



光大國際  
Everbright International

(Stock Code 股份編號: 257)



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Love the Earth,  
Love the Planet we live in

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讓我們關愛地球  
關愛人類賴以生存的家園

## About this Report

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, biomass power generation, solar photovoltaic energy, methane-to-energy, wind power, solid waste landfill, waste water treatment, reusable water, environmental protection equipment manufacturing as well as planning and construction of environmental protection industrial parks.

This is our first ever Sustainability Report to outline our approaches, commitment and strategies to sustainability, highlight our economic, environmental and social performance, and set out our future plans and targets to be achieved in short-term and long-term. The reporting period is from 1 January 2012 to 31 December 2012.

The report covers the sustainability performance of all operating projects and landfills with operational control, but the performance data of Qingdao Haibohe Waste Water Treatment Plant in 2012 is excluded since the plant expansion work was underway during the reporting period. 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 GRI Indicator Protocol for calculating energy consumption.

In preparing the report, we have followed the internationally recognized Global Reporting Initiative’s (GRI’s) latest version 3.1 (G3.1) Guidelines and its Electric Utility Sector Supplement at the “A+” application level. Please refer to our online GRI Content Index. 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 projects, and provided GRI application level check to give our report credibility. Please refer to the Verification Statement at the end of this report.

The report, both in English and Chinese versions, can be also downloaded from our company website: <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).

## 有關本報告

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

此乃我們的首份可持續發展報告，概述我們對可持續發展的方法、承諾和戰略；突出我們的經濟、環境及社會表現；及載列我們於短期及長遠而言將予達成的未來計劃及目標。報告期限為二零一二年一月一日至二零一二年十二月三十一日。

本報告涵蓋我們擁有運營控制權並運營中的項目及填埋場的可持續發展表現，惟不包括青島海泊河污水處理廠於二零一二年的表現數據，原因是該廠在報告期內正進行擴建工程。承包商及分包商之僱員不計入我們員工的一部分。我們呈列所有數值數據作為絕對數值，而所有財務數據除另有說明外均以港元計算。數據收集及分析乃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「全球報告倡議組織的最新第3.1版本(G3.1)指引」及「電力行業補充文件」訂定的原則和指引撰寫本報告，並達致「A+」應用等級。詳情可參閱網上相關內容索引。本報告所涵蓋部份乃根據實質性測試、持份者參與活動及其他GRI原則及指引挑選。我們的獨立保證供應商香港品質保證局(HKQAA)已審閱我們的報告，核實我們的運營項目的表現數據，並已提供予全球報告倡議組織的核實以證明我們的報告之可信性。請參閱本報告末之核實聲明。

本報告之中英文版本亦可於本公司網頁下載：<http://www.ebchinaintl.com>。

我們歡迎就本報告及我們的可持續發展表現提供任何意見及建議。謹請將閣下之意見電郵至 [info1@ebchinaintl.com](mailto:info1@ebchinaintl.com)。

## Message from the CEO

### 行政總裁致辭

Carry forward the spirit of  
**China Everbright**  
Strive to establish a renowned  
**Environmental Protection** brand

發揚光大精神 爭創環保名牌

We are delighted to present to you CEIL's first sustainability report. From now on, we will publish sustainability report every year to share our commitment and initiatives we have implemented to support sustainable development.

CEIL began its environmental protection business in 2003. Benefiting from the government policies on energy conservation and emission reduction as well as continuous support from our parent company, China Everbright Holdings Company Limited, we have become bigger and better over the past 10 years. As an environmental protection enterprise, we always place social responsibilities as equally important as the economic achievement and adhere to the principle that "an enterprise is not only the Creator of Wealth, but also the Safeguard of Environmental and Social Responsibility". We are committed to not only striving for excellence in operation, but also creating a beautiful environment and rewarding the public.

我們欣然向閣下提供光大國際的首份可持續發展報告。從今開始，我們將每年刊發可持續發展報告，以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。

光大國際於二零零三年開始其環保業務。受惠於有關節能減排的政府政策，加上母公司中國光大集團有限公司的不斷支持，我們於過去十年持續發展及壯大。作為環保企業，我們在創造經濟成果的同時同樣重視社會責任，秉承「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」的原則。我們承諾不僅致力追求優秀業績，亦會創造美好環境、回饋社會大眾。





In the first half of 2012, the State has placed energy conservation and environmental protection as a top priority among the seven “Strategic Emerging Industries” under its “Twelfth Five-Year Plan”, and the National Development and Reform Commission (NDRC) has refined the waste-to-energy tariff policy and provided concrete support to the environmental protection industry through special subsidies. Year 2012 was a fruitful year for us as we have successfully secured more environmental protection projects and expanded our market presence from Jiangsu, Shandong, Anhui and Guangdong Provinces to Zhejiang and Hainan Provinces. In May 2012, we have successfully disposed of the Fuzhou Qingzhou Bridge, the only asset of the non-core business of CEIL, to further optimize and pool our resources to focus on the environmental protection business. The disposal has provided an excellent opportunity for CEIL to fully become an integrated environmental solution provider which solely focuses on environmental protection and alternative energy businesses.

We continue to perform well in the field of clean electricity generation as well as greenhouse gases and pollutants emission reduction. In 2012, we have processed 3.71 million<sup>1</sup> tonnes of household waste, 45,000<sup>1</sup> m<sup>3</sup> industrial waste, 429,000<sup>1</sup> tonnes of agricultural waste, together with our solar photovoltaic energy projects and methane-to-energy projects, we have provided a total of 1,307.55<sup>1</sup> GWh green electricity for 1.09 million<sup>1</sup> households, which is equivalent to a saving of 523,019<sup>1</sup> tonnes of standard coal consumption and a reduction of 1.29 million<sup>1</sup> tonnes of carbon dioxide emissions. We have also treated 508.82 million<sup>1</sup> m<sup>3</sup> of waste water and 0.76 million<sup>1</sup> m<sup>3</sup> of leachate to reduce COD emissions by 0.19 million<sup>1</sup> tonnes.

<sup>1</sup> Figures are derived from Annual Report 2012.



於二零一二年上半年，國家將節能環保列為「十二五」規劃中七大「戰略性新興產業」之首，而國家發展及改革委員會「國家發改委」完善垃圾發電的價格政策，並撥出中央專項資金支持環保行業的發展。二零一二年為我們豐收的一年，我們成功取得更多環保項目，而項目分佈區更由江蘇省、山東省、安徽省及廣東省擴展至浙江省和海南省。於二零一二年五月，我們成功出售光大國際非核心業務的唯一資產福州青洲大橋，以進一步優化及集中資源發展環保業務。出售事項有助光大國際全面轉型成為單一發展綠色環保和新能源業務的綜合性環保企業。

我們於清潔能源發電及溫室氣體和污染物減排方面持續表現良好。於二零一二年，我們處理生活垃圾3.71百萬噸<sup>1</sup>、工業垃圾45,000立方米<sup>1</sup>及農業廢棄物429,000噸<sup>1</sup>，連同我們的太陽能光伏發電項目及沼氣發電項目，合共提供綠色電力1,307.55百萬度<sup>1</sup>，可供1.09百萬個家庭<sup>1</sup>使用，相當於節約標煤523,019噸<sup>1</sup>及減少二氧化碳排放1.29百萬噸<sup>1</sup>。我們亦處理污水5.0882億立方米<sup>1</sup>及滲濾液760,000立方米<sup>1</sup>，COD減排190,000噸<sup>1</sup>。

<sup>1</sup> 數據來自二零一二年年報。

## Message from the CEO 行政總裁致辭


Employees are the most valuable asset to our success. We have established a competitive remuneration system and provided comprehensive benefits package to our staff. In addition, we also provide sufficient training opportunities and job exposure for our staff to enhance their personal and career development. Employee's health and safety is also a key priority for us. We are proud to announce that we have successfully maintained a zero injury and accident record for three consecutive years.

Giving back to our society is one of our missions. We are dedicated to developing close relationship with the communities by participating in all kinds of social activities such as countryside construction works. We have been re-selected as a constituent member of the Hang Seng Corporate Sustainability Benchmark Index Series for the second consecutive year. This reaffirmed the recognition of our outstanding environmental, social and governance performance.

僱員是我們最寶貴的資產，對我們的成功尤為重要。我們已為員工設立具競爭力的薪酬體系，並提供全面的福利待遇。此外，我們亦為員工提供足夠的培訓機會和工作發展機會，以加強他們的個人及事業發展。僱員健康和 safety 亦是我們的重點工作。我們自豪地宣佈，我們成功於連續三年保持零工傷及意外紀錄。

回饋社會是我們的使命之一。我們致力透過參與各種社會活動發展緊密的社區關係，例如農村建設工程。我們已連續第二年獲選為恒生可持續發展企業基準指數系列成份股。此進一步對我們於環境、社會及管治方面超卓表現的肯定。





In future, we will focus our business development in three major sectors, namely environmental energy, environmental water and alternative energy. Moreover, we will continue to operate an integrated management model for project investment, construction engineering, operational management, technology and development as well as equipment manufacturing, while at the same time we will enhance our social responsibility and corporate governance. We are committed to the development of environmental protection projects with first class quality and advanced technology in order to create a sustainable environment for future generations.

我們將致力發展環保能源、環保水務及新能源三大板塊。此外，我們將會繼續推行項目投資、工程建設、運營管理、技術研發及設備製造一體化運作，與此同時，我們將加強社會責任及企業管治。我們致力發展高品質及高技術的環保項目，為我們的後代創造可持續發展的環境。

**CHEN Xiaoping**  
陳小平  
**Chief Executive Officer**  
行政總裁





# Highlights 2012

## 二零一二年摘要



Secured the first waste-to-energy project in Nanjing city of Jiangsu province  
成功取得於江蘇省南京市第一個垃圾發電項目

### Our Operation

### 我們的業務

- Disposed of the only infrastructure project, Fuzhou Qingzhou Bridge.
- Secured 8 new waste-to-energy projects in Nanjing, Pizhou, Wujiang, Ningbo, Sanya, Boluo, Shouguang, and Weifang cities.
- 出售唯一基建項目－福州青洲大橋。
- 取得南京市、邳州市、吳江市、寧波市、三亞市、博羅縣、壽光市及濰坊市8個新的垃圾發電項目。



CEIL signed the Comprehensive Strategic Cooperation Agreement with the Ningbo Municipal Government

光大國際與寧波市政府簽署全面戰略合作協議

- Secured a hazardous waste landfill project in Guanyun county of Jiangsu province.
- Obtained a USD100 million of syndicated loan facility from Asian Development Bank ("ADB") and 6 other banks for continuous development of waste-to-energy projects.
- 取得江蘇省灌雲縣危廢填埋項目。
- 獲亞洲開發銀行(「亞發行」)及6家其他銀行的1億美元銀團貸款以持續發展垃圾發電項目。



Obtained loan facilities from ADB again to support and develop our agricultural and municipal waste-to-energy projects

再度獲得亞發行貸款額度支持發展農業及城市廢棄物發電項目

- Received subsidy from the NDRC for the waste-to-energy project in Zhenjiang, Jiangsu province.
- The self-developed hydraulic mechanical grate furnace passed the National Assessment of Environmental Protection Technologies and has reached the international standards. This advanced grate furnace can attain a high burning efficiency of 96% and a stable operating duration exceeding 8,000 hours per year.
- CEIL has been selected as a constituent member of the Hang Seng Corporate Sustainability Benchmark Index Series for the second consecutive year.
- Signed a co-operative framework agreement with Ninghai County on energy conservation, environmental protection and alternative energy projects.
- Obtained a USD200 million of loan facility from ADB for continuous development of waste-to-energy and biomass power generation projects.
- 位於江蘇省鎮江市的垃圾發電項目獲得國家發改委的資金補貼。
- 自主研發液壓爐排通過國家環保科技成果鑒定並已達國際標準。這個先進的爐排可達致96%的高燃燒效率及維持每年超過8,000小時的穩定操作時間。
- 光大國際連續第二年獲選為恒生可持續發展企業基準指數系列成份股。
- 與寧海縣就節能、環保及新能源項目簽訂合作框架協議。
- 獲亞發行2億美元貸款以持續發展垃圾發電及生物質能發電項目。



## Environmental Initiatives

## 環保改革措施

- Advanced gas treatment systems were installed at Zhenjiang and Suqian waste-to-energy plants to further improve the air emission performance.
- Submitted CDM applications for 3 waste-to-energy projects.
- Generated a total of 1,307.55 GWh of electricity and helped to reduce 1.29 million tonnes of CO<sub>2</sub> emissions, showing an increase of electricity generation and CO<sub>2</sub> emission avoided by 68.4% and 62.9% respectively, compared to 2011.
- Treated a total of 508.82 million m<sup>3</sup> of waste water and 760,000 m<sup>3</sup> of leachate to reduce 190,000 tonnes of COD emission, achieving an increase of COD emission avoided by 6.5% as compared with 2011.
- Filed 13 invention patents and 17 utility invention patents in which all the 17 utility patent applications were awarded.
- 97.13% of our total water consumption was from recycled waste water.
- 鎮江及宿遷的垃圾發電廠安裝先進的氣體處理系統，以進一步改善氣體排放表現。
- 3個垃圾發電項目已提交CDM申請。
- 生產合共1,307.55百萬度電力，有助減少1.29百萬噸二氧化碳排放，對比二零一一年，發電量及避免的二氧化碳排放分別增加68.4%及62.9%。
- 處理污水5.0882億立方米及滲濾液760,000立方米，減少了190,000噸COD排放，對比二零一一年，避免的COD排放增加6.5%。
- 提交13項發明專利及17項實用發明專利申請，並獲授全部17項實用專利。
- 我們總用水量的97.13%來自循環再用的污水。





## Close relationship with our Partners and the Community

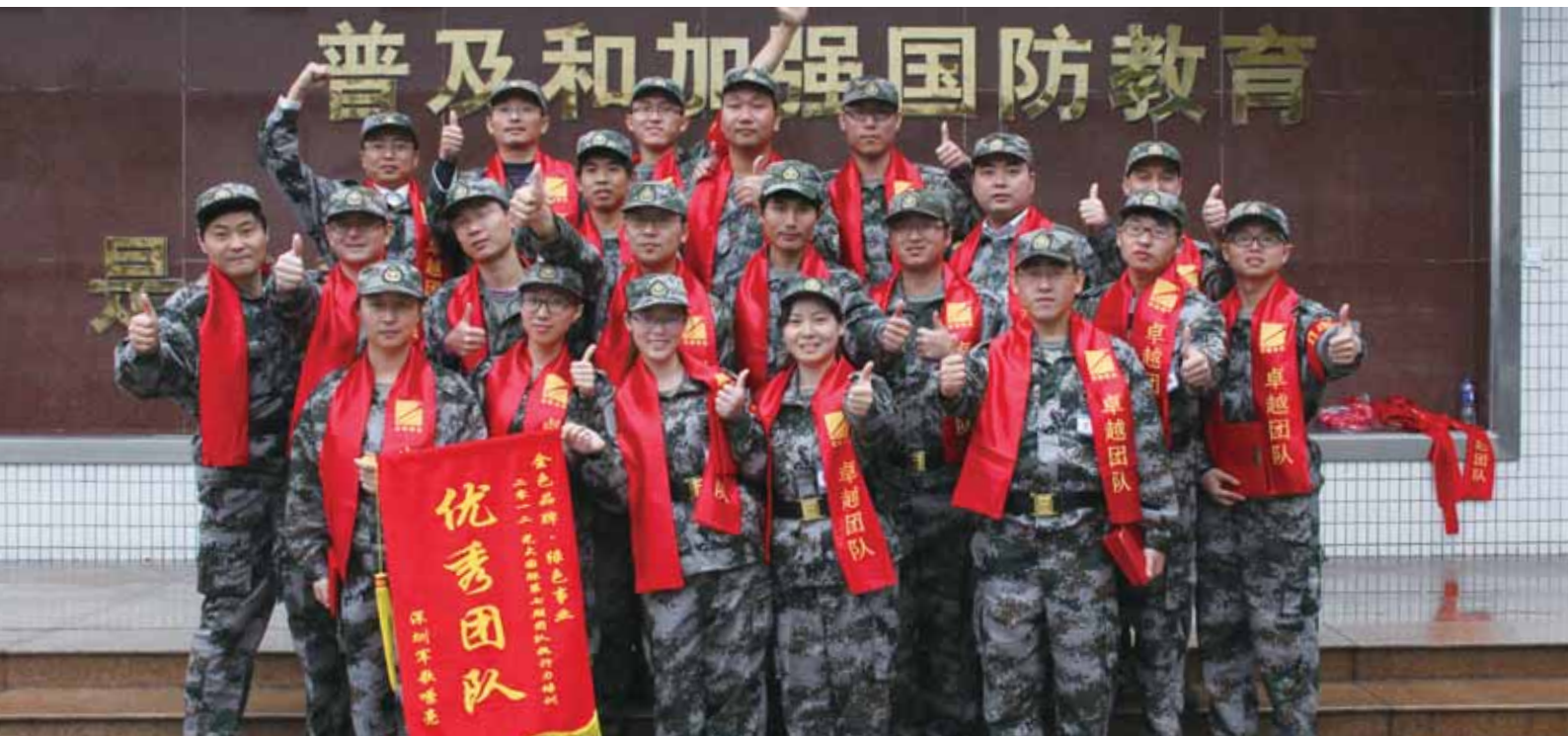
## 與我們夥伴及社區的緊密關係

- Offered training courses to assist newcomers to become familiar with and adapt to the Group's corporate culture. A total of 147 employees joined the outward bound training in 2012.
- Each of our employees received approximately 171 training hours in 2012.
- Sponsored 57 employees to study master degree/professional courses in Tsinghua University.
- Around 30,682 people visited our operating plants in 2012.
- 提供培訓課程以協助新員工熟識及融入集團的企業文化。於二零一二年，共有147名僱員參加執行力拓展訓練。
- 每名僱員於二零一二年接受約171小時培訓。
- 資助57名僱員修讀清華大學的碩士學位／專業課程。
- 二零一二年約有30,682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 2012. Successfully maintained a zero injury and accident rate for three consecutive years.
- 二零一二年並無工傷或意外紀錄。成功連續三年維持零工傷及意外率。





# Stakeholder Engagement

## 持份者的參與

An organization cannot be successful without support from its stakeholders. We strive for maintaining a good relationship with our stakeholders through open communication in various formal and informal occasions. A genuine stakeholder engagement can enhance stakeholder receptiveness and credibility of the sustainability report, and also strengthen trust between CEIL and our 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 have strong influence or be strongly influenced are considered first for consultations or dialogue.

一個組織若沒有持份者的支持是不可能成功的。我們致力透過於不同的正式及非正式場合坦誠溝通，與持份者保持良好關係。持份者的真實參與可加強持份者對可持續發展報告的接受性及可持續發展報告的可信性，亦可加強光大國際與持份者之間的信任。我們用作識別持份者的準則如下：

- 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—居於接近我們運營廠房的地方及與我們相互關係密切的持份者。
- 倚靠性—最為倚靠我們運營的持份者。
- 代表性—為不同界別代表的持份者。

在識別持份者後，通過進行簡單的評估為我們的持份者作出優次的排列。評估為很有影響力或受很大影響的持份者優先予以諮詢或對話。



## Ongoing Stakeholder Engagement

## 持份者的持續參與

We have identified our stakeholder groups including our employees, governments, shareholders, business partners, non-governmental organizations (NGOs), and local communities. We use appropriate methodologies to engage different groups of stakeholder to identify key and material issues.

我們識別的持份者組別包括我們的僱員、政府、股東、業務夥伴、非政府組織及本地社區。我們採用適當的方法與不同組別的持份者溝通，以辨別出主要及重大議題。

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 Evaluation Meeting 年度評估會議</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> <li>Regular site visits made by senior management 高級管理人員作定期實地探訪</li> </ul>	<ul style="list-style-type: none"> <li>Year End 年終</li> <li>Before/after construction work and important milestones 建設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>Employee working environment 僱員工作環境</li> <li>Remuneration and fringe benefit 薪酬及其他福利</li> <li>Employee development 僱員發展</li> </ul>
Governments 政府	<ul style="list-style-type: none"> <li>Regular reports 定期報告</li> <li>Meetings 會議</li> </ul>	<ul style="list-style-type: none"> <li>Weekly, monthly, quarterly 每週、每月、每季</li> </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> </ul>
Shareholders 股東	<ul style="list-style-type: none"> <li>Website 網站</li> <li>Press releases/announcements 新聞稿/公告</li> <li>Annual/Interim Reports 年報/中報</li> <li>Circulars 通函</li> <li>Meetings 會面</li> </ul>	<ul style="list-style-type: none"> <li>Regular 定期</li> </ul>	<ul style="list-style-type: none"> <li>New projects development 新項目的開發</li> <li>Other price sensitive information 其他股價敏感資料</li> <li>Construction and operation status 項目建設及運營狀況</li> </ul>
Business Partners (contractors) 業務夥伴(承包商)	<ul style="list-style-type: none"> <li>On-site meeting 實地會面</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> </ul>
NGOs 非政府組織	<ul style="list-style-type: none"> <li>Answer their inquiries 解答查詢</li> <li>Environment Symposium 環境研討會</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 protection education 環保教育</li> </ul>
Communities 社區	<ul style="list-style-type: none"> <li>Meetings 會議</li> <li>Public events 公眾活動</li> <li>Site visits 實地參觀</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>Operation performance 運營表現</li> <li>Job opportunities 就業機會</li> <li>Environmental protection issues 環保事宜</li> </ul>

# Stakeholder Engagement 持份者的參與

## Ad hoc Stakeholder Engagement Exercise

## 持份者參與的特別活動

To facilitate our preparation of the first ever sustainability report, we identified 5 key stakeholder groups, namely employees, governments, business partners, investors, and suppliers for stakeholder interviews in November and December 2012. All participants were requested to answer a few questions relating to the sustainability performance of CEIL and their expectations for our first sustainability report.

為方便編製我們的首份可持續發展報告，我們於二零一二年十一月及十二月按5個主要持份者類別(分別為僱員、政府、業務夥伴、投資者及供應商)進行持份者訪問。所有參與者獲邀回答有關光大國際可持續發展表現的問題，以及他們對我們的首份可持續發展報告的期望。

Stakeholder Group 持份者組別	Methods of Engagement 參與方法	Priority Issues of Stakeholder 持份者的優先考慮事項
Employees 僱員	<ul style="list-style-type: none"> <li>• Face-to-face interview 面談訪問</li> <li>• Telephone interview 電話訪問</li> </ul>	<ul style="list-style-type: none"> <li>• Staff relation/development 員工關係／發展</li> <li>• Natural habitat conservation 自然棲息地保護</li> </ul>
Governments 政府	<ul style="list-style-type: none"> <li>• Telephone interview 電話訪問</li> </ul>	<ul style="list-style-type: none"> <li>• Air pollution issues 空氣污染問題</li> <li>• Health and safety 健康及安全</li> <li>• Community outreach 社區外展</li> </ul>
Business Partners 業務夥伴	<ul style="list-style-type: none"> <li>• Telephone interview 電話訪問</li> </ul>	<ul style="list-style-type: none"> <li>• Business growth 業務發展</li> <li>• Staff relation/development 員工關係／發展</li> <li>• Air pollution issues 空氣污染問題</li> </ul>
Suppliers 供應商	<ul style="list-style-type: none"> <li>• Telephone interview 電話訪問</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate governance 企業管治</li> <li>• Business growth 業務發展</li> <li>• Air pollution issues 空氣污染問題</li> </ul>
Investors 投資者	<ul style="list-style-type: none"> <li>• Face-to-face interview 面談訪問</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate governance 企業管治</li> <li>• Health and safety 健康及安全</li> <li>• Community outreach 社區外展</li> </ul>





The overall results of the stakeholder interviews indicate that our stakeholders are most concerned about staff relation/development, air pollution issues as well as health and safety. Therefore, we have discussed these issues in detail in this report and we will continue to monitor our performance of these aspects in the coming year.

持份者訪問的整體結果顯示我們的持份者最重視員工關係／發展、空氣污染問題以及健康及安全。因此，我們於本報告中會詳細討論該等事項，並將於來年繼續監察在該等方面的表現。





Corporate Profile

集團介紹

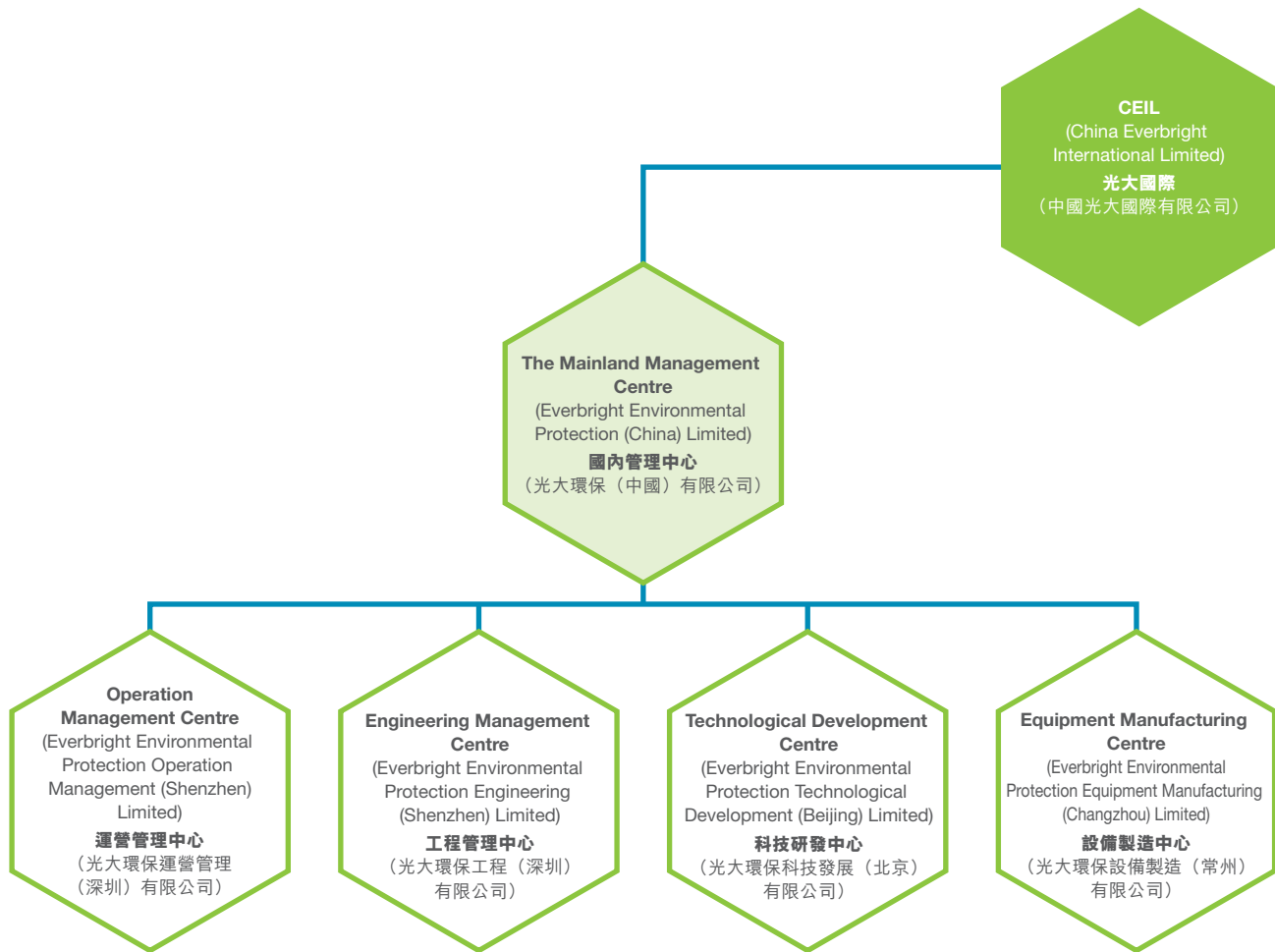


An enterprise is not only the Creator of Wealth, but also the Safeguard of Environmental and Social Responsibility

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

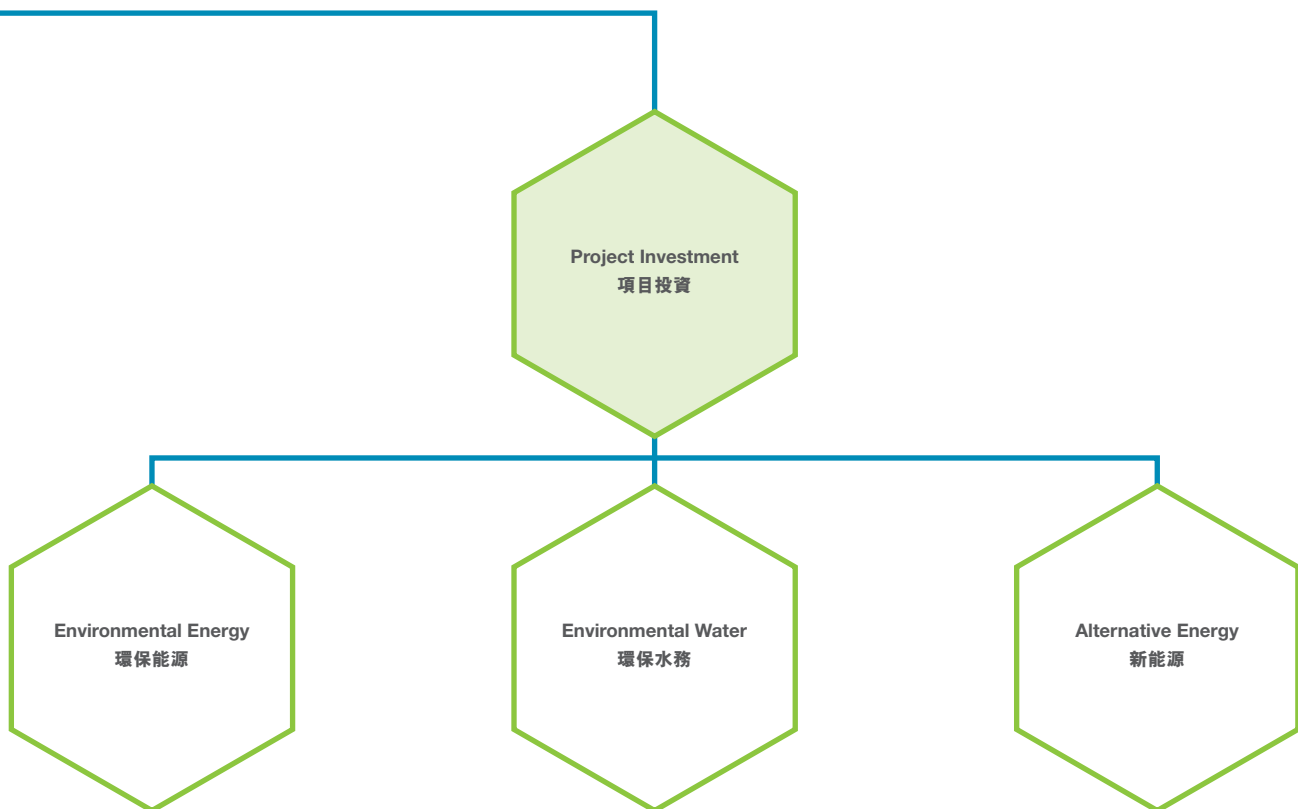


# Corporate Profile 集團介紹



Headquartered in Hong Kong, CEIL is a fast growing business conglomerate which has integrated management model for project investment, construction engineering, operational management, technology and development as well as environmental equipment manufacturing. We are one of the largest developers, investors, engineers and operators of waste management and environmental services in the People's Republic of China ("PRC"). As of 31 December 2012, we had 1,317 employees working at the operating plants and a landfill in the PRC.

光大國際總部設於香港，是一家集項目投資、工程建設、運營管理、技術研發及環保設備製造為管理體系的迅速成長的企業集團。我們是中華人民共和國（「中國」）其中一家最大型的廢物管理及環保服務發展商、投資商、工程管理與運營商。截至二零一二年十二月三十一日，我們在中國的運營廠房及填埋場共僱用1,317名員工。







## Our Vision

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

## 我們的願景

光大國際致力發展成為中國環保領軍企業及地位舉足輕重的環保綠色企業集團。

## Our Mission

Creating a Beautiful Environment and Rewarding the Public.

## 我們的使命

創造美好環境，回饋社會大眾。

## Core Values

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

## 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。

## Our Business

Our business mainly focuses on three major sectors, namely environmental energy, environmental water and alternative energy. Major projects include waste-to-energy, waste water treatment, industrial solid waste and hazardous waste landfill, biomass power generation, solar photovoltaic energy, methane-to-energy and reusable water. To improve our performance and efficiency as well as reducing our environmental footprint, we have established the engineering technology platform and research and development base. In addition, we have also set up an environmental equipment manufacturing centre in Changzhou which mainly manufactures grate furnaces, sludge treatment and emission purification equipment for our environmental protection projects. These demonstrate our capability to tap into the mid and upstream markets and enhance our efficiency and competitiveness in the ever-changing business environment.

## 我們的業務

我們的業務主要集中在三大板塊，即環保能源、環保水務及新能源。主要項目包括垃圾發電、污水處理、工業固廢及危廢填埋、生物質能發電、太陽能光伏發電、沼氣發電及中水回用。我們成立了工程技術平台和研發基地，以提升我們的表現、效率以及減少消耗環境資源。此外，我們也在常州設立環保設備製造中心，主要為我們的環保項目生產爐排爐、污泥處理及廢氣淨化設備。這標誌着我們具備進軍中上游市場的實力，並且能在瞬息萬變的業務環境中提升我們的效率及競爭力。



## Environmental Protection Equipment Manufacturing Centre

環保設備製造中心

As of the end of year 2012, we had secured 66 environmental projects commanding a total investment of approximately RMB16.5 billion. We focus our main investments in the regions of Yantze River Delta, Pearl River Delta and Bohai Bay area. For overseas market, we have successfully extended our alternative energy business in Germany.

截至二零一二年年底，我們取得66個環保項目，總投資額約人民幣165億元。我們的投資主要集中在長江三角洲、珠江三角洲及環渤海灣地區。海外市場方面，我們已成功將新能源業務擴展至德國。

## Project Distribution 項目分佈

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

**6.81** million tonnes  
百萬噸

Annual waste water  
treatment capacity  
年污水處理規模

**657** million m<sup>3</sup>  
百萬立方米

Bohai Bay Area  
環渤海灣地區

Shandong  
山東

Jiangsu  
江蘇

Yangtze River Delta  
長江三角洲

Anhui  
安徽

Zhejiang  
浙江

Pearl River Delta  
珠江三角洲

Guangdong  
廣東

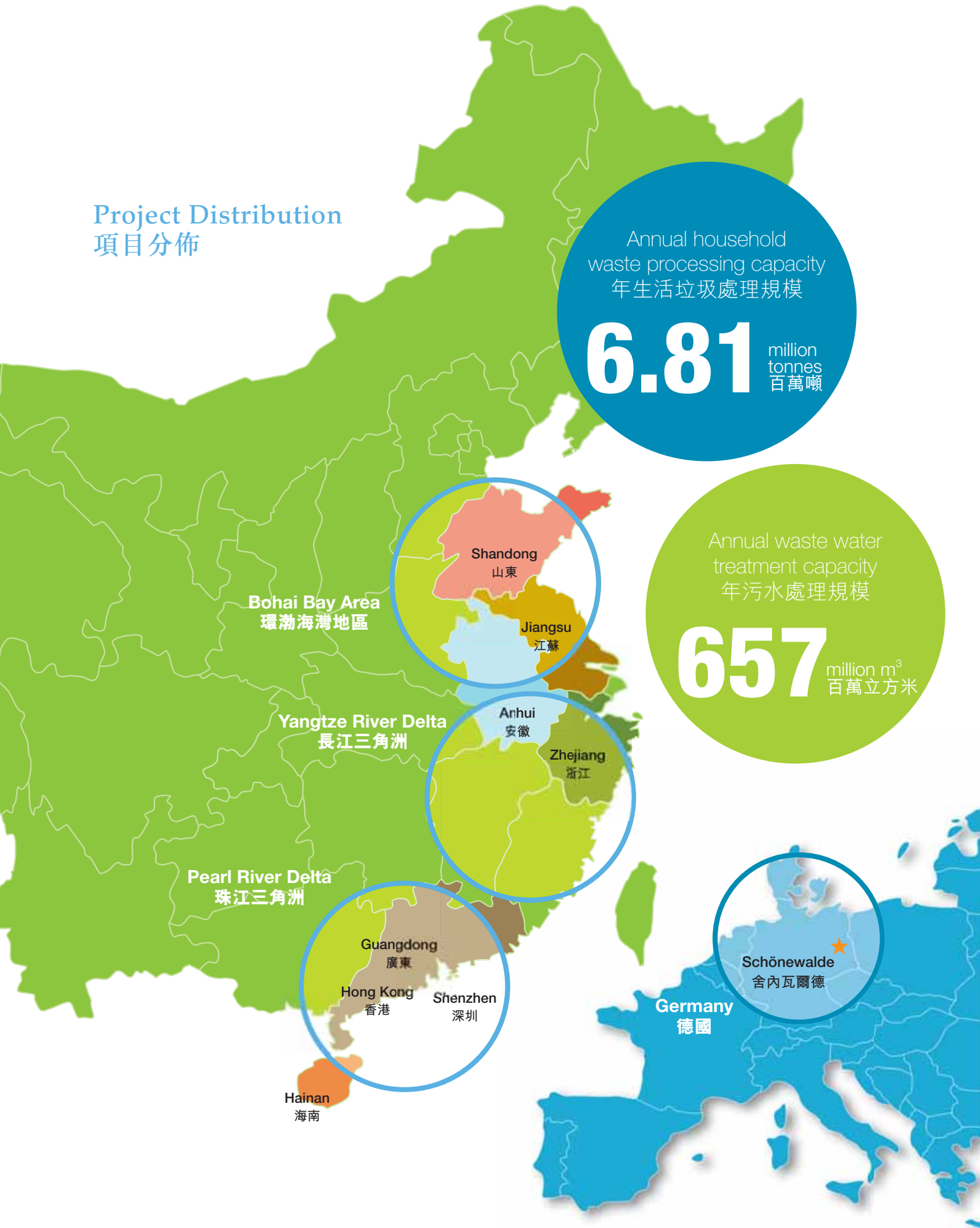
Hong Kong  
香港

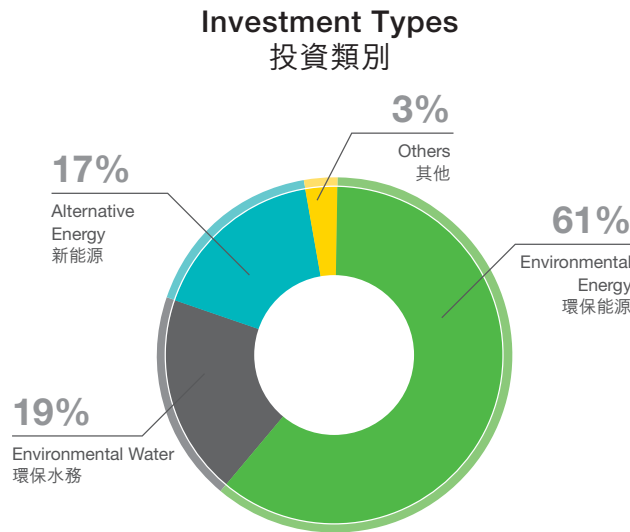
Shenzhen  
深圳

Hainan  
海南

Schönevalde  
舍內瓦爾德

Germany  
德國





Note: Figures as of 31 December 2012

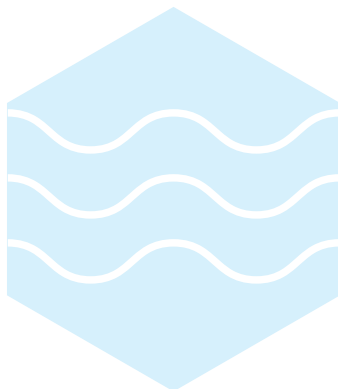
註：數字截至二零一二年十二月三十一日

## Projects Highlights

## 項目亮點

**Environmental Energy:** In 2012, we secured 8 new waste-to-energy projects in Nanjing, Pizhou, Wujiang, Ningbo, Sanya, Boluo, Shouguang and Weifang, and a new hazardous waste landfill project in Guanyun. As of 31 December 2012, we had a total of 20 waste-to-energy projects and 4 industrial solid waste and hazardous waste landfill projects, of which 11 projects are in operation, 13 projects are under construction or in preparatory stage. The annual designed processing capacity for household waste and hazardous & industrial solid waste are 6.81 million tonnes and 1.152 million m<sup>3</sup> respectively.

**環保能源：**二零一二年，我們在南京、邳州、吳江、寧波、三亞、博羅、壽光及濰坊取得8個垃圾發電新項目，並在濰雲縣取得危廢填埋新項目。截至二零一二年十二月三十一日，我們共有20個垃圾發電項目及4個工業固廢及危廢填埋項目，其中11個項目在運營中，13個項目在建或正在籌建階段。生活垃圾及危廢與工業固廢的設計年處理規模分別為6.81百萬噸及1.152百萬立方米。





Project 項目	Daily processing capacity (tonnes) 日處理規模(噸)	
<b>In the operation stage:</b>		
Suzhou Waste-to-energy Project Phase I & II	蘇州垃圾發電項目一期、二期	2,050
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、二期	1,200
Changzhou Waste-to-energy Project	常州垃圾發電項目	800
Jinan Waste-to-energy Project	濟南垃圾發電項目	2,000
Zhenjiang Waste-to-energy Project	鎮江垃圾發電項目	1,000
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、二期	Storage capacity (m <sup>3</sup> ): 儲存量規模(立方米): 512,000
<b>Under construction or in preparatory stage:</b>		
Suzhou Waste-to-energy Project Phase III	蘇州垃圾發電項目三期	1,500
Yixing Waste-to-energy Project Phase II	宜興垃圾發電項目二期	300
Huidong Waste-to-energy Project	惠東垃圾發電項目	600
Nanjing Waste-to-energy Project	南京垃圾發電項目	2,000
Wujiang Waste-to-energy Project	吳江垃圾發電項目	1,500
Pizhou Waste-to-energy Project Phase I	邳州垃圾發電項目一期	600
Ningbo Waste-to-energy Project Phase I	寧波垃圾發電項目一期	1,000
Sanya Waste-to-energy Project Phase I	三亞垃圾發電項目一期	700
Boluo Waste-to-energy Project Phase I	博羅垃圾發電項目一期	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
Suqian Hazardous Waste Landfill Project	宿遷危廢填埋項目	Storage capacity (m <sup>3</sup> ): 儲存量規模(立方米): 340,000
Guanyun Hazardous Waste Landfill Project	灌雲危廢填埋項目	Storage capacity (m <sup>3</sup> ): 儲存量規模(立方米): 300,000



## Corporate Profile 集團介紹



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



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



Jinan Waste-to-energy Project  
濟南垃圾發電項目



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



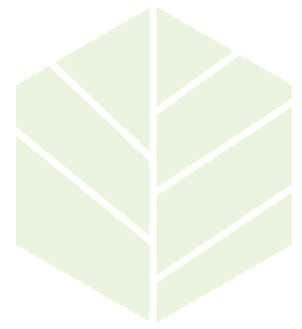
Suzhou Industrial Solid Waste Landfill Project  
蘇州工業固廢填埋項目



Environmental Water: As of 31 December 2012, we had a total of 18 waste water treatment projects and 3 reusable water projects. Among them 18 projects are in operation and 3 projects are under construction or in preparatory stage. The annual designed waste water treatment capacity and the annual supply of reusable water are 657 million m<sup>3</sup> and 22.33 million m<sup>3</sup> respectively.

環保水務：截至二零一二年十二月三十一日，我們共有18家污水處理項目及3個中水項目。其中18個項目在運營中，3個項目在建或正在籌建階段。年設計污水處理規模為6.57億立方米，而年供中水2,233萬立方米。

Project 項目	Treatment capacity (m <sup>3</sup> per day) 日處理規模(立方米)
<b>In the operation stage:</b>	
Qingdao Maidaow Waste Water Treatment Project and 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 Projects (Southern and Northern Plants)	淄博污水處理項目(南廠及北廠) 250,000
Zibo Hanmiao Waste Water Treatment Project	淄博韓廟污水處理項目 100,000
Jinan Waste Water Treatment Project (Plant No. 1, 2, 3 and 4)	濟南污水處理項目(一廠、二廠、三廠及四廠) 630,000
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
Ling County Waste Water Treatment Project (Plant No. 1 & 2)	陵縣污水處理項目(一廠及二廠) 60,000
Jinan Reusable Water Project	濟南中水項目 42,000
Zibo Reusable Water Project	淄博中水項目 4,800
<b>Under construction or in preparatory stage:</b>	
Jinan Licheng Waste Water Treatment Project (Plant No. 3 – Phase II)	濟南歷城污水處理項目(三廠二期) 100,000
Dezhou Nanyunhe Waste Water Treatment Project	德州南運河污水處理項目 150,000
Jiangyin Reusable Water Project	江陰中水項目 10,000



Jiangyin Waste Water Treatment Project  
江陰污水處理項目



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



Ling County Waste Water Treatment Project  
陵縣污水處理項目



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





Alternative Energy: We operate energy generation facilities that use other sources of fuel. As of 31 December 2012, we had 18 alternative energy projects, of which 12 projects are in operation and 6 projects under construction or in preparatory stage. Projects include biomass power generation projects, methane-to-energy projects, solar photovoltaic energy projects and waste water source heat pump projects.

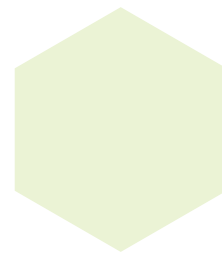
新能源：我們以其他能源運營發電設施。截至二零一二年十二月三十一日，我們共有18個新能源項目，其中12個項目在運營階段，6個項目在建或正在籌建階段。該等項目包括生物質能發電項目、沼氣發電項目、太陽能光伏發電項目及污水源熱泵項目。

Project	項目
<p><b>In the operation:</b></p> <p>Suzhou Landfill Methane-to-energy Project Phase I &amp; II            Shenzhen Rooftop Solar Photovoltaic Energy Project            Zhenjiang Rooftop Solar Photovoltaic Energy Project            Suqian Rooftop Solar Photovoltaic Energy Project Phase I &amp; II            Changzhou Rooftop Solar Photovoltaic Energy Project            Huaining Ground Solar Photovoltaic Energy Project            Germany Ground Solar Photovoltaic Energy Project            Zhenjiang Ground Solar Photovoltaic Energy Project            Dangshan Biomass Power Generation Project            Zibo Waste Water Source Heat Pump Project Phase I</p>	<p><b>在運營中：</b></p> <p>蘇州填埋場沼氣發電項目一期及二期            深圳屋頂太陽能光伏發電項目            鎮江屋頂太陽能光伏發電項目            宿遷屋頂太陽能光伏發電項目一期及二期            常州屋頂太陽能光伏發電項目            懷寧地面太陽能光伏發電項目            德國地面太陽能光伏發電項目            鎮江地面太陽能光伏發電項目            礪山生物質能發電項目            淄博污水源熱泵項目一期</p>
<p><b>Under construction or in preparatory stage:</b></p> <p>Zibo Waste Water Source Heat Pump Project Phase II            Xinyi Biomass Power Generation Project            Shuyang Biomass Power Generation Project            Linyi Biomass Power Generation Project            Laiyang Biomass Power Generation Project            Hanshan Biomass Power Generation Project</p>	<p><b>在建或正在籌建階段：</b></p> <p>淄博污水源熱泵項目二期            新沂生物質能發電項目            沈陽生物質能發電項目            臨邑生物質能發電項目            萊陽生物質能發電項目            含山生物質能發電項目</p>



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





Zhenjiang Ground Solar Photovoltaic Energy Project  
鎮江地面太陽能光伏發電項目



Qingdao Maidaos Sludge Methane-to-energy Project  
青島麥島污泥沼氣發電項目



Suqian Rooftop Solar Photovoltaic Energy Project  
宿遷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



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



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



## Corporate Governance

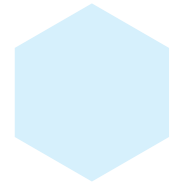
## 企業管治

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 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. There were no incidents of corruption recorded in 2012. 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.

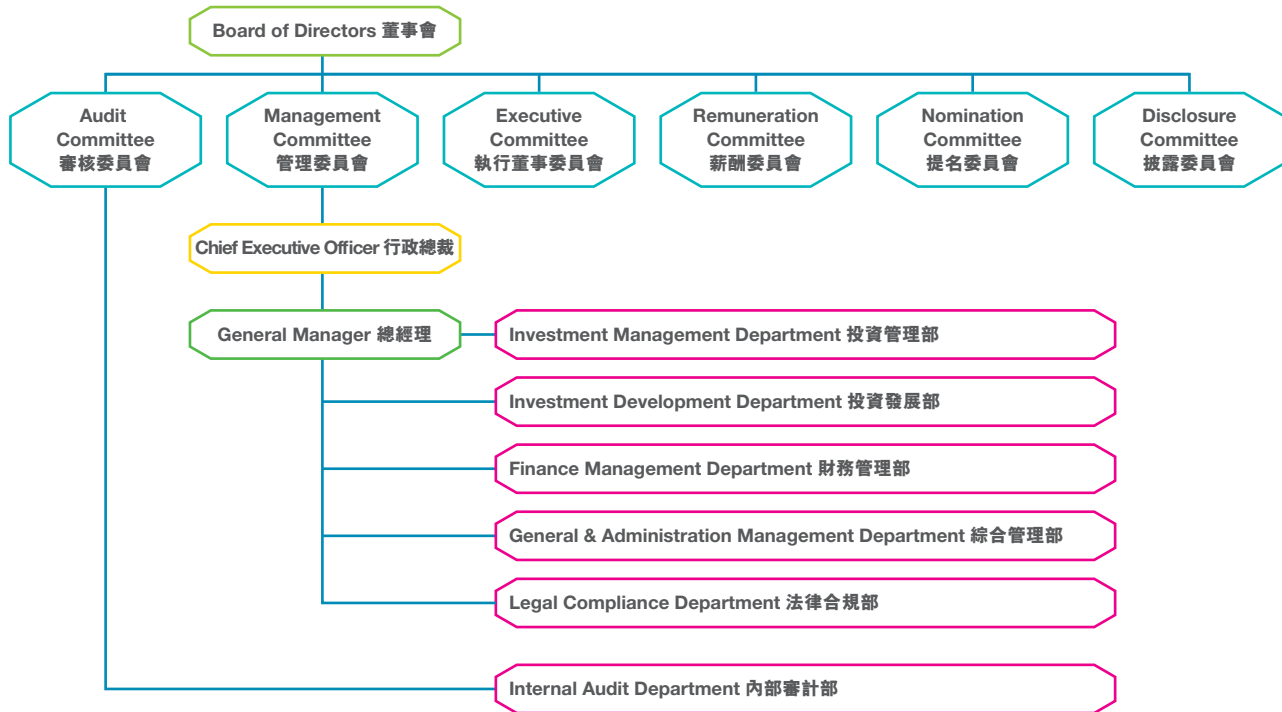
我們深信良好企業管治常規對建立股東及其他持份者的信心日益重要，故致力維持高水平的企業管治。我們嚴格奉行「以人為本、求真務實、開拓創新、規範管理」的管理理念，並不斷檢討及加強我們內部監控及風險管理。我們亦全面、適時地向公眾披露資訊以保持高度透明及高度問責。

我們的行為守則清楚列明我們對僱員行為的期望，在僱員之間提倡誠實和合符操守的行為。我們向所有新僱員派發行為守則，以便他們能了解和熟悉該等要求。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條文。二零一二年並無貪污個案紀錄。僱員亦須嚴格遵守我們在採購產品及／或服務及招聘人員方面的指引及程序，以確保競爭乃公開及公平。



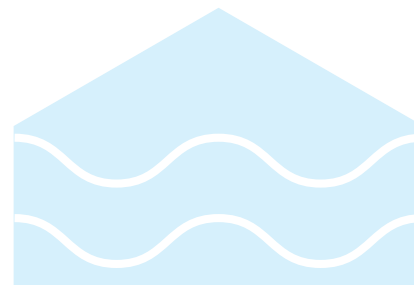
The Board of Directors of CEIL (the “Board”) has set up 6 committees, namely Executive Committee, Audit Committee, Nomination Committee, Remuneration Committee, Management Committee and Disclosure Committee. Under the Management Committee, 3 sub-committees including Risk Management Advisory Committee, Engineering Technical Management Committee, and Budget Approval Management Committee have been set up. In addition, an Internal Audit Department has been also set up to perform internal audits on investment projects.

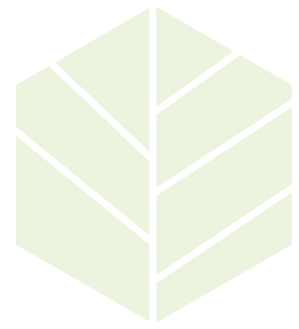
光大國際董事會(「董事會」)設立6個委員會，即執行董事委員會、審核委員會、提名委員會、薪酬委員會、管理委員會及披露委員會。管理委員會轄下成立了3個小組委員會，包括風險管理評審委員會、工程技術管理委員會及預算審核管理委員會。此外，我們亦同時成立了內部審計部對投資項目進行內部審計。



The Code on Corporate Governance Practices (effective until 31 March 2012) and the Corporate Governance Code (effective from 1 April 2012) as set out in Appendix 14 to the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (“Hong Kong Stock Exchange”) 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, which is also available online at <http://www.ebchinaintl.com>.

董事會已採納香港聯合交易所有限公司(「香港聯合交易所」)證券上市規則附錄十四載列之企業管治常規守則(生效至二零一二年三月三十一日止)及企業管治守則(由二零一二年四月一日起生效)，作為光大國際的企業管治常規守則。關於我們企業管治及董事會的其他資料，載於我們的年報，可登上<http://www.ebchinaintl.com>瀏覽。





## Integrating Sustainability into CEIL's Operation

## 將可持續性因素融入本公司的運營中

CEIL has been publicly listed and traded on the Hong Kong Stock Exchange. As a listed company, we are not only pursuing the maximization of the shareholders' interest, but also committed to protecting the environment and caring the community, which adheres to our principle that "an enterprise is not only the Creator of Wealth, but also the Safeguard of Environmental and Social Responsibility". Our daily operations face the following key risks and challenges:

- Keen competition in the markets
- Climate change
- Global financial crisis
- Stringent environmental laws and regulations
- Higher expectations from our stakeholders for our sustainability performance

光大國際在香港聯合交易所上市。作為一家上市公司，我們不但致力提升股東利益的最大化，亦致力保護環境及關懷社會，正與我們「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」的原則同出一轍。我們日常運營面對以下各主要風險及挑戰：

- 市場競爭白熱化
- 氣候變化
- 全球金融危機
- 嚴格的環保法律及規例
- 我們持份者對我們的可持續性表現期望日高

To tackle the above-mentioned risks and challenges, we have adhered to sustainable practices in our daily operations.

為應對上述各種風險及挑戰，我們在日常運營中奉行可持續常規。



The Management Committee is responsible for reviewing the sustainability performance and also formulating and implementing sustainability related plans and activities. Our sustainability efforts have been highly recognized. In 2012, we received China Green-Benefit Enterprise Individual Award in the 2nd International Carbon-Value Award Competition at the 5th (China) World Economic and Environmental Conference 2012, which was co-organized by United Nations Industrial Development Organization and International Energy Conservation Environmental Protection Association (IEEPA). We have been re-selected as one of the constituent members of the Hang Seng Corporate Sustainability Benchmark Index Series for two consecutive years.

管理委員會負責檢討可持續表現，並制定及進行相關的可持續計劃及活動。我們在維持可持續性方面的努力屢獲表揚。二零一二年，由聯合國工業發展組織與國際節能環保協會協辦第五屆(中國)世界環保大會，我們榮獲第二屆國際碳金獎的「中國綠效企業」獎。我們連續兩年入選為「恒生可持續發展企業基準指數」成份股。



# Clean Production and Operation

## 清潔生產及運營

We are committed to doing business in an environmental responsible manner. Environmental and Social Management System (ESMS) has been developed and implemented as a guideline to safeguard the environment, reduce air emissions, and promote green operations to minimize our impacts on the environment. All our operating projects have applied for ISO 14001 to demonstrate our dedication in meeting international standards in environmental management system. With the continuous expansion of market and increasing environmental and social awareness on environmental performance, we strive to take an initiative in going beyond the national requirements by setting targets with reference to international standards. We will keep investing in research and development to strengthen our environmental protection performance and looking for new CDM opportunities.

我們致力以負責任的環保方式經營業務。我們已制定及實行環境及社會管理體系，作為保護環境、減少排放及提倡綠色運營的指引，盡量減少我們對環境的影響。我們所有運營項目均已申請ISO 14001，以顯示我們銳意滿足環境管理體系方面的國際標準。隨著市場不斷擴大而社會對環保表現方面的意識不斷提高，我們透過定下參考國際標準的目標，致力達致超越國家要求的水平。我們會繼續投資於研究及開發，以增強我們的環保表現，同時尋求新的CDM機會。

### Safeguarding the environment

### 保護環境

As an environmental protection enterprise using renewable energy to generate electricity and processing waste water, we continue to playing a significant role in combating climate change. In 2012, our waste-to-energy projects, biomass power generation project, solar photovoltaic projects and methane-to-energy projects generated a total of 1,307.55 GWh of electricity and helped offset 1.29 million tonnes of CO<sub>2</sub> emissions, showing an increase of electricity generation and CO<sub>2</sub> emission avoided by 68.44% and 62.9% respectively as compared with the last year figures.

作為一家利用可再生能源發電及處理污水的環保企業，我們繼續在抗衡氣候變化上扮演重要角色。在二零一二年，我們的垃圾發電項目、生物質能發電項目、太陽能光伏發電項目及沼氣發電項目合共提供電力1,307.55百萬度，有助抵消1.29百萬噸二氧化碳排放，顯示發電量及避免的二氧化碳排放分別較去年增加68.44%及62.9%。

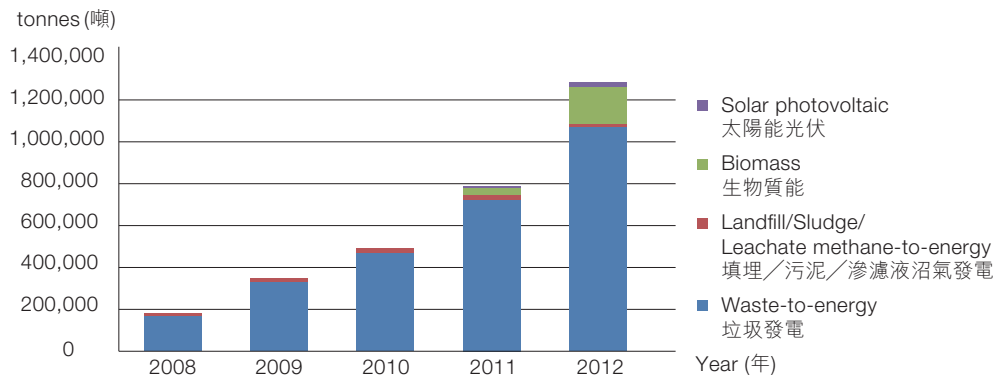
Our waste water treatment operation also performed well in 2012 as we treated a total of 508.82 million m<sup>3</sup> of waste water and 760,000 m<sup>3</sup> of leachate to offset 190,000 tonnes of COD emission. Compared with 2011, we successfully achieved an increase of COD emission avoided by 6.5%.

我們的污水處理業務在二零一二年亦有良好表現，共處理污水5.0882億立方米及滲濾液760,000立方米，抵消了190,000噸COD排放。與二零一一年比較，我們成功達致避免的COD排放增加6.5%。

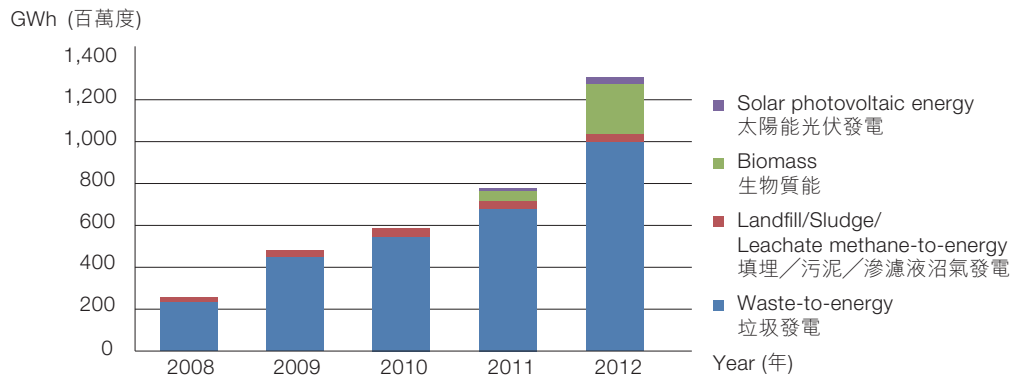




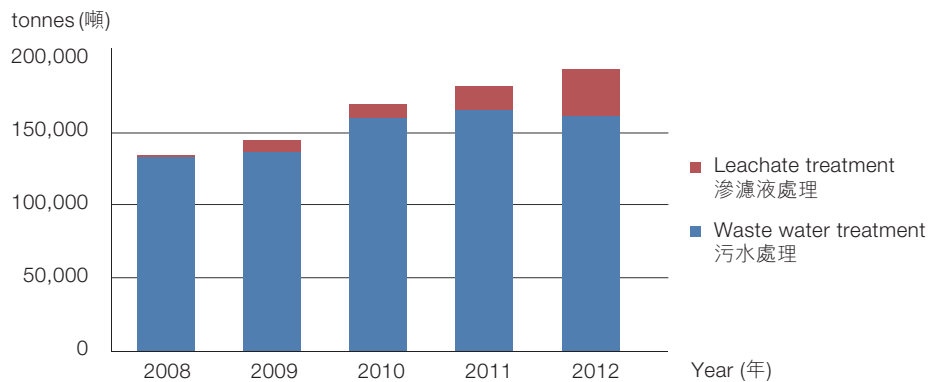
### Carbon dioxide emission avoided by types of operation 按運營類型劃分之避免二氧化碳排放



### Green electricity generation by types of operation 按運營類型劃分之綠色發電量



### COD emission avoided by types of operation 按運營類型劃分之避免COD排放



# Clean Production and Operation 清潔生產及運營

Since the commissioning of the first energy generation project in 2006, 自首個發電項目於二零零六年投產以來，

提供電力  
**3,625 GWh 百萬度**  
 electricity generated

避免CO<sub>2</sub>排放  
**3,231,653 tonnes 噸**  
 CO<sub>2</sub> emissions avoided

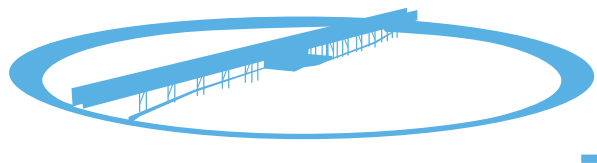


Since the commissioning of the first waste water treatment project in 2005, 自首個污水處理項目於二零零五年投產以來，

處理污水  
**2,653 million m<sup>3</sup> 百萬立方米**  
 waste water treated

處理滲濾液  
**1.72 million m<sup>3</sup> 百萬立方米**  
 leachate treated

避免COD排放  
**1.03 million tonnes 百萬噸**  
 COD emissions avoided

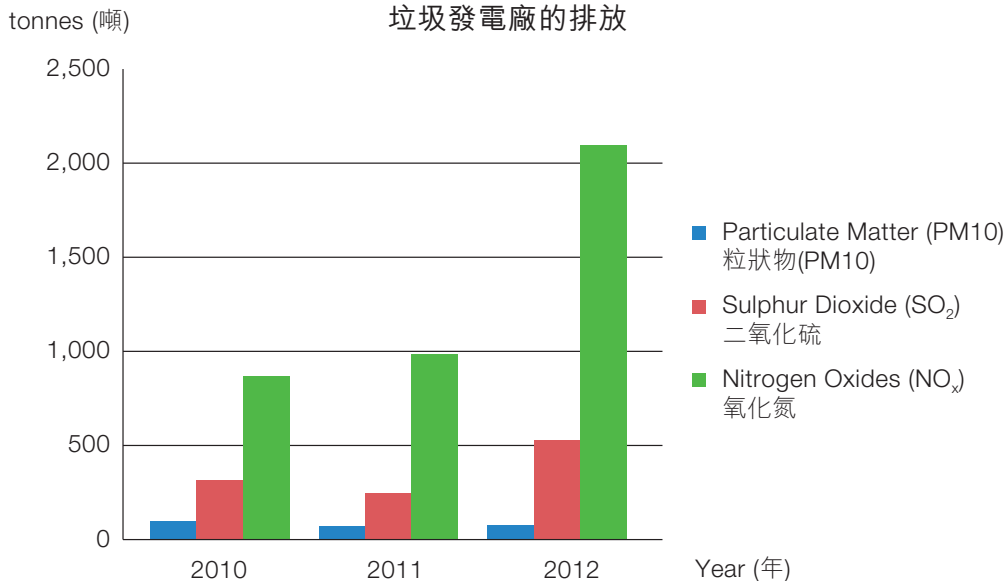


## Emissions Performance

## 排放表現

The air emission performance of our 7 waste-to-energy plants 我們7家垃圾發電廠在過去三年的氣體排放表現：  
 in the past three years:

**Emissions from waste-to-energy plants**  
 垃圾發電廠的排放





Total particulate matter (PM10) emissions of waste-to-energy plants were 79.48 tonnes in 2012, which is equivalent to an increase of 6.78% as compared to 2011.

二零一二年垃圾發電廠的粒狀物(PM10)總排放量為79.48噸，較二零一一年增加6.78%。

Total SO<sub>2</sub> emissions of waste-to-energy plants were 529.15 tonnes 2012, which is equivalent to an increase of 111.8% as compared to 2011.

二零一二年垃圾發電廠的二氧化硫總排放量為529.15噸，較二零一一年增加111.8%。

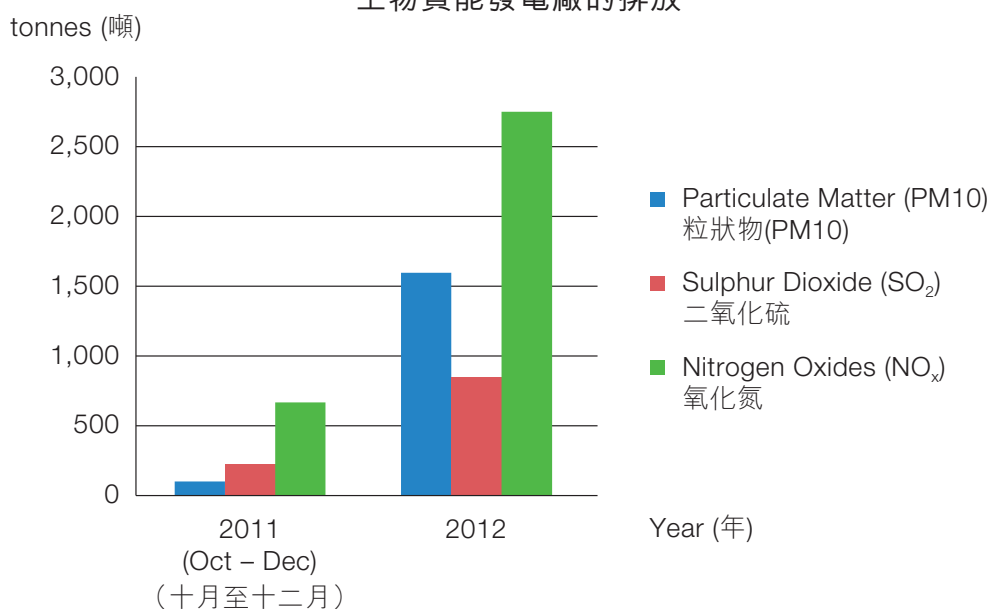
Total NO<sub>x</sub> emissions of waste-to-energy plants were 2,096.67 tonnes in 2012, which is equivalent to an increase of 113.3% as compared to 2011.

二零一二年垃圾發電廠的氧化氮總排放量為2,096.67噸，較二零一一年增加113.3%。

The increase of PM10, SO<sub>2</sub> and NO<sub>x</sub> emissions were mainly related to the significant increase of electricity generation as 3 new waste-to-energy plants in Jinan, Zhenjiang and Suqian began their operations at the end of 2011.

PM10、二氧化硫及氧化氮排放的增加主要與發電量隨著3家分別位於濟南、鎮江及宿遷的新垃圾發電廠於二零一一年底相繼投產而顯著增加有關。

### Emissions from biomass power generation plant 生物質能發電廠的排放



Dangshan Biomass Power Generation Project commenced its operation late September 2011. In 2012, the emissions of PM10, SO<sub>2</sub> and NO<sub>x</sub> were 1,597.79 tonnes, 852.21 tonnes, and 2,750.96 tonnes respectively.

碭山生物質能發電項目於二零一一年九月底投產。二零一二年PM10、二氧化硫及氧化氮的排放量分別為1,597.79噸、852.21噸及2,750.96噸。

As an environmental protection enterprise, reducing air emissions is one of our key missions. We strive to adopt high emission standard on our environmental protection projects. Biomass power generation project meets the flue gas emission limits as set under "Integrated Emission Standard of Air Pollutants" (GB16297-1996) and "Emission Standard of

作為一家環保企業，減少氣體排放是我們的主要使命之一。我們的環保項目致力採用高規格的排放標準。生物質能發電項目符合「大氣污染物綜合排放標準」(GB16297-1996)及「火電廠大氣污染物排放標準」(GB13223-2003及GB13223-2011)所定的廢氣排放限制。至於垃圾發電項



Air Pollutants for Thermal Power Plants” (GB13223-2003 & GB13223-2011). For the waste-to-energy projects, they meet the flue gas emissions limits more stringent than “Standard for Pollution Control on the Municipal Solid Waste Incineration” (GB18485-2001) and comparable to the performance standards for emission established by the European Union (Directive 2000/76/EC and relevant Annexes/Amendments) except that the darkness of flue gas shall follow the national requirement (GB18485-2001). To further improve our air emission performance, an upgraded gas treatment system was installed at Zhenjiang and Suqian waste-to-energy plants in October and November in 2012 respectively.

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 our corporate image and build up the public confidence in our operation, LED display screens have been installed outside the plants to provide instant air emissions data to the nearby public.

目，該等項目符合較「生活垃圾焚燒污染控制標準」(GB18485-2001)更為嚴格及與歐盟確立的排放表現標準(指引2000/76/EC及相關附表/修訂)相若的廢氣排放限制，惟廢氣的烏黑度則依從國家規定(GB18485-2001)。為了進一步提高我們的氣體排放表現，鎮江及宿遷垃圾發電廠分別於二零一二年十月及十一月安裝了優化的氣體處理系統。

隨著我們於各垃圾發電廠安裝的氣體排放監測系統與政府環保部門的網絡連結，政府人員可監測氣體排放數據。為了提升企業形象和建立公眾對我們運營的信心，我們在廠房外面安裝了液晶顯示屏，向鄰近公眾提供氣體排放數據。

### Research and Development

### 研究與開發

We recognize the importance of science and technology development to our environmental protection performance. In early 2012, we identified 8 priority areas for research and development (R&D) with a total investment of more than RMB20 million:

- Large scale waste-to-energy furnace
- Gas purification system
- Sludge treatment
- Treatment and integrated use of electronic waste
- Kitchen waste treatment
- Integrated use of construction waste
- Recycled water and condensed waste water treatment
- Leachate treatment system and advanced anaerobic technology

我們意識到科技發展對我們的環保表現很重要。在二零一二年初，我們確定了8個優先進行研究與開發的範圍，總投資額超過人民幣2,000萬元：

- 大型的垃圾發電焚燒爐
- 氣體淨化系統
- 污泥處理
- 電子廢物的處理及綜合利用
- 廚餘處理
- 建築廢料的綜合利用
- 再用水及高濃度污水處理
- 滲濾液處理系統及先進厭氧技術

In addition, we have set up several R&D teams to focus on particular R&D issues. To promote a culture of research and innovation in CEIL, we have developed incentive schemes for successful patent applications and commercialization of R&D. Last year, we filed 13 invention patents and 17 utility invention patents in which all the 17 utility patent applications were awarded.

此外，我們成立了多支研發團隊集中於個別研發議題。為於光大國際推廣研究與創新文化，我們為成功的專利申請制訂獎勵計劃，並為研發進行商業化。去年，我們提交了13項發明專利及17項實用發明專利申請，並獲授全部17項實用專利。



In May 2012, our self-developed hydraulic grate furnace passed the environmental protection technology assessment by the Chinese Society for Environmental Sciences, which demonstrate that our grate furnace technology has reached the international standards and could be widely used in the PRC.

於二零一二年五月，我們自主研發的液壓爐排通過中國環境科學學會的環保科技成果鑒定，顯示我們的爐排技術已達國際標準，可於中國廣泛使用。

Moving forward, we will continue to explore new opportunities to expand our market by securing more environmental protection projects and support our research and development activity so as to enhance our performance in environmental conservation.

展望未來，我們會透過爭取更多環保項目，繼續探求擴大市場的新機會，同時支持我們的研究與開發活動，以提升我們於環保上的表現。



Upgrade core competence through continuous research and development

通過不斷研究與開發提升核心競爭力

## Green Operations

## 綠色運營

We are committed to reducing impacts on the environment from our operations. We keep reviewing our operations and practices and looking for the best way to minimize our resources consumption and waste generation.

我們致力減少我們業務對環境的影響。我們不斷檢討我們的運營及實務，尋求最佳方法盡量減少消耗資源及產生廢物。

All waste water generated during the operation is treated via on-site waste water treatment facilities. Our operating projects are required to comply 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 during operation. We encourage our operating projects to reuse the recycled waste water so as to minimize 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 2012, we bought 3,036,391 m<sup>3</sup> of fresh water from municipal water suppliers while we used 102,669,231 m<sup>3</sup> of recycled waste water, equivalent to 97.13% of the total water consumption, for our daily operation.

所有在運營中產生的污水乃經過同一項目現場的污水處理設施處理。我們的運營項目在運營時須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(EIA)報告所述及EIA批文所訂明的規定。我們鼓勵運營項目將污水循環再用，以盡量減少新鮮水的消耗及達致污水「零排放」。污水乃根據「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)而循環再用。在二零一二年，我們從水務供應商買入新鮮水3,036,391立方米，同時利用了102,669,231立方米的循環再用污水，相當於總用水量的97.13%，作日常運營之用。

## Clean Production and Operation 清潔生產及運營

All effluent from our operating projects is discharged to the designated destinations according to the agreements signed with the governments. The treated waste water meeting National Grade 1A standard would be applied to greening and landscaping while the National Grade 3 standard treated waste water will be discharged into municipal sewage pipeline, where discharge is ultimately treated in municipal waste water treatment plants.

我們的運營項目的所有排出物乃根據與政府簽訂的協議排放至指定地點。符合國家一級A標準的處理後污水將作綠化及園林用途，而屬國家三級標準的處理後污水將排放至城市污水渠，最終於城市污水處理廠處理。

### Total volume of water discharges by destination in 2012 (m<sup>3</sup>)

二零一二年按排放地點劃分的總排水量(立方米)

Greening & 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
687,296	463,824,078	1,113,145



Recycled waste water for greening and landscaping

污水循環再用作為綠化及園林用途

Sludge is the major waste generated from our waste water treatment plants. For the sludge which is disposed of in landfill, it will be treated by sludge dewatering centrifuges beforehand to reduce its water content and volume. As a result, the quantity of sludge that is disposed of in landfill could be reduced to mitigate its environmental burden. Sludge generated from Jiangyin Waste Water Treatment Plant is dehydrated and then delivered to the Jiangyin Waste-to-energy Plant for incineration and electricity generation, while the sludge from the waste water treatment plants in Jinan and Qingdao is collected and reused by contractors for making fertilizer.

污泥是我們污水處理廠產生的主要污物。對於以填埋方式處置的污泥，污泥會先經過脫水離心機處理以減少水份及體積。因此，經填埋處置的污泥量得以減少，以減低對環境造成的負擔。江陰污水處理廠產生的污泥會經過脫水處理，然後交付江陰垃圾發電廠焚燒及發電。至於位於濟南及青島的污水處理廠，污泥乃由承包商收集用作肥料。



Bottom ash generated from waste incineration treatment is properly handled and treated to ensure that it could be disposed of at MSW landfill in compliance with the “Standard for Pollution Control on the Landfill Site of Municipal Solid Waste” (GB 16889-2008). Fly ash generated from flue gas emission treatment is solidified, in accordance with the related national fly ash handling standards, before disposing of at hazardous waste landfill. To reduce environmental burden, we have been working hard to implement waste prevention and re-use initiatives. In 2012, all bottom ash and fly ash generated from biomass power generation plant were successfully reused by selling to the government for landfill top coverage and construction sites or delivering to the factories for making cements and bricks.

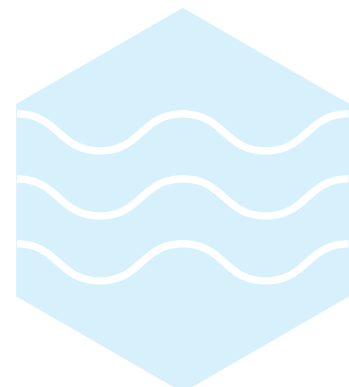
由垃圾焚燒處理所產生的爐渣乃經妥善處理，以確保符合「生活垃圾填埋場污染控制標準」(GB 16889-2008)於生活垃圾填埋場處置。由廢氣排放處理所產生的飛灰根據處理飛灰的相關國家標準予以固體化，然後於危廢填埋場處置。為減少環境的負荷，我們一直努力實行減廢及再用措施。於二零一二年，由生物質能發電廠產生的所有爐渣及飛灰均透過售予政府作填埋場及建築地盤表層覆蓋或交付工廠生產混凝土及磚塊而成功再用。

In addition, our facilities adopt wind-solar hybrid and advanced energy saving lighting equipment and streetlights to reduce our electricity consumption.

此外，我們的設施採用了風光互補的先進節能照明設備及路燈，減少了我們耗用的電力。



Wind-solar hybrid streetlights  
風光互補的節能路燈





## Clean Production and Operation 清潔生產及運營

### Clean Development Mechanism (CDM) and Voluntary Emission Reduction (VER)

### 清潔發展機制(「CDM」)與自願減排認證(「VER」)

CDM and VER are both internationally recognized carbon emission reduction trading mechanisms. Our Suzhou Landfill Methane-to-energy Project was registered as a Gold Standard VER project which completed its first and second verification of emission reductions and insurance in 2009 and 2011 respectively. In 2012, we submitted 3 new CDM applications for Zhenjiang, Suqian and Suzhou waste-to-energy projects. The Zhenjiang waste-to-energy project was successfully registered as CDM projects while the other two are expected to complete their CDM registrations in early 2013. As of 31 December 2012, we had a waste-to-energy project, a biomass power generation project, and 3 solar photovoltaic energy projects registered as CDM projects in the United Nations.

CDM及VER是國際公認的減少碳排放交易機制。我們的蘇州填埋沼氣發電項目已獲註冊為黃金標準VER項目，分別於二零零九年及二零一一年完成其第一次及第二次減排及保險核證。我們於二零一二年為鎮江、宿遷及蘇州的垃圾發電項目提交3個新的CDM申請。鎮江垃圾發電項目已成功登記為CDM項目，而另外兩個項目預計於二零一三年初完成其CDM登記手續。於二零一二年十二月三十一日，我們有1個垃圾發電項目、1個生物質能發電項目及3個太陽能光伏發電項目獲聯合國註冊為CDM項目。





**Registered CDM projects**

已註冊的CDM項目

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

Huaining Ground Solar Photovoltaic Energy Project &  
 Suqian Rooftop Solar Photovoltaic Energy Project  
 (combined two projects in one application)  
 懷寧地面太陽能光伏發電項目及宿遷屋頂太陽能光伏發電項目  
 (合併兩個項目於一個申請)

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

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

**CDM Application in progress**

正辦理的CDM申請

Suqian Waste-to-energy Project  
 宿遷垃圾發電項目

Suzhou Waste-to-energy Project Phase III  
 蘇州垃圾發電項目三期

The projects which successfully registered as CDM/VER projects could not only bring economic benefit to CEIL by selling certified emission reduction (CER) credits or voluntary carbon credits and enhance our corporate image, but also contribute to the environmental protection and social development of our society. Therefore, we will keep exploring new CDM opportunities to generate more development opportunities for us and bring more benefits to our community.

已成功註冊為CDM/VER項目的項目不但可透過出售核證減排量(CER)或自願碳減排量而為光大國際帶來經濟利益和提升我們的企業形象，亦可為環保及社會發展作出貢獻。因此，我們會繼續尋求新的CDM機會，為我們創造更多發展機遇及為社會帶來更多裨益。



# Health and Safety

## 健康及安全

We place safety as one of our highest priorities. It is one of our core values and encompasses all aspects of our business, from generating safe and green energy, to ensuring the highest safety standards in our workplace. We foster a culture that promotes employees' wellness and raises health and safety awareness. Our operations are fully guided by internationally recognized OHSAS 18001 (GB/T28001-2001) Occupational Health and Safety Management System.

Under our Safety Management Plan, each project company compromises a senior management team member, who is usually the general manager, overseeing all health and safety issues to ensure strong commitment among our employees. Supplement to meeting the requirements of OHSAS 18001 (GB/T28001-2001), our facilities adopted ADB's Environmental and Social Safeguards to guarantee safety is closely monitored across all our operations.

We place equal importance on ensuring that all our business partners operate under the same safety principles. We continually assess our health and safety procedures and have made the provision necessary for planning, organizing, monitoring and reviewing health and safety precautions that are required by national legislations to ensure high safety performance of all parties.

我們將安全視作首要任務。這是我們的核心價值，從生產安全綠色能源至確保工作場所符合最高安全標準，涵蓋業務的所有方面。我們培養一種文化，促進僱員的健康及提高健康和安全的意識的文化。我們的業務全面遵循國際認可的OHSAS 18001 (GB/T28001-2001)職業健康和安全管理體系。

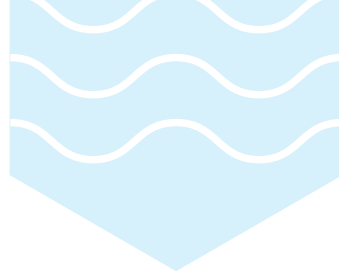
根據我們的安全管理計劃，各項目公司均指定一名高級管理人員(通常為總經理)監管整體健康及安全事宜，以確保我們的僱員可充分投入工作。除符合OHSAS 18001 (GB/T28001-2001)規定外，我們的設施同時採納亞發行的環境及社會保障指引，確保密切監察所有業務運營的安全性。

對於確保我們所有的業務夥伴均根據相同安全原則運營，我們同樣重視。我們不斷評估現行健康及安全程序，並根據國家規例的規定制定有關規劃、組織、監控以及檢討健康及安全預防措施所需條文，確保各方均達致高水平安全表現。



Conduct emergency drills every year  
每年舉行緊急演習





## Preparedness and Contingency Planning

## 預備及應急計劃

Our employees are well equipped to meet the obligations of health and safety in the events of emergency. To adequately manage the risk of any emergency situation and to avoid any major disruptions, a series of “Emergency Response Plans” are developed for this purpose. With our operation targets to reduce the probability of emergency situation, continuous efforts are placed in monitoring potential risks through risk assessments, reliability reviews, and compliance of OHSAS 18001 (GB/T28001-2001) and ISO 14001 standards across all the operations. Each project company is required to conduct emergency drills at least twice a year to ensure all related parties are aware of how to react in any emergency event. The drills serve as a platform to provide the closest real-life training to our employees on the necessary protocols during emergency and to identify aspects of deficiency in the Emergency Response Plans for improvement. Fire drills are also carried out periodically to familiarize the staff with the procedures.

我們的僱員均具備良好知識，可於緊急情況下履行健康及安全責任。為有效管理緊急情況的風險及避免出現任何重大中斷，我們已就此制定一系列「應急預案」。我們的運營目標是減少發生緊急情況的可能性，通過風險評估、可靠性檢討及所有運營遵守OHSAS 18001 (GB/T28001-2001)及ISO 14001標準，不斷致力監控潛在風險。各項目公司須每年至少進行兩次緊急演習，確保所有有關各方均知悉如何應付突發事件。演習可作為一個平台，為我們的僱員提供最接近真實情況的訓練，掌握在緊急情況下所需的應對程序，並從中檢討應急預案的不足之處以作出改善。公司亦會定期進行火警演習，讓員工熟悉有關程序。





### Injury and accident record in 2012 於二零一二年的工傷及意外率紀錄為



#### Workplace Safety

#### 工作場所的安全

We provide sufficient protective equipment to ensure the safety of workers. When any injury occurs, our employees and management are trained to follow the company's policy on reporting and investigation of the incident. In order to provide proper guidance in health and safety awareness, each staff is to report any incident of injury to their supervisor or manager for immediate implementation of appropriate protective measures. When an injury occurs, our goal is to eventually return all injured employees to work while incorporating meaningful and appropriate work opportunities during the recovery period.

我們提供足夠的保護裝備以確保員工安全。當發生任何工傷事故時，我們的僱員及管理層已經過訓練須按照公司政策匯報及調查事故。為對健康及安全意識提供合適的指引，各員工須就任何工傷事故向他們的主管或經理匯報，以即時採取合適的保護措施。當發生任何工傷事故時，我們的目標是所有受傷的僱員最終可回到崗位工作，而於康復期間提供有意義及合適的工作機會。

Our contractors are also required to comply with our safety policy. The compliance of the safety policy 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 for the past three years.

我們的承包商亦須符合我們的安全政策。遵守安全政策已列作協議中的合約條款之一。我們一直致力就各運營及建設項目設定零工傷的目標。我們自豪地宣佈，我們的公司於過去三年成功保持零工傷及意外率。

#### Employee Benefits

#### 僱員福利

In addition to the safe environment that we provide to our staff, we follow the China Labour Law strictly with special attentions on the well-beings of all staff in the PRC. To this end, our employees in the PRC are offered with competitive wages and benefits, including annual medical check, comprehensive medical insurance, maternity insurance, unemployment insurance, work injury insurance and a social housing fund.

我們除了為員工提供安全的工作環境外，我們亦嚴格遵守中國勞動法的規定，非常重視中國的所有員工的福利。就此，我們的國內員工享有具競爭力的薪酬及福利，包括年度身體檢查、全面的醫療保險、生育保險、失業保險、工傷保險及住房公積金。

# Employee Development

## 僱員發展

Our employees are the key to the success of our business, and we work diligently to ensure that we provide them with the instruments and platform they need to excel in their career. To overcome the many challenges in talents recruitment and retention, we seek to develop an engaging workforce and a positive working environment. We make every effort to be the best employer by offering a safe, fair, discrimination-free, diverse and harmonious working environment to our employees together with a satisfying and rewarding career path. Our approach is outlined for our employees in the Code of Conduct of the company and each employee is to comply with the Code of Conduct set out at the commencement of their career. Failure in complying with the Code of Conduct constitutes to grounds for disciplinary action, including dismissal. We value and encourage honest and receptive channel of communications between management and staff for the successful implementation of these policies.

我們的僱員對我們業務的成功尤為重要，我們致力確保為他們提供所需的工具及平台，使他們的盡展所長。為應付人才招攬和挽留方面的各種挑戰，我們尋求建立一個吸引的工作場所和良好的工作環境。我們致力成為最佳僱主，為僱員提供一個安全、公平、沒有歧視、多元化及和諧的工作環境，及滿意和優厚的工作發展前景。公司的行為守則已闡明公司在僱員發展的立場，而各僱員須於入職工作開始時遵守行為守則的規定。如未能遵守行為守則的規定，則構成紀律處分，包括解僱。我們重視及鼓勵管理層與員工之間的坦誠及包容的溝通方法以成功實施該等政策。



## Talent Acquisition

## 招攬人才

Through our talent recruitment process, we aim to create an environment that reflects diversity and competency in our workplace. All employees in the company are recruited through the centralized procedures: (i) posting of recruitment information on company's website and other professional websites; (ii) initial screening and arrangement of written test and/or interview, depending on the job requirement; (iii) approval of hiring decision by the management. 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 required by the job. In 2012, we hired a total of 188 new staff across our operating plants. We are committed to recruiting staff locally in order to benefit the local community and make us in a better position to understand the local needs and expectations. In 2012, 75.4% of our senior management staff is recruited in the province where our operating plants operate.

透過招攬人才，我們旨在為工作場所建立一個多元化及精英雲集的環境。公司的所有僱員均通過統一的程序招聘：(i)於公司網站及其他專業網站刊登招聘資料；(ii)進行初步篩選及安排筆試及／或面試(視乎工作要求而定)；(iii)管理層審批聘用決定。我們在決定招聘的過程中，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格無關的其他事實。在二零一二年，我們的運營廠房合共新聘用了188名員工。我們盡量於當地聘請員工，以令當地社區受惠，也讓我們更能了解當地的需要及期望。在二零一二年，高級管理人員從我們運營廠房所在的省份聘請的佔75.4%。





## Talent Retention

## 挽留人才

In coping with rising competitiveness in our job market, our company has established a remuneration system and complete performance appraisal system for us to review our remuneration package regularly. All our employees receive regular performance and career development review.

為應付招聘市場的競爭加劇，公司已建立一個薪酬體系及完善的績效體系，並定期檢討我們的薪酬待遇。我們的所有僱員會收取定期考核及就業發展檢討。

The strategies we used in retention are to extend our care and concerns to our employees beyond the working environment. In 2012, the company has held a variety of recreational and sports activities like hiking, picnics, and sporting tournaments, which have dramatically enriched the social life of the staff. In addition, birthday parties are held for staff periodically, employees who have fallen ill or have taken maternity leaves would be visited by representatives of our company. All these initiatives are significant to our staff to experience the corporate culture and to strengthen the cohesion and sense of belonging towards the company.

我們挽留人才的策略，包括提供良好的工作環境及關心和關注我們僱員的各方面。在二零一二年，公司舉行了多項娛樂及運動活動，例如遠足、野餐及運動競賽，為員工提供豐富的社交生活。此外，我們定期為員工舉行生日派對，而公司代表亦會探訪生病或放產假的僱員。該等措施能讓員工深深體會公司文化，並加強凝聚力及對公司的歸屬感。

## Equal Opportunities

## 平等機會

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, religion, marital status, age, national original, disability, veteran status, citizen status, or other protected group status as defined by applicable national, provincial, and local legislations.

為致力成為最佳僱主，我們相信，不論是哪種族、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、資歷狀況、公民身份或適用國家、省份及地方法例界定的其他受保護組別狀況，為僱員提供平等機會是非常重要的。

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.

我們公司尤其堅持性別平等，在項目設計、施工監督及廠房運營方面我們為男性及女性僱員提供平等的就業機會。我們同樣重視保障女性僱員的權利及利益，並嚴格遵守中國有關保障女性權利及利益的法例。

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

我們的公司文化並不容許歧視，而至今並無出現歧視個案。



## Employee Development 僱員發展



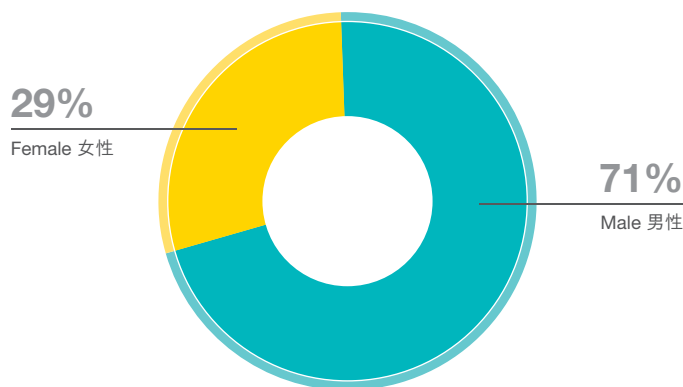
Provide equal opportunities to employees

為僱員提供平等機會

In total, our entire workforce consists of 71% male and 29% female and of which are all full-time employment with our company. 0.6% of our workforce belongs to ethnic minority groups.

整體而言，我們的全體員工包括71%男性及29%女性，他們均為本公司的全職僱員。我們有0.6%的員工屬於少數族群。

### Gender Distribution of CEIL Employees 光大國際僱員的性別分佈

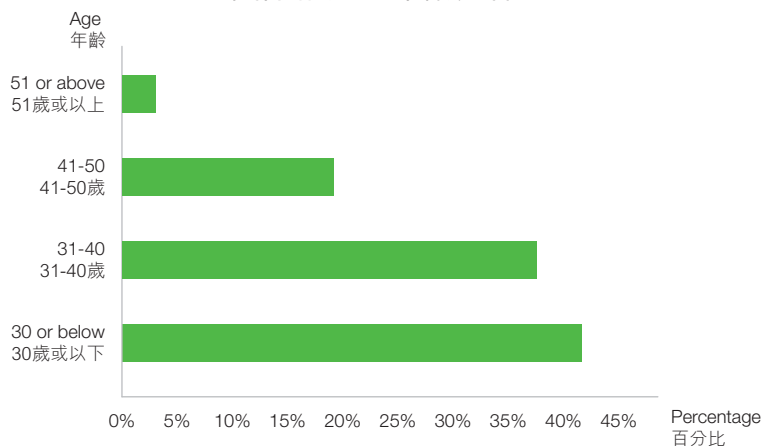




Our company employees are spread relatively even across the age groups between 20 and 60, with a higher proportion of employees aged 30 or below.

我們公司僱員的年齡分佈平均，介乎20歲至60歲，而最多僱員的年齡組別為30歲或以下。

### Age Distribution of CEIL Employees 光大國際僱員的年齡分佈



## Employee Engagement

## 僱員的參與

We encourage communications between management and employees at all level of operations. We believe in building strong relationship internally with our employees. In demonstrating our commitment to maintain an environment of openness between all levels of employees, we encourage direct channels of communications among our employees and managers and to keep them informed of the company's direction and strategies. Employees may at any time express their own opinions and thoughts in forms of letter, interview or otherwise to participate in the company's development process. Some subsidiaries have set up trade unions to enable employees to protect their own rights and interests and to promote a harmonious development between employees and the company.

我們鼓勵管理層與各層面運營的僱員進行溝通。我們相信與僱員之間建立穩固關係的重要性。為彰顯我們為各層面僱員建立公開溝通環境的決心，我們鼓勵僱員與管理人員之間建立直接溝通渠道，並讓他們了解公司的方針及策略。僱員可隨時以函件、會面或參與公司發展過程的方式表達他們的意見及想法。部份附屬公司已成立工會以保障僱員的本身權利及權益，並促進僱員與公司之間的和諧發展。

## Training and Development

## 培訓及發展

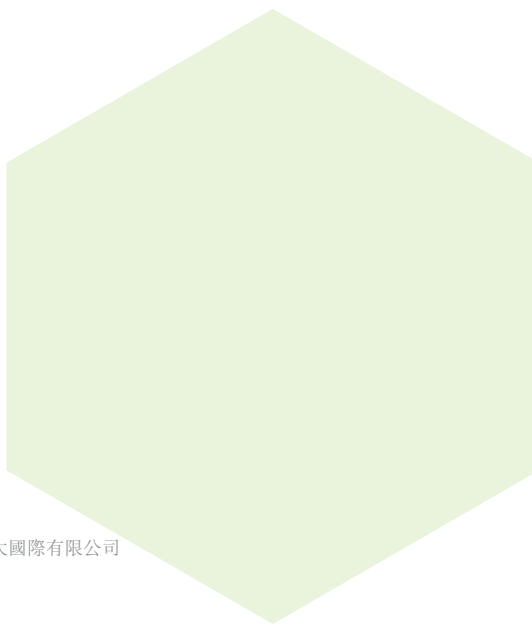
The skills, knowledge and capabilities of our employees are the essence for the sustainable growth of the company. It is in our best interest to develop our employee's talents and abilities with a range of training and development programmes for the fostering of a sense of community in the Company. We provide a wide range of training and development opportunities for our employees, ranging from short courses, external educational courses and on the job training, to equip our staff with the skills needed to advance in their career and to facilitate their professional development.

僱員的技能、知識及能力是公司可持續發展的重要元素。我們通過不同的培訓及發展計劃發展僱員的潛能及能力，培養對公司的歸屬感，為公司帶來最佳利益。我們為僱員提供廣泛的培訓及發展機會，包括短期課程、外部教育課程及在職培訓，為員工裝備發展事業所需技能，並有助他們的專業發展。



Provide a wide range of training and development opportunities for the employees

為僱員提供廣泛的培訓及發展機會

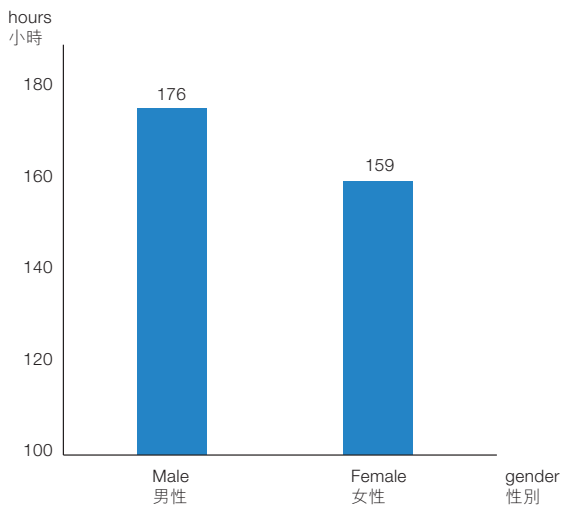




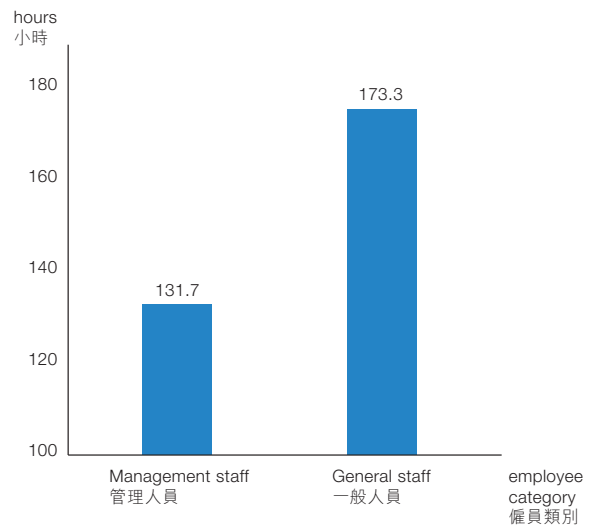
To assist newcomers to become familiar with and adapt to the corporate culture, we organized a 9-day outward bound training session in Shenzhen from 19 November 2012 to 27 November 2012 and a total of 147 staff had joined the training. In addition, field-specific training sessions for our Finance Department and Human Resources Department are held respectively in Beijing and Zhenjiang to enhance the professional knowledge of our staff to cope with the growing development of our company. Meanwhile, individual training sessions are also conducted based on specific needs of the staff, such as providing professional skill trainings for technicians and other trainings for general employees targeting corporate culture. In 2012, each of our employees received approximately 171 hours of training.

為加快新員工熟悉並融入公司文化，我們於二零一二年十一月十九日至二零一二年十一月二十七日在深圳舉行一次為期九天的拓展培訓，共147名員工參加。此外，為提升財務部及人力資源部人員的專業知識以配合公司的業務發展，我們分別於北京及鎮江舉行了相關培訓課程。與此同時，我們亦根據員工的特別需要舉行個別培訓課程，例如為技術員提供專業技術培訓及為融入公司文化的一般僱員提供其他培訓。在二零一二年，我們的僱員每人接受了約171小時的培訓。

**Average training hours by gender in 2012**  
二零一二年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



We support our employees who wish to take external courses or professional qualifications that are related to their work. These training courses include, the Master of Environmental Engineering Program II and the International CEO Course III of Tsinghua University specifically designed for enhancing the capabilities of the management and specialized technical staff.

我們支持擬參與工作相關的外部課程或專業資格課程的僱員。該等培訓課程包括針對管理層及技術骨幹的提升而舉辦的「清華大學環境工程碩士研修班二期」及「清華大學國際CEO總裁班三期」。



In 2012,  
we sponsored  
a total of  
於二零一二年，  
我們資助了共



to pursue their master  
degree/professional courses  
in Tsinghua University  
修讀清華大學的碩士學位/  
專業課程

To further enhance our project management and environmental protection technology, we have arranged various business trips to overseas countries, for our staff to learn about the practices of other counterparts in the fields. The purpose of these trips is to bring back what we learned from industry peers and apply the knowledge on our projects, specifically in the design optimization of the environmental protection projects in the PRC.

為進一步提升我們的項目管理及環保技術，我們為員工安排到海外國家進行考察調研，以參考其他同行的經驗。該等考察調研的目的是引進我們從其他同行所學的知識，並於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。



# CEIL and the Community

## 光大國際及社區

We strive to establish a harmonious relationship with the community through various initiatives. Examples include encourage our employees to volunteer their time and skills for community engagement activities, cooperate with NGOs, government, and other parties for raising the public awareness on environmental protection and promoting advanced environmental protection technology. Meanwhile, our Environmental and Social Management System (ESMS) shows our full respect to the identity characteristics, dignity, human rights, life styles and cultural uniqueness of people who could be affected by our operations.

我們致力透過不同計劃與社區建立和諧的關係。例如鼓勵僱員利用其時間及專長義務參與社區活動、與非政府組織、政府及其他方面合作以提高公眾的環保意識，以及提倡先進的環保技術。與此同時，我們的環境及社會管理體系顯示，我們完全尊重可能受我們運營影響的人士的身份特性、尊嚴、人權、生活模式及文化獨特性。



Developed close relationship with citizens living nearby the plants

與工廠周邊居民建立密切關係

## Community Engagement

## 社區參與

We encourage our staff to participate in various community endeavors. We strive to develop friendly, long-term relationships with the community by supporting and facilitating in various initiatives while providing the platforms for our employees to get involved. We encourage our employees to give back to the society by volunteering their time in the community.

我們鼓勵員工為各社區效力。我們通過支持及促進各種活動，致力建立友好長遠的社區關係，並為僱員提供參與社區活動的平台。我們鼓勵僱員通過自願參與社區活動回饋社會。

A way to give back to the community is through quality education and knowledge transfer. On a regularly basis, our company invites members of the general public such as students, government officials, investors, media, etc to visit our project sites to educate them the process of waste treatment and the importance of environmental protection. The visits to our project sites allow the visitors to have a hands-on experience in visualizing sustainability concept in real life examples.

回饋社區的其中一個方法是透過優質的教育及知識轉移。我們會定期邀請大眾市民，例如學生、政府官員、投資者、傳媒等參觀我們的項目所在地，教導他們垃圾處理的程序和環境保護的重要性。參觀我們的項目所在地可讓探訪者於現實生活中親身體驗見證可持續發展概念。

In 2012,  
around  
於二零一二年，  
約有

30,682 visitors  
名訪客

visited our  
operating plants  
參觀了我們的  
運營廠房



80 teachers and students from Singapore International School visited Suzhou Waste-to-energy Plant

來自新加坡國際學校的80名師生  
參觀蘇州垃圾發電廠



Residents from Meichang community visited Suzhou Waste-to-energy Plant

來自湄長社區的居民參觀  
蘇州垃圾發電廠

We strive to ensure a harmonious relationship with the communities in which our facilities operate in. We believe that the continuous engagement with our partnering communities is an integral part of our business development and growth. Thus, we put great efforts to engage with the communities through various events and activities. Various environmental education campaigns were organized throughout the year with the aim to raise awareness of the younger generation in respect of environmental protection. In 2012, we successfully implemented various initiatives and events such as writing and speech competitions, and also helped raising public awareness on environmental protection and promoting the advanced environmental protection technology in various events such as “Science and Technology Week”, “National Science Day”, and “World Water Day”.

我們致力與我們的運營設施所在的社區保持和諧。我們相信，持續維繫與我們夥伴社區的關係是我們業務發展及成長不可或缺的一環。因此，我們付出很大努力，通過不同的事項及活動參與該等社區。我們在年內舉辦了多個環保教育項目，目的是提高年輕一代的環保意識。在二零一二年，我們成功進行了多項活動及節目，例如徵文及演講比賽，並透過「科技週」、「國家科學日」及「全球水資源日」等活動提高公眾的環保意識及推廣先進的環保科技。



In Suqian, we are a member of the Suqian Environmental Hygiene Association, which is a communication platform for local government departments and private companies. We worked in collaboration with other parties to discuss various environmental hygiene issues with the aim to enhance the overall environmental hygiene management in Suqian. Besides, we also partnered with some non-governmental organizations and academic institutions such as Jinan Association for Science and Technology, Beijing University of Technology, and Shenyang Institute of Automation, Chinese Academy of Sciences, in 2012.

在宿遷市，我們是宿遷市環境衛生協會的成員之一，而該協會是當地政府部門與私營公司的溝通平台。我們與其他參與方討論不同的環境衛生議題，旨在提升宿遷市的整體環境衛生管理。此外，我們於二零一二年亦與部分非政府組織及學術機構如濟南市科學技術協會、北京科技大學及中國科學院瀋陽自動化研究所等建立夥伴關係。



Staff signed for their supports of low carbon life style  
僱員簽名支持低碳生活



Students drew pictures of their planets after visiting Suzhou Waste-to-energy Plant  
學生在參觀蘇州垃圾發電廠後繪畫眼中的地球







## Social Commitment

## 社會承諾

It is our priority to ensure that our business helps to improve the social, economic and physical environments of surrounding communities. We have established an environmental and social management system (ESMS) as well as social security system in accordance with the “Resettlement Framework” requirements specified by the ADB.

我們的首要任務是確保我們的業務可改善周邊社區的社會、經濟及實際環境。我們遵循亞發行《拆遷框架》要求，建立了環境及社會責任管理體系以及社會保障體系。

### Our ESMS aims:

- To avoid, and when avoidance is not possible, to minimize and mitigate adverse impacts of investments on the environment and affected people;
- To maximize opportunities for environmental and social benefits; and
- To ensure that the corporate environmental and social policy can be efficiently and effectively implemented by all its business units and project companies.

### 我們的環境及社會責任管理體系旨在：

- 避免及在無可避免的情況下盡量減少及減輕投資對環境及受影響人士的不利影響；
- 盡量提高環保及社會利益的機會；及
- 確保其各個業務單位及項目公司能有效率及有成效地執行公司的環保及社會政策。



Established scholarship fund to support students with financial difficulties

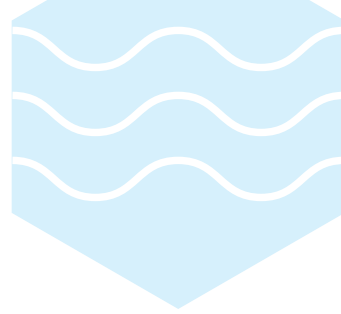
成立獎學金支持貧困學生

An early preliminary social screening will be conducted for the proposed new projects to identify their likely social impacts and the effects on indigenous peoples and involuntary resettlement. The grievance redress mechanism forms an essential part of the social management process that serves to receive and facilitate resolution of affected persons and/or affected communities’ concerns, complaints, and grievances about the physical and economic displacement and affected indigenous peoples communities, as a result of our new projects, through a transparent and understandable consultative process.

我們會為建議的新項目預早進行初步的社會檢視，以評估其很可能造成的社會影響及對原居民及非自願搬遷者的影響。申訴處理機制是社會管理過程的必要部分，旨在通過透明及可以理解的諮詢過程，聆聽受影響人士及／或受影響社區及受影響原居民社區對我們的新項目造成的實質及經濟遷離的關注、投訴及申訴，並協助達致解決方案。

For land acquisition and resettlement issues in new projects, we assist the local governments with demolition and resettlement work and ensure all affected households are compensated accordingly. There will be a follow up period of two years for external demolition monitoring and evaluation, with an aim to help those affected to resume normal working and living conditions.

針對新建項目涉及的徵地拆遷，我們會協助地方政府完成拆遷及重新安置工作，並確保所有涉及拆遷的戶主得到相應補償。後續跟進為期二年的拆遷外部監測與評價，以確保受影響群眾能夠恢復生產生活。



## Everbright International True Love School

## 光大國際愛心學校

Besides being competitive in our business, we believe that one of the core values of enterprise is to bear the environmental and social responsibilities. With that mindset, CEIL donated RMB6 million to build the “Everbright International True Love School” with a mission to elevate the company’s social responsibility. CEIL also donated teaching materials in forms of computers and academic textbooks to provide the best possible education to students of Dangshan.

Everbright International True Love School was officially established on 1 September 2011. The school was built with the state-of-art facility with incorporation of the most advanced teaching equipment, not to mention an inbuilt garden within the school. The school is specially furnished with a sporting track and an acoustically designed music studio for the students to experience the teaching environment to the fullest in their education years.

除了業務要具競爭力外，我們相信企業的其中一個核心價值是承擔起環保及社會責任。在這種理念下，光大國際捐出人民幣600萬元捐建「光大國際愛心學校」，務求提升公司的社會責任。光大國際亦捐出電腦及課本等教材，為碭山縣的學生提供可行情況下最好的教育。

光大國際愛心學校於二零一一年九月一日正式成立。該校建有先進的設施及教學設備，而校園內亦建有花園。該校特別設有體育用的跑道及為音響效果而設計的音樂室，讓學生有最好的學習環境。



In order to widen student's horizons, we have been organizing various short-term study tours for the students at Everbright International True Love School with outstanding achievements to visit our environmental protection facilities to learn about our operations. In July 2012 summer camp, the visitation to Jinan waste-to-energy facility and the waste water treatment plant, provided real-life experiences for the students in understanding more about water resources protection and the importance of caring for the environment, thus enhancing the awareness of environmental protection and sustainable development.

To further support the education system in Dangshan, CEIL selected its qualified employees as volunteer teachers in the school. The acting teachers taught over 140 students, with at least 5 classes a week for the past year. A Charitable Fund Management Committee is set up to continuously raise fund for the school and organize various sustainability activities. Each semester, the school has at least one fund raising activity for the students who are in need of financial support in their education career. In addition, an initial amount of RMB136,000 donation made by CEIL was given to the True Love Fund as scholarship to encourage the outstanding students over the years.

為開拓學生的視野，我們會為光大國際愛心學校的優秀學生在假期組織短期的環保遊學團，參觀我們的環保項目，讓學生了解我們環保項目的運營情況。在二零一二年七月舉辦的夏季遊學團，參觀了濟南垃圾發電設施及污水處理廠，讓學生從現實生活中體會，了解到更多有關保護水資源及愛護環境的重要性，從而提高環保及可持續發展的意識。

為進一步支持碭山的教育體系，光大國際選出合資格員工擔任學校的義務教師。在過去一年，該等代課教師教導學生超過140人，至少每週授課5節。我們成立了一個慈善基金管理委員會，為學校及舉辦不同的可持續活動籌募經費。在每個學年，學校為清貧學生舉辦至少一次籌款活動。此外，我們在過往年度向愛心基金初步發放人民幣136,000元作獎學金之用，以示對優異生的鼓勵。







We are doing business with honesty and integrity according to applicable laws and regulations to realize the win-win development responsibility with our business partners. We treat our business partners equally in selection process without discrimination. Generally in tender evaluation stage, we assess our business partners based on their credibility, reliability, technical competence, and cost to deliver products or services. Past performance has also been strongly considered.

In 2012, we developed an Environmental and Social Management System (ESMS), which defines policies, procedures, roles and responsibilities for managing environmental and social issues in accordance with the requirements of national standards, multilateral development bank or international financial institutions such as ADB. All our business partners are required to carry out their work in compliance with the requirements of the ESMS, applicable rules and regulations of national and local governments. In addition, they also need to identify individual responsibility for overall environment, social and health management. Only business partners who demonstrate commitments to environmental and social responsibilities as well as the requirements of the ESMS at all levels in their management structure would be eligible to submit tender for our contracts.

我們根據適用法律及法規秉誠及持正地經營業務，務求與我們的業務夥伴達致雙贏。我們在選拔過程中公平對待我們的業務夥伴，沒有歧視。一般而言，在招標評估階段，我們根據其信用、可靠性、技術勝任程度及交付產品或服務的成本來評估我們業務夥伴。過往表現亦會受到重視。

在二零一二年，我們根據國際標準、多邊開發銀行或國際金融機構例如亞發行的要求，建立了環境及社會責任管理體系，為管理環境及社會事宜釐定政策、程序、角色及責任。我們所有業務夥伴均須按照環境及社會責任管理體系的要求、國家及地方政府的適用規例及法規進行其工作。此外，他們亦須就整體環境、社會及健康管理確定其個別責任。只有在其管理架構的各個層次均展示出承擔環境及社會責任以及環境及社會責任管理體系要求的業務夥伴，方合資格投標承接我們的合約。

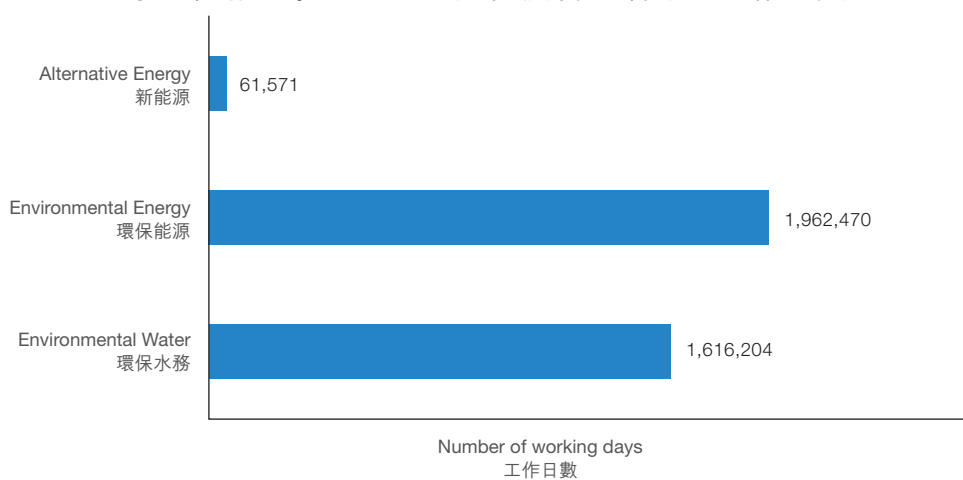


# Our Business Partners

## 我們的業務夥伴

### Days worked by contractor employees involved in construction, operation and maintenance activities

承包商僱員參與建造、運營及管理活動的工作日數



We are keen to show our support to local economies. It is our common practice to invite qualified suppliers from local-based suppliers, which include companies based in the provinces of our project companies, to submit tender for our procurement contracts.

我們致力突出我們對地方經濟的支持。我們一向有邀請具資格的地方供應商(包括我們項目公司所在的省份的公司)投標承接我們的合約。

In 2012, local sourcing accounted for  
於二零一二年，本地採購佔總購

# 66%

of total purchases  
(by value)  
(以價值計)。

We are committed to develop close and long-term working relationships with our business partners. In support of this, we believe that open communication is crucial for building confidence and trust between both parties. Standards and requirements on technical, environmental, social, and health and safety performance are clearly stated on projects agreements or contracts. On-site meetings are organized in a weekly basis to monitor the project's progress and performance. Business partners are also required to provide support to monitor and evaluate performance against environmental and social commitments and mitigation measures.

我們致力與我們的業務夥伴發展密切及長久的合作關係。就此，我們相信開放的溝通對雙方建立信心和信任非常重要。有關技術、環境、社會及健康與安全表現的標準及要求均清楚列於項目協議或合約。每星期舉行現場會議，以監察項目進度及表現。業務夥伴亦須提供支援，以監察及評估有關環境及社會承擔以及減輕措施的表現。



# Key Awards and Recognitions

## 獎項及殊榮

- Mr. CHEN Xiaoping, CEO of CEIL, was honoured as the “Man of the Year in China’s Green Industry” (June 2012)
- Re-selected as a constituent member of the Hang Seng Corporate Sustainability Benchmark Index Series
- China Company Award
- Hong Kong Outstanding Enterprise
- China Green-Benefit Enterprise Award
- 光大國際行政總裁陳小平先生榮獲「綠色中國年度人物獎」(二零一二年六月)
- 再獲選為恒生可持續發展企業基準指數系列成份股
- 傑出中國公司
- 香港傑出企業獎
- 中國綠效企業獎



China Green –  
Benefit Enterprise Award  
中國綠效企業獎



China Company Award and  
Hong Kong Outstanding  
Enterprise Award etc  
傑出中國公司獎及香港傑出企業獎等

# Outlook

## 展望

The year 2012 is an important milestone for CEIL, as we mark the 10th anniversary of our environmental protection business. During the past decade, we have been focusing on our three major business sectors: environmental energy, environmental water, and alternative energy. In future, we will continue to embrace our core value that “An Enterprise is not only the Creator of Wealth, but also the Safeguard of Environmental and Social Responsibility” as we believe it could drive us to sustainable growth in the long-term.

### Environment

We will keep looking for other investment opportunities in the PRC and abroad to enhance our market presence and make contribution to environmental protection with our business. Our current operational policies, procedures, and practices will be reviewed and improved on a regular basis for the sake of reducing emissions and other environmental impacts from our operations. Meanwhile, we will keep supporting and investing in research and development, particularly in the manufacturing and development of environmental equipment, to strengthen operation efficiency and reduce our carbon footprint.

### Health and Safety

Providing a safe and healthy working environment for people is always our top priority. We did a good job in the past few years to achieve an accident free workplace and we will continue to put our best effort to maintain and enhance our excellent health and safety record. Our policies, procedures and strategies in relation to health and safety would be reviewed on a regular basis, in consultation with employees and business partners, and updated where necessary to keep up with the latest legislative and company changes.

### Employees

We highly value our employees and we will continue to provide various platforms for employee engagement to voice their concerns. We will also provide our employees with numerous training opportunities to advance their career and personal development. To enlarge our volunteer pool, we will encourage our employees to devote their personal time and talents to charitable, educational and other social activities.

二零一二年標誌著我們的環保業務踏入十週年，對光大國際而言是個重要的里程碑。在過去十年，我們集中發展三個主要業務領域：環保能源、環保水務及新能源。將來，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，因為我們相信這個價值觀會推動我們長遠上持續增長。

### 環境

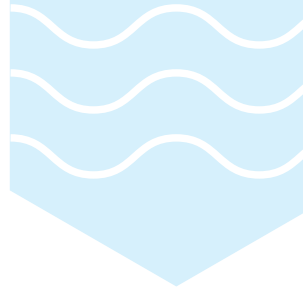
我們會繼續在國內外尋求其他投資機會，以加強我們的市場覆蓋，通過業務為環保作出貢獻。我們的運營政策、程序及實務會定期檢討及作出改善，以減低我們運營的排放及對環境的其他影響。同時，我們會繼續支持及投資於研究與開發，特別是生產及開發環保設備方面，以增強運營效率及減少我們的碳足印。

### 健康與安全

提供安全和健康的工作環境一直是我們優先關注的事項。我們在過去數年的工傷意外紀錄為零，殊不簡單，而我們會繼續盡力維持及提升我們優異的健康與安全紀錄。我們有關健康與安全的政策、程序及策略會定期檢討並諮詢僱員及業務夥伴的意見，在有需要時會因應最新的法例及公司轉變而更新。

### 僱員

我們高度重視我們的僱員，會繼續提供不同的溝通平台讓僱員表達他們的關注。我們亦會為僱員提供多方面的培訓機會，讓他們在事業和個人發展上更進一步。為了擴大我們的義工隊規模，我們會鼓勵僱員撥出個人時間和發揮自己的專長，參與慈善、教育及其他社會活動。



## Community

During our operation, we always uphold our mission of caring communities. We are committed to building harmonious relationship with the communities in where we operate. We will continue to actively participate in various social and environmental education activities to support infrastructure development and raise public awareness on environmental protection. As an environmental protection enterprise, we understand that the role we can play in training professionals for government agencies, other waste water treatment plants and waste-to-energy plants in locations where we operate. We will contribute to offer relevant trainings for the related parties to enlarge the pool of environmental protection practitioners in the PRC.

The following table shows our goals for year 2013 in various aspects that we consider important for us to be an environmental and social responsible company.

## 社區

在我們的運營過程中，我們一向秉持關懷社區的宗旨。我們致力與我們運營所在的社區建立和諧關係。我們會繼續積極參與不同的社會及環境教育活動，以支持基建發展及提高公眾的環保意識。作為一家環保企業，我們明白我們可出一分力，為我們營運所在的政府機構、其他污水處理廠及垃圾發電廠培訓專業人員。我們會為相關人士提供有關培訓，從而擴大中國環保參與者的規模。

下表顯示我們作為負起環保及社會責任的公司，在我們認為重要的各個方面為二零一三年定下的目標。

Aspect	有關方面	Goals for 2013	二零一三年目標
Environment	環境	Continue to increase our R&D investment in specialized technologies to further enhance our efficiency of electricity generation and waste water treatment. Establish greenhouse gas inventory conforming to ISO 14064 for all operating plants in 2013. Increase the recycled waste water used by 5%.	繼續增加我們於專門技術的研發投資，以進一步提高我們發電及污水處理效率。 於二零一三年為各間運營廠房建立符合ISO 14064的溫室氣體庫存。 循環再用污水將增加5%。
Health and Safety	健康與安全	Continue to achieve accident-free operations. Review and update our “Emergency Response Plan” on a regular basis.	繼續達致零意外的運營。 檢討及更新我們的「應急預案」。
Supply Chain	供應鏈	Incorporate green and human rights aspects in procurement policy.	將綠色及人權領域加入採購政策。
Employee Engagement	栽培僱員	Further extend the reach of our education programme to sponsor more staff for their post-graduate study in 2013 as compared with 2012.	進一步擴大我們教育計劃的接觸面，在二零一三年資助較二零一二年為多的員工修讀學位以上程度的課程。
Community	社區	Arrange more site visits for different kind of visitors in 2013. Engage more staff in volunteer services in 2013.	在二零一三年為不同類型的訪客安排更多實地參觀。 在二零一三年鼓勵更多員工參與義務服務。

# Verification Statement

## 核實聲明

### Third Party Independent Verification



#### 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 2012 Sustainability Report (herein referred to as “the Report”). The Report stated CEIL’s Sustainability performance and efforts towards sustainable development for the period from 1st January 2012 to 31st December 2012.

The aim of this verification was to provide assurance of the information stated in the Report is accurate, reliable, material and objective.

##### 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 CSR 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

A handwritten signature in black ink, appearing to read 'Bryan Peng', is written over a light blue horizontal line.

Bryan Peng  
General Manager  
Manufacturing and Service Business Division  
March 2013



## 獨立第三方的審核



### 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」)2012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2012年1月1日至2012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之內容為準確、可靠、重要及客觀。

#### 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  
總經理  
製造及服務業  
2013年3月

# Verification Statement

## 核實聲明

**GRI Application Level Check**  
全球報告倡議組織的核實(只提供英文版本)



## Statement GRI Application Level Check

GRI hereby states that **China Everbright International Limited** has presented its report "Sustainability Report 2012" 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, 27 March 2013

A handwritten signature in blue ink, appearing to read "Nelmara Arbex", is written over a faint circular watermark of the GRI logo.

Nelmara Arbex  
Deputy Chief Executive  
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 15 March 2013. GRI explicitly excludes the statement being applied to any later changes to such material.

# Summary of Statistics

## 數據摘要

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

### 經濟表現<sup>1</sup>

HK\$('000)	千港元	2012	2011	2010
Total revenue	總收益	3,825,199	3,723,309	2,990,959
Profit attributable to equity shareholders	股東應佔盈利	1,123,269	801,441	616,433
Total assets	資產總額	16,583,114	13,879,617	10,870,391
Shareholders' equity	股東權益	8,349,759	6,190,024	5,338,052
Basic earnings per share (HK cents)	每股基本盈利(港仙)	29.65	21.86	16.92
Return on shareholders' equity (%)	股東資金回報(%)	15.45	13.90	12.44

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

### 運營表現<sup>2</sup>

		2012	2011	2010
<b>Processing/Storage Capacity</b>	<b>處理／處存規模</b>			
Waste-to-energy (tonne per day)	垃圾發電(每日噸數)	8,150	8,150	4,550
Industrial solid waste landfill (m <sup>3</sup> )	工業固廢填埋量 (立方米)	512,000	512,000	142,000
Waste water treatment capacity (m <sup>3</sup> per day)	污水處理規模 (每日立方米)	1,550,000	1,550,000	1,550,000
Reusable water (m <sup>3</sup> per day)	中水(每日立方米)	46,800	46,800	–
<b>Performances<sup>3</sup></b>	<b>表現<sup>3</sup></b>			
Electricity generation (GWh)	發電量(百萬度)	1,307.55	776.39	585.89
Total electricity sent out (GWh)	總輸出電量(百萬度)	1,094.85	629.49	470.81
Waste water treatment volume (m <sup>3</sup> )	污水處理量(立方米)	508,822,000	500,972,000	458,054,000
<b>Plant availability (%)</b>	<b>廠房利用率(%)</b>			
Environmental Energy	環保能源	99.898	N/A	N/A
Environmental Water	環保水務	79.703	N/A	N/A
Alternative Energy	新能源	99.000	N/A	N/A
Overall	整體	92.867	N/A	N/A
<b>Certification Accreditation</b>	<b>認證</b>			
Number of ISO 9001 certificates	ISO 9001認證數目	10	7	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 2010, 2011 and 2012.

<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>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> 數據摘錄自二零一零年、二零一一年及二零一二年年報。

<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。

# Summary of Statistics 數據摘要

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

## 健康及安全<sup>2</sup>

		2012	2011	2010
<b>Number of fatalities</b>	因工死亡數字	0	0	0
<b>Number of disabling injuries</b>	因工傷殘數字	0	0	0
<b>Number of missed (absentee) days</b>	沒有上班(缺值)日數	3,418.5	1,938	1,263
<b>Disabling Injury Severity Rate (DISR)</b>	因工傷殘嚴重率(DISR)	0	0	0
<b>Certificate Accreditation</b>	認證			
Number of OHSAS 18001 (GB/T28001-2001) certificates	OHSAS 18001 (GB/T28001-2001) 認證數目	10	7	7

## Environment<sup>2</sup>

## 環境<sup>2</sup>

		2012	2011	2010
<b>Energy Consumed (GJ)</b>	耗用能源(吉焦)			
Fuel oil <sup>4</sup>	燃油 <sup>4</sup>	12,785.48	10,584.28	7,341.51
Electricity	電力	765,720	528,840	414,288
<b>Key Material used (T)</b>	所用主要物料(噸)			
Quicklime (CaO)/ Hydrated lime (Ca(OH) <sub>2</sub> ) <sup>4</sup>	生石灰(CaO)/熟石灰(Ca(OH) <sub>2</sub> ) <sup>4</sup>	45,371.71	22,980.80	14,562.07
Flocculants <sup>5</sup>	絮凝劑 <sup>5</sup>	53,205.26	70,945.54	45,748.77
PAC <sup>6</sup>	聚合氯化鋁 <sup>6</sup>	5,901.32	N/A	N/A
<b>Key Air Emissions (T)<sup>7</sup></b>	主要氣體排放(噸) <sup>7</sup>			
SO <sub>2</sub>	二氧化硫	1,381.36	478.01	314.53
NO <sub>x</sub>	氧化氮	4,847.63	1,651.07	865.98
Particulate Matter (PM10)	粒狀物(PM10)	1,677.27	176.92	67.09
CO <sub>2</sub> e (million T) <sup>8</sup>	CO <sub>2</sub> e(百萬噸) <sup>8</sup>	17.11	1.04	0.81
<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	127,150	46,922	43,094
Bottom ash produced	所產生爐渣	1,023,748	479,963	430,774
<b>Sludge<sup>6</sup></b>	污泥 <sup>6</sup>			
Sludge to landfill/incinerator	填埋/焚燒之污泥	235,112	244,443	256,031
Sludge recycled as fertilizer	循環用作肥料之污泥	197,971	168,647	162,048
<b>Certificate Accreditation</b>	認證			
Number of ISO 14001 certificates	ISO 14001 認證數目	10	7	7

<sup>5</sup> For leachate methane-to-energy projects and waste water treatment projects only.

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

<sup>7</sup> For waste water treatment projects and biomass power generation project only. Biomass power generation plant commenced its operation in September 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>5</sup> 只限於滲濾液沼氣發電項目及污水處理項目。

<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。



