

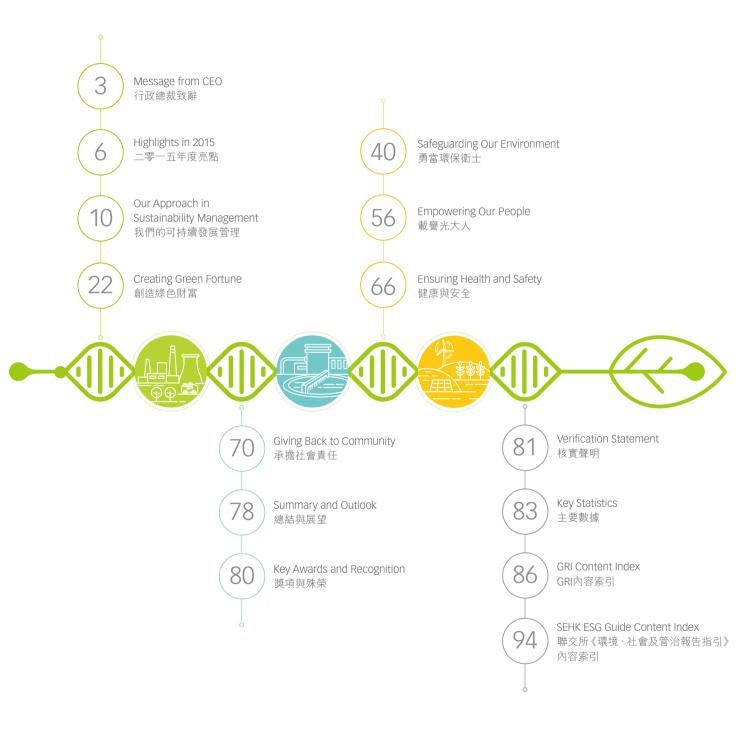
# 2015 SUSTAINABILITY REPORT 可持續發展報告

The Most
Reliable Brand
in the Green World
金色品牌 綠色事業

会会

CHINA EVERBRIGHT INTERNATIONAL LIMITED 中國光大國際有限公司

(Stock Code 股份編號: 257)





# Environmental friendliness

As a pioneer in environmental protection industry, we play an important role in combating climate change, improving urban environment and enhancing ecological resilience.

作為環保行業的先鋒,我們在應對氣候變化、 改善城市環境及提升生態復原能力佔一重要席位。



#### People oriented 以人為本

Our employees are the most valuable asset for our sustainable growth.

僱員是我們達成可持續增長的最寶貴資產。



Safety First 安全至上

We integrate the "Safety First" principle into our operation and strive to provide an accident-free working environment.

我們將「安全至上」的原則融入運營細節, 致力打造零意外的工作環境。





China Everbright International Limited ("CEIL" or the "Company"), Headquartered in Hong 中國光大國際有限公司(「光大國際」或「本公司」)總部 Kong, is the leading player in China's environmental protection industry and the first one- 位於香港·是中國環保行業的領軍企業·為中國首個 stop integrated environmental solution provider in the country. CEIL leverages talent, science 一站式、全方位的環境綜合治理服務商。本公司以 and technology to develop all of its four major business segments, Environmental Energy, 人才、科技為引領,全面推動旗下環保能源、環保水 Environmental Water, Greentech and Envirotech. CEIL also manages and implements a large 務、綠色環保及環境科技四大業務板塊的發展,培育 number of world-class, industry-leading projects in various sectors including waste-to-energy, 了一大批行業領先、具有國際水準的項目,包括垃圾 water restoration, biomass integrated utilization, hazardous waste treatment, photovoltaic 發電、水環境治理、生物質綜合利用、危廢處理、光 energy, wind power, environmental protection engineering, technological research and 伏發電、風力發電、環保工程建設、技術研發、環保 development, environmental protection equipment manufacturing, and planning, development 裝備製造、環保產業園的規劃及建設等。 and construction of environmental protection industrial parks.

We continue to disclose our sustainability activities and performance to stakeholders 踏入出版可持續發展報告的第四個年頭,我們持續 annually, and this year is the fourth year for us to publish our Sustainability Report ("the 每年向持份者披露於報告期間本公司在可持續發展 Report"). The Report presents our sustainability performance during the period from 1 上的重要表現。本報告涵蓋的週期為二零一五年一 January 2015 to 31 December 2015. Being consistent with our previous Sustainability Report 月一日至二零一五年十二月三十一日。延續上一份 (covering the period from 1 January 2014 to 31 December 2014), we adopted the Global 報告(涵蓋二零一四年一月一日至二零一四年十二月 Reporting Initiative's ("GRI") G4 Sustainability Reporting Guidelines and its Electric Utilities 三十一日),我們採用了全球報告倡議組織(「GRI」) Sector Disclosures document 'in accordance' with the Comprehensive option. In addition, 的《G4可持續發展報告指南》及其《電力行業披露文 the Report follows the Environmental, Social and Governance ("ESG") Reporting Guide 件》作為編寫依據·並滿足全面「依循」選項之要求。此 published by The Stock Exchange of Hong Kong Limited ("SEHK").

外,報告內容的制定亦遵守香港聯合交易所有限公 司(「聯交所」)發佈的《環境、社會及管治報告指引》。



Concept idea

changing environment.

China Everbright International Limited places emphasis on the environment and even

more emphasis on complementing the environment. It copes with market changes with innovation to enhance operational efficiency and achieve sustainable development through

本報告之設計以脱氧核醣核酸(DNA)為主軸, DNA為生物的遺傳密碼, 承載競爭優勢與

經驗,世代傳承大自然的智慧。與此同時,面對環境的不斷變遷,DNA亦發揮着「物競天擇,

The design of this report is centred on deoxyribonucleic

acid (DNA). DNA is the genetic code of living organisms

experiences as well as inherits the wisdom of the nature

from generation to generation. Meanwhile, DNA plays

an important role in the process of "natural selection".

in which it evolves continuously to cope with the ever

which carries their competitive advantages and

設計概念



# 以科技創新為引領

We hold the belief that innovation and technology are our core competitiveness.

我們堅信創新及科技是我們的核心競爭力。



#### Establishing industry standards 制定行業標準

We cooperate proactively with national bureaus and commissions to participate in the design of environmentally related technology standards and regulations.

我們積極推動及配合國家部委制訂或參與環 保相關技術標準或規範的編制。



We strive for developing harmonious local communities and creating better living environment for local residents.

我們致力維繫社區和諧,為當地市民打造更佳 的牛活環境。



The Report presents our sustainability performance of all CEIL's operating projects during 本報告涵蓋本公司擁有營運控制權並於報告期間運 the reporting period. These projects include waste-to-energy<sup>1</sup>, methane-to-energy, biomass 營中的垃圾發電<sup>1</sup>、沼氣發電、生物質發電、光伏發 power, photovoltaic energy, wind power, hazardous waste treatment, waste water treatment<sup>2</sup>, 電、風力發電、危廢處理、污水處理<sup>2</sup>、中水回用等項 and reusable water. The relevant entities could be found in our Annual Report 2015 - Note 目的可持續發展表現·相關實體的資料可參閱《二零 14 to the Financial Statements. Unless otherwise specified, employees of our contractors —五年年報》的綜合財務表附註14。除非另有註明, and subcontractors are not calculated as part of the Company's employees. Data collection 承包商及分包商的僱員並不計入本公司僱員的一部 and analysis are based on the relevant international or local guidelines or provisions. For 份。數據收集及分析乃根據相關國際或當地指南或 instance, methodology of Clean Development Mechanism ("CDM") is used for the calculation 準則進行,如使用清潔發展機制(「CDM」)之計算方 of greenhouse gas emissions.

The Company welcomes all stakeholders and the public to download the Report (English & 本公司歡迎各位持份者和公眾於光大國際網頁 Chinese versions), which is available on our company website http://www.ebchinaintl.com http://www.ebchinaintl.com下載本報告(備有中英文 and to provide valuable comments and suggestions in relation to this Report and our 版本)·以及就本報告及我們的可持續發展表現提 sustainability performance. Your feedback on the Report and our sustainability performance 供寶貴意見及建議。 閣下可把您的意見電郵至 can be sent to info1@ebchinaintl.com

法統計溫室氣體排放。

info1@ebchinaintl.com

# 中國光大國際有限公司注重環境,更注重與環境互相配合,以創新精神應對市場變化,以達 致精益求精,提升營運效益,展現光大集團優秀企業文化,令業務可持續發展。

本報告以環保紙張印製

its excellent corporate culture.

適者生存」之道,不斷演化求進。

This report is printed on environmentally friendly paper

www.ebchinaintl.com

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- 1 Since the operating time of Rizhao WtE Project ("Rizhao Project"), Weifang WtE Project ("Weifang Project") and Changzhou Xinbei WtE Project ("Changzhou Xinbei Project") was less than three months during the reporting period, to ensure the representativeness of data, the statistics of these projects are not included in the Report, unless otherwise specified. 由於日照垃圾發電項目([日照項目])、維坊垃圾發電項目([維坊項目])和常州新北垃圾發電項目([常州新北項目])於報告期內投運不足三個月、為確保數據的代表性、除非另有註明、該項目的主要數據將不會被包 含在本年度的可持續發展報告內
- 2 Since the waste water treatment projects of former Dalian Dongda Water Co., Ltd. ("Dalian Dongda") was acquired in November 2015, the business platform was still undergoing integration during the reporting period, these waste water treatment projects are not included in the Report 由於原大連東達水務有限公司([大連東達])的污水處理項目於二零一五年十一月才被收購,報告期正處於業務平台整合期,除非另有註明,本報告將不會涵蓋其旗下的污水處理項目。



Mr. Tang Shuangning

Chairman

China Everbright International Limited

唐雙寧

主席

中國光大國際有限公司



Every victory of mankind against nature will follow by retribution. The history 人類對大自然的每一次勝利,都伴隨著大 of human civilization is said to be a history of mankind pursuing benefit and 自然對人類的報復。一部人類文明史,可以 circumventing harm to the nature. When I read "The Condition of the Working 説就是人類處理與大自然關係的趨利避害 Class in England" by Engels, I saw the inherent ruthless of capitalism and plight 史。我讀恩格斯《英國工人階級狀況》,看到 of workers. I also saw the haze up in England's sky and pollution down in River 原始資本的殘酷和勞工的苦境,更看到英 Thames. Industrial civilization does not only lead to a systematic predicament, 格蘭上空的霧霾和泰晤士河的濁水。工業 but also result in an ecological predicament. These predicaments educate the 文明陷入了制度困境,也陷入了生態困境; people to pay attention to the environment.

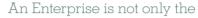
Everbright has long been dedicated to work on environmental protection. 光大有志於環境保護久也。拜各界友好 With the help of friends from various sectors and hard work for over a 之相助, 精十數年之苦功, 光大環保企業 decade, Everbright Environmental Protection has become a pioneer in the 位列國際先進,遍及大江南北,並遠播西 environmental protection business worldwide with operations throughout 歐、南洋·所到之地,山為之青,水為之 China as well as in Western Europe and Southeast Asia. Where we operate, we 藍。光大乃綜合型企業集團,有謀利之重 will make the earth greener and the water bluer. Everbright is an integrated 任,更有避害之天職;光大國際,激污濁而 conglomerate not only seeking to make profit, but also having a bounden 揚清·治公害而得利·此乃本企業應盡之 duty to safeguard our environment. Everbright International is responsible for 責也! eliminating the corrupted but preserving the pure, and combating the hazard while generating wealth.

The ups and downs of our civilization always go hand in hand with that of the 生態興則文明興,生態衰則文明衰。仰觀 ecosystem around us. When we look up to the sky and gaze down to the earth, 宇宙,俯察大地,天欲藍,地欲綠。君子愛 the sky will be bluer and the earth will be greener. A noble person loves money, 財,取之有道:社會責任,奉之為首。我願 but he attains it in a righteous way. In the same principle, a corporate has social 攜手各界, 祈盼朗朗乾坤! responsibility, and it should be set as top priority. I hope to collaborate with all sectors to achieve a brighter future in the years to come!

The above are my foreword to this report.

困境教育了人類,人類必須重視環境。

謹此為序。



# **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** ●

<sup>更應成為</sup>環境與責任的承擔者





China Everbright International Limited

副主席

中國光大國際有限公司



The environmental protection industry is a counter-cyclical sector that not only benefits the society but also provides long-term stable cash flow, enabling environmental protection companies to integrate both environmental benefits and the interest of the shareholders which shapes the company to become more diverse and versatile, so as to become a benefit creator, pollution solver and envionmental manager.

環保是抗週期性行業,造福社會的同時,亦能提供長期穩定的 現金流,令環保企業得以將股東利益與環境利益良好地融為 一體,有助於將企業塑造得更加立體、多元、多維度,成為效 益的創造者、污染的處理者和環境的管理者。

# Message from CEO 行政總裁致辭



2015 is a challenging year for China Everbright International Limited yet we were still empowered to attain greater achievement with rich harvest from previous years' efforts. In regard to the global consensus reached through the signing of "Paris Agreement" to tackle climate change challenges, a new page of global cooperation on environmental management was turned. And at the same time, the acceleration of comprehensively deepening reform under the "new normal" economy in China promotes new growth model of green, low-carbon and circular development, resulting in unprecedented opportunities for the Company's long term development in green economy, energy saving and environmental protection industries.

二零一五年對中國光大國際有限公司來説是充滿挑戰的一年,也是公司承先啟後、蓄勢發展的一年。放眼全球,應對全球氣候變化的《巴黎協議》簽約,開啟了世界各國協同治理環境的新篇章;回望國內,隨著國家加快和深化全面改革,著力在經濟[新常態]下推動綠色經濟循環發展的新增長模式,為中國的綠色經濟及節能環保產業帶來長遠發展的空前機遇。

CEIL upholds the core value of "An Enterprise is not only the Creator of Wealth, but also the Safeguard of Environmental and Social Responsibility" with a high sense of social responsibility and persistent pursuit of environmental protection. In addition, we adhere to the development strategy of "Leveraging Talent, Science and Technology to Expand from Coastal to Inland Cities, from Urban to Rural Areas, and from Domestic to Overseas Markets with High Standards" to promote our four major business segments namely Environmental Energy, Environmental Water, Greentech and Envirotech. Over the past year, we have secured 34 new environmental protection projects with a total investment of over RMB10 billion. The Company continues to expand our development areas and extend the industrial chain with regional management advantages, strengthening internal management and improvement in talent management strategy.

光大國際本著「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」這一核心價值觀,以高度的社會責任感和對環保的執籍追求,堅持「以人才、科技為引領,高起點進從沿海向內陸、從城市向農村、從國內內陸、從城市向農村、從國內外」的發展戰略,全面推進旗下環保能源、城保水務、綠色環保和環境科技四大業務保保,齊驅發展。一年來,我們新增了34個環保保的齊驅發展。一年來,我們新增了34個環發保的齊驅發展。一年來,我們新增了34個環稅保護的方。 區域持續擴大,產業鏈不斷延伸,區域管理優勢明顯,內部管理顯著增強,人才戰略進一步完善。

# Message from CEO 行政總裁致辭

To become an outstanding environmental protection enterprise, human capital, technology, innovation and responsibility are the keys to business development. The Company has consistently pursued the "People-oriented" development strategy, and adhered to creation of good career development environment for our employees and implementation of a flexible, fair and impartial employment mechanism, attracting and retaining a wide array of talents. With the rapid development of the Company, the number of our staff has increased by more than 40% over the past year. We continue to provide executing ability training, specialized technical training and on-the-job education as important means to empower different talents. During the year, the Company further improves the tiered talent development strategy with a replacement mechanism, where excellent technical and management talents outstand under such structure with their practical experiences, laying a cornerstone for future enterprise development.

The vitality of an enterprise originates from science and technology, and technological innovation is the driving force of enterprise development. Over the past year, we introduced a number of technologies into our operations and promoted enterprise innovation through research and development. This would continue to be a main theme of our future development. At the same time, the Company is committed to enhancing research capacities and standards, grasp the dynamics and trends of technological development in terms of engineering construction, operation management and equipment manufacturing, and empower the sustainable development of the Company through setting project highlights and standards.

企業的生命力源於科技,科技創新是企業發展的原動力。過去一年本公司引進了多項技術,通過技術的開發,推動企業創新發展,這將是本公司未來發展的一個主旋律。同時,本公司致力提升科研能力及水平,及時把握科技發展的動態和變化趨勢,無論在工程建設、運營管理還是裝備製造方面,通過項目亮點和標準的打造,為公司的可持續發展注入強勁的動力。

As an environmentally responsible enterprise, the Company is committed to using advanced technologies and industry standards, consistently enhancing the efficiency of resource utilization and optimizing environmental performance. We also strive to respond climate change challenges, improve urban environment and enhance ecological resilience. Over the past year, the Company handled 6.928 million tonnes of household waste and 52,000 tonnes of hazardous waste under harmless treatment with resource recovery. Our environmentally-friendly power generation facilities provide a total of 2.738 million kWh of green electricity, which is equivalent to the electricity consumption of 2.282 million households in one year, saving 1.095 million tonnes of standard coal and reducing 2.922 million tonnes of CO2 emissions. We also treated 899 million cubic meters of waste water and 1.353 million cubic meters of leachate, avoiding about 300,000 tonnes of Chemical Oxygen Demand ("COD") discharge.

作為一家以環保為己任的企業,本公司始終堅持採用先進的科技和行業標準,持續提升資源運用效率和優化環境表現,在應對氣候變化、改善城市環境及提升生態復原能力上努力踐行。過去一年,本公司無害化、資源化處理了692.8萬噸生活垃圾及5.2萬噸危險廢物。我們的環保設施合共提供27.38億千瓦時的綠色電力,相當於為228.2萬戶家庭提供一年的電力,亦相當於節約標煤耗用109.5萬噸,及減少二氧化碳排放292.2萬噸。我們亦分別處理了8.67億立方米的污水及135.3萬立方米的滲濾液,化學需氧量(「COD」)減排共30萬噸。

As a socially responsible enterprise, the Company pioneers in China to promote the highest emission standards, in which flue gas emissions from waste-to-energy projects fully comply with or are better than the relevant standards set out in the European Union Industrial Emission Directive (2010/75/EU) ("Euro 2010"). In addition to strict compliance with high emission standards, we proactively disclose emission standards and other environmental management information of our waste-to-energy projects on the Company's website since August 2015 for open and transparent public scrutiny and at the same time initiate the industry to disclose relevant information to the public. Over the past year, we also became strategic partners with the Chinese Society for Environmental Sciences and the Chinese Ecological Civilization Research and Promotion Association to jointly promote the World Environment Day on "5th of June", China Ecological Civilization Forum and other activities. We also fully supported WWF-HK's Earth Hour for the second consecutive year and enhanced public awareness of environmental protection through a series of environmental events.

The curtain of our new development strategies has unveiled. We expand our regional development from coastal cities to inland cities; from Urban to Rural Areas; and from Domestic to Overseas Markets. We seek new development opportunities through exploring new technologies and business areas in Environmental Energy, Environmental Water, Greentech and Envirotech. Looking ahead, CEIL will comprehensively promote the optimization and implementation of the Risk Management System and Environmental, Safety, Health and Social Responsibility ("ESHS") Management System under the new management structure in line with the series of new national regulations and strategies on air and water resources pollution control, in order to extend the development scope of the Company from domestic to overseas markets and seek greater responsibilities and stronger roles for the Company on ecological environment.

光大國際新一輪發展的布局已拉開序幕。橫向上,從沿海向內地,從城市向農村,從國內 向國外市場的區域發展已全面鋪開;縱向上, 環保能源、環保水務、綠色環保、環境科技 將以新的面貌,在新的技術和業務領域科技 新的發展商機。展望將來,光大國際將全重 進新的管理架構下的風險管理體系和環境 安全、健康、社會責任([ESHS])管理體系 方之。 一系列新環保法規和策略,推動 定 行為。

CHEN Xiaoping
Chief Executive Officer

25 May 2016

陳小平 行政總裁

二零一六年五月二十五日

# Highlights in 2015 二零一五年度亮點





# Business Development and Operations

- Secured 12 new waste-to-energy projects with a total daily processing capacity of 6,450 tonnes of household wastes
- Secured 4 new waste water treatment projects and 1 new reusable water project
- Secured 12 new urban-rural integration projects, 2 new biomass integrated utilization projects and 1 new hazardous waste treatment project
- Expanded into the field of food waste treatment and secured 2 food waste treatment projects
- © Completed construction and commenced operation of 6 waste-to-energy projects (Ningbo Phase II, Zhenjiang Phase II, Boluo, Rizhao, Changzhou Xinbei and Weifang projects)
- © Completed the acquisition of 17 waste water treatment projects of Dalian Dongda Water and increased the contract capacity of waste water treatment by 1.125 million m³ per day
- © Completed construction and commenced operation of 1 sludge treatment project (Sanya Sludge Treatment Project) and 5 waste water treatment projects (Sanmenxia, Yangzhou Jiangdu Phase II, Binzhou Phase II, Nanjing Pukou Phase II and Zibo Reusable Water projects Phase II)
- Completed construction and commenced operation of 2 wind power projects (Changfangshan and Zhaojiashan projects)
- Selected as the Constituent Stock of Hang Seng Corporate Sustainability Index for the second consecutive year

# 業務拓展與運營

- 新增12個總日處理生活垃圾6,450噸的垃圾 發電項目
- **彡** 新增4個污水處理項目及1個中水回用項目
- 新增12個城鄉一體化項目、2個生物質綜合利用項目及1個危廢處置項目
- 愛 進入餐廚垃圾處理領域,取得2個餐廚垃圾處理項目
- 建成投運垃圾發電項目6個(寧波二期、鎮江 二期、博羅、日照、常州新北及濰坊項目)
- 完成收購大連東達17個污水處理項目,新增總合約日污水處理規模達112.5萬立方米
- 建成投運污泥處理項目1個(三亞污泥處理項目)及污水處理項目5個(三門峽、揚州江都二期、濱州二期、南京浦口二期以及淄博中水項目二期)
- 愛建成投運風力發電項目2個(長房山及趙家山風電項目)
- 遵 連續第二年獲納入恒生可持續發展企業指數成份股





# Research and Development

- Established Everbright Environmental Protection Technology Institute, which develops advanced technological solutions
- Successfully imported countercurrent rotary kiln technology for hazardous waste treatment from a Belgian company, BIC, and the water-cooling grate furnace technology from a Swiss company, Stiefel, thereby further improving the Company's technological development capabilities
- © CEIL's overall achievements in waste incineration were certified by experts to have reached international advanced level
- Successfully obtained 7 invention patents, 24 utility invention patents and 3 software copyright licenses
- Project subsidies amounted to a record of RMB227 million

# 科研開發

- **彡** 成立光大環保技術研究院,技術成果日趨成熟
- 成功引進比利時BIC危廢逆流回轉窯焚燒技術、瑞士斯特福公司水冷爐排技術,通過消化吸收,提升科研能力
- 垃圾焚燒全方位成果通過專家鑒定達到國際先進水準
- 獲得發明專利授權7項、實用型專利授權24項及獲授權軟體著作權3項
- 獲國家專項補貼人民幣2.27億元,創歷年 之最

# Highlights in 2015 二零一五年度亮點





# **Environmental Protection**

- Environmental Energy and Greentech projects generated a total of 2,738 GWh of green electricity, which could serve 2.282 million households for an entire year
- Environmental Energy and Greentech projects saved standard coal of 1.0953 million tonnes and reduced 2.9222 million tonnes of carbon dioxide emission
- Environmental Water projects treated 867 million m³ of waste water and 1.3532 million m³ of leachate respectively, achieving COD reduction of about 300,000 tonnes
- Recycled and reused water consumption in the production process was up to 89%, which was 7% higher than 2014
- Became the first company in China to disclose emission standards and environmental management information of the operating projects to the public, setting an industry's best practice
- Pushed forward the establishment of the ESHS Management System
- Adopted Clean Development Mechanism's methodology, a standard more applicable to the waste-to-energy industry compared to the national standard, for greenhouse gas emission calculation

# 環境保護

- 貿 環保能源和綠色環保項目共產生綠色電力 27.38億千瓦時,可供228.2萬戶家庭一年使 用
- 受 環保能源和綠色環保項目節約標煤109.53 萬噸,減少二氧化碳排放292.22萬噸
- 受 環保水務項目分別處理污水及滲濾液8.67 億立方米及135.32萬立方米,實現COD減 排約30萬噸
- ≝ 生產中的循環用水量達89%,比二零一四年上升7%
- 成為國內首家披露排放標準及環境管理信息的企業,樹立行業標竿
- 質 推進ESHS管理系統的建立
- 質 首次採用比國家標準更切合垃圾發電行業的清潔生產機制來計算溫室氣體排放

# **Employee Development**

- Developed human resources through internal training and recruited talent recruiting talents from local and abroad and through on-campus recruitments
- © Created conditions for and encouraged competitive selection of the management
- Built up a talent pool, and created a tiered talent development strategy with a replacement mechanism, in order to ensure that employee development is in line with our new round of development
- Organized training courses and executing ability training camp to improve the overall quality of staff, where the average annual training time exceeded 55 hours per staff
- Arranged senior managers and technical leaders to participate in a CEO course (5th session) and a Master in Engineering course (3rd session) at Tsinghua University

# Contribution to the Society

- Everbright International Environmental Protection Charitable Foundation supported WWF-HK's Earth Hour for the second consecutive year
- Organized student groups to visit relevant projects, arranged symposiums and workshops, and appointed student ambassadors to disseminate messages about environmental protection to Hong Kong residents to improve public environmental awareness
- Built a strategic partnership with China Ecological Civilization Research and Promotion Association and Chinese Society for Environmental Sciences to promote environmental protection education
- Our environmental protection projects served as local environmental education bases and industrial tourist attractions. During the reporting period, our projects received approximately 48,000 local and overseas visitors through visits, study tours and exchange tours
- Awarded the Best Social Responsibility Brand Award in the China Charity Festival 2014

## 員工發展

- 通過自身培養、實地招聘、海內外招聘、校園招聘廣泛招攬人才
- **哟** 創造條件推進系統內管理人員競聘上崗
- 愛建立人才儲備庫,建立階梯式、遞補式人才發展戰略,為新一輪發展做好人力資源儲備
- 學辦培訓課程及執行力培訓,提升整體素質,每名員工年均培訓時數超過55小時
- 超組織管理技術骨幹參加清華大學第五期 CEO班及第三期工程碩士班

## 貢獻社會

- 形大國際環保公益基金會」連續第二年支持世界自然基金會香港分會「地球一小時」 大型環保活動
- 聯合組織學生參觀考察,透過研討會、工作坊、學生大使宣傳,將環保資訊傳達給香港市民,提高環保意識
- 與中國生態文明研究與促進會及中國環境 科學學會建立戰略合作關係,加強宣傳推 廣環保科普教育
- 環保項目作為當地的環保教育基地及工業 旅遊景點,全年共接待前往參觀、考察、學 習交流的國內外人士約4.8萬人
- 受 榮獲2014(第四屆)中國公益節最佳責任品牌獎

# Our Approach in Sustainability Management 我們的可持續發展管理



# Our Stakeholders Engagement

We firmly believe that the success of an environmental protection enterprise depends on maintaining close and meaningful relationships with our stakeholders, and we are committed to involving different stakeholders in our decision-making processes. Based on the five identification and selection principles listed below, our major stakeholders include:

# 持份者的參與

我們堅信一家環保企業的成功有賴於與持份 者保持緊密且有意義的關係,並致力讓各持 份者參與公司的重大決策。根據下列五大識 別原則,我們的主要持份者包括:



We collect stakeholders' views towards our project operation and environmental performance regularly throughout the project lifecycle, and adopt internationally recognized principles of effective stakeholder engagement, such as having due regard to the opinions from female, disadvantaged and ethnic minorities, etc. We have developed a stakeholder participation plan for all project companies. To ensure efficacy of the plan, we evaluate the effectiveness of our stakeholder engagement activities at different project phases, including project proposal stage, environmental impact assessment stage, preliminary design stage, detailed assessment stage, project construction stage and project operation stage. We also identify the high priority issues that are relevant to the sustainable development of our projects.

我們在項目的各個週期都會定期收集持份者對我們的項目運營和環保表現表達的意見,並遵從國際認可的有效參與原則,如充分考慮女性、弱勢和少數族裔的意見等等。我們亦為每個項目公司制定了持份者參與計劃,在項目立項、項目環評、項目初設、詳細評估、項目建設和項目運營等階段,我們會持續檢討持份者參與活動的成效,並識別與項目的可持續發展息息相關的重大議題。



Active listening to views of different stakeholders enables a business to recognize its own strengths and weaknesses. It also benefits a business's continuous learning and improvement. Considering this, we invited an independent consultant to conduct a special survey for our stakeholders from 8 different sectors, and the findings reveal encouraging responses. The key findings of the survey are shown as follows:

聽取不同持份者的意見能使企業認清自身的優缺點,有助於企業的持續學習與進步。故此本公司邀請獨立顧問針對來自8個不同界別的持份者進行了一次特別的持份者意見調查,並收到了令人鼓舞的回應。以下為是次持份者調查的主要結果:

Stakeholders' rating to the sustainable development performance of CEIL in 2015: 持份者對光大國際
二零一五年可持續發展的表現的評分:

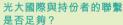


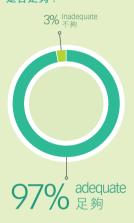
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Have you read the CEIL Sustainability Report 2014? 有否看過光大國際可持續發展 報告2014?

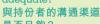


Is the engagement of CEIL with its stakeholders adequate?





Are the communication channels with stakeholders adequate?





Stakeholders' voices 持份者心聲



CEIL's environmental management and care for the local residents have proven its achievements in corporate social responsibility and sound management.

光大國際在周邊環境的管理、對當地居民的關切等方面都能證明作為一個企業,光大國際 負責任,管理到位,能做事,做好事。

> - Villager living near an Environmental Energy project - 環保能源項目附近村民



Suqian Waste-to-energy Project has continuously improved its environmental standards, upgraded and modified its leachate treatment process, resulting in zero discharge of waste water, protection of the urban environment and contribution to the district's sustainable development.

宿遷垃圾發電項目不斷提高環保標準,對滲濾液處理進行提標改造,實現污水零排放,保護了城市環境,為綠色可持續發展貢獻了力量。

- Local government representative - 當地政府代表



CEIL revised the organizational structures and business segments, in order to adapt to the company's overall development plan. This allows employees visualize the bright future of codevelopment with the company.

2015年光大國際根據公司的發展需要重新調整新的組織架構及板塊,適應了公司的整體發展規劃, 也讓員工看到了與企業共同發展的美好願景。

> - Employee of CEIL - 光大國際員工





# Our Approach in Sustainability Management 我們的可持續發展管理



Understanding the concerns of every stakeholder is another key objective of the stakeholder survey. We believe the findings will help us develop strategy timely to meet the needs of our stakeholders and take a precautionary approach on risk management. In addition, identification of critical concerns from stakeholders is crucial for the Report to set out material topics. The following table summarizes our stakeholder engagement exercises and the issues of highest concerns.

是次持份者調查的另一個重要目的是了解各持份者的關注事項。我們相信這有助於我們及時制定策略滿足持份者的需求,做到防患問題於未然。此外,識別持份者的關注事項對本報告重大議題的定立至關重要。下表總結了本公司持份者參與活動的情況及其關注事項。

Stakeholder Groups 持份者組別	Channels of Engagement or Communication 參與或溝通途徑	Frequency or Time of Engagement 頻率或時間	Issues of Highest of Concern 持份者最關注的事項
Investors/ Shareholders 投資者/股東	<ul> <li>Annual/Extraordinary general meeting 週年/特別股東大會</li> <li>Press release/Announcement 新聞稿/公告</li> <li>Annual/Interim Report 年報/中期報告</li> <li>Non-deal roadshow 非交易路演</li> <li>Circular 通函</li> <li>Meeting 會議</li> </ul>	<ul> <li>Year end/Interim 年末/中期</li> <li>Regular 定期</li> </ul>	<ul> <li>Indirect economic impacts 間接經濟影響</li> <li>Social compliance 社會合規事宜</li> <li>Anti-corruption 反腐敗</li> <li>Investor communication 投資者通訊</li> <li>Economic performance 經濟績效</li> </ul>
Employees 僱員	<ul> <li>Business meeting 工作會議</li> <li>Conference 專題會議</li> <li>Face-to-face meeting 當面會談</li> <li>Everbright periodical journal 光大報刊</li> <li>Charitable activity 公益活動</li> <li>Interim/Year end performance appraisal meeting 年中/年末表現評估會議</li> </ul>	<ul> <li>Regular 定期</li> <li>Year end/Interim 年末/中期</li> <li>Ad-hoc 非特定</li> </ul>	<ul> <li>Environmental compliance 環保合規事宜</li> <li>Environmental grievance mechanism 環境問題申訴機制</li> <li>Economic performance 經濟績效</li> <li>Operational efficiency 運營效能</li> <li>Occupational health and safety 職業健康與安全</li> <li>Social compliance 社會合規事宜</li> <li>Disaster/Emergency response planning 災難及應急預案規劃</li> </ul>
Local governments 當地政府	<ul> <li>Progress report 進度報告</li> <li>Site visit 現場考察</li> <li>Meeting 會議</li> <li>Wechat and QQ 微信及QQ</li> </ul>	<ul> <li>Weekly, monthly, quarterly 每週、每月、每季度</li> <li>Ad-hoc 非特定</li> </ul>	<ul> <li>Operational efficiency 運營效能</li> <li>Materials and resources utilization 物料及資源利用</li> <li>Waste water and waste management 污水和廢物處理</li> <li>Environmental grievance mechanism 環境問題申訴機制</li> <li>Social grievance mechanism 社會影響問題申訴機制</li> <li>Disaster/Emergency response planning 災難及應急預案規劃</li> </ul>
Business partners/ Suppliers 業務夥伴/供應商	<ul> <li>Procurement tender meeting 採購招標會</li> <li>Monthly telephone follow-up 月度電話回訪</li> <li>Survey 調查問卷</li> <li>Wechat and QQ 微信及QQ</li> </ul>	<ul> <li>Monthly 每月</li> <li>Ad-hoc 非特定</li> </ul>	<ul> <li>Procurement practices 採購行為</li> <li>Greenhouse gas management and combating climate change 管理溫室氣體排放及應對氣候變化</li> <li>Environmental compliance 環保合規事宜</li> <li>Occupational health and safety 職業健康與安全</li> <li>Supplier assessment for labor practices 對供應商的勞工實踐評估</li> </ul>



Stakeholder Groups 持份者組別	Channels of Engagement or Communication 參與或溝通途徑	Frequency or Time of Engagement 頻率或時間	Issues of Highest of Concern 持份者最關注的事項
Local communities 當地社區	<ul> <li>Site visit 現場考察</li> <li>Survey 意見調查</li> <li>Public hearing 公聽會</li> </ul>	<ul> <li>Before construction 工程施工前</li> <li>Regularly during operation 於運營期間定期進行</li> <li>Ad-hoc 非特定</li> </ul>	<ul> <li>Waste water and waste management 污水和廢物處理</li> <li>Environmental compliance 環保合規事宜</li> <li>Environmental education 環境教育</li> <li>Occupational health and safety 職業健康與安全</li> <li>Indigenous rights 原住民權利</li> </ul>
Media 媒體	<ul> <li>Site visit 現場考察</li> <li>Press release 新聞稿</li> <li>Executives interview 高層採訪</li> </ul>	<ul> <li>Regular 定期</li> <li>Upon request 有需要時</li> <li>Ad-hoc 非特定</li> </ul>	<ul> <li>Greenhouse gas management and combating climate change 管理溫室氣體排放及應對氣候變化</li> <li>Waste water and waste management 污水和廢物處理</li> <li>Occupational health and safety 職業健康與安全</li> <li>Economic performance 經濟績效</li> <li>Local communities participation 社區參與</li> </ul>
Investment analysts 投資分析員	<ul> <li>Site visit 現場考察</li> <li>Meeting 會議</li> <li>Press release/Announcement 新聞稿/公告</li> <li>Annual/Interim Report 年報/中期報告</li> </ul>	<ul> <li>Regular 定期</li> <li>Ad-hoc 非特定</li> </ul>	<ul> <li>Economic performance 經濟績效</li> <li>Environmental compliance 環保合規事宜</li> <li>Employee welfares 員工福利</li> <li>Diversity and equal opportunity 多元化與機會平等</li> <li>Market presence 市場型象</li> </ul>
Non-governmental organizations 非政府組織	<ul> <li>Charitable activity 公益活動</li> <li>Site visit 現場考察</li> </ul>	<ul><li>Regular 定期</li><li>Ad-hoc 非特定</li></ul>	<ul> <li>Operational efficiency 運營效能</li> <li>Greenhouse gas management and combating climate change 管理溫室氣體排放及應對氣候變化</li> <li>Employee welfare 員工福利</li> <li>Local community participation 社區參與</li> <li>Environmental education 環境教育</li> </ul>





# Our Approach in Sustainability Management 我們的可持續發展管理



# Our Materiality Assessment

# 實質性評估

In response to the GRI requirement on report materiality, we conduct systematic materiality assessment for our Sustainability Report on an annual basis. The assessment helps us identify issues that are of significant economic, environmental and social impacts on the Company and our stakeholders, which will be disclosed in details in the Report. The chart below summarizes the major steps of this year's materiality assessment:

為響應GRI對報告實質性的要求,我們每年均會為編制可持續發展報告進行系統性的實質性評估。該評估有助於識別對本公司及其持份者具重大影響的經濟、環境和社會議題,這些議題將在本報告詳盡披露。下圖總結了本年度實質性評估的主要步驟:

(Stage 1) (第一階段) / 2

(Stage 2) (第二階段)



(Stage 3)

4

(Stage 4) (第四階段)

# Identification of Material Issues 重大議題的識別:

The identification of material topics was carried out by our independent environmental consultant. Our independent environmental consultant applied the principle of sustainability context to analyze impacts of CEIL's operations, products and networks on economic, environmental and social aspects, and conducted a detailed review of the GRI aspect list, business strategies and targets, stakeholders' opinions and CEIL's internal publications, media reports and so on. Around 30 relevant topics were identified. These include the Company's impacts on economic, environment, labor, human rights and other social issues.

重大議題的識別由本公司的獨立環境顧問進行。本公司的獨立環境顧問運用可持續發展脈絡原則分析光大國際的運營、產品和網絡在經濟、環境和社會方面的影響,並透過仔細檢閱GRI範疇清單、企業策略和目標、持份者意見及光大國際的內部刊物和媒體報導等資料,確立了約30個相關議題,涵蓋本公司於經濟、環境、勞工、人權及其他社會事項等的廣泛影響。

# Prioritization of Material Issues 重大議題的優先排序:

Based on the material issues identified in Stage 1, our independent environmental consultant consulted 8 different groups of stakeholders through a thirdparty stakeholder survey, and identified the issues of highest concern for each of the stakeholder group. At the same time, the material issues identified were prioritized by our independent environmental consultant based on the analysis of how each material issue help (or hinder) the Company to achieve our strategic targets. Through statistical analysis of the resulting data, a matrix of material aspects was produced. These 16 prioritized material aspects are the Report's disclosure focus.

# Validations of the Material Issues 重大議題的驗證:

The independent environmental consultant presented the prioritized material aspects and their boundaries to the senior management of CEIL. affirming the material issues are significant to the sustainable development of CEIL. This validation aims to ensure rationality, balance and completeness of the Report. Upon approval by the senior management, the independent environmental consultant translated material issues into GRI Standard Disclosures for reporting. The Company's operation management center has established systematic data collection and monitoring mechanisms to manage the sustainability data of all project companies for reporting purposes.

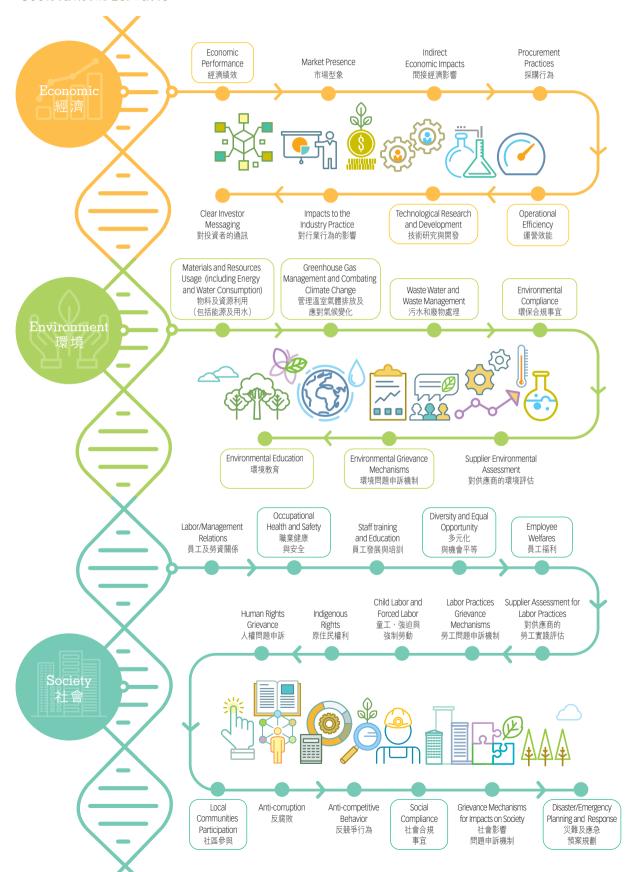
# Review on Materiality 重大議題的回顧:

In order to review and update the focus of our sustainability reports, prior to the preparation of a sustainability report, we carefully review the material issues and disclosure practices of the previous report and take reference from the advice of the third-party assurance body. To effectively review, we also collected stakeholders' views towards our last sustainability report from the independent stakeholder survey. We believe this review would be conducive to the composition of the future sustainability report and the findings will contribute towards the development of the Company's long-term and practical sustainable development targets and strategies.

於每次準備新的可持續發展報 告之前,我們會認真回顧左 份報告的重大議題和披露 法,以及參考第三方核實 的意見,從而檢視和更新可 續發展報告的重點。此外, 續發展報告的重點。此外, 們會在獨立的持份者對上期查 活。我們相信此評估不 其寫可持續報告,更能推動 本公司制定長遠而實際的可持 續發展目標和策略。



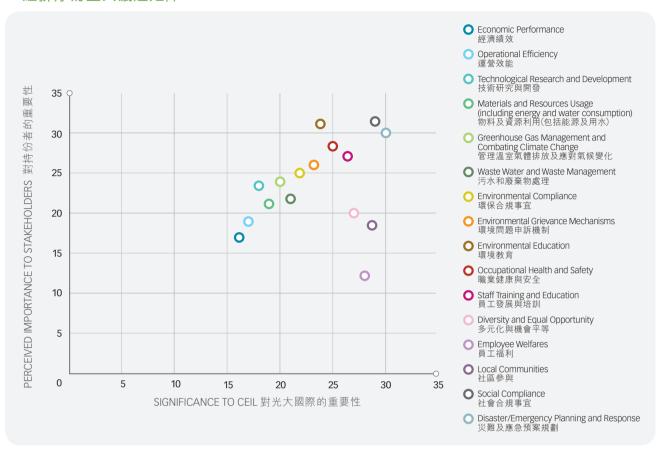
# Sustainability Priorities 可持續發展的優先排序



# Our Approach in Sustainability Management 我們的可持續發展管理



# Prioritized Material Aspects Matrix 經排序的重大議題矩陣



The 16 prioritized Material Aspects were translated into GRI Standard Disclosures as shown in the table below. Based on these Standard Disclosures, the Report will disclose the sustainability performance of the relevant operating projects under the Company's control during the reporting period, which include waste-to-energy, methane-to-energy, biomass power, photovoltaic energy, wind power, integrated hazardous waste treatment, waste water treatment, and reusable water. The scope of the Report is expanded to include new projects commenced operation in 2015, including but not limited to Zhenjiang WtE Project (Phase II), Ningbo WtE Project (Phase II), Sanya WtE Project, Boluo WtE Project, Ju County Waste Water Treatment Project, Sanmenxia Industry Cluster Area Waste Water Treatment Project and Ningwu Wind Power Project (Changfangshan & Zhaojiashan). Comparing with the previous Sustainability Report, this Report discloses our sustainable development topics in a more focused manner with closer alignment of GRI Standard Disclosures. The Report has one restatement of information in Sustainability Report 2014 concerning the economic performance. For details please refer to the "Key Statistics" chapter.

上述16個經排序的重大議題已轉換成下表中 的GRI的標準披露。本報告將圍繞這些標準披 露, 匯報本公司擁有運營控制權並於報告期間 營運中的垃圾發電、沼氣發電、生物質發電、 太陽能光伏發電、風力發電、危廢綜合處理、 污水處理、中水回用等項目的可持續發展表 現。本報告新增的報告範圍主要涉及二零一五 年新投運的項目,包括但不限於鎮江垃圾發電 項目(二期)、寧波垃圾發電項目(二期)、三亞 垃圾發電項目、博羅垃圾發電項目、莒縣污水 處理項目、三門峽污水處理項目及寧武風電項 目(長房山和趙家山)。與上一份可持續發展報 告相比,本報告的可持續發展議題範疇更為集 中,並更為貼近GRI的標準披露的內容。本報告 對《二零一四年可持續發展報告》的經濟表現數 據有所修訂,詳情請參閱「主要數據」章節。



M	aterials Aspects covered in this Report 本報告涵蓋的可持續發展重大議題			S		er Group 昏組別ª	oS <sup>α</sup>		
Categories 類別	GRI Standard Disclosure GRI標準披露								
		IS	Е	G	L	BS	M	A	N
Economic 經濟	Economic Performance 經濟績效(G4-EC1~5)	√	√	√	√	√	√	√	<b>V</b>
	Technological Research and Development 科技研究與開發(EU8)	√	√	√		√	√	√	
	Operational Efficiency 運營效能(EU10~12)	√	$\checkmark$	√	√	$\checkmark$		$\checkmark$	
Environment 環境	Materials 原物料(G4-EN1~2)	√	√	√	$\checkmark$	$\checkmark$	√		$\checkmark$
	Energy 能源(G4-EN3~7)	√	$\checkmark$	√	$\checkmark$	$\checkmark$	√		$\checkmark$
	Water 7k(G4-EN8~10)	$\checkmark$	$\checkmark$	√	$\checkmark$		$\checkmark$		$\checkmark$
	Emissions 排放(G4-EN15~21)	√	$\checkmark$	√	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$
	Effluent and Waste 污水及廢物(G4-EN22~26)	√	√	√	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$
	Environmental Compliance 環境合規事宜(G4-EN29)	√	√	√	$\checkmark$	$\checkmark$	√	√	$\checkmark$
	Environmental Grievance Mechanisms 環境問題申訴機制(G4-EN34)	√		√	$\checkmark$		$\checkmark$		$\checkmark$
	Environmental Education <sup>b</sup> 環境教育 <sup>b</sup>	√	√	√	$\checkmark$	$\checkmark$	√		$\checkmark$
Society 社會	Labor/Management Relations 勞僱管理層關係(G4-LA1~4:EU15)	√	√	√					
	Occupational Health and Safety 職業健康與安全(G4-LA5~8)	√	√	√	$\checkmark$			$\checkmark$	$\checkmark$
	Training and Education 訓練與教育(G4-LA9~11)	√	√					√	
	Diversity and Equal Opportunity 員工多元化與平等機會(G4-LA12~13: HR3: HR12)	<b>√</b>	<b>√</b>					√	<b>V</b>
	Local Communities 當地社會(HR5~6: G4-HR8·SO1~2·EU22)	√		<b>V</b>	√		<b>V</b>		1
	Social Compliance 社會合規事宜(G4-S08·S011)	<b>√</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>V</b>	<b>√</b>	√	<b>V</b>
	Disaster/Emergency Planning and Response 災難/緊急事故規劃和應急(G4-DMA)	<b>V</b>	<b>√</b>	<b>V</b>	<b>√</b>		√	$\sqrt{}$	$\sqrt{}$

#### Remarks:

Explanation of stakeholder groups: IS – Investors/Shareholders; E – Employees;
 G – Government; L – Local Communities; BS – Business Partners/Suppliers; M – Media;
 A – Investment Analysts: N – NGOs

Environmental Education is not a GRI Standard Disclosure but a new material issue relevant to CEIL's situation

# Our Corporate Governance

The Company upholds a high standard of corporate governance in order to protect the interests of shareholders and other stakeholders, and to enhance our corporate values, transparency and accountability. To maintain a high standard of corporate governance, we uphold our management principle of "People-oriented, Pragmatism, Creativity and Systematic Management", in addition to our continuing effort to develop and comply with relevant rules and regulations, strengthen internal controls, improve risk management, and timely disclosure of important information to stakeholders.

備註:

持份者組別簡稱解釋: IS -投資者/股東: E -僱員: G -政府: L -當地社區: BS -業務夥伴/供應商: M -傳媒: A -投資分析 員: N -非政府組織

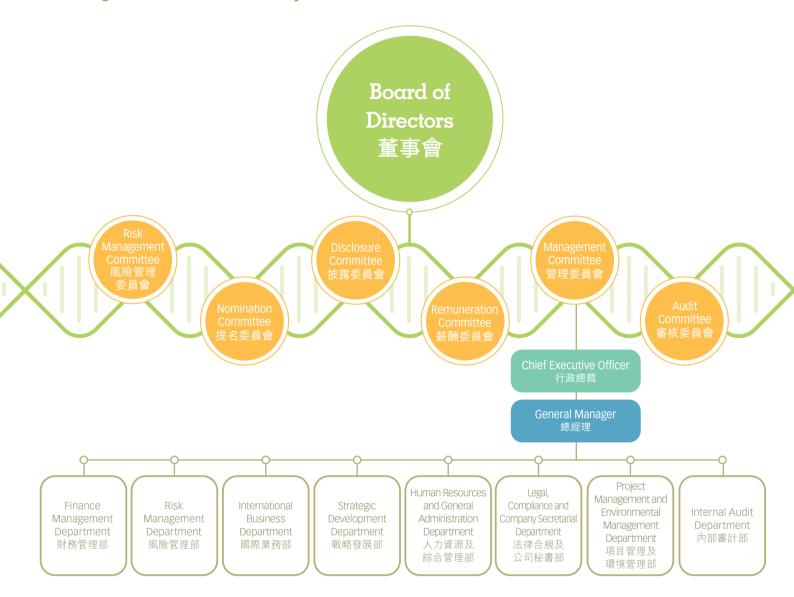
亞 環境教育本身不屬於GRI標準披露,是為符合光大國際實際情況 新增的議題

# 企業管治

本公司奉行高水平的企業管治,從而保障股東及其他持份者的利益,並提升公司價值、透明度及問責性。我們致力於奉行[以人為本、求真務實、開拓創新、規範管理]的管理理念,維持高水平的企業管治。這有賴於我們持續制定並遵從相關規章制度、強化內部監控、完善風險防範與管理、以及適時披露對持份者重要的資料等的舉措。

# Our Approach in Sustainability Management 我們的可持續發展管理

Organizational Structure - Corporate Governance 組織架構 - 企業管治



The Board, which comprises of six executive directors and four independent non-executive directors, is the highest governing body of the Company. Within the Board, the following committees were established: Audit Committee, Risk Management Committee, Nomination Committee, Remuneration Committee, Disclosure Committee and Management Committee.

董事會為本公司之最高管治機構,由六位執 行董事及四位獨立非執行董事組成,轄下設 多個委員會,包括審核委員會、風險管理委員 會、提名委員會、薪酬委員會、披露委員會及 管理委員會。

The positions of Chairman and Chief Executive Officer are held by different individuals. Each of the positions has clearly distinct roles, duties and responsibilities, ensuring effective distinction between the operation of the Board and the daily management and operation of the Company.

董事會的主席和行政總裁由不同人士擔任, 各自的職責擁有清晰的區別,以確保在企業 管理中,董事會運作和公司業務及運營之日 常管理得到有效區分。 Appropriate proportion of non-executive directors brings diverse experience and expertise to the Company. These non-executive directors provide independent advices, suggestions and judgments on matters relating to the Company's strategies and development, business operation and performance, as well as risk management and conflicts of interest, ensuring a balanced consideration of the interests of shareholders.

適當比例的非執行董事亦為本公司帶來多元 化的經驗及專業知識,並為本公司的策略及 發展、業務運營及表現、風險管理及利益衝突 等事宜上提供獨立意見、提議及判斷,有助確 保股東利益的均衡考量。

Details of nomination and selection process of the Board and the relevant conditions as well as the responsibilities of the committees can be found in the "Corporate Governance Report" section of our Annual Report 2015.

有關董事會的提名和甄選過程及相關條件,以及委員會的職責,可參閱本公司的《二零一五年年報》中的「企業管治報告」章節。

During this year, the Company established a specialized Risk Management Department to enhance our risk management practices. The Department strengthens our defense capabilities to internal and external risks by developing a systematic risk management framework and system as well as building and facilitating sound risk management mechanisms. In addition, the Department assists the Management Committee to strengthen the risk analysis of new investment projects, ensuring that new investment projects can achieve expected investment returns. The following table summarizes our new risk management system and the responsible departments:

為全面提升企業的風險管理,本公司於年內成立了專門的風險管理部。該部門通過制定系統化的風險管理架構及制度、建設及推進完善的風險管理體系,以加強我們對內部和外部風險的防禦能力。另外,該部門亦會協助相關管理委員會加強對新投資項目的風險分析工作,確保新投資項目能達至預期投資效益。下表總結了本公司的全新風險管理體系和責任部門:

#### Pre-event risk control 事前的風險控制

#### Risk management mechanism: 管理風險機制:

The Risk Management Advisory Committee: responsible for monitoring and assessing risks on a regular basis in order to improve risk assessment and investment reviews.

風險管理評審委員會:負責定期進行風險監督及檢查,以及提升風險評估及審核投資。

#### Technological risk mechanism: 技術風險機制:

The Engineering and Technology Management Committee: responsible for assessing the technologies used in different investment projects.
工程技術管理委員會:負責在投資項目的技術方面作出評審。

Financial monitoring and control mechanism:

#### 財務監控機制:

The Budget Approval Management Committee: responsible for managing budgets stringently and focusing on monitoring project construction budgets. 預算審核管理委員會:堅持嚴格的預算管理,專職監控項目的工程預算。

#### In-process risk inspection: 事中的風險檢查

#### Financial management mechanism: 財務管理機制:

The financial budget is executed upon approval by the Board. Relevant procedures are in place to assess, review and approve major capital and recurrent expenditures; regular reviews and comparisons between operating results and the budget are also implemented.

財務預算由董事會批核後執行,公司已訂立相關程序評估、檢討及批核主要的資本性及經常性支出,定期檢討與比較經營業績與預算。

#### Risk management mechanism: 風險管理機制:

The Company has internal control procedures in place to ensure the complete, accurate and timely record of accounting and management information. 已建立適當的內部監控程序,確保全面、正確及準時記錄會計及管理資料。

Examinations and reviews are carried out regularly to ensure that financial statements are properly prepared in line with the generally accepted accounting principles, the Company's accounting policies and the applicable laws and regulations. 定期進行檢討及審查·確保財務報表的編制符合一般認可的會計准則、公司會計政策,以及適用的法律及法規。

#### Post-event internal monitoring and control: 事後的內部監控

#### Independent Internal Audit Department: 獨立的內審部:

- The Internal Audit Department is responsible for internal auditing of the Company and reports directly to the Audit Committee. 內審部負責本公司內部審計事項,並直接向審核 委員會負責。
- The Department implements internal auditing in accordance with relevant laws and regulations, as well as the Company's rules and policies, exercising the auditing and supervision role independently.
   力東或依照法律注明和公司相音制度組織問席。

內審部依照法律法規和公司規章制度組織開展內部審計工作,獨立行使審計監督職能。

- The auditing work focuses on the authenticity, compliance and safety of the Company's operation and management activities, such as the establishment and execution of internal control mechanisms, financial income and expenditure management, asset management and project construction management.
  - 審計工作圍繞內控制度建設及執行、財務收支管理、資產管理、工程建設管理等企業經營管理活動的真實性、合規性和安全性等展開。
- Centered on the internal system, the Department focuses on reinforcing auditing and improving the in-process audit of major matters in order to improve governance levels.
   以內部制度為主線,重點加強了制度審計:以完

善治理為目標加強了重大事項的事中審計。

# Our Approach in Sustainability Management 我們的可持續發展管理

In order to better tackle the business challenges in ESHS aspects, the Company decided to build a more comprehensive and operational ESHS System based on the existing environmental management system. In 2015, the Company kicked off the development of an even more comprehensive ESHS Management System, which is led by the newly established Environmental Management Team chaired by our Chief Executive Officer. The establishment of ESHS Management System helped the Company better delegate missions concerning economic, environmental and social impacts directly from the highest governing body to relevant environmental subgroups, which are operated and run by different levels of employees.

為更好地迎接企業在ESHS方面的挑戰,本公司決定於現有環境管理基礎上,進一步建設一套更全面、操作性更強的ESHS管理體系。二零一五年,在由行政總裁牽頭的新環境管理領導小組的帶領下,本公司開始建立更為全面的ESHS管理體系,更有利於本公司將管理經濟、環境和社會影響的任務從最高管治機構透過環境管理小組下放到各級員工。

In addition, to facilitate the Board's understanding of CEIL's sustainable development tasks, we regularly provide newspapers, journals and up-to-date information related to economic and environmental business or duties of directors. A seminar about our ESHS Management System and development strategies and prospects was also for the directors in December 2015.

此外,為了讓董事更了解光大國際可持續發展工作,本公司定期為董事提供有關經濟、環保業務或董事職責等之報章、刊物及最新新資料,更於二零一五年十二月為董事舉辦有關ESHS管理體系及公司發展戰略與展望的座談會。

The Remuneration Committee is responsible for determining the remuneration packages for individual executive directors and senior management. Details of remuneration determination process and the Directors' remuneration information can be found in the "Corporate Governance Report" section of our Annual Report 2015. In 2015, the ratio of annual total compensation for the Company's highest-paid individual (i.e. our CEO) to the average annual total compensation for all other employees was about 47.35; and the ratio of percentage increase in annual total compensation for the Company's highest-paid individual to the average percentage increase in annual total compensation for all other employees was about 5.19.3

本公司之個別執行董事及高級管理人員的薪酬待遇由薪酬委員會負責釐定。有關薪酬釐定的詳情及各董事的薪酬資料,可參看本司《二零一五年年報》中的「企業管治報告」章節。於二零一五年,本公司薪酬最之高個人下政總裁)之年度總收入與其他員工年均數的比率約為47.35;而薪酬最高個人年度總收入增加之百分比與本公均數的比較約為5.19。3

Excluding remuneration data from former Dalian Dongda. The compensations of our CEO and employees could be found in our Annual Report 2015.

"Integrity", with "Pragmatism, Efficiency and Innovation" are the key operation principles of CEIL. Our sound operation relies on our high standard of professional conduct and corporate integrity. The management of the Company is responsible for developing, reviewing and monitoring the Code of Conduct and Compliance Manual to employees, which set out the codes on anti-corruption, anti-bribery, conflict of interest, data confidentiality and security as well as asset management policies. We strengthen the moral integrity and compliance of employees by organizing training and distributing relevant manuals to all employees. We also established a whistleblower policy and complaint mechanism for a non-retaliation manner for all employees and the public to raise and report any concerns of potentially unethical, illegal and dishonest issues. In 2015, no cases on corruption, fraud, political contribution. anti-trust and other misconduct were recorded.

# Case Story 個案分享

CEIL Obtained 5A Credit Rating in 2015 Credit Rating Assessment for Companies in the Environmental Sanitation Sector in Guangdong Province

光大國際榮獲二零一五年度廣東省環衛行業企業5A信用等級

In November 2015, Everbright Environmental Protection (China) Limited ("Everbright Environmental Protection"), a subsidiary of CEIL, has obtained the highest 5A credit rating in the 2015 credit rating assessment of companies in the environmental sanitation sector in Guangdong Province, standing out among 43 participating companies.

二零一五年十一月,本公司旗下的光大環保(中國)有限公司(「光大環保」)在二零一五年度廣東省環衛行業企業信用等級的評選中,在43個參評企業中脱穎而出,榮獲最高的5A信用評級。

The credit rating assessment was organized by the Guangdong Environmental Sanitation Association under the supervision and guidance of the Department of Housing and Urban-Rural Development of Guangdong Province. The purpose of the assessment is to encourage honesty and creditworthiness in the market, and improve the awareness of the importance of integrity among the companies in the same industry. The assessment upholds the principles of "serving companies and the industry, of being non-profit-making, and of openness, fairness and justice" and reviews the credit ratings of participating companies based on five factors: management systems, operation capability, ability to fulfill contracts, competitiveness and credit records. Everbright Environmental Protection gained an overall score of over 95 points in all categories, and was granted the highest 5A credit rating.

廣東省環衛行業企業信用等級評選由廣東省環境衛生協會組織,並由廣東省住房及城鄉建設廳監督指導,目的是為了營造誠實守信的市場環境,並增強企業誠信意識。其信用評價遵循「服務企業、服務行業、不以盈利為目的、公開、公平、公正」的原則,從管理體系、經營能力、履約能力、競爭力、信用記錄五個方面,考察企業的信用等級。光大環保在所有評分中,綜合評分在95分以上,因此獲評委最高的5A信用評級。

Additional information about our governance and the Board can be found in our Annual Report 2015, or access to the online information through http://www.ebchinaintl.com

有關我們管治及董事會的其他資料,請參閱光大國際《二零一五年年報》,亦可透過http://www.ebchinaintl.com在線瀏覽。

# Creating Green Fortune 創造綠色財富



# Our Environmental Business

CEIL, listed on the main board of The Stock Exchange of Hong Kong Limited ("SEHK"), is the flagship company for business investment of China Everbright Group. Our four major business segments, including Environmental Energy, Environmental Water, Greentech and Envirotech, have thrived under the Company's new model of regional management. The Company persists through 13 years of hard work and has invested and operated 169 environmental protection projects, becoming China and Asia's leading environmental protection enterprise with operations across more than 70 counties in 14 provinces and municipalities in China, as well as in Germany. In 2015, we employed 2,599 staff<sup>4</sup> with consolidated revenue of HKD8.534 billion.

During the reporting period, the Company continued to seize the tremendous growth opportunities in the environmental business market brought forward by the reform of national ecological civilization system. For instance, the Company expanded China's environmental protection business and secured 34 new environmental protection projects, successfully entered the food waste treatment industry. As a result, the designed daily processing capacity of household waste reached 37,800 tonnes and hence further strengthen the leading position. CEIL also established a new Greentech business segment in place of the original Alternative Energy segment, which encompasses biomass integrated utilization projects, hazardous waste treatment projects, photovoltaic energy projects and wind power projects, and steadily pushed the spin-off listing of Greentech business, moving forward the next round of its development.

# 我們的環保業務

光大國際於香港聯合交易所有限公司(「聯交所」)主板上市,為中國光大集團投資實業之旗艦公司,旗下的四大業務板塊包括環保能源、環保水務、綠色環保及環境科技,在本公司實施區域集中管理的新模式下齊驅並進。本公司經過十三載的不懈耕耘,如今投資運營的環保項目達169個,已成為中國乃至亞洲領先的環保企業,業務版圖橫跨全國14省、直轄市、70多個縣市及德國。二零一五年度,本公司綜合營業額為港幣85.34億元,員工總數達2.599名。4

年內,本公司繼續緊抓國家生態文明體制改革為環境治理市場帶來的巨大發展機遇,大力拓展國內環保市場,新簽署了34個環保項目,成功進入餐廚垃圾處理行業,日處理生活垃圾增加至37,800噸,鞏固市場領導地位;成立了新的綠色環保板塊,替代原有的新能源板塊,涵蓋生物質綜合利用、危廢處置、太陽能光伏發電項目及風力發電項目,並穩步推進綠色環保業務的分拆上市,以拉動該板塊新一輪的發展。



# OUR VISION 我們的願景

Becoming the world leading player in the green environmental protection and alternative energy industries

致力發展成為世界綠色環保及 新能源領域的翹楚



# OUR MISSION 我們的使命

Creating beautiful environment and giving back to the public

創造美好環境,回饋社會大眾



# CORE VALUES 核心價值

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

- Refer to the staff of operating projects under our operational control during the reporting period.
- 指我們擁有營運控制權並於報告期間運營中的項目的 員工。

# Creating Green Fortune 創造綠色財富

The Company's Environmental Water projects are operated by a non-wholly owned of CEIL, subsidiary China Everbright Water Limited ("Everbright Water"), which is listed on the Main Board of the Singapore Exchange Securities Trading Limited. Everbright Water introduced International Finance Corporation ("IFC") under the World Bank Group and Dalvey Asset Holding Limited, a whollyowned subsidiary of RRJ Capital Master Fund II, L.P. under RRJ Capital as strategic investors, and was granted with USD140 million as long-term loans from IFC.

本公司的環保水務項目由在新加坡證券交易所有限公司主板上市的本公司非全資子公司中國光大水務有限公司(「光大水務」)運營,該公司於年內引入世界銀行旗下國際金融公司(「IFC」)及RRJ Capital 旗下 RRJ Capital Master Fund II, L.P.全資子公司 Dalvey Asset Holding Ltd 兩家國際知名的投資機構為戰略投資者,並獲得 IFC 提供1.4 億美元的長期貸款。

Everbright Water also completed the acquisition of the Dalian Dongda at the end of the year, with the total contract daily waste water treatment capacity increased by more than 35%.

光大水務還於年末完成收購東達集團旗下大連東達,污水處理業務的總合約規模提升超過35%。

The Company is committed to social responsibility, particularly to creating direct economic value for different stakeholders and at the same time to bringing cleaner environment and more efficient resource utilization for the community. Our business model has always received strong support from the governments and investors, the Company obtained various national subsidies with a total amount of approximately RMB227 million during the reporting period.

本公司一直致力承擔社會責任,在為各方持份 者創造直接經濟價值的同時,為社會帶來更清 潔的環境和更高效的資源利用率。我們的商 業模式向來受到政府和投資者的大力支持, 年內本公司共獲得國家各類補貼合共約人民 幣2.27億元。

Direct economic value generated and distributed by CEIL in 2015 and the concerned stakeholders (unit: thousand HKD)\*

二零一五年光大國際所產生及分配的直接經濟價值及相應的持份者(單位:千元港幣)\*



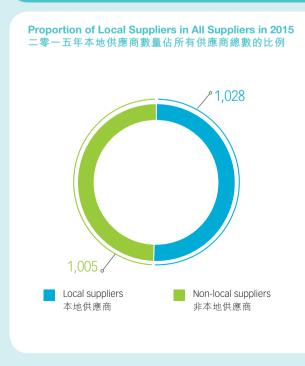
# Our Supply Chain

The Company has established and adopted a transparent and fair procedure for supplier selection and management, including "Supplier Management Measures", "Tender Management Measures" and "Management Measures for Appraisal Expert Database of Project Construction Procurement", etc. During the tender process, we pay more and more attention to the environmental and social responsibilities of the suppliers; for instance, we have listed "having feasible measures and commitment to safeguard the wages of migrant workers" as a rating criterion for project construction tenders. We planned to establish a new green procurement policy next year and further direct our supply chain practices to a more sustainable fashion.

# 我們的供應鏈

本公司對供應商的選擇和管理訂立了透明、公正的守則,包括《供應商管理辦法》、《招標管理辦法》和《工程建設採購評審專家庫管理辦法》等。在招標過程中,我們將更重視供應商對環境和社會的責任,如我們已將「具有保障農民工工資的可行措施及承諾」列入對項目建築工程招標的評分準則。我們計劃於明年建立新的綠色採購政策,進一步使本公司的供應鏈往可持續的方向發展。

# Contract Worker Statistics 2015 二零一五年外判工作人員統計 Environmental monitoring 環境監測 1,061 5,346 480 291 7,178





# Creating Green Fortune 創造綠色財富

Services provided by our suppliers mainly include provision of equipment and raw materials, project design and construction, environmental monitoring, equipment maintenance, cleaning and security, etc. Overall, there were 7,178 contracting workers working with CEIL and of those, 1,670 worked onsite in 2015. During the reporting period, the Company has engaged 2,033 suppliers with a total value of approximately RMB447 million. Nearly 60% of which was paid to local suppliers. Since many of the Company's projects are in rural and under-developed area, this allocation pattern reflects our support for local economic development.

我們供應商的主要服務包括提供設備及原材料、項目設計及施工、環境檢測、設備維修、清潔和保安等,涉及7,178名外判工人,其中1,670名為項目駐場人員。二零一五年,本公司共聘請了2,033個供應商,合共支付了約人民幣4.47億元的合同價值,其中近60%為本地供應商所得。由於本公司許多項目處於偏遠的欠發達地區,該分配模式體現了我們對當地經濟發展的扶持和促進。

# Technology Driven Development

The Company has always actively invested in research and development of technology with the principles of "Planning based on Scientific Theory, Meticulous Organization, Bold Innovation and Practice", and obtained measurable achievements. During the year, a comprehensive assessment of the Company's waste incineration techniques was conducted by industry experts organized by the Chinese Society for Environmental Sciences, which verified that CEIL has reached international advanced standards in technological research and development, equipment manufacturing, construction engineering, and operation management, forming a distinctive model that covers the entire waste-to-energy industry chain. The Company established Everbright Environmental Protection Technology Institute in Shenzhen, covering 3 subsidiary research divisions specializing in incineration technology, water environment technology and engineer design, and two research teams specializing in integrated environmental services and information and control technology, in view of different users' demand to technical solutions.

## 科技引領發展



# Major scientific achievements of the Company in 2015 include but not limited to:

- The 600-tonne/day and 750-tonne/day incinerators were successfully developed and the 750-tonne/day one was employed at Wujiang WtE Project, filling the development gap of large scale household waste incinerator in China
- Introduced the Martin-furnaces technology from overseas for the first time, absorbed and successfully applied the technology within 2 years period in 2015, and the licensed 400-tonne/day Martin-furnaces have been smoothly operating at the Changzhou Xinbei Project, making CEIL the first company to have both pusher type and back-stepping type grate furnace technologies in China
- Actively explored the research of reduction technology for concentrated water, including adopting the original "chemical softening + microfiltration membrane + reverse-osmosis" advanced process for leachate treatment, which can boost the overall water production rate of the system by over 10%. The technology has been successfully used at the Zhenjiang WtE Project
- Successfully imported and absorbed the hazardous waste countercurrent rotary kiln technology from the Belgian company, BIC, making CEIL the only company who has countercurrent rotary kiln technology in China
- Signed an agreement with a Swiss company, Stiefel, on the introduction of water-cooling furnace technology for biomass power generation projects. Given its advantages in reducing thermal wear and pressure, the technology substantially improved the efficiency and reliability of project operation, compared with a traditional air cooling system
- Introduced the whole set of food waste pretreatment equipment and technology, enabling CEIL to research and manufacture food waste pretreatment equipment

# 本公司於二零一五年的重大科研成就還包括:

- 図 成功研製600噸/日和750噸/日焚燒爐, 其中750噸/日焚燒爐已在吳江垃圾發電項目上成功應用,填補了我國大型生活垃圾焚燒爐研製的空白
- 首次從國外引進先進的馬丁爐排技術,僅 用兩年時間便實現引進消化到成功應用, 開發的400噸/日馬丁垃圾焚燒爐在常州 新北項目上順利運行,使光大國際成為國 內第一個同時擁有順推和逆推兩種爐排 技術的公司
- 積極探索濃水減量化技術研究,首創採用「化學軟化+微濾膜+反滲透」深度處理工藝處理垃圾滲濾液,可提高整個系統產水率10%以上。該技術已成功在鎮江垃圾發電項目上應用
- 成功引進並吸收比利時BIC危廢逆流式回轉窯焚燒技術,使光大國際成為國內唯一擁有逆流式回轉窯技術的公司
- 與瑞士斯特福公司簽訂生物質水冷爐排 引進協議。相對於傳統的空氣冷卻系統, 水冷系統在降低熱磨損和壓力方面有著 明顯的優勢,從而能夠大大提高操作的有 效性和可靠性
- 引進餐廚垃圾預處理設備及全套技術,使 光大國際獲得了餐廚垃圾預處理技術及 相應設備制造能力

# Creating Green Fortune 創造綠色財富

The Company's outstanding technical strength is also reflected by the confidence and support from our customers in the "Made By Everbright" series equipment. CEIL has selfdeveloped core technology and intellectual properties; our self-developed incineration furnace series were recognized by European Union CE Mark; and the trademark of Everbright Environmental Protection has been approved by the State Administration for Industry & Commerce of the People's Republic of China and offically authorized as a registered trademark. A China specific complete value chain of waste incineration was formed. The external sales of waste incinerators, gas purification systems and leachate treatment equipment of our environmental protection equipment manufacturing business reached a total contract value of approximately RMB240 million. Our leachate treatment and gas purification systems were further sold to the overseas markets, such as the UK and Ethiopia.

本公司成熟的科研實力更體現在客戶對「光大製造」系列裝備的信心和支持。光大國際擁有自身核心技術和知識產權,自主研發的焚燒爐系列產品取得歐盟CE認證,打造出具中國特色的垃圾焚燒全產業鏈。光大環保更國家工商總局核定正式授權為注冊商標。我們的環保設備製造業務全年對外銷售焚燒爐內煙氣處理、滲濾液處理三大成套系統設備氣質總額約人民幣2.4億元,滲濾液系統及煙氣設備系統更遠銷至英國和埃塞俄比亞等海外市場。

During the year, the Company was granted with 31 patents (7 of which were invention patents and 24 were utility invention patents) and 3 software copyright licenses. In addition, the Company received approximately RMB5.5 million in total in technology subsidies and achievement grants from central and local governments. The Company will continue to enhance scientific and technological research and development, advocate business development led by science and technology, and promote the R&D and export of technical equipment in line with the "One Belt One Road" policy, to drive the expansion of this business market and promote sustainable development.

年內,本公司共獲授權專利31項(其中發明專利7項,實用型專利24項),獲授權軟件著作權3項,及獲得國家和各級政府技術補貼及成果獎勵約人民幣550萬元。本公司將繼續加大科技研發工作,以科技領引業務發展,圍繞「一帶一路」政策,從國內外推進技術裝備研發和輸出,為本公司擴闊業務領域及持續發展注以新的動力。





# Project Highlights 2015 Power Generation Projects Operation Overview

# 項目亮點 二零一五年發電項目運營情況 概覽

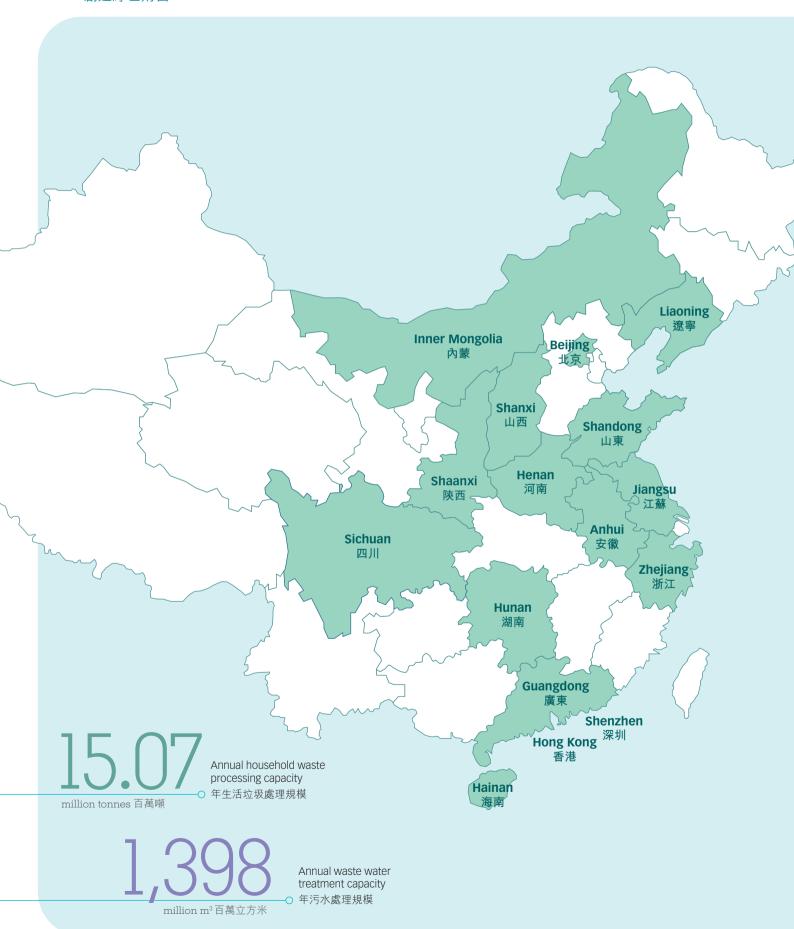
		Environmental Energy 環保能源	Greentech 綠色環保	Total amount 總計
Operating capacity 運營規模 Contract capacity 合約規模		Household waste treatment capacity about 18,600 tonnes/day <sup>a</sup> 生活垃圾處理規模約1.86萬噸/日 <sup>a</sup> Household waste treatment capacity about 37,800 tonnes/day 生活垃圾處理規模37,800萬噸/日	Agricultural and forestry waste treatment capacity about 0.6 million tonnes/yearb 約60萬噸/年 Agricultural and forestry waste treatment capacity about 3.97 million tonnes/year 農林廢物處理規模	
Net generation (million kWh)		2,180.56	為397萬噸/年 549.13	2,729.69
淨發電量(百萬千瓦時) Number of customers 客戶數目	Government customers	34	10	44
	政府客戶 Commercial customers 商業客戶	-	663	663
Transmission line length (kilometers) 輸電線路長度(千米)	Ground 地上	93.93	16.40	110.33
	Underground 地下	12.07	10.77	22.84
Average plant availability 平均廠房利用率(%)	<u> </u>	95.42	92.67	_
Average generation efficiency 平均發電效率(%)		20.00	33.56	_

Including Rizhao, Weifang and Changzhou Xinbei WtE Projects

biomass power generation projects commenced operation

a. 含日照項目、濰坊項目和常州新北垃圾發電項目

# Creating Green Fortune 創造綠色財富



# Overview of projects in each business segment in 2015 二零一五年各板塊項目概覽

# Environmental Energy 環保能源

The Company has established a
business presence in 14 provinces,
regions and municipalities and more
than 70 counties and cities in China,
including Beijing, Jiangsu Province,
Zhejiang Province, Shandong Province,
Anhui Province, Guangdong Province,
Hainan Province, Shanxi Province,
Hunan Province, Shaanxi Province,
Henan Province, Sichuan Province,
Liaoning Province and Inner Mongolia
Autonomous Region.

A China 中國

本公司業務版圖橫跨全國14個省、 區、市及70多個縣市,包括北京、 江蘇省、浙江省、山東省、安徽省、 廣東省、海南省、山西省、湖南省、 陝西省、河南省、四川省、遼寧省、 內蒙古自治區等。



Nanjing WtE Project 南京垃圾發電項目



Jiangyin WtE Project 江陰垃圾發電項目

111 1 / (111T) D	ᄼᅲᄍᄚᆓᄺᄆ	Daily Processing Capacity (tonne)
Waste-to-energy (WtE) Project	垃圾發電項目	日垃圾處理規模(噸)
Operating Projects:	已投運項目:	0.550
Suzhou WtE Project Phase I, II & III	蘇州垃圾發電項目一期、二期及三期	3,550
Yixing WtE Project Phase I	宜興垃圾發電項目一期	500
Jiangyin WtE Project Phases I & II	江陰垃圾發電項目一期及二期	1,200
Changzhou WtE Project	常州垃圾發電項目	800
Zhenjiang WtE Project Phase I & II	鎮江垃圾發電項目一期及二期	1,400
Jinan WtE Project	濟南垃圾發電項目	2,000
Suqian WtE Project	宿遷垃圾發電項目	600
Ningbo WtE Project Phase I & II	寧波垃圾發電項目一期及二期	1,500
Nanjing WtE Project Phase I	南京垃圾發電項目一期	2,000
Pizhou WtE Project Phase I	邳州垃圾發電項目一期	600
Sanya WtE Project Phase I	三亞垃圾發電項目一期	700
Shouguang WtE Project Phase I	壽光垃圾發電項目一期	600
Boluo WtE Project Phase I	博羅垃圾發電項目一期	700
Weifang WtE Project Phase I	濰坊垃圾發電項目一期	1,000
Changzhou Xinbei WtE Project Phase I	常州新北垃圾發電項目一期	800
Rizhao WtE Project Phase I	日照垃圾發電項目一期	600
Projects under construction:	在建項目:	
Wujiang WtE Project	吳江垃圾發電項目	1,500
Yiyang WtE Project	益陽垃圾發電項目	800
Hangzhou WtE Project	杭州垃圾發電項目	3,000
Tengzhou WtE Project Phase I	滕州垃圾發電項目一期	600
Pei County WtE Project Phase I	沛縣垃圾發電項目一期	400
Pingdu WtE Project	平度垃圾發電項目	600
Sanya WtE Project Phase II	三亞垃圾發電項目二期	350
Nanjing WtE Project Phase II	南京垃圾發電項目二期	2,000
Projects in preparatory stage:	籌建項目:	2,000
Huidong WtE Project	惠東垃圾發電項目	600
Yixing WtE Project Phase II	宜興垃圾發電項目二期	300
Ningbo Ninghai WtE Project Phase I	■ 日央位次及电視日一朔 寧波寧海垃圾發電項目一期	700
Heze WtE Project Phase I	菏澤垃圾發電項目一期	600
<u> </u>		
Ma'anshan WtE Project Phase I	馬鞍山垃圾發電項目一期	800
Nanjing Gaochun WtE Project	南京高淳垃圾發電項目	500
Xinzheng WtE Project Phase I	新鄭垃圾發電項目一期	1,000
Suining WtE Project	遂寧垃圾發電項目 	800
Laiwu WtE Project	萊蕪垃圾發電項目	700
Xintai WtE Project	新泰垃圾發電項目	600
Yongzhou WtE Project Phase I	永州垃圾發電項目一期	700
Yaan WtE Project Phase I	雅安垃圾發電項目一期	400
Suqian WtE Project Phase II	宿遷垃圾發電項目二期	400
Lankao WtE Project Phase I	蘭考垃圾發電項目一期	500
Chunan WtE Project	淳安垃圾發電項目	300
Zhoucheng WtE Project Phase I	鄒城垃圾發電項目一期	600
Ju County WtE Project Phase I	莒縣垃圾發電項目一期	500



Rizhao WtE Project 日照垃圾發電項目



Zhenjiang WtE Project 鎮江垃圾發電項目



Sanya WtE Project 三亞垃圾發電項目



Ningbo WtE Project 寧波垃圾發電項目

Sustainability Report 2015 2015 可持續發展報告 31



As at 31 December 2015, the Company has secured 169 environmental protection projects, with a total investment of approximately RMB39.064 billion. Each project is committed to maintaining stable operation in compliance with discharge standards and aims to both deliver the highest quality possible as well as establishing a strong brand profile.

截至二零一五年十二月三十一日,本公司已落實的環保項目共169個,涉及 總投資約人民幣390.64億元。各個項目均以「穩定運行、達標排放」為天職, 本著「建精品、創品牌」宗旨,建成了一批高標準、高質量的環保項目。



# **B** Germany 德國

The first overseas alternative energy project of the Company is photovoltaic energy project located in Schönewalde in eastern Germany.

本公司旗下第一個海外新能源項目為位於德國 東部的舍訥瓦爾德之光伏發電項目。



# ▶ © Singapore 新加坡

China Everbright Water Limited, a non-wholly owned subsidiary of the Company has been listed on the main board of the Singapore Exchange Securities Trading Limited in December 2014, marking another milestone for the Company.

本公司非全資附屬公司中國光大水務有限公司 於二零一四年十二月於新加坡證券交易所有限 公司主板掛牌上市·標誌著本公司之另一個重要 里程碑。

# 32 China Everbright International Limited 中國光大國際有限公司

# Creating Green Fortune 創造綠色財富

Methane-to-energy (WtE) Projects	沼氣發電項目	Annual Generation Capacity (kWh) 年均發電量 (千瓦時)
Operating Projects:	已投運項目:	
Suzhou Methane-to-energy Project Phase I	蘇州沼氣發電項目一期	18,000,000
Suzhou Methane-to-energy Project Phase II	蘇州沼氣發電項目二期	9,000,000
		Treatment Capacity (tonne)
Sludge Treatment Project	污泥處理項目	日污泥處理規模(噸)
Sludge Treatment Project  Operating Projects:	<b>污泥處理項目</b> 已投運項目:	日污泥處理規模(噸)
<u> </u>		日污泥處理規模(噸)

Food Waste Treatment Projects	餐廚垃圾處理項目	Treatment Capacity (tonne) 日垃圾處理規模(噸)
Projects under construction or in preparatory stage:	在建或籌建項目:	
Laiwu Food Waste Treatment Project (under construction)	萊蕪餐廚垃圾處理項目(在建)	100
Suqian Food Waste Treatment Project (in preparatory stage)	宿遷餐廚垃圾處理項目(籌建)	100

Expected Number of

		Expected Number of
Environmental Protection Industrial Parks	環保產業園	Projects 預計項目數目
Suzhou Everbright National Demonstration Veinous Industrial Park	蘇州市光大國家靜脈產業示範園	>10
Suqian Everbright Environmental Protection Industrial Park	宿遷市光大環保產業園	6-8
Changzhou Everbright Environmental Protection Industrial Park	常州市光大環保產業園	9
Weifang Everbright Environmental Protection Industrial Park	濰坊市光大環保產業園	>10
Yixing Everbright Environmental Protection Industrial Park	宜興市光大環保靜脈產業園	>10
Nanjing Everbright Environmental Protection Industrial Park	南京市光大環保靜脈產業園	>10
Zhenjiang New Area Everbright Environmental Protection Industrial Park	鎮江新區光大環保產業園	6-8
Lianyuangang Xu Wei New District Everbright Environmental Protection Industrial Park	連雲港徐圩新區環保靜脈產業園	>10
Ganzhou Everbright Environmental Protection Industrial Park	贛州光大環保靜脈產業園	>10

# Environmental Water 環保水務

William Window Thomas and Duning the	두 사 虍 패 전 다	Daily Waste Water Treatment Capacity (m³)
Waste Water Treatment Projects	污水處理項目	日污水處理規模(立方米)
Operating Projects:	已投運項目:	
Qingdao Waste Water Treatment Project (Maidao & Haibohe Projects and upgrade project)	青島污水處理項目(麥島及海泊河水務項目及升級改造項目)	220,000
Zibo Waste Water Treatment Project (Southern & Northern Plants and upgrade project)	淄博污水處理項目(南郊廠、北廠 及升級改造項目)	250,000
Zibo Hanmiao High-tech Zone Waste Water Treatment Project	淄博韓廟高新區污水處理項目	100,000
Zibo Zhoucun Waste Water Treatment Project Phase I	淄博周村污水處理項目一期	40,000
Binzhou Boxing Waste Water Treatment Project (Phase I, upgrade and expansion project of Phase II)	濱州博興污水處理項目(一期、二期 升級、擴建項目)	80,000
Jinan Waste Water Treatment Project (Plant 1 & Plant 2 and upgrade and expansion project)	濟南污水處理項目(水質一、二處 理廠及改造擴建項目)	500,000
Jinan Licheng Waste Water Treatment Project (Plant 3) Phase I and Expansion Project	濟南歷城污水處理項目(三廠)一期 及擴建項目	200,000
Jinan Xike Waste Water Treatment Project (Plant 4)	濟南西客污水處理項目(四廠)	30,000
Ling County Plant 2 BOT Project	陵縣二廠BOT項	30,000
Ling County Plant 1 TOT Project and upgrade project	陵縣一廠TOT項目及提標改造	30,000
Jiangyin Waste Water Treatment Project (Acquisition and upgrade)	江陰污水處理項目(收購及升級 改造)	190,000
Dezhou Nanyunhe Waste Water Treatment Project Phase I	德州南運河污水處理項目一期	75,000
Ju County Waste Water Treatment Project	莒縣污水處理項目	40,000
Zhangqiu Waste Water Treatment Project	章丘污水處理項目	30,000
Binzhou Development Zone Waste Water Treatment Project Phase I	濱州開發區污水處理項目一期	40,000
Kunshan Development Zone Waste Water Treatment Project Phase I and II	昆山開發區污水處理項目一期及 二期	50,000
Yangzhou Jiangdu Development Zone Waste Water Treatment Project Phase I	揚州江都開發區污水處理項目 一期	12,500
Lianyungang Dapu Waste Water Treatment Project	連雲港大浦污水處理項目	100,000
Nanjing Pukou Waste Water Treatment Project Phase I, II and overall upgrade	南京浦口污水處理項目一期、二期 及整體提標	80,000
Acquired 15 plants from Dalian Dongda	收購大連東達15個污水處理項目	945,000
Lianyungang Xugou Waste Water Treatment Project Phase I	連雲港墟溝污水處理項目一期	40,000
Suzhou Wuzhong Chengnan Waste Water Treatment Project Phase I	蘇州吳中城南污水處理項目一期	75,000
Nanjing Liuhe Waste Water Treatment Project Phase I and II	南京六合污水處理項目一期及 二期	40,000
Daxing Tiantanghe Waste Water Treatment Project Phase I	大興區天堂河污水處理項目一期	40,000
Xianyang Waste Water Treatment Project Phase I and II	咸陽東郊污水處理項目一期及 二期	200,000
Yangzhou Jiangdu Development Zone Waste Water Treatment Project Phase II and Upgrade	揚州江都開發區污水處理項目 二期及提標	12,500
Sanmenxia Waste Water Treatment Project Phase I	三門峽污水處理項目一期	30,000

# Creating Green Fortune 創造綠色財富

Projects under construction:	在建項目:	Daily Waste Water Treatment Capacity (m³) 日污水處理規模(立方米)
Suzhou Wuzhong Chengnan Waste Water Treatment Project Phase II and upgrading	蘇州吳中城南污水處理項目二期 及提標改造	75,000
Jinan Waste Water Treatment Project Plant 1 Expansion project	濟南污水處理項目水質一廠擴建	50,000
Beijing Daxing Tiantanghe Waste Water Treatment Project Phase II and upgrade project	北京大興天堂河項目二期及提升	40,000
Dalian Liangjia Waste Water Treatment Project Phase I	大連亮甲污水處理項目一期	20,000
Projects in preparatory stage:	籌建項目:	
Dezhou Nanyunhe Waste Water Treatment Project Phase II	德州南運河污水處理項目二期	75,000
Jinan Xike Waste Water Treatment Project Phase II	濟南西客污水處理項目二期	70,000
Pulandian Waste Water Treatment Project Phase II	普蘭店市污水處理項目二期	20,000
Transferred Projects:	建成移交項目:	
Xinyi BT Waste Water Treatment (Phase I)	新沂BT污水處理項目(一期)	10,000
Xinyi Surface Water BT Project	新沂BT地表水項目	Daily surface water supply capacity: 100,000 日供地表水: 100,000
Reusable Water Projects	中水回用項目	Annual Reusable Water Supply Capacity (m³) 年供中水規模 (立方米)
Operating Projects:	已投運項目:	
Zibo Reusable Water Project Phase I and II	淄博中水回用項目一期及二期	3,500,000
Jinan Licheng Reusable Water Project	濟南歷城中水回用項目	15,330,000
Jiangyin Reusable Water Project	江陰中水回用項目	3,600,000
Nanjing Pukou Reusable Water	南京浦口中水回用	7,300,000
Waste Water Source Heat Pump Project	污水源熱泵項目	Service Areα (m³) 服務範圍 (立方米)
Zibo Waste Water Source Heat Pump Project Phase I	淄博污水源熱泵一期	125,000
Zibo Ceramic Park Heat Pump Project	淄博陶瓷園熱泵項目	187,000





- a. Jinan Waste Water Treatment Project 濟南污水處理項目
- b. Jiangyin Waste Water Treatment Project 江陰污水處理項目

## Greentech 綠色環保

Operating Biomass Integrated Utilization Projects	生物質綜合利用項目	Average Annual Electricity Generation Capacity (kWh) 年均發電量(千瓦時)	Annual Agricultural and Forestry Waste Processing Capacity (tonne) 年處理農林廢物(噸)
Operating Projects:	已投運項目:		
Dangshan Biomass Power Generation Project	碭山生物質發電項目	184,000,000	300,000
Hanshan Biomass Power Generation Project	含山生物質發電項目	184,000,000	300,000
Projects under construction:	在建項目:		
Xuyi Biomass Integrated Utilization Project	盱眙生物質綜合利用項目	胎生物質綜合利用項目 Annual heat volume 300,000 370,000 tonnes 年供熱: 370,000噸 Annual electricity: 106,000,000 年發電量: 106,000,000	
Sucheng Biomass Integrated Utilization Project	宿城生物質綜合利用項目	Annual heat volume 350,400 tonnes 年供熱: 350,400噸	120,000
Dangshan WtE Project Phase I (Urban-rural integration project)	碭山垃圾發電項目一期 (城鄉一體化項目)	Daily household waste processing capacity: 400 tonnes 日生活垃圾處理:400噸 Annual electricity: 41,000,000 年發電量: 41,000,000	Not applicable 不適用
Huaiyuan Biomass Integrated Utilization Project	懷遠生物質綜合利用項目	200,000,000	280,000
Dingyuan Biomass Integrated Utilization Project	定遠生物質綜合利用項目	200,000,000	300,000
Nanqiao Biomass Power Generation	南譙生物質發電項目	200,000,000	300,000
Rugao Biomass Power Generation Project	如皋生物質發電項目	213,000,000	280,000
Projects in preparatory stage:	籌建項目:		
Lingbi Biomass Integrated Utilization Project (Urban-rural integration project)	靈璧生物質綜合利用項目 (城鄉一體化項目)	200,000,000	300,000
Lingbi WtE Project Phase I (Urban-rural integration project)	靈璧垃圾發電項目一期 (城鄉一體化項目)	Daily household waste processing capacity: 500 tonnes 日生活垃圾處理:500噸 Annual electricity: 47,000,000 年發電量:47,000,000	Not applicable 不適用
Xiao County Biomass Power Generation Project (Urban-rural integration project)	蕭縣生物質發電項目 (城鄉一體化項目)	200,000,000	300,000

# Creating Green Fortune 創造綠色財富

Operating Biomass Integrated Utilization Projects	生物質綜合利用項目	Average Annual Electricity Generation Capacity (kWh) 年均發電量(千瓦時)	Annual Agricultural and Forestry Waste Processing Capacity (tonne) 年處理農林廢物(噸)
Xiao County WtE Project (Urban-rural integration project)	蕭縣垃圾發電項目 (城鄉一體化項目)	Daily household waste processing capacity: 400 tonnes 日生活垃圾處理: 400噸 Annual electricity: 48,000,000 年發電量: 48,000,000	Non applicable 不適用
Mianzhu Biomass Power Generation Project (Urban-rural integration project)	綿竹生物質發電項目 (城鄉一體化項目)	200,000,000	300,000
Mianzhu WtE Project (Urban-rural integration project)	綿竹垃圾發電項目 (城鄉一體化項目)	Daily household waste processing capacity: 300 tonnes 日生活垃圾處理: 300噸 Annual electricity: 32,500,000 年發電量: 32,500,000	Not applicable 不適用
Guanyun Biomass Cogeneration Project (Urban-rural integration project)	灌雲生物質熱電聯供項目 (城鄉一體化項目)	Annual heat volume: 70,000 tonnes 年供熱: 70,000噸 Annual electricity: 191,000,000 年發電量: 191,000,000 Annual pellet production capacity: 16,000 tonnes 年產顆粒: 16,000噸	290,000
Guanyun MSW-Fired Cogeneration Project (Urban-rural integration project)	灌雲垃圾熱電聯供項目 (城鄉一體化項目)	Daily household waste processing capacity: 500 tonnes 日生活垃圾處理: 500噸 Annual heat volume: 24,000 tonnes 年供熱: 240,000噸 Annual electricity: 64,000,000 年發電量: 64,000,000	Not applicable 不適用

Operating Biomass Integrated Utilization Projects	生物質綜合利用項目	Average Annual Electricity Generation Capacity (kWh) 年均發電量(千瓦時)	Annual Agricultural and Forestry Waste Processing Capacity (tonne) 年處理農林廢物(噸)
Fengyang Biomass Power Generation Projects (Urban-rural integration project)	鳳陽生物質發電項目 (城鄉一體化項目)	214,000,000	300,000
Fengyang WtE Project (Urban-rural integration project)	鳳陽垃圾發電項目 (城鄉一體化項目)	Daily household waste processing capacity: 400 tonnes 日生活垃圾處理: 400噸 Annual electricity: 44,000,000 年發電量: 44,000,000	Not applicable 不適用
Liuhe Biomass Cogeneration Project (Urban-rural integration project)	六合生物質熱電聯供項目 (城鄉一體化項目)	Annual heat volume: 110,400 tonnes 年供熱: 110,400噸 Annual electricity: 112,000,000 年發電量: 112,000,000	150,000
Liuhe MSW-Fired Cogeneration Project (Urban-rural integration project)	六合垃圾熱電聯供項目 (城鄉一體化項目)	Daily household waste processing capacity: 500 tonnes 日生活垃圾處理: 500噸 Annual heat volume: 229,700 tonnes 年供熱: 229,700噸 Annual electricity: 7,170,000 年發電量: 7,170,000	Not applicable 不適用
Huaiyin Biomass Power Generation Projects (Urban-rural integration project)	淮陰生物質發電項目 (城鄉一體化項目)	107,500,000	150,000
Huaiyin MSW-Fired Cogeneration Project (Urban-rural integration project)	淮陰垃圾熱電聯供項目 (城鄉一體化項目)	Daily household waste processing capacity: 500 tonnes 日生活垃圾處理: 500噸 Annual electricity: 57,000,000 年發電量:57,000,000	Not applicable 不適用

## Creating Green Fortune 創造綠色財富

Industrial Solid Waste/ Hazardous Waste Treatment Projects	工業固廢/危廢處理項目	Total Capacity (m³) 總規模(立方米)	Annual Processing Capacity (tonne) 年均處理量(噸)
Operating Projects:	已投運項目:		
Suzhou Industrial Solid Waste Landfill Project Phase I and II	蘇州工業固廢填埋項目一期及二期	470,000	40,000
Suqian Hazardous Solid Waste Landfill Project Phase I	宿遷危廢填埋項目一期	300,000	20,000
Lianyungang Hazardous Waste Incineration Project	連雲港鈴木危廢焚燒項目	Not applicable 不適用	3,650
Operating Projects/ Projects awaiting for operation:	在建/待投運項目:		
Zibo Integrated Hazardous Solid Waste Treatment Project Phase I	淄博危廢綜合處置項目一期	Not applicable 不適用	Incineration processing capacity: 9,900 危廢焚燒: 9,900
Xinyi Hazardous Solid Waste Treatment Project	新沂危廢處理項目	Not applicable 不適用	Incineration processing capacity: 9,500 危廢焚燒: 9,500
Binhai Hazardous Solid Waste Landfill Project	濱海危廢填埋項目	600,000	30,000
Guanyun Hazardous Solid Waste Landfill Project Phase I	灌雲危廢填埋項目一期	344,000	20,000
Projects under construction:	籌建項目:		
Shouguang Integrated Hazardous Solid Waste Treatment Project	壽光危廢綜合處理項目	500,000	20,000
Lianyungang Hazardous Waste Treatment Project extension	t 連雲港鈴木危廢處理項目擴建	Not applicable 不適用	Incineration processing capacity: 10,000 焚燒處理量: 10,000
Zibo Integrated Hazardous Solid Waste Treatment Project Phase II	淄博危廢綜合處置項目二期	Not applicable 不適用	Incineration processing capacity: 30,100 焚燒處理量: 30,100
			Physical-chemical processing capacity: 50,000 物化處理量:50000
Changzhou Hazardous Solid Waste Treatment Project	常州危廢處理項目	Not applicable 不適用	Incineration processing capacity: 30,000 焚燒處理量: 30,000
Zibo Integrated Hazardous Solid Waste Treatment Project	淄博危廢綜合處理項目	300,000	20,000





- a. Zibo Integrated Hazardous Solid Waste Treatment Project Phase I 淄博危廢綜合處置項目一期
- b. Suqian Hazardous Solid Waste Landfill Project Phase I 宿遷危廢填埋項目一期

Photovoltaic Energy Projects	太陽能光伏項目	Average Annual Electricity Generation Capacity (kWh) 年均發電量(千瓦時)
Shenzhen Rooftop Photovoltaic Energy Project	深圳屋頂光伏發電項目	1,480,000
Changzhou Rooftop Photovoltaic Energy Project	常州屋頂光伏發電項目	4,113,000
Suqian Rooftop Photovoltaic Energy Project Phase I and II	宿遷屋頂光伏發電項目一期及二期	8,403,000
Zhenjiang Rooftop Photovoltaic Energy Project	鎮江屋頂光伏發電項目	11,680,000
Zhenjiang Ground Photovoltaic Energy Project	鎮江地面光伏發電項目	4,059,000
Huaining Ground Photovoltaic Energy Project	懷寧地面光伏發電項目	2,170,000
German Ground Photovoltaic Energy Project	德國地面光伏發電項目	3,611,000
Wind Power Generation Projects	風力發電項目	Average Annual Electricity Generation Capacity (kWh) 年均發電量(千瓦時)
Operating Projects:	已投運項目:	
Ningwu Wind Power Generation Project (Changfangshan & Zhaojiashan)	寧武風力發電項目 (長房山及趙家山)	230,000,000







We Pride Ourselves on the Highest Operating 文e Tec. 為基礎 及為天龍 新為龍頭 Standards and Innovative Technology

As a leading environmental protection enterprise in China, the Company has regarded building an environmentally friendly society as our responsibility, and we have pioneered in switching our production method and lifestyle to a more environmentally friendly one. We persist in adopting advanced technologies and industry standards to improve the efficiency in resource utilization and environmental performance of our projects.

作為國內領先的環保企業,本公司以創建綠色社會為己任,更勇當生產方式和生活方式綠色化的先行者。我們始終堅持採用先進的科技和行業標準,提升項目的資源運用效率和環保表現。

The Company has a wide range of qualifications for operation to uphold the stability of operation and ensure emissions are up to standard. The Company further regulates the production process through applying ISO 9001, ISO 14001 and OHSAS 18001 Management System certifications for each project company and to avoid secondary pollution.

本公司擁有齊全的運營資質,確保項目的穩定 運行和達標排放。本公司還透過為每家項目公司申請ISO 9001、ISO 14001及OHSAS 18001 等管理體系認證,規範生產流程,防止二次 污染。

#### Cumulative Environmental Contributions 累計環保貢獻



Flectricity generated 提供電力

About 9,899,090,000

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

About 11,595,000 tonnes m

Household waste processed 處理生活垃圾

About 28,161,000

tonnes噸

Since the commissioning of the first electricity generation project in 2006 自首個發電項目於

二零零六年投產以來



Standard coal saved 節約煙進度

About **3,960,000** 約 tonnes噸



Number of households benefited by green energy 受惠於綠色能源

About **8,249,000**households ₱



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



Waste water treated 虚理污水

<sup>bout</sup> 4,631,386,000

m³立方别



Leachate treated 虔理浚滹涼

About 5,165,000

m<sup>3</sup> 文 方 <del>)</del>



About 1,735,000

tonnes!

Having a management system that complies to international standards is the key factor contributing to the Company's high caliber in environmental performance. Since 2012, we have established a comprehensive "Environmental and Social Management System" based on the requirement from the Asian Development Bank ("ADB") and this has provided us a concrete guidance to monitor and manage our environmental and social impacts. In 2015, under the leadership of CEIL ESHS Task Force chaired by our CEO, the Company has embarked on a mission to constantly improve the management systems for the environment, safety, health and social responsibility, as well as strengthen the management mechanism. We hope to incorporate the ESHS Management System into every aspect of the Company and establish an excellent corporate culture.

本公司出色的環保表現有賴於達國際級水平的管理制度。我們早於2012年即根據亞洲開發銀行(「亞發行」)的要求設立了全面的《環境與社會管理制度》,使我們對自身的環境和社會影響的監測和管理有例可循。二零一五年,在由頭的光大國際ESHS領導小組的帶領下,本公司展開了建立更為全面的環境、安全、健康及社會責任管理體系的歷史任務,務求進一步完善數有制度和細化責任機制,使ESHS管理體系渗透到集團運營的每個層面,從而形成優秀的企業文化。

# Greenhouse Gas Management and Climate Change Mitigation

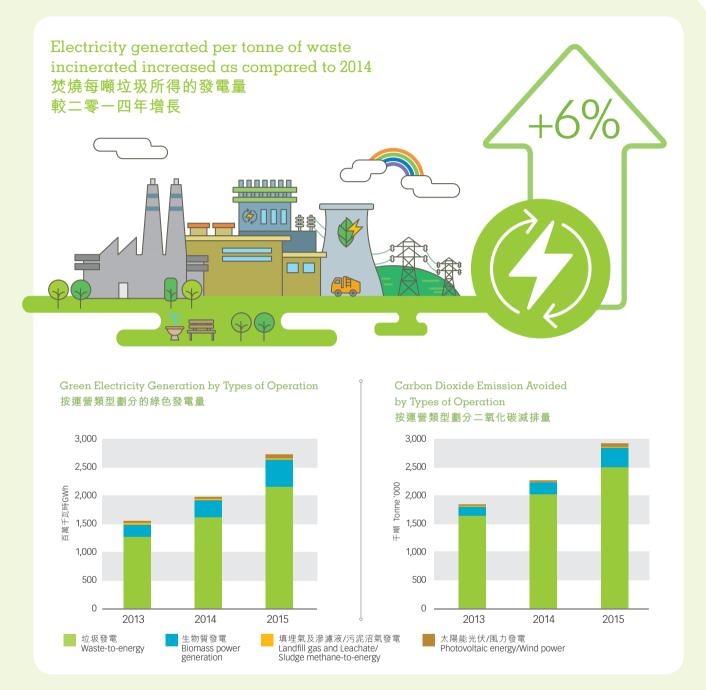
Following strict emission discharge standards and consistently improving the emission performance of our projects are the Company's principal approach in greenhouse gas management and climate change mitigation. Our waste-toenergy projects use advanced flue gas treatment technologies of "SNCR de-nitrification + (semi-dry and dry) de-acidification + activated carbon injection + bag-type dust remover" for flue gas treatment. Our energy generation projects adopt the latest emission standards, including the following: "Standard for Pollution Control on Municipal Solid Waste Incineration" (GB18485-2014); emission standard of Euro 2010 (Directive 2010/75/EU on Industrial Emissions and its relevant Annexes/ Amendments) (for waste-to-energy projects); "Emission Standard of Air Pollutants for Thermal Power Plants" (GB13223-2011) (for biomass power generation projects), etc. On this ground, we constantly improve our emission standard and increase the transparency on corporate operation.

To safeguard the health of the nearby residents and uphold the right-to-know of the stakeholders towards our environmental performances, the Company initiated the implementation of Euro 2000 Standard (the existing Euro 2010 Standard) for our waste-to-energy projects, and linked our emission data to the online system of local environmental protection departments.

## 管理溫室氣體排放及應對氣候變化

遵循嚴格的污染物排放標準,不斷提升項目的排放表現是本公司治理氣體排放和應對氣候變化的基本政策。本公司旗下的垃圾發電項目的煙氣淨化系統均採用「SNCR脱硝+(半乾法+乾法)脱酸+活性炭噴射+布袋除塵器」的先進煙氣處理工藝:各發電項目執行「生活垃圾焚燒污染控制標準」(GB18485-2014)及歐盟2010(即歐盟工業排放指令2010/75/EU及相關附表/修訂)的排放標準(垃圾發電項目);「火電廠大氣污染物排放標準」(GB13223-2011)(生物質發電項目)等最新標準。在此基礎上,我們不斷提高煙氣排放指標,增加企業運行透明度。

本公司為保障附近居民的健康和確保各持份者對我們環保表現的知情權,早前已達成兩個「率先」: 即率先推動採用歐盟2000標準(現歐盟2010標率)建設垃圾發電項目,及率先推行各排放數據與項目當地環保部門在線聯網。



In 2015, we took one step further and became the first company in the industry in China to disclose the emission standards and environmental management information of our operating waste-to-energy projects on our website. In addition, we engaged a third-party institute to monitor our flue gas emission at least twice a year. Spot checks conducted by the environmental protection departments at our project companies also revealed that our emission performance meets the requirement of Euro 2010.

二零一五年我們再下一城,率先在光大國際官網公開已投運垃圾發電項目的排放標準和環境管理信息,成為國內業內首家披露該信息的企業。此外,本公司每年委託第三方監測機構對焚燒煙氣進行最少兩次監測,而政府環保部門對各項目公司進行的不定期抽檢也反映我們的排放表現符合歐盟2010標準。

In 2015, approximately 2,738 GWh of green electricity was produced from our waste-to-energy projects, biomass power generation projects, methane-to-energy projects, photovoltaic energy projects and wind power project. Such amount of electricity could support the annual electricity consumption for more than 2.28 million households. Compared to 2014 records, there has been a significant increase in total electricity generation of 38% because of our newly established Zhenjiang (Phase II), Boluo, Ningbo (Phase II) WtE Projects and Ningwu Wind Power Project. Also, with our clean energy business, we have offset approximately 2.92 million tonnes of CO<sub>2</sub> emission, which is 30% more than the reduction level in 2014. The average unit electricity generation of the waste-to-energy projects had reached a record high of 321 kWh per tonne, which is approximately 6% higher than the performance in previous year.

於二零一五年,我們的垃圾發電項目、生物質發電項目、沼氣發電項目、太陽能光伏發電項目和風力發電項目合共提供綠色電力約27.38億千瓦時,可供逾228萬戶家庭一年使用。受惠於鎮江垃圾發電項目(二期)、博羅垃圾發電項目、寧波垃圾發電項目(二期)及寧武風電項目等新項目的落成及運營效率的提升與二零一四年比較,生產的總電力大幅增超多38%。此外,本公司的清潔能源於年內合共避免二氧化碳排放約達292萬噸,超過二零一四年的減排量約30%。垃圾發電廠焚燒每噸垃圾平均所得的發電量達321千瓦時,創歷史性新高,較二零一四年的表現相比上升約6%。

As a clean energy producer, we have been closely monitoring both the opportunities and challenges that are brought forward by a global phenomenon of climate change. As one of the parties in the "United Nations Framework Convention on Climate Change", China is going to fulfill its agreed actions in the "Paris Agreement" approved in December 2015 through "Intended Determined National Contributions", which indicates that international cooperation is a key measure in controlling global temperature rise. This Agreement between different nations has brought new opportunities to our business development.

作為清潔能源的生產者,我們密切留意全球氣候變化的局勢及其對本公司帶來的機遇與挑戰。中國作為《聯合國氣候變化框架公約》的締約國之一,將以「自主貢獻」的方式履行二零一五年十二月通過的《巴黎協議》中的氣候變化應對行動,而國際合作將是實現全球升溫控制的關鍵。這對我們的業務發展帶來了新的機遇。

Nevertheless, the adverse effects of climate change, such as extreme rainfalls and intense storms, will inevitably threaten the operation of our projects, especially placing challenges to our leachate and waste water treatment and management. To overcome this hurdle, the Company will further upgrade our flood control plan, enhance the flexibility and adaptability of our teams and tighten our security measures.

然而,受氣候變化影響而致的極端降雨、風暴 等自然災害將無可避免地影響本公司的項目 運營,特別會對滲濾液和污水處理的管理帶 來考驗。本公司將透過完善的防汛應急預案、 具應變力的團隊和嚴密的安保工作應對該類 挑戰。

Throughout the year, the Company continued to lower our greenhouse gas ("GHG") emissions by employing various engineering and management practices including the use of low carbon energy sources and reduction of fugitive emissions. In order to monitor and manage GHG emission of our projects in a more precise manner, we continue to raise our GHG measurement and reporting standards. Starting from this year, we went beyond compliance and adopted the Clean Development Mechanism ("CDM") of United Nations to measure the GHG emission of our waste-to-energy and biomass power generation projects. Comparing with the existing "China"

本公司於年內繼續透過採納低碳能源、逸散性氣體削減措施等策略降低項目運營中的溫室氣體排放。為更準確地監測和管理項目運營中的溫室氣體排放,我們持續提升溫室氣體的統計和匯報要求。於本年度起,我們按國家溫室氣體核算方法更為切合垃圾發電行業的聯合國清潔發展機制(「CDM」)之要求,計算垃圾發電和生物質發電項目的溫室氣體排放量。與現行的「中國發電企業溫室氣體核算方法與報告指南」相比,CDM的計算方法不僅統計了發電中使用化石燃料的二氧

Electricity Generation Enterprise Greenhouse Gas Emission Verification Methodology and Reporting Guideline", CDM is more applicable to the waste-to-energy industy, and the GHG emission calculation methodologies of CDM not only include CO<sub>2</sub> emission from the fossil fuel used for electricity generation process, but it also takes into account the emissions from fossil carbon fraction, methane arisen from anaerobic digestion of leachate, fuel used for transportation of biomass, etc. Such calculation enables more comprehensive disclosure in terms of types, quantity and scopes of GHG emission. This reflects how serious CEIL is about the GHG emission of our projects, and our commitment to CDM standards serves as a proof of how we treasure the right-to-know of our stakeholders.

化碳排放,更將垃圾/生物質內的化石碳、滲濾液經厭氧消化產生的甲烷、運送生物質所消耗的燃料等排放狀況包含在內,有助於我們從溫室氣體的排放種類、排放量和範疇三個層面更全面地披露相關情況,體現了光大國際對溫室氣體排放管理和應對氣候變化的嚴肅態度,是本公司高度重視持份者關注事項的知情權的有力證明。

#### GHG Emission by Types of Operation in 2015

#### 二零一五年按運營類型劃分的溫室氣體排 放量

Type of Operation 運營類型	Scope 1 GHG Emiss 範疇一 溫室氣體		Scope 2 GHG Emissic 範疇二 溫室氣體	on	Scope 3 GHG Emissi 範疇三 溫室氣體	on	Total GHG Emission 溫室氣體 總排放量
	Main sources 主要來源	Emission 排放量	Mαin sources 主要來源	Emission 排放量	Mαin sources 主要來源	Emission 排放量	
Environmental Energy® 環保能源®	Fuel oil used for operation; CO <sub>2</sub> , NO <sub>2</sub> and methane produced from waste incineration; Methane produced from anaerobic digestion of leachate 運營消耗的燃油:垃圾焚燒產生的二氧化碳、二氧化氮和甲烷:渗濾液經厭氧消化處理產生的甲烷	3,767,753.55	Non-renewable electricity used for operation 運營消耗的 非再生電力	1,055.15	No significant source 無重大來源	-	3,768,808.71
Environmental Water 環保水務	No significant source 無重大來源	-	Non-renewable electricity used for operation 運營消耗的非再生電力	181,174.86	No significant source 無重大來源	-	181,174.86
Greentech <sup>b</sup> 綠色環保 <sup>b</sup>	Fuel oil used for operation; Methane produced from biomass incineration 運營消耗的燃油和天然氣:生物質焚燒產生的甲烷	4,656.22	Non-renewable electricity used for operation 運營消耗的 非再生電力	692.56	Fuel used for transportation of biomass 運送生物質所 消耗的燃料	1,579.64	6,928.41

Unit: tonne CO2 equivalent 單位: 噸二氧化碳當量

- a. The boundary of GHG calculation for Environmental Energy projects is all operating waste-to-energy projects in 2015 except Changzhou Xinbei Project; the calculation methodology of GHG is based on CDM approved methodology ACM0022: Alternative waste treatment processes (Version 2.0)
- The boundary of GHG calculation for Greentech projects is all operating biomass power generation projects in 2015; the calculation methodology of GHG is based on CDM approved methodology ACM0018: Electricity generation from biomass residues in power-only plants (Version 3.0)
- 環保能源的溫室氣體核算範圍為除常州新北項目外於 二零一五年投運的所有發電項目,溫室氣體的核算方 法乃參照CDM訂立的AM0022:多選垃圾處理方式(版 本2.0)
- b. 綠色環保的溫室氣體核算範圍為於二零一五年投運的所有生物質發電項目·溫室氣體的核算方法乃參照 CDM訂立的ACM0018:純發電廠利用生物廢物發電(版本3.0)

In respect to air emission performance, although the Company has been undergoing continuous expansion, the air emission per kWh of green electricity generated has been decreasing in the past three years due to our consistent effort in upgrading our projects. In particular, particulate matter ("PM"), SO<sub>2</sub> and NO<sub>x</sub> emission per kWh have been reduced by 15.45%, 24.76% and 21.60% respectively comparing to the emission levels in 2014. These are the results of our immense efforts in complying with the country's air pollution control strategies, which shows our determination in maintaining green operation. Our key production process does not involve the use of ozone depleting substances such as refrigerant.

在廢氣排放方面,儘管本公司的發電項目規模持續擴張,在各項目公司不斷提標改造的努力下,我們項目生產每千瓦時綠色電力的廢氣排放量在過往三年一直保持下降記錄的其中顆粒物、二氧化硫和氮氧化物每千瓦時的排放量與二零一四年同比分別下降15.45%,24.76%和21.60%。這些成果體現了我們致力配合國家大氣治理戰略,堅持項目環保運營的決心。我們的主要生產環節不牽涉製冷劑等臭氧層消耗物質的使用。

#### Air Emissions from Waste-to-energy and Biomass Power Generation Projects in 2015\*

二零一五年垃圾發電項目和生物質發電項目 的廢氣排放表現\*

PM 顆粒物	SO₂ 二氧化硫	NOx 氮氧化物
129.97	408.00	2,722.22
Unit: tonne 單位 : 噸		

- \*: The boundary for waste-to-energy projects include all operating projects in 2015 except Changzhou Xinbei Project
- \*: 其中垃圾發電項目(除常州新北項目外)包含於二零一五 年投運的所有發電項目

#### Waste Water and Waste Management

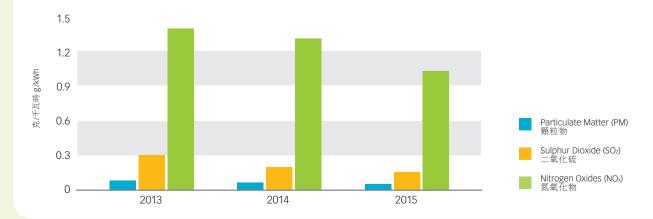
All effluents produced during project operation are treated by our onsite waste water treatment facility. This practice is designed to ensure compliance with national standard requirements, such as "Integrated Wastewater Discharge Standard" (GB 8978-1996), as well as the requirements of Environmental Impact Assessment Reports approved by the local governments. In 2015, the Company's waste water

#### 污水和廢物處理

我們在項目運營中產生的所有污水均由廠內的污水處理設施處理,以符合「污水排放標準」 (GB 8978-1996)等國家標準,以及經政府認可的環境影響評估報告提出的要求。二零一五

Air Emission Performance per kWh of Green Electricity Generated by Waste-to-energy Plants and Biomass Power Generation Plants in the Past Three Years

過往三年間垃圾發電廠及生物質發電廠每千瓦時發電量的廢氣排放量



treatment projects (excluding projects of former Dalian Dongda) treated over 867 million m³ of waste water. Our Environmental Energy projects, on the other hand, treated 1.35 million m³ of leachate. In total, these operations reduced 292,300 tonnes of COD emission, which increased by 38% comparing to the level in 2014.

We emphasize the importance of resources recycling following the waste treatment hierarchy of "reusing before incinerating, incinerating before landfilling and landfilling only when the material cannot be reused or incinerated", and we strive to recycle all of our waste water and leachate.

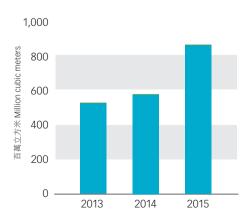
The main wastes produced from our waste-to-energy and biomass power generation projects are ash and incineration residue. Ash is regarded as hazardous waste, and it is solidified using a chelating agent in compliance with the "Standard for Pollution Control on the Landfill Site of Municipal Solid Waste" (GB16889-2008). It is then sent for disposal at a designated area in the landfill site or sent to a hazardous waste landfill for safe disposal in order to prevent secondary pollution. Incineration residue is regarded as general solid waste and is treated according to the "Standard for Pollution Control for the Municipal Solid Waste Incineration" (GB18485-2014). The Company recycles the residue from the waste-to-energy projects by providing the residue to third party for integrated utilization such as brick making. Waste water generated from the pretreatment of incineration residue during brick making process, cleaning of mixing machines and floor washing is collected and re-used for production after sedimentation.

年,本公司運營的污水處理項目(不含前大連 東達的項目)共處理超過8.67億立方米的污水; 我們的環保能源項目則處理滲濾液135萬立方 米。該等運營合共削減292,300噸的COD排放 量,較二零一四年大幅增加38%。

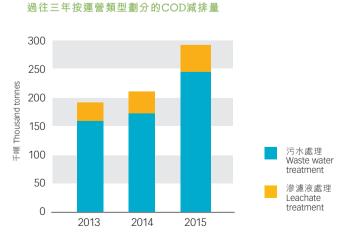
我們強調資源的合理循環,對垃圾處理遵循 「能用的不燒,能燒的不埋,不能用的不能燒 的衛生填埋」的原則,對污水、滲濾液進行循 環再用。

本公司垃圾發電和生物質發電項目產生的主要廢物為飛灰和爐渣。其中飛灰屬於危險廢物,處理方法為經螯合劑螯合固化滿足「生活垃圾填埋場污染控制標準」(GB16889-2008)後,送往垃圾填埋場單獨分區填埋,或進入危廢填埋場進行安全填埋,杜絕二次污染。爐渣屬於一般固體廢物,根據「生活垃圾焚燒污染控制標準」(GB18485-2014)按一般固體廢物進行處理。我們對發電項目所產生的爐渣透過製磚等方式進行資源綜合利用,而在制磚生產過程中產生的爐渣預處理廢水、攪拌機清洗廢水、地面沖洗水,則經收集沉澱處理後全部回用於生產。









Leachate from our waste-to-energy projects undergoes a strict treatment process to reach reusable standards before it is used to replenish circulating water; also, the remaining portion of this water is injected into the incinerators, achieving "Zero Discharge" of leachate. The reverse-osmosis water produced from the leachate treatment complies with water quality standards allowing the use of reused water in opentype recirculating cooling water systems as stipulated in Table 1 of "The Reuse of Urban Recycling Water – Water Quality Standard for Industrial Uses" (GB/T 19923-2005). The treated water can be reused to replenish circulating water for waste-to-energy projects, and the concentrated water can be reused in incineration facilities such as lime mortar equipment. The Company had no spilling accident in 2015.

垃圾發電項目的垃圾滲濾液經嚴格處理達回用水質標準後回用於循環補充水,少量回噴入爐,達致滲濾液[零排放]。其中經處理的反滲透出水在達到[城市污水再生利用工業用水水質](GB/T 19923-2005)表1規定的敞開式循環冷卻水系統補充水水質標準後,回用於焚燒項目的循環補充水,濃水則回用於石灰漿設備等焚燒設施。本公司於二零一五年沒有發生洩漏事件。

Ash Disposed from Environmental Energy and Greentech by Disposal Methods in 2015 二零一五年環保能源和綠色環保項目的飛 灰棄置量及處置方式

Types of operation 運營類型	Landfill disposal as non-hazardous waste after solidification 固化後 安全填埋	Integrated utilization (e.g. brick making) 綜合利用 (如製磚)	Temporary Storage 暫存	Total 總計
Environmental Energy 環保能源	178,186.70	-	-	178,186.70
Greentech 綠色環保	_	30,320.96	220.91	30,541.87
Unit: tonne 單位:噸				

Incineration Residue Disposed from Environmental Energy and Greentech by Disposal Methods in 2015 二零一五年環保能源和綠色環保項目的 爐渣棄置量及處置方式

Types of operαtion 運營類型	Integrated utilization (e.g. brick making) 綜合利用 (如製磚)	Re- incineration 重新焚燒	Treatment by qualified companies 運至合資格公 司處理	Temporary Storage 暫存	Totαl 總計
Environmental Energy 環保能源	1,396,022.71	_	_	_	1,396,022.71
Greentech 綠色環保	69,680.59	74.67	125.64	472.89	70,353.80
Unit: tonne 單位:噸					

# Other Wastes Disposed from Environmental Energy and Greentech by Disposal Methods in 2015

#### 二零一五年環保能源和綠色環保項目的 其他廢物棄置量及處置方式

Types of waste 廢物類型	Incinerαtion 焚燒處理	Collected and stored by electronic waste treatment companies 委託電子廢物處理公司收集貯存	Total 總計
Packing bags 包裝袋	10.18	-	10.18
Used fluorescent tubes 舊燈管	_	10.00	10.00
Laboratory waste 實驗室廢物	0.43	_	0.43
Unit: tonne 單位: 噸			

Sludge is the main waste generated from our waste water treatment projects. We treat our sludge in accordance with IFC's "General Environmental, Health and Safety Guidelines", "Environmental, Health, and Safety Guidelines for Water and Sanitation" and other applicable laws and regulations. In 2015, over 67% of sludge was recycled. If the sludge has to be disposed of at landfills, it will be dehydrated on site to reduce its water content and volume, easing the burden towards landfill sites and reducing the environmental impact.

我們的污水處理項目產生的主要廢物為污泥。我們根據IFC的「通用環境、健康與安全指南」及其南」、「水與衛生環境、健康與安全指南」及其他適用法律和標準的規定處理污泥。二零一五年,超過67%的污泥被循環再用。當污泥必須被棄置到堆填區時,我們會在廠內對污泥進行脱水處理,以減少其含水量和體積,從而減輕堆填區的負擔,舒緩對環境的影響。

#### Waste Disposed from Waste Water Treatment Projects by Disposal Methods in 2015

#### 二零一五年污水處理項目的廢物產生量及 處置方式

Type of waste 廢物類型	Integrated utilization (e.g. fertilizer and brick making) 綜合利用 (如制肥、 製磚等)	Incineration/ Co-incineration/ Seeding 焚燒/摻燒/ 接種	Sent to designated third-party for treatment 外運至指定 第三方處理	Sanitary landfill 衛生填埋	Total 總計
Sludge 污泥	283,090.06	66,662.74	107,214.00	61,718.80	518,685.60
Unit: tonne 單位: 噸					

Our hazardous waste treatment projects proactively share the responsibility of China as a signatory country of the "Basel Convention" by efficient and environmentally friendly transportation and treatment of hazardous waste. In 2015, the Company did not import or export any hazardous waste from/ to foreign countries.

本公司的各個危廢處理項目積極分擔我國作為《巴塞爾公約》締約國的責任,以高效環保的方式運輸、處理各類。此外,本公司於二零一五年沒有從國外輸入或輸出任何危險棄物至國外。

#### Statistic of Weight of Hazardous Waste in 2015

#### 二零一五年危險廢物重量統計

Hazardous waste transported 運輸的危險廢物	Hαzαrdous wαste treαted 經處理的危險廢物
58,418.73	56,476.15
Unit: tonne 單位: 噸	

#### Materials and Resources Usage

We keep detailed monthly data and records of material and resource consumption of our projects. The records not only serves the purpose of operation cost control but also enables us to set our long term resource utilization strategies to further reduce our material and resource consumption in our regions of operation. During the year, we continued to implement the "Quadruple Competitions" environmental initiative throughout our project companies. The initiative aims to promote green operation by encouraging the project companies to compete with each other on conserving resources, enhancing efficiency, saving energy and controlling costs.

In 2015, the primary material used by Greentech business segment was biomass which is regarded as a renewable material, with annual consumption of 519,393 tonnes. Over 98% of the energy used by our Environmental Energy and Greentech projects came from renewable sources.

#### 物料及資源利用

我們每個月都對各個項目的物料和資源使用情況作詳盡記錄,這些紀錄不但有助運營成本管理,更有助我們制定長遠的資源利用策略,以減省運營地點的物料和能源消耗。本年度,我們繼續在各項目公司全面開展「比節支節流,比開源增效,比能耗下降,比成本降低」的四比活動,全面貫徹環保營運。

於二零一五年度,綠色環保的主要物料使用為生物質,屬可再生物料,年度消耗量為519,393噸。我們的環保能源和綠色環保項目在運營中使用的可再生能源超過98%。



## Material Consumption of Environmental Energy in 2015

## 二零一五年環保能源的主要物料使用量

Materials used 使用的物料	2015 Consumption 二零一五年的使用量
Renewable materials (Recycled materials) 可再生物料(循環再用物料)	
Household waste treated 處理生活垃圾	6,928,000.00
Non-renewable materials 非再生物料	
Material consumption during production process 於生產過程中的主要物料耗用量	
Activated carbon 活性碳	2,034.55
Calcium hydroxide 氫氧化鈣	67,513.06
Acid 酸	291.24
Ammonia water 氨水	15,321.58
Fuel oil 燃油	1,010.33
Demineralized water 除鹽水	407,519.99
Cement 水泥	15,489.63
Material consumption for leachate treatment 滲濾液處理的物料耗用量	
Hydrochloric acid 鹽酸	1,307.35
Scale inhibitor 阻垢劑	102.06
Sodium hypochlorite 次氯酸鈉	305.55
Cationic Polyacrylamide (CPAM) 陽離子聚丙烯酰胺	124.19
Sodium hydroxide 氫氧化鈉	21.35
Citric acid 檸檬酸	2.06
Total 總計	7,443,403.24
Percentage of recycled materials (%)* 循環再用物料佔用比例(%)*	93.08
Unit: tonne 單位:噸	

<sup>\*:</sup> According to the definition from "G4 Implementation Manual", the household \*: 根據「G4實施手冊」之定義,光大國際在生產過程中所使 waste and biomass used in CEIL's production process are defined as renewable materials

用的生活垃圾及生物質被視為再生物料

## Material Consumption of Environmental Water in 2015 二零一五年環保水務的主要物料使用量

Materials used 使用的物料	2015 Consumption 二零一五年的使用量
Non-renewable materials 非再生物料	
Polymerization ferric chloride (PFC) 聚合氯化鐵	10,082.80
Sodium hypochlorite 次氯酸鈉	3,042.75
Organic flocculant 有機絮凝劑	1,751.98
Inorganic flocculant 無機絮凝劑	25,912.46
Ferric Chloride 三氯化鐵	11,044.87
Lime 石灰	3,145.11
Total 總計	54,979.97
Unit: tonne 單位 : 噸	

Energy Consumption Statistics of Operating Projects in 2015\*

二零一五年各營運項目的耗能統計\*

Types of operation 運營類型	Non- renewable energy consumption 非再生 電力消耗	Renewable energy consumption 可再生 電力消耗	Fuel oil ° 燃油 °	Natural gas <sup>b</sup> 天然氣 <sup>b</sup>	Total 總計
Environmental Energy 環保能源	5,079.98	1,199,739.87	26,937.39	-	1,231,757.24
Environmental Water 環保水務	836,054.61	38,025.51	_	_	907,541.45
Greentech 綠色環保	17,157.69	133,365.39	14,449.07	19,887.30	184,859.45
Unit: GJ 單位 : 吉焦					

- \*: CEIL's core products and services will not cause additional energy consumption to the clients
- <sup>a</sup>: Assume the energy content of fuel oil to be 40.19 GJ per tonne and 0.144 GJ per US gallon
- b: Assume the energy content of natural gas to be 39.01 GJ per 1,000 m<sup>3</sup>
- \*: 光大國際的核心業務的產品及服務不會對客戶造成額外 的能耗
- a: 假設每噸燃油含40.19吉焦能源:每北美加侖燃油含0.144 吉焦能源
- b: 假設每千立方米天然氣含39.01吉焦能源

We have been continuously striving to preserve and recycle water resources and follow "The Reuse of Urban Recycling Water – Water Quality Standard for Industrial Uses" (GB/T19923-2005) and "The Reuse of Urban Recycling Water – Water Quality Standard for Scenic Environment Use" (GB/T18921-2002) to reuse our waste water. Our site selection complies with stringent environmental impact assessment requirements, which prevent the water bodies and ecological sites nearby the project site from pollution. Furthermore, we actively explore the utilization options for waste water, such as developing advanced heat pump technologies to harvest the low-grade heat of waste water for heating and cooling.

我們持續竭力保存和循環利用水資源,並遵照「城市污水再生利用-工業用水水質」(GB/T19923-2005)以及「城市污水再生利用-景觀環境用水水質」(GB/T18921-2002)將污水循環再用。我們的項目選址均符合嚴格的環評準則,絕對不會對項目周邊的水體和動物棲息地帶來顯著影響。我們更積極探索污水資源化利用,如開發先進的污水源熱泵技術,利用污水內豐富的低品位熱能提供供暖和空調服務。

In 2015, we used 16,684,609.43 m³ of treated waste water, accounting for over 89% of the total water consumption, recording a 7% increase comparing to 2014 level and achieving the sustainable development target set in previous reporting year.

二零一五年,我們於運營中使用經處理的污水合共16,684,609.43立方米,佔總用水量超過89%,與二零一四年同比上升7%,順利達成上年度定下的可持續發展目標。

Total Water Consumption, Withdrawal and Recycled by Types of Operation in 2015

二零一五年按運營類型劃分的總耗水量、 取水量及循環水量

Types of operation 運營類型	Water consumption for production (including billed water and recycled water) 用於生產的耗水量(包括收費用水及循環水)	Water withdrawn from municipal water supplies or other water utilities 取自市政供水或 其他水務設施的 水量	Total volume of recycled and reused water 循環及再用水 總用量	Percentage of recycled and reused water in total water consumption (%) 循環及再用水佔總用水量的百分比(%)
Environmental Energy 環保能源	9,679,173.60	1,227,496.73	8,451,676.87	87.32
Environmental Water 環保水務	7,916,724.75	685,557.89	7,231,166.86	91.34
Greentech 綠色環保	1,104,121.69	102,355.99	1,001,765.70	90.73
Unit: m³ 單位 : 立方米				

## Total Production Water Discharged by Destinations in 2015

#### 二零一五年按排放目的地劃分的生產過程 的排放水量

Types of operαtion 運營類型	Sewαge pipelines 排入污水管網	Greening 綠化	Landscape pond 景觀池	Totαl 總計
Environmental Energy 環保能源	37,805.50	18,000.00	12,000.00	67,805.50
Greentech 綠色環保	826,625.00	56,440.00	31,952.00	915,017.00
Unit: m³ 單位: 立方米				

## **Environmental Compliance**

The Company strives to ensure all projects strictly comply with relevant environmental standards and the requirements set out in the environmental impact assessment reports. For example, the project companies regularly take samples from the effluent for assessment to ensure the discharge from the waste water treatment plants complies with the standard. Also, online monitoring instruments are installed on the pumps to avoid stealthy discharge.

We also actively utilize our technical advantages and participate in the compilation of relevant national and industry standards. For instance, our staff from Suzhou WtE Project has contributed to the compilation of national standard – "Wasteto-energy Plant Operation Parameter Evaluation Standard", and an industrial standard led by the Ministry of Housing and Urban-Rural Development titled "Household Waste-to-energy Plants Maintenance Procedures".

In 2015, there were no records on fines and sanctions for non-compliance with environmental laws and regulations, nor any grievance about environmental impacts through formal grievance mechanism.

## 環保合規事宜

本公司致力於確保所有項目在運營和環境表現上嚴格遵守相關標準及環境影響評估報告的要求。例如,為了有效保障污水處理廠的達標排放,項目公司會定時對工廠流出的污水進行抽樣檢查,並於泵站上安裝在線監測儀表,務求杜絕偷排行為。

我們更主動發揮先進的技術優勢,積極參與各項相關國家標準、行業標準的編制工作。例如,蘇州垃圾發電項目公司的相關人員為國家標準《垃圾發電廠運行指標評價規範》,以及由住建部牽頭的行業標準《生活垃圾焚燒發電廠檢修規程》的編制作出了貢獻。

本公司於二零一五年沒有因違反環保法規而 導致損失和影響的記錄,也沒有經正式申訴 機制立案的環境影響申訴記錄。

### Case Story 個案分享

#### Raising standards

How Suzhou WtE Project expanded its capacity without increasing total emissions 提標改造一蘇州垃圾發電規模項目增加,排放總量不增加

Described as a "Garden Factory" by the China Central Television, our Suzhou WtE Project has executed Euro 92 Standard for its flue gas emission and Euro 2000 Standard (the existing Euro 2010 Standard) for dioxin emission since its commencement in 2006. Such practice put us as a industry pioneer among the industry peers at that time. To take a step further in fulfilling our corporate environmental and social responsibilities, in 2010, the Company took the initiative to push for better performance, using Suzhou WtE Project as a pilot site and comprehensively upgraded the equipment and technology of both phase I and II of the waste-to-energy project. The system has been operating steadily since its commencement. The level of NOx emissions has been controlled between 110-150mg/Nm³ (Euro 2000 Standard is 200mg/Nm³), which is much lower than the requirement of its Environmental Impact Assessment Approval, thus achieving the harmony between social and environmental efficiency.

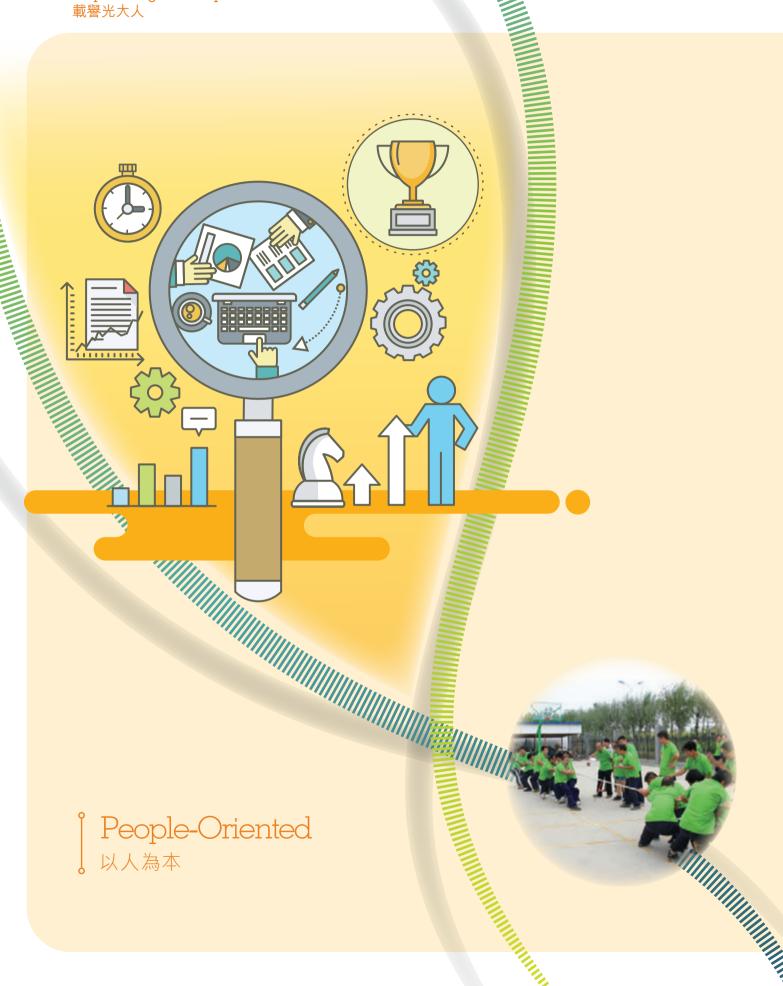
In September 2011, the expansion project for Suzhou WtE Project Phase III commenced. The expansion aimed to further improve the environmental performance, and since the design and construction stages, the project was designed and planned to comply with the Euro 2000 Standard. In January 2013, Suzhou WtE Project Phase III commenced operation, while the total emissions of all three phases were lower than the requirement of Environmental Impact Assessment Approval of Phase II back in 2009. During the reporting period, same as all other Environmental Energy projects of CEIL, the air emissions and incineration residues of Suzhou WtE Project followed the Euro 2010 Standard.

The success and extension of upgrading works of Suzhou WtE Project enabled CEIL to achieve goal of "expanding projects without increasing total emissions", and is significant to CEIL's improvement of the overall performance of construction and operation.

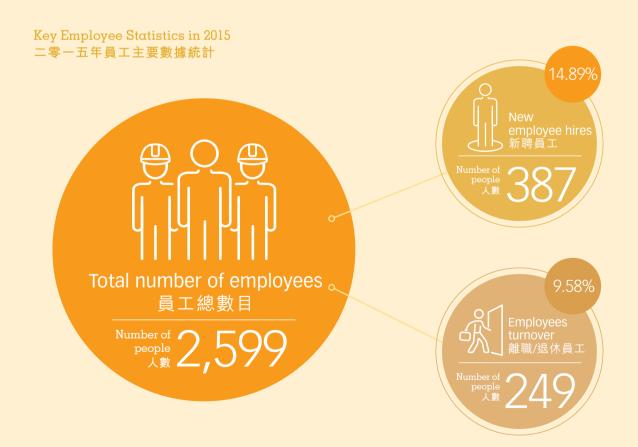
被中央電視台形容為[花園式工廠]的蘇州垃圾發電項目自二零零六年一期工程投運初期,項目各煙氣排放指標執行歐盟92標準,二噁英排放執行歐盟2000(現歐盟2010)中的相關標準,在當時的整體環境下處於行業領先地位。為了更好地履行企業的社會責任和環境責任,二零一零年,光大國際自行加壓,以蘇州項目為試點,對垃圾發電一、二期項目開展了全面的提標改造工作。該系統投運以來,運行穩定,氮氧化物排放有效控制在110-150mg/Nm³之間(歐盟2000標準為200mg/Nm³),並大大低於環評批覆的總量要求,實現了社會與環境效益的和諧統一。

二零一一年九月,蘇州垃圾發電項目三期擴建工程開工,項目自設計、建設階段即以達到歐盟2000標準為要求。二零一三年一月,蘇州垃圾發電三期項目建成投運後,垃圾發電一、二、三期排放總量仍低於二零零九年二期投運時國家環保部批覆的水平。於報告期內,與光大國際所有環保能源項目一樣,蘇州垃圾發電項目的廢氣及爐渣排放限值均參照歐盟2010標准執行。

提標改造在蘇州項目的成功及沿用,有助光大國際實現「項目增加,排放總量不增加」的目標,對提升光大國際運營工程整體水平有著重要的意義。



CEIL understands and fully appreciates that employees are the driving force of a company to achieve its vision and mission. As such, CEIL has incorporated the concepts of people-oriented and standardized management into our human capital management. We recruit talents through fair and flexible recruitment strategies, and have placed substantial resources to provide training opportunities in support of our employees' career development. We strive to provide an ideal working environment for the employees and uphold the principles of equality and non-discrimination, enabling our employees to achieve growth and self-actualization in a diverse and fair environment. We also care our employees' needs and welfares, and therefore provide various activities to promote work-life balance. With our transparent communication mechanisms and our respect for our employees' views, the Company is devoted to grow along with our employees and contribute to the deed of safeguarding the environment and benefiting the society.



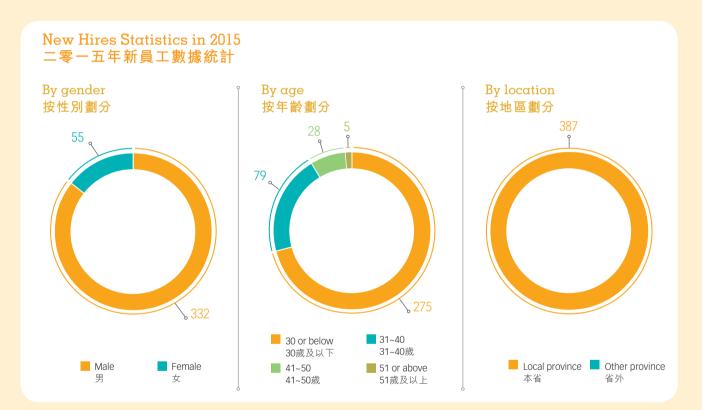
#### Empowering Our People 載譽光大人

## Recruiting and Maintaining Human Capital

In 2015, the Company has been improving our recruitment strategies and actively collaborating with professional recruitment agencies and higher education institutions to conduct local, overseas and on-campus recruitment campaigns to identify new blood with great potential. We uphold a fair and impartial human resources policy, in which ability and quality of the candidates are the most important factors during the recruitment process. Meanwhile other biased factors, such as gender and age, will not be considered as evaluation criteria. Also, we promoted local employment opportunities where all newly hired employees come from local province in 2015.

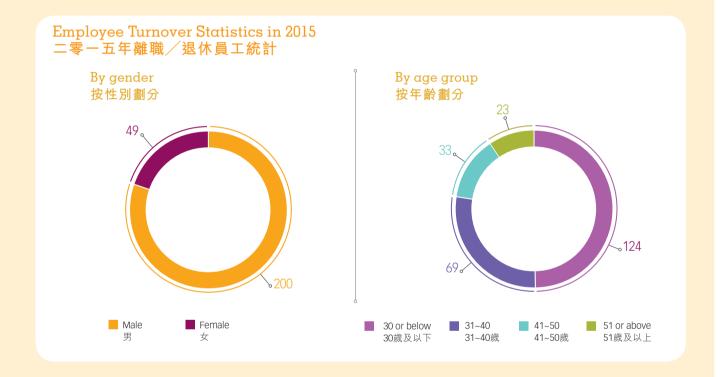
#### 招攬和保留人才

二零一五年,本公司繼續優化招聘策略,積極與專業的人才招聘機構、高等院校合作,通過實地招聘、海外招聘、校園招聘等方式物色具優厚潛質的新員工。我們奉行平等、公正的人力資源政策,在招聘的過程中,唯有應徵者的能力和資質是我們最重視的考核因素,而其他因素如性別、年齡等並不會被列入考核準則。我們注重為本地人提供就業機會,二零一五年所有聘請的新員工均來自本省。



We value sustainable development of the employees' career and strive to provide a board spectrum for the employee's career and personal growth. In 2015, we have refined the tiered talent development strategy with a replacement mechanism, the "managerial and technical backup talent pool" system and an appraisal system. We have also developed and implemented an internal assessment mechanism to review the work performance and career pathway of all employees. All of our employees received adequate performance and career development assessment and review.

我們一直重視員工的可持續事業發展,致力為員工提供廣闊的成長和發揮空間。二零一五年,本公司進一步完善梯隊式和遞補式的人才佈局和「後備管理、技術人才庫」制度,以及對管理、技術人員的考核機制,並對所有員工的工作表現和職業發展予以適切評價和檢討。



#### Empowering Our People 載譽光大人

We are keen in offering internal competitive selection and promotion opportunities, so as to improve the positivity and mobility of the employees. In 2015, there were 17 Deputy General Managers promoted to General Managers. In addition, 5 backup managers were selected from the "backup talent pool" and promoted to General Managers, Construction Supervisors or Project Preparation Team Leaders of our new projects through self-application and recommendation by a lower-ranked staff. In 2015, the number of staff turnover accounted for 9.58% of the total workforce.

我們樂於提供內部競聘及選拔的機會,提升 員工的積極性和向上流動性。二零一五年,通 過在人才庫中公開發佈,自願報名及由下至 上的推薦,共有17名副總經理獲晉升為總經 理,另有5名後備管理人員赴任新項目的總經 理、總指揮或籌備組長。二零一五年離職或退 休的員工數目佔總數約9.58%。

The green energy industry has high regard on the professional knowledge of the employees as the training of a technical leader could take up to seven years. In every year, we monitor the number of employees who will be eligible for retirement in the near future, so we can better formulate our human resources plan considering the intensive training requirement and provide favorable retirement arrangement for the employees.

綠色發電行業對員工的專業知識有著高度的 要求,培養一位技術骨幹需時可長達7年之 久。我們每年均會對即將合資格退休的員工數 目作出統計,從而更好地制定人力資源計劃, 並為員工提供合適的培訓及更貼心的退休安 排。

## Percentage of Employees Who Are Eligible for Retirement in 5 and 10 Years (%)

# 5年及10年內合資格退休的員工比率(%)

Employee Category 員工職級		In 10 years 10年內
Senior management 高級管理人員	0.15	0.42
Middle-level management 中層管理人員	0.27	0.73
General and technical staff 一般及技術員工	2.85	6.81
Total 總計	3.27	7.96

#### Employee Training and Development

Nurturing talents is one of the key strategies of the Company. We have developed a comprehensive training and development system for our employees, aiming to improve the overall quality and provide comprehensive development for our employees. This was achieved by the "integration of all-staff training and priority training, integration of general training and professional training, integration of internal and external training", which aims to turn human capital into our competitive edge. In 2015, the average annual training hours per employee attained over 55 hours.

In order to enhance the sense of belonging of the new employees towards the Company and to strengthen their understanding of the corporate culture, "Master-Apprentice" program and Executing Ability Training Camp are being held every year. In 2015, there were 512 employees participated in the 12th and 13th Executing Ability Training Camp.

To strengthen the professional and industry knowledge of our employees, we regularly organize practical trainings to further develop their project operation skills, as well as to enchance their understanding in finance and law. In addition, we also proactively provide exchange opportunities with local and foreign industry peers. Also, we have organized "Plant Manager Forums" at different project companies to share experiences and foster learning among different projects. More importantly, the Forums also help the Company identify, train and retain technical talents who have the potential to become future plant managers.

Throughout these years, we have been maintaining close relationship with reputable higher educational institutions, including Tsinghua University. The co-organized courses not only provide comprehensive trainings for our core technical team, but also served as a networking platform for our staff. During the year, 36 senior management and technical leader participated in the CEO course (5th session) and Master in Engineering course (3rd session) at Tsinghua University.

#### 員工培訓及發展

人才培養是本公司的重要戰略。我們具備健全的員工培訓與發展體系,採用全員培訓與重點培訓相結合、綜合培訓與專業培訓相結合、外出培訓與內部培訓相結合等方式,致力提升員工整體質素及促進其全面發展,將人才優勢轉化為企業優勢。二零一五年,本公司每名員工的平均培訓時數超過55小時。

為了加強新員工對企業的歸屬感並迅速了解企業文化,我們每年均會舉辦「師帶徒」培訓計劃和執行力拓展培訓。二零一五年,共有512名新老員工參加了本公司第十二次及十三次執行力拓展培訓。

為了加強員工的專業知識和對行業的了解, 我們全年定期開展運營項目技能培訓、財務和法律培訓等務實課程,並積極為員工爭取 與國內外同行交流的機會。我們亦在各項目 公司舉行「廠長論壇」活動,不但增進了不同項 目間的相互了解及學習,同時有助於發掘、鍛 煉和儲備廠長級別的技術人才。

多年來,我們與清華大學等著名學府保持友好合作關係,透過聯合舉辦培訓班,讓公司的骨幹隊伍接受高素質培訓和拓展人際網絡。 年內,再有36名高級管理人員及技術骨幹獲安排參加了清華大學CEO班(第五期)和工程碩士班(第三期)。

#### Empowering Our People 載譽光大人

## Employee Statistics – Training and Development in 2015

### 二零一五年員工主要數據一培訓與發展

Types of employee		Average training hour per person (Hour) 人均培訓時數(小時)		
Gender 性別	Male 男 Female	52.79	15.19	
	女	61.79	24.04	
Employee category 員工職級	Senior management 高級管理人員	35.87	17.32	
	Middle-level management 中層管理人員	61.75	17.20	
	General and technical staff 一般及技術員工	54.79	17.09	

#### Employee Benefits and Safeguards

We understand that employees are the cornerstones towards corporate success, and we strive to provide comprehensive benefit and safeguard to our employees. The Company fully complies with the local labor legislations and is providing life insurance, medical care, disability and invalidity coverage, maternity leave and paternity leave, incentive and bonus, etc. to our full time staff. Also, we actively assist the employees in retirement planning. On top of the mandatory endowment insurance required by relevant laws and regulations, we also developed a supplementary pension system for our employees as an additional benefit.

We care about the health of our employees and offer body checks and occupational disease prevention checkups on an annual basis. We also organize recreational activities regularly to promote work-life balance and allow the employees to relax while striving for career advancement. For projects located in remote areas, we build comfortable dormitories and multiple reactional facilities, such as badminton courts, gymnasium, chess and bridge room and library, for our employees. We also foster team bonding among our employees by organizing different kinds of leisure and sports activities, such as sports day, basketball friendly match, photography class and regular birthday celebration activities.

## 員工福利及保障

我們深明員工乃企業發展成功的基石,並致力於為員工提供完善的福利和保障。我們恪守當地勞工法例,為正式員工提供人壽保險、醫療保健、傷殘及疾病保障、產假及男士侍產假等福利,並定時派發獎勵花紅。我們還主動協助員工規劃退休安排,除了法律及法規規定的強制性養老保險外,我們還制訂了員工補充養老制度作為額外的退休福利。

我們關注員工的身心健康,每年均為員工提供身體檢查服務及職業病防範檢查。我們亦定期舉行文娛活動,讓員工在事業衝刺的同時不忘放鬆心情。我們在位於偏遠地區的項目建立舒適的宿舍及各種體育休閒設施,如羽毛球場、健身房、棋牌室及圖書館等。我們更舉辦多項休閒及體育活動讓員工參與,包括運動同樂日、籃球友誼比賽、攝影班及定期生日慶祝活動等,讓員工從娛樂中培養更緊密的團隊關係。

On the other hand, the Company values our employees' opinions and concerns. We have established grievance mechanisms in regards to labor/management relationship, human rights, workplace harassment and discrimination, etc., where employees can raise their grievances, discuss and express their concerns on corporate governance. The employees can also communicate with the CEO directly through the CEO mail box. Moreover, we publish "Everbright Environmental Protection Newsletter" and "Everbright International Monthly Magazine", which provide the latest industry information, corporate culture and company development to our employees. The periodicals also serve as a platform for employees to express their personal views and interdepartmental exchange.

另一方面,本公司亦密切關注員工的寶貴意見。我們已就勞資關係、人權、職場騷擾及閱等方面設立正式申訴機制,員工可循邊這式申訴,員工亦可透過行政總裁電子郵箱直入外,我們亦出版「光大環保報」和「光大國際月刊」兩本內部刊物,不但方便員工了解行及最大公司文化及發展方向,更為員工供了一個表達個人意見、與公司各部門廣泛交流的平台。

#### Equal Opportunity and Diversity

Our human resource policies follow equal opportunity principles and preserve diversity within the Company. No discrimination case was reported during the reporting period. We ensure reasonable remuneration and working hour, where the wage of our employees are determined based on work experience, job nature, work performance and market condition. We are aware of the fact that the labour pool in energy and engineering industries are dominated by male. As such, we pay extra attention to issues concerning equal opportunity, particularly on the remuneration of male and female staff, and ensure that salary level and structure will not be affected by gender.

## 平等機會與多元共融

我們的人力資源政策堅持平等就業的原則,致力維護多元文化,年內並沒有發生歧視案件。我們確保員工的工資、工時及待遇合理,員工之薪酬乃根據工作經驗、工作性質、工作表現以及市場情況計算釐定。我們意識到能源和工程行業的人力資源分佈側重於男性,因而更為重視男女員工的機會和薪酬平等等議題,絕對不會讓性別因素影響薪酬水平和結構的訂立。



#### Empowering Our People 載譽光大人

Employee Key Statistics – Ratio of Remuneration between Female and Male Employees in Different Employee Category in 2015

## 二零一五年員工主要數據 - 各員工職級內 女員工與男員工的平均薪酬比例

Employee category 員工職級	Ratio 比例
Senior management 高級管理人員	1.02
Mid-level management 中層管理人員	0.80
General and technical staff 一般及技術員工	0.93

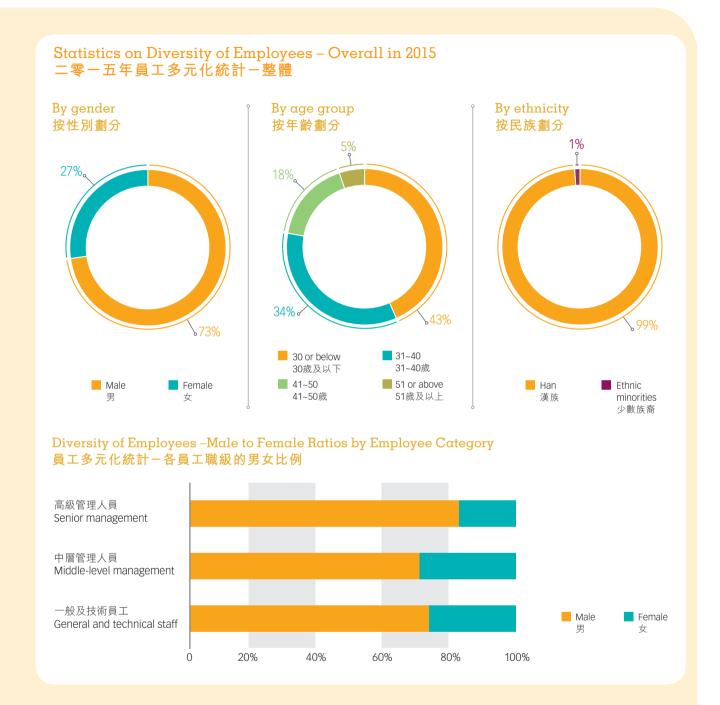
We safeguard the rights of our employees by strictly complying with laws on protection of rights and interests of different genders, and offering sufficient maternity leave to pregnant female employees as well as paternity leave to male employees so that they can take care of their spouse. We encourage our employees to return to their working positions after the maternity leave/paternity leave, and ensure their career development and remuneration remained unaffected due to their parental leave.

我們嚴格遵守有關性別權益保障的法例,維護員工的權利,包括給予懷孕女員工充足的產假,及給予男員工侍產假以方便照顧配偶。我們鼓勵員工在產假/侍產假結束後重返工作崗位,並保證員工的職業發展和薪酬不受影響。

## Employee Key Statistics – Maternity Leave/Paternity Leave in 2015

## 二零一五年員工主要數據一產假/侍產假

Index 指標	Gender 性別	2015
Number of female and male employees that took maternity leave/paternity leave 放產假/侍產假的男女員工數目	Male 男 Female 女	29 50
放性限/ 特性限的为久真工数日  Total number of employees who returned to work	Male 男	29
after maternity leave/paternity leave ended 產假/侍產假結束後重返工作崗位的員工總數	Female 女	47
Percentage of employees who returned to work after maternity leave/paternity leave ended (%)	Male 男 Female 女	100 94



The Company follows major human right declaration and applicable labor laws, and has zero-tolerance policy on child labor or forced labor in our production process. Our supplier assessment system enabled us to identify whether such inappropriate labor practice is employed. During the reporting period, we did not identify any issue with child labor and forced or compulsory labor with our project companies and suppliers.

本公司謹遵主要人權宣言及勞動法規的要求, 絕對不允許於生產中涉及童工或強迫與強制 勞動。我們的供應商評估系統使我們得以識別 其是否存在相關之用工不當行為。於報告期 內,我們並未發現任何營運據點和供應商存 在使用童工或強迫或強制勞動事件之風險。

### Ensuring Health and Safety 健康與安全



CEIL upholds the principle that occupational health and safety is not just an integral part of our corporate culture, but also our solemn commitment to every employee. As such, during the reporting period, we established a new Environmental Management Team spearheaded by our CEO. The Team's first priority is to establish a more comprehensive ESHS Management System. The key objectives of the ESHS Management System. are to provide a no-harm-to-people and accident-free working environment; to prevent occupational diseases; and to minimize work-related health issues. All of these will in turn guide the Company to accomplish the safety missions. We also refined our risk management system during the year, which enabled us to further minimize the risks of accidents in a systematic approach. We also launched the implementation of occupational health and safety management systems certified under OHSAS 18001 (GB/T28001-2011) at all our project companies to ensure operational safety.

確保職業健康與安全不僅是我們重要的企業 文化,還是本公司對每一位員工的莊嚴承 二零一五年,本公司成立了由行政總裁牽 的新環境管理領導小組,首要任務便是是員 是供無傷害及無事故的工作環境、防而 提供無傷害及無事故的工作環境、從而 我們更有效地達成安全任務。我們還於 一五年完善了風險管理體系,務求將 高 大工年完善了風險管理體系,務求將 一五年系統性地防範於未然。在項目公司層 我們全面推行獲國際性的OHSAS 18001(GB/ T28001-2011)認證的職業健康和安全管理體 系,保障運營安全。

We adhere to the safety management principle of "Safety First, Prevention Focused, Integrated Management". We integrate safety and health management into every part of our operation by adhering to relevant safety regulations and standards; setting up clear safe-operation procedures and guidelines; providing appropriate tools and personal protective equipment; setting up safety patrol group; and organizing comprehensive health check annually. We also require our contractors to include our safety clauses in the contractual agreement to ensure that our standards of safe production is practiced throughout the whole value chain.

本公司堅持「安全第一、預防為主、綜合治理」 的安全管理理念,謹遵相關安全法規和標準, 透過制定清晰的安全作業規程與指示、提供 適當的工具和個人保護裝備、成立安全巡查 小組、每年舉行全面的健康檢查等措施,將 安全與健康管理植根在營運中的每個細節。 我們還把相關的安全防範要求載於分包商的 合作條款中,務求將安全生產延伸至整條價 值鏈。

清潔、保安等工作人員

僅包括光大國際員工

工傷率(IR)=工傷事故總計/工作總時數 × 200,000

## Health and Safety Key Statistics in 2015 二零一五年主要職業健康與安全數據統計

cleaning workers and security guards

CEIL employees only

Injury rate (IR) = Total number of work-related injury/Total working hour x 200,000



#### Ensuring Health and Safety 健康與安全

We keep a detailed record on our occupational health and safety every year, including cases of occupational diseases, even though our employees are not exposed to jobs with high risks of occupational diseases. We are pleased to announce that there is no disabling accident or fatality during the reporting year. Our performance of occupational health and safety in 2015 is as follows:

我們認真統計每年的工作安全與健康數據,並把職業病列為其中一個統計範疇,儘管我們的員工不涉及高職業病風險的工作。我們欣然宣布於本年度沒有錄得任何因工傷殘或死亡個案。二零一五年本公司的職業健康與安全表現如下:

#### Fostering the Safety-First Culture

To ensure our employees' full understanding and participation in safe production, we organize health and safety trainings on a regular basis, with topics cover safe use of facilities and equipment, safe storage and handling of dangerous goods, fire safety, occupational disease prevention, first aid and so on. We also organize special seminars, lectures and quiz competitions during the "Safe Production Month" on an annual basis. All of our new employees are required to attend safety education in three organizational levels (which are corporate level, department level and class level) before they commence work. They are also required to attend safety trainings and examinations throughout their first year.

#### 健康與安全教育

為了確保員工對安全生產的充分認識與投入,我們定期舉行健康與安全培訓,涵蓋設備裝置安全使用、危險物品的儲存和使用、消防安全、職業病預防、急救方法等議題。我們還會於每年的「安全生產月」安排特別的研討會、講座和答問大賽。新入職的員工也會在開始工作前接受三級安全教育(包括公司一級、部門一級、員工所在班一級),並在工作首年持續接受安全培訓和參加考核。

## Case Story 個案分享

#### Spread safety knowledge through education and trainings 組織教育培訓,普及安全知識

In June 2015, the project companies of Everbright Environmental Protection commenced the "Safe Production Month" activities, which was organized under the theme of "Strengthening Safety Law, Ensuring Safe Production". Each project company organized targeted safety education and trainings covering different topics, tailoring to the project's working condition. The trainings also cover different tasks and job natures, such as maintenance workers performing work at height, electric welding works and special equipment operation. The trainings were designed to cover broad topics and job nature to enhance the safety knowledge of the operators and subsequently to reduce the risks of production accident. In addition, in order to effectively promote the newly revised "Law of the People's Republic of China on Work Safety", the project companies also facilitated the learning of the new laws and relevant electrical safety regulations and standards such as "Power Monitoring System Security Protection Regulations". Work safety quiz competitions and safety procedure examinations were also conducted to ensure continual awareness of production safety and legal sense, and to strengthen the Company's responsibility on and legalization of power production safety.

二零一五年六月,光大環保各項目公司開展了主題為[加強安全法治,保障安全生產]的[安全生產月]活動。按照活動方案安排,各項目公司根據現場工作的實際情況,組織對檢修公司高處作業、電氣焊作業、特種設備操作等各類作業行式以及各類工種開展了有針對性的安全教育培訓,提高了作業人員的安全知識水平,對減少安全生產事故隱患起到了重要作用。此外,為有效宣傳新《安全生產法》,項目公司還組織認真學習新修訂的《安全生產法》及《電力監控系統安全防護規定》等電力安全規章制度標準,並進行安全生產知識競賽和安全規程考試,切實增強安全生產紅線意識和法治觀念,強化企業主體責任落實,提高電力安全生產法治化水平。

#### **Emergency Preparedness**

The Company established comprehensive emergency response plans for our different business segments, covering various types of potential risks of their respective areas in the plant. These plans include environmental pollution accident emergency response plans, electrical accident emergency response plans, fuel oil tank area and fuel oil system accident emergency response plans, etc. All project companies have formed a safety management team, which comprises of the General Manager and other management officers, to supervise and manage all health and safety issues arising from various stages of the project. The team is also responsible for organizing emergency drills and exercises to increase the safety awareness of the employees as well as enhance their skills on crisis management. We also set up an assessment mechanism to evaluate the practicality and effectiveness of the emergency response plans, so the plans can be modified if necessary.

#### 應急事故規劃與準備

本公司的各個板塊均設有完善的應急預案,涵蓋不同種類的潛在風險和對應的廠區範圍,如環境污染事故應急預案、電氣事故應急預案、燃油罐區及鍋爐油系統事故應急預察。我們所有的項目公司均設安全管理團隊(包括總經理和其他管理層)以監督和管理項目各個項目階段的健康和安全事項,並定期組織緊急演練和操練,使員工時刻保持高度的安置意識,以及掌握實用的危機處理技巧。我們還設立了評估機制以評核應急方案是否實用和有效,從而作出適當調整。

## Case Story 個案分享

## Safety drill under the snow 安全至上 雪中演習

One morning in November 2015, there was a rare heavy snow in Zibo. Yet, the snow did not disturb emergency drill in our Zibo Waste Water Treatment Project Company, which adheres to the "Safety First" principle at all times. Under the leadership of the safety specialist, more than 60 employees from different departments, maintenance centre, plant 1 of the Zibo Waste Water Treatment Project Company and Zibo energy company participated in the safe emergency evacuation drill and fire-fighting drill in the plant. After the safety specialist explained the meaning and purposes of the drill, the evacuation skills and use of fire extinguishers, all staff followed through the drill procedure in a serious manner. The staff took turn to put out the flames with fire extinguishers. They demonstrated the team's determination towards the "Safety First, Prevention Focused" principles.

二零一五年十一月的某個清晨,一場罕見的大雪隨著凜冽的北風從淄博上空飄落,但這並沒有打亂向來安全至上的淄博污水處理項目公司的緊急演練計劃。在安全專員的帶領下,淄博污水處理項目公司各部室、維修中心、一廠和能源公司等60多名員工在廠房內進行了安全應急疏散逃生演練及消防滅火演練。在安全專員深入講解了演習意義與目的、逃生技巧和滅火器的運用後,全員一絲不苟地按演練程序奔走相告,疏散逃跑,並輪流拿起滅火器對準火苗狠狠噴射,展現了我們團隊安全至上,防微杜漸的決心。

## Giving Back to Community 承擔社會責任



The Company is determined to take up our social responsibility and grow with the community through continuous engagement with community organizations and civil societies. Our engagement activities include organizing and supporting philanthropy programs; taking part in various environmental protection and science and technology associations and co-organizing large-scale activities with these associations; initiating community support and funding activities; and operating "Everbright International True Love School".

本公司透過舉辦及贊助公益活動、參與各類環保和科技協會並合辦大型活動、發起社區支援及捐助活動及開辦「光大國際愛心學校」等舉措,積極承擔社會責任,與社區共同成長。

#### Philanthropy

Everbright International Environmental Protection Charitable Foundation Company Limited was founded in August 2013. It is mainly responsible for managing the Everbright International Environmental Protection Charitable Foundation in Hong Kong, sponsoring and coordinating all charitable projects related to environmental protection, environmental education, energy conservation, ecological preservation and community caring, etc.

In 2015, Everbright International Environmental Protection Charitable Foundation was again the lead sponsor for Earth Hour in Hong Kong, a signature event organized by the World Wide Fund for Nature (WWF) to encourage government departments, companies, organizations, schools and individuals to turn off non-essential lights in their buildings, offices, and facilities for an hour from 8:30 p.m. to 9:30 p.m. on 28 March 2015 as a symbol for their commitment to the planet. The theme of "Earth Hour 2015" Hong Kong was "One Hour for One Bright Future", and it appeared to people to change their lifestyles and give up the unnecessary luxuries to help sustain the earth. Through different community engagement activities, we hope to demonstrate to the public how different energy saving and recycling concepts can be integrated into their daily lives, and what they can do to reduce carbon footprint and combat climate change.

#### 公益活動

光大國際環保公益基金會有限公司於二零 一三年八月在香港成立,主要負責管理光大國 際環保公益基金,以及協調所有相關的公益 項目,囊括環境保護、環保教育、節省能源、 生態保育和社區關懷等。

二零一五年,光大國際環保公益基金再次為香港「地球一小時」的首席贊助商。「地球一小時」的首席贊助商。「地球一小時」2015」由世界自然基金會主辦,香港地區主題是「留住地球・『捨』出未來」,呼籲人們改變免不必要的消費,拯救地球環境不必要的消費,拯救地球環境不必要的消費,組織、學校地球環境和至三月二十八日晚上八時半關掉不必要的照明,象徵對保護的決心。通過支持不同的社區活動,我們的公眾展示如何將環保節能與循環和用質學化。





#### Giving Back to Community 承擔計會責任

In addition, Everbright International Environmental Protection Charitable Foundation was the title sponsor for Yan Oi Tong Green City Exploration Tour 2015 - Singapore. Held on 10 to 13 August 2015, the event provided the opportunity for 23 environmental protection student ambassadors from Hong Kong to visit Singapore, entitled the "Greenest Asian City", and learn from university professors and conservation specialists about how they can contribute towards building a greener city. They learned more about different aspects of green city including water resources management, energy saving and conservation, urban greening, biodiversity and construction waste recycling. They also worked together to assess the feasibility of implementing similar initiatives in Hong Kong. After the study tour, the foundation also sponsored the outstanding student ambassadors to visit the Group's Nanjing WtE Project to further study the waste incineration process and the environmental protection measures adopted in China. The event helped the student ambassadors understand our excellent operation and commitment to environmental and social responsibilities.

Science, Technology and Environmental Education

As the city's green guard, we are happy to serve as the council members of various large-scale environmental protection associations in China including the Chinese Society for Environmental Sciences, the Chinese Ecological Civilization Research and Promotion Association ("CECRPA") and the China Association of Urban Environmental Sanitation, and take part in the activities organized by these associations to further enhance our connection with the community. In 2015, we jointly organized the academic conference "Environmental Technological Innovation for Better Ecological Environment" with the Chinese Society for Environmental Sciences, which attracted the participation of around 1,600 experts, scholars, entrepreneurs and environmentalists. The participants have indepth discussions on the issues of environmental protection programs under the "13th Five-Year Plan", air pollution control, ecological environment enhancement and biodiversity. We have also co-organized the "National Environmental

另外,光大國際環保公益基金還於年內冠名贊助了「仁愛堂環保城市探索之旅2015 - 新加坡」。該活動於二零一五年八月十日至十三日舉行,旨在讓23位環保學生大使到「全亞洲最綠城市」新加坡進行實地考察,從大學教授和保育專家身上學習綠色城市的不同組成等,包括水資源管理、節省能源、都市綠化、生物多樣性和建築廢料循環再用等,再研究將這些環保措施於香港應用的可行性。城市探索之旅過後,基金會更級發動表現優秀的學生大使參觀本公司位於南京的垃圾發閱大術和相關的環保措施。該活動讓學生大使了解到我們卓越的營運狀況和對環境與社會責任的承諾。

#### 科技及環保教育

作為城市中的綠色衛士,我們樂於擔任各種環保協會的理事單位,包括中國環境科學學會(「研促會」)、中國生態文明研究與促進會(「研促會」)、中國城市環境衛生協會等,並透過參與該等協會的大型活動,增強與社區的聯繫。二零一五年,本公司與環境科學學會合辦了主題為「邁向良好生態的環境科技創新」的學術大會,吸引約1,600名專家學者、企業家和環保人士參加,就「十三◆五」環境保護規劃、大氣污染治理、生態環境建設、生物多樣性等重大環境問題進行深入探討;我們還與該學會合辦了「新環保,新生活」全國環保科

Protection Science Popularization Creativity Context" competition with the same society. The competition collected more than 2,000 pieces of art works including animations, cartoons and mini films for public display on the Technology Train (operated by the Ministry of Science and Technology), where the concept of green living was further promoted to the general public. Our project companies also participated in other events, including "National Science Popularization Day", "World Water Day" and "World Environment Day" throughout the year to promote advanced environmental protection technologies and to raise public awareness on environmental protection.

普創意大賽,徵集的2,000多套動畫、漫畫、微電影等作品隨科技部的科技列車進行巡迴展出,將綠色生活理念進一步於推廣至普羅大眾。二零一五年,我們旗下的各個項目公司熱心參與不同的環保科技活動,如「全國科普日」、「世界水資源日」及「世界環境日」等,以宣傳先進的環保科技,提高公眾的環保意識。

## Major Science, Technology and Environmental Education Activities in 2015

#### 二零一五年主要科技及環保教育活動

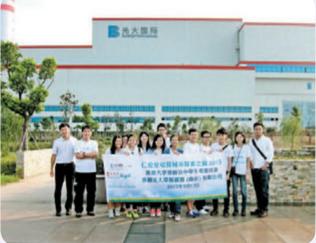
Activities 活動
Annual Academic Conference of Chinese Society for Environmental Sciences 中國環境科學學會學術年會 "New life for Environmental Protection" The National Environmental Science Creativity Contest 「心環保,新生活」全國環保科普創意大賽活動 "13th Five Year Plan" Forum of Environmental Protection Industry Services Innovation 「十三◆五」環保產業服務創新座談會
The Sixth Conference of MSW Incineration 第六次生活垃圾焚燒處理大會 China Exhibition and Annual Conference of Central Solid Waste 中國固廢展會暨中環協年會
"Get into Municipal Solid Waste Incineration Plant" Campaign 「走近生活垃圾焚燒廠」活動 Technical Exchange Seminar for Waste Incineration Power Generation Industry 垃圾焚燒發電行業技術交流研討會
Preparation of Municipal Solid Waste Incineration Related Industries and National Standards 編制生活垃圾焚燒相關多個行業標準和國家標準
Annual Meeting of China Ecological Civilization Forum in Fuzhou 中國生態文明論壇福州年會
Preparation of "Guangdong Province Waste Incineration Operations Management Course" 編制《廣東省生活垃圾焚燒運營管理教程》
Solid Waste Hotspot Forum 固廢熱點論壇 The Sixth Forum for Solid Waste Strategy 第六屆固廢戰略論壇

### Giving Back to Community 承擔社會責任

In order for the public to understand more about the uniqueness of the waste-to-energy industry and to encourage ecological civilization in the society, we actively utilize our existing resources to promote environmental education by opening our project companies regularly for international groups, government officials, investors, media, students and local residents to visit our plants. We believe this kind of activities can enhance transparency and improve the interaction with our stakeholders, enabling them to witness the practice of sustainable development principles in our green energy, emission reduction and waste water treatment projects, and cultivate the interest of young generations in pursuing green career. In 2015, there were 47,822 headcounts of visitors to our environmental protection projects.

為了讓公眾認識到垃圾發電行業的特殊意義,在社會上推動生態文明理念,我們積極利用現有資源進行環保宣傳教育,每年定期邀請國際考察團、政府部門、投資者、媒體、學生和當地居民等參觀旗下的項目公司。我們深信這些活動有助於進一步提升公司的透明度和增進與持份者的交流,讓其見證可持續發展理念在綠色能源、減排及污水處理等環保項目的實踐,並培養年輕一代追求綠色事業的興趣。二零一五年,我們環保項目的訪問人次達47,822名。









### Case Story 個案分享

## CEIL and Chinese Ecological Civilization Research and Promotion Association 光大國際與中國生態文明研究與促進會

CEIL understands that responsibility and liability are crucial qualities for an enterprise to build ecological civilization, and we have been actively promoting the development of ecological civilization in China with CECRPA. The "World Environment Day" on 5 June, 2015 served as an opportunity for CEIL to kick off a series of "5th June" thematic events in hundreds of universities with CECRPA and Beijing Forestry University. These events provided a platform for students to put ecological civilization into real practices and promote green lifestyles to the community through experiential learning activities such as green and low-carbon habits experiential activities, green public lectures and summer ecological practicums. As a co-organizer, CEIL has opened up its environmental protection projects for student visits and has actively contributed to the subsequent activities such as green public lectures.

On 19 December, 2015, the forum discussion and annual meeting of the Chinese Ecological Civilization Forum held by CECRPA was launched in Fuzhou. With the missions of ideas dissemination, consensus attainment, views exchange and practices promotion, the annual meeting provided a platform for discussion and exchange of practices on ecological civilization development models. As a co-organizer and business representative of the event, we had Mr. Chen Xiaoping, our CEO, to give a speech as keynote statement in the annual forum, explaining how practical actions in achieving green, recycling, low-carbon development were taken by CEIL, and the Company's dedication in promoting ecological civilization in China under the new normal and circumstances.

光大國際明白「責任」與「擔當」是企業構建生態文明的應有質素,並積極與研促會聯手推動中國的生態文明建設。 二零一五年六月五日,光大國際以「世界環境日」為契機,聯同研促會和北京林業大學在京掀開了百所高校[六五]主題活動的序幕。該活動透過低碳環保好習慣體驗活動、綠色公益講堂、大學生暑期生態實踐活動等形式豐富的體驗內容,為青年學子提供實踐生態文明理念的平台,從而將綠色生活方式推廣到全社會。作為合辦方,光大國際開放各個環保項目供學生考察,並積極參與綠色公益課堂等後續活動。

二零一五年十二月十九日,由研促會主辦的中國生態文明論壇福州年會開幕並舉行高峰論壇。該年會以傳播理念、凝聚共識、交流互通、實踐推動為使命,為探索生態文明發展模式提供了一個研討和實踐交流的平台。作為活動協辦單位和企業界代表,光大國際行政總裁陳小平先生在年會論壇作了主旨發言,闡述了本公司如何以實際行動實現綠色、循環、低碳發展,在新常態、新形勢下確實推進中國的生態文明建設。



### Giving Back to Community 承擔社會責任

### Community Care

The Company has been operating various environmental protection projects with a high sense of social responsibility. To minimize our projects' impact on local communities, we conduct social impacts assessment in accordance to legal requirements prior to project investment. We also invite local residents in the area of the proposed project to visit our operating projects to collect and address their concerns pertaining to the proposed project's impact. After the project commences operation, we provide co-development fee to the villages, visit the elderly in the village regularly, and donate stipend to local schools during Children's Day and Teacher's Day.

In order to give back to the society, the Company held all kinds of community support programs and fund raising activities specific to the local needs in 2015. These activities have gained extensive support from our employees. Our "Everbright Environmental Protection Charitable Foundation" continues to provide material and psychological support to sanitation workers in Suzhou who are experiencing financial difficulties or critical illness. During 2015, the accumulated number of people benefited from the foundation was 361, accounting for over RMB1.39 million of consolation and relief fund. Besides, the Company has encouraged our employees to teach at the "Everbright International True Love School" to provide education opportunity to children in remote areas.

#### 社區關懷

本公司一直以高度的社會責任感運營旗下各環保項目。為確保項目對當地社區的影響減至最低,我們在投資前會依法對項目所在地進行社會影響評估,並組織當地居民到我們附近的運營項目參觀,詳細解答他們對項目疑問。項目投運後,我們提供村企共建費,並定期組織慰問村里的孤寡老人,及於兒童節、教師節捐贈助學金予當地學校。

為回饋社會,本公司於二零一五年舉辦了各式各樣的社區支援活動及針對當地需要發起各種募捐,並受到員工的廣泛支持。我們的「光大環保愛心基金」繼續為蘇州的貧困或經歷困難、重大疾病和意外傷害的環衛工人提供物質和心靈上的慰問,截至二零一五年共有361名累計受益,共計發放超過人民幣139萬元。我們還透過「光大國際愛心學校」和組織開展員工支教活動,為偏遠地區的兒童提供教育機會。





#### Highlights of Community Support Programs in 2015

- Ma'anshan Project Company organized the employees to donate for children with sepsis in the project site in Tao Village
- Suzhou Project Company carried out the campaign of "Care for Deaf and Speech-impaired Children", providing stationeries and toys, as well as preparing photography, painting, and dancing lessons for the Suzhou Deaf-mute School
- Jinan Project Company carried out "The Day of Compassion Donation" campaign, raising RMB11,800 to provide economic aid for local residents
- Changzhou Project Company took part in the "Sunny Partner" running for charity event, raising funds for the mobile left-behind children in Changzhou
- Xianyang Project Company donated books about environmental protection to local residents and students through the charitable activities, "Spring of Science and Technology" and "Infinite Innovations, Embracing the Wisdom of Life", to promote environmental education

#### 二零一五年社區支援活動亮點

- 馬鞍山項目公司組織全體員工於項目所在 地陶村為敗血病患兒童進行愛心捐款活動
- 蘇州項目公司開展「關愛聾啞兒童」活動, 為蘇州市盲聾學校提供文具、玩具,並籌 劃攝影、繪畫、舞蹈課
- 濟南項目公司開展「慈心一日捐」活動,共募集善款人民幣11,800元,為當地居民提供經濟援助
- 常州項目公司參加「陽光夥伴」熒光跑公益 活動,為常州的流動留守兒童獻出一份愛心,通過身體力行募集善款
- 咸陽項目公司透過「科技之春」及「萬眾創新,擁抱智慧生活」公益活動,把環保書籍贈送予當地居民及學生,推廣環保教育





### Summary and Outlook 總結與展望

2015 was a harvesting year for CEIL. Our market expansion strategy gained significant result – we successfully secured 34 projects and acquired Dalian Dongda involving a total investment of RMB10 billion, and achieved historical record in terms of project numbers and investment amount. The 6 regional management centers and 4 business segments were formed under the rollout of the new management structure, which optimizes resource allocation and is conducive to the specialized development of different projects. The extent of our research and development has been intensified with the establishment of Everbright Environmental Protection Technology Institute, and we received a record high amount of subsidies on specialized projects from the governments. Our social benefits have been expanding, in which our environmental protection projects continued to serve as local environmental education hubs and industrial tourist attractions, receiving about 48,000 stakeholders from China and overseas.

二零一五年是光大國際碩果累累的豐收年。市場拓展策略成效顯著,於年內成功拓展34個項目並收購大連東達,投資額超過人民幣100億元,無論在項目總數及總投資額均詢均之數高。新的管理架構全面鋪開,形成六個區型,有利於不同類型項目的發展。持續配置,有利於不同類型項目的發展。持續認為可以完了,成立光大環保技術研究院,國家科研力度,成立光大環保技術研究院,國家科研力度,成立光大環保技術研究院,國家科研力度,成立光大環保技術研究院,國家科研力度,成立光大環保技術研究院,國家科研力度,成立光大環保技術研究院,國家科研,國家人工業務,國家人工業務,是年接待約4.8萬名國內外的持份者。

Setting aggressive targets is an effective way to promote the sustainable development of a company. The Company set multiple annual targets pertaining to the aspects of environment and operation, employees, health and safety, community, etc. in our previous sustainability report, where all the targets were basically met during the reporting period. Specifically, the CO<sub>2</sub> offset in 2015 increased significantly by 30% comparing with the 2014 level, and the recycled water used during the production process further climbed to 89% from a high baseline. As for our employees, besides keeping attractive welfares and fair promotion system, the annual average training time per employee has attained 55 hours, reflecting our competitive advantage of being a learning oriented enterprise.

We understand the importance of review and reflection to continuous improvement, and actively seek for better solutions. For example, we kicked-start the development of a new "ESHS Management System" during the year, which aims at building a safer working environment for our employees.

我們明白檢討與反思對持續進步的重要性, 積極為做得不夠完善的地方尋求改善方法。 例如,我們已於年內啟動新《環境安全健康社 會責任管理體系》的建設工作,為員工營造更 安全的工作環境。 Based on our significant influence in economic, environmental and social aspects and related concerns of our stakeholders, our key targets for sustainable development in 2016 are as follows:

根據本公司在經濟、環境和社會方面的重大影響以及持份者的關注事項,我們在二零一六年有關可持續發展的主要目標如下:

Sustainable	
development αspects 可持續發展範疇	Key tαrgets for 2016 二零一六年主要目標
Environmental protection 環保	Disclosure of daily emission standards of operating waste-to-energy projects starting from 11 May 2016 自二零一六年五月十一日起,將按日披露各運營垃圾發電項目監測排放指標 Establish a new "ESHS Management System" and continue to improve the "Risk Management System"
	建立新的《環境安全健康社會責任管理體系》和持續完善《風險管理體系》 Establish a new "Green Procurement Policy" 建立新的《綠色採購政策》
	Maintain the level of recycled water during production process at a percentage not lower than that of 2015 維持生產中的循環水用量在不低於二零一五年的水平
	Start to collect Scope 3 (other indirect) GHG emission data through conducting survey 通過問卷調查等方式,開始收集範疇三(其他間接溫室氣體排放)的溫室氣體排放數據
Operation 運營	Strive to achieve zero unplanned shutdown 爭取實現零非計劃停機事故
	Strive to obtain ISO9001, ISO14001 and OHSAS18001 certificates for each project company within one year since it commences operation 爭取每個項目公司在建成投運的一年內取得ISO9001、ISO14001及OHSAS18001認證
Employees 員工	Maintain the injury rate within a level lower than the average of the past three years 將工傷率控制在低於過往三年的平均水平
	Further perfect the health care system for our employees, such as setting measures to prevent occupational disease 進一步完善員工保健制度,例如制定預防職業病的改善措施
	Continuously increase the average training hours of our employees 持續提升員工的人均培訓時數
Social responsibility 社會責任	Continuously increase the number of visitors to our environmental protection projects 持續提升環保項目的參觀人次
	Strive to resolve all effective grievances from the public 民眾的有效申訴處理率爭取達到100%

### Key Awards and Recognition 獎項與殊榮

- Constituent stock of the Hang Seng Corporate
   Sustainability Index for the second consecutive year
   連續第二年獲納入恆生可持續發展企業指數成分股
- Continued to be a constituent stock of the MSCI China Index, the Hang Seng China-Affiliated Corporations Index and the Hang Seng Mainland 100 Index 繼續為 MSCI 明晟中國指數成分股、恆生香港中資企業 指數成分股、恆生中國內地 100 指數成分股









- Best Investor Relations Company Corporate Governance Asia 「最佳投資者關係公司」—《亞洲企業管治》
- Outstanding Company in Corporate Governance Corporate Governance Asia 「企業管治傑出公司」 — 《亞洲企業管治》

- Asia's Best CEO Corporate Governance Asia 「亞洲最佳首席執行官」—《亞洲企業管治》





- Outstanding Enterprise Award Capital Magazine Group 「傑出上市企業大獎」 — 資本報業集團
- CAPITAL ECO Enterprises 2015 South China Media 「卓越環商企業大獎」 – 南華傳媒
- Hong Kong Outstanding Enterprise Hong Kong Economic Digest 「香港傑出企業」 – 《經濟一周》
- First Place in the Top Ten Influential Solid Waste Treatment Enterprises in China 「中國固廢行業十大影響力企業榜首」
- Leading Enterprise in the Construction of Urban Veinous Industrial Park in China 「中國城市靜脈產業團建設領軍企業榜首」

- China's Leading Waste-to-energy Enterprises 「中國垃圾焚燒發電領軍企業」
- Constituent Member of the Hang Seng Corporate Sustainability Benchmark Index for the Fifth Consecutive Year 連續第五年獲納入生可持續發展企業基準指數成份股
- 5A Credit Rating in 2015 Credit Rating Assessment for Companies in the Environmental Sanitation Sector in Guangdong Province 2015年度廣東省環衛行業企業5A信用等級
- Best Social Responsibility Brand Award in the Fourth China Charity Festival 2014 2014(第四屆)中國公益節最佳責任品牌獎



#### VERIFICATION STATEMENT

#### Scope and Objective

Hong Kong Quality Assurance Agency (HKQAA) has been commissioned by China Everbright International Limited (CEIL) to conduct an independent verification of its Sustainability Report 2015 (herein referred to as "the Report"). The Report stated CEIL's sustainability performance and efforts towards sustainable development for the period from 1st January 2015 to 31st December 2015.

The aim of this verification was to provide assurance on the completeness and accuracy of the information stated in the Report. The Report covers the standard disclosures defined in the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines Version 4 (G4) with "Comprehensive" option and the Environmental, Social and Governance (ESG) Reporting Guide of The Stock Exchange of Hong Kong Limited (SEHK).

#### 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;
  - The Global Reporting Initiative (GRI) G4 Guidelines and Electric Utilities Sector Disclosures;
  - · SEHK's ESG Reporting Guide;
  - International Standard on Assurance Engagements 3000 (Revised) (ISAE 3000 (Revised)) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" issued by the International Auditing and Assurance Standards Board; and
- ISO 26000 Guidance on Social Responsibility

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.

#### Independence

HKQAA was not involved in collecting and calculating data, or in the development of the Report. HKQAA's activities are independent from CEIL. There is no relationship between CEIL and HKQAA beyond the agreement for providing the verification service.

#### Conclusion

Based on the outcome of the verification process, it is opined that the Report is "in accordance" with the GRI G4 Guidelines – Comprehensive option and SEHK's ESG Reporting Guide.

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

Signed on behalf of Hong Kong Quality Assurance Agency

Bryan Peng

Assistant Director, Manufacturing & Service Business Division

May 2016

#### Verification Statement 核實聲明



#### 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」)2015年可持續發展報告(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2015年1月1日至2015年12月31日於可持續發展方面的表現及成就。

此核實體明的目的是對外保證報告所記載的內容為可信。並根據全球報告倡議組織 (GRI) 的可持續發展報 告指南 G4 版本的全面方案及香港聯合交易所有限公司 (以下簡稱「聯交所」) 的 (環境・社會及管治報告指 引) 線制。

#### 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:

- 遵守完整性・準確性・中立性・可比較性及回應性的原則:
- 全球報告倡議組織(GRI)的可持續發展報告指南4版本及電力行業披露以及;
- 聯交所發佈的《環境·社會及管治報告指引》:
- International Auditing and Assurance Standards Board (國際審計與核證率則委員會) 發佈的International Standard on Assurance Engagements 3000 (Revised) (《國際核證駒用準則3000》(修訂)) 的Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (「歷史財務資料審計或審 閱以外的核證駒用」): 及
- 國際標準化組織的社會責任指南 ISO 26000

核實的程序包括審閱相關之文件,與負責編製報告的代表而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徵既審查。

#### 潮竹档

香港品質保證局不涉及收集和計算此報告的數據或參與編撰此報告。香港品質保證局的驗證過程是獨立於完 大國際。除了合約所訂明的報告驗證服務,完大國際與香港品質保證局沒有任何其他關係。

#### 納線

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4版 本及電力行業披露編撰,並且符合全面方案必要的具體標準披露項,以及涵蓋了香港聯合交易所有限公司的 《環境、社會及管治報告指引》。

此報告的結構完整、平衡及一致地反映光大國際於 2015 年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鄰感到非常潔意。此報告公平和如實地載述了光大國際各項與可 持續發展成效有關的措施、目標、進度及表現。

#### 香港品質保證局

彭文俊

製造及服務科助理總監

2016年5月

## Key Statistics 主要數據

## Economic Performance<sup>a</sup> 經濟表現<sup>a</sup>

		2015	2014	2013
	Economic value generated 所產生的	的經濟價值		
Revenue	收益	8,534,531	6,355,120	5,319,866
	Economic value distributed 所分配	的經濟價值		
Operating costs	運營成本	4,459,857	3,270,315	2,350,373
Staff expense	員工開支	748,202	538,965	379,531
Finance costs	融資成本	451,759	380,775	315,579
Dividends	股息	829,486	493,209	366,066
Income tax	所得税	783,275	533,990	447,455
Donations	捐款	2,153	1,470	938
Economic value retained	所保留的經濟價值	1,259,799	1,136,396	1,459,924
Unit: HK\$ ('000) 單位: 千港元				

## Operation Performanceb 運營表現b

		2015	2014	2013
Proc	essing/Storage Capacity 處理/儲	存規模		
Waste-to-energy (tonne per day) $^{\circ}$	垃圾發電(噸/日)。	18,550	14,550	9,650
Biomass power generation (tonne per year)	生物質發電(噸/年)	600,000	600,000	600,000
Industrial waste landfill (m³)	工業固廢填埋量(立方米)	470,000	512,000	512,000
Hazardous waste landfill (m³)d	危廢填埋(立方米) d	1,244,000	1,240,000	340,000
Photovoltaic energy (kWh per year)	太陽能光伏發電(千瓦時/年)	35,516,000	35,516,000	34,036,000
Wind power (kWh per year)	風力發電(千瓦時/年)	230,000,000	N/A	N/A
Waste water treatment capacity (m³ per day)	污水處理規模(立方米/日)	2,535,000	1,755,000	1,725,000
Reusable water (m³ per day)	中水(立方米/日)	61,600	56,389	56,800
	Performances 表現			
Electricity generation (GWh)	發電量(百萬千瓦時)	2,738.30	1,982.53	1,552.98
Waste water treatment volume (m³)	污水處理量(立方米)	866,829,000	584,790,000	526,485,000
COD reduction (tonne)	COD減排(噸)	292,300	211,000	190,000
Averag	ge plant availability (%) 平均廠房和	间用率(%)		
Waste-to-energy projects	垃圾發電項目	95.42	87.35	90.85
Biomass power generation project	生物質發電項目	92.67	90.37	87.02
Industrial and hazardous solid waste projects	工業固廢及危廢項目	91.98	N/A	N/A
Photovoltaic energy projects	太陽能光伏發電項目	99.63	99.88	99.69
	Certification Accreditation 認証			
Number of ISO 9001 certificates	ISO 9001認證數目	22	18	13

## Health and Safety<sup>b, e</sup> 健康與安全<sup>b, e</sup>

		2015	2014	2013
Number of fatalities	因工死亡數字	0	1	0
Number of disabling injuries	因工傷殘數字	0	0	0
Injury rate (IR)	工傷率(IR)	0.26	N/A	N/A
	Certificate Accreditation 認証			
Number of OHSAS 18001 (GB/T28001-2011) certificates	OHSAS 18001(GB/T28001-2011) 認證數目	22	18	13

## Key Stαtistics 主要數據

## Environment – Overallb 環境 – 整體情況b

		2015	2014	2013		
	Energy Consumed (GJ) 耗用能源(吉焦)					
Fuel oil/Natural gas	燃油/天然氣	61,273.76	26,140.88	70,091.36		
Electricity (Non-renewable)	電力(不可再生能源)	858,292.28	560,423.29	1,339,878		
Electricity (Renewable)	電力(再生能源)	1,371,130.77	914,291.91			
Total energy consumed	總耗用能源	2,290,696.81	1,500,856.63	1,409,969.36		
	Key Air Emissions (Tonne) 主要氣體排	放(噸)				
CO <sub>2</sub> e (Scope 1)	二氧化碳當量(範疇一)	3,772,409.77	Because the	calculation		
CO <sub>2</sub> e (Scope 2)	二氧化碳當量(範疇二)	182,922.58				
CO <sub>2</sub> e (Scope 3)	二氧化碳當量(範疇三)	1,579.64	of GHG emissions this year adopted CDM methodology for the first time, to follow the Comparability principle of G4 Sustainability Reporting Guidelines, only 2015 data is provided here. 由於本年度的温室氣體排放首次採用CDM之計算方法,為遵從G4可持續發展報告指南的數據可比較性原則,僅在此提供2015年的二氧化碳當量數據。			
	Certificate Accreditation 認証					
Number of ISO 14001 certificates	ISO 14001認證數目	22	18	13		

## Environment – Environmental Energy and Greentech 環境-環保能源及綠色環保

		2015	2014	2013		
	Key Material used (Tonne) 所用主要物料(噸)					
Household waste treated	處理生活垃圾	6,928,000.00	5,364,583.00	4,410,601.47		
Biomass treated	處理生物質	519,393.00	344,923.04			
Quicklime/calcium hydroxide	生石灰/熟石灰	67,513.06	58,161.91	42,444.80		
Activated carbon	活性碳	2,034.55	1,613.13			
Acid	酸	291.24	450.92			
Ammonia water	氨水	15,321.58	10,559.29			
Fuel oil	燃油	1,010.33	508.57			
Demineralized water	除鹽水	407,519.99	369,461.10	278,569.32		
Cement	水泥	15,489.63	13,159.77			
	Key Air Emissions (Tonne)f 主要氣體	豊排放(噸)f				
SO <sub>2</sub>	二氧化硫	408.00	394.88	443.12		
NOx	氮氧化物	2,722.22	2,528.64	2,177.44		
Particulate Matter	顆粒物	129.97	111.96	116.42		
	Fly ash/Bottom ash (Tonne) 飛灰/	/爐渣(噸)				
Fly ash produced	所產生飛灰	211,784.53	152,590	139,576		
Bottom ash produced	所產生爐渣	1,477,381.62	1,056,643	1,031,146		

#### Environment - Environmental Waterb 環境 - 環保水務b

		2015	2014	2013
	Key Material used (Tonne) 所用主要	物料(噸)		
Flocculants	絮凝劑	27,664.44	17,076.00	38,429.32
PFC	聚合氯化鐵	10,082.80	5,052.81	
Hypochlorous acid	聚合氯化鐵	3,042.75	2,787.93	
Ferric Chloride	三氯化鐵	11,044.87	9,975.41	
Lime	石灰	3,145.11	2,354.57	
Sludge Treated (Tonne) 處理的污泥(噸)				
Sludge treated in total	污泥處理總量	518,685.60	298,808.00	389,168.00
Sludge recycled (%)	循環再用污泥百分比(%)	67.43	70.83	47.40

- The selected financial data reflect the financial performance of CEIL and its subsidiaries from 1 January 2015 to 31 December 2015, data come from audited financial statements.
  - 所選財務數據反映光大國際連同其附屬公司於2015年1月1日至2015年12月31日內的財務表現,數據來自經審核的財務報表。
- b: For operating projects only. 僅含已投運項目。
- c: Including Rizhao Project, Weifang Project and Changzhou Xinbei Project. 含日照項目、濰坊項目和常州新北項目。
- d: Including Guanyun Hazardous Solid Waste Landfill Project (Phase I) and Binhai Hazardous Solid Waste Landfill Project, which completed construction in 2014 but have not commenced operation formally. 含灌雲危廢填埋項目(一期)和濱海危廢填埋項目,其已於二零一四年底建成但尚未正式運營。
- e: Including CEIL employees and independent contractors working onsite. 包括光大國際員工和獨立承包商駐場工人。
- Include all operating waste-to-energy projects in 2015 except Changzhou Xinbei Project. 包含除常州新北項目外於二零一五年投運的所有發電項目。



		Relevant chapter(s) in Sustainability Report 2015 or other references/	
GRI 指標	Description 描述	Explanation 可持續發展報告2015相關章節或 其他參考/解釋	External assurance 外部核實
	AL STANDARD DISCLOSURES 一般標準披露	大心シャー	八四次員
	GY AND ANALYSIS 策略與分析		,
G4-1	Statement from the most senior decision-maker of the organization 機構最高決策者就可持續發展與機構的相關性及機構可持續發展策略的聲明	Message from CEO 行政總裁致辭	√
G4-2	Description of key impacts, risks, and opportunities 描述主要影響、風險及機遇	Message from CEO; Summary and Outlook 行政總裁致辭 : 總結與展望	√
	IZATIONAL PROFILE 機構概況	About this Donort	./
G4-3	The name of the organization 機構名稱	About this Report 關於本報告	√
G4-4	Primary brands, products, and services 主要品牌、產品和服務	Creating Green Fortune – Our Environmental Business 創造綠色財富-我們的環保業務	√
G4-5	Location of the organization's headquarters 機構總部的位置	About this Report 關於本報告	V
G4-6	Name and number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report 機構營運所在的國家數量及國家名(包括主要營運所在國或與可持續發展議題有關的所在國)	Creating Green Fortune – Our Environmental Business 創造綠色財富一我們的環保業務	V
G4-7	Nature of ownership and legal form 所有權的性質及法律形式	Creating Green Fortune – Our Environmental Business 創造綠色財富-我們的環保業務	$\checkmark$
G4-8	Markets served 所服務的市場	Creating Green Fortune – Our Environmental Business 創造綠色財富-我們的環保業務	√
G4-9	Scale of the organization 機構規模	Creating Green Fortune – Our Environmental Business 創造綠色財富-我們的環保業務	$\checkmark$
G4-10	Employee Statistics 員工數據	Empowering Our People; Creating Green Fortune – Our Supply Chain 載譽光大人: 創造綠色財富一 我們的供應鏈	V
G4-11	Percentage of total employees covered by collective bargaining agreements 集體談判協議覆蓋的員工總數百分比	Empowering Our People 載譽光大人	$\checkmark$
G4-12	Organization's supply chain 機構的供應鏈	Creating Green Fortune – Our Supply Chain 創造綠色財富-我們的供應鏈	√
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain 報告期內·機構規模、架構、所有權或供應鏈發生的重要變化	Creating Green Fortune – Our Environmental Business 創造綠色財富-我們的環保業務	√
G4-14	Whether and how the precautionary approach or principle is addressed by the organization 機構是否及如何按預警方針及原則行事	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	√
G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes or which it endorses 機構參與或支持的外界發起的經濟、環境、社會公約、原則或其他倡議	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士一管理溫室氣體排放及應對 氣候變化	V
G4-16	Memberships of associations 機構加入的協會(如行業協會)和國家或國際性倡議組織	Giving Back to Community – Science and Environmental Education 承擔社會責任-科技及環保教育	$\checkmark$
EU1	Installed capacity, broken down by primary energy source 按一次能源細分的裝機容量	Creating Green Fortune – Project Highlights 創造綠色財富-項目亮點	$\checkmark$
EU2	Net energy output broken down by primary energy source 按一次能源細分的淨能源輸出	Creating Green Fortune – Project Highlights 創造綠色財富-項目亮點	$\checkmark$
EU3	Number of institutional and commercial customer accounts 機構及商業客戶賬戶數目	Creating Green Fortune – Project Highlights 創造綠色財富-項目亮點	√
EU4	Length of above and underground transmission and distribution lines 地上及地下輸電及配電線路長度	Creating Green Fortune – Project Highlights 創造綠色財富-項目亮點	$\checkmark$
EU5	Allocation of CO₂e emissions allowances broken down by carbon trading framework 按碳交易框架細分的二氧化碳當量排放量配額	We did not participate in carbon emissions trading scheme during the reporting period. 我們於報告期內沒有參與任何碳排放交易計劃。	$\checkmark$
	IED MATERIAL ASPECTS AND BOUNDARIES 確定的重大議題與邊界		
G4-17	Entities included in the organization's consolidated financial statements 機構的合併財務報表或同等文件中包括的所有實體	About this Report (Gatefold of the first page) Annual Report 2015 – Notes to the Financial Statements 14 (p174) 關於本報告(第1頁拉頁內):《二零一五年年報》、综合財務事時114(第174頁)	√ (P81&82)
		報》-綜合財務表附注14(第174頁)	

		Relevant chapter(s) in Sustainability Report 2015 or other references/	
		Explanation	External
GRI 指標	Description 描述	可持續發展報告2015相關章節或 其他參考/解釋	assuranc 外部核實
G4-18	Process for defining the report content and the Aspect Boundaries and how the organization has implemented the Reporting Principles for Defining Report Content 界定報告內容和議題邊界的過程,及如何依循「界定報告內容的原則」。	Our Approach in Sustainability Management – Our Materiality Assessment (P14) 我們的可持續發展管理一實質性評估 (第14頁)	√ (P81-82
G4-19	Material Aspects identified in the process for defining report content 列出在界定報告內容的過程中確定的所有重大議題	Our Approach in Sustainability Management - Our Materiality Assessment (P15&16) 我們的可持續發展管理一實質性評估 (第15及16頁)	√ (P81-82
G4-20	Aspect Boundary of each Material Aspect within the organization 每個重大議題於機構內的邊界	Our Approach in Sustainability Management – Our Materiality Assessment (P17) 我們的可持續發展管理一實質性評估 (第17頁)	√ (P81-82
G4-21	Aspect Boundary of each Material Aspect outside the organization 每個重大議題於機構外的邊界	Our Approach in Sustainability Management – Our Materiality Assessment (P17) 我們的可持續發展管理-實質性評估 (第17頁)	√ (P81-82
G4-22	Effect of any restatements of information provided in previous reports, and the reasons for such restatements 對先前報告中所提供之任何資訊有進行重編的影響及原因	Our Approach in Sustainability Management - Our Materiality Assessment (P16) 我們的可持續發展管理一實質性評估	√ (P81-82
G4-23	Report significant changes from previous reporting periods in the Scope and Aspect Boundaries 範圍、議題邊界與此前報告期間的重大變動	(第16頁) Our Approach in Sustainability Management – Our Materiality Assessment (P16) 我們的可持續發展管理一實質性評估 (第16頁)	√ (P81-82
STAKEHO	OLDER ENGAGEMENT 持份者的參與		
G4-24	List of stakeholder groups engaged by the organization 機構的持份者列表	Our Approach in Sustainability Management – Our Stakeholders Engagement (P10) 我們的可持續發展管理一持份者的參與 (第10頁)	√ (P81-82
G4-25	Basis for identification and selection of stakeholders with whom to engage 就所選定的持份者,説明識別和選擇的根據	Our Approach in Sustainability Management – Our Stakeholders Engagement (P10) 我們的可持續發展管理一持份者的參與 (第10頁)	√ (P81-82
G4-26	Approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process. 持份者參與的方法,包括按不同的持份者類型及組別的參與頻率,指明是否有任何參與是專為編制報告而進行	Our Approach in Sustainability Management – Our Stakeholders Engagement (P10,11,12&13) 我們的可持續發展管理一持份者的參與 (第10、11、12及13頁)	√ (P81-82
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns 持份者參與的過程中提出的關鍵主題及顧慮·以及機構回應的方式·包括以報告回應。說明提出了每個關鍵主題及顧慮的持份者組別	Our Approach in Sustainability Management - Our Stakeholders Engagement (P11, 12 & 13) 我們的可持續發展管理一持份者的參與 (第11、12及13頁)	√ (P81-82
	PROFILE 報告概況		,
G4-28	Reporting period (such as fiscal or calendar year) for information provided 所提供信息的報告期	About this Report 關於本報告	V
G4-29	Date of most recent previous report 上一份報告的日期(如有)	About this Report 關於本報告	V
G4-30	Reporting cycle 報告週期	About this Report 關於本報告	$\sqrt{}$
G4-31	Contact point for questions regarding the report or its contents 提供可回答報告或內容相關問題的聯絡人	About this Report 關於本報告	V
G4-32	The 'in accordance' option the organization has chosen (Core or Comprehensive), GRI Content Index, reference to the External Assurance Report 機構選擇的符合方案(核心或全面):針對所擇選項的GRI內容索引:外部核實報告	About this Report; Verification Statement; GRI Content Index 關於本報告:核實聲明: GRI 內容索引	V
G4-33	Policy and current practice with regard to seeking external assurance for the report 為報告尋求外部鑑證的政策和目前的做法	About this Report 關於本報告	V
GOVERN	IANCE 管治		
G4-34	Governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental and social impacts 機構的治理架構、包括最高治理機構下的各個委員會。説明負責經濟、環境、社會影響決策的委員會	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	$\checkmark$
G4-35	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees 從最高治理機構授權高級管理人員和其他員工管理經濟、環境和社會議題的過程	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	$\sqrt{}$

GRI	Description	Relevant chapter(s) in Sustainability Report 2015 or other references/ Explanation 可持續發展報告2015相關章節或	External assurance
指標 G4-36	描述 Executive-level position or positions with responsibility for economic, environmental and social topics, and whether post holders report directly to the highest governance body 機構是否任命了行政層級的高管負責經濟、環境和社會議題,他們是否直接向最高治理機構	其他參考/解釋 Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	外部核實 ✓
G4-37	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics 持份者和最高治理機構就經濟、環境和社會議題磋商的過程	Our Approach in Sustainability Management – Our Stakeholders Engagement 我們的可持續發展管理一持份者的參與	$\checkmark$
G4-38	Composition of the highest governance body and its committees 最高治理機構及其委員會的組成	Our Approach in Sustainability Management – Our Corporate Governance; Annual Report 2015 – Corporate Governance Report 我們的可持續發展管理一企業管治: 2015年報一企業管治報告	V
G4-39	Indicate whether the Chair of the highest governance body is also an executive officer 最高治理機構的主席是否兼任行政職位	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	√
G4-40	Nomination and selection processes for the highest governance body and its committees, and the criteria used for nominating and selecting highest governance body members 最高治理機構及其委員會的提名和甄選過程,及用於提名和甄選最高治理機構成員的條件	Annual Report 2015 – Corporate Governance Report 2015年報一企業管治報告	$\checkmark$
G4-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed 最高治理機構確保避免和控制利益衝突的程序	Annual Report 2015 – Corporate Governance Report 2015年報一企業管治報告	√
G4-42	Highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, trategies, policies, and goals related to economic, environmental and social impacts 在制定、批准、更新與經濟、環境、社會影響有關的宗旨、價值觀或使命、戰略、政策與目標方面,最高治理機構和高級管理人員的角色	Our Approach in Sustainability Management – Our Corporate Governance; Annual Report 2015 – Corporate Governance Report 我們的可持續發展管理一企業管治: 2015年報一企業管治報告	V
G4-43	Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics 為加強最高治理機構對於經濟、環境和社會主題的集體認識而採取的措施	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	√
G4-44	Processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics 評估最高治理機構管理經濟、環境和社會議題績效的流程	Annual Report 2015 – Corporate Governance Report 2015年報一企業管治報告	√
G4-45	Highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities 在識別和管理經濟、環境和社會的影響、風險和機遇方面,最高治理機構的角色	Our Approach in Sustainability Management – Our Corporate Governance; Annual Report 2015 – Corporate Governance Report 我們的可持續發展管理一企業管治: 2015年報一企業管治報告	V
G4-46	Highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics 在評估有關經濟、環境和社會議題的風險管理流程的效果方面,最高治理機構的角色	Our Approach in Sustainability Management – Our Corporate Governance; Annual Report 2015 – Corporate Governance Report 我們的可持續發展管理一企業管治: 2015年報一企業管治報告	V
G4-47	Frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities 最高治理機構評估經濟、環境和社會的影響、風險和機遇的頻率	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	$\checkmark$
G4-48	Highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered 正式審閱和批准機構可持續發展報告 確保已涵蓋所有實質性方面的最高委員會或職位	About this Report 關於本報告	V
G4-49	Process for communicating critical concerns to the highest governance body 與最高治理機構溝通重要關切問題的流程	Empowering Our People – Employee Benefits and Safeguards 載譽光大人一員工福利及保障	√
G4-50	Nature and total number of critical concerns that were communicated to the highest governance body and the mechanism(s) used to address and resolve them 向最高治理機構溝通的重要關切問題的性質和總數,以及采取的處理和解決機制	Empowering Our People – Employee Benefits and Safeguards 載譽光大人一員工福利及保障	√
G4-51	Remuneration policies for the highest governance body and senior executives for the types of remuneration 最高治理機構和高級管理人員的薪酬政策	Annual Report 2015 – Corporate Governance Report 2015年報-企業管治報告	√
G4-52	Process for determining remuneration 决定薪酬的過程	Annual Report 2015 – Corporate Governance Report; Empowering Our People – Recruiting and Maintaining Human Capital 2015年報一企業管治報告: 載譽光大人一招攬和保留人才	V

		Relevant chapter(s) in Sustainability Report 2015 or other references/	
		Explanation	External
GRI	Description	可持續發展報告2015相關章節或	assurance
指標	描述	其他參考/解釋	外部核實
G4-53	How stakeholders' views are sought and taken into account regarding remuneration, including the results of votes on remuneration policies and proposals, if applicable 説明如何徵詢 考慮持份者對於薪酬的意見,包括對薪酬政策和提案投票的結果,如適用	Our Approach in Sustainability Management – Our Stakeholders Engagement 我們的可持續發展管理一持份者的參與	V
G4-54	Ratio of the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees (excluding the highest-paid individual) in the same country 在機構具有重要業務運營的每個國家,薪酬最高個人的年度總收入與機構在該國其他所有員工(不包括該薪酬最高的個人)平均年度總收入的比率	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	V
G4-55	Ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees (excluding the highest-paid individual) in the same country 在機構具有重要業務運營的每個國家、薪酬最高個人的年度總收入增幅與機構在該國其他所有員工(不包括該薪酬最高的個人)平均年度總收入增幅的比率	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	√
ETHICS.	AND INTEGRITY 倫理與誠信		
G4-56	Organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics 機構的價值觀、原則、標準和行為規範・如行為準則和道德準則	Creating Green Fortune – Our Environmental Business 創造綠色財富一我們的環保業務	$\sqrt{}$
G4-57	Internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity 對道德與合法行為徵詢建議的內外部機制·以及與機構誠信有關的事務	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	V
G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity 舉報不道德或不合法行為的內外部機制,以及與機構誠信有關的事務	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	$\sqrt{}$
ECONO	DMIC 經濟		
ECONO	MIC PERFORMANCE 經濟績效		
G4 DMA	Economic Performance 經濟績效	Creating Green Fortune – Our Environmental Business 創造綠色財富一我們的環保業務	$\checkmark$
G4 EC1	Direct economic value generated and distributed 產生及分配的直接經濟價值	Creating Green Fortune – Our Environmental Business 創造綠色財富一我們的環保業務	V
G4 EC2	Risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue or expenditure 由氣候變化導致、可能造成運營、收入或支出重大變化的風險和機遇	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士—管理氣體排放及應對 氣候變化	V
G4 EC3	Coverage of the organization's defined benefit plan obligations 公司承諾的福利計劃範圍	Empowering Our People – Employee Benefits and Safeguards: Annual Report 2015 – Notes to the Financial Statements 1 載譽光大人一員工福利及保障: 2015年報一財務報表附注1	√
G4 EC4	Financial assistance received from government 從政府收到的財務補貼的總額	Creating Green Fortune – Our Environmental Business 創造綠色財富一我們的環保業務	$\sqrt{}$
AVAILAE	BILITY AND RELIABILITY 可利用性和可靠性		
G4 DMA	Availability and Reliability 可利用性和可靠性	Creating Green Fortune – Project Highlights 創造綠色財富-項目亮點	V
G4 EU10	Planned capacity against projected electricity demand over the long term 預計電力需求的長期規劃容量	Creating Green Fortune – Project Highlights 創造綠色財富-項目亮點	V
	I EFFICIENCY 系統效能		
G4 DMA	System Efficiency 系統效能	Creating Green Fortune – Project Highlights 創造綠色財富-項目亮點	√
G4 EU11	Average generation efficiency of thermal plants 火電廠的平均發電效能	Creating Green Fortune – Project Highlights 創造綠色財富一項目亮點	√ 
G4 EU12	Transmission and distribution losses 輸配電消耗	Due to immediate proximaty between our thermal plants and government substations, insignificant transmission loss is expected. 由於我們的發電廠房非常接近政府的配電站,輸電所做成的損耗非常輕微	V
RESEAR	CH AND DEVELOPMENT 技術研究與開發		
G4 DMA	Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development 旨在提供可靠的電力、促進可持續發展的研究和開發活動及支出	Creating Green Fortune – Technology Driven Development 創造綠色財富-科技引領發展	V
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		Relevant chapter(s) in Sustainability Report 2015 or other references/	
GRI	Description	Explanation 可持續發展報告2015相關章節或	External assurance
旨標	描述 描述	其他參考/解釋	外部核實
	ONMENTAL 環境		
	ALS AND ENERGY 物料及能源		
G4 DMA	Materials and Energy 物料及能源	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士一物料及資源利用	√
G4 EN1	Total weight or volume of materials that are used to produce and package the organization's primary products and services during the reporting period 機構在報告期內·用於生產和包裝主要產品 和服務的物料的總重量或體積	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	√
G4 EN2	The percentage of recycled input materials used to manufacture the organization's primary products and services  用於製造機構主要產品和服務的物料中,經循環再造的物料的百分比	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	√
G4 EN3	Total fuel consumption from renewable and non-renewable sources in joules or multiples, including fuel types used 以焦耳或其倍數為單位,不可再生能源的燃料消耗總量,包括所用的燃料類型	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	√
G4 EN4	Energy consumed outside of the organization, in joules or multiples 報告以焦耳或其倍數為單位計算的在機構外部消耗的能源總量。	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	√
G4 EN5	Energy intensity ratio 報告能源強度比率	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士一物料及資源利用	V
G4 EN6	Amount of reductions in energy consumption achieved as a direct result of conservation and efficiency initiatives, in joules or multiples 報告以焦耳或其倍數為單位計算的由於采取節能增效措施而直接減少的能源消耗總量	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	V
G4 EN7	Reductions in the energy requirements of sold products and services achieved during the reporting period, in joules or multiples 在報告期內·以焦耳或其倍數為單位計算的提供售出的產品和服務所需能源的降低。	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	$\checkmark$
G4 EN8	Total volume of water withdrawn by water source 按來源劃分的水資源獲取總量	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	$\checkmark$
G4 EN9	Total number of water sources significantly affected by withdrawal 因取水而受到重大影響的水源總數	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士一物料及資源利用	√
G4 EN10	Total volume of water recycled and reused by the organization 循環及再利用水的總量	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士一物料及資源利用	√
	DNS 排放		,
G4 DMA	Emissions 排放	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士—管理溫室氣體排放及 應對氣候變化	V
G4 EN15	Direct (Scope 1) GHG emissions in metric tons of CO <sub>2</sub> equivalent, independent of any GHG trades 以二氧化碳當量(噸)計·獨立於任何溫室氣體交易的直接(範疇一)溫室氣體排放總量	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士—管理溫室氣體排放及 應對氣候變化	V
34 EN16	Gross energy indirect (Scope 2) GHG emissions in metric tons of CO <sub>2</sub> equivalent, independent of any GHG trades 以二氧化碳當量(噸)計·獨立於任何溫室氣體交易的能源間接(範疇二)溫室氣體排放總量	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士一管理溫室氣體排放及 應對氣候變化	<b>√</b>
G4 EN17	Gross other indirect (Scope 3) GHG emissions in metric tons of CO <sub>2</sub> equivalent 以二氧化碳當量(噸)計,其他間接(範疇三)溫室氣體排放	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士一管理溫室氣體排放及應對氣候變化	$\checkmark$
G4 EN18	GHG emissions intensity ratio 溫室氣體排放強度比率	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士-管理溫室氣體排放及 應對氣候變化	$\checkmark$
G4 EN19	Amount of GHG emissions reductions achieved as a direct result of initiatives to reduce emissions, in metric tons of $CO_2$ equivalent 以二氧化碳當量(噸),減排措施直接減少的溫室氣體排放量	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士-管理溫室氣體排放及 應對氣候變化	V
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		Relevant chapter(s) in Sustainability	
		Report 2015 or other references/	
GRI 指標	Description 描述	Explanation 可持續發展報告2015相關章節或 其他參考/解釋	External assurand 外部核實
G4 EN20	Production, imports, and exports of ODS in metric tons of CFC-11 equivalent 以CFC-11當量(噸)為單位·臭氧層破壞物質(ODS)的產生量、輸入量和輸出量	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士一管理溫室氣體排放及 應對氣候變化	<i>√</i>
G4 ≣N21	Amount of significant air emissions, in kilograms or multiples 以千克或其倍數為單位·各主要氣體的排放量	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士—管理溫室氣體排放及 應對氣候變化	V
EFFLUE	NTS AND WASTE 污水和廢物		
G4 DMA	Effluents and Waste 污水和廢物	Safeguarding Our Environment – Wastewater and Waste Management 勇當環保衛士—污水和廢 物處理	V
G4 EN22	Total volume of planned and unplanned water discharges 規劃的和未規劃的排水總量	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	$\sqrt{}$
G4 EN23	Total weight of waste by type and disposal method 按類別及處置方法劃分的廢棄物總重量	Safeguarding Our Environment – Wastewater and Waste Management 勇當環保衛士一污水和廢 物處理	$\checkmark$
G4 EN24	Total number and total volume of recorded significant spills 記錄在案的嚴重洩露的總次數和總量	Safeguarding Our Environment – Wastewater and Waste Management 勇當環保衛士一污水和廢 物處理	$\sqrt{}$
G4 EN25	"Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III, and VIII, and percentage of transported waste shipped internationally"  「運輸、輸入、輸出被「巴塞爾公約」附錄I、II、III、VIII視 有害廢 物的物質之重量・以及運程國外的百分比"	Safeguarding Our Environment – Wastewater and Waste Management 勇當環保衛士一污水和廢 物處理	V
G4 EN26	Water bodies and related habitats that are significantly affected by water discharges 受污水排放嚴重影響的水體及相關棲息地	Safeguarding Our Environment – Wastewater and Waste Management 勇當環保衛士一污水和廢 物處理	V
COMPLI	ANCE 環保合規事宜	30H XXIIIS 733 11132 1332-12	
G4 DMA	Compliance 環保合規事宜	Safeguarding Our Environment – Environmental Compliance 勇當環保衛士-環保合規事宜	V
G4 EN29	Significant fines and non-monetary sanctions on noncompliance with laws or regulations 違反環境法律和法規被處巨額罰款的金額,以及所受罰款以外之制裁的次數	Safeguarding Our Environment – Environmental Compliance 勇當環保衛士-環保合規事宜	$\sqrt{}$
ENVIROI	NMENTAL GRIEVANCE MECHANISMS 環境問題申訴		
G4 DMA	Environmental Grievance Mechanisms 環境問題申訴	Safeguarding Our Environment – Environmental Compliance 勇當環保衛士-環保合規事宜	$\sqrt{}$
G4 EN34	Total number of grievances about environmental impacts filed through formal grievance mechanisms during the reporting period 在報告期間·經由正式申訴機制提交的環境影響申訴的總數	Safeguarding Our Environment – Environmental Compliance 勇當環保衛士-環保合規事宜	$\checkmark$
SOCIA	L: LABOR PRACTICES AND DECENT WORK 社會: 勞動實踐和體面工作		
MPLOY	/MENT AND LABOR/MANAGEMENT RELATIONS 員工及勞資關係		
G4 DMA	Employment and Labor/Management Relations 員工及勞資關係	Empowering Our People 載譽光大人	V
34 _A1	Total number and rates of new employee hires and employee turnover by age group, gender, and region 報告期內·按年齡組別、性別及地區劃分的新員工總數及比例	Empowering Our People – Recruiting and Maintaining Human Capital 載譽光大人-招攬和保留人才	√
64 .A2	Benefits which are standard for full-time employees of the organization but are not provided to temporary or part-time employees 不提供給臨時或兼職員工,只提供給全職員工的標準福利	Empowering Our People – Employee Benefits and Safeguards: Annual Report 2015 – Notes to the Financial Statements 1 載譽光大人一員工福利及保障: 2015年報一財務報表附注1	V
G4 LA3	Total number of employees that were entitled to parental leave by gender 按性別劃分·說明有權享有產假/陪產假的員工總數	Empowering Our People – Employee Benefits and Safeguards 載譽光大人一員工福利及保障	V
G4 LA4	Minimum number of weeks' notice typically provided to employees and their elected representatives prior to the implementation of significant operational changes that could substantially affect them 在實施可能嚴重影響員工的重大運營變化之前·通常提前通知員工及其代表的最短周數	Empowering Our People – Employee Benefits and Safeguards 載譽光大人一員工福利及保障	√

		Relevant chapter(s) in Sustainability Report 2015 or other references/ Explanation	
GRI 指標	Description 描述	可持續發展報告2015相關章節或 其他參考/解釋	External assurance 外部核實
OCCUP/	ATIONAL HEALTH AND SAFETY 職業健康與安全		
G4 DMA	Occupational Health and Safety 職業健康與安全	Ensuring Health and Safety 健康與安全	$\sqrt{}$
G4 LA5	Level at which each formal joint management-worker health and safety committee typically operates within the organization 每個正式勞資健康與安全委員會在機構內通常運作的層級	Ensuring Health and Safety 健康與安全	V
G4 LA6	Types of injury, injury rate (IR), occupational diseases rate (ODR), lost day rate (LDR), absentee rate (AR) and workrelated fatalities, for the total workforce 工傷類別、工傷頻率、職業病、損失日數比例及缺勤率,以及因公死亡事故總數	Ensuring Health and Safety 健康與安全	V
G4 LA7	Workers who are involved in occupational activities who have a high incidence or high risk of specific diseases 説明是否有工人從事某些具有職業病高發風險或高職業病風險的職業活動	Ensuring Health and Safety 健康與安全	√
G4 LA8	Formal agreements (either local or global) with trade unions cover health and safety 説明與工會達成的正式協議(當地或全球性的)中是否包含健康與安全條款	Ensuring Health and Safety 健康與安全	√
TRAININ	NG AND EDUCATION 發展與培訓		
G4 DMA	Training and Education 發展與培訓	Empowering Our People – Employee Training and Development 載譽光大人-員工培訓及發展	$\checkmark$
G4 LA9	Average hours of training per year per employee by gender, and by employee category 按性別和員工類別劃分·每名員工每年接受訓練的平均時數	Empowering Our People – Employee Training and Development 載譽光大人-員工培訓及發展	$\checkmark$
G4 LA10	Type and scope of programs implemented and assistance provided to upgrade employee skills 為提高員工技能而實施的計劃和提供之協助的類型和範圍	Empowering Our People – Employee Training and Development 載譽光大人一員工培訓及發展	√
G4 _A11	The percentage of total employees by gender and by employee category who received a regular performance and career development review during the reporting period 在報告期內,按性別和員工類別劃分,接受定期績效及職業發展考評的員工的百分比	Empowering Our People – Recruiting and Maintaining Human Capital 載譽光大人-招攬和保留人才	V
DIVERSI	ITY AND EQUAL OPPORTUNITY 多元化與機會平等		
G4 DMA	Diversity and Equal Opportunity 多元化與機會平等	Empowering Our People – Equal Opportunity and Diversity 載譽光大人-平等機會與多元共融	√
G4 LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity 按性別、年齡層、少數族群及其他多元化指標劃分・公司治理組織成員和各類員工的組成	Empowering Our People – Equal Opportunity and Diversity; Annual Report 2015 – Corporate Governance Report 載譽光大人—平等機會與多元共融: 2015年報—企業管治報告	V
G4 HR3	Total number of incidents of discrimination during the reporting period 報告期內歧視事件的總數	Empowering Our People – Equal Opportunity and Diversity; Annual Report 2015 – Corporate Governance Report 輔譽光大人-平等機會與多元共融: 2015年報-企業管治報告	V
EQUAL	REMUNERATION FOR WOMEN AND MEN 女男同酬		
G4 DMA	Equal Remuneration for Women And Men 女男同酬	Empowering Our People – Equal Opportunity and Diversity 載譽光大人—平等機會與多元共融	√
G4 LA13	The ratio of the basic salary and remuneration of women to men for each employee category 按員工類別劃分·男女基本薪金和報酬比率	Empowering Our People – Equal Opportunity and Diversity; Annual Report 2015 – Corporate Governance Report 載譽光大人—平等機會與多元共融: 2015年報一企業管治報告	√
_ABOR	PRACTICES GRIEVANCE MECHANISMS 勞工問題申訴		
G4 DMA	Labor Practices Grievance Mechanisms 勞工問題申訴	Empowering Our People – Employee Benefits and Safeguards 載譽光大人-員工福利及保障	$\checkmark$
34 _A16	Total number of grievances about labor practices filed through formal grievance mechanisms during the reporting period 在報告期間·經由正式申訴機制提交的勞工問題申訴的總數	Empowering Our People – Employee Benefits and Safeguards 載譽光大人—員工福利及保障	V
SOCIA	L: HUMAN RIGHTS 社會:人權		
CHILD L	ABOR/FORCED OR COMPULSORY LABOR 童工/強迫勞工		
G4 DMA	Child Labor/Forced or Compulsory Labor 童工/強迫勞工	Empowering Our People 載譽光大人	$\checkmark$

		Relevant chapter(s) in Sustainability	
		Report 2015 or other references/ Explanation	External
GRI	Description	可持續發展報告2015相關章節或	assurance
指標	描述	其他參考/解釋	外部核實
G4 HR5	Operations and suppliers considered to have significant risk for incidents of Child labor 已發現具有嚴重使用童工風險的營運據點和供應商,以及採取有助於杜絕使用童工的行動	Empowering Our People – Equal Opportunity and Diversity; Annual Report 2015 – Corporate Governance Report 載譽光大人一平等機會與多元共融: 2015年報一企業管治報告	V
G4 HR6	Operations and suppliers considered to have significant risk for incidents of forced or compulsory labor 已發現具有嚴重强迫或强制勞動事件風險的營運據點和供應商,以及有助于減少任何形式的强迫或强制勞動的行動	Empowering Our People – Equal Opportunity and Diversity; Annual Report 2015 – Corporate Governance Report 載譽光大人—平等機會與多元共融: 2015年報—企業管治報告	V
INDIGE	NOUS RIGHTS 原住民權利		
G4 DMA	Indigenous Rights 原住民權利	Giving Back to Community 承擔社會責任	$\sqrt{}$
G4 HR8	Total number of identified incidents of violations involving the rights of indigenous people during the reporting period 在報告期內·已確定的侵犯原住民權利的事件總數	Giving Back to Community – Community Care 承擔社會責任—社區關懷	V
	I RIGHTS GRIEVANCE MECHANISMS 人權問題申訴		
G4 DMA	HUMAN RIGHTS GRIEVANCE MECHANISMS 人權問題申訴	Empowering Our People – Employee Benefits and Safeguards 載譽光大人一員工福利及保障	V
G4 HR12	Total number of grievances about human rights impacts filed through formal grievance mechanisms during the reporting period 在報告期間·經由正式申訴機制提交的人權問題申訴的總數	Empowering Our People – Employee Benefits and Safeguards 載譽光大人-員工福利及保障	V
SOCIA	L: OTHER SOCIAL SUB CATEGORIES 社會: 其他社會事項		
LOCAL	COMMUNITIES 當地社區		
G4 DMA	Local Communities 當地社區	Giving Back to Community 承擔社會責任	V
G4 SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs 實施了當地社區參與、影響評估、發展計劃的運營點的比例	Giving Back to Community – Community Care 承擔社會責任—社區關懷	V
G4 SO2	Operations with significant actual and potential negative impacts on local communities 對當地社區具有重大實際和潜在負面影響的運營點	Giving Back to Community – Community Care 承擔社會責任-社區關懷	V
ANTI-C	ORRUPTION 反貪腐		
G4 DMA	Anti-corruption 反貪腐	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	V
G4 SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified 已進行貪腐風險評估的營運據點總數及百分比,以及所鑒別出的顯著風險	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	√
G4 SO4	Communication and training on anticorruption policies and procedures 反貪腐政策和程序的溝通及訓練	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	√
G4 SO5	Confirmed incidents of corruption and actions taken 已確認的貪腐事件及採取的行動	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	V
COMPL	IANCE 社會合規事宜		
G4 DMA	Compliance 社會合規事宜	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	√
G4 SO8	Monetary value of significant fines and total number of nonmonetary sanctions for non-compliance with laws and regulations 違反法規被處巨額罰款的金額,以及所受罰款以外之制裁的次數	Nil 無	$\checkmark$
G4 SO11	Total number of grievances about impacts on society filed through formal grievance mechanisms during the reporting period 在報告期間,經由正式申訴機制提交的社會影響申訴的總數	Nil 無	$\sqrt{}$
DISAST	ER/ EMERGENCY PLANNING AND RESPONSE 災難及應急預案規劃		
G4 EU DMA	Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans 應急計劃措施、災難/危急管理計劃和培訓方案,以及恢復/重建計劃	Ensuring Health and Safety – Emergency Preparedness	√
	應心 司 到 但 他 ` 火 無 / 尼 志 旨 珪 可 劃 仲 石 訓 力 条 , 以 及 恢 復 / 里 建 計 劃	健康與安全-應急事故規劃與準備	

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A succession Company		Palarma hama (A): Cara hama	
Aspects, General Disclosures and		Relevant chapter(s) in Sustainability Report 2015 or other references/	
KPIs 屬面、一般披露及	Description	Explanation 可持續發展報告2015相關章節或	External assurance
層面、一般披露及 關鍵績效指標	描述	可持續贸展報告2015相關早即或 其他參考/解釋	外部核實
Aspect Al: Emission	s層面A1:排放物		
General Disclosure 一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste  有關廢氣及溫室氣體排放、向水及土地的排污、有害及無害廢棄物的產生等的: (a) 政策:及 (b) 遵守對發行人有重大影響的相關法律及規例的資料	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation; Wastewater and Waste Management; Materials and Resources Usage 勇當環保衛士一管理溫室氣體排放及應對氣候變化;污水和廢棄物處理:物料及資源利用	V
KPI A1.1 關鍵績效指標A1.1	Types of emissions and respective emissions data 排放物種類及相關排放數據	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士一管理溫室氣體排放及 應對氣候變化	$\sqrt{}$
KPI A1.2 關鍵績效指標A1.2	Greenhouse gas emissions in total and, where appropriate, intensity 温室氣體總排放量及(如適用)密度	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士一管理溫室氣體排放及應對氣候變化	$\checkmark$
KPI A1.3 關鍵績效指標A1.3	Total hazardous waste produced and, where appropriate, intensity 所產生有害廢棄物總量及(如適用)密度	Safeguarding Our Environment – Wastewater and Waste Management 勇當環保衛士一污水和廢棄物處理	V
KPI A1.4 關鍵績效指標A1.4	Total non-hazardous waste produced and intensity 所產生無害廢棄物總量及密度	Safeguarding Our Environment – Wastewater and Waste Management 勇當環保衛士一污水和廢棄物處理	V
KPI A1.5 關鍵績效指標A1.5	Description of measures to mitigate emissions and results achieved 減低排放量的措施及所得成果的描述	Safeguarding Our Environment – Greenhouse Gas Management and Climate Change Mitigation 勇當環保衛士一管理溫室氣體排放及 應對氣候變化	V
KPI A1.6 關鍵績效指標A1.6	Description of how hazardous and non – hazardous wastes are handled, reduction initiatives and results achieved 處理有害及無害廢棄物的方法、減低產生量的措施及所得成果的描述	Safeguarding Our Environment – Wastewater and Waste Management 勇當環保衛士一污水和廢棄物處理	V
Aspect A2: Use of Re	esources 層面A2:資源使用		
General Disclosure 一般披露	Policies on efficient use of resources including energy, water and other raw materials 有效使用資源(包括能源、水及其他原材料)的政策	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	V
KPI A2.1 關鍵績效指標A2.1	Direct and/or indirect energy consumption by type in total and intensity 按類型劃分的直接及/或間接能源總耗量及密度	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士一物料及資源利用	V
KPI A2.2 關鍵績效指標A2.2	Water consumption in total and intensity 總耗水量及密度	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士 – 物料及資源利用	V
KPI A2.3 關鍵績效指標A2.3	Description of energy use efficiency initiatives and results achieved 能源使用效益計劃及所得成果的描述	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	V
KPI A2.4 關鍵績效指標A2.4	Description of whether there is any issue in sourcing water, water efficiency initiatives and results achieved 求取適用水源上可有任何問題,以及提升用水效益計劃及所得成果的描述	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	V
KPI A2.5 關鍵績效指標A2.5	Total packaging material used for finished products, and if applicable, with reference to per unit produced 製成品所用包裝材料的總量及(如適用)每生產單位佔量	Use of packaging material is not applicable to our core products (green electricity and treated waste water). 我們的主要產出為清潔能源和經處理的污水,其並不涉及包裝材料的使用。	√
Aspect A3: The Envi	ronment and Natural Resources 層面A3:環境及天然資源		
General Disclosure 一般披露	Policies on minimizing the issuer's significant impact on the environment and natural resources 滅低發行人對環境及天然資源造成重大影響的政策	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	V
KPI A3.1 關鍵績效指標A3.1	Description of the significant impacts of activities on the environment and natural resources and actions taken to manage them 業務活動對環境及天然資源的重大影響及已採取管理有關影響的行動的描述	Safeguarding Our Environment – Materials and Resources Usage 勇當環保衛士-物料及資源利用	V

Aspects, General Disclosures and		Relevant chapter(s) in Sustainability Report 2015 or other references/	
KPIs 展页. 一处块零节	Description	Explanation	External assuran
層面╰一般披露及 關鍵績效指標	描述	可持續發展報告2015相關章節或 其他參考/解釋	外部核實
Aspect B1: Employn	nent 層面B1:僱傭		
General Disclosure	Information on:	Empowering Our People	√
一般披露	(a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti – discrimination, and other benefits and welfare  有關薪酬及解僱、招聘及晉升、工作時數、假期、平等機會、多元化、反歧視以及其他待遇及福利的:	載譽光大人	
	(a) 政策:及 (b) 遵守對發行人有重大影響的相關法律及規例的資料		
(PI B1.1	Total workforce by gender, employment type, age group and geographical	Empowering Our People	$\sqrt{}$
關鍵績效指標B1.1	region 按性別、僱傭類型、年齡組別及地區劃分的僱員總數	載譽光大人	
(PI B1.2 關鍵績效指標B1.2	Employee turnover rate by gender, age group and geographical region 按性別、年齡組別及地區劃分的僱員流失比率	Empowering Our People – Equality Opportunity and Diverse Environment 載譽光大人一平等機會與多元共融	V
_	nd Safety 層面B2:健康與安全		
General Disclosure 一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards 有關提供安全工作環境及保障僱員避免職業性危害的: (a) 政策:及	Ensuring Health and Safety 健康與安全	V
	(b) 遵守對發行人有重大影響的相關法律及規例的資料		
KPI B2.1 關鍵績效指標B2.1	Number and rate of work-related fatalities 因工作關係而死亡的人數及比率	Ensuring Health and Safety 健康與安全	V
(PI B2.2 關鍵績效指標B2.2	Lost days due to work injury 因工傷損失工作日數	Ensuring Health and Safety 健康與安全	$\checkmark$
KPI B2.3 關鍵績效指標B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored 所採納的職業健康與安全措施,以及相關執行及監察方法的描述	Ensuring Health and Safety 健康與安全	$\sqrt{}$
Aspect B3: Develop	ment and Training 層面B3:發展及培訓		
General Disclosure 一般披露	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities 有關提升僱員履行工作職責的知識及技能的政策。描述培訓活動	Empowering Our People – Employee Training and Development 載譽光大人一員工培訓及發展	V
(PI B3.1 關鍵績效指標B3.1	The percentage of employees trained by gender and employee category 按性別及僱員類別劃分的受訓僱員百分比	Empowering Our People – Employee Training and Development 載譽光大人一員工培訓及發展	$\sqrt{}$
KPI B3.2 關鍵績效指標B3.2	The average training hours completed per employee by gender and employee category 按性別及僱員類別劃分·每名僱員完成受訓的平均時數	Empowering Our People – Employee Training and Development 載譽光大人一員工培訓及發展	V
-	tandards 層面B4:勞工準則	Emperation Of the Part I are	,
General Disclosure 一般披露	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour 有關防止童工或強制勞工的: (a) 政策:及 (b) 遵守對發行人有重大影響的相關法律及規例的資料	Empowering Our People – Equality Opportunity and Diverse Environment 載譽光大人一平等機會與多元共融	V
KPI B4.1 關鍵績效指標B4.1	Description of measures to review employment practices to avoid child and forced labour 檢討招聘慣例的措施以避免童工及強制勞工的描述	Empowering Our People – Equality Opportunity and Diverse Environment 載譽光大人一平等機會與多元共融	V
(PI B4.2 關鍵績效指標B4.2	Description of steps taken to eliminate child and forced labour practices when discovered 在發現達規情況時消除童工及強制勞工情況所採取的步驟的描述	Empowering Our People – Equality Opportunity and Diverse Environment 載譽光大人一平等機會與多元共融	V
	Chain Management 層面B5:供應鏈管理		,
General Disclosure 一般披露	Policies on managing environmental and social risks of the supply chain 管理供應鍵的環境及社會風險政策	Creating Green Fortune – Our Supply Chain 創造綠色財富—我們的供應鏈	√
(PI B5.1	Number of suppliers by geographical region 按地區劃分的供應商數目	Creating Green Fortune – Our Supply Chain 創造綠色財富一我們的供應鏈	√

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Aspects, General Disclosures and KPIs		Relevant chapter(s) in Sustainability Report 2015 or other references/	Futornal
層面、一般披露及	Description 描述	Explanation 可持續發展報告2015相關章節或 其他參考/解釋	External assurance 外部核實
關鍵績效指標B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored 有關聘用供應商的慣例·向其執行有關慣例的供應商數目、以及有關慣例的執行及監察方法的描述	Creating Green Fortune – Our Supply Chain 創造綠色財富-我們的供應鏈	V
Aspect B6: Product Re	sponsibility 層面B6:產品責任		
一般披露	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress  有關所提供產品和服務的健康與安全、廣告、標籤及私隱事宜以及補救方法的:  (a) 政策:及  (b) 遵守對發行人有重大影響的相關法律及規例的資料	Giving Back to Community – Science and Environmental Education 承擔社會責任—科技及環保教育	<b>√</b>
關鍵績效指標B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons 已售或已運送產品總數中因安全與健康理由而須回收的百分比	Recall is not applicable to our core products (green electricity and treated waste water). 我們的主要產出為清潔能源和經處理的污水,不適用於相關回收措施。	V
關鍵績效指標B6.2	Number of products and service related complaints received and how they are dealt with 接獲關於產品及服務的投訴數目以及應對方法	Giving Back to Community – Community Care 承擔社會責任一社區關懷	√
關鍵績效指標B6.3	Description of practices relating to observing and protecting intellectual property rights 與維護及保障知識產權有關的慣例的描述	Creating Green Fortune – Technology Driven Development 創造綠色財富一科技引領發展	√
	Description of quality assurance process and recall procedures 質量檢定過程及產品回收程序的描述	Safeguarding Our Environment – Environmental Compliance 勇當環保衛士-環保合規事宜	√
關鍵績效指標B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored 消費者資料保障及私隱政策,以及相關執行及監察方法的描述	Not identified as material aspect 不被定義為重大議題	√
Aspect B7: Anti-corrup	ption層面B7:反貪污		
一般披露	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering  有關防止賄賂、勒索、欺詐及洗黑錢的:  (a) 政策:及  (b) 遵守對發行人有重大影響的相關法律及規例的資料	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	$\checkmark$
關鍵績效指標B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases 於匯報期內對發行人或其僱員提出並已審結的貪污訴訟案件的數目及訴訟結果	Our Approach in Sustainability Management – Our Corporate Governance 我們的可持續發展管理一企業管治	√
關鍵績效指標B7.2	Description of preventive measures and whistle – blowing procedures, how they are implemented and monitored 防範措施及舉報程序,以及相關執行及監察方法的描述	Our Approach in Sustainability Management – Our Corporate Governance; Annual Report 2015 – Corporate Governance Report 我們的可持續發展管理一企業管治: 2015年報 – 企業管治報告	√
Aspect B8: Communit	y Investment 層面B8:社區投資		
一般披露	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities takes into consideration communities' interests 有關以社區參與來了解營運所在社區需要和確保其業務活動會考慮社區利益的政策	Giving Back to Community – Community Care 承擔社會責任—社區關懷	$\checkmark$
	Focus areas of contribution 專注貢獻範疇	Giving Back to Community 承擔社會責任	V
KPI B8.2	Resources contributed to the focus areas	Giving Back to Community	√





