

2019

# 環境、社會及管治報告

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



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理士國際技術有限公司  
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## 社會責任管治

### Corporate Social Responsibility Governance

理士國際技術有限公司(「公司」, 連同其附屬公司, 統稱「集團」) 依據EICC-JAC準則建立社會責任(CSR) 體系, 聚焦企業勞工、環境、健康安全和商業道德實踐, 並參照IPC1401供應鏈社會責任管理體系指南, 聚焦供應鏈社會責任管理, 包括產品認證、供應商選擇及績效管理。在此體系的框架內, 集團確立了社會責任的願景及戰略方向, 並組織相關的架構及制定目標以達致體系持續及有效的運行。

Leoch International Technology Limited ("The Company", and together with its subsidiaries, collectively referred to as "The Group") establishes the Corporate Social Responsibility (CSR) system in accordance with EICC-JAC criteria, for implementation in the aspects of corporate labour, environment, health & safety and business ethics, also make reference to IPC1401 for guiding the supply chain CSR management. The focus of supply chain CSR management includes product certification, supplier selection and performance management. Within the framework of this management system, the Group has established the vision and strategy direction for social responsibility, organized the relevant structure and defined the objectives for assuring the continuity and effectiveness of the system operation.

### 社會責任願景 CSR Vision

打造百年理士品牌, 成為最受人尊重的蓄電池企業。

Building the "Leoch" brand of hundred-year history to become the most respectful enterprise in the storage battery industry.

### 社會責任戰略 CSR Strategy

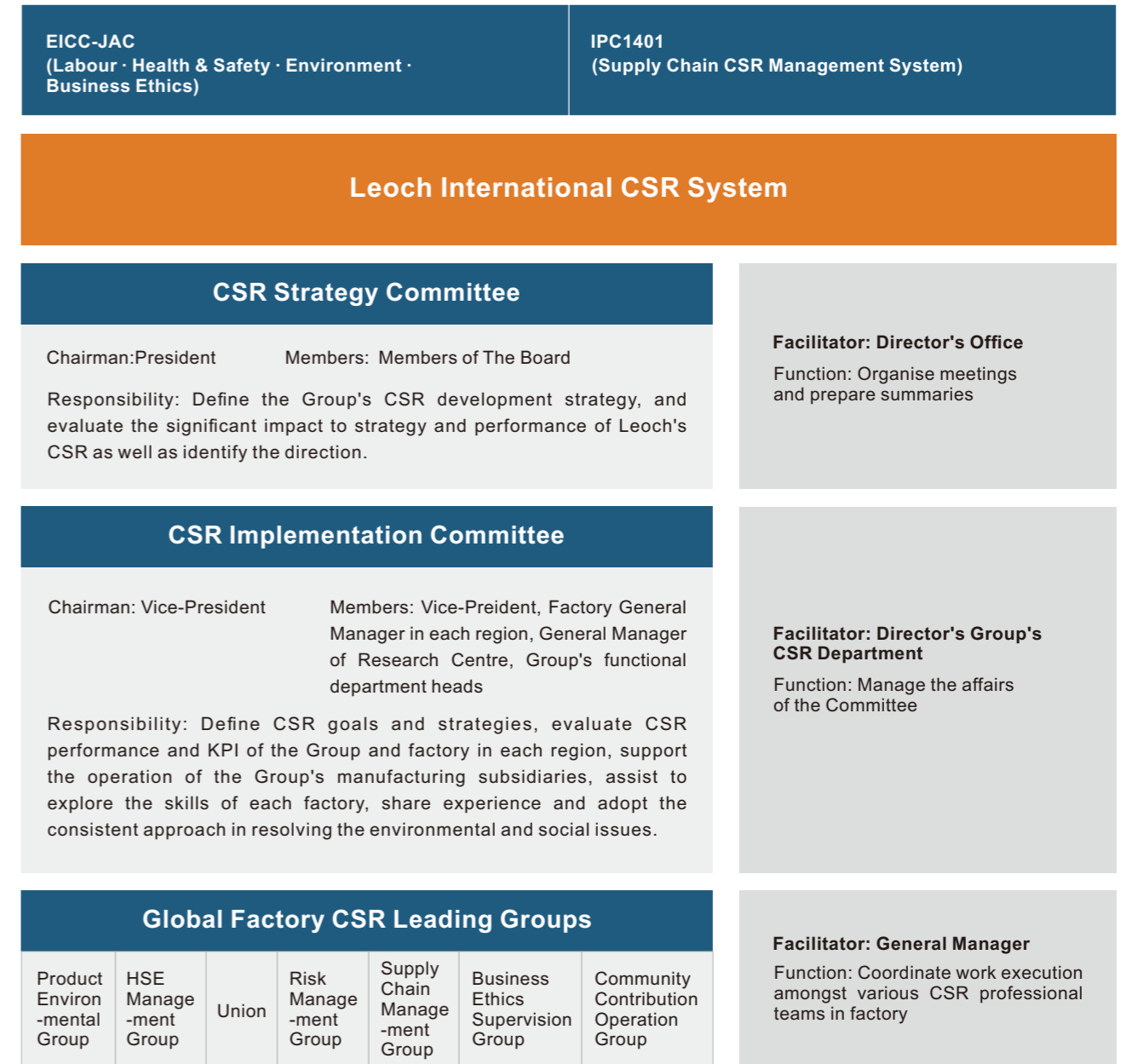
以客戶為中心, 關愛員工和相關群體, 綠色創新, 健康發展, 積極回饋社會。

Customer focus, caring of employees and stakeholder groups, environmental innovation, healthy development and positive contribution to the community.



# 集團CSR管理框架

## The Group's CSR Management Framework



**Facilitator: Director's Office**  
Function: Organise meetings and prepare summaries

**Facilitator: Director's Group's CSR Department**  
Function: Manage the affairs of the Committee

**Facilitator: General Manager**  
Function: Coordinate work execution amongst various CSR professional teams in factory

## CSR總體目標和策略

### CSR Overall Goals and Strategy

**社會責任目標:**

- 滿足客戶需求;
- 保護相關群體;
- 支持業務成功;
- 實現可持續發展。

**CSR Goals:**

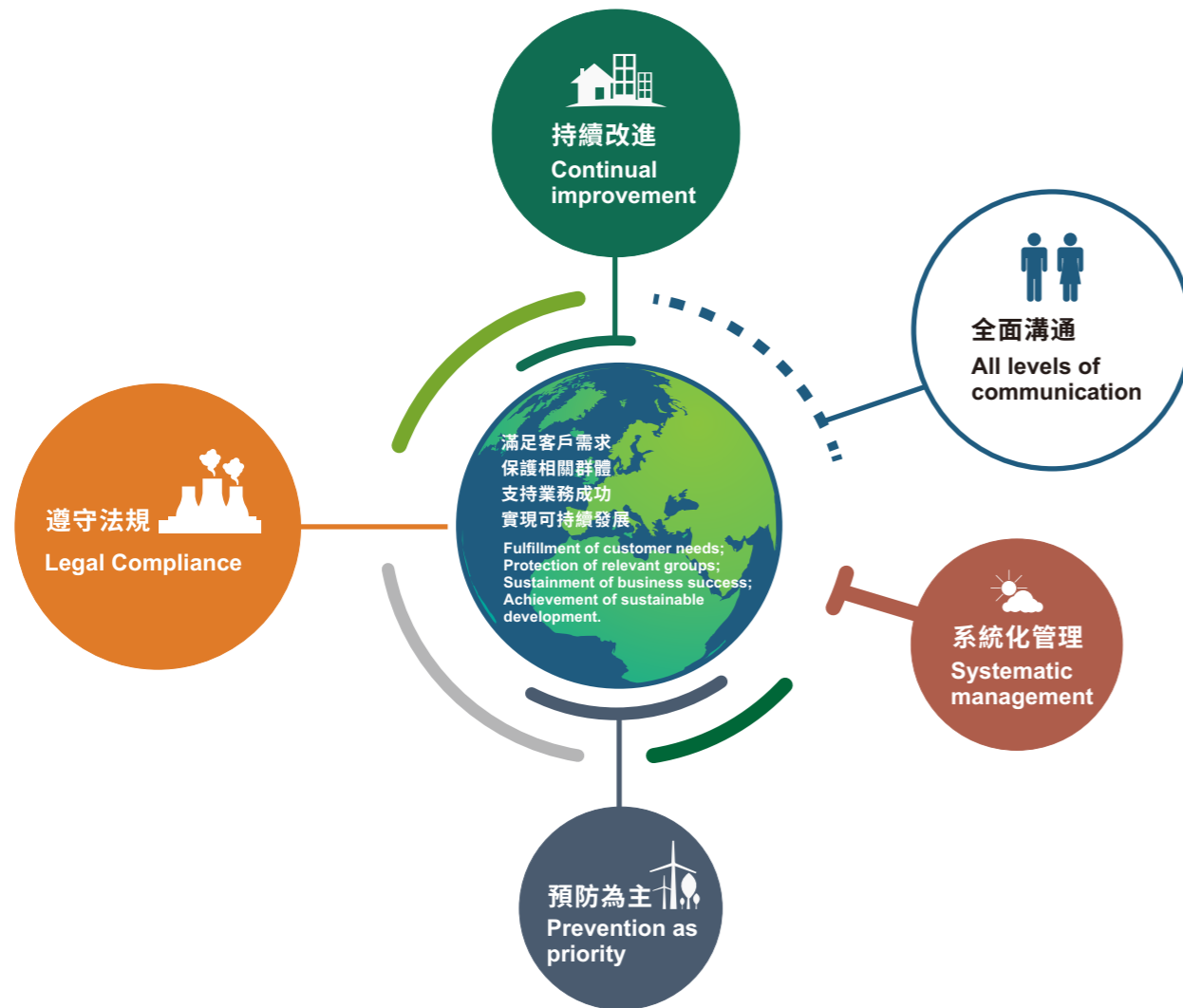
- Fulfillment of customer needs;
- Protection of relevant groups;
- Sustainment of business success;
- Achievement of sustainable development

**總體策略:**

- 遵守法規;
- 預防為主;
- 系統化管理;
- 全面溝通;
- 持續改進。

**Overall Strategy:**

- Legal Compliance;
- Prevention as priority;
- Systematic management;
- All levels of communication;
- Continual improvement

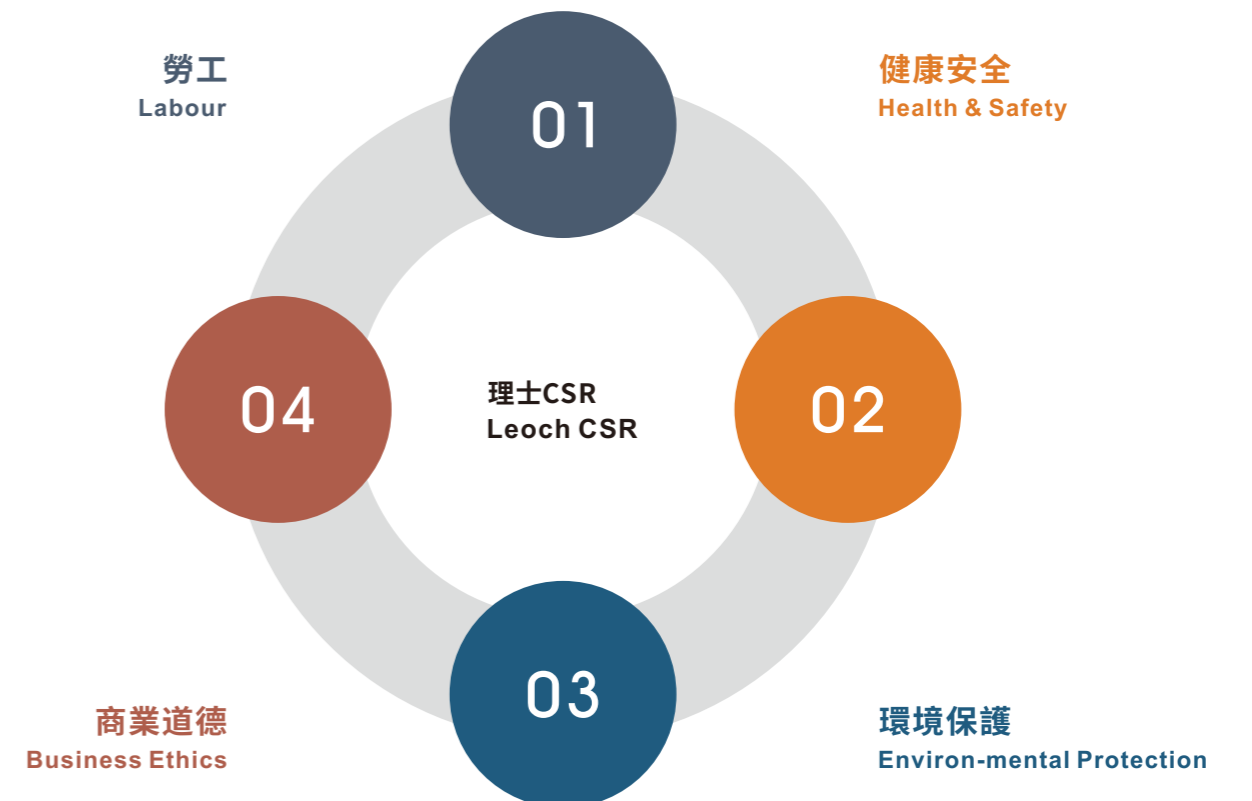


## CSR四大模組 與最新企業社會責任標準對齊

### CSR 4 Key Modules - alignment with the latest CSR standards

以客戶為中心，守法、合規經營。  
 建立管理體系，PDCA持續改進。  
 國際社會責任SA8000認證  
 OHSAS18001認證  
 國際ISO14001認證  
 國際QC080000體系認證  
 電池產品符合歐盟RoHS指令  
 知識產權管理體系認證

Customer focus, legal compliant operations  
 Management system development, PDCA continual improvement  
 International SA8000 certification  
 OHSAS18001 certification  
 International ISO14001 system certification  
 International QC080000 system certification  
 EU Directives for RoHS compliance of battery products  
 Intellectual Property Management System Certification





## 報告範圍與持份者溝通

### Reporting Scope and Communication with Stakeholders

本《二零一九年環境、社會及管治報告》(「本報告」)的報告期為2019年1月1日至2019年12月31日,內容包含「理士國際技術有限公司」(「公司」,連同其附屬公司,統稱「集團」)如下的營運地點及業務範圍:

This "Environmental, Social and Governance Report 2019" (the "Report") describes the following operating regions and business scope of "Leoch International Technology Limited" (the "Company", and together with its subsidiaries, collectively referred to as the "Group") during the period from 1 January 2019 to 31 December 2019.

### 鉛酸蓄電池製造業務

#### Business for Manufacturing of Lead-acid Batteries

- |   |   |
|---|---|
| 1.江蘇理士電池有限公司<br>江蘇省金湖縣工業園區理士科技園                       | 1.Jiangsu Leoch Battery Co., Ltd.<br>Leoch Hi-Tech Park, Jinhu Industrial Park, Jiangsu Province.   |
| 2.肇慶理士電源技術有限公司<br>肇慶(大旺)高新開發區臨江工業園工業大街東               | 2.Zhaoqing Leoch Battery Technology Co., Ltd.<br>Industry Ave.(East), Riverside Industrial Park, Zhaoqing (Dawang) Hi-Tech Park.  |
| 3.安徽力普拉斯電源技術有限公司【在此報告簡稱為「安徽(1廠)」】<br>安徽省濉溪縣經濟開發區女貞路1號 | 3.Anhui Plath Power Supply Technology Co., Ltd. (hereafter referred to as "Anhui (factory #1)" in This Report)<br>Nvzhen Road 1, Suixi Economic and Technological Development Zone, Anhui Province. |
| 4.安徽理士電源技術有限公司【在此報告簡稱為「安徽(2廠)」】<br>安徽省濉溪縣經濟開發區迎春路頭    | 4.Anhui Leoch Power Technology Co., Ltd. (hereafter referred to as "Anhui (factory #2)" in This Report)<br>Yingchun Road, Suixi Economic and Technological Development Zone, Anhui Province.        |



### 鉛回收業務

#### Business for Lead Recycling

- |  |  |
|--|--|
| 5.太和縣大華能源科技有限公司<br>安徽省阜陽市太和縣肖口鎮循環經濟示範園 | 5.Taihe Dahua Energy Technology Co., Ltd.<br>Recycling Economic Demonstration Park, Xiaokou Town, Taihe County, Fuyang City, Anhui Province. |
|--|--|

本報告內容是按照《香港聯合交易所有限公司證券上市規則》附錄二十七所載的「環境、社會及管治報告指引」而編寫,每年出版一次。

集團每年召開股東會議,提供了一個有效的平臺讓董事局與股東交流意見。除了股東大會外,為保持與客戶、供應商等持份者的緊密關係,集團不時拜訪各持份者,或與他們進行電話會議,並透過公司電子郵箱、客戶服務人員等與各持份者溝通,聆聽他們的意見及需求。集團的整體業績表現亦會每年刊載於公司年報上,向各投資者匯報。

The Report is prepared in accordance with the "Environmental, Social and Governance Reporting Guide" as set out in Appendix 27 to the "Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited", and is published annually in each financial year.

The Group convenes annual general meeting (AGM) which provides an effective platform for the Board of Directors to exchange views with shareholders. In addition to AGM, for maintaining close relationships with stakeholders such as customers, suppliers, the Group communicates from time to time with stakeholders and listen to their views and needs through visit, phone conference, company e-mail, and customer service representatives, etc.. The Group's overall business performance is also reported to investors through the Annual Report of the Group.

## 環境、社會及管治績效

### Reporting Scope and Communication with Stakeholders

## 環境/Environmental

### 排放物 Emissions



集團深切瞭解業務對環境的影響，因此制定了完善的環保政策以管理各類污染物的排放，對廢水、廢氣、固體廢物等都制定相應的控制程式，嚴格監控營運過程，並積極尋求創新技術以不斷改進環境績效。

The Group has a clear understanding of the environmental impact of its business on the environment. Therefore, it formulates comprehensive environmental policy to manage the discharge of various pollutants. Relevant control procedures have been developed for wastewater, exhaust gases and solid wastes, etc. The operation processes are closely monitored and innovative technology is actively pursued for continuous improvement of environmental performance.

### 廢水排放控制

#### Control of wastewater discharge

集團對公司活動、產品和服務過程產生的工業廢水和生活污水進行有效控制，制定《污水處理操作規程》妥善處理廢水。集團的生產廠房設有內部污水處理站以處理集團產生的廢水，並在確認達標後才排放到廠外的污水系統，防止因水污染物影響酸鹼度 (pH) 及含鉛量，對環境造成影響。

The Group has effectively controlled the industrial wastewater and domestic sewage generated by the activities, products and services of the Group, and also formulated the "Sewage Treatment Operating Procedure" for handling wastewater properly. The production plants of the Group have installed an internal sewage treatment facility to handle the wastewater generated by the Group and to ensure the compliance with discharge limit before release to the external sewage system. This prevents impact to the environment from the influence of water pollutants on pH and lead content.

為確保環境措施有效實踐，集團已建立環保部負責廢水排放的管理，包括收集國家和地方標準並列明集團廢水和污染物排放標準、嚴格監督檢查污水處理設施的維護保養和運行情況、有效處理集團產生的廢水並記錄其結果，與污水排放相關資訊的外部聯絡等。另外，集團也設有化驗室，負責對環保部每日送來的廢水樣本進行水污染物的濃度測量。一旦監測資料異常或排放超標，相關部門即時分析原因，並採取糾正及預防措施。

集團各鉛酸蓄電池廠區藉著污水處理及中水回用系統，減少廢水排放，通過回用經過處理的污水，全年減少排放約 210,608 立方米的污水。

針對其他液體廢棄物，集團各鉛酸蓄電池組裝廠房的加酸充電工序都設有廢酸回收設備；全年平均回收率達 90% 以上，全年各廠區合共回收約 1,000 噸的廢酸，減少排放廢棄物。

此外，於鉛回收營運，除了利用污水處理系統，更設有“再生鉛熔煉爐回水利用系統”；此系統作為降溫用途，利用水的循環使用，減少廢水排放。



For effective implementation of environmental measures, the Group has established Environment Protection Department responsible for managing the wastewater discharge, including the collection of national and local standards as well as the Group's standards for discharge of wastewater and pollutants; close supervision of the maintenance and operation status of the wastewater treatment facilities; effective treatment and the associated recordkeeping of the wastewater generated by the Group; liaison with external parties on information relevant to wastewater discharge. In addition, the Group has established laboratory responsible for the testing of wastewater samples submitted daily from the Environment Protection Department for concentration measurement of water pollutants. The relevant department will analyse the cause timely, and implement corrective and preventive actions in event of abnormal findings or discharge exceeding limit.

Each lead-acid battery manufacturing site of the Group has reduced the emission of wastewater, by adoption of the sewage treatment and water recycling systems. Through reuse of treated sewage, there was reduction in annual sewage discharge of 210,608 cubic metre.

For the other liquid wastes, each lead-acid battery assembly factories of the Group has the waste acid recycling devices in the process of acid addition recharging, annual recycling rate reached 90% or above on average. As consolidated from each factory, the recycled waste acid totally amounted to around 1,000 tons in this year, which in turn reduced emission of the equivalent waste amount.

Moreover, in the operation of lead recycling, the "water recycling system in the lead-recycling furnace" was set up in addition to the sewage treatment system. Apart from the usage for lowering temperature, that recycling system reused water and reduced the wastewater discharge.





## 廢氣排放控制 Control of exhaust gases

集團也對廢氣進行有效控制，防止在營運中產生的硫酸霧、鉛煙、鉛塵及其化合物等大氣污染物質對環境造成影響。鉛酸蓄電池生產廠房已安裝完善的廢氣處理系統，所有可能產生廢氣與煙塵的工序都安排在風罩下操作，廢氣與煙塵會經過抽風管道進入處理設施，包括鉛煙淨化器、除塵器、酸霧中和塔/淨化器等，廢氣必須經內部監測並確認滿足排汙許可證規定的要求後，才可排放出廠。



於鉛回收廠房，也有安裝廢氣處理系統，所管控的廢氣排放物質包括：鉛、二氧化硫、氮氧化物、煙塵等；於粗煉工序設有廢氣脫硫裝置，以減少二氧化硫的排放；相關區域更安裝煙塵自動測試儀器與煙氣排放連續監測系統，協助管控廢氣排放。

The Group also controls gas emissions effectively to prevent the impact on the environment from atmospheric pollutants generated during operation such as sulphuric acid mist, lead fumes, lead dusts, and its compounds. The production plants of lead-acid batteries are equipped with a comprehensive exhaust gas treatment system. Processes that are likely to cause exhaust gases, fumes and dusts are operating under exhaust ventilation facilities, through which exhaust gases, fumes and dusts are channelled in ducts into the treatment facilities. These facilities include lead fume purifier, dust collector, acid fume neutralizer/purifier, etc. Gas emission is allowed to discharge to the external environment only when they comply with the requirements of internal monitoring and those requirements stipulated by the emission permit.



In the lead-recycling factory, exhaust gas treatment system has also been installed and the controlled air pollutants include: lead, sulphur dioxide, nitrogen oxides, smoke, etc. Sulphur removal devices have been installed in the roasting operation to reduce the emission of sulphur dioxides. Relevant areas have even been installed with smoke auto-testing equipment for continuous monitoring and control of exhaust gas emission.

環保部同時作為專責管理廢氣排放的部門，負責收集國家和地方例要求、列明排放標準、維護處理設施與排放相關資訊的外部聯絡等。集團亦編制各類處理設施的操作指南，要求相關的崗位嚴格遵守，並做好日常保養確保廢氣處理設施正常運行，在必要時採取糾正及預防措施。

除了建立完善的廢氣處理系統，集團亦改造工藝，於鉛酸蓄電池生產廠房採用『無鎘內化成』以減少酸霧排放；利用無鎘合金進行內化成工藝，內化成全部使用連體酸壺，防止酸液溢出，同時去除極板化成、極板乾燥，以減少酸霧污染。

同時，考慮到工藝與設備息息相關，為了減少在生產過程中產生鉛煙塵，相關廠區引入自動密封的生產設備，包括採用自動剪機、自動鑄機、自動鑄錠機替代手動鑄錠機等；甚至提升整條生產線，如對汽車電池從國內半自動鑄改為韓國COS全自動鑄機，及將一條小密電池手工焊接線改為半自動鑄機。

## 減少溫室氣體的產生 Reduction of greenhouse gas (GHG) generation

除了管控上述大氣污染物的排放，集團亦致力在業務過程中減少溫室氣體的排放。集團目前積極拓展清潔能源的使用，如推動太陽能發電項目，致力減少在傳統發電過程導致的溫室氣體。營運場地的生活區（如宿舍內的浴室和飯堂等）已從燃煤全面改為使用天然氣，藉此大幅減少排放溫室氣體。

The Environment Protection Department also holds responsibility for managing exhaust gas discharge, including the collection of the requirements stipulated by the national and local legislations; identification of emissions standards; maintenance of treatment facilities and liaison with external parties on information relevant to the gas emission. The Group prepares the operation guidelines for various treatment facilities, and requests the relevant departments to abide by the guidelines strictly, and to ensure normal operation of these facilities by arrangement of routine maintenance and implementation of corrective and preventive measures where necessary.

Apart from the establishment of comprehensive exhaust gas treatment system, the Group has reformed the technology and adopted the "cadmium-free inner formation" in lead-acid battery manufacturing regions for reducing the emission of acidic mist. The inner formation technology uses the cadmium-free alloy and adopts the sealed acid containers completely for prevention of acid spilling, at the same time eliminates plate formation and drying for minimizing acidic mist pollution.

At the same time, considering the correlation between technology and equipment for reducing generation of lead fumes in the production processes, relevant manufacturing sites introduced production equipment with sealed automation feature, which included the use of automated roll-shearing machine, automated cast-welding machine, automated casting machine in replacement of manual casting machine, etc. This even applied to enhancement of the entire production line, such as reforming the automotive battery production line from the local semi-automated casting to Korean-type COS full-automated cast-welding line, as well as reforming one manual-welding production line for low-density battery to semi-automated cast-welding line.

In addition to emission control of the aforesaid air pollutants, the Group is striving to reduce greenhouse gas (GHG) generation in its operation. The Group is actively expanding the use of clean energy to reduce GHG coming from the conventional power generation, such as by promotion of solar energy projects. Living areas within the operation boundaries (such as bathrooms and canteens in the dormitories) have fully switched from the use of coal to natural gas for reducing GHG drastically.

此外，集團理解交通運輸會造成溫室氣體的排放，因而制定相關行政措施以減少交通需求。如在採購過程中，由於採用非本地供應商需要額外的運輸過程，在滿足品質及交貨能力的前提下，集團會優先選用本地供應商。在辦公室的管理，公司提倡通訊視訊會議軟件/應用程式、電子郵件及電話等多種溝通方式，盡量減少出差次數。

Moreover, the Group is aware of transportation incurring GHG generation and therefore develops administrative measures for reducing transportation needs. As an example in procurement process, owing to the fact that engaging overseas suppliers requires additional transportation, the Group prefers to engage local suppliers given that the compliance with quality and delivery requirements. While in office management, the Group encourages the use of various communication channels such as video conference software/app, email, telephone in order to reduce business trips.



溫室氣體排放總量  
Total GHG emission

391,457

噸二氧化碳當量  
Tonne CO2 equivalent



直接 (範圍 1) 溫室氣體排放量  
Direct (Scope 1) GHG emission

20,364

噸二氧化碳當量  
Tonne CO2 equivalent



能源類間接 (範圍 2) 溫室氣體排放量  
Energy Indirect (Scope 2) GHG emission

371,093

噸二氧化碳當量  
Tonne CO2 equivalent



每噸生產的溫室氣體排放密度  
GHG emission intensity per tonne of production

0.98

噸二氧化碳當量/噸  
Tonne CO2 equivalent / tonne

在報告期內，透過落實上述多項減排措施，本報告所覆蓋的營運地點共產生溫室氣體391,457噸二氧化碳當量；每一噸成品產生0.98噸二氧化碳當量；與去年度比較，排放量及密度沒有明顯差異（本年度輕微減少約2%）。

Through implementation of the aforesaid emission reduction measures during the reporting period, the operating regions covered by the Report have generated greenhouse gases of totally 391,457 tonnes carbon dioxide equivalent, i.e. 0.98 tonne carbon dioxide equivalent was generated per tonne of production. As compared with last year, the emission volumes and intensities during these two years have no significant deviation (the figures of this year was around 2% slightly lower than those in the previous year).

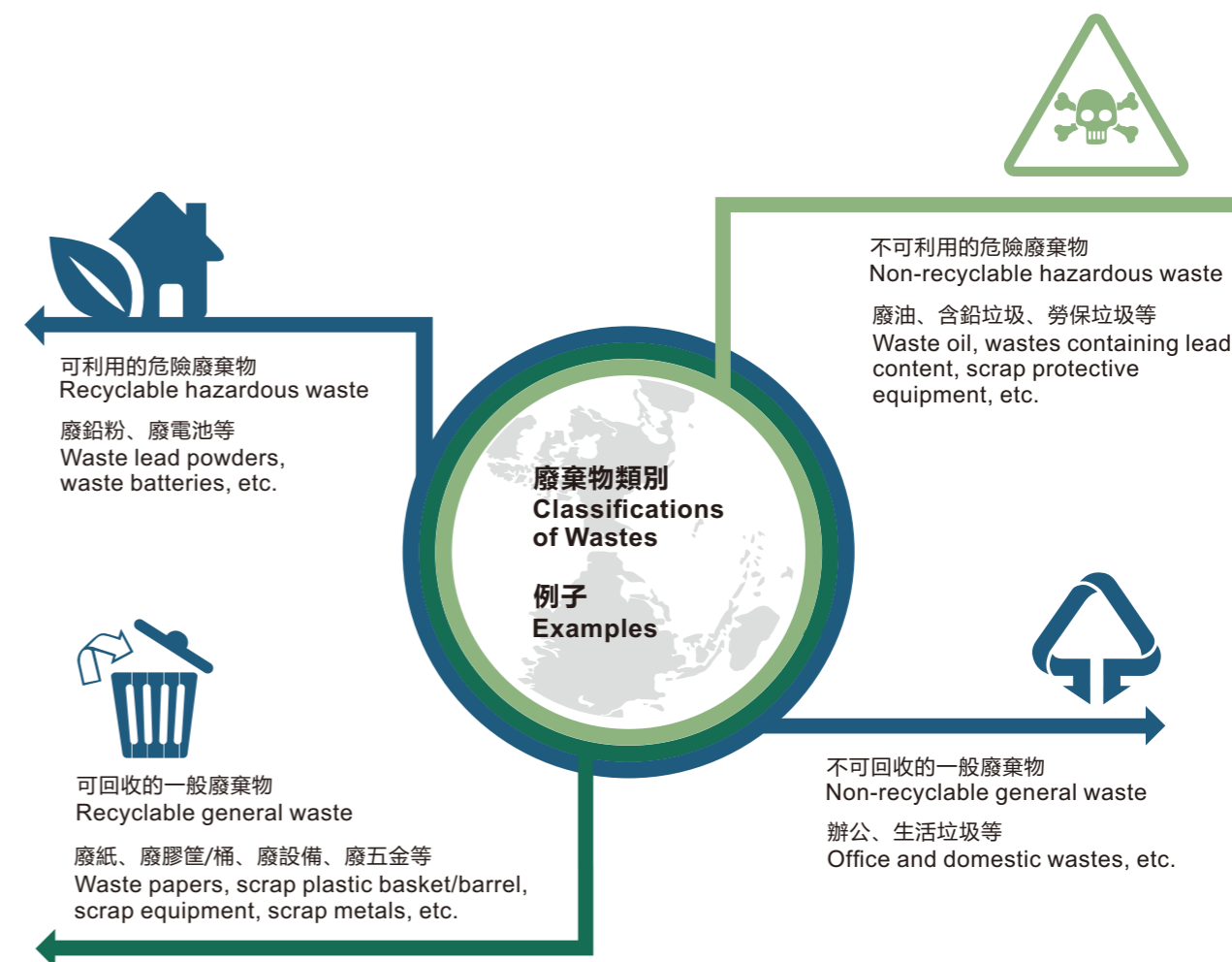
## 固體廢棄物控制 Control of solid wastes

集團制定廢棄物分類制度，對可回收利用的廢棄物盡量回收，不能回收利用的廢棄物要及時清理，不會任意丟棄。並與廢棄物處理承辦商簽訂協定書，列明對一般廢棄物的處理要求。

The Group has established waste classification system. Wastes are recycled as much as possible or disposed timely if they could not be reused. Wastes shall be disposed in a controlled manner and also waste handling vendors are contracted on the specified requirements for handling of general wastes.

對於固體廢棄物，集團首先按其危害性分成兩大類：危險廢棄物和一般廢棄物，再按是否可回收利用分為四小類。固體廢棄物包括置於容器中而沒有直接排向水體和大氣的液體和氣體廢物，例如：用容器盛裝的廢油、廢清洗劑等。

For solid wastes, the Group classifies them firstly into two main categories according to their hazards: hazardous wastes and non-hazardous wastes, which are further divided into four sub-groups based on the recyclability. Solid waste includes those liquid and gas wastes which are stored in containers and not directly discharged to external waters and atmosphere, for example: waste oil and waste cleaning solvent in container.





各廢棄物產生部門按制定的程式對廢棄物進行分類收集，存放於固定地點。集團的生產廠房設立固體廢棄物的專用臨時儲存區，並按照相關法例放置標誌及採取防止污染與洩漏措施。

危險廢棄物按當地的危險廢物名錄及相關法例處理，交由相關合格單位妥善處理，並禁止將危險廢棄物混入一般廢棄物中貯存。

於2019年，有害廢棄物主要包括廢電池、廢極板、廢鉛邊角料、鉛泥、鉛渣、鉛灰、水處理污泥及被鉛污染的廢棄物，期內有害廢棄物在本報告所覆蓋的營運地點共排放21,952噸，比去年多約9%；廢電池及含鉛相關廢物則交給合格單位回收及再提煉金屬鉛。另一方面，無害廢棄物主要是廢棄紙箱、廢膠包裝、辦公與生活垃圾、及其他無害生產垃圾，期內無害廢棄物共排放3,717噸。整體與去年度比較，按照本年度的生產量增加約11%，於報告期內每噸生產共排放約64公斤廢棄物，比去年減少約8.6%。

於2019年，集團在多個營運區域利用相關設備，包括自動剪板機、冷切機、自動板機及一鍋多機鑄板機，積極減少報廢極板及含鉛廢棄物的排放，全年共減少排放約280噸的有害廢棄物。

在報告期內，集團沒有發現關於排放或其他與環境相關的違規事件及投訴個案。



Every department shall follow the established procedures to collect the generated wastes in accordance to the classification and to store them at the designated area. Production plants of the Group designate temporary storage areas for solid wastes and signs are placed according to the relevant legislations. Also measures are in place to prevent pollution and leakage.

Hazardous wastes are handled according to the local hazardous waste registry and the applicable legislations. They are provided to the relevant qualified agencies for proper handling and are prohibited to store together with general wastes.

In 2019, hazardous wastes mainly included scrap batteries, scrap electrode plates, scrap lead leftover materials, lead sludges, lead residues, lead ashes, sludge from water treatment and lead-contaminated wastes. In the reporting period, those hazardous wastes discharged from the operating regions covered by the Report amounted totally to 21,952 tonnes, which was about 9% higher than that of the previous year. Waste batteries and other lead-bearing wastes would be conveyed to qualified agency for collecting and refining lead metal. On the other hand, non-hazardous wastes mainly were discarded carton boxes, scrap plastic packaging, office and domestic wastes, as well as other non-hazardous production wastes. There was a total of 3,717 tonnes of non-hazardous wastes discharged in the reporting period. As compared with the overall figures of the previous year, and in accordance with the production volume of this year increased by around 11%, around 64 kilograms of wastes per tonne of production were discharged during the reporting period, which was around 8.6% lower than that of the previous year.

In 2019, various operating regions of the Group adopted appropriate equipment, including automated roll-shearing machine, cold-cutting machine, automated plate-packing machine, and one-furnace-multiple plate casting machine, for effective reduction of scrap electrode plates and other lead-bearing wastes. These achieved annual reduction in discharge of around 280 tonnes of hazardous wastes.

Within the reporting period, the Group did not identify any legal non-compliance or complaint related to emissions or other environmental topics.



## 資源使用 Use of Resources

集團注重環境保護，致力實現能源與資源的合理使用，並推廣適當措施提升利用效率。

The Group pays attention to environmental protection and is striving to realize reasonable utilisation of energy and resources. Appropriate measures are advocated for enhancement of utilisation rate.

## 節約能源措施 Energy Conservation Measures



本報告所涵蓋的各家鉛酸蓄電池製造工廠，都已獲取 ISO 50001 能源管理體系認證，制定及實踐相關政策及程序，達致節能效果。

For each lead-acid battery manufacturing factory covered by this report, they have achieved certification in ISO 50001 energy management system, which included the establishment and implementation of the related policies and procedures for energy saving performance.

在設計工業技術和選擇設備時，集團優先採用低電耗或能源效益較高的設備及產品。對於電耗高的設備，將以電耗低的技術和設備逐步取代；譬如本年度在肇慶廠區，更換了低功率的車間水泵；及於安徽（1廠），更換了永磁變頻空壓機，提升用電效率，減少耗電。對現行的技術及設備策劃並實施技術改造，優化各生產部門流程，以提高能源的利用率。盡量減少部門設備在無負荷的情況下空轉，對生產間隙可停機的設備，及時關閉能源供應，並根據生產計劃的變動彈性調節設備的運作負荷。

During the phases for development of industrial technology and equipment selection, the Group gives priority to equipment and products that are of low power consumption or higher energy efficiency. For equipment of high power consumption, they will be gradually replaced by technology and equipment of low power consumption. For example in this year, in Zhaoqing factory, water pump of lower power consumption was replaced in production workshop, and in Anhui (factory #1), inverter-driven permanent magnet air compressor was replaced for raising efficiency to reduce consumption of electricity. Technology re-engineering is planned and implemented to the existing technology and equipment for process optimisation and enhancement of energy utilisation rate in various production departments. Departments shall minimise the equipment operating at production idle time, and shall shut off the power supply to those equipment at non-production time interval. Operation load of the equipment is flexibly adjusted according to the change in production planning.



針對辦公室的節能管理，集團提倡白天充分利用日光，減少電燈的使用時間；辦公室的空調設定只在合適的溫度範圍運作；要求員工下班時關閉辦公室內各種電源設備，盡量杜絕一切不必要的耗電情況。部分廠區更制定辦公室節省用電計劃；如在安徽（1廠）利用“能量回饋式充放電機”，全年節省用電量約680萬千瓦時。另一方面，各廠區逐步將傳統電燈更換成LED燈具，藉著LED燈具的節能特性，減少耗電；如在肇慶廠區，2019年度共節省了能耗約5,980千瓦時。

For office administration in energy saving, the Group encourages full use of natural daylight to reduce the duration of electrical lighting; air-conditioners are preset to function only at the suitable temperature range; employees are required to turn off the power of all equipment in the office when they get off duty for minimisation of unnecessary power consumption. Some factories even established power saving plan in office area, for example, in Anhui (factory #1), “energy regenerative charging and discharging device” was adopted and annual saving of electricity amounted to around 6.80 million kWh. On the other hand, all factories have been gradually replacing traditional lights to LED lights. With the energy saving characteristics of LED lighting, it reduced consumption of electricity, for example in Zhaoqing factory, there was energy saving of around 5,980 kWh in 2019.



此外，集團致力減少使用市電，在營業地點積極推動太陽能發電系統，部分工廠廠房頂部已全面安裝太陽能板，讓產生的電能用於電池充電、極板化成等工序，多餘的電力則與市電並網使用；如在肇慶廠區，於2019年利用太陽能發電系統，全年節省了約332,590千瓦時的能耗。除了利用太陽能，集團亦設有設備把熱能回收，節省市電的消耗；本年度於多個廠區的空壓機房，安置熱回收設備，藉此全年節省約350,000立方米的天然氣。另外，於注塑部門，注塑機料斗循環加熱，熱風乾燥機把熱能回收，在廠區如安徽（1廠）全年節省了約680,000千瓦時。

In addition, the Group is striving to reduce use of commercial power supply. Solar power supply system is actively developed in the operating locations. Some production plants have completed the installation of solar panels on the roof and such solar power is used in production processes such as battery charging, plate formation. Excess power from solar sources will be connected to municipal power grid for consumption. As shown from example in Zhaoqing, solar power supply system was adopted to achieve energy saving of around 332,590 kWh in 2019. In addition to utilisation of solar energy, the Group has also increased / improved equipment for recycling of heat energy and consequently reducing consumption of municipal power. Within several factories in this year, heat recycling devices had been installed in the air compressor rooms and this achieved annual saving around 350,000 cubic metre of natural gas. Moreover, within the injection moulding departments, hoppers of injection moulding machines were heated in a recycling pattern and heat energy was recycled by hot-air dryer. From the example in Anhui (factory #1), such installation resulted in annual saving of 680,000 kWh.

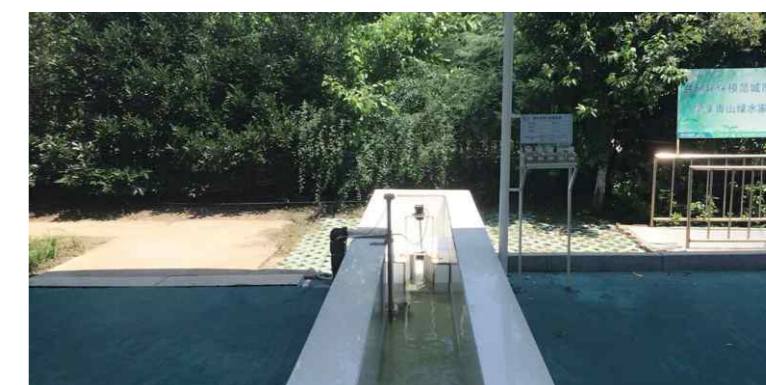
## 節約用水措施 Water Conservation Measures

集團善用廢水處理系統，循環使用處理後的廢水，減少耗用新鮮供水。廠內污水處理設施建有中水回用池，將處理達標後的廢水重用於生產廠房清潔、環保設備用水及沖廁等。各鉛酸蓄電池廠區通過中水回用，全年共節省的新鮮供水量約210,608立方米。

The Group makes best utilisation of the wastewater treatment system. Treated wastewater is recycled for use to reduce the consumption of fresh water. In-house sewage treatment facilities were built with reclaimed water pools, from which treated wastewater complying with environmental standard was reused in factory cleaning, processing of environmental protection facilities and toilet flushing, etc. Through use of reclaimed water, all lead-acid battery factories totally achieved an annual saving 210,608 cubic metres of fresh water.

除了中水回用，集團致力採用、優化、改造設備等方法持續降低耗水量，如：新增注塑部冷水機、自動水洗機，外化成改內化成技術等；部分鉛酸蓄電池廠區更利用循環用水的設備，如：冷卻塔、充電水槽，全年共節省的新鮮供水量約90,000立方米。

Apart from use of reclaimed water, the Group is striving to use methods such as adoption, optimization, and reforming for achieving continual reduction of water consumption. Examples included new installation of cooling water machine in injection moulding department, use of automated washing machine, outer formation technology reforming to inner formation, etc. Some lead-acid battery factories even utilise equipment which reuse water in operation, such as cooling towers, charging sinks, these achieved saving of fresh water amounted to around 90,000 cubic metres in the year.



此外，電池生產及鉛回收廠均設有雨水收集系統，收集的雨水會經過處理後回用，主要用途為廠房清潔、供水給環保設備及生產電池過程中的循環用水，集團藉此類收集系統，全年合共節省用水約17,500立方米。

除了經常提醒員工及訪客節約用水之外，集團致力尋求設備更新改造、技術優化及管理改進等方法持續降低耗水量，並定期實施清潔生產審核，監督及識別可以減少用水的工序，杜絕一切不必要的耗水情況。

集團用水措施的績效，很榮幸獲得外部持份者的認受，包括江蘇廠區獲得江蘇省水利廳及江蘇省發展和改革委員會頒發「江蘇省省級節水型企業」的稱譽，彰顯集團於節約用水的努力。

## 節約物資措施 Resource Utilisation Measures

集團對可回收利用的固體廢棄物進行分類收集，並盡可能在公司內部利用，例如：對木卡板和紙箱會在公司內部循環再用；在生產過程中的廢棄塑膠會用於生產塑膠卡板，以作為廠房循環利用卡板，並損壞後重用廢棄塑膠繼續生產周轉卡板。

在包裝過程中，集團優先使用可分解和可循環使用的包裝物料（如木卡板、紙箱、鐵箱等），減少塑膠包裝材料的使用。如須使用塑膠包裝材料，也盡量採用較輕或較環保的物料。

In addition, factories of both manufacturing lead-acid batteries and lead-recycling are installed with rainwater collection system in which the collected rainwater would be reused after treatment mainly for factory cleaning, processing of environmental protection facilities, as well as for water being recycled in the battery manufacturing processes. Through these collection systems, the Group has achieved water saving of around 17,500 cubic metres in the year.

Apart from frequent reminding employees and visitors of water conservation, the Group is striving to continuously reduce water consumption by equipment innovation, technology optimisation and enhancement in management practices, etc. Moreover, regular clean production audits are conducted to monitor and identify the processes capable of reducing water consumption; this prevents the occurrence of unnecessary water consumption.

It was honoured that the performance of the Group's water conservation measures was recognized by external stakeholders, which included Jiangsu Water Resource Department and Jiangsu Development and Reform Commission jointly issued to the Group's factory at Jiangsu with the award named "Jiangsu Provincial Level Water Saving Enterprise", this illustrated the efforts of the Group in water conservation.

The Group collects and categorises the recyclable solid wastes which will be used internally as much as possible, for example: wooden pallets and carton boxes are reused internally; scrap plastics from the production processes are recycled for production of plastic pallets which are used within the factory and will be recycled for production of new pallets after damaged.

In the packing process, the Group prioritise the use of degradable and recyclable packaging materials (such as wooden pallets, cartons, iron boxes, etc.) to reduce the use of plastic packaging materials. Whenever plastic packaging is deemed necessary, materials of less weight or more environmental-friendly should be adopted as far as possible.

於報告期間，下表綜合各鉛酸蓄電池廠區所耗用包裝物料的類別及重量：

During the reporting period, the table below consolidated the types and weight of packaging material consumed from each lead-acid battery factory:

包裝物料種類 Type of packaging material	全年耗用重量 (噸) Annual consumption weight (tonne)
紙材 Paper	54,456
膠材 Plastic	1,300
木材 Wood	5,086
金屬 Metal	49,481

於鉛回收廠區，成品入庫時，並不需要上述的包裝材料，只用塑膠打包帶捆紮，全年共耗用0.74噸的打包帶。

集團的一般用紙原則是優先使用環保紙、列印時雙面使用，及在可行情況下以電子文件管理系統代替紙質文件，務求盡量減少使用紙張。

集團研發內部文件管理系統，文件通過系統進行發放與簽收，鼓勵員工使用電子檔案，顯著減少紙質文件的發放。此外，集團運用SAP-ERP系統和內部電子郵件交流等措施減少使用紙張。

At the time of packing finished goods in the lead-recycling factory, it did not require the abovementioned packaging materials but only used the plastic packaging bands, of which 0.74 tonne was consumed in the year.

The Group's general principle on paper utilisation is the preference in using environmental-friendly paper, printing on both sides and whenever possible the deployment of electronic document management system to reduce the use of paper.

The Group developed an internal document management system, through which documents are distributed, received and acknowledged. This encourages employees to use electronic files and hence considerably reduce the release of paper document. In addition, the Group adopts the SAP-ERP system and measures such as internal e-mail communication to reduce the use of papers.

除了包裝材料及辦公紙品，本報告所覆蓋的營運區域於2019年所消耗各種主要資源概列如下：

Apart from the packaging materials and office's paper supplies, main resources consumed in 2019 by the operating regions covered by this report were listed as follows :

資源 Resources	單位	全年耗量 Performance
電力 Electricity	(千瓦時) (kWh)	458,383,903
天然氣 Natural gas	(立方米) (cubic metre)	8,609,285
水 Water	(立方米) (cubic metre)	1,878,543



為配合太和縣當區環境部門的要求，確保大氣污染物達標及穩定排放，太和縣大華能源科技有限公司於本年度停產，進行監測設備等工藝設備的升級工作。於停產技改期間，鉛回收廠區所耗用的電量主要是供應給辦公室運作，維持工廠正常運營，包括採購原材料，委託加工電解鉛，及技術升級改造項目等。

For alignment with the requirements from the environmental authority of Taihe county, and for compliance of emission with the targets for discharge of atmospheric pollutants, Taihe Dahua Energy Technology Co., Ltd has stopped operation in this reporting year to proceed the enhancement of technological equipment including monitoring devices. During the shutdown and reforming period, electricity consumption in the lead-recycling factory was mainly used in office functions for normal operations, including material procurement, subcontracting for electrolytic lead processing, and reforming project for technological enhancement, etc.

## 環境及自然資源 The Environment and Natural Resources

因應社會大眾對環保議題的關注，集團致力滿足社會及客戶的需求，在採購、生產管理及員工培訓方面都體現綠色文化。

In response to the public's concern over environmental protection, the Group is striving to satisfy the demands of the society and customers, and realises the green culture in procurement, production management and employee training.

### 綠色採購 Green procurement

為了保證產品特性符合環保要求，集團在產品設計開發的階段已嚴格管控材料，亦會優先選購易分解或擁有環保認證的物料以用於生產。對於有環境風險的物料，集團會要求供應商出示協力廠商的RoHS檢測報告，確認有害物質的風險在合規範圍。

For assurance of product compliance with environmental protection parameters, during the product design and development stage, the Group strictly controls the use of materials for production and priority is given to degradable or environmental-certified materials. For materials with environmental risks, the Groups requests suppliers to accompany the materials with third party RoHS test reports for assuring the control of hazardous substances within the compliant range.

在挑選供應商時也會考量供應商的環境績效，供應商須簽署《環境保護協議書》，定期提供物料的危害物質檢測報告，並接受集團在供應商現場實施環境審核。集團會優先採用已獲取環保認證的供應商，目前此類認證供應商主要提供鉛、隔板、膠料等物料類別，涉及的供應商約80家。

Environmental performance is also considered in the selection of suppliers. Suppliers are required to sign "Agreement for Environmental Protection" and to submit hazardous substance test reports on regular basis. Also, suppliers are subject to on-site environmental assessments arranged by the Group. The Group will prioritize those suppliers who attained environmental certifications. Currently there were around 80 suppliers of this certification type, mainly those supplying types of materials like lead, separation plate and plastic materials.

另外，集團對重要原材料進行環保符合性的驗證，包括制定指引控制重要材料內相關重金屬與增塑劑的含量，並規定相關的測試要求與週期。

In addition, the Group requires the important raw materials to be verified for environmental compliance. It includes establishment of guidelines for controlling the content of the relevant heavy metals and plasticiser as well as requirements on the relevant testing frequency and specifications.

### 清潔生產管理 Clean production management

集團按照ISO14001環境管理體系，識別及評估所有環境因素，對重要環境因素制定方案以便監控；確保廢氣、廢水均按照國家標準及排汙許可證規定達標排放；評估生產流程，找出有害廢棄物產生的源頭，制訂減少有害廢棄物的行動計劃，例如制訂有效措施減少含酸廢水的排放、鉛煙塵的排放，使用後的化學品容器須交由供應商回收處理等。

The Group adheres to ISO14001 environmental management system for identification and assessment of all environmental aspects. Schemes are developed to monitor the significant environmental aspects for ensuring the emissions of exhaust gases and wastewater in compliance with the specifications stipulated in the national standards and emission permits. Production processes are assessed to identify the source of hazardous waste generation and the associated action plans are formulated to reduce hazardous wastes, such as formulation of effective measures to reduce the discharge of acidic wastewater and lead dust, return of used chemical containers to suppliers for recycling and treatment, etc.

部分廠區改善“中大密充電工序”，增加內化成型號，減少酸霧排放，並減少產生含酸的廢水量。

Some factories improved "Medium and High Density Charging Process", and increased the use of inner formation models, which minimized the emission of acidic mist and the amount of acidic wastewater generated.

集團委派部門專責對污水處理站及廢氣淨化系統做好維護，確保正常運行，並制定《環境設施異常應急預案》，對應污水處理、除塵、廢氣淨化等設施在不能正常運行時須採取防止環境污染的必要措施。

The Group appoints dedicated department to maintain and ensure proper functioning of the treatment facilities for wastewater and exhaust gases. "Emergency Plan for Abnormalities in Environmental Facilities" is developed to guide the actions required for prevention of environmental pollution in event of malfunctioned facilities for sewage treatment, dust removal or exhaust gas purification, etc.

為了減少廢氣排放中的污染物，集團致力使用潔淨能源代替燃煤供應的電能，故此積極使用天然氣作為能源供應；如在肇慶及安徽兩家鉛酸蓄電池廠房，全年合共耗用的天然氣等同電量達78,902,544千瓦時；所耗用的天然氣等同電量更約佔當區總能源耗量的20%或以上。

For reducing pollutants within exhaust gas emission, the Group is dedicated to using clean energy in replacement of electricity supplied by coal combustion, hence is striving to use natural gas as the energy source. For examples in lead-acid battery factories at both Zhaoqing and Anhui, annual consumption of natural gas totally was equivalent to electricity of 78,902,544 kWh, and the electricity equivalent of natural gas consumption even accounted for around 20% or above of the total energy consumption in the local regions.

集團定期進行清潔生產審核，通過提出並實施各項減少污染的方案，例如引入使用自動密封的生產設備，採用先進的生產設備及淘汰手動設備，以減少在生產過程中產生鉛煙塵。

The Group undertakes a periodic cleaner production audit. Various solutions are proposed and implemented to reduce pollution, for example, introducing production equipment featured with automatic sealing or using advanced production equipment to replace manual equipment and reduce lead dust production during the manufacturing process.

## 員工環保培訓

### Environmental Training for Employees

集團的培訓計劃及新員工入職培訓計劃都涉及環保的要求，包括環境管理體系基礎知識、環境因素識別與控制，及特定崗位技能培訓，如正確使用規定的環保設施、環保法律與法規、固體廢物處理的知識等。在肇慶及安徽(1)廠區，參與環保培訓的員工分別達1,107及1,628人次，環保“培訓班”合共約280小時。

The Group's training programme and new employee's orientation programme both cover the requirements of environmental protection, which include basic knowledge of the environmental management system, identification and control of environmental attributes and skill training of the specialised positions such as the proper operation of specified environmental facilities, environmental laws and regulations, knowledge for handling of solid wastes, etc. For factories at Zhaoqing and Anhui (factory #1), the number of employees who participated environmental trainings reached 1,107 and 1,628 respectively, and the number of environmental training classes was around 280 hours in total.

## 環保獎項及成就

### Environmental Awards and Achievement

不單在採購及生產過程，集團的產品設計也關注環保概念，符合客戶及使用國當地的環境及相關產品法規要求。本年度下列產品更榮獲國家“工業和信息化部”頒發的「國家綠色設計產品」的獎項：

In addition to procurement and production processes, the design of the Group's products is also concerned with environmental philosophy for meeting customer requirements and those regulations related to environmental and product requirements in the country where the product is used. In this year, the following products were even honoured with the award “National Green Design Product” issued from the “Ministry of Industry and Information Technology” of China:

固定閥控式鉛酸蓄電池DJ500(2V500Ah)

起動用鉛酸蓄電池6-Q-45R(12V45Ah)

牽引用鉛酸蓄電池8PzB400(2V400Ah)

聚能矽高容量電動助力車用鉛酸蓄電池6-

DZF-20

Stationary valve-regulated lead-acid battery DJ500(2V500Ah)

Starter lead-acid battery 6-Q-45R(12V45Ah)

Traction lead-acid battery 8PzB400(2V400Ah)

High capacity automotive lead-acid battery 6-DZF-20

此外，部份廠區更獲得國家機構如“工業和信息化部”所頒發的「綠色工廠」獎項，彰顯集團對環境保護的貢獻。

In addition, some factories were even awarded “Green Factory” by national authorities such as “Ministry of Industry and Information Technology”. This illustrated the Group's contribution to environmental protection.



## 氣候轉變的預備及應對政策

### Preparedness for climate change and response plans

集團明瞭溫室氣體是導致氣候變化的主因，在合適的情況下制定預算，用於改進設施或技術以減少溫室氣體或污染排放；並且致力增加使用潔淨能源（如：天然氣）及可再生能源（如：太陽能）的設施，減少溫室氣體的排放。

The Group is convinced greenhouse gases being the main cause of climate change, and prepares budgets where appropriate to improve facilities or technologies to reduce greenhouse gas or pollution emissions. Also, increase in use of clean energy (e.g. natural gas) and renewable energy (e.g. solar energy) is highly encouraged for reducing greenhouse gas emissions.



氣候變化引致的極端天氣及相關的災害，集團定期評估這些對廠房、其基礎設施及生產流程的下列風險：

廠房及其基礎設施是否位於受氣候變化導致海平面上升威脅的地區（如低海拔沿海地區）；

因應氣候變化所導致的潛在熱浪，對生產過程的影響（如：空調及自動機器的運作）；

廠區是否處於缺水乾旱地區，威脅相關生產過程（如：水冷降溫設備）；

氣候變化是否影響個別物料供應鏈的中斷，影響原材料採購（如價格和數量）；

氣候變化所造成的資源緊張，是否須制定改變材料組合的計劃。

In response to extreme weather and related disasters caused by climate change, the Group regularly assesses the following risks to the plant, its infrastructure and production processes:

Whether the plant and its infrastructure is located in area threatened by sea-level rise due to climate change (e.g. low-altitude coastal areas);

Whether any impact on production processes as a result of potential heat waves caused by climate change (such as: air conditioning and automatic machine operation) ;

Whether the plant is located in water-scarce and arid area, and related production process (such as: water cooling equipment) are threatened ;

Whether climate change may interrupt individual material supply chain which affects procurement of raw materials (e.g. prices and quantities);

Whether resource constraints caused by climate change require plans to change the composition of materials.



對於已識別的極端天氣可能引起的相關緊急情況 (如:水浸),集團建立災害風險管理策略和措施的相關文件,管控生產和倉庫設施附近的水浸風險,制定應急預案,防範因極端天氣造成的破壞,包括安排下列設施及措施:

- 安裝抵禦更高洪水水位的防洪閘板;
- 強化廠房結構,使其更能抵禦超強颱風;
- 於地區較容易受颱風吹襲的營運點,窗戶逐步換上超強力擋風玻璃;
- 於超強颱風發出前,鞏固 (如:使用繩索) 室外的設備或機械;
- 對於廠區接近天然山坡或人造斜坡,作好防護措施 (例如:建設泥石防護壩),以降低山泥傾瀉的破壞。

For those identified emergencies (e.g. water immersion) that may be caused by extreme weather, the Group has established relevant documentation for disaster risk management strategies and measures which control the risk of flooding in the vicinity of production and warehouse facilities, and develop contingency plans to prevent damage caused by extreme weather. They include the following facilities and measures:

- Installation of flood gates to withstand higher flood levels;
- Strengthen the plant structure for enhancing its strength against super typhoons;
- In the region more vulnerable to attacks by typhoons, windows are gradually replaced with ultra-strong glass;
- Prior to super typhoons hoisted, outdoor equipment or machinery are secured (e.g. using ropes);
- Protective measures are taken against the plant in close proximity to natural slopes or man-made slopes (for example: construction of mud and stone protection dam) to reduce the damage caused by landslides.



除了制定預防措施,集團也制定氣候災害發生時的應對策略,包括購買保險,轉移因天災而導致的可能損失;及制定業務持續計劃,當遇到極端天氣導致營運中斷,執行預定計劃以恢復生產及持續營運。

另外,為了確保員工掌握相關防範及應對知識,集團提供防災知識培訓及應急措施培訓:如在颱風前,確保所有窗戶被關閉;並定期檢查窗戶,應對極端天氣。

In addition to developing preventive measures, the Group also develops strategies to respond to climate disasters, including the purchase of insurance to divert possible losses caused by natural disasters, and the development of business continuity plans for implementation of scheduled plans to resume production and continue operations in the event of an extreme weather disruption.

In addition, in order to ensure that employees are knowledgeable about prevention and response measures, the Group provides trainings on disaster preparedness knowledge and emergency response measures: for example, to ensure that all windows are closed prior to a typhoon, and to regularly inspect windows in preparation for extreme weather.

## 環境、社會及管治績效

### Reporting Scope and Communication with Stakeholders



## 社会/Social

### 僱傭 Employment

集團除了遵守業務當地的僱傭條例要求外,亦制定了一系列的僱傭政策,保障僱員獲得公平合理的待遇。

In addition to compliance with employment regulations of the countries where the Group's business is in place, the Group has also developed a series of employment policies to ensure employees entitled to fair and reasonable benefits.

### 招聘及晉升 Recruitment and Promotion

集團確保招聘過程符合國家法例規定,避免出現歧視。集團清晰列明招聘原則:公開招聘、公平競爭、全面考核、擇優取錄。對每位應聘者都平等對待,規定招聘時不得因種族、民族、社會等級、國籍、宗教、殘疾、性別、性別取向、婚姻狀況、年齡、工會會員資格或政黨等原因出現歧視行為,禁止任何形式的歧視女性,特別是懷孕女性。

The Group ensures the recruitment process in compliance with the country's applicable legislations pertaining to discrimination. The Group specifies clearly the recruitment principles: open recruitment, fair competition, comprehensive evaluation and recruitment of the outstanding candidates. Each candidate is given the equal opportunities during recruitment and discrimination is prohibited against race, ethnicity, social class, nationality, religion, disability, gender, sexual orientation, marital status, age, trade union / party membership, as well as prohibiting all forms of discrimination against female, particularly to pregnant women.

集團制定《招聘管理規定》,旨在建立公正和公平的人事招聘和錄用標準,準確地選拔和合理地使用人才。集團現有的員工來自多個省份,僱員的多元化印證招聘決定僅基於崗位元需要與應聘人員的技能要求。

The Group formulates the "Recruitment Management Rules" to define fair and equitable recruitment and hiring standards for selection of the right candidates and reasonable assignment of talent. At present employees of the Group come from various provinces and this diversity of the employees indicates clearly that recruitment decision is purely based on the fulfilment of job requirements by the skills of the candidate.



此外，集團的晉升制度也確保人員的晉升政策公開平等。當有崗位空缺時，各部門負責人提撥具有相應資格能力的人員，人事部門先進行資格審查，對員工的業績、執行能力、出勤情況、貢獻程度進行評估，然後經過測評擇優錄用。集團不會考慮其他跟工作無關的因素，如種族、性別、婚姻狀況等。人事部只根據業績與意願等進行考核，確保有效配對人員與崗位。

In addition, the Group's promotion mechanism ensures that promotion of employees is transparent and fair. When there is job vacancy, candidates with appropriate qualifications and competence are nominated by departmental head. Human resources department will firstly conduct qualification review which covers evaluation of performance, competence, attendance history, and the contribution of the candidate. Right candidate is selected after the aforesaid evaluation and will be promoted after further assessment. The Group will not consider factors that are not job-related such as race, gender, marital status, etc. Human Resources Department only pursues the assessment on historical performance and willingness, etc. for effective alignment between the employee and the position.



## 薪酬與福利 Wages and Benefits

集團制定《工資及福利管理規定》確定員工的薪酬及福利計算方法，對加班人員按法定要求給予補償，及規定其他福利及各項員工權益，包括：法定休假日、有薪年假、有薪產假、為員工繳納社會保險等。另外，員工手冊對事假、年休假、特批假、病假、婚假、喪假、產假、工傷假等都有詳細規定；對特殊貢獻或者重大貢獻的人員更給予特別獎勵。

對於工作達到法定退休年齡的人員，經內部綜合評估後，會根據國家相關法例進行退休手續辦理，協助社會保險的轉移，讓退休人員依法享受相關社福福利。

The Group formulates "Wages and Benefits Rules" to define the calculation approach for wages and benefits. It specifies overtime compensation to employees according to legal requirements as well as other benefits and rights entitled to employees, which include: statutory holidays, paid annual leave, paid maternity leave and payment of social insurance for employees, etc. Moreover, the Employee's Handbook specifies in details for casual leave, annual leave, special leave, sick leave, marriage leave, funeral leave, maternity leave, work injury leave, etc. Special rewards are even given to employees who have made special or significant contributions.

For employees who reach the statutory retirement age, the Group will abide by the relevant legislations to arrange the retirement process after internal comprehensive evaluation, and will support the transfer of the social insurance to enable the retired employees entitle to the relevant social insurance benefits.

集團的《員工手冊》亦規定在合同履行過程中的勞資糾紛，員工可以透過申訴程式向上級或者責任部門提出申訴，一旦申訴失敗也可向行政總經理進一步申訴。

除了一般的員工待遇與福利，部份廠區（如：安徽力普拉斯電源技術有限公司）更成立愛心基金組織，其他廠區向員工發放法規要求以外的非貨幣性福利等。

另外，集團部分廠區更成功考取第三方機構頒發的“SA8000 社會責任管理體系”的認證，認證範圍包含符合僱傭法規及滿足其他員工待遇的要求，這充分顯示廠方在僱傭關係上付出的努力。

Moreover, some factories of the Group have successfully achieved the third-party certification on "SA8000 Social Accountability Management System", of which the certification scope covered the compliance with employment regulations and fulfilment of other offers to employees. This fully demonstrated the efforts of those factories on building the employment relationship.

在報告期內，集團沒有發現或收到有關於歧視或招聘的違規事件及投訴個案。

截至2019年12月31日，本報告所覆蓋的營運區域共有9,184名員工，全體都是全職員工；2019年度各區綜合的每月平均僱員流失率為5.76%，比去年度低了約19%。

The Employee Handbook of the Group stipulates that employees can file complaint through appeal procedure to supervisors or responsible departments about the disputes on the employment contract. Whenever the feedback is not satisfactory, the disputes could be escalated to the Administrative General Manager for further handling.

Apart from the general employees' treatment and benefits, some factory regions (e.g. Anhui Uplus Energy Technology Co., Ltd.) even set up charity funds, while other factory regions provided employees non-monetary welfare on top of the legal benefits.



During the reporting period, the Group did not identify any legal non-compliance or complaint pertaining to discrimination or recruitment.

As of 31 December 2019, the operating regions covered by this report had a total of 9,184 employees and all were full-time employees. From consolidation of all operating regions in 2019, the monthly average employee turnover rate was 5.76%, which was around 19% lower than that of the previous year.



性別 Gender	員工人數 Number of employees	每月平均僱員流失率 (%) Monthly average employee turnover rate (%)
男性 Paper	5,999	5.73
女性 Plastic	3,185	5.92
工作類別 Employment type		
全職 Full-time	9,184	/
兼職 Part-time	0	/
年齡 Age		
18 - 30	2,510	7.65
31 - 45	4,765	4.88
46 - 60	1,894	6.80
> 60	15	8.30
總數 Total	<b>9,184</b>	<b>5.76</b>



## 健康與安全 Health and Safety

集團建立職業健康與安全管理制度，制定有效措施防範員工患有職業病及工業傷亡的發生，並照顧員工的身心健康。

The Group establishes Occupational health and safety management system which formulates effective measures to prevent the occurrence of occupational disease and casualty, as well as to look after the physical and mental wellness of the employees.

## 工作場所的管理 Workplace Management

集團按照OHSAS18001標準建立職業健康與安全管理體系，識別各操作工序危險源並進行評估，制定相應的控制方案。此管理體系確保工作環境符合法例及相關健康與安全的要求，對不合法例及相關要求由責任部門督促在限期內整改。並制定應急預案對應火災、職業危害事故、災難性事件及化學品相關事故，例如：鹽酸、丙酮、氧氣、氫氧化鈉等現場處理及棄置方案。

The Group adheres to OHSAS18001 standard to establish the occupational health and safety management system, which identify and assess the sources of hazards in various operation processes and formulate the corresponding controls. This management system ensures the working environment complies with the legislations on the health and safety requirements, and the designated departments rectify any non-compliance in the specified time frame. Also emergency plan is formulated for fire, occupational hazards, disasters as well as incidents related to chemicals, such as the plan for site management and disposal of hydrochloric acid, acetone, oxygen, sodium hydroxide, etc.

集團致力提供安全的工作場所，包括引入合適的生產設備；如所有工廠都採用輥剪設備，取代手工分刷板，既提升了員工作業安全效果，也降低了職業危害暴露。

The Group is striving to provision of a safe workplace, including the installation of the appropriate production equipment. For example, all factories adopt roller shearing devices instead of manual counterparts, this enhances safety effectiveness of employees' operations and concurrently mitigates the exposure to occupational hazards.

生產廠房安裝了換新風系統，並安排所有可能產生廢氣與煙塵的工序都在風罩下操作。這些崗位人員都需佩戴防塵口罩，以減少員工吸入的危害；同時產生廢氣的設備都安裝了集氣罩並連接環保設備如：鉛塵與鉛煙淨化器、酸霧中和塔等，防止廢氣排放到大氣對公眾的危害。



Production plants are installed with fresh air supply system, also all processes which may potentially generate exhaust gases and dusts are operating under exhaust ventilation facilities. Employees in these positions are required to wear masks for minimising the hazards from inhalation. In addition, equipment that generates exhaust gases is installed with fume hoods which are connected to environmental protection facilities such as lead dust and lead fume purifier, acid fume neutralizer, etc. This approach prevents the emission of exhaust gases to the external atmosphere which may cause hazards to the public.



化學品倉庫設置了通風、防爆燈、可燃氣體報警儀、消防等設施。並在化學品接觸區域張貼安全標籤、《物料安全數據表 (MSDS)》及現場處理及棄置方案。

集團定期監控工作環境的安全情況，包括定期對生產廠房內有害物質濃度(如鉛、酸)進行監測，並張貼監測結果。每年為員工進行職業健康身體檢查，識別職業病的發生，以確認工作場所安全和管理完善。本年度安排參與體檢的員工達9,344人次，當中沒有確診職業病的個案；參與員工類別包括高溫、高噪音、加酸、接觸酸霧、鉛煙、鉛塵、及其他涉鉛等崗位。

集團亦會監測廠房各工序的噪音水準，在噪音可能超標的崗位，要求操作人員及進入的訪客全部佩戴耳塞。

在報告期內，集團沒有發現違反業務當地職業健康及安全相關的法例。同期，也沒有發現因工作關係而死亡的事務；因工傷而損失的工作日數則有2,094天。

## 員工安全設備與培訓

### Provision of protective equipment and training to employees

集團為員工配發崗位所需的防護用品，例如各種防鉛塵/煙的口罩、防砸鞋、護目鏡等，並要求所有在廠房操作與進入廠房的人員都必需佩戴合適的個人防護用品。

集團制定《勞動防護用品管理規定》規範各工序必須佩帶的勞保用品的標準，勞保用品使用區域，及在各崗位的勞保防護用品的配置方法。

Chemical warehouses are equipped with ventilation system, explosion-proof lighting, flammable gas alarm, fire equipment, etc. Safety label, Material Safety Data Sheet (MSDS), site management and disposal guidelines are also posted in areas where chemicals are in place.

The Group regularly monitors the safety conditions of the workplace environment; this includes the regular monitoring on the concentration of hazardous substances (such as lead, acid) in the production plants, and posting of the monitoring results. Annual occupational health examination is arranged to employees for detecting occurrence of any occupational disease and confirmation of comprehensive workplace safety management. In this year the counts of health examination to employees reached 9,344, from which no case of occupational disease was diagnosed. The participated employee types included high temperature, high noise level, acid addition, exposure to acidic mist, lead fumes, lead dust as well as other lead-contacting positions.

Also, the Group monitors the noise level in various processes within the production plants; for positions where noise level may exceed the standard, workers and visitors are required to wear earplugs.

During the reporting period, the Group did not identify any legal non-compliance against the relevant occupational health and safety regulations in the regions of operation. In the same period, there was no fatal work-related incident while the number of work days lost from work-related injuries was 2,094.

The Group provides employees with protective equipment required for the positions, for example, various masks against lead dust/smoke, anti-smashing shoes, goggles, etc. All workers and visitors within the production plants are required to wear the appropriate personal protective equipment.

The Group formulates "Regulations on the Management of Protective Equipment at Workplace" to standardise the specifications of the required protective equipment in various processes, the areas where protective equipment to be used, and the way by which the protective equipment is deployed.

集團更為員工提供職業健康及安全培訓，包括職業病防治宣傳、安全生產培訓等，使員工理解所處環境的潛在危害及相關的規避方法，例如對接觸化學品的員工安排相關培訓，讓他們瞭解化學品安全標籤及應急措施等。於2019年，本報告所覆蓋的營運區域共有35,660人次參與安全培訓，所舉辦的安全培訓活動合共1,588小時；培訓範圍包含安全生產與職業健康防護，讓員工瞭解和熟悉車間生產流程及安全隱患，提高防護意識，以降低環境安全危害及工傷事故。

## 工作與生活的平衡

### Work and Life Balance

集團建立考勤及社會責任制度以規範員工權益與作息時間，藉此控制加班安排，規定不得以任何形式強迫員工加班工作，而員工加班必須本著自願申請的原則，使員工有時間兼顧家庭生活，達至生活與工作的平衡。

此外，集團提供康樂活動場所給員工，並不定期組織員工活動，協助員工舒緩工作壓力，保持身心健康。於2019年，本報告所覆蓋的營運區域共舉辦了61場娛樂活動，參與員工約12,300人次；活動主題包含生日會、節日慶祝、文藝及體育活動等。

The Group provides employees with occupational health and safety training, including promotion for prevention of occupational diseases and safe production training, which enables them aware of the potential hazards in their workplace and the relevant risk mitigation measures; for example, arrangement of training to employees who handle with chemicals to ensure they understand the safety labels of chemicals and the emergency response plans. In 2019, the counts of employee safety trainings amongst the operating regions covered by this report was 35,660, and the duration of training activities amounted to 1,588 hours in total. The trainings covered safe production and occupational health protection to ensure employees familiarise with the production flow and safety risks, with the aim to raise the protective awareness for lowering the safety hazards in the workplace and work-related injuries.

The Group establishes attendance and social accountability systems to standardise the rights of the employees and their rest schedules. These control the overtime work arrangement and prohibit the forced overtime work in any form. Overtime work must be taken voluntarily by employees and this enables them sufficient time for family activities for achieving the balance between their work and private lives.

Moreover, the Group provides employees with recreational areas and organises activities for employees to help them alleviate work pressure and maintain their physical and mental wellness. In 2019, the Group has arranged a total of 61 recreational activities amongst the operating regions covered by this report. Count of the participated employees was around 12,300, the themes of activities included birthday parties, festival celebrations, cultural and sport activities, etc.





## 發展及培訓 Development and Training



集團針對不同部門的需要而制定年度培訓計劃，新員工入職時會按照其岗位要求提供特定培訓，並要求員工通過培訓考核，確保新員工能獨立勝任崗位。

集團的全體人員都要接受【公司基礎培訓(入職培訓)】和【崗前基礎培訓(上崗培訓)】，並根據需求參加【在職提高培訓(在職培訓)】。

【公司基礎培訓(入職培訓)】內容的深度，可視崗位而有不同的制定，在入職培訓計劃表中說明。一般的公司基礎培訓(入職培訓)內容包括企業概況(如：組織架構、產品及技術概況)，體系基礎(如：ISO9001、ISO14001、OHSAS18001、SA8000、IATF16949)及行為準則(如：基本規章制度、行為規範)。

【崗前基礎培訓(上崗培訓)】內容通常包括：相關規章制度、操作指南、工作流程、操作技能、職業防護與安全生產、設備保養等崗位有關的知識和技能。各部門都根據崗位任職要求對新員工進行崗前基礎培訓。

The Group formulates annual training programmes according to the specific needs of various departments. New employees are required to attend the specific training required for the positions and to go through the training assessment. This ensures the new employee has the competence to complete task independently.

The Group requests all employees to attend Corporate Fundamental Training (Induction Training) and Pre-assignment Basic Training (Position's Skill Training), and where necessary the On-the-job Enhancement Training (On-the-job Training).

Corporate Fundamental Training (Induction Training): the depth of details may vary from positions to positions and this will be defined in the induction training plan. The Corporate Fundamental Training (Induction Training) generally includes company overview (example: organisational structure, products and technologies), management system fundamentals (example: ISO9001, ISO14001, OHSAS18001, SA8000, IATF16949), and code of conduct (example: company's rules and regulations, code of practices).

Pre-assignment Basic Training (Position's Skill Training): it generally includes knowledge and skills that are relevant to the positions such as the applicable rules and regulations, operation guidelines, workflows, operating skills, occupational safety, safety production and equipment maintenance, etc. Each department is required to deliver Pre-assignment Basic Training to new employees in accordance with the job requirements.

【在職提高培訓(在職培訓)】的安排是為更新、擴展員工知識面、提升任職能力與管理水準、增進工作效率或準備職務晉升。

培訓的執行模式按照各區需求及／或年度培訓計劃而制定，可以每日早會部門培訓、特定培訓班、現場指導、或其他混合模式進行。

集團根據員工意願、能力潛質和業務發展需要，採用晉升與調動等方法，讓公司與員工個人共同發展。集團制定《員工調整管理辦法》確定員工的晉升和崗位調整準則，並促進員工的職業發展。此外，集團制定內部職稱評定方案給研發、技術、設備、品質、安全、環保、售服等相關崗位，識別員工的發展與培訓需求。

每年年底，集團都會進行員工培訓需求調查，範圍覆蓋晉升與調動的需要，並確定不同崗位員工的培訓需求，以制定和實施下個年度的培訓計劃。

在本報告所涵蓋的營運區域，於2019年綜合各區受訓僱員的每月平均比例約85%；每名員工之每月平均培訓時數是3.84小時。

On-the-job Enhancement Training (On-the-job training): it aims to update and extend the knowledge of the employee, enhance the competence and management skills, improve the work efficiency or prepare for the employee's promotion.

The mode of training execution would be varied and defined in response to the regional needs and /or the annual training plan. This could be the daily departmental morning meeting, the specified training class, onsite coaching, or other modes of combination.

According to the employee's willingness and potential as well as the business development needs, the Group makes use of promotion and job transfer to enable synergy in development of both the Group and employees. The Group formulates "Regulations on Mobilisation of Employees" to define the criteria for promotion and job transfer and this facilitates the career development of employees. Moreover, the Group formulates internal competence evaluation scheme to employees in functions of R&D, technology, equipment, quality, safety, environmental protection, after-sale service, etc. in order to identify the development and training needs of these employees.

At the end of each year, the Group conducts survey in the training needs of the employees. It covers the needs for promotion and job transfer, also ascertains the training needs of different positions so as to formulate the training plan in the following year.

From consolidation of data in the year 2019 of the operating regions covered by this report, the monthly average proportion of employees trained was around 85%, and the monthly average number of training hours per employee was 3.84 hour.

性別 Gender	受訓僱員的總人次 Total number of employees trained	受訓僱員的每月平均比例(%) Monthly average proportion of employees trained (%)
男性 Male	62,076	85.40
女性 Female	37,507	85.59
僱員級別 Employee category		
高級管理層 Senior management	1,961	98.00
中級管理層 Middle management	7,265	98.34
初級員工 Junior staff	90,357	84.66
<b>總數 Total</b>	<b>99,583</b>	<b>85.45</b>

性別 Gender	僱員培訓總時數 (小時) Total number of employee training hours (hours)	每名僱員的每月平均培訓時數 Monthly average number of training hours per employee
男性 Male	353,146	3.82
女性 Female	209,839	3.92
僱員級別 Employee category		
高級管理層 Senior management	16,430	5.04
中級管理層 Middle management	54,765	5.31
初級員工 Junior staff	491,043	3.76
總數 Total	562,238	3.84

## 勞工準則 Labour Standards

集團規定禁止使用童工(未滿16歲的未成人),並通過驗證身份證等方法防止誤聘童工。集團嚴禁與任何故意使用童工的供應商合作。

人事部定期抽查員工的實際年齡,鼓勵員工舉報使用虛假身份證入職本公司的事件,盡早發現因任何原因進入公司的童工。集團一旦發現童工,將立即停止其工作,指定專人負責遣送該童工到醫院接受身體檢查。若該童工確認身體健康,經勞動部門同意後,將安排專人送返其父母住處。集團將調查誤聘童工的原因,採取有效的措施杜絕類似事件。

The Group prohibits using child labour (young people below 16 years of age). Measures are in place to prevent the employment of child labour by checking their identity cards during recruitment. The Group forbids the engagement with any supplier who intentionally uses child labour.

Human Resources Department regularly performs sample check on the actual age of employees. Employees are encouraged to report any incident of using fake identity card during recruitment so as to discover any unknown child labour as early as possible. In event of child labour discovered, the Group will terminate his/her duties and send him/her to the hospital for medical examination. Given the good health of child labour confirmed from hospital and consensus granted from the local labour authority, the Group will designate person to send the child labour back to the place where the child's parents reside. Also the Group will investigate the reason behind the unintentional employment of child labour and take effective measures to prevent its recurrence.

集團亦制定控制程式禁止任何強迫性勞動,確保員工在自願的基礎上工作,並規定了員工申訴的途徑。強迫性勞動包括:在僱用期間收取員工抵押金或抵押物、扣押身份證件、扣押工資、違反員工意願的加班、抵債勞動、以暴力與威脅或非法限制人身自由的做法等。

集團建立員工意見收集箱或透過工會代表等申訴管道,給員工有機會反映其在工作上的意見及感受。如發現有強迫性勞動時,集團向員工進行調查及收集意見後,與管理層進行討論並共同尋求解決方法。

在報告期間,集團未有發現聘用童工或違反強制性勞動相關法例的個案。

The Group formulates control procedure to prohibit all forms of forced labour. This ensures the employees to work on voluntary basis and also provides the approach for employees to file the related complaint. Forced labour includes: requesting of deposits or collateral during employment, detention of personal identification document with the employer, withholding of wages, involuntary overtime work, bonded labour, and practices to force working by using violence, threat or other illegal restriction of personal liberty.

The Group collects opinions from employees through establishment of suggestion box and appealing channels via the trade union representatives, etc. These provide employees the opportunities to provide feedback about the jobs. In event of forced labour discovered, the Group will conduct investigation and collect opinion from the employee, then discuss with the management to seek for the resolution.

During the reporting period, the Group did not identify any employment of child labour or any legal non-compliance pertaining to forced labour.

## 供應鏈管理 Supply Chain Management

集團制定《供應商評審控制程序》規定供應商的挑選準則及供應商須遵守的要求。

集團要求供應商的材料符合相關環保法例如RoHS的要求,供應商須定期提供物料的有害物質檢測報告以證明其持續合規狀況。

在篩選新供應商時,除了對供應商進行品質、成本等商業要求的評估,還須審核供應商的環保與社會責任績效,且供應商必須簽訂《環境保護協議書》與《社會責任協議書》,承諾對相關要求的符合。

對現正合作的供應商,集團定期對他們的產品品質狀況、交貨及時狀況、配合度、技術創新等方面進行績效評審;整體來說,本年度約有50%的現有供應商經過評估。

The Group formulates "Supplier Evaluation Procedure" to specify criteria for supplier selection and the requirements that the suppliers need to abide by.

The Group requires materials from suppliers comply with the environmental related regulations such as RoHS. Suppliers are required to submit regularly reports of testing the amount of hazardous substances in the supplied materials for demonstrating the continued compliance status.

During the selection of new supplier, supplier's performance in environmental protection and social responsibility will also be reviewed in addition to the evaluation of commercial requirements such as quality and cost. Supplier must sign the "Agreement for Environmental Protection" and "Agreement for Social Responsibility" for acknowledging commitment to the compliance with relevant requirements.

For existing suppliers, the Group regularly conducts performance evaluation on their aspects of product quality, on-time delivery, coordination and technological innovation, etc. Overall speaking, around 50% of existing suppliers have gone through supplier evaluation in this year.



因應不同的供應商物料涉及不同風險等級，在原則上將採用不同嚴格程度的評估，比如送檢測樣板的頻率、物料有害物質檢測報告所要求的內容可因應不同風險等級而有所差異，部分物料必須通過環保檢測（如：RoHS, REACH）。對有污染環境風險的材料（如：化工類、電鍍類），甚至可考慮做環境管理審核；本年度關於環保績效的供應商評估數目共有130。

按照風險評定標準，將供應商進行風險分類及評定等級。根據評定的風險等級，對供應商制定相應的年度評估計劃；評估可以通過電話、檔及記錄、或現場巡查等方式進行；在必要時可要求供應商在整改後接受重新評估。針對重要的採購物料，包括鉛、酸、隔板等，相關的供應商在核准前需進行社會責任審核；而且有審核條款規定：未能通過審核，無法成為合格供應商。在鉛回收營運中，採購原材料的過程是從個人採購廢舊電池，被審核的供應商一般屬於資產供應商，提供設備及建築工程服務等。

評估結果會具體地記錄（如以分數標示），及指示所需要的跟進行動，給供應商適當期限執行整改措施；若滿期限供應商仍未能達到規定的評估要求，集團不予它們准入《綠色合格供應商名單》，及不允許向名單以外的供應商進行採購。成為合格供應商的企業，若在核准時認為有潛在風險，集團更會考慮在採購開發時與供應商簽訂“社會責任承諾書”及“職業健康安全責任書”。

集團明瞭溫室氣體是導致氣候變化的主因及海外採購的交通運輸會導致額外的溫室氣體排放，因此致力提高本地採購，本年度集團有超過400家供應商，99%以上的都來自本地（中國境內），協助緩解氣候變化的影響。

Different supplied materials are assigned with different risk ratings, consequently the depth of supplier evaluation will vary accordingly in response to the risk ratings; for example, frequency of sample submission for testing and the required report content of hazardous substances testing may vary according to different risk ratings, some materials must require to pass through environmental test (example: RoHS, REACH). For materials which impose risks of environmental pollution (e.g. chemical, electroplating types), environmental management audit may even be considered. In this year, the number of supplier evaluation pertinent to environmental performance reached a total of 130.

According to the risk assessment criteria, suppliers are categorised into different risk levels and assessment ratings. In response to the defined risk level, annual evaluation plan is developed for the supplier. Evaluation could be proceeded through phone, document and record, or onsite visit, etc. Where necessary, supplier is subject to re-evaluation after implementation of corrective actions. For important procured materials, including lead, acid, separation plate, etc., relevant suppliers are required to proceed social responsibility assessment before approval. Moreover, the audit requirements stipulated that supplier could not be eligible if not able to pass through the audit. In the lead-recycling operation, raw materials are procured from scrap batteries through personal means. The suppliers being evaluated are generally those asset providers, which provide equipment and construction engineering services, etc.

Evaluation results will be recorded in detail (for example illustrated by scores) and indicate the required follow-up actions requesting the supplier to take corrective actions within the appropriate timeframe. For those suppliers who still could not fulfill the specified evaluation requirements by the defined timeline, the Group will prohibit the entitlement of their names in “List of Green Qualified Suppliers”, and forbid any procurement from suppliers who are out of the List. Being approved suppliers, when potential risk is identified during the evaluation, the Group may even consider to sign with them the “Social Responsibility Commitment” and “Occupational Health & Safety Responsibility Commitment” at the time of engaging procurement.

Understood greenhouse gases being the main cause of climate change and transportation of overseas procurement will lead to additional greenhouse gas emission, the Group is striving to enhance the local procurement. In this year the Group has over 400 suppliers, amongst which 99% or above came from the local region (mainland China). This implementation supported the mitigation of the impacts from climate change.

## 產品責任 Product Responsibility

集團按照ISO9001及IATF16949標準實施品質管理體系，從來料到出貨的各環節均保證產品品質符合客戶要求，及產品性能均達到適用的國家和行業標準。電池成品須經過相關測試，滿足品質條件後才允許出貨。

The Group adheres to ISO9001 and IATF16949 standards in the implementation of quality management system, which assures the quality compliance with customer requirements during the stages from receipt of raw materials to product delivery. Also it assures the fulfilment of product functionality to the applicable national and industry standards. All battery finished products are approved for delivery only after they passed all relevant testing and met the quality standards.

此外，集團亦按照ISO14001環境管理體系進行生產，確保鉛酸蓄電池內的鎘和砷含量符合鉛蓄電池行業規範的相關要求。同時，集團清楚識別產品所用物料（含零部件）的環境管理物質風險等級和供應商風險等級，確保有環保要求的產品（符合電池法令）所配套採購的物料都符合歐盟RoHS的規定要求。

## 產品之合規設計 Compliant Product Design

在產品設計階段會充分參考適用的國際、國家標準，進行FMEA分析，確保達到安全要求。



ISO9001質量管理體系證書  
ISO9001  
Quality Management  
System Certificate



IATF16949質量管理體系證書  
IATF16949  
Quality Management  
System Certificate

In addition, the Group adheres to ISO 14001 environmental management system for manufacturing. It assures the amount of cadmium and arsenic in the lead-acid battery complies with relevant requirements in the industry standards of the lead-acid batteries. Moreover, for environmental management of all materials (including the components) in the products, the Group clearly identifies the risk ratings for both the restricted substances and the associated suppliers. This ensures the materials procured for the environmental products (in compliance with battery directives) fulfil the EU RoHS specified requirements.

At the product design stage, applicable international or national standards are considered to the full extent. Together with FMEA analysis, it ensures the applicable safety requirements are fulfilled.

在新產品開發時，對產品可靠性進行測試，合格才能投入生產；生產過程中定期抽樣進行可靠性週期監測，以確保產品安全可靠。按照各相關國家對產品安全的要求，申請相關的安全認證（如：UL、CE、CQC），確保產品安全性符合相關國家要求。

此外，集團積極開發新技術，部分技術已向“中國國家知識產權局”註冊；在報告期內，合共註冊了177項專利。

通過從設計及原材料選用、程式控制等方面嚴格管控有害物質，確保產品符合環保要求，如電池可接觸部分，ABS、絲印油墨、電池標籤、外置的連接線，必須符合RoHS要求。每年都會委託協力廠商實驗室檢測產品的環保特性，務必符合電池法令的要求。

在2019年，集團從多個機構獲頒與產品技術相關的獎項，展示行業及相關機構的認可，證明集團出產的成品有良好質素及生產技術上的成就。

For new product development, product reliability test is conducted and only pass result will trigger the mass production. During the production process, periodic sampling is conducted to monitor reliability for assuring safe and reliable products. According to the product safety requirements of the relevant countries, safety certification (for example, UL, CE, CQC) is applied to ensure the compliance of product safety to the relevant national requirements.

Furthermore, the Group is dedicated to exploration of new technology, and some technologies have registered patents from “National Intellectual Property Administration, PRC”. During the reporting period, a total of 177 patents has been registered.

Through product design, selection of raw materials, process control, etc., hazardous substances are strictly controlled to ensure the products in compliance with the environmental requirements; for example, RoHS compliance at the battery's accessible parts, ABS, inks for silk screen printing, battery labels and external connection cords, etc. Third-party laboratory is appointed annually to test the environmental attributes of products for assuring the compliance with the battery's directives.

In 2019, the Group has attained awards from multiple institutions pertinent to product technologies, this illustrated the recognition by the industry and the related institutions, and proved the Group's achievement in the good quality of the delivered products and the associated production technologies.

獎項名稱 Name of Award	頒發機構 Awarding Authority
中國輕工業鉛蓄電池行業十強企業（總排名：3） Top 10 Enterprises of Lead-Acid Battery Industry in China Light Industries (Ranked no. 3)	中國輕工業聯合會、中國電池工業協會 China National Light Industry Council, China Battery Industry Association
2019年安徽省重點研究與開發計畫專案 ——電動工業車輛新型動力電池產業化關鍵技術開發專案 2019 Anhui Focus Research and Development Project Plan – Electric industrial vehicles new-model power battery industrialization critical technological development project	安徽省科技廳 Anhui Science and Technology Department
《降低連接線製造不良率》課題榮獲2019年省品質小組二等品質成果獎 “Lowering production defect rate of connecting wires” topic – second class quality achievement award of 2019 provincial quality group	安徽省品質管制協會 Anhui Quality Control Association
《美國鋼殼電池100Ah板柵結構創新設計》課題 榮獲2019年省品質小組三等品質成果獎 “American steel-case battery 100Ah grid structure innovation design” topic – third class quality achievement award of 2019 provincial quality group	安徽省品質管制協會 Anhui Quality Control Association

## 產品之公平宣傳 Fair Promotion of Products

集團制定《商業道德規範控制程序》堅持競爭的公平原則，承諾拒絕假冒、混淆、虛假宣傳、商業賄賂等不正當的商業競爭行為。

集團確保在宣傳資料上公開的產品參數與提供給客戶的產品資料，都是基於產品的測試結果，而產品都經過國家相關認證，確保產品參數真實可靠。

The Group formulates the “Business Ethics Control Procedure” to uphold the principle of fair competition, and to commits not to engage improper business competitive behaviours such as fake, confused or false promotion, and bribery.

The Group ensures both product parameters disclosed on the promotional materials and product information provided to the customers are based on the test results of the products. Also the products have achieved the relevant national certifications to ensure the product parameters are true and reliable.

## 售後服務 After-sales Services

集團會根據客戶要求制定與客戶配套的售後服務，比如對維修電池可提供上門服務；為客戶購買的產品提供保質期；對超出保質期的電池，集團會定期向客戶回收舊件。

集團建立專門的售後服務團隊對客戶提供技術支援，包括產品安裝、維護及更換。

The Group develops after-sales services specific to the requirements of the customers; such as on-site servicing for malfunctioned battery; provision of warranty period to customers for the purchased products; and for batteries used beyond the warranty period, the Group would collect from customers the old batteries on a regular basis.

The Group established a dedicated after-sales service team for technical support which covers product installation, maintenance and replacement.





## 質量檢定過程

### Quality Assurance Process

集團制定完善的質檢過程，包括來料檢驗標準、制程檢驗規程，及成品出貨檢驗標準。相關的電池成品出貨檢驗標準旨在確保鉛酸蓄電池符合國家與行業標準或客戶的出貨要求。集團在廠內設有實驗室，通過集團內部的測試確保符合相關的出貨要求。

集團通過從設計、原材料選用、程序控制等方面嚴格管控有害物質，確保產品符合環保要求，委託第三方實驗室檢測產品符合電池法令的環保特性，如檢測原材料滿足RoHS法令對鉛、汞、鎘、六價鉻、多溴聯苯、多溴聯苯醚的限量要求；並通過制程管控，達到成品電池符合電池法令中對鉛、汞、鎘等有害物質的要求。

集團對重要原材料進行環保符合性驗證，並要求供應商定期提供材料的有害物質檢測報告，以證明材料符合相關環保法例如RoHS的要求。對RoHS有害物質含量超標的物料，相關部門會拒收，進行標識並隔離。

此外，集團依照國家標準和客戶要求定期抽取產品送到第三方實驗室進行測試，檢測產品符合電池法令的環保要求，及產品性能達到適用的國家和行業標準。

集團也制定產品回收的程序，以處理因產品安全與健康理由而須回收的產品。

The Group formulates comprehensive quality assurance process which includes standards for incoming quality check on materials, in-process inspection and testing procedure, and pre-shipment inspection and testing specifications for finished products. Relevant pre-shipment inspection and testing specifications for finished products aim to ensure lead-acid batteries fulfil the national and industry standards or delivery requirements from the customers. The Group has set up laboratories within production plants to proceed internal testing for assuring the product compliance with the relevant delivery requirements.

The Group strictly controls the hazardous substances through design, selection of raw materials, process control, etc., which ensures the product compliance with the environmental requirements. Third-party laboratories are appointed to test the compliance of environmental attributes as defined in the battery's directive; for example to test raw materials against the RoHS directive on the restricted amount in lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers. Moreover, process control is in place to assure the finished batteries in compliance with the battery's directive on the requirement of restricted substances such as lead, mercury, and cadmium.

For demonstrating material compliance with relevant environmental legislations such as RoHS, the Group conducts environmental compliance verification on the important raw materials and requires suppliers to regularly provide reports of hazardous substances testing. For those materials that contain hazardous substances higher than the RoHS specified limit, relevant departments will reject the materials, label and segregate them.

In addition, the Group conducts product sampling regularly in accordance with the national standards and customer requirements. The samples will be sent to third-party laboratories for testing the product compliance against the environmental requirements in the battery's directive, as well as for verifying fulfilment of product functionality to the applicable national and industry standards.

The Group has also established product recall procedure, for handling of those products to be recalled owing to product's safety and health reason.

## 客戶投訴與意見處理

### Handling of Customer Complaints and Feedback

集團制定《顧客投訴控制程序》以回應客戶投訴，跟投訴相關的產品會按《不合格品控制程序》處理，並採取糾正措施，以消除不符合產品或服務的原因，防止相同事件再次發生。

集團亦制定《顧客滿意控制程序》收集並分析客戶回饋與意見，對客戶滿意度進行調查，確認客戶服務的改善機會。

在報告期內，集團未有發現違反產品責任相關法例的個案及客戶投訴。同期，在已售或已運送的貨品中，未有發現因產品安全與健康理由而須回收的個案。

The Group formulates "Customer Complaint Control Procedure" to respond to the customer complaints. Those products related to the complaint will be handled in accordance with the "Nonconforming Product Control Procedure". Corrective actions will be taken to eliminate the cause of the non-compliant product or service for prevention of recurrence.

The Group also formulates "Customer Satisfaction Control Procedure" to collect and analyse the feedback and opinions from customers. It proceeds investigation on customers' satisfaction and identifies opportunities for improvement in the customer service.

During the reporting period, the Group did not identify any legal non-compliance or customer complaint pertaining to product responsibility. In the same period, amongst the products being sold and delivered, there was no incident of product recall because of product's health and safety reason.

## 知識產權的維護

### Protection of Intellectual Property

集團制定《顧客財產控制程序》對客戶的知識產權及個人私隱信息進行妥善保管。知識產權包括顧客的規格文件、圖紙、產品、及其他無形資產。採用文件控制機制有系統地管理顧客的文件、圖紙與其他資訊，只有獲得授權人士才能取閱。若須對顧客財產複製、借出等，必須先徵得顧客的書面許可。

此外，管理人員入職時須簽訂《職業道德規範及智慧財產權約定書》，約定書範圍包括保密條款及競業禁止條款及要求員工承諾：嚴格遵守發言及訊息披露制度，禁止將商業機密轉交予任何第三者，不得為自己或他人的利益直接或間接使用集團的知識產權。

The Group formulates "Customer Property Control Procedure" to properly maintain the intellectual property and privacy information of the customers. Intellectual properties include specifications, drawings, products and other intangible assets of the customers. Document control mechanism is in place to manage in a systematic way those documents, drawings and other information of customers, which can only be accessed by authorised persons. Moreover, prior written consent from the customers is required for replication and borrowing of their properties.

In addition, management personnel are required to sign the "Code of Ethics and Agreement for Intellectual Property Rights" at the time of their recruitment. The Agreement covers the terms and conditions for confidentiality and competition business, in which employees are required to commit : in strict compliance with the mechanism for public speech and information disclosure; prohibition to transfer of business confidential information to third party; forbidden in neither direct nor indirect use of the Group's intellectual property for exchange of benefits of the employee himself/herself or others.



集團在知識產權的管理，更獲得政府及相關機構的獎項及認證，譬如肇慶廠區獲取GB/T 29490-2013知識產權管理體系的認證；安徽（1）廠（力普拉斯廠區）獲得“國家知識產權局”頒發「國家知識產權優勢示範企業」的獎項等，彰顯集團在知識產權方面的嚴謹管控。

In the aspect of intellectual property management, the Group was awarded and certificated by government and relevant institutions, for example, Zhaoqing factory was certificated on GB/T 29490-2013 Intellectual Property Management System, and Anhui factory #1 (Anhui Uplus Energy Technology Co., Ltd.) was awarded “National Intellectual Property Leading Demonstration Enterprise” from “National Intellectual Property Administration, PRC”, these illustrated the strict control on intellectual property aspect by the Group.

## 反貪污 Anti-corruption

集團制定《商業道德規範控制程序》的要求，與員工、供應商分別簽訂廉潔協議。此外，亦制定了《反商業賄賂程序》，整體內容包括合法經營、避免利益衝突、公平競爭等。

### 道德規範

#### Code of Ethics

集團要求所有員工應遵守商業道德，員工不得索取或者收受不恰當的酬金。

管理人員入職時即簽訂《職業道德規範及智慧財產權約定書》，約定書範圍包括職業道德準則：承諾絕不與集團的交易對象約定或索取任何賄賂或其它不正當利益，包括但不限於回扣、佣金、不當饋贈或招待；避免工作中的利益衝突；合法經營；保護並合理利用公司資產；公平競爭等。

The Group formulates the “Business Ethics Control Procedure” which requires both employees and suppliers to sign the agreement for integrity. In addition, the “Anti-Corruption Procedure” is also formulated to cover lawful business, avoidance of conflict of interests, and fair competition, etc.

The Group requests all employees to abide by the business ethics, employees must not ask for or receive any improper compensation.

Management personnel are required to sign the “Code of Ethics and Agreement for Intellectual Property” at the time of their recruitment. The Agreement covers the criteria for business ethics: commitment not to agree with or request from the Group's business partner on bribes in any form or other improper benefits, which include but not limited to rebates, commissions, improper gifts or hospitality; avoidance of conflicts of interest at work; lawful business; protection and appropriate use of the company's assets; fair competition, etc.

為了保持實踐上述程序及規範的有效性，本年度集團繼續提供員工培訓，主題按照各廠區的情況，包含商業道德、反商業賄賂、預防職務犯罪、公司治理等反貪污相關內容；於2019年，本報告所覆蓋的營運區域共有13,677人次參與相關培訓，舉辦的培訓班合共638小時；當中給予董事的培訓參與人次達159，相關董事培訓活動時數共15小時。

## 防貪採購管理 Anti-corruption Procurement

集團在採購合同中訂立廉政交易條款，內容包括賣方不得為推銷交易物、擴大交易份額、提高交易價格，因而壓低品質、虛報數量、或對買方人員請客、送禮、提供回扣、佣金、有價證券、娛樂或其它形式的腐敗利益。

根據採購的訂單金額或不同類別，由不同級別的管理人員審核，加強採購過程中的監督。

在招標的過程上，資訊必須公開發佈，並確保公佈的資訊是準確及真實，使招標程序符合「公平、公開、公正」的完善機制。

For maintaining effective implementation of the abovementioned procedures and practices, the Group continued to provide employee trainings in this year. The themes varied according to the specific situation of various manufacturing regions, the trainings included the topics related to anti-corruption, e.g. business ethics, anti-bribery, prevention of job-related crime, corporate governance. In 2019, as consolidated from the operating regions covered by this report, there was a total of 13,677 participants in the related trainings, and the organized training classes amounted to 638 hours. For those related to directors amongst the aforesaid trainings, there was a total of 159 participants and the related training activities amounted to 15 hours.

The Group sets out the integrity terms & conditions in the procurement contract, which include seller shall not lower the product quality, falsify the volume or give bribes to buyer in the form of hospitality, gifts, rebates, commissions, securities, entertainment, or other corruption for the benefits of product promotion, increase of trading volume and selling prices.

According to the contract amount and categories in the procurement contract, the review and approval of contract is conducted by different levels of the management personnel to strengthen the supervision of the procurement process.

For open tendering, information must be made public and such disclosed information shall be accurate and true. This ensures the tendering process is conducted in a fair, open and equitable manner.





## 舉報程序 Whistle-blowing Procedure

集團制定了《員工投訴控制程序》，員工可通過總經理信箱、電話及當面交流等途徑向集團高層管理者告密及投訴，集團保護告密者的個人私隱和相關權利。在報告期內，本報告所覆蓋的各營運區域共收到9宗舉報，全部個案已於2019年內完成調查，並確認沒有違規事件。

為了保障員工的合法權益，維護企業整體利益並及時發現和處理隱患問題，集團監督各規章制度及執行人員在過程中的行為，故申訴內容可包括貪汙、賄賂、舞弊違法、欺詐勒索及其他違反誠信的事件。

The Group formulates the "Employee Complaint Control Procedure" and employees are allowed to complain or report in a confidential manner to the Group's senior management through the General Manager's letterbox, telephone, and face-to-face communication, etc. The Group protects the personal privacy and the related rights of the whistleblower. During the reporting period, a total of 9 incidents was reported amongst all operating regions covered by this report. All these incidents have been completed the investigation in 2019 and no legal non-compliance was identified.

For protection of the legitimate rights of employees, enterprise interests and timely identification and handling of potential issues, the Group supervises the enforcement of company regulations and the behaviours of the executives in the processes. Therefore, the scope of whistle-blowing may include corruption, bribery, misconduct, illegality, fraud, extortion and other breaches of integrity.



## 財務帳目管理 Financial Account Management

集團每年邀請第三方審計機構對公司財務進行獨立審計，維持精確的財務帳目，保障股東的權益。

在報告期內，一宗職務案件仍在審理過程中，但於2019年內集團沒有發現對集團或員工提出並已審結的貪污訴訟案件。

Every year the Group invites third-party auditors to conduct independent audits of financial accounts. This maintains accurate financial accounts for protection of the interests of shareholders.

During the reporting period, there was one job-related case under the process of investigation, however in 2019 the Group did not identify any concluded legal cases regarding corrupt practices brought against the Group or its employees.

## 社區投資 Community Investment

本集團將企業社會責任融入營運理念中，多年來憑藉【理士國際愛心基金會】，作為集團自家的慈善捐贈平台，聯動各方的社會團體及持份者，以推動社會公益事業。基金旨在對有需要人士，包括那些家庭受災、重病、子女上學困難等人士，給予支援及關愛；在需要時更籌建志願義工隊伍，支持相關社區活動。

過去多年，集團持續支持社區持份者所舉辦的活動，範圍包括扶貧、助學、慰問探訪、及環保意識提升工作等。本年度集團持續秉承這份社會責任，通過捐款及物資捐贈，支持“肇慶高新區總工會”推行相關活動；亦與社區組織合作，捐款及派員支持志願者活動，譬如「金湖論壇」的探訪敬老院活動等。

The Group has integrated corporate social responsibility into the business philosophy. For many years, through the "Leoch International Caring Foundation", being the charity donation platform owned by the Group, which has connected social organisations and stakeholders in various areas for promoting charities in the community. The goal of the foundation aims to support and care the needy people, including those families suffered from disasters, serious disease, difficulty in child's schooling. Whenever necessary, volunteering team will be established to support the relevant community activities.

Over the past years, the Group is dedicated to supporting community stakeholders to host various activities, which covered poverty alleviation, education sponsorship, caring visit, and enhancement in environmental awareness. In this year, the Group continued to uphold this social responsibility through donation of cash and materials, supporting the related activities hosted by "Zhaoqing High-tech Zone Federation of Unions", and also partnering with the community organizations with cash donation and volunteering support, for example in the nursing home visit of "Jinhu Forum".

