International Magazine provide a platform for our employees to update their current tasks, express their views and thoughts on company development and promote the message of environmental protection. Moreover, we have set up a CEO email box that our employees can communicate with the CEO directly.

### 僱員的參與

我們鼓勵管理層與各層面的僱員進行溝通，彼此建立穩固關係。為體現我們為各僱員建立公開溝通環境的決心，我們建立直接溝通渠道，並讓僱員了解公司的發展方針及策略。我們出版兩本內部刊物(分別為雙週業務通訊「光大環保報」及光大國際月刊)，為僱員提供一個平台，讓他們發佈各項目的最新消息、表達他們對公司發展的意見及想法；以及宣揚環保理念。此外，我們亦開設一個行政總裁電子郵箱，讓僱員可直接與行政總裁通訊。

## Developing and Training our People

We are committed to investing in our people as we believe the sustainable growth of a company is largely derived from the continuous development of our workforce. To equip our staff with the professional skills and knowledge required for their job and support their personal growth, we provide a wide range of professional skill trainings and personal development programmes, including in-house training courses and external training camps. Some of the training courses offered in 2013 included:

- Environmental and Social Management System
- Prevention of bribery and corruption
- Workplace management (the 5S)
- Enterprise Accounting System
- Communication skills with public relations
- Internal audit
- Outward bound training
- Master of Environmental Engineering Program (Tsinghua University)

To encourage knowledge transfer through inheritance, we have launched mentorship programme to provide opportunities for our apprentices and trainees to learn from our experienced employees. In 2013, over 150 employees from Nanjing, Ningbo and Pizhou waste-to-energy projects were sent to the operating environmental energy project companies for 3-month apprenticeship. During that period, they had the opportunities to learn from their mentors who have strong practical experience and professional skills of waste-to-energy. We also provide support for the employees who will transfer to other job position or other project company by offering additional training to help

## 培養及培訓員工

我們相信員工的不斷成長是公司得以持續增長的主要元素，因此我們致力培養、培訓人才。我們提供內部培訓課程及戶外培訓營等一系列職業技術培訓及個人發展計劃，助員工取得工作所需的專業技能及知識及發展個人成就。二零一三年，部分培訓課程包括：

- 環境及社會管理制度
- 反賄賂及反貪污
- 工作環境管理(5S)
- 企業會計制度
- 公關溝通技巧
- 內部審核
- 外展培訓
- 清華大學環境工程學碩士課程

為了推動知識傳承，我們開展導師計劃，讓學徒及見習員工有機會向經驗豐富的員工學習。二零一三年，南京、寧波及邳州垃圾發電項目超過150名僱員被派遣到7家運營中的環保能源公司當三個月學徒。期間，他們有機會向在垃



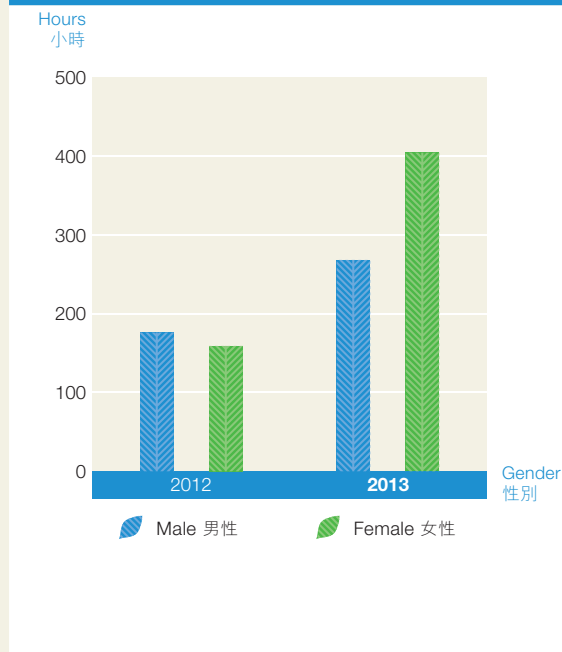
them adapt to the new role as soon as possible. In order to assist newcomers to become familiar with and adapt to the corporate culture, all new employees are required to attend an on-boarding programme such as orientation camp. In 2013, two orientation camps were organized in Shenzhen in July and November. We strongly believe these activities are significant for our new comers to experience the corporate culture and to strengthen the cohesion and sense of belonging towards the company.

In 2013, on average each employee received nearly 310 hours of training.

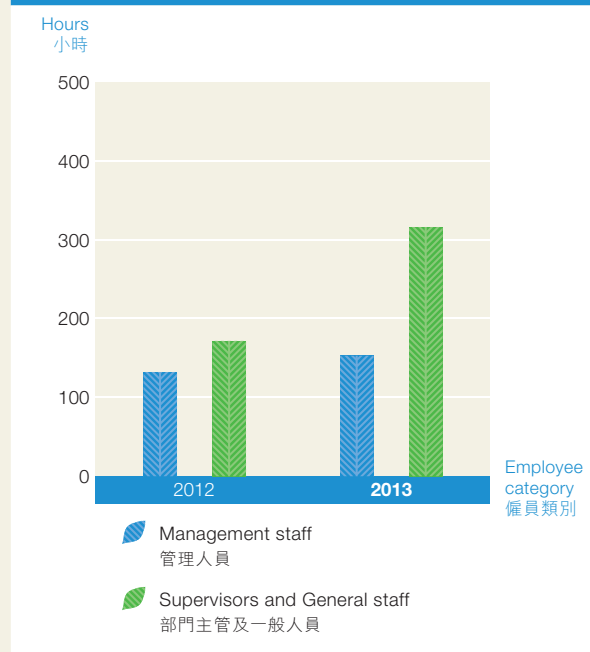
圾發電方面實戰經驗豐富、專業技巧熟練的導師學習。我們亦為調任職位或調動到其他項目公司的僱員提供額外培訓支援，助他們盡早適應新職務。為了加快新員工熟悉並融入公司文化，所有新員工均須參加迎新營等入職活動。二零一三年，我們分別於七月及十一月在深圳舉辦兩個迎新營。我們深信迎新營的意義重大，讓新員工得以了解我們的企業文化，並加強公司的凝聚力及歸屬感。

二零一三年，每名僱員平均接受近310小時的培訓。

Average training hours by gender  
按性別劃分的平均培訓時數



Average training hours by employee category  
按僱員類別劃分的平均培訓時數



To further enhance our management innovativeness and market share, we arranged various business trips to overseas countries, for our staff to learn about the practices of other counterparts in environmental protection sector. The purpose of these trips is to bring back what we learned from others and apply the knowledge on our projects, particularly in the design optimisation of the environmental protection projects in the PRC.

為進一步加大我們的管理創新力度及市場份額，我們安排員工到海外國家進行考察調研，以觀摩學習其他同行的經驗。該等考察調研的目的是引進我們從其他同行學習所得的知識，並在我們的項目上學以致用，特別是對中國環保項目進行設計優化。



### Striving for Work Life Balance

We are committed to creating a happy workplace and promoting healthy lifestyle. During the reporting period, our project companies organised a wide range of leisure and sport activities to help our employees achieve work-life balance. For example, our project companies in Jinan, Qingdao, Ningbo and Ninghai formed teams to participate in a sport day which was held by our parent company, CEHCL. Other activities organised in 2013 included card games competition, birthday party, friendly basketball game, sports and fun day, singing competition, table tennis tournament, photography course, China flower expo visit. Through these leisure and sports activities, we believe it can help relieve our employees' stress and cultivate team spirit, resulting in increased productivity and sense of belonging to the company.

### Case story

In our Suzhou project company office, more than two-thirds of the employees in the production department come from different provinces. They are living in staff dormitory near the workplace without many opportunities to see their family members throughout the year. To provide more opportunities for our employees to communicate and strengthen ties to their family members, we organize a series of employee engagement activities every year. In 2013, we invited employees' family members and friends visiting Suzhou Waste-to-energy Plant so as to give them an opportunity to understand the operation of waste-to-energy plant and learn the importance of environmental protection.

### 維持工作生活平衡

我們致力打造快樂工作空間及推動健康生活態度。報告期間，我們的項目公司舉辦多項休閒活動，助僱員在工作與生活之間取得平衡。舉例而言，濟南、青島、寧波及寧海項目公司分別組隊參加母公司光大集團舉辦的運動日。二零一三年舉辦的其他活動包括卡牌競賽、生日派對、友誼籃球賽、運動同樂日、歌唱比賽、乒乓球比賽、攝影班、遊賞中國花卉博覽會。我們相信，僱員可借助這些休閒活動舒緩壓力及培養團隊精神，從而增強生產能力及加大對公司的歸屬感。

### 個案分享

我們蘇州項目公司內有超過三分之二的僱員來自其他省份，他們住在工作地方附近的宿舍，年中甚少有機會探望家人。我們每年都會舉辦多項僱員參與活動，讓僱員有更多機會與家人通訊及維繫關係。二零一三年，我們誠邀僱員親友參觀蘇州垃圾發電廠房，讓他們了解垃圾發電廠的運作及環境保護的重要性。



### Case story

To promote a reading atmosphere at the workplace, our Suzhou Project Company initiated a book donation activity. The event received overwhelming response from employees with over 800 books and magazines collected. A reading room has been established to provide a pleasure and relaxing place for the employees to enjoy reading.

### 個案分享

蘇州項目公司為了在公司營造閱讀氣氛，開展了捐書行動。僱員的反應踴躍，共收得超過800本書及雜誌。我們設立閱讀室為僱員提供一個鬆弛身心的空間，共享閱讀樂趣。

Reading room at  
Suzhou Project Company  
蘇州項目公司閱讀室





# Community Contribution

社區貢獻



Creating **Beautiful Environment**  
and Rewarding the **Public**

創造**美好環境** 回饋**社會大眾**



# Community Contribution

## 社區貢獻

We are dedicated to develop close long-term relationship with the communities in which our facilities operate and create better living environment for people. We put great efforts in engaging with the community through volunteerism, environmental protection education, disaster relieve and philanthropy. We believe that continuous engagement with the community is an integral part of our business development and growth. Our employees are strongly encouraged to volunteer their time and skills for community engagement activities and the company keeps providing various platforms for them to get involved.

### Promoting Science, Technology and Environmental Protection

As an environmental protection enterprise, we are keen to play a pivotal role in environmental protection by leveraging our technology, resources and expert. In 2013, our project companies actively participated in National Science Popularisation Day, World Water Day and World Environment Day to promote advanced technology in environmental protection technology and raise the public awareness on environmental protection. In March 2013, our Shenzhen office established an exhibition hall, which is one of the designated Science Popularisation and Education Base in Shenzhen where different group of people can visit and get hands-on experience in environmental protection. In addition, our project companies in different locations have also been designated as the environmental protection bases and play an active role in promoting environmental protection awareness among schools and the community.

In Hong Kong, we have become a corporate member of Business Environment Council. We are committed to joining hands with other environmental protection organisations to help promote environmental protection and create a sustainable community.

我們致力與我們業務所在的社區建立密切長遠的關係，並為市民打造更佳的生活環境。我們大力推動義務工作、環保教育、災難救濟及慈善活動，務求與社界融和交流。我們認為，持續與社區進行交流是發展及促進業務不可或缺的一環。我們為僱員提供多個義工平台，以鼓勵他們多參與社區活動。

### 宣揚科技及環保

我們作為環保企業，自當利用我們技術、資源及專才方面的優勢，義不容辭地承擔環保重任。二零一三年，我們的項目公司積極參加「全國科普日」、「世界水日」及「世界環保日」以推廣先進環保技術及提升公眾環保意識。二零一三年三月，深圳辦事處設立了展覽廳，該展覽廳為深圳市指定的科普教育基地之一，各界人士均可到場參觀，並可親身體驗環保經驗。此外，我們位於各地的項目公司亦分別獲指定為環保教育基地，肩負在學校、社區層面積極推廣環保意識的重任。

在香港，我們成為商界環保協會成員，我們致力與其他環保組織合作，協助推動環保及打造一個可持續發展的社區。

**Case story: National Science Popularisation Day**

National Science Popularisation Day is held every year on the third week of September in the PRC. This nationwide event is initiated by China Association for Science and Technology with the aim to raise the public awareness on science and technology. The previous themes of National Science Popularisation Day included technological development, energy conservation, food safety and disease prevention.

In 2013, National Science Popularisation Day was held from 14-20 September across the nation with the theme of Preserving an Ecological Environment and Building a Beautiful China. We were invited by the Chinese Society for Environmental Science to participate this important event. In Beijing, we co-organised a household waste processing and resources utilization exhibition with Chinese Society for Environmental Science. In addition, our project companies in 27 project sites located across the country such as Shenzhen, Qingdao, Nanjing, Suzhou and Jinan also actively participated in this event. Through the exhibition boards, seminars, interactive games, drawing and writing competition, we introduced the technology of waste-to-energy and waste water treatment as well as raising the public awareness of recycling and other sustainable resources utilization. It is estimated that there were over 200,000 people visiting our exhibition zones and participating in our activities throughout the National Science Popularisation Day.

**個案分享：全國科普日**

全國科普日於每年九月第三週舉行。這全國性活動由中國科協會發起，旨在提升公眾的科學技術意識。全國科普日過往的主題包括技術發展、節省能源、食品安全及預防疫病。

二零一三年，全國科普日於九月十四日至二十日在全國舉行，主題為「保護生態環境，建設美麗中國」。我們獲中國環境科學學會邀請，參與這重大活動。在北京，我們與中國環境科學學會合辦家居垃圾處理及資源使用展覽。此外，我們於深圳、青島、南京、蘇州及濟南等27個項目所在地亦積極參與這項活動。我們透過展板、講座、互動遊戲、繪圖及寫作比賽簡介垃圾發電和污水處理的技術，並提高公眾對循環使用及其他資源利用方法的認知。預計於全國科普日內會有超過200,000人次參觀我們的展覽區及參與我們的活動。



## Community Contribution | 社區貢獻

On 1-2 August 2013, Chinese Society for Environmental Science held an annual conference in Yunnan province. We were the co-organizer of this event and conducted a symposium on Prevention and Control of Solid Waste Pollution and Chemical Goods Management. The symposium provided a very good platform for us to introduce the advanced technology of waste-to-energy and exchange ideas on solid waste treatment in the PRC with experts from other environmental protection companies, universities and research institutes.

Our project companies regularly organise site visits and study tours for students, investors, government officials, counterparts and the general public. We strongly believe this kind of activities can enhance transparency and improve the interaction with our stakeholders. The visits to our project sites allow the visitors to have a hands-on experience in visualizing sustainability concept in real life examples of green energy generation, emissions reduction and waste water treatment. In 2013, there were 21,830 visitors to our environmental protection projects.

二零一三年八月一日至二日，中國環境科學學會於雲南省舉辦年度議會。我們為這項活動的協辦商，並舉辦了主題為固廢污染防治及化學品管理的研討會。研討會是一個極佳的平台，讓我們解說先進的垃圾發電技術，並與來自其他環保公司、大學及研究院的專家交流對中國固廢處理的看法。

我們的項目公司定期為學生、投資者、政府官員、業界人士及公眾人士安排項目實地參觀及技術交流。我們深信這些活動可提升透明度及增加與持份者互相交流的機會。參觀者在項目現場感受即場視覺體驗，見證可持續發展理念在綠色能源發電、減排及污水處理等日常生活中一一實踐。二零一三年，我們環保項目的參觀人數達21,830名。



Investors visited  
Qingdao Waste Water  
Treatment Project  
投資者參觀青島污水處理項目

Investors visited Suzhou  
Waste-to-energy Project  
投資者參觀蘇州垃圾發電項目





The mayor of Sidoarjo city in Indonesia visited Jinan Water Project along with his delegates

印尼徐圖利祖市市長與其代表一同參觀濟南水務項目

50 little journalists from Shandong Business Daily learned concept of resource utilisation and recycling during their visit to Jinan Waste-to-energy Project

山東商報50名小記者參觀濟南垃圾發電項目，並了解資源使用率及循環使用的概念



## Charitable Foundations

### Everbright International Environmental Protection Charitable Foundation

To further improve the efficiency of our community programmes, we successfully set up Everbright International Environmental Protection Charitable Foundation Company Limited in Hong Kong in August 2013. The foundation company will manage the Everbright International Environmental Protection Charitable Foundation and coordinate all our charitable projects in environmental protection education, energy-saving, ecological conservation and community caring etc.

The foundation will officially start contributing funds to support environmental and social programmes in 2014. More details will be reported in our next sustainability report.

## 公益基金

### 光大國際環保公益基金

為進一步提升我們社區項目的效益，我們於二零一三年八月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」及協調我們於環保教育、節能、生態保育及社區關懷等方面的所有慈善公益活動。

基金於二零一四年正式開始提供資金支持環保及社區活動。我們將會在下一份可持續發展報告匯報有關詳情。



### Everbright Environmental Protection Charitable Foundation

Meanwhile, Suzhou Project Company is a co-founder of Everbright Environmental Protection Charitable Foundation with Suzhou Environmental & Municipal Administration Bureau and Suzhou Charity Federation. The foundation was established in June 2013 and a donation of RMB1.5 million will be made annually to the foundation for helping Suzhou's sanitation workers and families who are facing difficulties and in need of financial and emotional support. In September 2013, the foundation provided its first batch of financial aids to 96 eligible sanitation workers.

### Investing in Education

Giving back to the society is always our core value, so at the time we were preparing the Dangshan Biomass Power Generation Project in 2010, we underwent a RMB6 million school renovation project with a donation of computers and textbooks to establish Everbright International True Love School in Dangshan. The school, which was officially founded in September 2011, has been equipped with the state-of-art facility, comprehensive teaching equipment, playground, music and dancing rooms to provide the students with pleasant learning environment. Meanwhile, we have set up a True Love Fund to provide the students with financial support and recognise the outstanding students.

We encourage our employees to be the acting teachers of the school, and many of them are keen to get involved. In September 2013, we sent our third batch of volunteers to Everbright International True Love School as 6-month acting teachers with the primary responsibilities to assist in teaching English, fine art and music.

### 光大環保愛心基金

同時，我們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」，有關基金已於二零一三年六月正式成立。我們將會每年向基金會捐贈人民幣150萬元，有關款項將用於幫助面對困境和需要財政及情緒支援的蘇州市環衛工人及其家庭。二零一三年九月，基金會向96名合資格的環衛工人提供首批財務援助。

### 投資教育

回饋社會是我們一貫的核心價值，所以當二零一零年我們正在進行碭山生物質能發電項目的籌備工作時，我們以人民幣600萬元重建校舍，並捐贈一批電腦及課本，於碭山建立「光大國際愛心學校」。該校於二零一一年九月正式落成，設有先進設施、完善教學設備、操場、音樂室及舞蹈室，為學生提供一個愉快的學習環境。此外，我們亦設立「愛心基金」，為清貧學生提供財務援助及獎勵優異生。

我們鼓勵僱員擔任學校的支教老師，並獲得不少僱員的熱衷參與。二零一三年九月，我們派遣第三批義工到「光大國際愛心學校」擔任為期六個月的支教老師，專責協助教授英文、美術及音樂。



Everbright International  
True Love School  
光大國際愛心學校

## Supporting Community

Our employees from project companies actively participated in various community supporting events across the PRC in 2013. Some of the activities included:

- Donation of RMB20,000 to support “Free Breakfast Fundraiser event”. The event aims to offer free breakfast to sanitation workers in Jinan.
- Provision of financial aids to support the poor students in Suqian.
- Delivery of rice dumplings to sanitation drivers in Jiangyin.
- Celebration of mid-autumn festivals with under-privileged families in Nanjing.
- Organisation of a donation activity for the victims of the Sichuan earthquake.

## 社區支援

二零一三年，我們項目公司的僱員在中國各地踴躍參與多項社區支援活動。其中幾項包括：

- 捐贈人民幣20,000元支持「免費早餐籌款活動」。活動的宗旨是免費向濟南環衛工人提供早餐。
- 提供財務援助支持宿遷的清貧學生。
- 向江陰的環衛司機送贈粽子。
- 與南京的窮苦家庭共賀中秋。
- 為四川地震受害者舉辦捐贈活動。

# Key Awards and Recognition

## 獎項及殊榮



The Asset's Excellence in Management and Corporate Governance Award – Gold Award

《財產》雜誌  
—《最佳公司治理獎》金獎

China Installation Engineering High-quality Award (China Installation Star) 2013 – 2014

2013 – 2014 年度中國安裝工程優質獎(中國安裝之星)

National AAA Waste-to-energy Power Plant

國家級AAA垃圾發電廠

Constituent Stock of MSCI China Index

MSCI明晟中國指數成份股

Constituent Stock of the Hang Seng China-Affiliated Corporations Index

恒生香港中資企業指數成份股



Hong Kong Economic Digest Hong Kong Outstanding Enterprise – Outstanding Brand Awards 2013

香港《經濟一週》傑出企業  
—香港—實力品牌大獎2013



Constituent Stock of the Hang Seng Corporate Sustainability Benchmark Index

恒生可持續發展企業基準指數成份股

Nation's highest honour for National High Quality Project – Luban Award

中國建設工程品質的最高獎—魯班獎

China Solid Waste Enterprises of the Year – 2013 Top Ten Influential Solid Waste Enterprises in China – First Place

中國固廢企業年度評選 – 2013年度中國固廢行業十大影響力企業第一名

# Outlook

## 展望

### Looking for a Way Forward

After a decade of dedication and progress, CEIL has reaped remarkable achievements in the environmental protection industry and become a leading one-stop integrated environmental solution provider in the PRC. In future, we will continue to adhere to our core value of An Enterprise is not only the Creator of Wealth, but also the Safeguard of Environmental and Social Responsibility. We strongly believe this could lead us to sustainable business growth and bring benefits to our stakeholders.

An open and regular dialogue plays an important role to foster mutual respect and trust with our stakeholders. We care about what our stakeholders think and believe so we will evaluate if the existing communication channels meet our stakeholders' expectation. We are committed to developing an open, transparent, timely and effective communications with our stakeholders.

We will continue to explore new investment opportunities to expand our market presence in the fields of waste-to-energy, waste water treatment, methane-to-energy, industrial solid waste and hazardous waste treatment, solar photovoltaic energy and biomass power generation. We will review our operation and management policies, procedures and systems to further enhance our operation efficiency. We strive for continuous improvement to maintain our leading position in an increasingly competitive market.

We place great emphasis on innovation and R&D, where the focus will go on self-developed grate furnaces, gas treatment systems and leachate treatment systems. Besides self R&D, we will also seek R&D cooperation with suppliers and other business partners to further enhance our ability to develop innovative technology solutions.

We are committed to operating in a way that protects the health and safety of our employees, contractors and communities. We will enhance our safe work practices manual, and reviewing our occupational health and safety policies and procedures as well as emergency response plan on a regularly basis.

### 力爭上游

十年征程，十年進步，光大國際十年來在環保領域取得了令人矚目的成就，成為國內領先的「一站式、全方位」的環境綜合治理服務商。展望未來，我們會繼續秉承「企業不僅是物質財富的創造者，更應成為環境及責任的承擔者」的核心價值。我們堅信緊守核心價值可令業務持續增長並為我們的持份者創造價值。

一個開放、定期的溝通渠道對促進我們與持份者間的互相尊重及信任十分重要。我們關注持份者的想法及意見，故將就現有溝通渠道是否達到持份者期望進行評估。我們致力營造公開、具透明度的環境，適時與持份者進行有效溝通。

我們將繼續發掘新的投資機遇，以擴大在垃圾發電、污水處理、沼氣發電、工業固廢及危廢處理、太陽能光伏發電及生物質能發電領域上的市場份額。我們將檢討運營及管理政策、程序及系統以進一步增強業務運營的效益，並會不斷改進，以在競爭日趨激烈的市場中維持領先位置。

我們十分注重創新及研發，將重點聚焦於自主研發爐排、氣體處理系統及滲漏液處理系統。除了自主研發外，我們亦將與供應商及其他業務夥伴建立研發合作關係，以進一步提升我們研發創新技術解決方案的能力。

我們承諾在經營業務中致力保障僱員、承包商及社區的健康與安全。我們將完善安全工作實務手冊，並定期檢討我們的職業健康與安全政策及程序以及應急預案。

## Outlook | 展望

As a responsible corporate citizen, we are keen to develop harmonious, long-lasting relationship with stakeholders and strive to give something back to the communities in which we operate. With a new charitable foundation recently established in Hong Kong, we will play an active role to develop collaborative relationship with relevant organisations on community service programme. We are committed to leveraging our technology, expertise and resources to help promote environmental protection message and support community philanthropy.

作為一名負責任的企業公民，我們誠意與持份者建立長久、和諧的關係，並竭力回饋我們運營所在的社區。隨着新的基金會於香港成立，我們將會積極與相關機構合作推出社區服務計劃，並善用我們的技術、專業知識及資源，協助推廣環保訊息及支持社區慈善活動。

Aspect	有關方面	Key targets in 2014	2014年主要目標
<b>Environment</b>	環境	Achieve further emissions reductions in 2014	於2014年達致進一步的減排目標
		Increase the water recycling rate as compared with 2013	水循環使用率較2013年上升
		Achieve sludge recycling rate of over 50%	污泥循環使用率達逾50%
		Collect and disclose PM2.5 data	收集及披露PM2.5的數據
		Review and upgrade Environmental and Social Management System	檢討及提升環境及社會管理體制
<b>Health and Safety</b>	健康與安全	Continue to maintain our zero accident safety record	繼續保持零意外的安全記錄
		Arrange more health and safety trainings/talks for our employees	為僱員安排更多健康及安全培訓/講座
<b>Stakeholder Engagement</b>	持份者的參與	Increase the scale of stakeholder engagement activities	增加可讓持份者參與的活動
<b>Community</b>	社區	Strengthen community services programme in the PRC and Hong Kong	加強中國及香港的社區服務計劃

# Verification Statements

## 核實聲明



### VERIFICATION STATEMENT

#### Scope and Objective

Hong Kong Quality Assurance Agency (HKQAA) has been commissioned by China Everbright International Limited (CEIL) to conduct an independent verification of its Sustainability Report 2013 (herein referred to as “the Report”). The Report stated CEIL’s sustainability performance and efforts towards sustainable development for the period from 1st January 2013 to 31st December 2013.

The aim of this verification was to provide assurance on the completeness and accuracy of the information stated in the Report. The Report’s coverage of the standard disclosures defined in the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines Version 3.1 (G3.1) was also assessed to confirm if the A+ application level was achieved.

#### Methodology

The process used in this verification was based on current best practices. The Report was reviewed against the following criteria:

- The principles of completeness, accuracy, neutrality, comparability and responsiveness, as set out in the Institute of Social and Ethical Accountability standard AA1000;
- The Global Reporting Initiative (GRI) G3.1 Guidelines and Electric Utilities Sector Supplement

The verification procedure included reviewing relevant documentation, interviewing responsible personnel with accountability for preparing the Report and verifying the selected representative sample of data and information consolidated in the Report. Raw data and supporting evidence of the selected samples were thoroughly examined.

#### Conclusion

Based on the outcome of the verification process, it is opined that the Report fulfills the A+ application level of the GRI G3.1 Guidelines.

The information presented in the Report provided a structured, balanced and consistent representation of CEIL’s sustainability performance in the context of sustainable development. We are satisfied that the Report includes factual statements and the data contained within the Report is accurate and reliable. It is a fair and honest representation of CEIL’s initiatives, targets, progress and performance on its sustainable development achievements.

#### Signed on behalf of Hong Kong Quality Assurance Agency

Bryan Peng

Assistant Director, Manufacturing & Service Business Division  
March 2014



## 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(以下簡稱「光大國際」)2013年企業社會責任報告(以下簡稱「報告」)的全部內容進行獨立驗證。該報告陳述光大國際在2013年1月1日至2013年12月31日於可持續發展方面的表現及成就。

此核實聲明的目的是對外保證此報告所記載的內容為完整及準確，並根據全球報告倡議組織(GRI)的第3.1代可持續發展報告指南(下稱G3.1)評估報告是否達到A+應用等級。

### 方法

核實工作是依據目前的最佳核實方法執行，以下為評價此報告的準則：

- 遵守社會及道德問責學會(Institute of Social and Ethical AccountAbility) AA1000保證標準所定的完整性，準確性，中立性，可比較性及回應性的原則；及
- 全球報告倡議組織(GRI)的可持續發展報告指南3.1版本及電力行業補充指引

核實的程序包括審閱相關之文件、與負責編製報告的代表面談及選取報告內具有代表性的數據和資料進行查核。所選樣本的根本數據及證據已進行徹底審查。

### 結論

基於是次的核實結果，香港品質保證局確定此報告依據全球報告倡議組織(GRI)的可持續發展報告指南3.1版本編撰並且符合A+應用等級。

此報告的結構完整、平衡及一致地反映光大國際在可持續發展方面的企業社會責任表現。我們對該報告能將事實記載和所陳述的資料準確及可靠感到非常滿意。此報告公平和如實地載述了光大國際各項與可持續發展成效有關的措施、目標、進度及表現。

### 香港品質保證局

彭文俊  
製造及服務科助理總監  
2014年3月



## Statement GRI Application Level Check

GRI hereby states that **China Everbright International Limited** has presented its report "Sustainability Report 2013" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see [www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf](http://www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf)

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 9 April 2014

A handwritten signature in black ink, appearing to read "Ásthildur Hjaltadóttir".

Ásthildur Hjaltadóttir  
Director Services  
Global Reporting Initiative



The "+" has been added to this Application Level because China Everbright International Limited has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

*The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. [www.globalreporting.org](http://www.globalreporting.org)*

**Disclaimer:** Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 28 March 2014. GRI explicitly excludes the statement being applied to any later changes to such material.





## GRI應用等級審核聲明

GRI 聲明 中國光大國際有限公司 已將其報告 可持續發展報告2013 提交給 GRI 報告服務工作小組，經過審核，工作小組確認此報告已達到應用等級 A+ 的全部要求。

GRI 應用等級說明了所提交的永續發展報告符合 G3.1 指南的程度。GRI 應用等級審核是一個確認報告是否涵蓋該應用等級所要求揭露的一系列指標及其他重要訊息的過程；而 GRI 內容索引表則反映報告揭露的指標和訊息之具體情況。有關審核方法，詳見：  
<https://www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf>

應用等級不代表該機構報告中訊息的質量，也不代表該機構的永續發展表現。

阿姆斯特丹，2014年4月9日

A handwritten signature in black ink, appearing to read "Ásthildur Hjaltadóttir".

Ásthildur Hjaltadóttir  
董事服務  
全球報告倡議組織 (GRI)



此應用等級含有“+”號，因為 中國光大國際有限公司 已經將此（或部分）報告進行過外部審核。GRI 接受報告機構對外部審核提供者和查核範圍的判斷和選擇。

全球報告倡議組織 (GRI) 是一個非營利國際組織，它透過全球多利害關係人的參與和達成共識的工作流程，率先開發出目前全球最為廣泛使用的永續報告框架。這個永續發展報告框架的基礎是 G3 指南，有超過 25 種語言的版本供免費使用。GRI 將不遺餘力繼續推廣該框架的改進和在全球的普遍使用。G3 指南提供一系列原則和指標，各類型的機構都可以使用這些原則和指標來報告他們的經濟、環境和社會績效。  
[www.globalreporting.org](http://www.globalreporting.org)

免責聲明：對於該報告所包含的外部連結，包括對影像或音像材料的連結，此聲明僅考慮到在審核日期 2014年3月28日 前所提交的材料，GRI 強烈反對將此聲明用於任何其它在審核日期後變更的材料。

# Summary of Statistics

## 數據摘要

### Economic Performance<sup>1</sup>

### 經濟表現<sup>1</sup>

HK\$('000)	千港元	2013	2012	2011
Total revenue	總收益	5,464,056	3,825,199	3,723,309
Profit for the Year	本年度盈利	1,324,667	1,123,269	801,441
Total assets	資產總額	23,471,047	16,583,114	13,879,617
Shareholders' equity	股東權益	13,374,264	8,349,759	6,190,024
Basic earnings per share (HK cents)	每股基本盈利(港仙)	32.60	29.65	21.86
Return on shareholders' equity (%)	股東資金回報(%)	12.20	15.45	13.90

### Operation Performance<sup>2</sup>

### 運營表現<sup>2</sup>

		2013	2012	2011
<b>Processing/Storage Capacity</b>	<b>處理/儲存規模</b>			
Waste-to-energy (tonne per day)	垃圾發電(噸/每日)	9,650	8,150	8,150
Industrial solid waste landfill (m <sup>3</sup> )	工業固廢填埋量(立方米)	512,000	512,000	512,000
Hazardous solid waste landfill (m <sup>3</sup> )	危廢填埋(立方米)	340,000	-	-
Waste water treatment capacity (m <sup>3</sup> per day)	污水處理規模(立方米/日)	1,725,000	1,550,000	1,550,000
Reusable water (m <sup>3</sup> per day)	中水(立方米/日)	56,800	46,800	46,800
<b>Performances</b>	<b>表現</b>			
Electricity generation (GWh) <sup>3</sup>	發電量(百萬千瓦時) <sup>3</sup>	1,552.98	1,307.55	776.39
Total electricity sent out (GWh) <sup>4</sup>	總輸出電量(百萬千瓦時) <sup>4</sup>	1,309.36	1,094.85	629.49
Waste water treatment volume (m <sup>3</sup> ) <sup>3</sup>	污水處理量(立方米) <sup>3</sup>	526,485,000	508,822,000	500,972,000
<b>Plant availability (%)</b>	<b>廠房利用率(%)</b>			
Waste-to-energy projects	垃圾發電項目	90.85	79.70	N/A
Methane-to-energy projects	沼氣發電項目	100	100	N/A
Solar photovoltaic energy projects	太陽能光伏發電項目	99.69	98.97	N/A
Biomass power generation project	生物質能發電項目	87.02	100	N/A
<b>Certification Accreditation</b>	<b>認證</b>			
Number of ISO 9001 certificates	ISO 9001認證數目	13	10	7

### Health and Safety<sup>2</sup>

### 健康與安全<sup>2</sup>

		2013	2012	2011
<b>Number of fatalities</b>	<b>因工死亡數字</b>	0	0	0
<b>Number of disabling injuries</b>	<b>因工傷殘數字</b>	0	0	0
<b>Number of missed (absentee) days</b>	<b>沒有上班(缺勤)日數</b>	2,914	3,418.5	1,938
<b>Disabling Injury Severity Rate (DISR)</b>	<b>因工傷殘嚴重率(DISR)</b>	0	0	0
<b>Certificate Accreditation</b>	<b>認證</b>			
Number of OHSAS 18001 (GB/T28001-2001) certificates	OHSAS 18001 (GB/T28001-2001)認證數目	13	10	7

Environment<sup>2</sup>環境<sup>2</sup>

		2013	2012	2011
<b>Energy Consumed (GJ)</b>	耗用能源(吉焦)			
Fuel oil	燃油	70,091.36	60,405.57	59,883.10
Electricity	電力	1,339,878	1,141,000	951,163
<b>Key Material used (T)</b>	所用主要物料(噸)			
Quicklime (CaO)/Hydrated lime (Ca(OH) <sub>2</sub> ) <sup>5</sup>	生石灰(CaO)/熟石灰(Ca(OH) <sub>2</sub> ) <sup>5</sup>	42,444.80	45,371.71	22,980.80
Flocculants <sup>6</sup>	絮凝劑 <sup>6</sup>	38,429.32	53,205.26	70,945.54
Desalted Water <sup>5</sup>	除鹽水 <sup>5</sup>	278,569.32	316,482.07	N/A 不適用
<b>Key Air Emissions (T)<sup>8</sup></b>	主要氣體排放(噸) <sup>8</sup>			
SO <sub>2</sub>	二氧化硫	443.12	596.25	372.42
NO <sub>x</sub>	氧化氮	2,177.44	2,414.27	1,356.83
Particulate Matter (PM10)	粒狀物(PM10)	116.42	131.08	92.40
CO <sub>2</sub> e (million T) <sup>8</sup>	CO <sub>2</sub> e(百萬噸) <sup>8</sup>	1.59	1.46	1.04
<b>Fly ash/Bottom ash (kT)<sup>7</sup></b>	飛灰/爐渣(千噸) <sup>7</sup>			
Fly ash produced	所產生飛灰	139,576	127,150	46,922
Bottom ash produced	所產生爐渣	1,031,146	1,023,748	479,963
<b>Sludge<sup>6</sup></b>	污泥 <sup>6</sup>			
Sludge to landfill/incinerator	填埋/焚燒的污泥	204,713	235,112	244,443
Sludge recycled	循環再用污泥	184,455	197,971	168,647
<b>Certificate Accreditation</b>	認證			
Number of ISO 14001 certificates	ISO 14001認證數目	13	10	7

<sup>1</sup> Selected financial data is derived from the audited financial statements.

<sup>2</sup> For operating projects only.

<sup>3</sup> Figures are derived from annual reports 2011, 2012 and 2013.

<sup>4</sup> Including electricity sent out from waste-to-energy projects, biomass power generation project, solar photovoltaic energy projects and Suzhou waste landfill methane-to-energy project.

<sup>5</sup> For waste-to-energy projects only.

<sup>6</sup> For waste water treatment projects only.

<sup>7</sup> For waste-to-energy projects and biomass power generation project only. Biomass power generation plant commenced its operation in Sept 2011.

<sup>8</sup> The carbon dioxide equivalent is calculated according to the 1996 IPCC (Intergovernmental Panel on Climate Change) Reporting Guidelines for National GHG GAS Inventories.

<sup>1</sup> 選取的財務數據摘錄自經審核財務報表。

<sup>2</sup> 只限於運營項目。

<sup>3</sup> 數據摘錄自二零一一年、二零一二年及二零一三年年報。

<sup>4</sup> 包括垃圾發電項目、生物質能發電項目、太陽能光伏發電項目及蘇州垃圾填埋沼氣發電項目輸出的電力。

<sup>5</sup> 只限於垃圾發電項目。

<sup>6</sup> 只限於污水處理項目。

<sup>7</sup> 只限於垃圾發電項目及生物質能發電項目。生物質能發電廠於二零一一年九月投產。

<sup>8</sup> 二氧化碳等值乃根據一九九六年政府間氣候變化專責委員會有關國家溫室氣體庫存的報告指引而計算。



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