



順風國際清潔能源有限公司
SHUNFENG INTERNATIONAL CLEAN ENERGY LIMITED

(Incorporated in the Cayman Islands with limited liability)
Stock code: 01165

**ENVIRONMENTAL,
SOCIAL AND
GOVERNANCE REPORT** 2018



World's Leading
Clean Energy Provider
Low-Carbon & Energy-Saving
Integrated Solutions Provider

SFCE⁺

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INTRODUCTION





ABOUT THIS REPORT

Purpose of this Report

This is the third Environmental, Social and Governance (“ESG”) Report (the “Report”) of Shunfeng International Clean Energy Limited (“SFCE”, or the “Company”, together with its subsidiaries collectively, the “Group” or “We”). The Report outlines the Group’s sustainable development approaches, strategies and performances.

Report Year and Scope

The Report reveals the Group’s effort in striving for sustainable development from 1 January 2018 to 31 December 2018 (the “Reporting Period”). The Report mainly focuses on our business segment of manufacturing and sales of solar products in the People’s Republic of China (the “PRC” or “China”), unless otherwise stated.

Report Framework

The Group prepared the Report in accordance with the disclosure requirements of Appendix 27 Environmental, Social Governance Reporting Guide under the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the “Listing Rules”). This Report has been approved by the Board of Directors in 26 July 2019.

Access to this Report

The Report is published in both Chinese and English. Electronic version of the Report is available on the Group’s official website (<http://sfcegroup.com>). English version shall prevail should there be any discrepancy between the two versions.

Your Feedback

Your comments and suggestions are important feedback for our continual improvement. Should you have any comments and suggestions with regard to this Report and our sustainability performance, please email us at ir@sfcegroup.com.



2018 Group's Environmental Highlights*

ENERGY SAVING*

Coal ➤ 551,121 tonne
H₂O ➤ 7,065,656 m³

REDUCTION OF EMISSIONS*

Smoke and Dust ➤ 141 tonne
CO₂ ➤ 1,451,992 tonne
SO₂ ➤ 689 tonne
NO_x ➤ 636 tonne

ELECTRICITY GENERATED

Year 2018 ➤ 1,766,414 MWh
Year 2017 ➤ 1,564,675 MWh

* Data disclosed covers the performance of the entire Group

** The basis of calculation sourced from China Electricity Industry Development Report 2017 issued by China Electricity Council



ABOUT SFCE

The Group provides a fully integrated photovoltaic service engaging in developing, manufacturing and sold of premium quality solar products, solar power stations constructions, operations and services in both China and overseas market. The Group is also dedicated in research, development as well as operations of other forms of clean energy. The mission of the Group is to bring a brighter future to the Earth and human being by creating a low-carbon environment through transforming into a global leading integrated clean energy solution provider. In 2018, the Group's sales network has covered 500 cities around the world with the worldwide-recognized quality product.

Embracing the core values of "Integrity, Trust, Inclusiveness, Support and Perseverance" which underpin the Group's culture, the Group is striving to become a fully integrated industry-leading new energy enterprise.

In 2018, the Group's Total Sales Volume has reached

- 34.1 MW of Wafers
- 1,172.7 MW of Cells
- 3,301.1 MW of Modules

The image above is the High-efficiency polycrystalline black silicon cell while the image below is the N-Type Solar Cell of 0 Light Induced Degradation (LID).



OUR SUSTAINABILITY APPROACH

To become the world's largest low-carbon, integrated, clean energy generation provider to create a low-carbon environment.

As a pioneer in the renewable energy industry, sustainability is not only an essential business driver of the Group, but also the utmost responsibility which we take seriously. Hence, we incorporate environmental, social and governance considerations into our operation and strategy. The Group continues to explore opportunity to create sustainable value for our environment, society and stakeholders by optimizing the governance strategy and improving the way we serve the interests of our stakeholders. We believe our visions can only be fulfilled through business practices that are based on the principle of long-term sustainable development.

Corporate Governance

Sound corporate governance establishes the solid foundation for the sustainable success and growth of the Group. Hence, we continue strengthening our governance structures to strive for business success and cultivate the culture of responsibility and integrity within the Group.

The Group regularly reviews the internal control system to identify opportunity to improve and prepare for the changes necessary to remain competitive in the market. To ensure the independence of the internal control review, the Group has outsourced its internal audit function to third party professional internal control advisers (the "Internal Control Advisers") who are responsible for reviewing our risk management process and the effectiveness of our internal control system. For details, please refer to the Corporate Governance Report in the Group's 2018 Annual Report.

Social Responsibility Management System

To effectively manage issues related to environmental, social and governance while safeguarding interests of the Group's stakeholders, the Group establishes the "Social Responsibility Management System". Led by the Group's Chairman, the Group commits to fulfill the social responsibility as industry leader and contribute to sustainability. The Group empowers different departments to manage and address issues of concerns in the responsible area efficiently. Management of the departments should also lead fellow colleagues to integrate sustainability into every aspect of the Group's operation and pave the way for the Group's sustainable success. The structure is as follows:

Department

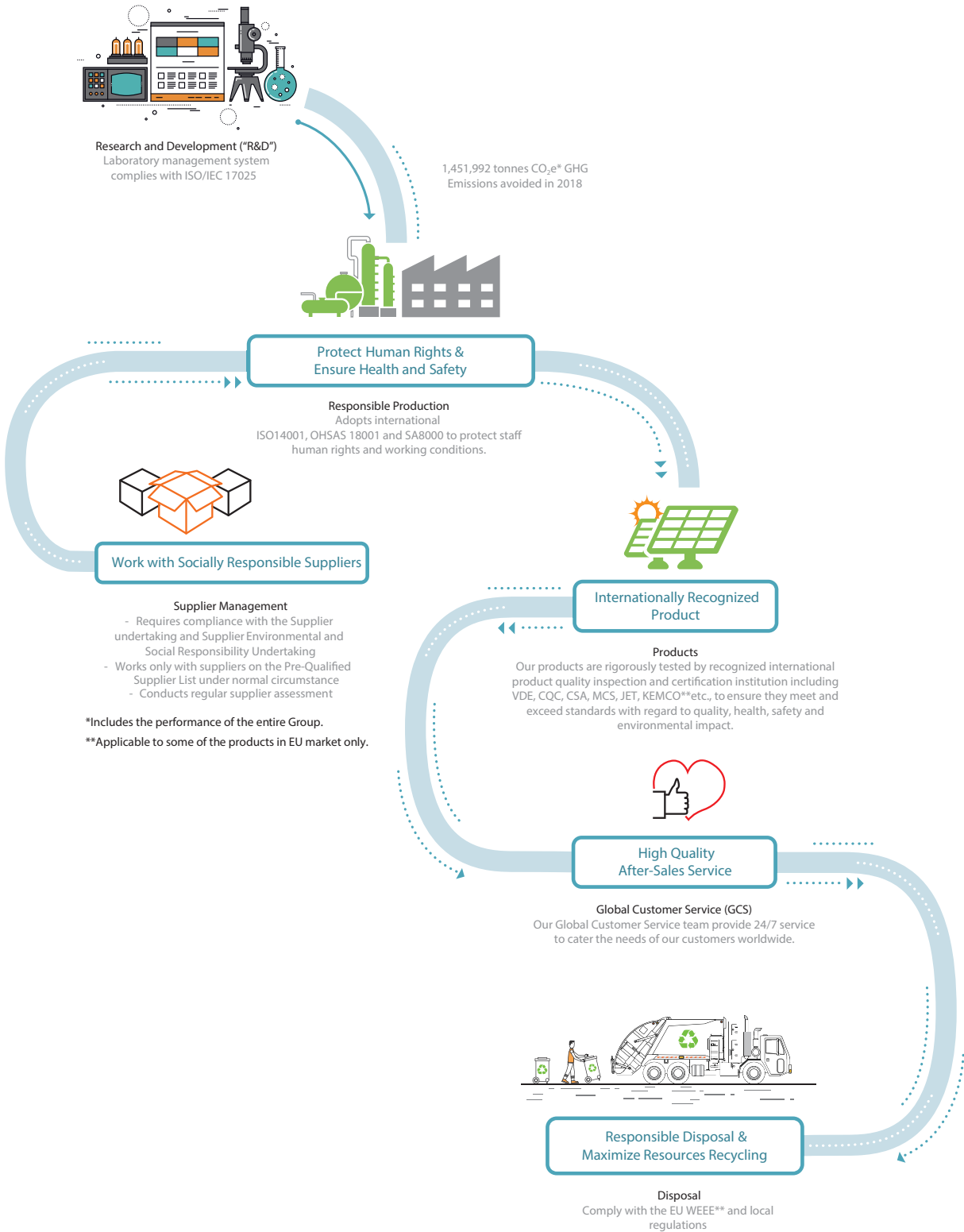
Environmental, Health and Safety
("EHS") Department
Department of Production and Quality
Human Resources Department
Executive Office

Responsible Area(s)

Environmental protection, efficient use of resources,
occupational health and safety
Product quality
Organizing and coordinating employee benefits
Organizing charitable events



OUR RESPONSIBLE VALUE CHAIN

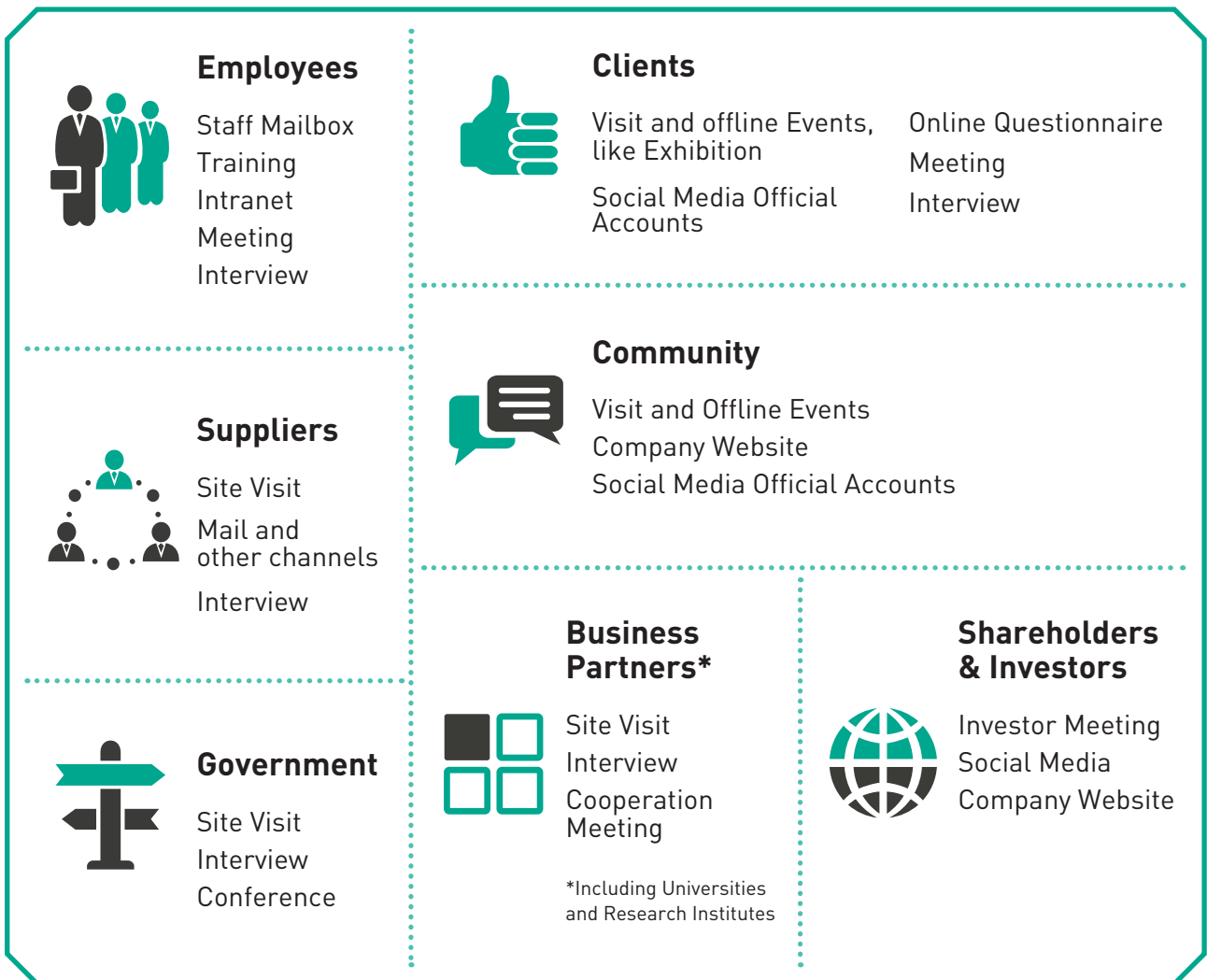




STAKEHOLDER ENGAGEMENT

Our dynamic and ongoing stakeholder engagement process welcomes and gathers diverse views, opinions and expectations of a wide range of stakeholder groups along our value chain. Grouped into seven main categories, stakeholders including employees, clients, suppliers, shareholders and investors, governments, business partners including universities and research institutes, as well as community are engaged through different channels to help us identify possible emerging risks and opportunities to our business operations. Details of the different communication channels deployed are listed out in the following graphic. We also make use of such platforms to communicate with our stakeholders and gain valuable feedback to establish material aspects which form the underlying foundation this Report.

Communication Channels with Stakeholders



COMMITMENT TO QUALITY PRODUCT

The Group is committed to delivering high quality products and excellent services through continuous improvement and innovation along the entire value chain of our product, starting from advanced innovation, more efficient and environmentally friendly production, sound supply chain management to all-round after sale service.





COMMITTED RESEARCH AND DEVELOPMENT

Strategic partnership with different prestigious universities and continuous investment in research and development strengthen the Group's competitiveness by enabling the Group to provide customers with advanced and premium products and services with improved efficiency and performance.

Innovation allows the Group to improve the performance and efficiency of existing models and satisfy the need of existing and new customers with new and state-of-art technology. In addition to existing partnership with worldwide national research and technology institutes and universities, the Group has started a joint-partnership with the School of Science, Jiangnan University to strengthen the two institutes' cooperation over research and development on photovoltaic efficiency during the Reporting Period.





PATENT REGISTRATION

With a team of Research and Development Experts who have attained 100% specialist schools or above qualifications and the Group's investment in R&D, the Group has successfully obtained 484 patents since 2009, including 382 utility model patents, 88 in invention and 14 in design. Among the patents obtained by the Group, 28 of them were obtained during the Reporting Period including 19 in utility model, 6 in invention and 3 in design.

“Wise” Terminal Box Continues to Improve Customer Experience

Providing service and products beyond customer's expectation to maximize customer satisfaction is one of the Group's top commitments. Our R&D Experts continue to improve the overall customer experience with our products.



To improve efficiency and safety, our team has successfully developed the new “Wise” Terminal Box of greater efficiency and communication function. The Box is equipped with a monitoring system to enable the users to check the system's performance.

Meanwhile, it will shut down automatically in emergency situation to minimize the impact on users and ensure their safety.



SUPPLY CHAIN MANAGEMENT

Maintaining a healthy and constructive relationship with our suppliers plays an important role in our pursuit of green and clean energy future. To create value for not only the Group but also our suppliers and the environment, the Group commits to working closely with the supplier to ensure similar vision, values and cultures are shared.

Our suppliers are integral in the value chain and it is necessary to get them to embrace our vision on sustainability and to commit to our sustainable sourcing principles.

The Group prioritizes cooperation with suppliers who share similar vision and values. To promote sustainability and responsible business practices among the Group's supply chain, comprehensive supplier audit would be conducted to ensure the suppliers' value aligns with the Group and its operation and performance meet the Group's requirement.

Supplier audit will be conducted for both existing and potential suppliers. To build up a prolific supplier bank, all potential suppliers will be reviewed and assessed thoroughly. Potential suppliers are required to submit self-evaluation form and relevant supporting documents before receiving official review. For existing suppliers, we would regularly carry out site inspection and audit to ensure the existing partners sustain their commitment and effort in creating sustainable value for environment and society.

Supplier ratings mainly consist of three categories: "Pass", "Conditional Pass" and "Failed". Suppliers will be categorized as "Pass" if vast majority of the requirements are met, "Conditional Pass" if suppliers meet majority of the Group's expectation and are able to improve based on the recommendations provided by the Group within the given time frame, and "Failed" when suppliers fail to meet majority of the requirements. Only suppliers that are graded "Pass" and "Conditional Pass" with improvement reviewed and approved by the Group's independent review panel will be engaged.

Embracing fairness throughout the assessment, we clearly state the standard procedure and areas of focus in the Supplier Audit Guide to ensure different aspects, including product quality, employee's health and safety, social responsibility management system, anti-corruption and bribery, security check, business partner selection criteria, are in line with the Group's value and direction. Qualified suppliers are required to sign the Environmental and Social Responsibility Undertaking, which outlines the Group's ethical standards and expectations, before entering into agreements with the Group.



QUALITY CONTROL

Product and service qualities are the Group's key competencies. We devote ourselves and resources to continuously innovate and improve to maximize the value our product and service.

To ensure the quality of our product and service, the Group established a sophisticated quality control system to ensure every stage of our production is thoroughly managed in compliance with applicable local laws and regulations, including but not limited to Product Quality Law of the PRC (中華人民共和國產品質量法). Embracing the value of 7S, which are Seiri (Sort), Seiton (Set in Order), Seiso (Shine), Seiketsu (Standardize), Shitsuke (Sustain), Safety and Save, the use of Total Quality Control (TQC) guides the Group to continuously improve our production and delivery of high-quality products and services while enhance production efficiency simultaneously. Following the standards outlined in ISO 9001 Quality Management Standards, SA 8000:2008 and OHSAS 18001:2007, the Group commits to meeting the expectation of the global market.

Incoming Quality Control

State-of-art raw materials testing equipment will act as the first line of defense to ensure only wafer with its size, appearance and functionality meeting the Group's standard will be further processed.

In-Process Quality Control

To ensure the system can effectively identify defective products along the production line, the Statistical Process Control (SPC) system is introduced to continuously monitor the production and wafer's quality. In addition, the Group issued operation standard with on-job training provided to our staff to ensure the production is performed consistently in a professional manner. If significant number of defective products are detected from a production line, corresponding department will temporarily shut down the production line for investigation in accordance to the internal guidelines. Production will only be resumed after the issue is solved to ensure only product of high quality will be produced.

Final Quality Control

Before packaging, the final product's appearance will first be checked thoroughly to ensure there is no defect. The modules will also be assessed by the Electroluminescence Testing ("EL") after the entire production to ensure the modules are not visibly and invisibly damaged, which would affect their long-term performance and efficiency. Qualified independent testing organization will be appointed to perform fair test on our products to ensure their quality is up to standard. Our products have successfully obtained a wide range of certificates.



Certification Testing

Product quality is of utmost importance in our commitment and value to our customers. Function certificate test projects in respect of different aspects of the product, such as the Potential-Induced Degradation (PID) (IEC62804), Salt Mist (IEC61701), Ammonia (IEC62716), Dust and Sand (IEC60068), PAFFILE (IEC61853) and LETID (Based on IEC61215), have ensured product reliability. At the same time, tracing of product's long-term reliability is carried out through quarterly sampling inspection, the VDE QT, to ensure that customers are provided with outstanding products with outperforming and steady efficiency. Our sophisticated production and product hence received a wide range of certification and recognitions, and are exported to different countries on six continent. The certification and recognitions we received include but are not limited to:



Outgoing Quality Control

To ensure our customers will receive high quality products, random sampling test will be conducted for packaged products before delivered to customers. Products with defects identified will be refrained from delivery while the production team will follow up to identify issues involved to improve production.

Responsible Marketing and Advertising

The Group participates and organizes different marketing channels, including exhibition, conferences, online and offline promotion channels to engage existing and potential customers. To ensure the marketing and promotional materials are consistent and comply with relevant statutory laws and regulations including but not limited to the Advertisements Law of the People's Republic of China (中華人民共和國廣告法), the Group implemented the External Advertising Management Measure (對外宣傳管理辦法) to enhance our transparency and ensure the materials are based on facts without the use of exaggerate or inaccurate description. Packaging and labelling of our products are also in stringent compliance with Product Quality Law of the PRC to ensure important information including the product's specifications, grade and warnings being shown in a prominent position. All materials will be reviewed by the relevant departments before being published.



GLOBAL CUSTOMER SERVICES

Underpinned by the uncompromising commitment to create sustainable and long-term value to our customers, the Group devotes to providing all-round customer service and support to maximize customer satisfaction.

Established in 2008, the Global Customer Service (“GCS”) team provides timely and efficient professional support round the clock to customers from all around the world. Our GCS team is mainly responsible for customer complaint management, promotion on improvement of new product and new services efficiency, technical support, on-site follow up services and customer audit on customer’s request. The Group devotes to maximize our products’ life-time value for our customers. Therefore, we provide a 12-year product warranty and a 25-year performance warranty to maximize the value of our product and service.

Customer Feedback

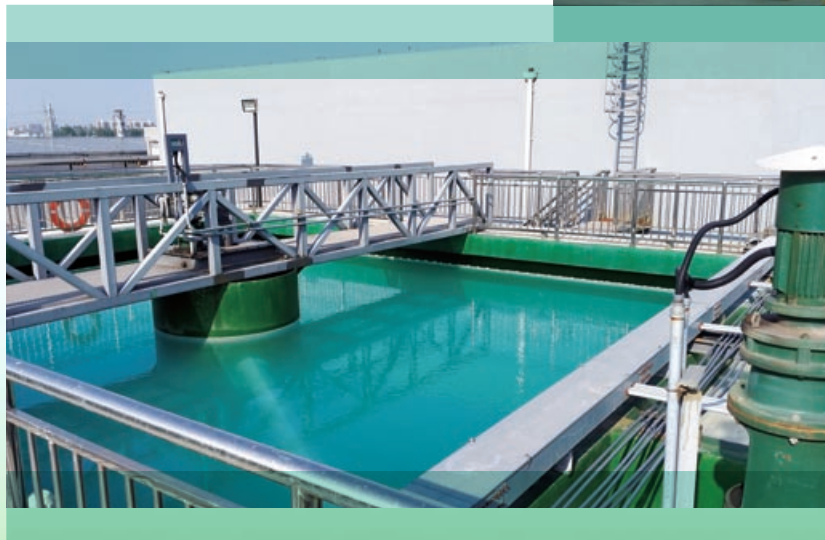
Proactive communication with our customer is the key to maintain and strengthen the bond. Customers can contact us by sending us e-mail or calling the service hotline to provide feedback and advice on our product so that our team can understand customer’s expectation for further improvement. Our GCS team will contact our customers through conducting customer survey to collect customer feedbacks on product and service quality, delivery time, price and other attributes. The feedback provides insights for further improvement and new products development.

Complaint Handling

Handling customer complaints efficiently and professionally is a critical factor to maintain customer satisfaction and relationship. The Group has deployed different complaint channels including hotline, e-mail and in person. The procedure provides clear guidance on standard handling approach. First reply of acknowledgement shall be issued within 24 hours after receiving complaints. After all information is collected, complaint should also be filed to inform relevant department while the initial investigation report should be issued within 3 days after the complaints is filed. For complaints concerning product quality, we offer product repair, exchange or refund with the approval of the product quality unit in accordance with the requirements under the warranty. Involved department will also assess and review the current approach to furnish the products and service. Regular review on the Client Complaint Prevention Policy Report will be conducted to ensure the effectiveness of the handling procedure.

COMMITMENT TO ENVIRONMENT

As a leading company in the industry, we are committed to making clean energy clean. Embracing the value of holistic product life-cycle analysis, we identify every opportunity to minimize the environmental impact of the production. Continuous improvement and innovation in production enables the Group to create sustainable value to both our precious environment and valuable clients.





ENVIRONMENTALLY FRIENDLY PRODUCTION

Combatting climate change requires joint effort from all society members while minimizing greenhouse gas emission remains on the top of the priority list. Clean energy as the substitute of fossil fuel is one of the most effective solutions and receives increasing attention around the world. The Group dedicates to produce high quality and efficient clean energy product to minimize greenhouse gas emission associated with electricity generation. Meanwhile, the Group is also determined to minimize the environmental impact associated with the Group's production to fulfill the responsibility of constructing an environmentally friendly society.

During the Reporting Period, we were not aware of any significant damage to ecological environment caused by production and operation activities nor any violation of relevant environmental laws, regulations and other provisions.

Intact Environmental Management

A robust management system is fundamental to the Group's continuous success in mitigating climate change and creating sustainable value. Attaining the international standard of ISO 14001:2015 reflects the Group's determination in establishing a holistic Environmental Management System (EMS). The EMS enables our employee to analyze our operation and the market systematically by providing well-constructed guidelines and step-by-step instructions on procedure to manage and handle issue.

Reducing the amount of resources used and increasing operation efficiency are the Group's key commitments in achieving sustainable clean energy and creating value for our environment and stakeholders. In favour of "Clean Production Promotion Law of the PRC", the Group has formulated "The Guide on Clean Production, Efficient Use of Resources and Emission Reduction" to provide directions and instructions for departments to improve environmental performance. Departments are encouraged to incorporate the concepts of Reduce, Recycle and Reuse to furnish operation. Clean Production Audit should be conducted by EHS Department if the performance does not meet the Group's or national standard. The Group also expects our business partners to strive for a clean and green production to contribute to environmental protection and create sustainable value.

With the mission to improve the environment, health and safety management system, the Group believes that by empowering the EHS Department to manage issues related to environmental impact and efficient use of resources would allow the Group to transcend environmental performance.

To further enhance management efficiency, the Group has formulated "Environmental Management System" (the "EMS"), clearly outlining the responsibility of different departments in managing environmental protection issues and standard workflow. The system enables all levels of the Group's employees to work together to fulfill the environmental and social responsibility as a leading clean energy solution provider in the industry. Under the EMS, different departments will have different responsibilities and roles to complement each other:



Commitment to Environment (Continued)

Department/Personnel	Responsibility
Chairman	<ol style="list-style-type: none"> 1. Implementing policies in accordance with national laws and regulations 2. Establishing and maintaining a solid and sound environmental management system and organization structure 3. Leading the Group to address issues related to environmental protection 4. Approving major environmental protection decision and budgets 5. Setting the Group's target and strategy
EHS Department	<ol style="list-style-type: none"> 1. Promoting and implementing policies that are in accordance with national and local environmental laws and regulations 2. Establishing, implementing and monitoring the hazardous waste and non-hazardous waste management plan 3. Participating in the founding and audit of the environmental management system 4. Developing environmental emergency response plan and organizing corresponding drills regularly 5. Monitoring the environmental protection works by other departments with regular assessment and implementing rectification and accountability in case of non-compliance 6. Conducting regular inspection of the Group's pollutants emission 7. Reporting the Group's emission and preventive operation to the local environmental department and providing assistance to department's inspection and monitoring 8. Conducting investigation on environmental incident and providing follow-up actions 9. Organizing environmental promotion activities and trainings
Operational Department	<ol style="list-style-type: none"> 1. Establishing applicable environmental policies and defining corresponding responsibilities and management procedures 2. Implementing the environmental protection work 3. Assessing operation regularly to identify opportunities to lower energy and resource consumption 4. Operating environmental protection facilities, including sewage treatment facilities, chemical oxygen demand (COD) online monitoring system, emission port and site operation to comply with relevant laws and regulations 5. Monitoring operation and handling any issues observed in a timely manner 6. Conducting investigation and taking remedial actions on environmental incidents reported 7. Organizing environmental training for daily tasks
Employees	<ol style="list-style-type: none"> 1. Executing the Group's policy and strategy accurately 2. Acquiring environmental knowledge and lifting awareness 3. Proactively taking part in environmental protection activities 4. Providing feasible and economic suggestions to improve the Group's environmental performance 5. Reporting any incidents to management in a timely and accurate manner



EMISSIONS MANAGEMENT AND REDUCTION

Committed to bringing a brighter future to the world by providing clean energy solution, sustainability is the key responsibility for the Group. Hence, we have continuously reviewed and assessed our production and operation to identify opportunities to minimize impact on the environment and improve the Group's environmental performance continuously.

Air Emissions and Greenhouse Gases Management

The Group strictly monitors and manages air emission and greenhouse gases generated from our activities in accordance to applicable laws and regulations including Atmospheric Pollution Prevention and Control Law of the PRC and Emission Standard of Pollutants for Battery Industry (GB30484-2013). Fuel consumptions from vehicles, kitchen stove and solar panel production activities are the Group's major sources of air emissions, while electricity consumption and gaseous fuel consumption from vehicle and kitchen stove are the Group's major source of greenhouse gases. An independent qualified environmental monitoring center is appointed to conduct regular sampling at our production plant's exhaust ports for inspection to ensure the exhaust from production activity meets the corresponding standards. Different measures are deployed to minimize the Group's air emission:

Emission from Production Activity

The use of chemicals in production will generate harmful acidic exhaust fumes. To minimize the impact on the environment in compliance with the national standard on air emission, all fumes collected will be processed by Acid Mist Purification Towers to minimize the acidic content of the exhaust fumes before discharge.

In addition, the Chemical Vapor Deposition process will generate toxic alkalic exhaust fumes that could cause severe environmental pollution. In strict compliance with the statutory standard, the exhaust fume will be carefully processed before discharge. Combustion will first remove the toxic and flammable alkane content. The exhaust fumes will be processed in Acidic Spray Scrubber to further remove the ammonia to meet the statutory emission standard.

Organic exhaust fume from the printing and welding processes containing high non-methane hydrocarbons ("NMHC") content will also be cleaned before discharge. Before further processed in the Activated Carbon Absorption Tower, the organic exhaust fume will first pass through a condenser to remove the oil content. Removal of oil content can ensure efficiency of the Activated Carbon Absorption Tower while extending the system's lifespan.

Emission from Vehicle Fuel Consumption

To ensure a proper use of the Group's vehicle, the Group has established the Vehicle Management System to manage and monitor the use of vehicles for business purpose. Only prior approved request will be accepted. This also enables the Group to minimize the emission from vehicle fuel consumption.

Other Source of Emission

Kitchen of the employees' canteen is another source of emission. Cooking fume is processed by fume purification devices, which is cleaned by a qualified third party quarterly, to minimize the impact on surrounding environment.



Greenhouse Gas Reduction

To combat climate change, the Group continuously looks for opportunities to minimize our operation's carbon footprint, from product design, manufacturing, sales, transportation, installation processes to daily operation. Continuous research and development are conducted to increase our product's efficiency and reduce the amount of resources consumed. We also work with suppliers actively to purchase materials of low carbon emissions and increase the use of cleaner energy, including natural gas and solar energy.

Energy Management

As part of the Group's core missions, the Group commits to increasing energy efficiency in every stage of production and operation to minimize our environmental impact.

Under "The Guide on Clean Production, Efficient Use of Resources and Emission Reduction", every department will continuously review and assess the opportunity to increase efficiency. Facility Department will hold monthly meeting and provide analysis on the Group's energy consumption. By comparing the actual consumption data to monthly target, areas of improvement can be identified. Please refer to "Continuous Improvement in Production – Photovoltaic Cell Production" and "Continuous Improvement in Production – Photovoltaic Module Production" for more details on improvement in production's energy and resource efficiency.

The Group also encourages employees to embrace sustainability in daily operation by promoting green office practice to utilize resources, including:

- Air-conditioner can only be switched on when necessary. Temperature of each air-conditioner should set at 26°C to maintain an optimal and comfortable room temperature. Reminders of "switch off the air-conditioner when you leave the room" is pasted on the control panel.
- Idle machineries and lights must be switched off before leaving office.

Water Management

As a responsible corporate citizen, the Group is dedicated to using water resources efficiently and lowering the environmental impact of the operation. We strictly conform to applicable local water discharge laws and regulations, including Integrated Wastewater Discharge Standard (GB 8978-1996) and Discharge Standard of Main Water Pollutants for Municipal Wastewater Treatment Plant & Key Industries of Taihu Area. Water used in our operation is purchased from water companies and there was no issue in sourcing water during the Reporting Period.

Our operation mainly generates industrial wastewater and domestic wastewater. The wastewater will be processed thoroughly by our on-site wastewater treatment system before discharging to the sewage treatment plant. All industrial wastewater is subject to testing and approval for discharge and re-treatment is required if it is not up to discharge standard.



Our team continues to evaluate the production and operation to identify possible channels to further reduce the water consumption and become more environmentally friendly. To reduce the amount of fresh water required for production, the Group strives to increasing the use of recycled water in production. Industrial wastewater will first be treated by on-site facility to reduce the chemical content. Part of the wastewater will be outsourced to qualified third party to purify the water before returning to the production facility as recycled water. During the Reporting Period, the Group has recycled 411,102 tonnes of water. Moreover, the Group also encourages green office practice and use water efficiently in daily operation.

Waste Management

Hazardous and non-hazardous wastes are generated from our operation. To systematically manage and minimize waste generation, the Group established a comprehensive waste management system to provide clear guidance on handling waste generated from our operations. Underpinned by the principle of “avoid, reuse and recycle before disposal”, we strive to reduce waste generation and prioritize using reusable and recyclable materials. For example, the packaging materials we used for our products are mainly recyclable and biodegradable to reduce amount of waste generated.

Hazardous Waste

Safely handle hazardous waste is on the top of the Group’s priority list and it is vital to a safe and environmentally friendly workplace. To further enhance the safety management of hazardous waste generated in our operation, the Group has established the Hazardous Waste Management System in compliance with Law of the People’s Republic of China on the Prevention and Control of Environmental Pollution by Solid Wastes. With EHS and corresponding department’s joint effort in accordance to “GB 18597-2001 Standard for Pollution Control on Hazardous Waste Storage” (《危險廢物貯存污染控制標準》), Hazardous Waste Handling Policy is formulated for each hazardous waste to provide guidance on how to handle, store and transfer the waste. The Policy also outlines the appropriate precautionous measures to be taken to avoid any cross contamination. Only qualified third parties are appointed to collect and handle the hazardous wastes in accordance with the corresponding rules and guidelines. Regular supplier audit will be conducted by the EHS department to ensure compliance with relevant regulations.

Identifying opportunities to reduce the amount of hazardous waste generated from our operation is one of the on-going tasks of the Group. The Group will continue to evaluate the operation and minimize the impact on environment.

Adding a layer, saving a bucket – Silicon Bucket Saving Project

Under the Directory of National Hazardous Waste, packaging materials that are contaminated by hazardous waste shall be considered and handled as hazardous waste. Buckets storing silicon was a source of hazardous waste. Our Production Team and Procurement Team worked with the supplier and identified the opportunity of reducing hazardous waste by placing a plastic layer inside the bucket. With the layer inserted, the buckets can be recycled and reused by the supplier without the need to be disposed of as hazardous waste. As a result, it is expected to reduce 175 tonnes of hazardous waste annually.



Non-Recyclable Contaminated Bucket



Recyclable Bucket

Non-Hazardous Waste

The Group commits to minimize amount and impact of non-hazardous waste generated from our generation in accordance to "Regulations of Jiangsu Province on Prevention and Control of Environment Pollution Caused by Solid Waste"《江蘇省固體廢物污染環境防治條例》. To reduce the amount of waste generated from our production, recyclable and non-recyclable non-hazardous waste will be collected separately. Outlined clearly in the waste management system developed in accordance to "GB18599-2001 Standard for Pollution on the Storage and Disposal Site for General Industrial Solid Wastes"《一般工業固體廢物貯存、處置場污染控制標準》, waste should be classified properly before being disposed of to facilitate recycling. Collected waste should be stored at designated place with correct label attached. Qualified third-parties will be appointed to collect respectively. Sludge generated from wastewater treatment will be sold to qualified sludge treatment company. The sludge would be recycled for brick-making.

Noise Management

Minimizing impact on surrounding environment is vital to the Group. To limit the impact of noise generated from operation, different mitigation measures, including keeping the doors and windows close, utilizing trenches isolation and maintaining equipment in good condition, were implemented to ensure compliance with the limit of the Emission Standard for Industrial Enterprises Noise at Boundary (GB12348-2008) and Occupational exposure limits for hazardous agents in the workplace, Part2: Physical agents (GBZ2.2-2007).

EHS Department will conduct regular internal noise monitoring while professional third party is appointed to conduct noise measurement in our workplace at least once a year to ensure the noise level is in compliance with relevant standard. Remediation would be conducted once deficiency is found. If the noise level is unable to meet the industry standard, the Corrective Prevention and Continuous Improvement of Control Procedures will be adopted.



CONTINUOUS IMPROVEMENT IN PRODUCTION

Continuous Improvement in Production – Photovoltaic Cell Production

Our Facility Equipment Team continues to assess and review the production procedure to identify opportunities to increase production efficiency, reduce energy and resource consumption and minimize the impact on the environment. During the Reporting Period, the Team has successfully upgraded the production to increase the production capacity while reduce the amount of energy and resource consumed. The Group dedicates to improving the production continuously to fulfill the responsibility of creating a green and sustainable community.

PERC Improvement

Resigning the water flow of the process enables reusing and recycling water and increases the production efficiency by reducing the time required in each section. Together with the improvement in system speed, the process records an increase of 33.3% in capacity.



Acid Cleaning



Etching



Contact Printing



Diffusion



Chemical Vapor Deposition



Testing

System Enhancement

The enhancement leads to a reduction of approximately 21.3% of time required to print the contact on each cell. Fewer Aluminum paste, the material used in contact, is consumed and wasted after enhancing the system.

Trough Design

The design allows centralized collection and treatment for Greenhouse Gas emitted from the production

Improving Technology

Through increasing the accuracy of the machines, the production capacity increased by 16.7%, reducing the average amount of time and energy consumed to produce each cell.

Normalizing Heat Treatment

Through upgrading the system's accuracy and frequency, the new treatment can process more cells in one diffusion while reducing the amount of time required to process. The new technology hence consumes much fewer time and resources.



Continuous Improvement in Production – Photovoltaic Module Production

1 Air Compressor Heat Recycling

Situation:

- A** Operating the Air Compressor created a huge amount of heat that requires cooling tower
- B** Vaporizing the Liquefied Oxygen absorbed a large amount of heat

Our Solution:

Utilizing the complementary nature, our team connected the two systems and conserved energy by transferring the chilled water from Vaporization Machine to Air Compressor

3 Upgrading String Welding Machine

Situation:

- A** Original ventilation design could easily trap exhaust fumes in the machines and creates inefficiency.
- B** The absence of heat cycle circulation fan resulted in higher energy demand for the process

Our Solution:

Our Team installed new fan and improved the ventilation function while sealing the system to ensure even distribution of heat and increase efficiency by 15%. The upgrade has also extended the life expectancy of the machine.

2 Upgrading Solar Laminator

Situation:

- A** The aging laminator encountered technical difficulties frequently causing operation inefficiency.
- B** The laminator was inefficient in terms of energy consumption

Our Solution:

Our Team upgraded the laminator with more efficient heating plate, consuming 20% less electricity by reducing the heat lost to the surrounding. The upgrade also enhanced the accuracy and performance

4 Upgrading Air Compressor

Situation:

Air Compressor played an important role in Photovoltaic Module Production, while the existing compressor model consumed a large amount of electricity.

Our Solution:

Our Team reviewed and analyzed the different options available in market. After careful review and discussion the team replaced the existing equipment with a more efficient model that consumed 15.2 % less electricity every day.

5 Separate the Laminating Area

Situation:

In summer, the laminating machines incurs and release heat in the workshop, at the same time the ice machines cool down the laminating machines, which is a waste of energy.

Our solution:

Separating the laminating area, discharge the incurred heat outside to reduce the pressure on the ice machines in the workshop, at the same time recycle the heat generated in winter, and discharge the heat to the product testing area. After the separation, 20% less electricity is consumed by the ice machines in the year.



ENVIRONMENTAL PERFORMANCE TABLE

Category	Indicators	Unit	Value for 2018	Value for 2017
Greenhouse Gas Emissions	Total Greenhouse Gas (GHG) Emissions	Tonnes of CO ₂ e	132,636.41	136,617.76
	Direct Emissions (Scope 1)	Tonnes of CO ₂ e	1,370.44	1,509.68
	Indirect Emissions (Scope 2)	Tonnes of CO ₂ e	131,269.88	135,108.08
	GHG Removal by Tree Planting	Tonnes of CO ₂ e	3.91*	–
	Intensity of Total GHG Emissions (Scope 1 and 2)	Tonnes of CO ₂ e/MW	29.42	35.40**
Air Emissions	Nitrogen Oxides (NO _x)	kg	4,835.54	11,160.92
	Sulphur Oxides (SO _x)	kg	126.48	30.24
	Particulate Matter (PM)	kg	77.64	127.14
Energy	Total Energy Consumption	MWh	197,057.36	201,105.44***
	Purchased Electricity	MWh	186,595.42	192,051.29
	Self-Generated Solar Energy	MWh	5,895.89	2,568.83***
	Diesel oil	MWh	903.81	1,225.86
	Unleaded petrol	MWh	495.05	540.12
	Natural Gas	MWh	3,167.20	4,719.34
	Energy Consumption Intensity	MWh/MW	43.71	52.11**
Water	Total Water Consumption	m ³	1,692,725.00	1,481,480.00
	Water Consumption Intensity	m ³ /MW	375.50	383.88**
Waste	Total Non-Hazardous Waste	Tonnes	13,534.08****	5,998.00
	Total Non-Hazardous Waste Disposed	Tonnes	1,110.50	1,140.43
	Total Non-Hazardous Waste Recycled	Tonnes	12,423.58	4,857.57
	Non-Hazardous Waste intensity	Tonnes/MW	3.00	1.55**
	Total Hazardous Waste	Tonnes	4,133.12	5,159.02
	Hazardous Waste intensity	Tonnes/MW	0.92	1.34**
Packaging Material	Total Packaging Material	Tonnes	5,688.07	12,980.53
	Paper	Tonnes	2,616.56	3,936.70
	Plastic	Tonnes	183.46	4,260.56
	Metal	Tonnes	2.83	–
	Wood	Tonnes	2,885.22	4,783.26
	Packaging Material Intensity	Tonnes/MW	1.26	3.36**

For emissions and resources consumption intensity, the MW of manufacturing capacity include both solar cells and solar modules.

* Starting from 2018, we started reporting GHG Removal by Tree Planting.

** 2017 intensity figures were restated as the Group has enhanced the intensity calculation methodology during the Reporting Period.

*** 2017 self-generated solar energy was restated due to data refinement.

**** The figure dose not include non-metal packages collected during the Reporting Period as no relevant data is available.

COMMITMENT TO OUR PEOPLE



Our employees are the greatest asset and competitive edge of the Group. Guided by the philosophy of “Discovering, Nurturing, Caring and Utilizing Talents”, the Group commits to provide a rewarding, fair and safe workplace for our staff, where they can unleash their potential and pursue their personal career goal.

COMPLIANT EMPLOYMENT

Our people are the greatest asset of the Group and the most important cornerstone for the Group’s sustainable success in the competitive clean energy market. Compliance with applicable laws and regulations is the prerequisite for the Group’s successful human resource strategy.

Adhering to the Labour Law of People’s Republic of China and the Labour Contract Law of People’s Republic of China while upholding international conventions on human rights and labour standards, the Group commits to safeguard our employees’ labour rights with compliant employment practice in following areas:



Fair and Equal Employment

As an equal opportunity employer, the Group adopts a zero-tolerance approach to discrimination in the entire employment process, from recruitment to promotion until the termination of contract. Guided by the Group’s “Recruitment Management Policy”, “Promotion Management Policy” and “Human Resource Management Policy”, we dedicate to providing equal employment opportunity and fair treatment to our potential and current employees regardless of their gender, age, sexual orientation, marital status, race, ethnicity, social class, religion, disability, or political background. We also protect the rights and benefits of maternal staff.





Lawful Contract

The contracts offered by the Group are drafted according to the requirements outlined in the Labour Law of the People's Republic of China. Leaves, allowances, insurance and other social welfare are granted to our employees in accordance with applicable local laws. Details can be easily accessed in the Employee Contract and Employee Handbook. The Group does not encourage overtime work. Employees are subject to a limit of 40 working hours per week to ensure every employee would have sufficient rest time. Overtime work for special operation need requires prior approval from supervisors. Details of compensation for overtime work are listed clearly in the Employee Handbook.

Employee Handbook has also provided guidance on standard contract termination procedure. Contract can be terminated by either party in compliance with the Labour Contract Law. Details about dismissal are outlined clearly in respective internal policy.

Against Child Labour

Committed to safeguard human rights, the Group strives to eliminate child labour in the production or service provision process. During recruitment process, successful applicant's identity documents shall be reviewed by Human Resources Department to ensure applicant's eligibility. Ineligible applicants shall be rejected. Should there be any case of child labour found in the Group, termination of the duty for the child will immediately take effect and we will compensate the child according to the law before he/she is passed to his/her guardian. Independent investigation will also be conducted to address the issue and prevent the same from happening again. Involved personnel will also be disciplined.

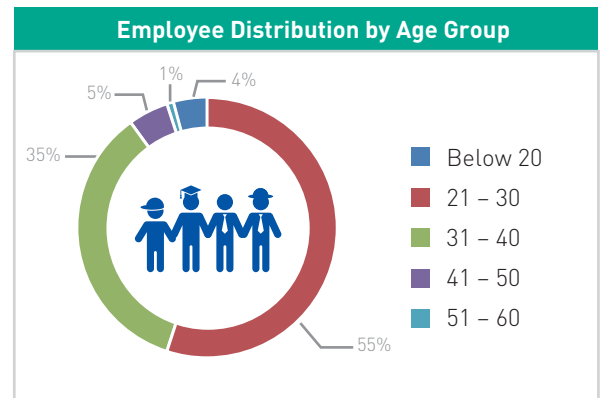
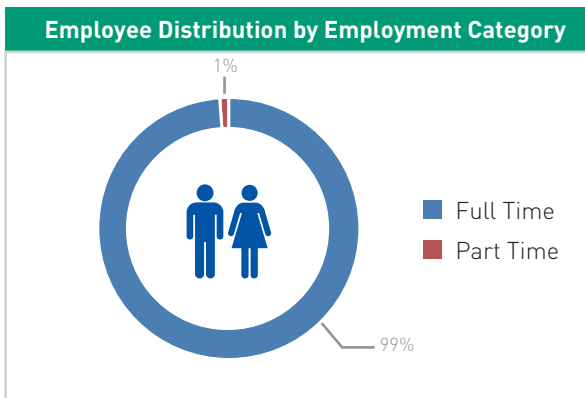
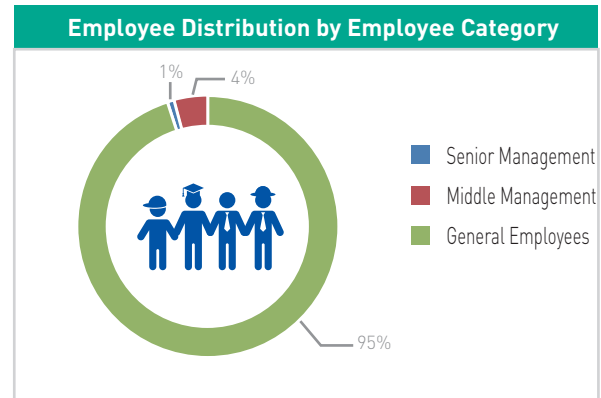
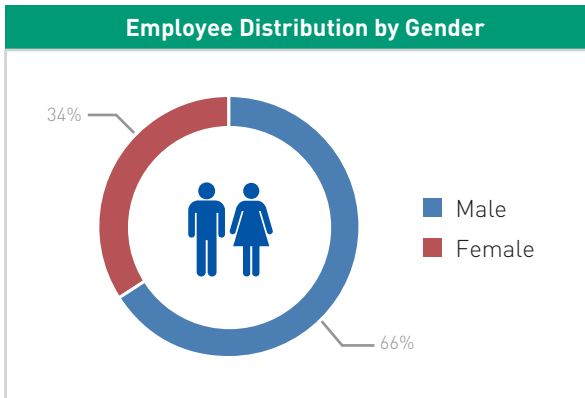
Preventing Forced-Labour

We provide draft contracts to job candidate and only sign official contract upon mutual agreement on the contract content. Management is prohibited from infringing employees' entitled rest time and forcing fellow employees to work over time. Employees should report if there is any case of forced labour.



Composition of Our Workforce

As of 31 December 2018, the Group has a total of 6,330 staff members. The composition of the workforce is as follows:





ATTRACTING AND RETAINING TALENTS

Talent is critical to the Group’s continuous success and consistent quality service. Therefore, the Group commits to attracting and retaining our precious talents by providing benefits beyond statutory requirements, emphasizing effective and healthy communication with employee, creating a friendly and inclusive working environment and promoting work-life balance.

Attractive Remuneration Package

In compliance with and beyond applicable laws and regulations including but not limited to the Labour Law of PRC and Labour Contract Law of PRC, the Group provides a wide range of compensations, benefits, extra allowances and bonuses to attract and retain the precious talents of the Group.

Basic Compensation and Benefits	Extra Allowances and Bonuses
<ul style="list-style-type: none"> • Basic salary paid according to educational background, experience and grading • Social insurance (including national pension, medical insurance, employment insurance, occupational health and safety insurance) • Paid annual leave • Public holiday and leaves required by the law (compassionate leaves, sick leaves, marriage leaves, maternity leaves, paternity leaves, parental leaves and etc.) 	<ul style="list-style-type: none"> • Housing allowance • Travel allowance • Night shift allowance • Inflation allowance • Festival bonus • Marriage and birth-giving bonus • Attendance bonus • Performance bonus • Free shuttle bus • Subsidies for critical illness medical expenses • Body check • Birthday and festival shopping card and gift box

Effective Communication

Communication is the key to maintain a cohesive and positive relationship between the Group and our employees, as well as among our employees. To strengthen the bond and cohesion among all levels of staff, the Group has deployed a wide range of communication channels to promote interaction and communication and construct a friendly and family-like environment.



Formal Channel

The Group believes that the effective communication will provide a competitive edge for the Group as it will allow our employee to learn more about the Group's performance and market's future trend and the Group's plan. It facilitates the Group to create a culture among our employees that share our values and vision. Employee's feedback and comments are crucial for the Group's sustainable success as the feedback provides practical and useful insights into operation. Direct supervisor or senior should be the first contact point to provide feedback and comments relevant to operation. Communication channels can be categorized by the frequency used:

Annually, the Group organizes a corporate level result meeting with all our staff. During the meeting, our staff are invited to share their experience with the Group over the challenges they faced and how they managed them. Management of the Group will also deliver key operational and strategic messages and directions to the staff to encourage our staff and ensure every member of the Group shares same vision and values.

At corporate level, staff meeting will be arranged quarterly to ensure the key strategic and operational priorities are clearly defined and work-in-progress meets the annual development plan of the Group.

The Group also organizes monthly meeting at union level and department level. At the meetings, our staff would receive updates on major market trend and relevant policy and market updates, company strategy and Group level's update. Employees are also encouraged to share their opinion and feedback in the meeting to contribute continuous improvement.

Complaint and Appeal System

Creating a fair and equal working environment is one of the Group's top priorities in pursuing sustainable competitiveness. While our employees are encouraged to report to direct seniors or supervisors for any feedback, the Group established a formal Complaint and Appeal System to ensure material issues that may threaten the operation or reputation of the Group. Every employee of the Group can provide feedback, complaints or opinion over issues related to the Group with evidence through official internal channels including Wechat, email or written letter. The received feedback will be handled confidentially by responsible department. Independent investigation will be conducted if necessary to ensure the issues were assessed thoroughly. Follow-up action and improvement will also be conducted to furnish the Group's operation and improve our employee's satisfaction.

Informal Channel

The Group commits to creating a friendly and harmonious working environment for our people and promoting work-life balance. Hence, we have organized a wide variety of events and festival benefits for our employees during the Reporting Period to ensure life with the Group is enjoyable.



Employee Activities Highlights



Family Day
We are a big Family creating memory and sharing joy



Basketball Competition
Different sports activities were organized to promote a healthy and balanced lifestyle among our staff.



Birthday Party
Our staff's big day is also our big day!
We organise party for our birthday staff every month to send our wishes.



Driving Skill Challenge
Practice is enjoyable when it is integrated with competition, especially when everyone enjoyed!



TRAINING AND DEVELOPMENT

Continuous training will allow the Group and our employee to develop talent and grow up together while competing in the ever-changing market. The Group commits to providing training resources and development opportunities to our employee to acquire new and competitive skills.

The Group commits our investment in talent development to achieve the Group's development and talent retention target through our robust talent development system. Under the system, the Group strives to strengthening our talent's capability and the Group's competitiveness through offering our staff all-round and continuous training.

Mainly two types of training, namely Orientation Training and On-Job Training, are provided to our employee. Orientation training delivered internally by our management and experienced staff mainly focuses on getting our new staff to familiar themselves with details of their work and environment, covering a range of aspects including corporate introduction, operation procedure, different management systems in place, health and safety. Once work is commenced, continuous on-job training will be offered to our staff. Training covering general and operation-specific professional skills and knowledge, management skills development and health and safety, will be available to our employees over the year. Subject to training content required, suitable internal and external trainings will be provided to our employees to ensure they receive training that fits the need of the job.

To ensure the training offered meets the need of the Group's target and employee's personal development goal, the training will be organized in a systematic 3-step approach.



Training Demand Identification

Forecast meeting will be conducted by the management of the Group and operation departments to align the Group's development goal in coming year, which helps the department management to understand the training required to meet the Group's annual goal. Meanwhile, meeting with the department's employee will also be conducted to understand what they would need to enhance their performance. Review on market trend and updates also helps identify training required to remain competitive. Through consolidating the different training needs, the department management can hence develop their specific training plan.



Training Plan Formulation and Implementation

After receiving the Annual Training Application from different departments, the Human Resources Department approves and develops Annual Training Plan in accordance to the Group's annual strategic development goals. The HR Department will hence recruit suitable trainers to deliver training and arrange according to the plan. The HR Department will also be responsible for recording the attendance and providing participation data for employee's annual appraisal.

Employee can propose training request for topics not included in the Annual Training Plan. After having approved by department, the training record will also be included in the annual appraisal. Sponsorship is available for our employee who took external training session, subject to management approval while amount will be based on seniority.



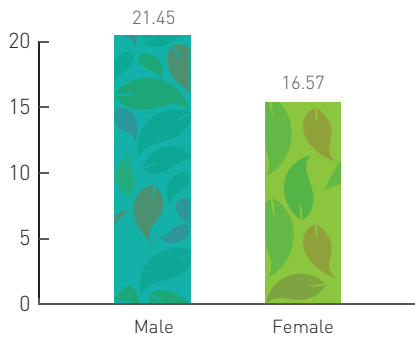
Evaluation of Training Effectiveness

After completing a training session, the participants are required to filled in a training evaluation report to HR Department for record and review. Responding departments will review effectiveness of training.

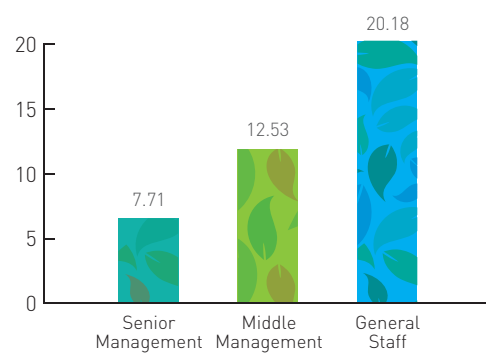
The feedback will form an important basis for development of the coming year's Annual Training Plan.



Average Training Hours by Gender



Average Training Hours by Employment Type





Employee Training Highlights

Performance Appraisal System

The Group emphasizes on the Group's as well as our staff's continuous development. To evaluate the staff performance systematically and effectively, the Group has formulated the Staff Performance Appraisal and Promotion System to provide fair and unbiased assessment for pay adjustment and promotions while eliminating any kind of discrimination and unfair judgement through objective targets set by the employees and mutually agreed by the management and our employee. Maintaining highest level of fairness in our operation, evaluation and promotion is vital to the Group's success and sustainable development. Our staff will be hence evaluated regularly according to the Group's strategic annual target. Defined in the System, departments and personnel have different roles and responsibilities as follows:

Department/Personnel	Responsibility
Management	<ul style="list-style-type: none"> Set annual strategic goals and targets and adjust according to changes in market and strategy
Human Resources Department	<ul style="list-style-type: none"> Maintain and implement performance evaluation system and its procedure Keep book of all evaluation records Conduct regular check on the evaluation system implementation in each operation department
Operation Management Department	<ul style="list-style-type: none"> Collect and analyse the operational targets data Prepare fair and unbiased report on the department's performance in achieving the department level goals and employee's level personal goal and corresponding follow-up action in next year for the Group's approval.
Evaluator	<ul style="list-style-type: none"> Support employees to set personal annual and quarterly targets and ensure they are aligned with the Group's strategic goal and target Review the progress with employees regularly and provide feedback and guidance Conduct evaluation according to the Evaluation Management Procedure at designated time Develop improvement follow-up plan and supervise the implementation
Employees	<ul style="list-style-type: none"> Set personal annual and quarterly targets according to the department and group target Update, record and report the progress of the personal target and goal achievement plan



HEALTH AND SAFETY

Maintaining a safe and healthy working environment is one of the critical tasks for a sustainable and socially responsible enterprise. We devote to maintain a safe workplace where our employee can commit themselves and keep on improving our safety management system by effectively prevent injury.

To maintain a healthy and accident-free working environment, the Group adopts a systematic management approach to ensure our employee's well-being and safety thoroughly.

Analysis and Precautionary Measures

The Group established the "Guideline on Eliminating Environment, Health and Safety Concern" to assign different roles and responsibility to relevant departments to work together to combat EHS risk. The newly formulated "Safety Committee" led by the President of the Group will be responsible to instruct, lead and review improvement actions concerning health and safety risk identified. Apart from conducting regular meeting, the Committee will also visit different operation and production unit to meet and discuss with the colleagues to understand more about the operation. The site visit demonstrates the Group's management commitment and determination in providing a healthy and safe workplace.



Under the Guideline, EHS Department regularly conducts evaluation and assessment to review and identify any risks and potential dangers in our operation, especially for newly added procedure, and report to the Safety Committee every month. The regular review enables us to acknowledge potential issue and hence improve the respective issues to avoid the risk. Operation departments will be responsible for making improvements in 15 days according to the recommendations from EHS.

Operation department and our employees are also responsible to report any potential dangers to alert relevant department to minimize the potential impact on our operation.

To align with internationally recognized best practice, we also adopted the OHSAS 18001:2007 standard as a framework for establishing the policies, procedures and control mechanism needed to achieve the best possible workplace health and safety conditions.



Different precautionary measures are also implemented to strengthen our employees' occupational health and safety and manage different risks in our operations to better safeguard personal and workplace health and safety. Below are some examples of the measures deployed:

Aspect	Action
Employee	<ul style="list-style-type: none"> • Personal Protection Equipment, including protective clothing, aprons, boots, face shields and gloves are provided, replaced, cleaned and inspected regularly to ensure the safety of our employees; • Occupational health assessment is conducted regularly to ensure our employees are in good health condition and capable of performing their duty without health concerns
Hardware	<ul style="list-style-type: none"> • Hazardous chemicals and materials are clearly labelled and placed in designated areas where contamination prevention measures and 24-7 monitoring systems are installed; • Warnings and safety reminders are placed around the production facility; • Washing facilities are installed in proximate to injury-prone functions; • Only checked and qualified equipment will be available for use. Defected equipment will be removed from operation for maintenance to minimize risk in using the equipment
Continuous Assessment and Improvement	<ul style="list-style-type: none"> • Reviewed by EHS and Safety Committee regularly, safety responsibilities are clearly defined; • For special workshop requiring additional attention due to the risk associated, the Operation Approval and Safety Confirmation System is implemented to closely monitor operation process and ensure safety; • Cooperating and sharing management experience with industry peer, the Group commits to continuous high-standard of occupational health and safety by continuous improvement in accordance to international standard; • Any identified defective issues and deviations will be fixed immediately



Preparedness and Contingency Planning

To ensure our employees are familiar with the evacuation route and personal responsibility and able to respond effectively in emergency situation, the Group conduct emergency drills, including fire drills, earthquake drills and chemical leakage drills, in accordance to the Group's internally implemented emergency response plans. Emergency response plans have been developed. We periodically conduct emergency drills such as fire drills, earthquake drills and blackout drills to raise the safety awareness of the employees and to strengthen their skills to react in an event of crisis or emergency. Aiming to raise our employees' awareness and strengthen their skills, the drills provides opportunity for our staff to practice and improve through participating in the training. Employee's performance in the drill will also be evaluated for continuous improvement.



During the Reporting Period, the Group conducted emergency drill in the factories to provide an opportunity for our staff to get familiar with their own responsibilities and roles in case of emergency. Evaluation was also conducted after the drill to debrief our staff.

Health and Safety Training System

Continuous health and safety training is of paramount importance in cultivating a culture of "Safety First". Organized by EHS, a wide range of training, including safety training, contingency rehearsal, safety workshop, are organized for not only our employee but also the Group's management to ensure all members of the Group are aligned with the "Safety First" Culture and raise their awareness over safety regulation and risk in operation.

The Group formulated the "Safety Risk and Environmental Impact Identification, Evaluation and Management Procedure" to structurally organise the Group's departments to assess and evaluate working conditions regularly. Departments are also required to initiate and carry out remedial actions to minimize the identified risk with the management and employee's joint effort.



In addition, all employees are required to attend professional health and safety trainings, covering a wide range of issues including safe use of equipment and facilities, especially for newly-installed upgrades, storage and handling of hazard-prone chemicals and materials, occupational risk prevention and first-aid in accordance to our internal 3-Level Safety Training System, at least once a year. The 3 levels cover different topics as follows:

Corporate Level:

National and local applicable safety laws, policies and regulations

Department Level:

Applicable internal policies, guidelines, risk identification and assessment system, precautionary measures and on-spot training

Working Level:

Production and operation procedure, safety practice and reminders, use and storage of personal protective equipment, emergency and contingency preparation and report procedure

Reward and Punishment System

To incentivize our employee for continuous improvement, the Group has established the Reward and Punishment System for Work Safety in association with monthly EHS evaluation to emphasize safety at workplace. Performance will be evaluated based on different aspects, including safe production, fire prevention and environmental protection. Reward will be distributed to departments and individuals with outstanding performance in safety management and practice or for providing effective and feasible suggestions on safety practices and prevention of occupational risk-caused injuries.





INTEGRITY AND ANTI-CORRUPTION

Trust and integrity are the fundamental elements in a successful and long-term relationship with business partners and cooperation. The Group commits to sustain a sound and concrete corporate governance to strengthen the bond while maintaining the reputation as an industry leader.

The Group strives to operate with integrity internally and externally to strengthen stakeholders' confidence in the Group by maintaining a working environment and cultivating a culture that embraces integrity. Integrating the applicable laws and regulations into the Group's values of fairness, integrity and compliance, the Group commits to fulfilling the responsibility as a leading global company by eliminating incompliant and unethical acts. For instance, in compliance with General Principles (中華人民共和國民法通則)、Copyright Law of the People's Republic of China (中華人民共和國著作權法), Interpretation of the Supreme People's Court Concerning the Application of Laws in the Trial of Civil Disputes over Copyright (最高人民法院關於審理著作權民事糾紛案件適用法律若干問題的解釋), the Group strictly prohibits any act that would infringe third parties' intellectual properties.

To cultivate a culture of integrity, the Group has also formulated different policies, including Integrity and Self-discipline Undertaking, Commercial Confidentiality Agreement and Competition Limitation Agreement, to provide a clear guidance on ethical operation to ensure our employees share the Group's value and commitment. Employee Code of Conduct is also issued to provide clear guidance for daily operation and ethical standard.

Employee Code of Conduct

Healthy and sustainable development of the Group's business and competitive edge requires employees sharing the Group's values and ethical standard. Demonstrating the Group's determination in maintaining a high standard of business integrity, the Employee Code of Conduct in the Employee Handbook has clearly listed out the Group's principal values and corresponding action guides to practice in operation.

Major Principles	Action Guides
1: Operating in compliance with laws and ethical standards	<ul style="list-style-type: none"> • Compete fairly on the product and service quality without accepting or providing bribe or other illegal benefits • Establish business partnerships that promote coexistence and co-prosperity
2: Maintaining a healthy and ethical corporate culture	<ul style="list-style-type: none"> • Protect and respect intellectual property of the Group and others • Safeguard confidential personal and business partner information • Proactively communicate and respect among employees
3: Serving customers professionally	<ul style="list-style-type: none"> • Maximize customer satisfaction as the top priority of business activities
4: Fulfilling social and environmental responsibility	<ul style="list-style-type: none"> • Integrate environmental and social considerations into strategy and operation • Provide feasible suggestions to enhance environmental performance • Be attentive to personal safety and health
5: Pursue personal development and excel	<ul style="list-style-type: none"> • Commit to work professionally to provide quality service and product • Proactively furnish knowhow and acquire new skills to improve continuously



Anti-Corruption

The Group commits to systematically eliminating all forms of corruption, including bribery, extortion, fraud and money laundering. In compliance with Criminal Law of the People’s Republic of China(中華人民共和國刑法), Anti-Unfair Competition Law of the People’s Republic of China (中華人民共和國反不正當競爭法), Anti-Money Laundering Law of the People’s Republic of China (中華人民共和國反洗錢法), the Interpretation of the Supreme People’s Court on Several Issues concerning the Specific Application of Law in the Trial of Money Laundering and Other Criminal Cases (最高人民法院關於審理洗錢等刑事案件具體應用法律若干問題的解釋), the Supreme People’s Court and the Supreme People’s Procuratorate on Issuing the Opinions on Issues concerning the Application of Law in the Handling of Criminal Cases Involving the Acceptance of Bribes (最高人民檢察院、最高人民法院關於辦理受賄刑事案件適用法律若干問題的意見) and other applicable laws and regulations, the Group adopts a three-tiered management approach-namely “Prevent, Eradicate and Control”, to maintain the operation with integrity.

Prevent	<p>Our employees are the Group’s first line of defence and the most critical part in combatting corruption. Apart from the standard outlined in the Employee Code of Conduct, regular training will also be offered to employee to instil the ethical standards the Group requires the employees to uphold.</p> <p>Cooperating with suppliers and other business partners is another effective approach for the Group to eliminate corruption. For supplier, audits adopting SA 8000 standard will be conducted regularly to ensure the appropriate anti-corruption policy and management are in place. Business partners are required to agree with the “Operation with Integrity and Honesty” Terms and Conditions in contracts, which clearly outlines the Group’s ethical standard and report procedure business partners should abide by.</p> <p>The Group has also established whistle-blowing policy and official anonymous complaint channel and handling procedure to ensure the Group can acknowledge any incidence of corruption and operation possessing high risk of corruption. Any stakeholders of the Group, including employees and business partners, can report, with evidence and proof, to the Group’s independent Audit Committee to file any suspicious case of corruption.</p>
Combat	<p>Delegated by the Audit Committee, the Internal Audit Department will conduct independent investigation after receiving any reported case. Involved personnel will be punished according to the “Award and Punishment Mechanism” if one is proved to be guilty. At the same time, the Internal Audit Team will recommend improvements to be done to prevent similar incident. Every document related to the Complaint will be kept in top confidentiality.</p>
Management	<p>Apart from reviewing the management procedure to ensure compliance with updates in laws and regulations, the top management and Board of Director will also review the filed complaint and suggestion regularly.</p>

In the Reporting Period, the Group is not aware of any litigation against the Group or its employees concerning corruption, bribery, fraud, extortion and money laundering.

COMMITMENT TO OUR COMMUNITY

Apart from creating sustainable value through improvement along value chain, the Group is also proactively seeking opportunity to serve and create positive impact on community by leveraging our knowledge and resources as part of our long-term commitment to our community.





PV POVERTY ALLEVIATION PROJECT

As a responsible corporate citizen, the Group shares the national vision outlined in the 13th Five-Year Plan to alleviate poverty in rural area accurately and precisely. The Group earnestly takes alleviating poverty as part of the social responsibility and is obliged to contribute our professional and premium service. In 2018, the Group has honorably taken part in different projects, including a 16 MW project involving 55 installations in Liannan Yao Autonomous County, a 41 MW project with 138 installations in Ruyang County of Henan province and a project in Gao'anzen of Fujian province. With the 25-years product quality and support guarantee, the solar power station installed not only generates electricity that improves the villager's quality of life, but also generates additional steady income for the villagers.

We have always been adhering to the principle of providing customers with high-quality, high-reliability photovoltaic products. It adheres to strict quality standards in the construction and operation and maintenance of photovoltaic poverty alleviation projects, and also provides comprehensive after-sales service to customers, and will truly provide PV-related poverty alleviation projects. We will implement the company's technology and products, perform its corporate social responsibilities, and bring new energy promotion to poor villages to make more contributions to the poverty-stricken population.



41 MW project in Ruyang County



Project in Gao'anzen
Autonomous County



16 MW project in Liannan Yao Autonomous County



INSPIRING THE NEXT GENERATION

Combatting climate change not only requires hardware equipment technology, but also educating and inspiring our next generation to strengthen the awareness. The Group commits to increasing the next generation's awareness and support towards clean energy.

Wuxi Jinqiao Bilingual Experimental School Students Site Visit

In the Reporting Period, a group of students visited Suntech's Ecology Building. Our passionate staff introduced the building's green features and solar panel production flow. During the site visit, students also learned about the pressing need of having a more sustainable way of life!



Supporting Peking University Student's "Zero Energy Consumption Home"

Utilizing and integrating solar energy into daily life requires creativity and innovation. Suntech provided technical support and state-of-arts solar panel to a group of enthusiastic students to create a home of zero energy consumption in a Solar Decathlon 2018!





CHARITABLE DONATIONS

The Group is also dedicated to providing assistance and care to members of society in need. Led by the management and committee members, the Group participated in different donation activities and visiting the disabled. Developments in Reporting Period are as follows.

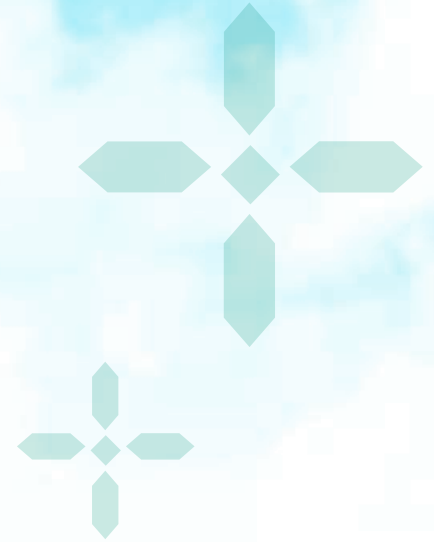


Improving disadvantaged group's quality of life is part of the Group's commitment to repay our community. During the Reporting Period, the Group donated electrical vehicle to improve their mobility to work.

In addition, we have continued our support to disadvantaged group of our community in different ways, including donation of cleaning equipment to the society.



INDUSTRY RECOGNITION AND LEADERSHIP





KEY AWARDS AND HONOURS

Honours or Awards	Organizer
Jiangsu Famous Brand Certificate (常州市名牌產品)	Chengzhou Promotion Commission for Famous Brand Strategy (常州市名牌戰略推進委員會)
Jiangsu Engineering Research Center for High Efficiency N-type Solar Cell and Application (工程技術研究中心(N型))	Jiangsu Department of Science and Technology (江蘇省科學技術廳)
Jiangsu Famous Export Brand (2017-2019) (江蘇省重點培育和發展的國際知名品牌(2017-2019))	Department of Commerce, Jiangsu Province (江蘇省商務廳)
Credit Rating AAA (資信等級AAA)	China Beiinternational Credit Management Co., LTD (中貝國際信用管理有限公司)
Jiangsu Enterprise R&D Management System Certificate (江蘇省企業研發管理體系貫標證書)	Jiangsu Enterprise R&D Society (江蘇企業研發機構促進會)
Informatization and Industrialization Management System Certificate (兩化融合管理體系評定證書)	The Fifth Research Institute of Ministry of Industry and Information Technology (工業信息化部電子第五研究所)
2018 Top 10 China Solar PV System Brands (“中國好光伏”2018年度戶用光伏系統十大品牌)	The Photovoltaic of China Organizing Committee (中國好光伏品牌年度盛典組委會)
2018 China Top 10 Solar PV Modules (“中國好光伏”2018年度戶用光伏組件十大品牌)	The Photovoltaic of China Organizing Committee (中國好光伏品牌年度盛典組委會)
2018 Top 50 Innovative Chinese PV Companies (2018光伏行業創新力企業50強)	www.solarenpv.com/China Photovoltaic Innovation Evaluation Committee (光伏產業網/光伏行業創新力企業評價委員會)
2018 China's Photovoltaic Industry's Most Innovative Module Companies (2018光伏行業十大最具創新組件企業)	www.solarenpv.com/China Photovoltaic Innovation Evaluation Committee (光伏產業網/光伏行業創新力企業評價委員會)
2018 "Solar Cup" CREC Outstanding PV Module Company (2018年度“光能杯”CREC評選年度優秀光伏組件企業)	Solarbe/www.solarbe.com (索比光伏網)
2018 China Top 10 Distributed Grid-Connected Photovoltaics Brand (2018中國十大分布式光伏組件品牌)	Chinese Renewable Energy Conference and Exhibition Organization Committee (中國(無錫)國際新能源大會暨展覽會組委會)
CREC 2018 Outstanding Contribution Award (Individual) (CREC 2018卓越貢獻獎(個人))	Chinese Renewable Energy Conference and Exhibition Organization Committee (中國(無錫)國際新能源大會暨展覽會組委會)
CREC 2018 Outstanding Contribution Award (Company) (CREC 2018卓越貢獻獎(公司))	Chinese Renewable Energy Conference and Exhibition Organization Committee (中國(無錫)國際新能源大會暨展覽會組委會)
Certificate of Cooperation for Solar Decathlon China (中國國際太陽能十項全能競賽合作證書)	Team of School of Physics, Peking University (SDC北京大學賽隊北京大學物理學院)
The Top Single Photovoltaic Component Brand (2018單項頂級光伏組件品牌)	China Renewable Energy Society (江蘇省可再生能源行業協會)



Honours or Awards	Organizer
2018 Polaris Cup Top Ten Photovoltaic Cell and Module Brands (2018年度“北極星杯”最受歡迎十大光伏電池、組件品牌)	guangfu.bjx.com.cn (北極星太陽能光伏網)
Changzhou City Star Enterprise (常州市明星企業)	Changzhou City People's Government (常州市人民政府)
Wujin District Investment in Research and Development Top 10 Enterprises (武進區創新投入十強企業)	Wujin District People's Government (武進區人民政府)
Utilizing Foreign Capital and Investment Top 10 Enterprises (利用外資十強企業)	Wujin District People's Government (武進區人民政府)
Wujin District Tax Contribution Award (武進區納稅大戶)	Wujin District People's Government (武進區人民政府)
Open-Economy Award (開放型經濟獎)	Wujin National High-tech Industrial Development Zone Management Committee (武進國家高新技術產業開發區管理委員會)
Tax Contribution Award (納稅貢獻獎)	Wujin National High-tech Industrial Development Zone Management Committee (武進國家高新技術產業開發區管理委員會)
Top 10 Smart Production Plants (十佳智能車間)	Wujin National High-tech Industrial Development Zone Management Committee (武進國家高新技術產業開發區管理委員會)
Efficient Investment Award (有效投入獎)	Wujin National High-tech Industrial Development Zone Management Committee (武進國家高新技術產業開發區管理委員會)
Advanced Ecology Construction Institute (生態文明建設先進集體)	Wujin National High-tech Industrial Development Zone Management Committee (武進國家高新技術產業開發區管理委員會)
AA Enterprise (AA企業)	Jiansu Province General Administration of Quality Supervision, Inspection and Quarantine (江蘇省質量技術監督局)



MEMBERSHIP OF INDUSTRY ASSOCIATIONS

Country/Region	Association	Level of Involvement
China	Changzhou PV Industry Association (常州市光伏協會)	Vice President
China	China Renewable Energy Council (Wuxi) (無錫新能源商會)	Rotating Chairman
China	Wuxi International Chamber of Commerce (中國國際商會無錫商會)	General Committee Memeber
China	China Photovoltaic Industry Association (中國光伏行業協會戶用光伏專業委員會)	General Committee Memeber

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Indicator		Chapter/Disclosure	Page
A. Environmental			
Aspect A1: Emissions			
General Disclosure		Environmentally-Friendly Production	17
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.		
KPI A1.1	The types of emissions and respective emissions data.	Environmental Performance Table	25
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and intensity.	Environmental Performance Table	25
KPI A1.3	Total hazardous waste produced (in tonnes) and intensity.	Environmental Performance Table	25
KPI A1.4	Total non-hazardous waste produced (in tonnes) and intensity.	Environmental Performance Table	25
KPI A1.5	Description of measures to mitigate emissions and results achieved.	Air Emissions and Greenhouse Gases Management	19
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Water Management	20
Aspect A2: Use of Resources			
General Disclosure		Emissions Management and Reduction	19
	Policies on the efficient use of resources, including energy, water and other raw materials		
KPI A2.1	Direct and/or indirect energy consumption by type in total (kWh in '000s) and intensity.	Environmental Performance Table	25



HKEX ESG Reporting Guide Content Index Table (Continued)

Indicator		Chapter/Disclosure	Page
KPI A2.2	Water consumption in total and intensity.	Environmental Performance Table	25
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	Energy Management	20
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Water Management	20
KPI A2.5	Total packaging material used for finished products, and if applicable, with reference to per unit produced.	Environmental Performance Table	25
Aspect A3: The Environment and Natural Resources			
General Disclosure		Emissions Management and Reduction	19
Policies on minimizing the issuer's significant impact on the environment and natural resources.			
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Emissions Management and Reduction	19
B. Social			
<i>Employment and Labour Practices</i>			
Aspect B1: Employment			
General Disclosure		Compliant Employment	26
Information on:			
(a) the policies; and			
(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.			
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	Compliant Employment	26
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Compliant Employment	26
Aspect B2: Health and Safety			
General Disclosure		Health and Safety	36
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.			
KPI B2.1	Number and rate of work-related fatalities.	Not disclosed during the Reporting Period.	N/A
KPI B2.2	Lost days due to work injury.	Not disclosed during the Reporting Period.	N/A
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Health and Safety	36



HKEX ESG Reporting Guide Content Index Table (Continued)

Indicator		Chapter/Disclosure	Page
Aspect B3: Development and Training			
General Disclosure		Training and Development	32
	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.		
KPI B3.1	The percentage of employees trained by gender and employee category.	Training and Development	32
KPI B3.2	The average training hours completed per employee by gender and employee category.	Training and Development	32
Aspect B4: Labour Standards			
General Disclosure		Compliant Employment	26
	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.		
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	Compliant Employment	26
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Compliant Employment	26
<i>Operating Practices</i>			
Aspect B5: Supply Chain Management			
General Disclosure		Supply Chain Management	12
	Policies on managing environmental and social risks of the supply chain.		
KPI B5.1	Number of suppliers by geographical region.	Not disclosed during the Reporting Period.	N/A
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Not disclosed during the Reporting Period.	N/A
Aspect B6: Product Responsibility			
General Disclosure		Quality Control	13
	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.		
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not disclosed during the Reporting Period.	N/A



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Indicator		Chapter/Disclosure	Page
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	<i>Number of products and service related complaints received</i> Not disclosed during the Reporting Period. <i>How complaints are dealt with</i> Global Customer Services	N/A 15
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Not disclosed during the Reporting Period.	N/A
KPI B6.4	Description of quality assurance process and recall procedures.	Global Customer Services	15
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Not disclosed during the Reporting Period.	N/A
Aspect B7: Anti-corruption			
General Disclosure		Integrity and Anti-Corruption	40
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.			
KPI 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.	There is no occurred or on-going case of legal cases regarding corrupt practices brought against us or our employees during 2018.	N/A
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Integrity and Anti-Corruption	40
<i>Community</i>			
Aspect B8: Community Investment			
General Disclosure		Commitment to Our Community	42
Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.			
KPI B8.1	Focus areas of contribution.	Not disclosed during the Reporting Period.	N/A
KPI B8.2	Resources contributed to the focus area.	Not disclosed during the Reporting Period.	N/A