



About This Report

LongiTech Smart Energy Holding Limited (hereinafter referred to as "LongiTech Smart Energy", the "Company" or "we") is delighted to publish its third Environmental, Social and Governance (ESG) Report (the "Report"). This Report is intended to articulate concepts and practices of the Company and its subsidiaries (hereinafter collectively referred to as the "Group") in fulfilling their environmental, social and governance responsibilities in 2018 and to address materiality issues of concern raised by key stakeholders. This Report is published online in both Chinese and English.

Report Accessibility

This Report is available for browse and download at the website of the Hong Kong Exchanges and Clearing Limited (www.hkexnews.hk) and the official website of the Company (www.longitech.hk).

Reporting Scope and Period

Business Scope: This Report covers businesses of the Group, including smart energy business, public infrastructure construction business¹, with gradual expansion and diversification to other clean energy business².

Reporting Period: This Report covers a period from 1 January 2018 to 31 December 2018 (hereafter, the **"Year**"). To enhance the integrity of this Report, some of its contents may contain information before or after this time period.

Reporting Cycle: This Report is an annual report. The last report was released in April 2018.

Report Reference

This Report is prepared by the Group in accordance with the Materiality, Quantitative, Balance and Consistency principles outlined in *Appendix 27 Environmental, Social and Governance Report Guide* ("**ESG Guide**") of *the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited* ("**Listing Rules**") by The Stock Exchange of Hong Kong Limited ("**Stock Exchange**"). This Report complies with the "Comply or Explain" provision in the *ESG Guide* and disclose the environmental and social impact of the Group's business and operational activities.

Report Assurance

The content of this Report has been reviewed by the board ("**Board**") of directors ("**Directors**"), which assumes full responsibility for the authenticity and effectiveness of the information disclosed. The Group assures that the contents of this report are free of any false statements or misleading presentations. The Group establishes daily communication channels with stakeholders to identify ESG risks associated with its business and to ensure appropriate and effective ESG risk management and internal control.

Readers Feedback

If you have any comments or suggestions with regard to this Report, please send us your feedback online (www.longitech.hk) or via investor relations email (investor@longitech.hk) to help us improve.

^{1.}Public infrastructure construction business refers to the public infrastructure construction and the related preliminary investment and post-construction operation management business of the Baoding Donghu Project. As smart energy business constitutes its principal business activities, the Group currently has no plan to further expand such related business after the Baoding Donghu Project is complete. Public infrastructure construction business will be presented as a case in "Building a Green City" in this Report.

^{2.}In July 2018, the Group acquired Tianjin Haitian Fangyuan Energy Saving Technology Co., Ltd., so the distributed natural gas heating supply business will be presented as a case in "Providing Clean Heating Technology" in this Report.

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About Us

The Company is a Main Board listed company on the Stock Exchange (stock code: 1281), as well as a leading provider of smart energy solutions in China. Through its smart energy cloud platform, the Company is committed to achieving the balanced expansion of energy demand-side and supply-side services, constantly diversify and improve the structure of its smart energy industry and provides a full range of smart energy services for energy consumers, creates sustainable returns to its shareholders, promotes green development, and contributes to building a beautiful China.



During the Year, the Group vigorously promoted the smart energy business, mainly set out to meet the demands of industrial, commercial and residential clients as well as public institutions; provides customers with a full range of smart energy comprehensive utilization services by adopting both online and offline modes in parallel, and based on various energy resources including electricity, heat and gas by leveraging on our smart energy cloud platform (the "**Cloud Platform**") with proprietary intellectual property rights.

Smart Energy Business

Offline Energy Business

The Group actively focuses on investment and strategic layout in the clean energy field such as electricity, heat and gas and seizes the relevant quality resources through investment and mergers and acquisitions to provide customers with a comprehensive energy service, promoting the Group's multi-dimensional business development and forming a complementation utilization between tradition and new energy. Online Cloud Platform

The Group continues to deepen reform, optimization and upgrade of the Cloud Platform, integrate the energy system with internet technology, and upload the energy data of industrial, commercial and residential users to the Cloud Platform in real time. Integrating and tapping the value of big data, we aim to provide our customers with electricity heat, gas along with other full industry services including multi-energy complementation, smart operation and maintenance, energy trade, efficiency analysis, consultancy management to energy finance and energy big data.

Corporate Governance

Since its listing, the Company has been in strict compliance with the laws of the People's Republic of China, the laws of Hong Kong, *Corporate Governance Code* in Appendix 14 of the Listing Rules. The Company has also formulated the *Article of Association*, the *Rules of the Boards of Directors* and other relevant regulations. With the principles of openness, impartiality, fairness, and independence, the shareholders meeting is in charge of the election and re-election of the directors, who are subject to retirement by rotation at least once every three years. The Board of Directors consists of seven members, Mr. Wei Qiang, Mr. Yuen Chi Ping and Dr. Liu Zhengang serve as executive Directors; Mr. Wei Shaojun serves as non-executive Director; Dr. Han Qinchun, Mr. Wong Yik Chung, John and Mr. Han Xiaoping serve as non-executive Directors. The Board of Directors is committed to promoting robust corporate governance to protect shareholders' rights and enhance corporate value and accountability. The Board has three specialized committees, including the Audit Committee, the Remuneration Committee and the Nomination Committee, which are appointed and authorized by the Board of Directors and operate in accordance with their *Terms of Reference*. During this Year, the Company held a total of 12 board meetings and 2 shareholders meetings.

We understand that board diversity to a greater way to support the Company's strategic goal and sustainable development. The Company adopted the *Board Diversity Policy*, the Nomination Committee will select directors based on a range of diversity perspectives, including but not limited to gender, age, cultural and educational background, professional experience, skills, knowledge and management experience in the selection and appointment of candidates for the Board of Directors.

Risk Management and Internal Control

The Company's risk management and internal control systems cover its major businesses. The Board is responsible for establishing and maintaining appropriate and effective risk management and internal control system, and regularly assessing and continuously supervising its effectiveness to safeguard the overall interests of the Group and its shareholders, and to foster the sustainable development of the Group. The Group has established the enterprise risk management framework so as to effectively manage all kinds of risks exposed to the Group. The enterprise risk management framework defined the procedures for identifying, assessing, responding to and monitoring risks and their changes. Through regular discussions with each operating function, the Group strengthened the understanding of risk management so that all employees will understand and report the risks timely which enhanced the Group's ability to identify and manage risks.



In the course of risk identification, the management liaises with each operating function, collects significant risk factors that affect the Group from the bottom to the top, in various aspects including strategies, operational and financial matters, reporting and compliances. After establishing risk assessment scope, the management will assess the potential impact and possibilities of the risks and prioritise the risks and make appropriate internal control measures to mitigate the risks identified and monitor the changes of risks in an on-going manner.

Integrity Management

Integrity is an important part of corporate culture. The Group always adheres to the management of integrity and professional conduct, and prohibits any illegal acts such as bribery, extortion, fraud and money laundering that violate business ethics. During the Year, the Group has strictly complied with the *Criminal Law of the People's Republic of China*, the *Anti-Unfair Competition Law of the People's Republic of China*, and the *Anti-Money Laundering Law of the People's Republic of China* and hes not received any reports or investigations with regard to corruption cases. To encourage our employees and partners to report violations, foster a full-participation in anti-corruption mechanism, we had established a *Complaint and Whistle Blowing System* and open the hotline (010-53526588), email of Internal Audit Department: neishen@longitech.hk or the Chairman of the Audit Committee, Mr. Wong Yik Chung, John: 3423849822@qq.com, our employees or partners could





report violations either with real name or anonymous through above channels. At the same time, to promote a fair, equal, simple and transparent partnership, regulating integrity management of both-side, the Group has established a *Partners Business Integrity System*, required the contracting parties to sign a *Business Integrity Agreement* when signing any major cooperation agreement. Any serious corruption will be prosecuted according to law. In addition, to prevent the occurrence of corruption incidents, and to deal with corruption incidents and complaints and reports in a fair and compliant manner, the Group has standardized the responsibilities and procedures of the Internal Audit Department in investigating and handling complaints by formulating a *Compliant and Whistle Blowing Investigation System*, so as to create an integrity working atmosphere.

This Report provides an overview of the Company's corporate governance during the Year. For more details, please refer to the "**Corporate Governance Report**" set out in the annual report of the Year.

Stakeholder Communication

The Group strives to fulfill its responsibility and commitment as a social citizen and create a positive impact on society based on common values of social responsibility. In order to continue expanding our ESG management, the Group invited a third-party consulting company to conduct ESG-related training and discuss ESG disclosure of the Year, further enhancing the understanding of ESG across executive management, subsidiaries and various functional departments.

During the Year, the Group actively carried out stakeholder communication and identified the most important sustainable development topics through daily communication mechanisms. These topics would be used as reference for the future direction of sustainable development management, enabling the Group to respond to the concerns and expectations of stakeholders in a more accurately manner.

Step 1: Identifying Key Stakeholders and Establishing Daily Communication Mechanisms

The Group has established a wide range of effective communication channels with stakeholders to strengthen mutual trust and respect, effectively responding to the concerns and expectations of stakeholders.

Identification of Stakeholder	Communication Channels
Shareholders and Investors	 Regular Corporate Reporting Shareholders Meeting Briefings and Conference with Investors
Government and Regulators	 Special Report Routine Inspection Public–private Partnership
Partners (affiliated parties, suppliers, etc.)	 Industry Communication and Exchange Project Cooperation Regular Interview
Employees	 Internal Information Disclosure Performance Communication Mechanism Employee Complaints and Feedback
Customers	 Customer Service Daily Operation and Communication Customer Visits and Surveys
Community	Volunteer ActivitiesExecution of Public Welfare Projects

Step 2: Identifying and Verifying Material Topics

The Group refers to the "*How to Prepare an ESG Report*" issued by the Stock Exchange in 2018. Through an internal survey, seven of the twenty identified sustainable development issues were selected as the most material issues related to the business, considering from the degree of "influence on stakeholers" and "influence on the Company's business" two dimensions. These topics were discussed and examined thoroughly to ensure conformity with the Group's sustainable development strategies and will be disclosed in detail following sections of this Report.

Material Topics (sorted by importance)	Corresponding Disclosure Section
Smart Energy	Innovating Smart Services & Co- building Mutual Trust Relationship
Corporate Governance	About LongiTech Smart Energy
Energy Efficiency	Promoting Clean Energy & Protecting Ecological Civilization
Employee Training and Development	Gathering Talents & Showing People-oriented
Product and Service Quality	Innovating Smart Services & Co-building Mutual Trust Relationship
Resources Utilization	Promoting Clean Energy & Protecting Ecological Civilization
Information Management	Innovating Smart Services & Co- building Mutual Trust Relationship

In the future, the Group will deepen and expand the scope of stakeholder communication and research, continuously evaluate and examine materiality topics concerned by stakeholders, further clarify the focus of information disclosure and strengthen the management of sustainable development.





Stakeholder's Material Topics Prioritization



Influence on the Company's Business



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In June 2018, the Group was named as a standing committee member of the Electrical Heating Committee of the China Building Energy Conservation Association.

In August 2018, a demonstration project of next-generation information technology application was certified by the Ministry of Industry and Information Technology of Hebei Province.







Innovating Smart Services & Co-building Mutual Trust Relationship

"Internet+" smart energy, that is energy internet, is an important strategic support to promote China's energy revolution.

Smart energy is the integration of the energy industry, internet industry, and modern communication industry. It serves an important function for promoting energy production and consumption pattern reform, promoting the green and low-carbon development in China. *Guidelines of Energy Work in 2018* issued by National Energy Administration suggested that it will practically promote the construction and application of the demonstration projects such as the "Internet+" smart energy (energy internet), integration and optimization of multi-energy complementation, as well as pilot energy reservation technology project.

Developing Smart Energy

In order to follow national policies and industry trends, the Group actively implement *Guiding Opinions of the State Council on Vigorously Advancing the "Internet Plus" Action by National Development and Reform Commission, National Energy Administration, Ministry of Industry and Information Technology* to regularly and orderly develop on smart energy business. The Group positioned as comprehensive energy services for the user side, mainly sets out to meet the demand of industrial, commercial and residential clients as well as public institutions. By integrating energy systems with the internet technology by leveraging on our cloud platform with proprietary intellectual property rights. The Group uploads the real-time data of electricity, heat and gas from industrial and commercial enterprises and residential users to the Cloud Platform, integrates big data, and taps into the value of big data to provide users with other services that cover the entire industrial chain, from multi-energy complementation of electricity, heat and gas, smart operation, energy trade, energy efficiency analysis and consultancy management to energy finance and energy big data.

The Group has also compiled three standardized system documents, the *Smart Power Distribution Operation and Maintenance Services Standardization System*, the *Energy Efficiency Management Services Standardization System* and the *Energy Storage Services Standardization System*, to contribute to the standardize operation procedures for smart operation and maintenance services, energy efficiency management and energy storage businesses.





Solar Power Plant Video Monitoring System





Home Photovoltaic Monitoring System

Intellectual property plays a very important role in promoting the development of enterprises. On the one hand, it can guarantee the operation safety of enterprises; on the other hand, it can promote enterprises to enjoy the market benefits brought by intellectual property. While vigorously developing our smart energy business, the Group also attaches great importance to the protection of our intellectual property rights. Up to now, the Group has obtained a total of 17 computer software copyright registration certificates in the smart energy field, such as: electrical energy online monitoring system, electrical energy efficiency analysis system, electrical quality analysis system, home photovoltaic smart monitoring APP (Android version), distributed clean heating monitoring system, and other software certificates.

The Group is dedicated to providing the last one-kilometer solutions of smart energy with our Cloud Platform, promoting the smart comprehensive energy services and working together with our stakeholders for a more sustainable ecological environment and contributing to the development and progress of the customers and our industry.





Providing customers with continuous quality service and product quality is the eternal power to achieve sustainable development. While providing customers with smart energy services, the Group attaches great importance to maintaining good relations with customers and providing customers with consistent quality products and services to maintain brand competitiveness and dominant position. The Group adheres to the management idea of doing business with love, sincerity and faith. During the Year, we have strictly complied with Work Safety Law of the People's Republic of China. Product Quality Law of the People's Republic of China, Code for Construction of photovoltaic Power Station (GB 50794-2012), and no recall has occurred due to safety or health problems of products or services. At the same time, the Group has in accordance with the Advertising Law of the People's Republic of China, strictly regulate the advertising and labelling of the group's products and services to avoid misleading public judgments.

Cloud Families" Quality Certificate



Solar Power Plant Operation and Maintenance Service ISO Quality Management System Certificate





Safeguarding the interest of customers and ensuring the security of customers information is always the focus of the Group. During the Year, the Group has strictly complied with Cybersecurity Law of the People's Republic of China, Administrative Measures for Internet Information Services and other laws and regulations. We, in accordance with Guidance for the Classification of Information System Registration and Protection in Electric Power Industry, Information Security technology Classification guide for Classified Protection of Information System (GB/T 22240-2008) and combined with energy management system business analysis, formulate the Information Security View of Big Data Platform, Standardization Specification for Data Acquisition Subsystem, and follow the standardize safety protection operation to deploy safety protection measures for energy management system. We have established, from application safety, data security, host security, internet security and terminal security, a total of seven aspects of safety protection design and authority management, so as to ensure data security and customer privacy (such as user information, electricity-used data, user energy consumption data information, etc.), and avoid the risk of customer information leakage, tampering, stealing, illegal copying, abuse and so on. In addition, in order to standardize software configuration management, maintain software integrity and traceability, and remedy information security omissions caused by privileges or backups in a timely manner, the Group has formulated the Software Configuration Management Procedure, which is audited and recorded by testing responsible personnel, and corrected by responsible department within a time limit.

To ensure the consumers' interests and product quality and provide all-round services, we have established a dedicated inspection team for "Cloud Families", carrying out maintenance inspections to ensure the normal operations of our products. Some dealers of the "Cloud Families" also provided product insurance coverage for equipment and possible damages and free insurance claim settlement trainings for our customers, which had greatly reduced daily losses caused by operation risks. The "Cloud Families" platform had also established an emergency mechanism to provide onsite maintenance and after-sale services to help the customers minimize possible losses. At the same time, "Cloud Family" has established Unqualified Products Control Program, standardizing the control procedures of raw materials, and non-conforming products which occurred in processing, finished, inventory, customer returns and the inspection and testing stages. Once the non-conforming products are shipped, found department shall immediately notify the sales team, and the sales team shall negotiate with the customers. According to the degree of influence, the disposal methods of non-conforming products after delivery include exchange, repair, compensation or return; meanwhile, according to the customer's opinions, the sales team should submit Customers Feedback Record to quality team, and record the relevant problems; when necessary, the quality team should hold quality analysis meeting, analyze the causes of non-conformance and formulate corrective and preventive measures. The Group strictly in accordance with Customer Complaint Management Procedure to handle returns, exchanges and compensation for customers. The sales team takes over the complaints and reinspects the unqualified conditions by quality team, and rework by the original production unit if necessary.

Win-win Cooperating with Partners

The Group attaches great importance to the sustainable and friendly cooperation with supplier partners, to ensure the leading industrial strength and high degree of corporate social responsibility of suppliers, so that achieving law compliance and winwin cooperation and fulfilling environmental and social responsibility. The Group in accordance with the Bidding Law of the People's Republic of China to formulated Bidding and Procurement Management Regulations (Trial), so as to standardize the procurement activities, improve procurement efficiency, specify job responsibilities of relevant personnel, effectively reduce procurement cost and meet the Group's demand for high quality resources; meanwhile, the Group regulated the selection and daily maintenance of suppliers by formulating the Supplier Management System, and put forward strict requirements on bidding, management, evaluation and elimination of suppliers. In addition to inspecting supplier qualification, production capability and technical capability, the Group also attaches great importance to supplier's quality assurance. During the approval stage, the Group requires the suppliers to provide the certification of Quality Management System ISO 9001, Environmental Management System ISO 14001, and UL certification (production safety certification) of Underwriter Laboratories Inc., comprehensively considers suppliers' performance on quality control and environmental protection, as well as the brand and social reputation.



Number of Suppliers in 2018



Promoting Clean Energy & Protecting Ecological Civilization

There is no substitute for ecology and environment. Use it uncons ciously, lose it hard to survive.

By accelerating the development of an ecological civilization system, China is working to solve ecological and environmental problems, resolutely promoting triumph in the uphill battle for prevention and control of pollution and promoting the development of an ecological civilization system to a new level. As the leading integrated service provider of smart energy in China, the Group, as always, is in line with industry development and responds to national policy guidance. We do not only focus on green energy development, but also hope to provide a full range of smart energy management services to meet the needs of energy consumption demand and supply from different dimensions. We aim at not only achieving the transformation of clean energy from traditional fossil energy, but, more importantly, we also strive to achieve delicacy management and highly efficient use of energy and promote the technological transformation of the energy industry and strove to build a smart energy system with multi-energy complementary and supply-demand coordination.



🔅 Expanding Solar Power Generation Business

LongiTech Smart Energy eagers to transmit the clean energy to every corner of the world. We provide clean and renewable green energy on the power generation side, while on the power consumer's side, we seek to maximize the comprehensive efficiency for energy consumptions. With the whole life-cycle operation management of energies, we create value for enterprises and at the same time, lend a strong support to the sustainable development of both national and regional economies and energy industries, making positive contributions to building a beautiful and ecological China.

The solar energy used in solar power generation is renewable energy. The large-scale utilization of solar energy can greatly reduce the utilization of primary energy (such as coal, oil), thus reducing the environmental problems such as pollutant emissions, vegetation destruction and marine ecological impacts caused by the development of primary energy. The Group held a total of 11 solar power plants with an aggregate installed capacity of approximately 64 MW. During the Year, the power generation of 11 solar power plants totaled 75,044 MWh. We also vigorously promoted home photovoltaic system, during the Year, the actual shipments of home photovoltaic system were approximately 73 MW and the cumulative users were about 19,300.

In the process of solar power generation, there are no pollutants such as particulate matters, sulfur dioxide, greenhouse gas, wastewater and other pollutants, so no significant environmental impact on the environmental and natural resources. While playing a role of improving the atmospheric environment, it can also save freshwater resources and has good environmental benefits.



Actual power generation: 75,044 MWh	Equivalent to the saving of standard coal: 23,413.88 tons
the reduction of CO_2 emission: 61,686.58	the reduction of SO ₂ emission: 29.27 tons
the reduction of NO _x emission:	the reduction of PM emission: 6.00 tons
the saving of water consumption: 97,557.85 tons	

3. The calculation method of this table refers to the China Coal Power Clean Development Report issued by the China Electricity Council in 2017.

Whenever in the pre-investment construction period of solar power plant or in daily operation, we standardize the environmental impact assessment of solar power plants and mitigate the environmental impact of solar power plants according to Environmental Protection Law of the People's Republic of China, Law of the People's Republic of China on Environmental Impact Assessment, and Technical Regulations for Environmental Impact Assessment of Photovoltaic Power Station. Before investment and construction, the Group employs professional feasibility research institution to conduct project feasibility studies to analyze the feasibility of investment project construction from the perspective of environmental protection, including solar energy resource analysis, environmental protection and soil and water impact assessment, energy saving and consumption reduction analysis, so as to ensure that the project has basically no negative impact on the local natural ecosystem and residents' lives during the construction and operation period. After the completion of the construction project, the project shall be accepted and approved by the local environmental protection bureau according to Regulations on the Administration of Construction Project Environmental Protection, Management Measures for Environmental Protection Acceptance of Completed Construction Projects. The environmental protection acceptance is carried out for wastewater, solid waste, ecological environment and other pollution control measures of solar power plant construction projects, as well as standard discharge of pollution, environmental protection management and so on. We are committed to reducing any actions that may affect the environment and natural resources, and strictly abide by the following laws and regulations:

- Environmental Protection Law of the People's Republic of China;
- Law of the People's Republic of China on Environmental Impact Assessment;
- Land Administration Law of the People's Republic of China;
- Water and Soil Conservation Law of the People's Republic of China;
- Water Pollution Prevention and Control Law of the People's Republic of China;
- Atmospheric Pollution Law of the People's Republic of China;
- Law of the People's Republic of China on the Prevention and Control of Environmental Pollution Caused by Solid Wastes;
- Law of the People's Republic of China on Prevention and Control of Pollution from Environmental Noise;
- Classified Administration Catalogue of Environmental Impact Assessments for Construction Projects; and
- Technical Regulations for Environmental Impact Assessment of Photovoltaic Power Station, etc.

During the Year, we held a total of 11 solar power plants, in which 10 are industrial and commercial distributed solar power plants and 1 ground power plant, namely Longhua power plant in Hebei. In addition to Gaocheng Xing'an and Longhua power plants in Hebei, others have adopted the mode of self-use and uploading surplus power online to the grid, which improves the stability and reliability of photovoltaic system operation and power supply and is the most reasonable and economic direction for the development of solar power generation:

Solar Power Plant—Emissions of Greenhouse Gas (Scope 2)

Emissions from electricity consumption	872.81	Tons
Emissions intensity	0.13	Tons/ RMB 10,000 income

Solar Power Plant—Production of Solid Wastes			
Production of waste solar panel	73	Units	
Production intensity	6.64	Units/ station	
Production of domestic waste	0.9	Tons	
Production intensity	0.08	Tons/ station	

Solar Power Plant—Use of Resources			
Water consumption ⁴	60	Tons	
Water consumption intensity	0.009	Tons/ RMB 10,000 income	
Electricity consumption	987,001	kWh	
Electricity consumption intensity	152.23	kWh/ RMB 10,000 income	

In the stage of design and construction of solar power plants, we have implemented the standardization in a series of regulations of water consumption, pollutant discharge and energy saving measures, to meet the sustainable development strategy of national environmental protection policy. In daily operation, the solar power plant is introduced from the water supply pipeline of each plants nearby, and there are no difficulties in obtaining water source; the main water discharge is sewage from employees' daily life, all of which are not drainage to outside, but used by local peasant households for irrigation after pretreatment by oil separating tank and septic tank; wastewater from solar panel cleaning is sprinkled and greened in situ; domestic waste is collected centrally and transported regularly to designated temporary garbage storage point; and finally cleaned and transported uniformly by the environmental sanitation department. The waste solar panel are stored in designated points and recycled regularly by manufacturers. Because the battery pack housing is made of aluminum alloy and the battery sheet is made of pure silicon, the waste solar panel is not hazardous waste.

4. The water consumption of solar power plants only includes data from Gaocheng Xing'an Power plant and Longhua Power plant in Hebei. Since the water consumption of the remaining 9 solar power plants is very low, their data is not disclosed here.

Providing Clean Heating Technology

With the development in urban centralized heat supply and distributed heat supply and China carries out the policy of saving energy, reducing emissions and eliminating backward production capacity across the country, especially the implementation of the clean heating scheme in Northern China. During this Year, the Group has strengthened its investment and layout in thermal energy, particularly in distributed natural gas heating supply, provided technical energy saving services, energy efficiency data analysis and other services, created a smart heating cloud platform by implementing the development and operation management of clean heating projects, technological energy-saving, as well as energy performance contracting (EPC) and other aspects.

Case Taian YingXiongShan High-level Middle School, Shandong Province

During the Year, the Group adopted energy performance contracting to carry out energy-saving transformation on the distributed natural gas heating technology for the user. Gas condensing water heating was applied, which significantly improved the thermal efficiency when comparing to conventional boilers. While realizing the needs for energy-saving of users and the environmental protection requirements of nitrogen oxide emission reduction, the labor cost requirements were saved by applying remote control strategy to realize a 24-hours unattended operation of heating. The Group actively shares energy-saving benefits with users, in order to help increasing their environmental and social performance.





Excavating User Energy Efficiency

During the Year, the Group has undertaken energy auditing services for 94 government facilities in Hebei Baoding city, Hengshui city, Qinhuangdao city, Cangzhou city, Shijiazhuang city and Langfang city, with a total area of approximately 553,000 square meters audited, and have identified the energy potentials of a total of 2,004.398 tons of standard coal equivalent and have made 378 improvement or upgrade suggestions. In addition, the Group has conducted the energy-saving auditing for comprehensive energy-saving renovation of distribution network and power quality improvement projects for 2 power supply branches of State Grid Hebei Electric Power Supply Company in accordance with *Demand Side Management in Power Grid Enterprises* issued by National Development and Reform Commission, *GB/T 15316 General Principles for Monitoring and Testing of Energy Conservation*, quantifying annual saving of 9.6415 million kWh of electricity, and 2,979 tons of standard coal.





The Donghu Cultural Center PPP project is a cooperation between the Group with Hebei Baoding municipal government. Through PPP model, which the government and social capital cooperates to develop construction jointly. With a total area of 4.68 km², the project included the construction of the Guan Hanqing opera house, museum, library, Donghu Park, related road system and rainwater and sewage pipe network, protective landscape, bus stations, educational facilities and cultural facilities,etc. This project is expected to be completed in 2022, serving as the gateway of Baoding city to Xiongan new district, and of great significance to the coordinated development of Beijing, Tianjin and Hebei.

As an advocate and practitioner of environmental protection, we strictly comply with *Environmental Protection Law of the People's Republic of China*. The construction of bus stations strictly follow the *Evaluation Standard for Green Building* GB/T 50378-2014, and awarded the evaluation criteria of one star in design stage. Donghu Park referred to the *Technical Guideline for Sponge City Construction*, to form a sustainable recycling system of architecture, landscape and water system through low-impact development of rainwater system construction. Meanwhile, the solar tree become the highlight of the landscape which is designed as a green energy-saving project that can collect rainwater effectively and absorb solar energy to provide daily power consumption. We are guided by the principle of conforming to the laws of natural ecosystem and living in harmony. With fully considered the local ecological environment and local culture in the design process, so as to minimize the consumption of resources, maximize the efficiency of use, and help the construct and development of green cities.





Adhering to "reliable helper on energy saving and emission reduction for businesses" and a "leading provider of regional energy services", LongiTech Smart Energy not only provides energy-saving and emission reduction services for users during its business activities, but also continuously pays attention to the environment impacts caused by its operation during daily work. We adhere to a sustainable business model and are committed to improving the environmental awareness of all employees of the Group. During the Year, the Group has strictly complied with the *Environmental Protection Law of the People's Republic of China*, the *Energy Conservation Law of the People's Republic of China*, regulations and regional environmental protection requirements.

In order to maintain the office environment and advocate a civilized office, we have compiled the *Environmental Hygiene Checklist of Office*. Based on the classification of departments, a scoring mechanism is implemented to commend departments and individuals with excellent performance on environmental hygiene. In addition, the Group has formulated the *Office Environment Management Policy (Trial Implementation)*, the specific measures are as follows:

Reasonable water and electricity consumption:

- Posting energy-saving and water-saving labels in the office to cultivate resourcesaving awareness of the employees;
- · Using infrared-sensing faucets to reduce water consumption;
- Develop good habits for turning off the lights, water, computer and other electrical equipment while leaving the office. Keep the tap and lighting system are strictly prohibited;
- Air conditioning shall not be used unless the indoor temperature exceeds 28°C in summer/ below 15°C in winter. When necessary, the administrative department will carry out measures for controlling the power load by restricting the use of highpower electrical appliances;







- Advocating to take public transportation such as subway and bus as much as possible while carrying out a short-distance commute, so as to reduce the frequency of using private car;
- Optimizing shift management, improving use efficiency, and reducing fuel consumption of the office vehicles;

Waste disposal:

- Encouraging employees to adopt the habits of waste sorting and recycling on a daily basis, and the administrative staff shall record the amount of usage and recycled; and
- Recyclable materials such as waste electronic products, discarded office equipment, waste paper and waste plastic bottles shall be placed in the recycling bin of the office building for collective recycling.

During the Year, we calculated the environmental performance of the Beijing office of the Group's headquarters in terms of emissions and the use of resources. Since the daily operation site of the headquarters is office based, it has no significant impact on the environment and natural resources. In addition, the daily water consumption in office is mainly supplied from the municipal water network, so there is no difficulty in sourcing water.

Beijing Office—Emissions of Greenhouse Gas (Scope 1+ Scope 2)		
Emissions from vehicles (scope 1) ⁵	34.22	Tons
Emissions from electricity consumption (scope 2) ⁶	2.93	Tons
Total emissions of greenhouse gas	37.15	Tons
Total emission intensity of greenhouse	0.03	Tons/ office area (m²)
gas		× 7
gas Beijing Office—Emissions of Air Pollu	utants from Vehicle ⁷	
	utants from Vehicle ⁷ 150.43	kg
Beijing Office—Emissions of Air Pollu		
Beijing Office—Emissions of Air Pollu	150.43	kg
Beijing Office—Emissions of Air Pollu CO emissions NO _x emissions	150.43 12.51	kg kg

Beijing Office—Resources Consumption		
Water consumption	60	Tons
Water consumption intensity	0.05	Tons/ office area (m²)
Electricity consumption ⁸	3,317	kWh
Electricity consumption intensity	2.76	kWh/ office area (m²)
Gasoline consumption	14,898.24	Liters
Gasoline consumption Intensity	7,449.12	Liters/ vehicle ⁹
Paper consumption of office work	2,376	kg
Paper consumption intensity	29.70	kg/ person ¹⁰

5. The calculation method of greenhouse gas emission (scope 1) data refers to 2006 IPCC Guidelines for National Greenhouse Gas Inventories issued by the Intergovernmental Panel on Climate Change.

6. The calculation method of greenhouse gas emission (scope 2) data refers to the Average Carbon Dioxide Emission Factors of China's Regional Power Grids in 2011 and 2012 issued by National Development and Reform Commission of the People's Republic of China.

7. The calculation method of atmospheric pollutant emission data refers to the *Technical Guide for Air Pollutant Emission Inventory for On-road Vehicles (Trial Implementation)* issued by the Ministry of Ecology and Environment of the People's Republic of China.

8. Electricity consumption includes the daily electricity consumption data of the Group's headquarters Beijing office (but does not include the electricity consumption data of the central air conditioning). Since the central air conditioning is included in the property management fee and cannot be counted separately.

9. The Group's headquarters Beijing office have a total of 2 vehicles for work purpose.

10. There were 80 employees in the Beijing office of the Group's headquarters.



Non-hazardous Wastes		
Production of waste paper	30	kg
Production intensity of waste paper	0.38	kg/ person
Production of waste plastic bottles	28.8	kg
Production intensity of waste plastic bottles	0.36	kg/ person
Production domestic waste	1,080	kg
Production intensity of domestic waste	13.15	kg/ person
Production of waste electrical and electronic products	2	Units
Production intensity of waste electrical and electronic products	0.03	Units/ person
Hazardous Wastes		
Production of waste cartridges	10	Units
Production intensity of waste cartridges	0.13	Units/ person
Production of waste fluorescent tubes	5	Units
Production intensity of waste fluorescent tubes	0.06	Units/ person
Production of waste batteries	0.29	kg

Gathering Talents & Showing People-oriented

Faith, morality and capability.

While developing, the Group attaches great importance to talent development and security. As talents are core resources and valuable asset of corporate development, The Group provides a comprehensive, impartial and competitive salary and welfare system, as well as comprehensive personal career planning and trainings to ensure that employees have access to sustainable career development channels. The Group adheres to the principles of gender equality and "equal pay for equal work", creating a fair career development platform for each employee. The Group has established several employee training policies internally to help employees develop their abilities through various professional development projects, create a happy and harmonious working environment for employees, and build an efficient, united and competitive team.

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Optimizing Human Resources Management

During the Year, the Group strictly abides by the Labor Law of the People's Republic of China, the Labor Contract Law of the People's Republic of China, the Law of the People's Republic of China on the Protection of Minors and other laws and regulations with regard to recruitment, dismissal, remuneration, promotion, working hours, rest periods, equal opportunity, diversity, and antidiscrimination. Adhering to the principles of diversity, equal employment and anti-discrimination, the Group has formulated the Recruitment Management System to stipulate recruitment, selection and dismissal procedures, continuously providing the Group with the talents it needs. During the recruitment process, the Group strives to eliminate any discriminatory provisions such as "gender, ethnicity, marriage and childbearing, religion or Hepatitis B virus", ensuring equal employment opportunity for all. Upholding human rights, the Group strictly implements background check and verifies applicants' identity before entering the job to eliminate child labor. In addition, according to the Attendance and Vacation Management System, the Group operates under a 5-day standard working system and does not encourage employees to work overtime. Under exceptional circumstances, the employee is required to complete the overtime approval form and use it as an arrangement to adjust his or her rest period. Based on national public holidays, the Group has formulated the Employee Welfare System to standardize holiday arrangement for all employees. In addition to providing employees with annual leave, the Group also offers marriage, bereavement, maternity leave, paternity leave and other welfare leave, meal subsidies, communications subsidies, as well as transportation subsidies.

As the end of this Year, the Group employed a total of 170 employees, including 129 males and 41 females. In the future, we will continue to explore more attractive talent recruitment plans, implement programs and encourage more women and talents with diverse backgrounds and regions to join us, continuously enhancing corporate multiculturalism and innovation capabilities. During the Year, the Group did not receive any lawsuits concerning cases of discrimination or violation of relevant labor laws and regulations.



Employee Recruitment



🔅 Employee turnover data¹¹



Promoting Employee Development

Adhering to the principle of "focusing on talents and people-oriented", the Group always attaches great attention to career development and personal growth of its employees, providing employees with a stage to showcase their talents. The Group has established a comprehensive training system to provide professional training that match the needs of employees of different levels and types. Providing training courses cover the entire company, the Group endeavors to help employees obtain professional and management skills, empowering each employee to understand his or her short-, medium-, and long-term goals and direction, as well as achieving self-worth.

During the Year, we provided a wide variety of training activities for our employees, including safety education, listing rules training and new personal income tax training, etc. In order to meet the development needs of the Group and carry out the investment merger and acquisition business in a more effective manner, we organized multiple training sessions focusing on finance, legal, investment merger and acquisition risk management and listing rules, enhancing employees' awareness of risk management and legal compliance in investment merger & acquisition.



As the end of the Year, we held in total of

24

employee training sessions with the total training cost of

RMB **13,000**

And total

employees participated in training with an average training hour of



^{11:} The main reason for the employee turnover of the Group is that the Group's smart energy business, especially the home photovoltaic system business, is shrank due to the impact of national policy.



For new employees

To standardize the training for new employees, the Group has formulated the *New Employee Training Management Provisions,* which enables new employees to familiarize and adapt to the company culture, policies and codes of conduct, specifies new employee's job responsibilities, standards and procedures as well as assists new employees to adapt to the corporate and role setting, improving their work efficiency.

For all employees To enhance the overall corporate competitiveness and achieve common development of employees and enterprise, the Group has formulated the *Training Management System*, the *External Training Management Provisions* and the *Internal Trainer Management Provisions*, encouraging employees to acquire advanced skills and knowledge through effective training, improving employee's quality and work efficiency, and enhancing the capacity building of internal trainers.



The Group has formulated the *Cadre Training Program* for training midand senior level management staff, so as to select and foster talents and create a structured talent pool for long-term development of the enterprise.



In order to standardize the training of solar power plant employees and improve their professional quality and business capabilities, the Group has formulated the *Regulations on Management of Solar Power Plant Training*, which provides detailed training plans and targets for production management technicians and operation and maintenance personnel to ensure safety and high efficiency of operation and maintenance. In addition, in order to enhance execution and stimulate initiative and creativity of employees, the Group specially formulated the *Regulations on the Management and Responsibility of the Staff of the Solar Power Plant Operation Department* and the *Regulations on the Management of Solar Power Plant Operation Incentives* for solar power plant employees.



In the meantime, the Group has established the "Performance Management System" based on the principle of "fairness, openness and justice". In performance management, we adhere to the goal of fairness, open process and evaluate fairness, effectively motivating and promote employees to improve their performance. In the event of an employee's disagreement with the assessment results, we also provide the "Performance Appraisal Appeal Form" for employees to appeal for equal opportunity.

Caring for Employees' Health and Safety

The Group is committed to providing employees with a safe and comfortable working environment. During the Year, there were no incidents of death and no workdays lost due to work-related injuries. The Group strictly abides the following national laws and regulations:

- Labor law of the People's Republic of China;
- Production Safety Law of the People's Republic of China;
- Fire protection Law of the People's Republic of China;
- Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases; and
- The Administrative Regulations on the Work Safety of Construction Projects, etc.

The Group's main operating sites include solar power plants and offices. The occupational health and safety risks involved in the construction and operation of solar power plants are the most important safety management issues of the Group. To standardize the codes of conduct for all types of staff, safety conditions at the operating sites, health and safety training, and provide clear guidance on the handling of safety violations, the Group has formulated the *Working Regulations for Power Safety of Solar Power Plants*, the *Regulations on Labor Insurance Products Management of Solar Power Plant*, the *Guidelines for Safety Standardization Operation of Solar Power Plants*, the *Engineering Safety and Civilized Construction Inspection Management Regulations (Trial)* and other safety management systems, carrying out safety management systematically and efficiently.



Fire safety as a major safety management issue in office area, the Group implemented a number of fire safety management measures through implementation of the *Office Environment Management System* (*Trial*):

	Strictly implement the safety training system. The administrative depart- ment organizes at least one fire safety education training and exercise ev- ery year to ensure that employees are familiar with firefighting self-defense common knowledge and safety escape skills;
F	Ensure functionality of various fire-fighting facilities in the office building, and the administrative department conducts monthly inspections and records to ensure that the equipment remains intact;
	Keep the office building emergency exit and evacuation path accessible, post safe evacuation instructions in a highly visible place, and keep the emergency lighting system intact; and
	Strict prohibition of the storage of flammable and explosive items in the office area to avoid occurrence of fires. The Group will impose heavy penalties and pursue legal liabilities for employees who disregard the fire safety regulations and result in adverse consequences.
also arranges a	anaging the safety and health risks of business operation processes, the Group annual physical examinations for employees in Mainland China to provide a ensive protection for their health.
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Implementing Targeted Poverty Alleviation & Helping Families with Photovoltaics Services

Actively assuming social responsibility, working with employees to contribute to society.

"Photovoltaic Poverty Alleviation" is an important measure for the country to achieve targeted poverty alleviation. According to the *Measures for Management of Photovoltaic Poverty Alleviation Power Stations* published by the National Energy Administration and the State Council Office of Poverty Alleviation, the "Cloud Families" platform always follows the national policy and practices of clean and low-carbon energy development strategy and is dedicated to the application and promotion of green new energy technologies, promoting environmental protection in the long-term. We actively participate in the implementation of poverty alleviation projects in various areas, increasing income for local people. In the meantime, the Group continues to carry out public welfare activities and promote volunteering among employees, creating an atmosphere that promotes community development and contributing back to the community.



During the Year, Photovoltaics poverty alleviation continued to settle in Shanxi, increasing the value of photovoltaic poverty alleviation in Shanxi and serving the photovoltaics poverty alleviation strategy. The "Cloud Families" platform has established 25 100-kW village-level power plants in Fengcun, Nanzhuang, Zhongjiao, Wangzhuang and Lijiabao villages of Fushan County, Linfen City, Shanxi Province, which are expected to bring localities RMB124,100 in revenue every year; Xucun's 150 kW village-level power plant can bring RMB186,150 per year to the local area. During the Year, the Shanxi poverty alleviation project has a total of 26 village-level power plants, which are expected to bring RMB3,288,650 in revenue per year.





In 2012, Longjitaihe Industrial Co., Limited (together with its subsidiaries collectively, the "Longjitaihe group") founded the first corporate public welfare foundation "Longjitaihe Charity Foundation" (the "Harmony Fund") in Hebei Province, actively practicing corporate citizenship and participating in charitable events. During the Year, the Group organized employees to participate in a number of community activities, inviting members to follow the "Harmony Fund" to fulfill their social responsibilities and focusing on the development of youth education.

In June 2018, the employees of the Group with the volunteers of "Harmony Fund" to go to Baifu Primary School and Gaobeidian Dongweiyi Primary School, spending the Children's Day with children and bringing them school supplies. In August 2018, the Group's employees with members of the "Harmony Fund" volunteered at Longquanguan Town Middle School in Fuping County and Baifu Primary School in Handan City to repair libraries and donated more than 50,000 extracurricular books to stimulate students' reading interest and improve their knowledge.



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	Descriptions	Reference Chapters/ Remarks
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A1.1	The types of emissions and respective emissions data	Expanding Solar Power Generation Business/ Green Office Efficiency
A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Expanding Solar Power Generation Business/ Green Office Efficiency
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Green Office Efficiency
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Expanding Solar Power Generation Business/ Green Office Efficiency
A1.5	Description of measures to mitigate emissions and results achieved	Expanding Solar Power Generation Business/ Green Office Efficiency
A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved	Expanding Solar Power Generation Business/ Green Office Efficiency
Aspect A2: Use of R	esources	<u>i</u>
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials	Expanding Solar Power Generation Business/ Green Office Efficiency
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A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility)	Expanding Solar Power Generation Business/ Green Office Efficiency
A2.3	Description of energy use efficiency initiatives and results achieved	Expanding Solar Power Generation Business/ Green Office Efficiency
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved	Expanding Solar Power Generation Business/ Green Office Efficiency
A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced	Not Applicable
Aspect A3: Environmental and Natural Resources		
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	Descriptions	Reference Chapters/ Remarks	
B. Social			
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General Disclosure	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.	Optimizing Human Resources Management	
B1.1	Total workforce by gender, employment type, age group and geographical region	Optimizing Human Resources Management	
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Aspect B2: Health and Safety			
General Disclosure	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.	Caring for Employees' Health and Safety	
B2.1	Number and rate of work-related fatalities	Caring for Employees' Health and Safety	
B2.2	Lost days due to work injury	Caring for Employees' Health and Safety	
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	Caring for Employees' Health and Safety	
Aspect B3: Developr	ment and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Promoting Employee Development	
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management)	Disclosure will be considered in the future	
B3.2	The average training hours completed per employee by gender and employee category	Promoting Employee Development (only include the average training hours of each employee)	
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B4.2	Description of steps taken to eliminate such practices when discovered	Not Applicable	
Aspect B5: Supply Chain Management			
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B5.1	Number of suppliers by geographical region	Win-win Cooperating with Partners	
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