



2017 Corporate Social Responsibility Report GCL New Energy Holdings Limited

(Incorporated in Bermuda with limited liability) (Stock Code: 451)



Creating a Green Future Together To Lead in the New Energy World

Agricultural Complementary Solar Power Plant in Changjiang, Hainan Province





Feedback

In order to improve the corporate social responsibility ("CSR") program of GCL New Energy, your feedback is highly appreciated in helping us to assess and further improve our CSR development. Thank you for taking the time to share your valuable comments on the themes and topics discussed in this report and the 2018 CSR Report.



Scan the QR code to provide feedback online

Your Information:

Name:		Organization:		
Tel.:		E-mail:		
Your Opinions:				
1. Your overall impression	n of the GCL New Ene	rgy 2017 CSR Report :		
□ Very good	Good	Satisfactory	Somewhat poor	Poor
2. Your opinion on the dis	sclosure of informatic	on of the GCL New Energy	/ 2017 CSR Report :	
Abundant	🗌 Relatively abunda	ant	Satisfactory	□ Relatively insufficient
□ Insufficient				
3. Your opinion on the qu	iality of information d	isclosed in the GCL New	Energy 2017 CSR Report :	
Good	Relatively good	Satisfactory	Relatively poor	Poor
4. The format you will rec	commend to present i	n the GCL New Energy 20	018 CSR Report:	
Introduction of manag	gement approaches	Data and diagrams	Case studies	Special topics
□ Illustrations				
5. The topics you will rec	commend to be includ	ded in GCL New Energy 2	018 CSR Report :	
Economic Perspective	s, please specify:			
Environmental Protect	tion, please specify:			
Social Progress, please				
Overseas Developmer	nt, please specify:			
□ Others, please specify				

Contact us:

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About this Report

GCL New Energy Holdings Limited, ("GCL New Energy" or the "Company") and its subsidiaries (together, the "Group") is a world's leading new energy company with its primary business in solar power generation equipped with development, construction and operation capabilities. It is headquartered in Suzhou, Jiangsu Province, China. Adhering to the operational principles of "Advancing technologies, Collaborative Finance and Effective Production", the Company not only focuses on optimising the development of centralised solar power plants but also stepping up the development of its rooftop distributed solar power plant business. As a leading participant in poverty alleviation projects and Frontrunner projects, GCL New Energy continuously provides clean, safe, and efficient green energy to the society. During the reporting period, there were no significant changes in the Company's size, organisational structure, ownership or supply chain.

Basis for Preparation

This report was prepared in accordance with the *Guidelines* for Chinese Corporate Social Responsibility Reports for Power Generation Businesses issued by the Chinese Academy of Social Sciences, the latest version of the Sustainability Reporting Standards of the Global Reporting Initiative ("GRI") and core options in its Power Sector Disclosures as well as the Environmental, Social and Governance ("ESG") Reporting Guide published by the Stock Exchange of Hong Kong Limited ("HKEX").

Scope

This report is the third annual Corporate Social Responsibility Report (the "Report") of GCL New Energy. The purpose of this Report is to disclose the performance of GCL New Energy on environmental, social and governance issues during the period from 1 January 2017 to 31 December 2017. Contents of this Report were defined by materiality assessment, engagement of stakeholders and other relevant guidelines. The Report provides information about the sustainable development performance of all solar energy business activities carried out by the Group and its all Solar Energy Business (including those under construction) during the reporting period.

Source & Reliability

The information and case studies provided in this Report were extracted from procedures, documents, pictures and records of year-round ESG performance acquired by the Company and its subsidiaries according to a set of completed ESG information collection procedures. The Company undertakes that this Report is free of any false information or misleading statements, and takes responsibility for the authenticity, accuracy and integrity of the contents of this Report.

Improvement

With a view to providing a comprehensive, true and fair view of the Group's fulfilment of responsibilities, GCL New Energy welcomed feedback from our stakeholders and took active steps to respond to their concerns when preparing for this Report. With the theme of "Creating a Green Future Together to Lead in the New Energy World", the 2017 CSR Report demonstrates GCL New Energy's commitment to be a leading company in promoting green development and a better future together with its stakeholders in the solar power industry. The phrase "common efforts" in the Report underlines GCL New Energy's social responsibilities and calls for common efforts to build a robust ecosystem with its industry peers, unite with innovative policy-making, and raise awareness of environmental protection within communities. The Group's efforts to promote sustainable development in 2017 are elaborated in the following chapters: Common Efforts to Build a Responsible Company, Common Efforts to Develop the Solar Power Industry, Common Efforts to Offer Superior Spirit, Common Efforts to Protect Green Environment, Common Efforts to Ensure Work Safety, Common Efforts to Build a Cooperative Team and Common Efforts to Build Better Communities.

Confirmation & Approval

With the confirmation by the management, the Report was approved by the Board of Directors on 15 March 2018.

Access & Feedback

This Report is available in both traditional Chinese and English versions. The electronic version of this Report is accessible in GCL New Energy's Financial Statements/ESG Information on the website of HKEX and on the Company's official website (http:// www.gclnewenergy.com/site/social-responsibility). In order to gain stakeholders access the Report, the Group has diversified the distribution through press conferences, e-mail, and HTML5 (Hyper Text Markup Language 5) technology for mobile application to increase readability and availability of the Report.

We highly value your opinion of our sustainability performance. Shareholders of the Group and other Report readers who have any comments or suggestions on this Report and our sustainability performance can contact our Company Secretary and Investor Relations Department via e-mail, phone or written letter (only publicly available information will be offered).

Company Secretary and Investor Relations Department Tel: (852) 2606-9200

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Open Communication Social Actions Targeted Poverty-Alleviation Charity and Philanthropy

Chairman's Statement



Creating a Green Future Together to Lead in the New Energy World

As a global pioneer in the solar energy industry having a special focus on providing green power services, GCL New Energy is committed to "Bringing Green Power to Life" and making continuous improvements for the human well-being. Environmentally responsible development is the cornerstone of GCL New Energy since its establishment. We are devoted to fulfilling our corporate social responsibilities by pursing a resource-efficient and eco-industrial development to align with the concepts of "Developing through innovation, coordination, environmental awareness, openness and sharing" stated in the report of the 19th National Congress of the Communist Party of China. We stand side by side with our community, grow together with our employees, and relentlessly strengthen and improve the ability to fulfil our role in corporate social responsibilities while enthusiastically promote green energy development with our sincere devotion to the country and society.

In view of the "Belt and Road Initiative", we have proactively established long-term cooperative relationships with the governments and enterprises in Southeast Asia, the Middle East, and countries in other regions, as well as collaborating with international financial institutions in the hope of building a strong national brand identity to promote the continuous development of new energy.

Practicing Environmentally Responsible Development

Environmentally responsible development has been actively promoted and deployed by the Chinese government with a series of solar energy related supporting policies were introduced in 2017 which encouraged us to further extend our development in rooftop distributed solar power plants, solar poverty alleviation projects, and "solar energy +" projects through strategies in differentiated development and synergies along the supply chain, to generate green energy reaching millions of households. In 2017, we generated an average 7 billion kWh of clean electricity, equivalent to reducing annual CO2 emissions from coal fired power plants by 6.8 million tons and planting 280,000 mu of trees compared. We adopted the "targeted poverty alleviation" policies and have achieved approximately 1,170MW of solar poverty alleviation projects and quota, ranking first in China, which is expected to provide a total of approximately RMB2 billion funding for 38,000 impoverished households for over 20 years. We are bringing solar energy to the impoverished areas in hope of paving the way for prosperity and contributing to building a "beautiful China". Through breakthrough in innovation, the Group proudly obtained the first national rural energy revolution project in 2017and has become the world's first to research and develop the complementary plantation of tree peony at a demonstration base area of more than 8,000 mu.

GCL New Energy adopts the principle of green procurement and has extended the green principle to its suppliers in every steps of project design, construction, management, and operation to create a win-win situation for all parties involved in the supply chain. We promote the use of nationally recognised, environmentally friendly, energy efficient, water conservation, safe and reliable products. In 2017, we successfully issued China's first solar energy green bond and was the pioneer in green finance in the solar industry.

Our success is driven by the collective efforts of our employees. In the past three years of rapid development, GCL New Energy has gathered a group of devoted employees with great understanding of the industry and sense of belonging. Our employees have inherited the Company's philosophy and have demonstrated confidence, determination perseverance at work with a devotion to improve the environment. We respect and value every employee by providing each of them with a healthy and safe working environment, a fair and equitable environment for development and vocational training opportunities. We encourage our employees to pursue work-life balance and realize the Company's values in the everyday life. We go hand in hand with our employees to achieve success in developing a strong company, building wealth for employees and achieving recognition from the society.

Common Efforts to Build a Green Future

Lucid waters and lush mountains are invaluable assets. As a leading company in the solar energy industry, we call for the government, industry peers, business partners and communities to reach a consensus to persistently pursue a low carbon development for the creation of a favourable green energy development environment. We will go hand in hand with stakeholders to develop and make greater contributions to energy reform and environmentally-responsible development in China.

With an aim of promoting stakeholder mutual benefits for sustainable development, we will make greater efforts to support education, alleviate poverty and participate in community charity. In addition to donations in support of education, environment and disaster relief, we also help to address unemployment and poverty issues in rural areas, drive the development of other local related industries, and make continuous environmental improvement. GCL New Energy will optimise its capacities to fulfil its role in CSR at the utmost and serve as a role model to encourage the public to create a brighter future.

Zhu Yufeng Chairman

About Us

GCL New Energy Holdings Limited (451.HK) is a world's leading new energy company with its primary business in solar power generation equipped with development, construction and operation capabilities. Adhering to the operational principles of "Advancing technologies, Collaborative Finance and Effective Production", the Company focuses on both centralized and distributed solar power plants to provide sustainable energy that is clean, safe and efficient.

- China's largest private solar power generation company with the capabilities of development, construction, operation and maintenance.
- By the end of 2017, the total installed capacity of GCL New Energy reached 6GW and ranked 2nd in the world.
- Included in the Morgan Stanley Capital International ("MSCI") Global Small Cap Indexes -MSCI China Index and obtained further recognition from international capital markets.
- Included in the trading list of Shenzhen-Hong Kong Stock Connect and Hang Seng Stock Connect Hong Kong Index, gaining recognition from Chinese capital markets.
- By the end of 2017, operates 157 solar power plants in 26 provinces in China, as well as solar power plants in the United States and Japan with a total of 162 solar power plants worldwide.





Sustainable Development Performance in 2017

Business Development

	Unit	2015	2016	2017
Number of solar power plants	/	41	90	162
Number of Provinces in China with the Company's solar power plants located	/	15	22	26
Installed capacity	MW	1,640	3,516	5,990
Grid-connected capacity	MW	1,316	3,138	5,503
Electricity sales volume	Million kWh	870	2,790	5,347
Revenue	RMB million	688	2,246	3,942
Gross profit	RMB million	496	1,571	2,653
Rewards & subsidies from governments	RMB'000	3,270	5,515	19,427
Tariff adjustment	RMB'000	418,694	1,529,794	2,480,937
Increase in installed capacity	MW	1,025	1,870	2,387
Purchasing value from the largest supplier as a percentage of gross purchasing value	%	23	21	22
Purchasing value from the five largest suppliers as a percentage of gross purchasing value	%	48	46	45
Debt Asset ratio	%	89.6	84.5	84.1

Environmental Performance and Achievements

	Unit	2015	2016	2017
Amount of green electricity generated	Million kWh	870	2,790	5,347
Ratio of new projects with environmental and social impact assessments	%	100	100	100
Coal consumption reduced in thermal power generation	TCE	271,440	873,000	1,668,264
Reduction in CO ₂ emissions	Tons	743,850	2,380,000	4,395,234
Reduction in SO ₂ emissions	Tons	2,079	4,100	14,180
Reduction in NO _x emissions	Tons	1,035	4,100	12,341
Equivalent area of forest built	Acres	762,625	2,252,900	4,687,077

	Unit	2015	2016	2017
Salaries and benefits for employees	RMB'000	134,804	242,694	282,882
Number of new employees	/	1,390	883	332
Number of employees on/with parental leave	/	24	75	86
Number of talents loss	/	210	346	370
Total workforce	/	1,739	2,379	2,341
Average training hours per employee	Hours	8	8.75	17.55
Percentage of employees having received training	%	100	100	100
Number of employees having received safety and occupational health training	/	2,215	1,224	9,460
Number of consecutive days without safety incidents	Days	365	366	365
Number of work-related injury incidents	/	0	0	0
Lost time due to work injury	Hours	0	0	0
Number of employees suffering from occupational disease	/	0	0	0
Percentage of employees having received occupational physical examination	%	100	100	100
Percentage of employees with occupational health record	%	100	100	100
Number of significant equipment malfunction cases	/	0	0	0
Number of general equipment malfunction cases	/	0	0	0
Unplanned Outage	Hours	0	7	0

Employees Performance and Achievements

Contributions to Communities

	Unit	2015	2016	2017
Solar poverty alleviation	10,000 households	0.5	1.8	3.8
Donations to communities	RMB	6,911,000	134,000	297,800
Tax paid	RMB'000	40,890	128,940	120,380

Industry Position



The installed capacity of major solar enterprises (MW)



The theme of this Report is "Creating a Green Future Together to Lead in the New Energy World". With our efforts, we hope to awaken environmentalism and galvanize more social organizations to take actions in social responsibilities, keep green mountains and clean water surrounded us and enable our employees to feel proud of their efforts. In this year, we fully implemented the spirit of the 19th National People's Congress of the Communist Party of China, integrated green development with our social mission, and further implemented CSR activities from three aspects: solar poverty alleviation, solar agriculture complementary, and the "Belt and Road Initiative". The lively case studies of employees and the community enriched the content of this Report and demonstrated the actions we have taken to fulfill our mission.

- GCL Innovative Model for Solar Energy + Poverty Alleviation
- GCL Innovative Model for Solar Energy + Agriculture
- GCL Innovative Model for the "Belt and Road Initiative"

Number of agricultural complementary solar power plants:

69

The number of agricultural complementary solar power plants accounts for

42.7% of the total power plants

Total capacity of grid connected poverty alleviation projects: approximately





▲ Fishery Complementary Solar Power Plant in Tianchang, Anhui Province

GCL Innovative Model for Solar Energy + Poverty Alleviation

Solar poverty alleviation is one of the "Top Ten Poverty Alleviation Projects" approved by the state. GCL New Energy has achieved a total grid connection of poverty alleviation projects of approximately 570MW, ranking first in China.



Solar Poverty Alleviation

With great importance placed on poverty alleviation using solar power by state authorities, the National Energy Administration expressed its intention to further optimise the network of poverty alleviation projects in 2017, and released its *Guide for Implementation of the 13th Five-Year Plan for the Development of Renewable Energy* in July. As an active contributor to solar power poverty alleviation, GCL New Energy ranked first in China for two consecutive years in terms of capacity and created the three-stage GCL Innovative Model for Poverty Alleviation.



GCL Innovative Model for Solar Energy + Poverty Alleviation



Solar Poverty Alleviation reported by CCTV- GCL New Energy brings poverty alleviation projects to the loess plateau

On 9 December 2017, solar power alleviation was reported by the Evening News, a news programme on CCTV1, and GCL New Energy's project company in Yulin appeared in the programme. Solar energy is well developed in Yulin, a city with sufficient sunlight. This new energy model not only has changed people's impression on the loess plateau, but serves as a new driving force for targeted poverty alleviation at a local level. GCL New Energy has built photovoltaic power plants with total capacity of approximately 1GW in Yulin and acted as an active participant in local poverty alleviation activities. GCL New Energy has not only built a stretch of blue photovoltaic power plants in Yunlin, but also brought hope of green poverty alleviation to this city where energy reforms are underway.



Efficient vegetable planting to practice "targeted poverty alleviation" policy

Xinhua Poverty Alleviation Solar Power Plant achieves solar and agricultural complementary benefits by planting organic vegetables in greenhouses. In open-air planting areas, ginseng, chrysanthemum and other Chinese herbal medicines are also planted. By the end of 2017, 173 PV vegetable greenhouses had been built, forming the "solar energy + agricultural + poverty alleviation" demonstration base.

Efficient vegetable planting is being gradually promoted by the power station in the local area and has formed a characteristic industry that everyone can participate in. The Company requires agricultural contractors to prioritize hiring labours in poverty to work in the industrial park in order to achieve industrial development and poverty alleviation.

Number of household supported annually by the first solar poverty alleviation projects in Shandong

1,600

Number of impoverished resident supported 3,940 Percentage of impoverished resident supported by the project

4



GCL Innovative Model for Solar Energy + Agriculture



The Group, on the premise of the integrated land use of photovoltaic agriculture, has taken active steps to develop agricultural complementary solar power plants in mainland China, reinvent solar energy+ agriculture models, and expand their application to catalyse the modernisation of local agriculture. We have applied innovative techniques to ensure adequate sunlight and space for crops to grow while maintaining sufficient power supply, promoting environmentally friendly development, maximizing the sunlight and land resources neglected by traditional farming, and making possible the effective combination of farming and solar power generation.

Of the 162 power plants owned by the Group, 69 plants have been put into use to different extents. These projects are distributed across 17 provinces. The agricultural products include grain, fruit, vegetables, oil-producing plants, Chinese medicinal materials, livestock, fish, shrimps and crabs. A highly functional and effective agricultural development model that serves the purpose of seedlings research, agricultural production and recreation has been formed, building a well-known brand of modern photovoltaic agriculture. This is the integration of the Group's photovoltaic technology and agricultural science and technology, and the use of scientific research and development to achieve organic integration of photovoltaic and agriculture. The integration has realized:



Case Study

We focus on the development of highly efficient agricultural facilities and smart greenhouses. We are the world's leading enterprise with the largest size and most agricultural facilities. In recent years, GCL has invested more than RMB1 billion to drive the development of local industries.

Eco-friendly agriculture

A farmer was catching crustaceans and crabs happily in a paddy field in the Modern Agricultural Solar Power Industry Demonstration Park in Funing, Jiangsu province. This project is the first of this kind of model in Jiangsu Province with ground-breaking significance.

Allowing suitable solar power plants to offer space for rice growing and combined culturing of rice and aquatic products increases the efficiency of land use while creating more ecological benefits. This model not only minimises the impact of sunlight on crops, but also ensures efficient use of land, realizing the perfect combination of farming and PV power generation and significantly increasing the land use efficiency and yields.



Solar energy+ Paeonia Suffruticosa Andr

GCL New Energy chose Paeonia suffruticosa Andr (tree peony) as a major plant species for PV agriculture. By the end of 2017, Paeonia suffruticosa Andr covered an area of more than 8,000 mu, in 13 centres in four provinces, i.e. Jiangsu, Anhui, Henan and Shanxi. The total plantation area of tree peony is expected to reach 30,000 mu in 2020. Currently, the Group has developed tree peony seed oil, tree peony flower tea and other products. In future, we will engage in the research and development of tree peony food, chemicals and health products. We will continue to promote the development of photovoltaic peony, while taking advantage of the ornamental value of photovoltaic peony to promote the construction of beautiful villages.



▲ The Solar Energy + Peony power station with a capacity of 40MW in Suzhou.

GCL Innovative Model for the "Belt and Road Initiative"

In the context of green development being a global consensus, the global PV market has witnessed rapid expansion. In 2017, GCL New Energy decided to shift the focus of its development strategy from domestic market to both domestic and international markets. GCL New Energy continues to explore well-developed markets in the U.S., Japan and Europe, while launching the Global Presence Programme that cultivates outstanding international talents and opens up the markets in Australia, the Middle East and Southeast Asia. Additionally, drawing on the Belt and Road Initiative, GCL New Energy has made significant progress in state-level projects in countries in Africa, Americas, Europe, Australia and Southeast Asia, and gained rich experience in international business practice.

Cooperation with financial institutions	Industry mutual development	Internet resources integration
Through innovative transformation of its business models, operational services and financial channels, GCL New Energy is striving to facilitate global grid parity	In the process of opening up overseas operations, we actively partner up with international well- known companies that have rich experience in overseas investment and management to carry out strategic cooperation and achieve the goal of complementing each other and reducing risks.	Combining the continuous development of GCL Group's financial strategy, global energy network, and financial internet through the integration with major financial institutions and innovative data development.

Drawing on the Belt and Road Initiative to Create More Opportunities for Development

Great Potential for Overseas Market Development

Overseas markets will maintain stable growth in the future. Investment opportunities will increase in countries in the Middle East and Africa along the "Belt and Road Initiative".



Source: IHS Markit global installation capacity forecast of solar power station for the first quarter of 2018

GCL New Energy supports the development of the "Belt and Road Initiative"



The "Building a Global Energy Internet to Help the Construction of the "Belt and Road Initiative " Forum hosted by CEC was held in Beijing. Ren Feng, Vice President of GCL New Energy, was invited to attend the meeting and deliver a keynote speech as a representative of domestic clean energy companies.

During the World Expo in Astana, Kazakhstan, the China-Kazakhstan Energy Cooperation Forum jointly hosted by the China Energy Administration, the China Council for the Promotion of International Trade and the Ministry of Energy of Kazakhstan was held. Sun Xingping, the president of GCL New Energy, was invited to attend the forum as a representative of a new energy company in China and delivered a keynote speech.

The China-Central and Eastern European Energy Expo was held in Bucharest, Romania. The expo and forum were connected with issuance of the "China-European Central and Eastern European Cooperation Riga Outline" at the "16+1" meeting in November 2016. In the high-level meeting of the Expo, He Songyu, Senior Director of GCL New Energy North America, was invited to give a speech.



▲ Overseas project development team

Common Efforts to Build a Responsible Company

As a green energy provider, GCL New Energy upholds our philosophy of Bringing Green Power to Life and regards fulfilling corporate social responsibilities as our mission. The Group has established a CSR management system that integrates sustainability into the management of our day-to-day operations. Our sustainable development efforts are guided by the pursuit of low carbon, low emission, energy saving and safe operations to enable coordination and effective resource sharing among cleaner manufacturing companies, enabling the circular economy.

- CSR Management
- Corporate Governance
- Stakeholder Engagement
- Room for Improvement in CSR Performance
- Materiality Assessment

Contract compliance rate: 100%



Highest materiality issues: 21



▲ The solar power station of GCL New Energy in Shanglin, Guangxi.

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CSR Management

Our Green Promise

Adopting low carbon, emissions reduction and energy saving as standards to promote sustainable development.

Our Corporate Responsibility

Adhering to fairness, integrity, sharing, and mutual benefit in our business operation, serving our clients, caring for our employees, and creating value for our shareholders, investors and society.

Our Industry Aspiration

Delving deep into solar power generation, strengthening technology innovation, reducing the on-grid price of solar power, and promoting the widespread use of green energy to protect the natural world.

Our Community Services

Participating actively in community events and activities, especially in education and philanthropy, to promote harmonious social development.



▲ Mr. Sun Xingping, President





CSR Management System



Corporate Governance

The Group is dedicated to continuously improving corporate governance practice and procedures and establishing a robust and effective risk control and internal control system, so as to protect assets of the Group and value for shareholders and ensure a high level of corporate governance. For more information about our corporate governance, please refer to the Company's 2017 Annual Report, or visit our website at www.gclnewenergey.com.



Upholding the philosophy of business integrity and fair competition, the Group has maintained a 100% contract compliance rate. In addition, the Group has zero tolerance for corruption and fraud, encourages a corporate culture highlighting integrity, and promotes an anti-corruption working environment. Thus, the Group set up a Supervision Management Committee and departments responsible for internal controls and inspections at each level, developed *Anti-Corruption and Reporting Standards*, built an effective supervision and management system and continued to improve its whistleblowing system. With the launch of an online reporting platform, staff members and external suppliers of the Group can report any concern regarding corruption online via WeChat or Lanxin (a mobile office platform).

We encourage a corporate culture that emphasizes on integrity in daily operations by:

- The directors, supervisors and the management acting as role models, with their behaviour complying with the laws, rules and regulations of the Company.
- Effective training or communication on anti-corruption regulations and policies to employees by various means (e.g. distribution of employee handbooks, issuing company rules and regulations, publicity and education, and online releases) or offering training to ensure that all employees receive training on rules, regulations and professional ethics, enabling them to be aware of unlawful and unscrupulous acts.
- Offering anti-corruption training and education on laws, regulations and integrity to new employees.
- Encouraging employees to act in compliance with laws and with integrity in their daily operations and interactions, and helping employees address conflicts of interest appropriately to resist the temptation of illegal benefits.
- Delivering the compliance and integrity information of the Group to individuals and organisations that have direct and indirect relationships with the Group in an appropriate way.
- Offering channels for reporting any unethical act or fraud with optional anonymity.
- Developing and implementing effective penalty policies to combat corruption.

Additionally, the Group carried out a series of *GCL New Energy Fundamental Principles* learning activities during the year. *GCL New Energy Fundamental Principles*, an accumulation of the Group's experience, summarises operation philosophies, management ideologies and corporate culture and outlines the future development strategies with a forward-looking vision. In addition to explaining our core values, the Principles deepens the employees' recognition with the corporate culture and demonstrates GCL New Energy's strong CSR awareness. Meanwhile, to better practice and improve corporate governance and raise risk awareness, the Group offers staff training on solar power plant legal risks and risk management and control on a regular basis to effectively prevent risks and improve the level of risk management.

Evaluating the Progress and Quality of Employees at GCL New Energy Using Fundamental Principles



In May 2017, employees from functional departments at GCL New Energy Management Centre, companies under the direct control of GCL New Energy, companies at provincial level and overseas offices studied the *GCL New Energy Fundamental Principles* through various ways. The Principles serve as a guide for employees as they develop their career at GCL New Energy.

Case Study

Raise risk awareness by studying legal cases



In May 2017, the Legal Department held a training session on solar power plant legal risks and risk management and control. Based on GCL New Energy's current business, the trainer utilized industry cases to analyse risks pertaining to project land compliance, laws on distributed PV project development, and EPC construction management and control.

Stakeholder Engagement

The Group believes that voices of stakeholders can offer us a true insight into our business development and help us balance the interests of various stakeholder groups when making long-term strategic decisions. Therefore, we are dedicated to promoting engagement with stakeholders as we believe that two-way, transparent and regular communication is the key to building harmonious relationships, mutual trust and respect, which will have a highly positive impact on the long-term development of the Group. We are committed to building multiple communication channels for our stakeholders, enabling each stakeholder to freely express their opinions regarding different aspects of our business. With reference to the attributes of stakeholders included in the AA1000SES: 2015 Stakeholder Engagement Standard, we have identified the following 7 key stakeholder groups based on their dependency, responsibility, tension, influence and diverse perspectives.



Case Study



Discussed the responsibilities and innovation models with external stakeholders

In November 2017, Mr. Zhang Yaobang, Vice President of the Group participated in the "2017 China Corporate Social Responsibility Summit Forum" to discuss the responsibility and innovation models with industry leaders and cross-industry leaders. He also listened to the voices of stakeholders from different fields and continuously improved the company's ability to fulfill responsibilities and achieve innovation. In this event, GCL New Energy also won the honor of "Excellent Model Innovation Winner".



In-depth communication with internal stakeholders in corporate social responsibility

In April 2017, Mr. Zhao Yonghui, Director of Investor Relations, provided training on investor relations and corporate social responsibility for overseas employees and management trainees. Employees from different geographical and cultural backgrounds have conducted in-depth communication and discussion on understanding the corporate social responsibility.

Stakeholder Groups	Major Communication/ Feedback Channels	Frequency	Issues of Concern
Employees	 Employee meetings Employee performance reviews Corporate newspaper and magazine 	 Quarterly (performance review interviews) Monthly (corporate newspaper) Quarterly (corporate magazine) 	 Employee training Remuneration and benefits Career planning Company's future development
Shareholders/ Investors	 General meetings Investors' meetings Result announcement Press releases/ announcements On-site visits 	 Annual (general meeting) Other meetings held irregularly when necessary 	 Business development Financial performance Timely release of information Corporate governance
Government Departments/Clients	On-site visitsInterviews	Irregular	 Effectiveness of poverty alleviation Business cooperation Production technology
Business Partners/ Suppliers/Contractors	Telephone/emailMeetings	Irregular	 Environmental performance Operational efficiency Compliance requirements
Community Members	 Telephone/email Interviews On-site visits 	Irregular	 Business development and strategy Community engagement Environmental performance CSR management system
Media	 Press releases/announcements Official website WeChat/ Weibo 	Irregular	Business prospectsCompliance issues
NGOs • Official website • Industry Associations • Industry forums, seminars and activities		Irregular	 Business development Production technology R&D achievements

The Group regularly reviews our communication channels with stakeholders to identify any shortcomings to better collect and address stakeholder's opinions. This year, we invited several external stakeholders, including strategic partners and suppliers, to gain an insight into their expectations and suggestions for GCL New Energy in the areas of environmental protection, social responsibility performance and governance.

Room for Improvement in CSR Performance

We continuously develop our sustainable management by collecting feedback from stakeholders, analyse best practices of our peers and review the weaknesses in fulfilling responsibilities. We have formulated a series of optimization measures to improve our performance in CSR.

In respect of information disclosure, we listen to suggestions from various parties, continuously verify data validity, and relentlessly improve the CSR information management system to ensure the integrity and reliability of the disclosed information meeting the requirements of various stakeholders. Although an information management system has been gradually established, the collecting processes of some data are still missing. We will continue to discuss logical and uniform data collection scope and methods, and transfer knowledge to relevant departments through training and sharing.

In respect of management, we continuously optimize our CSR management structure, solidify our CSR reporting process, and improve the quality of our CSR report. However, as we are at the beginning of our CSR management journey, the sustainable development plan is being gradually established. The management objectives of CSR important issues need to be improved. The power and responsibility of the CSR Management Working Group need to be further determined in details. Based on the existing inadequacies, we will establish logical and comprehensive management goals and clarify management responsibilities in order to monitor and improve our CSR performance.

Materiality Assessment

To understand stakeholders' expectations as well as to improve the accuracy and responsiveness of this Report, we identified material environmental, social and governance issues through peer benchmarking, media analysis and stakeholder surveys and interviews. The materiality assessment serves as evidence to support policy making and resource allocation, and as a guidance to establish the framework of this Report. This Report primarily demonstrates GCL New Energy's environmental and social impacts and performance in the construction and operation of solar power plants.





Through the above assessment process, 35 social responsibility issues deemed material to GCL New Energy were identified and contributed to a primary part of this Report, in which we will disclose the relevant information in details.



	Economic Issues		Environmental Issues		Labour Issues
1	Business performance	3	Energy consumption and energy-saving measures	13	Diversity and equal opportunities
2	Indirect economic impact	4	Water consumption	14	Occupational safety and health
		5	Development and use of new energy	15	Employee welfare, development and training
		6	Waste management	16	Prohibition of child labour and forced labour
		7	Wastewater disposal	17	Protection of human rights
		8	Greenhouse gas emissions		
		9	Environment-friendly technology R&D		
		10	Investment in environmental protection		
		11	Biodiversity		
		12	Compliance with Environmental laws		

List of Material Issues

	Community Issues		Products and Service Issues		Supplier Management Issues
18	Contribution to communities	27	Protection of health and safety of customers	32	Environmental performance of suppliers/contractors/ service providers
19	Impact of daily business activities on surrounding communities	28	Control of product and service quality	33	Social performance of suppliers/contractors/service providers
20	Integration with surrounding communities	29	Protection of privacy and personal information of customers	34	Compliance with employment rules of suppliers/ contractors/ service providers
21	Implementation of national targeted poverty alleviation policies	30	Customer complaint handling system	35	Human rights protection of suppliers/contractors/service providers
22	Improvement of power supply and living standards for farmers	31	Compliance with regulations on products and service		
23	Development of the Belt and Road Initiative				
24	Development of PV- driven agriculture				
25	Anti-corruption				
26	Compliance with social laws and regulations				



Common Efforts to Develop the Solar Power Industry

Climate change has become a global challenge. The development of GCL New Energy is linked to China's strategic action to build a clean, low-carbon, safe and efficient energy system. 2017 was a critical year for the implementation of the 13th Five-Year Plan. The Group kept expanding to markets overseas, focusing on key business and providing the public with safe, stable and clean energy. Clean energy installed capacity accounts for 100% of the total installed capacity.

- Policy Support
- Arrival of Grid Parity
- Business Overview
- Focus on Key Businesses

Total capacity of solar power plants:



Annual photovoltaic power generation

7 billion kWh

Equivalent of tree plantation

0.28 million mu

Global Installation Ranking:

 2_{nd}



Number of solar power plants worldwide:



Compared to coal-fired power generation, CO2 emission reduction exceeds





▲ The solar poverty alleviation power station in Yuncheng, Shandong Province.

Policy Support

Government policies pose a significant impact on the solar energy industry. As the PV policy evolves, we are anticipating the arrival of grid parity, which will further open up the market in PV application. The market scale dominated by grid parity is expected to maintain stable growth. Government policies including preferential tax policies, feed-in tariff and prioritisation of dispatchable power generation, incentives, green certificates issuance and changes in laws and regulations can all greatly affect the solar energy business.

National and local policies unveiled to ensure the sound and orderly development of industry and Company businesses

- The installed capacity targets specified in the 13th Five-Year Plan are to be increased: To realise grid parity of photovoltaic power generation and thermal power generation, the actual installed capacity for 2018 to 2020 is expected to increase by 40-50GW each year.
- Minimum guaranteed hours of power station: 1,300 1,500 hours
- PV power abandonment rate gradually improved: A total of 22 UHV transmission lines of State Grid have been put into operation and 3 are under construction, gradually solving the issues of power consumption and power supply rationing in northwest China.
- Market transaction of electric power: the electric power used for industry and commerce during the 13th Five-Year Plan will all be commercialised. Power grids will reserve channels and electric power enterprises will have greater autonomy. Priority will be given to purchases from renewable energy sources.
- Electricity generators and retailers will be required to buy green certificates and to supply a quota of power from renewable energy sources: the need for green energy will continue to increase.
- Tax preferential policies: 3 years exemption from tax and 3 years taxation at 50% of the income tax rate, 50% rebate policy for value-added tax.



PV Cumulative Installed Capacity and Prediction (GW) of China, 2009-2020

Arrival of Grid Parity

Government Support

Government Financial Support & Tax Payment of the Group in 2017

Subsidy reward from government

19,427 кмв'ооо

Feed-in tariff **2,480,937** RMB'000

Total tax paid 120,380 RMB'000

Note:

Subsidy reward from government refers to the rewards granted to the Group by the Chinese government to improve capital operations and financially support the business operations of the Group. Rewards in the year were granted as appropriate upon the Group's satisfying the conditions for such rewards. Advantages such as cost have been actively driving the innovation of the application of solar energy technology and lowering the investment cost of solar energy power plant, cost of power generation, and on-grid tariff. Through technology innovation and synergy, the Group aims to reduce the dependency on solar energy subsidies, provide clean energy that is safer, economical, high-quality, and efficient, in order to drive and lead the solar energy technology progress and national industrial transformation as part of the global renewable energy reform.

After the arrival of grid parity, prices of solar power and coal-fired power generation with desulfurization will be similar with competitive potential. Grid parity will also raise the standards for market technology and investment, stimulating the market speculative demand, restoring the commercial value for solar energy, and driving the market back to rational development. The market will transition from the development mode of the on-grid tariff to the competitive tendering mode that is mainly based on matching and competing for grid access and power consumption. Newly installed PV capacity will better align with the growth of power consumption and coal-fired power substitution. The market is mainly concentrated with distributed PV projects that focus on solving renewable electricity consumption issue and with large-scale centralized power stations that distribute power to western and mid-eastern regions.

As a subsidiary of GCL which focuses on the development, construction and operation of power stations, GCL New Energy has reduced project costs to respond to risks from any changes in electricity tariffs and policies. GCL New Energy has developed a plan for the entire process from polycrystalline silicon, silicon wafers, and modules to systems, operations and maintenance to realise grid parity without government subsidies by 2020.

Case Study

An established plan for grid parity of PV power produced by GCL New Energy

PVCEC 2017 was held at Beijing International Exhibition Centre. GCL New Energy was invited to the Leader Forum. As stated in the speech of the event, there is a established plan for PV power plans to realise grid parity in China. The size of market was still limited by subsidies, but industry policies and systems as well as the common efforts of industry participants have had a great impact, and will help to realise grid parity.



Business Overview



PV business transformation strategy

Regional Strategic Distribution of Power Stations in China

The Group runs power plants in 26 provinces throughout China with more than 50% of total installed capacity located in Shaanxi, Henan, Shanxi, Jiangsu, Hebei and Anhui. 86% of the total installed capacity is located in category II and III resource areas other than Northwest China, and only 5% of total installed capacity are in areas (category I resource areas including Xinjiang, Ningxia and Gansu) where energy generation installation is strictly limited.

86% of the total installed capacity is situated in Category II and III resource areas




Locations of Overseas PV Power Stations

Annual Business Performance









Focus on Key Businesses



Frontrunner Project

The Frontrunner project is a programme devised by China's National Energy Administration to promote the domestic development of advanced solar PV technology with the aim of realising grid parity by 2020. Three years after its launch, the scale of the programme has become the focus of solar energy companies. The capacity of the Frontrunner project power plants has increased from 5.5GW in 2016 to 6.5GW in 2017. The Group was authorised to develop power plants with a total capacity of 360MW under the Frontrunner project scheme, which is the third largest capacity in China, with its 100MW Frontrunner project at the pilot base in Ruicheng, Shanxi being the first of the eight pilot bases to achieve full capacity grid integration. The success of project is a recognition not only for the Group's overall capacities, but also our performance in fulfilling our corporate responsibility.

Case Study

The Company's Solar Frontrunner Pilot Base in Ruicheng was connected to the grid with full capacity (100MW)

On 6 September 2017, the Company's Solar Frontrunner Pilot Base in Ruicheng County, Shanxi Province became the first project with a capacity not less than 100MW being connected to the grid with full capacity. This project, positioned at the centre of advanced solar energy technologies, solar Frontrunner technical practice centre, PV electricity price-leading demonstration base and agriculture and forestry PV projects demonstration base, is not only an economic development project, but also an ecological construction project.



Distributed Solar Power Project

National policies encourage the development of distributed solar power systems for their advantages such as zero generation of noise, carbon emissions, or EME, utilisation of empty rooftop spaces and equipment, simple filing and administration procedures, close proximity to users, convenient commercialization, and minimal restriction by limit on electricity consumption. In 2017, GCL New Energy accelerated its development of distributed solar power projects, and set up a business division for the distributed projects in the entity at provincial level. This year, breakthroughs were made in key account development. GCL New Energy established strategic cooperation with well-known international groups and domestic large-sized groups, built a partnership in financing for distributed solar power projects with several financial institutions with cooperation schemes being gradually improved, and created a paragon of green manufacturing in collaboration with large-sized manufacturers, making the Group a more attractive strategic partner. Additionally, public engagement is critical to wide application of green PV power. Therefore, we have invited the public to join us in the effort to create green wealth and craft a green future.

Case Study

GCL New Energy Awarded Contract to Build Distributed PV Power System for AB InBev's Largest Brewery in China

GCL New Energy signed a rooftop leasing agreement with AB InBev to build a distributed solar power system for its brewery in Putian, Fujian. This PV power system, designed to produce power for internal use, will enable low-carbon production at AB InBev and create a model of in-depth combination of manufacturing and new energy.

Available rooftop space of Mith a capacity of **124,000** sq. m. **14** MW





GCL New Energy insists on guaranteeing service quality from the perspective of the entire life cycle. From research and development, to supply chain, to construction and operation, we always uphold the spirit of craftsmanship. As a leading technology innovator, GCL New Energy focuses on technical innovation and the optimisation of its development, construction, operation and maintenance by drawing on the advanced technical resources of its design and research institute. In 2017, the Group built a series of technically advanced projects, including a long-span and steel-pontoonsupported PV system and a horizontal axis supporting system with an oblique angle. New technologies were applied to lead and catalyse the development of the solar power industry, giving the Company a greater competitive edge to control development costs and a more distinct advantage in system efficiency.

- Dedication to R&D
- Green Supply Chain
- Superior Quality
- Superior Service

The percentage of independently developed projects:

79,

Pending Invention Patents: 2 Suppliers obtained ISO 9001 and ISO 14001 certifications: **1000**%





Dedication to R&D

R&D Strength

We have a professional technical research institute and R&D team that spare no effort in technological innovation. The science and technology research team provides overall design services from planning, solutions, preliminary design, and construction drawings to 31 provinces and regions in the country and overseas regions, integrates the best technical resources in the country, and provides powerful design organization and management for large-scale engineering project services. At present, The R&D team has developed several practical technologies that provide GCL New Energy with strong technical support in power plant construction, operation and maintenance.

For installed capacity of new power plants, the percentage of capacity of independently developed projects experienced a significant increase from 48% in 2016 to 79% in 2017. Additionally, an increase of the proportion of independently developed projects helped to reduce overall development costs, laying a foundation for green power produced by the Group to realise grid parity.

Applications of new technologies



Additionally, the Group is committed to innovating in energy services, technologies and technical applications, and publishes Technology News to share the latest news about industry technologies.

R&D Achievements

In 2017, GCL New Energy continued to break through innovation, and strengthened its protection and application of intellectual property rights. The Group obtained patents in the application of flexible photovoltaic power plants on the surface, the use of floating units and floating photovoltaic power generation systems. During the year, GCL New Energy was granted 2 certificates of computer software copyrights, with 2 patents pending. In total, by the end of 2017, GCL New Energy has 3 certificates of computer software copyright and 3 patents pending.



Utility Model Patent for Floating Flexible Solar Power Station

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Utility Model Patent for Pontoon and Floating PV System

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Computer Software Copyright for Investment Management System

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Computer Software Copyright for Business Analysis Centralised Control Screen



GCL New Energy has

3 certificates of computer software copyright and

3 patents pending

Green Supply Chain

Supply Chain Management

GCL New Energy has developed and acted in strict compliance with the Supply Chain Management Standards for the practice, reporting and recording processes of supply chain management. Supply Chain Management Department is set up and be responsible for supplier assessment, acceptance, management, and termination in order to establish and manage longterm partnership with strategic material suppliers and enhance supply chain management system and material quality standards. The Group has 11 suppliers in Suzhou and 110 suppliers in other parts of mainland China. All suppliers have obtained ISO 14001 (Environmental Management System), ISO 9001 (Quality Management System) and OHSAS 18001 (Occupational Health and Safety Management System) certifications. In 2017, no financial, social or environmental performance violations were identified among our suppliers.







Supply Chain Informatisation

The Group kept exploring and practicing, made ongoing improvement to its IT in all internal departments and promoted the reorganizing of the new energy supply chain with IT technology. In addition, we developed a tailor-made new energy supplier SRM system that was first put into service throughout the Group in 2017 and won recognition among business departments, suppliers and project companies.

Philosophy of Procurement

The Group advocates infusion of the Green Philosophy into the very beginning of each project, so the use of environmental-friendly, energy-saving and water-saving, safe and reliable raw materials certified by national authorities is encouraged during purchasing. For instance, oil-immersed transformers are selected to ensure work safety. Some projects use pollution-free dry type transformers and environmental-friendly vegetable oil transformers. For power plant operation, we take active steps to explore environmental-friendly technological upgrades and promote the use of weatherable steel mounting frameworks. The use of anti-corrosion mounting frameworks incorporating VCI is also encouraged to reduce dependence on hot-dip galvanized mounting frameworks.

Financial Support to Suppliers

In addition to supporting suppliers in practicing our green philosophy, the Group has strengthened cooperation with strategic suppliers to improve efficiency and reduce costs through centralized procurement. According to statistics, in 2017, the Group's major suppliers' purchases accounted for 45% of the total purchases, which fully demonstrated the Group's support to suppliers in terms of economy and performance.

Actions against Potential Negative Impact on Supply Chain

We have established the *Immediate Reporting of Nonconforming Supplier* policy. Once suppliers are found to have violated rules during the procurement process, or have experienced misconducts in the environmental or labor issues, we will report to the supply chain right away and immediately terminate the collaboration to avoid negative impact on the reputation or image of the Group. All suppliers are required to act in strict compliance with the Group's rules and standards and to fulfill their corporate social responsibilities.

Domestically produced equipment 100%

The largest supplier in 2017

22%

The five largest suppliers in 2017



Superior Quality

The Group attaches great importance to the quality of construction, operation and maintenance of each PV power plant. We have developed a series of power generation facilities management systems and measures, such as *Reliability Management Standards for Power Plant Equipment, Standards for Maintenance* and *Inspection of Power Plant Equipment*, and Procedures of Regular PV Power Plant Operation, and perform life cycle management for each project. We are committed to creating the best outcome at each project stage and improving the quality, brand image and market influence of each project.

Quality Management throughout Project Life Cycle:

Enhanced design management	Ensure feasibility of preliminary design and that the design meets the requirements for technology, quality, functionality, and budget
Adequate preparation before commencement	Assign an efficient and appropriate management team to each project, facilitate implementation of the project management plan and establish strategic cooperation in the project
Strict control over commencement Enhanced planning Focus on quality	Exert strict control over commencement conditions and build a sample before commencement to enhance necessary plans and improve quality
Emphasis on project completion	Encourage employees to give priority to quality by developing a supervision and management system, and link project evaluation to the performance evaluation of departments and individual employees

Construction Management

Enhance plan management and process control by stricter control over commencement and process supervision to improve quality of PV power plants. Organise material purchasing and supply in a logical manner and develop a stable supply chain plan in advance based on project schedule and progress.

Operation & Maintenance Management

Focus on raising awareness of power consumption and operation, and employ a specialised, smart and precise operating approach to power plant management to ensure compliance with standards, increase reliability and capacity. In 2017, the Group combined a regional operations & maintenance model with a real-time construction and management platform to make possible centralised control, functional interconnectivity and semi-automatic or even fully automatic power plant control to further improve power plant operation and management.

As a leading international new energy producer, GCL New Energy has gained a deep insight into this challenge. At the beginning of 2017, Suzhou GCL New Energy Operation and Technology Co. Ltd., a subsidiary of GCL New Energy, became the first in the industry to launch GCL New Energy Smart Operation, a one-stop smart power plant operation service, and practiced professional, specific and standard PV power plant management, drawing on the Company's regional operations centres.

The Group put into service regional operation centres in Ninggan, Shanxi, Shaanxi, Jiangsu and Hebei in 2017. An operation centre is capable of managing install capacity from 500MW to 1GW within a 200 kilometre radius simultaneously, leading to a sizable reduction in electricity loss and operations and maintenance costs due to equipment malfunction. These regional operation centres also improved the reliability and profitability of power plants throughout their life cycle.







GCL Regional Operation Centers

Compared with single power plant operation, the innovative regional operations center model also doubles the average operational efficiency of each employee while reducing labour costs by nearly 50%. GCL New Energy, drawing on its advantages in technology, human resources and management, is sharing resources with solar power plant owners, offering service of core value to reduce operation cost, and increase the profitability from power generation. In 2017, the Group met all quality-related targets with strict quality control.

Superior Service

With the development of the new energy industry, constant adjustments are made to national policies and market competition becomes increasingly fierce. Quality improvement, grid parity and efficiency improvement are the current tasks the solar power industry needs to face. To adapt to these changes, the Group has developed a four-pronged service philosophy to support our quality improvement and sustainable development.

Precise Positioning & Planning-Based Action	Establish a logical business structure, upgrade business in a timely manner and reinvent solar power plant operational models to ensure efficient operation.
Internal Quality Improvement & Brand Image Building	Build a technically professional internal operation and maintenance team, and a brand image as a professional operation, maintenance and management service provider
Practicality & Flexibility	Offer a one-stop solar power plant operation and maintenance solution, build a service brand of GCL Smart Operation
Settng Industry Example with Technological Support	Big data platform makes possible semi-automatic and even fully-automatic operation of several power plants that serve as a modelof excellence.

The Group, guided by the value of attentive service, provides customers with superior service and delivers green solar power to the society. We prohibit false or misleading advertising and have won wide recognition. In 2017, the Group did not receive any complaint about product quality or safety.



Environmental protection is an important part of our work and a significant mission of GCL New Energy as an environmental-friendly renewable energy producer. As an active solar power generation explorer, the Group commits itself to reaching grid parity and establishing a wide presence of green projects to minimise the impact of project construction, operation and maintenance on the surrounding environment.

- Environmental Management
- Green Operation
- Green Finance
- Green Projects
- Green Office

5.347 billion kWh of green electricity produced by the Group are equivalent to

Amount of standard coal consumed in thermal power generation



Reduction in CO2 emissions

4,395,234tons

Reduction in SO2 emissions



Reduction in NOx emissions 12,341 tons





Environmental Management

The Group not only acts in strict compliance with national and local environmental laws, regulations and industry standards, but also follows internal environmental regulations such as regulations on environmental protection management provided in our *EHS Management Standards* and *Management Standards for Environmental Protection of Power Plants*. Additionally, staying true to the principles of integrated planning, appropriate distribution, focus on prevention, combination of prevention with control and comprehensive control, the Group implements the GCL New Energy environmental management system. During the reporting period, no act against applicable environmental laws or relevant regulations was identified.



Participants in training on environmental protection in 2017:

22,728

Total training hours in environmental protection:

53,552

▼ The solar power station of GCL New Energy in Shanglin, Guangxi Autonomous Region



Green Operation

In 2017, projects performed assessment on potential environmental and social impacts:



"Three simultaneities" (simultaneity of design, construction and operation) compliance:



Environmental protection investment: RMB

 22.44_{million}

With a deep insight into the importance of combining environmental protection with conservation and integrated use of energy and resources as well as clean production, GCL New Energy has worked hard to promote green production. Potential environmental and social impact of each solar power plant project will be assessed upon approval for commencement. A project will only be commenced and connected to the grid after an official reply about environmental impact assessment and conservation of water and soil is received from the competent authority. In 2017, the Group made ongoing improvements to green techniques for the construction, operation and maintenance of solar power plants, and optimised environmental protection measures to increase construction and operation efficiency and reduce resource consumption and impact on the environment.

Green Operation of Construction

- Ensure three simultaneities of environmental protection facilities
- Develop environmental protection measures specific to operations that may cause pollution such as air or solid waste pollution and dust
- Implement effective measures to protect the environment and control the discharge of waste during construction
- Check builders' compliance with environmental laws and regulations
- Further promote environment-friendly technologies among all employees
- Establish an effective reward and punishment system for environmental protection

Green Operation & Maintenance

- Strictly comply with environmental laws and standards at state and local levels
- Advance clean and civilised operations with technological innovation and further investment in environmental protection
- Increase resource efficiency
- Include indicators for the discharge of waste during operation in indicators for production and operation
- Establish a system for the management of wastelike obsolescent electronic components
- Further promote environment-friendly technologies among all employees
- Establish an effective reward and penalty system for environmental protection



▲ Mr. An LingYi, Executive President. Shoot in the regional operation center

Low Energy and Water Consumption

The business activities of the Group include the construction and operation of power stations. During project construction, the Group relies on externally supplied electricity, water and construction materials, and minimises the impact of construction on the environment through environmental protection measures, compliance with environmental requirements and group-wide education about environmental protection. During power station operation, almost all the electricity we use is green power produced by solar power plants, and wind power and electricity produced by energy-efficient furnaces are also widely applied to solar power plants to promote the use of renewable energy and reduce energy consumption. In daily operation, as solar energy modules cleaning is the main source of water consumption, our solar power plants are cleaned with rainwater or dry cleaned by the smart cleaning robot we developed to minimize water consumption.

Energy & Re	esource Consumption in 2017		
Energy	Externally purchased electric 748,331 kWh	city Diesel 1,864 TCE	Gasoline 196 TCE
consumption		rgy consumption per million k	
Resource consumption	Water 828,454 tons	Water consumption per million 154 tons/million kWh	on kWh produced

Aim for Zero Emission

The fuel combustion of vehicles used in construction is the main source of greenhouse gases and other airborne pollutants emitted by the Company. Effective control actions have been taken to ensure that the construction has little impact on air quality. Reclaimed water produced during construction, water used for solar energy module cleaning during operation and domestic sewage from power station employees are the main sources of waste water. Additionally, continuous improvement in smart and automatic solar power plant management reduces the number of employees required for each site, thus reducing the amount of domestic sewage. Wastewater from cleaning is discharged under the PV panels to water plants while domestic sewage is recycled after being treated to standards by on-site equipment.



Fishery complementary solar power plants in Tianchang, Anhui Province

Emissions in 2017

Greenhouse Gas Emissions

Scope 1 emissions 4,415 tons of CO2 equivalent

Scope 2 emissions 509 tons of CO2 equivalent

Greenhouse gases emissions per million kWh produced

916 kgs of CO2 equivalent / million kWh

Solid Waste Disposal

Solid Waste Disposal in 2017

Construction waste 1,060 tons

Construction waste disposed per million kWh produced

In 2017, GCL New

935 million

RMB

Energy issued bonds

with a total value of

 $197_{\rm kg/million\,kWh}$

The waste generated by our solar power plants mainly included waste solar panels, waste electrical appliances, maintenance-free lead-acid batteries and household waste. Since our stations are all newly constructed, no replacement of solar panels, batteries and other equipment is needed, and the waste generated during the reporting period was minimal. All the above mentioned waste was collected and stored properly on-site, and then recycled by qualified organisations. Since only a limited number of staff are stationed at solar power plants, the amount of household waste was also minimal. Household waste is collected and sent to a nearby waste collection point for further handling by a third party periodically.

Green Finance

As climate change receives more attention on a global scale, the path to sustainable development has become a global consensus. The development of the photovoltaic industry and the realization of a green transformation of the economy will require substantial investment in capital. As innovative financing instruments, green bonds and securitisation are effective ways to raise private funds for such investment, GCL New Energy is working hard to promote financial innovation and catalyse the development of green finance.

In 2017, under the challenges of changes in macroeconomic policies, interest rates raised by the Federal Reserve and new regulations enforced by the central bank, we kept exploring and working to develop logical plans, balance development and make breakthroughs through innovation to ensure our sustainable development.

Case Study

GCL New Energy Becomes the First Domestic Solar power plant Constructor to Issue Green **Corporate Bonds**

In 2017, GCL New Energy became the first domestic Solar power plant constructor to issue green corporate bonds, funds raised from which would be used to invest in projects or repay the debts of green projects. These bonds were certified by an assurance body as conforming with the requirements for green industry projects as stated in the List of Green Bond Support Projects.



▲ In-depth communication between Mr. Zhou Haibing, vice president and institutional investors

Green Projects

As an advocate of low carbon, emission reduction and energy conservation, GCL New Energy works to promote sustainable development of resources and environment. The Group strives for a balance among clean production, circular economy, ecological environment and resource utilisation through the construction and operation of environmental-friendly solar power plants. With sustaining innovations in technologies, finance and operation model, the Group is committed to bringing green energy to thousands of families and bringing back azure water and blue sky.

As of 31 December 2017, we operated 162 solar power plants in 26 domestic provinces and overseas regions, with a total installed capacity increased by 70% to 5,990MW from 3,516MW at the end of 2016.



In 2017, the Group generated approximately **5,347** million KWh of green electricity

An increased of 92% compared with the previous year

Case Study

Improve the environment in dust storms areas in Beijing

Soda lake basins in Xilingol League, Inner Mongolia have been repository of soda dust causing erosion in the surrounding environment and a major source of airborne dust for the dust storms that hit Beijing. In June 2017, a solar power plant with a capacity of 20MW in a soda lake basin was connected to the grid, serving as a real-life example for improvement of the eco-environment.

This project, with an annual capacity of over 31 million kWh and zero emissions of carbon dioxide, sulfur dioxide, nitrogen dioxide and soot, helps improve the environment of a 470,000-squaremeter area. It reduces 27 million tons of carbon dioxide emissions every year when compared with a thermal power plant.

Contribute to Solving Air Pollution in Hebei Province

GCL New Energy responds actively to the demand for pollution control in Hebei Province. It developed and built photovoltaic power plants in Shijiazhuang, Hengshui, Baoding, and other cities with the most severe haze, bringing green energy to the haze-prone areas and contributing to the blue sky in Hebei Province.



Green Office

We continuesly promote the principle of green office to reduce the impact on the environment and energy consumption in order to promote sustainable measures to mitigate climate change.

- Minimise the use of lighting and make the best use of natural light .
- Keep air conditioners at standard temperature levels, keep doors and windows closed and turn off ventilators when air conditioners are in use .
- 5
- Turn on the air conditioner an hour later than the beginning of working hours and turn it off 20 minutes before the end of working hours every day • Close computer programs that are not in use to reduce the workload of hard disks, keep the

Electricity Saving

luminance of displays at an appropriate level, and reduce the time for the display to enter the sleep mode when the computer is on standby, and turn off the power after turning off the computer.



 Develop good water-use habits and raise awareness of water conservation. Control the flow of water and turn it off after use to avoid water running and dripping.

Water Saving

- Make the full use of online resources. Print on both sides of paper or the blank side of used paper
- Recycle used paper, newspapers and books
- Bring your own bottles to reduce the use of disposable cups
- Repair office articles and equipment that can be reused after repair to minimise use of resources and waste



- Control the cost of telephone bill of the office
- Control the use of business vehicles. Develop an appropriate plan for business vehicle use and encourage ridesharing to ensure efficient use



▲ Open-plan and green office environment

Common Efforts to Ensure Work Safety

Ensuring occupational health and safety of employees is a core component of GCL New Energy's corporate culture. Robust safety policies and system are in place to minimise safety risks and raise awareness of occupational safety among employees, creating an accident-free working environment.

- Operational Safety
- Occupational Health Management
- Safety Activities

Incident of workrelated injury or fatality:

0

Consecutive days of safe operation: 365

Occupational health insurance coverage rate:

100%

Annual investment in safety: RMB

 10.11_{million}



▲ Xiehe solar power plant in a desert of Delingha, Qinghai Province

0

Operational Safety

To fulfill its promise in work safety, the Group has developed EHS Management Standards to delegate responsibilities for safety management and standardise management tasks and approaches. Also, the Group has set up a Work Safety Management Committee (WSMC) and its branches, which are responsible for the work safety management planning of the Group. Their duties include occupational health and safety policy reviews, development of annual work safety targets and measures. Additionally, according to our work safety management system, occupational health and safety is required to be included in contracts with suppliers and contractors to effectively extend our safety culture and policies to the supply chain.



A Robust Safety Management Structure

Under the safety production management system, the Group implements a responsibilitybased safety management system. All employees carry out their duties by implementing the national policies and regulations concerning safety production and strictly following the Company's *EHS Management Standards*. We also adopt various measures at each power station to maintain the safety of on-site staff and the surrounding communities in order to achieve the established safety goals.



Given different types of accidents that may arise from business operations, the Group has developed various measures to build up employees' capacity to respond to emergencies. All solar power station managers are responsible for developing general and specific emergency contingency plans and on-site response plans, and providing employees with regular training on emergency responses and emergency drills. Such measures ensure that employees are able to handle and address emergencies.



Examples of Emergency Drills

Number of participants in training on safety and occupational health **62,528**

Number of consecutive days without safety

365 Days

Number of major and general equipment malfunctions

U

Number of unplanned outages

0

Work time loss

U Hours

Occupational Health Management

The Group has taken preventive actions against occupational diseases to offer employees a healthy and hygienic working environment, in accordance with the regulations and standards regarding occupational health such as *Code of Occupational Disease Prevention & Control of the People's Republic of China* and *Regulations on Occupational Hygiene of Construction Projects*.



Number of occupational disease incidents

Percentage of employees received occupational health examination

100%

Percentage of employees with occupational health record

100%

Safety Activities

The Group designed a number of safety activities to resolve potential safety hazards and increase employees' knowledge of production safety. The Group's existing activities include occupational health and safety training, safety inspections, and Month of Work Safety, as follows:





A Repairing photovoltaic modules in Licheng, Shanxi Province

Case Study

Safety Quiz at a Subsidiary in Shandong

With the theme of Fulfillment of Responsibilities for Work Safety, a safety quiz was organised at a subsidiary in Shandong on 18 May 2017 and participated in by 4 teams from Shouguang Wanhai, Gaotang GCL New Energy, Liaocheng Xiechang and Yuncheng Xinhua power plants respectively.



Common Efforts to Build a Cooperative Team

Employees at GCL New Energy are given the opportunity to fully engage in democratic management. In addition to regular staff representative meetings, a wide variety of channels are available for employees to present their voices, safeguarding employees' rights to know, to supervise, and to participate. Diversified channels for communication with employees. GCL New Energy recruits local and overseas talent based on equality, openness and inclusivity and works to build a pool of talents with diversified backgrounds. As meeting employee needs and satisfaction is at the core of our business, we strive to improve employees' happiness through various channels that create a vigorous, relaxed, and pleasant working environment.

- Recruitment Policy
- Benefits
- Equal Opportunity
- Employee Development
- Warm GCL New Energy

Labor contract compliance rate

 $100_{\rm \%}$

Social insurance coverage rate 100%

New hires

Employee training coverage rate





Recruitment Policy

GCL New Energy recruits local and overseas talent based on equality, openness and inclusivity and works to build a pool of talents with diversified backgrounds. At GCL New Energy, equal employment opportunities are provided based on competence instead of factors irrelevant to job requirements, such as age, gender, place of birth, ethnicity and religious belief. An employment philosophy based on need, competence and merit is strictly followed. Additionally, GCL New Energy encourages fair competition and equal opportunities to both internal and external job applicants, and employs the most competence to local candidates when choosing among candidates with similar qualifications.

Protection of Workers' Rights

We comply with the *Employment Law of the People's Republic of China, Provisions on Prohibition of Child Labour* and other employment laws and regulations. Child labour or forced labour is prohibited at GCL New Energy. Provisions regarding employment are clearly stated in the terms and conditions of employment. The Human Resources Department also supports preemployment background checks to ensure the Company's compliance with ethical employment rules. Additionally, to protect the privacy of employees, only designated members of the Human Resources Department are given the authority to access personal information of employees. Human Resource Sharing Centre keep and manage hard copies of employees' personal records. During the reporting period, no child labour or forced labour issue was identified in our operating locations. We have signed employment contracts with all employees and all of them are participating in the social security scheme.



In 2017, we had 332 new hires as follows:

Benefits

We offer competitive salaries to attract, motivate and retain talent. In addition to fulfilling basic benefits required by state government, our employees are offered extra allowances like meal allowance, extreme temperature allowance, holiday allowance, communication allowance, travel allowance, housing allowance, on site allowance, dispatch allowance and long service allowance. In addition to allowances, we also provide employees with benefits such as regular physical examination, extra commercial insurance, holiday activities, etc., The Group also makes timely adjustment to benefits to offer employees more benefits based on our profitability and market conditions. In 2017, the minimum salary we offered was 50% higher than the local minimum wage on average.

We have equal responsibility to protect the rights of workers dispatched by employment agencies, interns and employees with disabilities. We comply with laws and regulations on the protection of rights of male and female workers, and safeguard the rights of employees who are in disadvantage. For instance, our pregnant employees are entitled to sufficient maternal leave while male employees are entitled to parental leave. We hold employees' jobs while they are taking maternal / parental leave. We encourage employees to return to work after the end of their leave and promise to offer them the same career development opportunities and salaries when they return.

Indicator	Gender	2016	2017
Number of employees who took parental leave	Male	65	71
Number of employees who look parental leave	Female	10	15
Number of employees who returned to work after the	Male	65	71
end of their parental leave	Female	9	15
Number of employees who returned to work after the	Male	65	71
end of their parental leave and still worked for the Group for twelve months after their return to work	Female	9	15
Percentage of employees who returned to work after	Male	100%	100%
the end of their parental leave	Female	90%	100%
Percentage of employees who returned to work after	Male	100%	100%
the end of their parental leave and still worked for the Group for twelve months after their return to work	Female	100%	100%

We calculate the number of employees eligible for retirement every year to develop effective human resource policies and offer employees more appropriate career management plans, including plans for retirement. In 2017, 370 talents left the Group.



Talents Who Left the Group in 2017

Rank	Percentage of employees eligible for retirement in 5 years	Percentage of employees eligible for retirement in 10 years
Senior Management	0.48%	1.22%
Middle Management & Engineers	0.48%	1.05%
General & Technical Staff	0.44%	1.18%

Equal Opportunity

We give full play to the role of employees in the democratic management of enterprises, and regularly organize employee meeting. In addition, we communicate with employees through a variety of channels, and extensively seek opinions and suggestions from employees, and effectively protect employees' rights to know, to supervise, and to participate.

Our human resources policy demonstrates diversity. As male workers account for a larger proportion of the workforce in the fields of energy and engineering, we pay extra attention to gender equality and gender pay gap issues to ensure gender equality in salary structures and position ranking. As of 31 December 2017, we had a total of 2,341 employees.



Rank	Female-to-male worker pay ratio
Senior Management	1.0
Middle Management & Engineers	1.0
General & Technical Staff	1.0



▲ The first workers' congress of GCL New Energy was held at the headquarters in Suzhou



Male Female

Employment diversity in 2017 (based on total number of employees)

Outside Jiangsu Province and overseas Jiangsu Province

Employee Development

While we continue to improve our business, we have developed a detailed training plan for our employees based on our development strategy and employees' personal development needs. We have established a robust training system offering a variety of training programs including GCL Leadership Program (GLP), GCL Expert Program (GEP), GCL Technology Program (GTP), GCL Operation Program (GOP), GCL New Program (GNP) and GCL Value Program (GVP). Meanwhile, we endeavour to create opportunities for our employees to communicate with their fellows in the industry at home and abroad, and broaden and deepen their understanding of the industry and professional knowledge, thus improving their professional skills and quality.



In 2017, nvestment in training and development for each employee: RMB

2,050 Number of training

participants: **2,769**

The percentage of employees receiving training:

In addition, in order to follow the "Training for Everyone" principles, we also implemented a credit system, which details the requirements for earing credits from online and offline training and sets annual compulsory credit score for each rank of employees. Employees can complete the credit-earning on the "Xinzhihai" training platform. The completion of the indicators will be included in each employee's personal end-of-year performance assessment and linked to the employee's career development.

The percentage of employees receiving training increased by:

30%

Average annual training hours per employee



Technical Talent Pool and Rewards

With support from management and the Human Resources Department, two members of the Information Department were awarded PMP certificates and another member of the department obtained a system integration engineer certificate.



We are also committed to creating a well-designed career development path for our employees, engaging in communication with them on a regular basis and enabling each employee at GCL New Energy to learn something new and apply what they learn to work every day.



Path to Promotion & Development for Employees

Warm GCL New Energy

"Synergy as one family" is one of our core values. "Synergy" brings about an increase in the efficiency of the organization. The "family" culture brings about the sublimation of the emotional relationship. The synergy and family cultures enhance each other and demonstrate our organizational attitude. We hope that GCL New Energy will not only be a platform for employee growth and development, but also a place for them to create good memories. In order to enable employees to enjoy better life while working and cultivating closer team relationships and maintaining physical and mental health, we regularly organize various kinds of employees to release work pressures, cultivate artistic and sports interests, and connect with colleagues and family members at the same time. The employee activities we carried out in 2017 received positive feedbacks from employees.

Case Study

The 1st GCL Sports Day in Suzhou

The first GCL Sports Day was held on 14 October 2017 in Suzhou. On that day, the event attracted over 100 managers and frontline employees from the holding company and companies at the provincial level. To participants from GCL, this event was not only a sport event but also a party for the big family. This event was designed to encourage employees to apply their sportsmanship to work and strive to meet annual goals. The first GCL Sports Day wrote an exciting chapter in the corporate culture history of GCL New Energy and we will continue to encourage employees to make further efforts to deliver more remarkable results.



The 1st English Culture Festival & English Corner Opening Ceremony & Christmas Party Launch

The first English Culture Festival & English Corner Opening Ceremony & Christmas Party was launched on Christmas Eve. English Culture Festival activities, including an opening ceremony for the English Corner, foreign culture experiences and gingersnap DIY, were designed to create

an international working environment and an exciting Christmas atmosphere for our employees. The beautifully decorated space, with carefully decorated Christmas trees, cups, snacks and a 3D English letter wall, became a perfect picture backdrop for employees. Two foreign teachers even dressed up to play Santa Claus to allow employees to immerse themselves in the western Christmas culture experience class.



Case Study

Family Activities for Green Growth -GCL New Energy Carries out Family Summer Camp

On Children's Day, the children of our employees were invited to a Green Growth Family Summer Camp between 14 and 15 July 2017. Children from over 30 families, accompanied by their parents, visited the Future Energy Hall to gain a further understanding of where their parents worked and what they did. The guide gave these children an introduction to the history and future development of energy, which allowed these children to learn something about green energy. We also organised games like Q&A, garbage classification and Paint GCL's Future to allow children to learn from play.



Solar Power Stations on International Women's Day

To extend thanks to female employees at GCL New Energy for their great contributions, we organised a wide range of exciting activities to liberate them from intensive work and give them a chance to enjoy themselves.

GCL New Energy launched an activity called Dress Solar Power Stations Up on International Women's Day



An GCL New Energy solar power station with a capacity of 30MW in Licheng, Shanxi Province



Paeonia suffruticosa Andr blossoms in Xinyuan agricultural complementary solar power project with a capacity of 15MV in Funing, Jiangsu Province



GCL New Energy solar power station with a capacity of 60MW in Shanglin County, Guangxi Province



Ladies at our headquarters used their ultimate creativity to make mousse and chiffon cakes, and then enjoyed mouth-watering cakes in the bakery room filled with their laughter on such a special day for them.

Ladies at our Henan subsidiary were presented with beautiful flowers and given an opportunity to pick strawberries in a greenhouse filled with their laughter.





All female employees at our Qinghai subsidiary participated in exciting cultural and entertainment activities organised by the company on International Women's Day.

Common Efforts to Build Better Communities

As a clean energy provider, GCL New Energy not only works to create economic value for our shareholders, employees and the public, but also fulfils our social responsibility as a company in a new era. In addition to building more environmental-friendly projects for society, we also promote green lifestyle. We are committed to addressing local unemployment and poverty issues in rural areas, driving the development of local related industries and making contributions to the continuous improvement of the ecological environment, allowing solar power stations to be a beacon of poverty alleviation, benefiting local areas and bringing sunshine from GCL New Energy to these areas to build a "beautiful China".

- Open Communication
- Social Actions
- Targeted Poverty-Alleviation
- Charity and Philanthropy

Households in poverty supported

38,000

Spending or poverty alleviation RMB 2.07 billion

Charity donation RMB **297,800**




Open Communication

Before the commencement of each PV power project, we contact the local authorities at each level, community organisations and residents to talk about the project and resettlement compensation policies or mechanisms. After project completion, the solar power station will be closed off for management for most of the time to ensure safe power generation and the personal safety of residents. We adopt a community representative system to communicate with local communities.

Power Station Project Communication

Before the commencement of each solar power project, we listen to the voices of communities, local government and residents on the construction of the local solar power station and connection facilities. Community residents and their representatives will also be invited to engage in the project development and construction processes, and a consensus will be reached in communications meetings to facilitate the next steps of the project.



Resettlement Compensation Policies and Mechanisms

Construction of a solar power station involves land leasing, clearance and compensation. Following the principle of openness, justice and equality, we communicate with local governments at county, district, township, sub-district and village levels as well as local residents during development. After a consensus is reached, we go through procedures as required by law to avoid disputes over resettlement compensation during construction and operation.



Social Actions

We have held GCL New Energy Cup International Student Green Energy Technological Innovation and Entrepreneurship Competition for three consecutive years to offer ambitious local and overseas students with entrepreneurial spirit an opportunity to turn their dream into a reality with support from GCL New Energy. The event helped to build a culture of entrepreneurship and innovation, promoted technological innovation in green energy, built a favourable environment for entrepreneurship and innovation, catalysed diversified cooperation among governments, businesses and education institutions and supported the entrepreneurship of the younger generation. We improve our innovation and entrepreneurship support system, build an innovation and entrepreneurship platform and plan for the commercialisation of winning entries through our Central Research Institute, General Design Institute, GCL New Energy University and collaboration with Suzhou Industrial Park, Shanghai Jiao Tong University and other partners.

Case Study

Diversified Cooperation with Governments and Education Institutions Supports Entrepreneurship of Young Generation Today

The third GCL New Energy Cup International Student Green Energy Technological Innovation & Entrepreneurship Competition was brought to an end as a success in Suzhou Industrial Park on 21 October 2017. The event attracted 70 teams from over 40 local and overseas universities like Peking University, Shanghai Jiao Tong University, Zhejiang University, Nanjing University, National University of Singapore, Hong Kong University of Science and Technology and National Tsing Hua University. With support from the Education Institution Department of Central Committee of the Communist Youth League, Jiangsu, Zhejiang and Suzhou Committees of Communist Youth League, the Group has held three GCL New Energy Cup competitions with a total of over 3,000 participants from over 60 universities and more than 700 entries.



GCL New Energy be Title Sponsor of GCL New Energy Cup Jinzhai Station of China Mountain Bike Cycling Open Championships 2017

In 2017, we sponsored the GCL New Energy Cup Jinzhai Station of the China Mountain Bike Cycling Open Championships 2017 as a title sponsor with a sister company. Mountain bike cycling, as a combination of speed, persistence, strength and will, gives cyclists a chance to enjoy natural beauty while working out, and has become increasingly popular. Staying true to the philosophy of bringing green power to life, GCL New Energy follows a Green, Innovative, Integrated and Winwin competition organisation philosophy, which is similar to the Get Close to Nature, Cycle Toward the Future, the theme of this event.



Targeted Poverty-Alleviation

Regarding solar poverty alleviation, we do not want to stop at merely building a clean power station or just a policy-based poverty alleviation fund. Instead, we are aspired to create a new agricultural industry together with the local government and poor families, and bring high-efficiency production technologies to poor families, and promote the idea of developing industries and becoming wealthy collectively.

By the end of 2017, GCL New Energy Group had built and been authorised to build poverty alleviation solar power stations with a total capacity of 1,170MW that are expected to offer approximately 38,000 families in poverty RMB2.07 billion for poverty alleviation in the next two decades.

Case Study Three Sources of Income for Farmers

Centralised ground-mounted solar power stations also play an important role in poverty alleviation. The combination of companies, specialised farmers and poor families can provide those in need with three potential sources of income, including a policy-based allowances, land rents and salaries. Xinhua Power Station in Houyanji Town, Yuncheng County, Shandong Province was one of the projects that adopted this model. We took out a lease on 1,200 mu of land from local farmers and built over 260 arched greenhouses and spring and autumn greenhouses on the land. Photovoltaic panels were installed over the greenhouses to create a centralised PV system while the land in the greenhouses was leased to local vegetable growers at a low rental rate to grow vegetables and develop a special form of agriculture. With such a model that combines agriculture with a PV system, registered poor residents in Houyanji Town can receive land rent ranging from RMB1,000-1,200 per mu of land every year, in addition to an annual poverty alleviation allowance of RMB3,000.



GCL solar poverty alleviation plant in Funan, Anhui Province

Charity and Philanthropy









Number of beneficiary poor families **38,000**

Case Study

Ordinary Fighters Contributes to Philanthropy of GCL New Energy



A book launch for *Ordinary Fighters* was held by GCL New Energy on 27 June 2017. *Ordinary Fighters* shares true stories of struggle of 100 frontline employees at GCL New Energy. This book is a result of a half-year-long process from conception to finalisation.

The event included a donation ceremony at which profit from the book was donated to GCL New Energy Sun Charity Foundation to help people in need as part of GCL New Energy's efforts to fulfil its CSR.

Reach out to the Mountainous Area, Realize Dream for Love Bring Sunshine to Children

Between 13 and 17 November 2017, GCL New Energy carried out a Bring Sunshine to Children activity to unite efforts of its employees to fulfil CSR and bring love and a brightful future to children in mountainous areas.

Gifts of Love to Children in Chongqing

GCL New Energy worked with 6 schools in Sanxi, a remote, mountainous area in Wushan County, Chongqing, to carry out the Bring a Sunlit Future to Children activity to give children stationaries, sports equipment, winter clothing and other things they needed, bringing children in warmth, love, and care.

Donations with Loving Care from Employees

Employees responded to the call for donations by donating books, stationaries, clothing and toys. Volunteers from GCL New Energy travelled through muddy paths and heavy fog, and finally saw the smiling faces of children after an over-10hour journey of more than 1,200 kilometers.

Inspiring Smiling Faces

Children made pieces of board into a bookshelf and then place books they desired for on it. Sunshine brought by GCL New Energy will always be there for these children.



Craft a Future with Love Donations to Schools in Ningxia Gansu



From 8 to 9 March 2017, subsidiaries of GCL New Energy in Ningxia and Gansu worked together to make donations to schools. Volunteers from these two subsidiaries then went to Yuantao Elementary School in Jiucai Township, Haiyuan County, a mountainous area in southern Ningxia, and Shilidun Elementary School in Zhenyuan County, Qingyang Town, Gansu, a journey longer than 10 hours, to bring donations to children in these poor mountainous areas. GCL New Energy brought over RMB8,000 worth of donations, including books, schoolbags, stationaries and sports equipment.to students and teachers in Yuantao Elementary School.

Honors and Awards



In addition to commitment to building up our capacity to operate solar power plants, GCL New Energy is also dedicated to promoting sound and steady development of the industry and fulfilling its responsibilities as a leading solar power producer. The Group plays an active role in forums, activities and exhibitions, and joins associations in the industry to promote industry development and increase the visibility of our corporate image. In a bid to create a favourable environment for development and a good platform for communication with industry participants, the Group plays a dual role as a prominent constructor and service provider in the industry.

No.	Association	Title			
1	Renewable Energy Association of Jiangsu Province	Vice Chairman			
2	Shandong Solar Energy Industry Association	Team Member			
3	Shandong Province Electric Power Enterprise Association General Member				
No.	Environmental Protection Organization				
1	World Wildlife Fund (WWF)				
2	China Centre for International Economic Exchange and Paulson Institute				

Industry associations and environmental protection organisations that the Group has joined

Forums, activities and exhibitions the Group participated in during 2017

The 11th SNEC PV Power Expox



The Group stated at the event that there was a mismatch between the progress toward grid parity of China's PV power industry and China's standing as a leading country in PV power generation, and it was costs unrelated PV power generation such as the costs of land, finance and tax that stemmed progress toward grid parity in China.

International Photovoltaic Power Industry and Photovoltaic Project (Shanghai) Expo 2017, an international, specialised and large event with global influence, held in Shanghai, China between 19 and 21 April 2017. GCL New Energy has long been an active supporter of and participant in the expo, the largest and most international event in global solar power industry.





At the Forum on Solar Poverty Alleviation and PV Agriculture Application Technologies, the Group stated that technological innovation gave rise to a new way to enrich farmers and boost agriculture by dual use of sunlight and land. The agricultural complementary solar power policy should clear the obstacles for development, and change the inappropriate requirement to categorise farmland with photovoltaic systems as construction land while developing a mandatory standard for agriculture PV projects without adverse impact on land or yield.



On 24 November

The 7th Forum on Further Application, Innovation & Development of Distributed Power Systems in Yangtze River Economic Zone under the Belt and Road Initiative 2017

Dec

Between 4-6 December PV Summit 2017 held in Xi'an



On 5 December

The Group attended China Renewable Energy International Frontrunner Conference and delivered a speech at Forum on PV & Distributed Power and Dialogue among International Renewable Energy Frontrunners

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On 30 July

China GCL New Energy Day, with the theme of Bringing Green Power to Life, China Pavilion of Expo Astana

Aug



On 10 August

The 2nd Northeast China Forum on Energy Economic Transformation and Solar power industry Development

Sep



Between 9-10 September

China Top 500 Enterprise Summit organised by China Enterprise Confederation/ China Enterprise Directors Association



On 14 November The 8th OFweek China Solar Energy PV Summit Forum 2017 held in Shenzhen



On 21 November Responsibility of a Great Country-China CSR Summit Forum 2017 held in Beijing

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On 23 November

Forum on Solar power plant Operation and Postconstruction Service held in Beijing



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On 12 December

The Belt and Road International Energy Forum co-organised by China Energy News, Public Sentiment Monitoring Office at People.cn and China Institute of Energy Economics Research



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On 13 December

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Solar power plant Operation Indicator Release & Seminar on Solar power plant Operation and Maintenance organised by China Electricity Council

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Future Prospect

We are fully aware that as the pace of globalization accelerates, we will directly face global market competition for resources, talents, management, technology and services. The opportunities and challenges will coexist in the future, especially the development of overseas markets and the "Belt and Road" initiative. The expansion of the country has placed higher demands on our corporate social responsibility and risk management and control. We will continue to adjust and upgrade management strategies and establish a professional management system to comply with the various social responsibility risks that will follow.



▲ Agricultural Complementary Solar Power Plant of Yisheng Dongfang, Hainan Province

Appendix A

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Appendix B

Rating Report on GCL New Energy Corporate Social Responsibility Report 2017



The Report disclosed negative information such as the "number of significant equipment malfunction cases", "number of general equipment malfunction cases", "unplanned outages", "number of work-related injury incidents", "lost time due to work injury", "number of employees suffering from occupational disease", etc. The direction of improvement in information disclosure and management were briefly described in the Room for Improvement in CSR Performance section, achieving leading performance in the aspect of balance.

Comparability $(\star \star \star \star \star)$

The Report disclosed 41 key indicators including "number of power plants", "installed capacity", "amount of green electricity generated", "total number of employees", "percentage of employees having received training", "number of consecutive days without safety incidents", "solar poverty alleviation", "donations to communities", "tax paid", etc. for three years and conducted horizontal comparison on "positioning within the industry", "capacity classified as poverty alleviating", "total installed capacity", "total grid connection of poverty alleviation projects" with peers, achieving excellent performance in the aspect of comparability.







The Report is printed on environmentally friendly paper



GCL New Energy

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