



GCL-Poly Energy Holdings Limited

保利協鑫能源控股有限公司

(incorporated in the Cayman Islands with limited liability)

(Stock Code : 3800)



Bringing
GREEN POWER

To life | **2017** Environmental, Social and
Governance Report



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Overview

This report is the fifth Environmental, Social and Governance Report of GCL-Poly Energy Holdings Limited delivered to all stakeholders of the Company, focusing mainly on the Company's management, practice and performance in business, environmental protection, society, and governance.

Scope of the Report

This report covers the period between 1 January 2017 and 31 December 2017, with part of the content following that of previous years.

Release Cycle of the Report

Since 2013, GCL-Poly Energy Holdings Limited has been publishing its annual Environmental, Social and Governance report, with the last one being released in July 2017.

Coverage and Boundary of the Report

The report covers GCL-Poly Energy Holdings Limited and its subsidiaries¹. For ease of reading, the report uses "GCL-Poly", "the Company" or "we" to represent GCL-Poly Energy Holdings Limited.

Basis of Preparation of the Report

The report has been prepared in accordance with the *Sustainability Reporting Standards* issued by the Global Reporting Initiative (GRI), Appendix 27 in the *Listing Rules (Environmental, Social, and Governance Reporting Guide)* issued by the Stock Exchange of Hong Kong Limited (SEHK), and the *Guide to the Preparation of Corporate Social Responsibility Reports of China* issued by the Chinese Academy of Social Science. This report has been prepared in accordance with the *GRI Standards: Core option*. The report preparation team identified material issues jointly with the key stakeholders and disclose relevant content in this report. The report has successfully completed GRI Materiality Disclosures Service.

Source of Information

The information and data disclosed in this report originate from statistic reports and formal documents of GCL-Poly Energy Holdings Limited and have been validated by related departments. The Company adopts consistent disclosure approach for statistics to quantify key performance indices and ensure meaningful comparisons among them. There is no restatement of information in this report².

Language and Form of the Report

There are Chinese and English versions for this report, both electronic editions. For more details about the background, business development and sustainability vision of GCL-Poly, please refer to our website (www.gcl-poly.com.hk).

Preparation Procedure of the Report

The report is prepared following the sequence of forming the working group, collecting information, communicating with stakeholders, confirming the framework; redacting, designing and validating the report by related departments and the management. The procedure aims to guarantee that the issue selection and information disclosure meet the demand of materiality and equilibrium.

Confirmation and Approval

Confirmed by the management, this report is approved by the Board of Directors on 5 July 2018.

¹ GRI 102-46

² GRI 102-48

ABOUT THE REPORT



CHAIRMAN'S STATEMENT



Bringing clean energy into millions of households and promoting public benefit around the world is the unwavering commitment of GCL-Poly and its long-standing vision and mission. We put corporate social responsibility (CSR) as the core of our development strategy, commit to making affordable clean energy a reality, and maintain a high standard of corporate governance that serves as our foundation, all in an attempt to establish a sustainable development management system. It fulfils our role as an excellent corporate citizen through products responsibility, customer maintenance, supply chain management, environmental protection, people-oriented philosophy and social care. We hold ourselves accountable to all stakeholders, creating common values and benefiting the society.

CHAIRMAN'S STATEMENT

GCL-Poly combines the economy, environment, society and governance to form an ideal and sustainable management philosophy. We have created CSR documents, such as the *GCL-Poly Corporate Citizen White Paper* and *GCL-Poly Corporate Citizen Guide*. Guided by high corporate governance standards and strong ethics, we implement our CSR policy effectively. All members in the Board of Directors of GCL-Poly are committed to CSR, as exemplified and led by our directors' devotion to it and their leadership in guiding employees to the full commitment of CSR.

As the world's largest manufacturer of polysilicon and silicon wafers, we are dedicated to product excellence. In 2017, we further increased our investment in scientific research and innovation, and have made important breakthroughs in product upgrade and the technological transformation of our manufacturing technique to reduce consumption, getting one step closer toward the reality of low-cost clean energy. We have also actively promoted the intelligentization of manufacturing and created a systematic, modular and digital production layout. By integrating supplier source control, production process monitoring and product traceability services, we have created a scientific and controllable product eco-chain system — enhancing quality control and fulfilling our product responsibilities.

Promoting clean energy industry is GCL-Poly's greatest commitment to the environment. In our manufacturing process, we emphasize the importance of the rational selection of raw materials and the recycling of resources; in our waste discharge process, we ensure waste classification is compliant with regulatory standards and requirements. We have long been supporting and promoting the transformation of manufacturing technique that saves energy and reduces cost. A series of technological breakthroughs in 2017 have accelerated our goals of energy-saving. We are fully attentive to the clear direction of the *Paris Agreement on Climate Change* to address global climate change, seize the opportunity to transform energy architecture, and contribute to reducing global greenhouse gas emissions by promoting the structural transformation of clean photovoltaic (PV) energy.

Our people-oriented philosophy is reflected in every aspect, from our comprehensive labor system, the full implementation of employee benefits, to the design of our staff training and promotion systems. Our staff are our most valuable asset, therefore, we have stringent occupational safety measures in place and we entrust our staff to take reasonable health and safety obligation. We promote security measures through education, supervision, training and exercises to create a healthy, safe and comfortable working environment for our staff. On this basis, we have a wealth of staff benefits, fair and open promotion and versatile employee caring activities to assure staff needs are met.

GCL-Poly not only emphasizes its own management responsibility, but is also dedicated to social welfare activities, focusing on community building and leading the regional economy. We are committed to contributing to the community through sponsorships, fundraising and volunteer activities, and we strive to bring positive impact to the society through our influence. In 2017, GCL-Poly was selected as a constituent company in the Hang Seng Corporate Sustainability Benchmark Index (HSSUSB) for the first time. Concurrently, I took over the chairman role of the Global Solar Council (GSC). All these show that GCL-Poly is trusted and highly recognized for its role in leading the PV industry and creating a sustainable future.

We will continue to fulfil our social responsibilities, demonstrate our social values, fully utilize our role as a leading company in clean energy, and strive to realize the vision of bringing green energy to millions of households.

Zhu Gongshan

Chairman

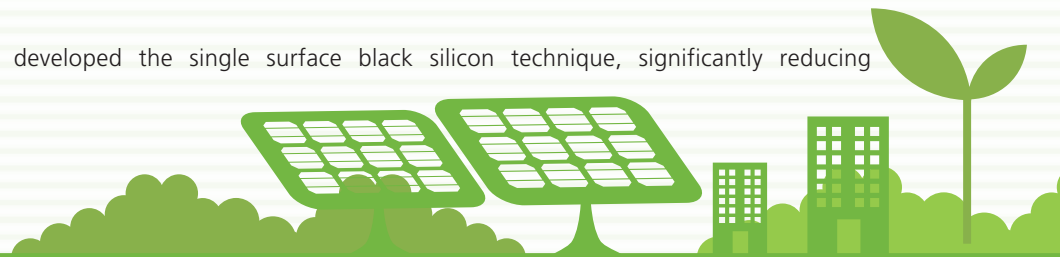
HIGHLIGHTS IN 2017

Business Performance

- Total production and sales (not including the internal sales to wafer production) of polysilicon for the year were 74,818 metric tonnes (MT) and 7,316 MT respectively, and total production and sales of wafers were 23,902 megawatts (MW) and 23,417 MW respectively.
- The global market share of polysilicon products and wafer products remained first.

Technological Innovation

- The Company invested RMB956 million in R&D, mainly used for upgrading to diamond-wire, the localisation of technologies and equipment of fifth generation constant czoehralski monosilicon (CCZ) and the fluidized bed reactor (FBR) granular silicon, and black silicon etc.
- In 2017, the Company and its subsidiaries have applied for a total of 133 patents, 49 of which were invention patents, and obtained 120 patent licenses; Thus far, cumulatively the Company has applied for 1,054 patents and was granted 637 patents, 289 of which were invention patents.
- GCL-Poly launched a new generation of quasi-mono wafer product G3, featuring higher production capacity, higher efficiency, lower cost, and lower degradation.
- The Diamond Wire Cutting Technique increased the wafers production capacity of each cutting machine by 100%, lowered polysilicon consumption by 25%, improved production efficiency by 85% and significantly reduced production cost.
- The wafer segment further developed the single surface black silicon technique, significantly reducing production cost.



HIGHLIGHTS IN 2017

Environmental Protection

- The Company invested RMB255,600 in environmental training, with 28,222 participants and 34,081 training hours in total, covering 100% of employees.
- The Company invested RMB62,480,000 in ensuring comprehensive utilization of resources.
- The GCL in-house ultra-large-scale clean polysilicon production technology has achieved a material recovery rate of 100% from 50%.
- Through comprehensive technological innovation and transformation, in 2017, the Company reduced its energy consumption by a total of 192,288,200 kWh.
- No environmental non-compliance incidents were reported.

Health and Safety

- A total of 53,720 participants attended vocational safety-related training.
- No significant safety incidents were reported, including work-related fatalities.
- No occupational disease or suspected occupational diseases were reported.

Community and Charity

- GCL-Poly has organised 26 public welfare and volunteer activities, invested RMB964,400 in charity, among which RMB405,200 was donated to Chuanxin earthquake victims, RMB200,000 was used to sponsor Xuzhou International Dragon Boat Competition and goods worth RMB200,000 were donated to places in need.
- The poverty alleviation projects of GCL New Energy has had the scale of its power station reaching 1,170 MW, supported nearly 38,000 poverty-stricken households and promised to raise its poverty reduction funds to RMB2.07 billion in the following 20 years.



COMPANY'S PROFILE



COMPANY'S PROFILE



GCL-Poly incorporated in the Cayman Islands on 12 July 2006 and registered in Hong Kong on 12 July 2007. It was listed on the Hong Kong Stock Exchange in November 2007 (stock code: 3800.HK). In 2010, it was selected as a constituent of the Hang Seng Composite Index and the Hang Seng Mainland 100 index; in May 2012, it was named as a Global Top 2000 listed company by Forbes. In 2017, GCL-Poly Energy Holdings Limited was included as a constituent stock of Hang Seng Corporate Sustainability Benchmark Index ("HSSUSB") for the first time. The Company headquarters in Hong Kong, with management centers distributed in Xuzhou, Suzhou. In addition, the Company has representative offices or subsidiaries in Beijing and Taipei, and R & D centers in San Francisco of the United States, Suzhou Industrial Park in China and Xuzhou of China.

Our mission is "Bringing Green Power to Life". GCL-Poly Energy Holdings Limited is the world's leading polysilicon producer and the largest wafer supplier globally. The Group has ramped up the polysilicon production capacity to 70,000 MT at the end of 2017. Our wafer production capacity achieved 30 GW at the end of 2017. Regarding the new energy business, the Group operates over 6 GW solar projects in the world mainly through its subsidiary, GCL New Energy Holdings Limited ("GCL New Energy").



COMPANY'S PROFILE

OUR PHILOSOPHY

VISION

To be internationally recognized as an environmentally responsible energy enterprise

- We gain recognition from society due to our engagement in people-caring activities, devotion to environmental protection, contribution to regional economic development and sound corporate integrity. We have been recognised by the industry for our healthy and rapid growth, proven operating performance and philosophy of harmonious competition. We have gained the respect of our staff as we follow the philosophy of people-oriented management.

MISSION

Provide high-quality energy and services for a better living environment

- GCL-Poly provides users with safe, affordable and reliable energy and services, and continuously promotes the utilisation of environmentally friendly energy. Harmonious development of society is to the benefit of all mankind; it is every enterprise's responsibility to reasonably utilise limited natural resources. We have only one Earth. Therefore, loving the environment means loving ourselves! GCL will start from the basics to build a more beautiful homeland!

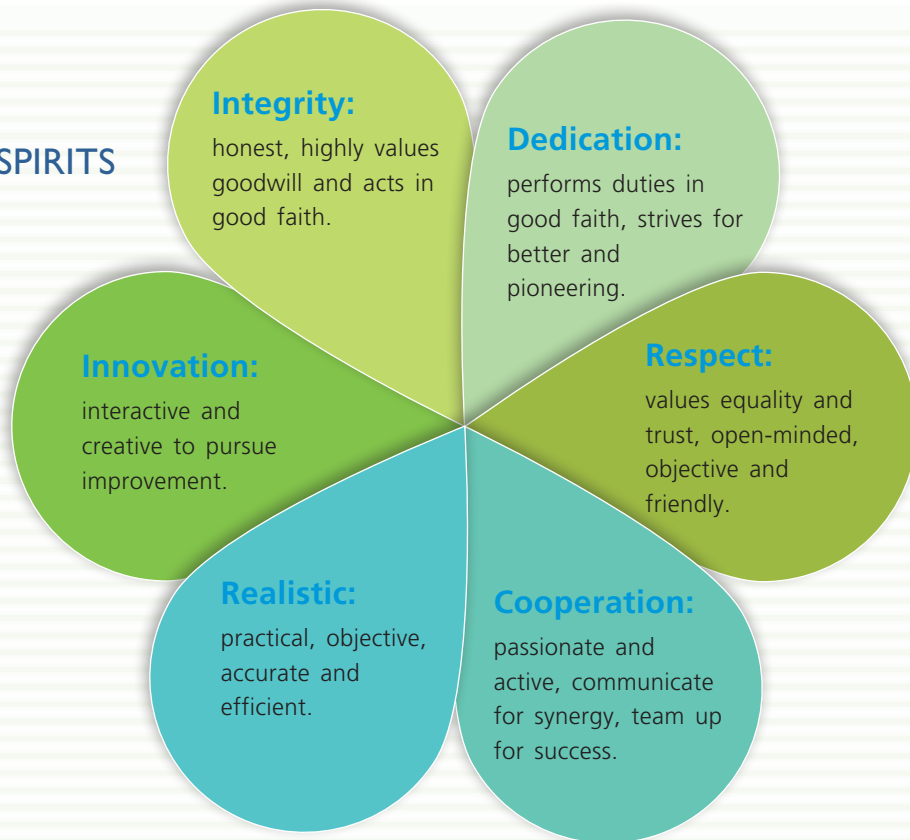
CORE VALUES

People-oriented, Pursuit of excellence, Harmonious development, Value creation

- Talent is the foremost valuable resource in GCL-Poly. GCL-Poly provides an ideal working environment by continuously optimising our recruitment mechanism and applying a detailed human management approach. We encourage our staff to involve themselves whole-heartedly to the enterprise to develop and realise their own value by cultivating their ability and realising their potential. Sense of mission, faith and pursuit of excellence provide forward momentum for GCL-Poly, while excellence in operating performance guarantees the path to our success. GCL-Poly pursues the best in every single matter. Enhancing corporate values continuously by utilising simple and flexible operating mechanisms, proven ability of execution and low-cost competitiveness.

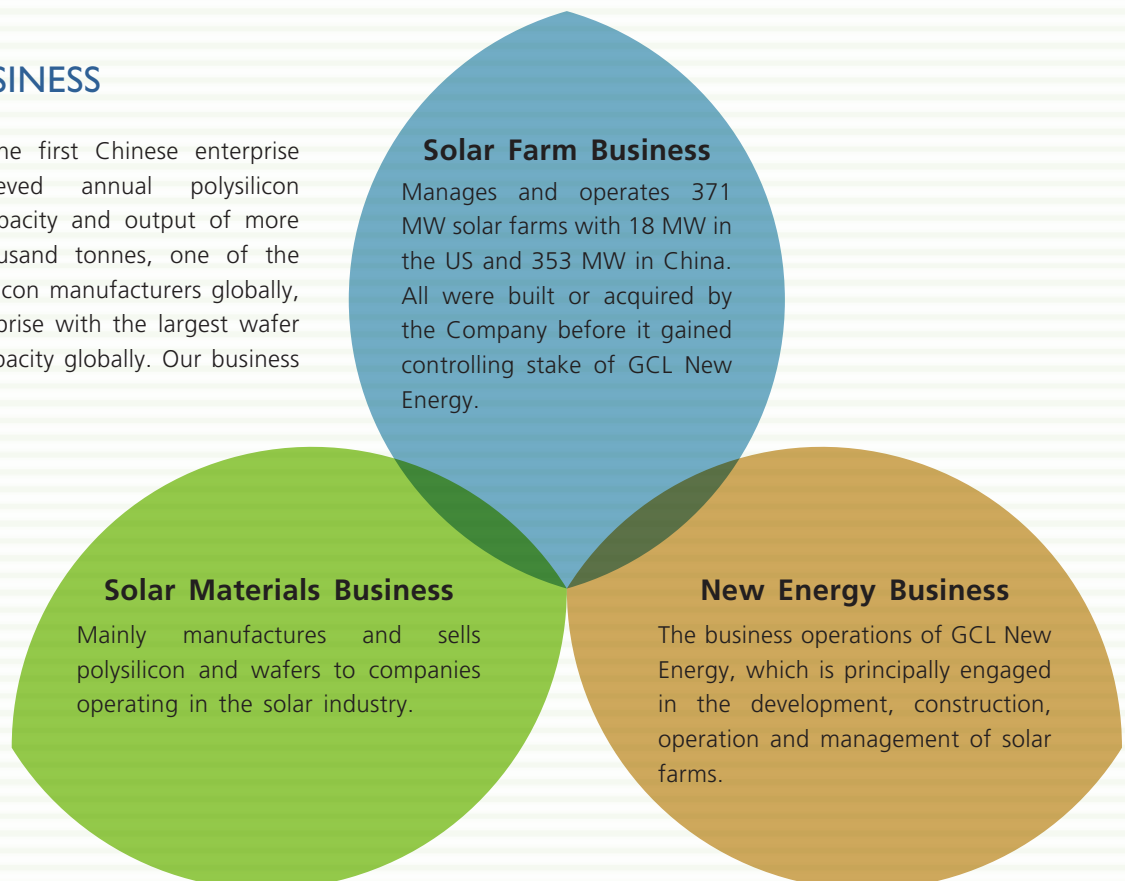
COMPANY'S PROFILE

GCL-POLY SPIRITS

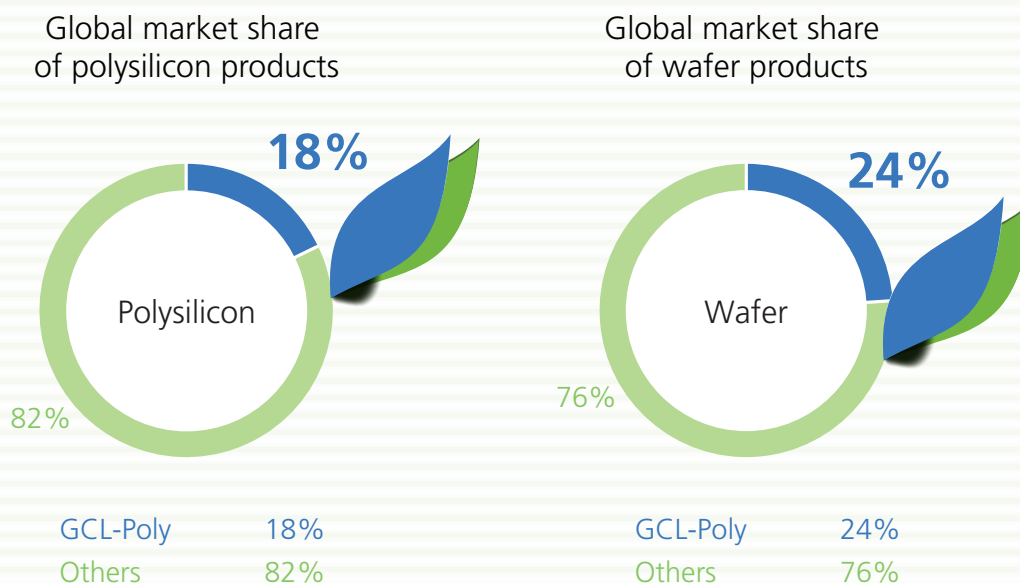


OUR BUSINESS

GCL-Poly is the first Chinese enterprise having achieved annual polysilicon production capacity and output of more than ten thousand tonnes, one of the biggest polysilicon manufacturers globally, and the enterprise with the largest wafer production capacity globally. Our business mainly covers:



COMPANY'S PROFILE



* Source: Bloomberg New Energy Finance

In 2017, with continuous upgrading of products, GCL-Poly's polysilicon output increased by 7% year on year, and the wafer output increased by 30% year on year. With projects like diamond wire polysilicon cutting and other cost-saving measures, vertical production cost decreased greatly compared to that in 2016.

Business	Item	Y2016	Y2017
Solar Materials Business	Polysilicon output (tonnes)	69,345	74,818
	Polysilicon sales* (tonnes)	9,951	7,316
	Wafer output** (MW)	17,327	23,902
	Wafer sales (MW)	17,518	23,417
	Revenue (RMB'Million)	19,270	19,355
Solar Farm Business	Overseas power sales (MWh)	31,302	29,804
	Chinese power sales (MWh)	498,420	495,365
	Revenue (RMB'Million)	508	497
New Energy Business	Grid-connected solar farms	90	162
	Gross installed capacity (MW)	3,516	5,990
	Revenue (RMB'Million)	2,247	3,942

* not including the internal sales to wafer production

** including processing business with supplied materials

For more information on our solar materials business, solar farm business, and new energy business in 2017, please refer to "Management Discussion and Analysis" in our 2017 Annual Report, which can be accessed via our company website, <http://gcl-poly.com.hk/en>.

COMPANY'S PROFILE

Statuses of GCL-Poly's Subsidiaries¹ (as at 31 December 2017)

Category	Name of Subsidiaries	Short Name
6 R&D Centers	<ul style="list-style-type: none"> Suzhou GCL-Poly Industrial Application Research Institute Polysilicon R&D Center Dicing R&D Center GCL Software Control Equipment R&D Center Solar Energy Materials R&D Center US Richland R&D Center 	<ul style="list-style-type: none"> Suzhou GCL-Poly Industrial Application Research Institute Polysilicon R&D Center Dicing R&D Center GCL Software Control Equipment R&D Center Solar Energy Materials R&D Center US Richland R&D Center
2 Management Centers	<ul style="list-style-type: none"> GCL-Poly (Xuzhou) New Energy Operation and Management Co. Ltd. GCL-Poly (Suzhou) New Energy Operation and Management Co. Ltd. 	<ul style="list-style-type: none"> Xuzhou Management Center Suzhou Management Center
2 Representative Offices	<ul style="list-style-type: none"> Taiwan Representative Office South Africa Representative Office 	<ul style="list-style-type: none"> Taiwan Representative Office South Africa Representative Office
16 Polysilicon & Wafer Manufacturing Subsidiaries	<ul style="list-style-type: none"> Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd. Jiangsu GCL Silicon Material Technology Development Co., Ltd. Suzhou GCL Photovoltaic Technology Co., Ltd. Konca Solar Cell Co., Ltd. Yangzhou GCL Photovoltaic Technology Co., Ltd. Taichang GCL Photovoltaic Technology Co., Ltd. Changzhou GCL Photovoltaic Technology Co., Ltd. Ningxia GCL Monocrystalline Silicon Technology Development Co., Ltd. Funing GCL Photovoltaic Technology Co., Ltd. Henan GCL Photovoltaic Technology Co., Ltd. Suzhou GCL Technology Development Co., Ltd. Jiangsu Xinhua Semiconductor Material Technology Co., Ltd. GCL Special Material Technology (Jiangsu) Co., Ltd. Sichuan Golden Concord Silicon Industry Co., Ltd. GCL PV Materials (Xuzhou) Co., Ltd. Jiangsu GCL Software Control Equipment Technology Development Co. Ltd. 	<ul style="list-style-type: none"> Zhongneng Polysilicon Xuzhou GCL Photovoltaic Suzhou GCL Photovoltaic Wuxi Konca Yangzhou GCL Photovoltaic Taichang GCL Photovoltaic Changzhou GCL Photovoltaic Ningxia GCL Monocrystalline Silicon Funing GCL Photovoltaic Henan GCL Photovoltaic Suzhou GCL Technology Xinhua Semiconductor Xinhua Special Material Sichuan Golden Concord GCL PV Materials (Xuzhou) Xuzhou Software Control
11 Solar Farm Companies*	<p>Solar farms established in the PRC: (Managed by GCL New Energy)</p> <ul style="list-style-type: none"> Xuzhou GCL Solar Energy Co. Ltd. Jiangsu Guoneng Solar Technology Co. Ltd. Datong Xian Xinneng Solar Energy Co. Ltd. Datong Xian GCL Solar Energy Co. Ltd. Ningxia Qingyang New Energy Co. Ltd. Ningxia Hengyang New Energy Co. Ltd. Funing Xinneng Solar Energy Co. Ltd. Baoying Xinneng Renewable Energy Co. Ltd. Huocheng Xian Tukai New Energy Technology Development Co. Ltd. GCL-Poly (Sangri) Solar Power Co. Ltd. <p>Overseas solar farm holding company: (Managed by GCL New Energy)</p> <ul style="list-style-type: none"> GCL Solar Energy, Inc. 	<p>Solar farms established in the PRC: (Managed by GCL New Energy)</p> <ul style="list-style-type: none"> Xuzhou GCL Solar Energy Jiangsu Guoneng Solar Technology Datong Xian Xinneng Solar Energy Datong Xian GCL Solar Energy Ningxia Qingyang New Energy Ningxia Hengyang New Energy Funing Xinneng Solar Energy Baoying Xinneng Renewable Energy Huocheng Xian Tukai New Energy GCL-Poly (Sangri) Solar Power <p>Overseas solar farm holding company: (Managed by GCL New Energy)</p> <ul style="list-style-type: none"> GCL Solar Energy, Inc.

* Excluding solar power stations under GCL New Energy's business

¹ GRI 102-45

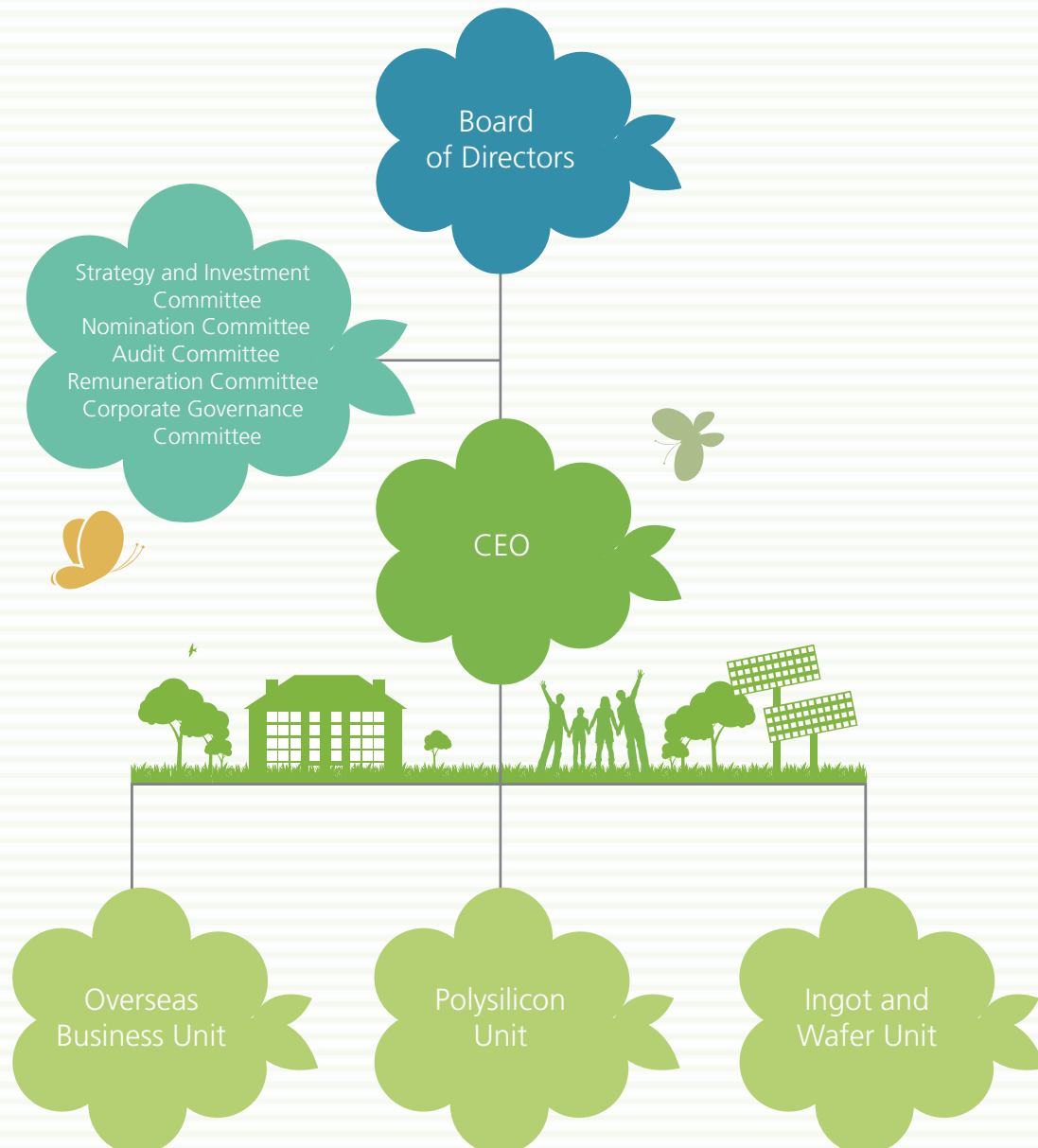
English company name for identification only

COMPANY'S PROFILE

Corporate Governance and Risk Management

GCL-Poly is dedicated to achieving and maintaining excellent corporate governance, and continuously improving system and procedure of corporate governance. The board believes that comprehensive and reasonable corporate governance is the key to safeguarding the Company's interests and assets, supporting the Company's sound and effective operation, and creating value for shareholders and other stakeholders. GCL-Poly complies with the code provisions set out in the *Corporate Governance Code* and *Corporate Governance Report* contained in Appendix 14 of the Listing Rules of SEHK. We also adhere to the China Securities Regulatory Commission's *Basic Norms of Enterprise Internal Control* and have implemented a series of risk and internal control rules and systems, including the *General Risk Management Guidelines, Principles and System of Internal Control Management, System and Standard Guideline for Internal Audit and Risk Alert Management Measures*.

Corporate Structure



COMPANY'S PROFILE

Investor Relations Management

We are in strict compliance with the relevant provisions of SEHK to conduct investor relations management and establish two-way transparent mechanism of information-disclosing. We publish annual report, interim report and hold annual and special general meetings regularly to keep communicating with shareholders. In this way, we can ensure shareholders and investors can publicly, equally and immediately obtain the company information and participate in corporate governance, which can help protect the interests of small and medium investors. In 2017, we totally participated in more than 200 investor relations activities and organised enterprise visiting quarterly, which have enhanced global investors' understanding and trust of us.

Risk Management and Internal Control

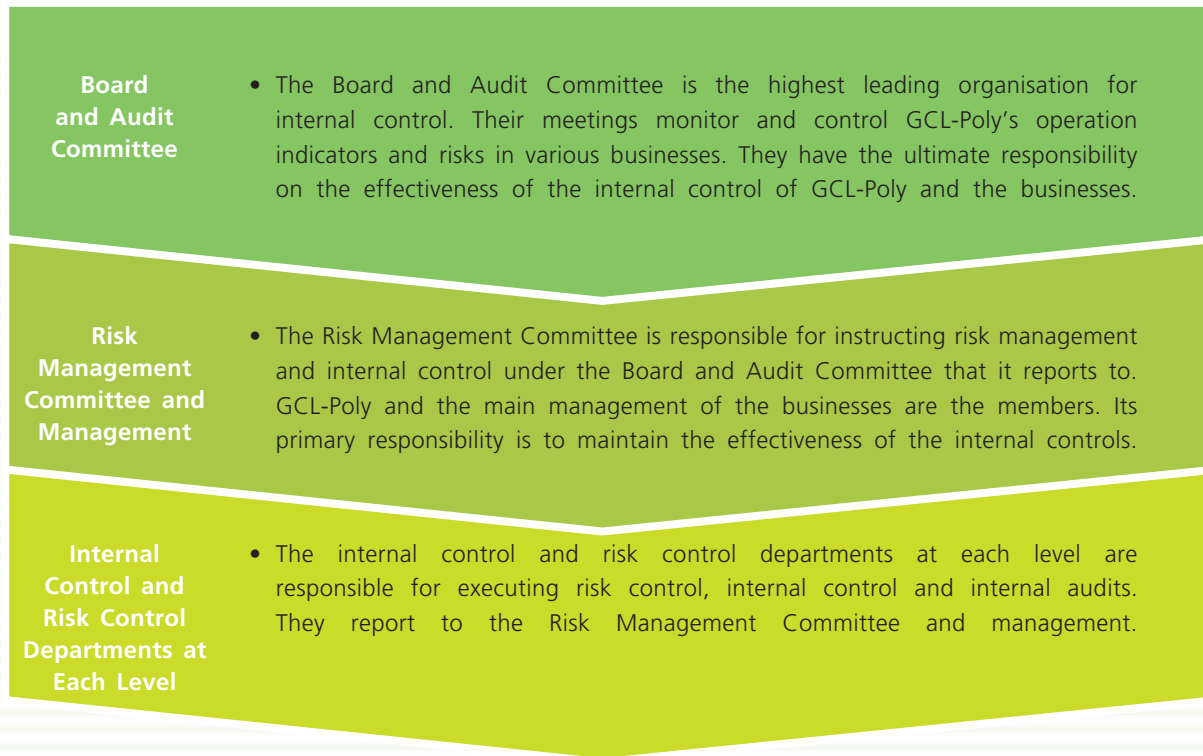
With comprehensive risk management system, GCL-Poly's business units adopt the Company's risk management and internal control framework in daily work. The risk management part provides clear and effective management procedure for business units, for identifying and examining risks, as well as prioritizing the risks accordingly, in order to allocate resources for corresponding risk management. The internal control part provides clear guidance for business units, clarifies the internal control goal for different important business areas, and regularly evaluates the effectiveness of controlling measures and activities.

The Company established internal control department, which is responsible for implementing risk management and internal control policies as well as organizing and coordinating the management to identify and assess the risks faced by the Company. Besides, the department also implements the policies approved by the board through promoting management design as well as launching and supervising a set of appropriate internal control and risk management system. Besides, all employees shoulder the responsibilities of risk management and internal control within their duties. In addition, we have developed risk management mechanism to oversee all risks identified in factories and management centers under polysilicon, ingot and wafer departments with the aim to control risk at the sources, standardize internal risk inspections, and cultivate a culture of self-examination and self-improvement. Implementation of the mechanism enhanced "accountability" and greatly improved risk awareness of employees.



COMPANY'S PROFILE

Risk Management Organisation and Responsibilities



By executing the basic procedure of risk management in every aspect of corporate governance and operation process, GCL-Poly and its subsidiaries cultivate a good risk management culture and establish a holistic risk management and internal control system, in order to achieve comprehensive risk management.

Risk Management Procedure



COMPANY'S PROFILE

To further improve risk management work, we forewarn of emergent or potential significant risks in the operation process in a timely manner. We also try to avoid risk by taking preventive measures, in the hope of reducing or avoiding related loss.

Red, yellow and green risk levels have been adopted as follows.

Red: Urgent and dangerous. Effective preventive measures must be adopted immediately to reduce or avoid the risk;

Yellow: Cautious. If standard measures are not adopted, it will evolve into a dangerous situation;

Green: Safe. No risk is present at the moment, or the risk has been eliminated.

In 2017, in terms of risk management and internal control, the following work was launched in management:

- Annual risk assessment: basic risk management system has been established for identifying, assessing, responding to, and reporting risks, and comprehensive risk assessment is conducted semi-annually.
- Responding to significant risks: consultancy agencies are hired to analyse, appraise, and report the responding measures of risks which the board and management attach great importance to.
- Risk self-examination: risk management mechanism has been established for conducting risk self-examination in key business departments including finance, human resources, sales, information security, fire protection, procurement, warehousing logistics, and so on.
- Streamlining system and optimizing procedure: we focus on the management and control of annual key projects, to formulate and improve various management systems and procedures.
- Internal control appraisal: internal control department and subordinate business departments conduct internal control appraisal for the operating subsidiaries in business areas covering financing and investment, procurement and payment, warehousing and logistics, human resources, sales and receipt of payment, asset management, and so on. The appraisal results show that overall satisfaction degree is "basically satisfied".

Business Ethics and Anti-corruption

GCL-Poly regards honesty as an integral part of our corporate culture. We have established codes of conduct, including *Employee Handbook*, "Integrity, Culture, and GCL ten taboos" and "Employee Behaviour Standard", to provide employees with clear guidance on moral behaviour with regard to conflict of interest, confidential information, and other situations. These codes can also increase employees' awareness of inappropriate behaviour and misconduct, and provide clear guidance on actions to be taken in the event of encountering such behaviour to ensure operational compliance. For the Company's confidential information, we have strict information user licensing system to guarantee information security. In 2017, we totally launched 35 trainings about law and regulation compliance, which covered all employees.

Besides, we proactively prevent and combat corruption, by formulating "Anti-corruption Management System", "Anti-fraud and Whistle-blowing Mechanism", and other systems. All subsidiaries of GCL-Poly undergo at least one corruption risk evaluation per year, together with training and regular notices to convey our corruption policies and procedures, with the aim to highlight our firm stance against fraud behaviour, increase employee's awareness of fraud prevention, and achieve self-discipline.

During the reporting period, we strictly comply with *Anti-Unfair Competition Law of the People's Republic of China*, *Anti-monopoly Law of the People's Republic of China*, and other laws and regulations, and there were no lawsuit case involving bribery and embezzlement, or lawsuit case related to unfair competition and monopoly.

For more information on GCL-Poly's corporate governance and board of directors, please refer to "Corporate Governance Report" and "Biographical Details of Directors and Senior Management" in our 2017 Annual Report, which can be accessed via our company website, <http://gcl-poly.com.hk/en>.

COMPANY'S PROFILE

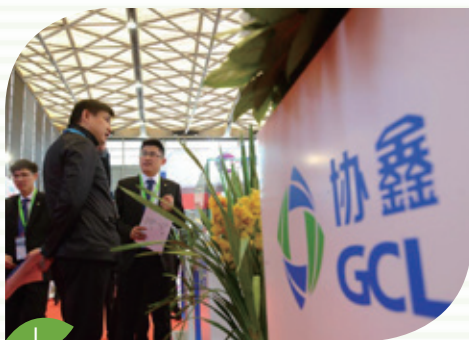
Industry Promotion

While continuously reforming and improving itself, GCL-Poly also proactively plays a leading role in the industry, promoting the sustainable development of the industry with its own progress and upgrade, in order to create PV innovation ecological chain. At the upstream of PV module industrial chain, GCL-Poly proactively participates in the Photovoltaic "Leaders" Plan, and contributes important driving force to accelerating the development of PV industry. At the same time, we conduct open technological cooperation, make use of complementary advantages, and launch strategic interaction, in order to create a more harmonious and cooperative situation. By R & D in new technologies, we share the benefits of reducing cost and promote sound development of the industry.

In 2017, GCL-Poly continues to play an important role in industry associations. We participate in formulating and popularizing technological standards in the industry, and through various large industry exhibitions, seminars, and activities, we also share and exchange industry experience, technology, and trend with other companies or organisations, to promote energy transformation.

The industry associations joined by GCL-Poly are primarily as follows:

Association Name	Membership Type
Global Solar Council	President
Asia Photovoltaic Industry Association	President
China Photovoltaic Industry Association	Vice president
Polysilicon Technical Innovation Alliance	Vice president
Silicon Industry of China Nonferrous Metals Industry Association	Vice president
SEMI Standards Committee	Member
Jiangsu Photovoltaic Industry Association	Vice president
Jiangsu Semiconductor Industry Association	Member
Shanghai New Energy Industry Association	Member
Suzhou City Photovoltaic Association	Vice president
Suzhou Hi-tech Enterprise Association	Member



COMPANY'S PROFILE

GCL-Poly supported and participated in many large-scale activities in 2017:

Number	Industry Activities	Organisers
1	SEMICON China 2017	SEMI China
2	2017 The 12th China (Jinan) Solar Energy Utilization Conference & Exhibition	National Development and Reform Commission, Ministry of Housing and Urban-Rural Development, People's Government of Shandong Province, and so on.
3	2017 Mc-Si Solar Cell Technical Route and Development Trend Seminar	State Key Laboratory of Photovoltaic Materials and Technology, State Key Laboratory of Photovoltaic Science and Technology, PVTT Technology and Think Tank, Photovoltaic Energy Industry Observer
4	SNEC 11th (2017) International Photovoltaic Power Generation Conference & Exhibition	Asian Photovoltaic Industry Association (APVIA), China Renewable Energy Society (CRES), Chinese Renewable Energy Industries Association (CREIA), Shanghai Federation of Economic Organisations (SFEO), Shanghai Science and Technology Development Exchange Center (SSTDEC), Shanghai New Energy Industry Association (SNEIA), and so on
5	Technical Seminar of Diamond Wire Silicon-Cutting Technique and Whole Industry Chain of Solar Cell	State Key Laboratory of Photovoltaic Materials and Technology, National Research Center of Photovoltaic Equipment Engineering Technology
6	The 9th Chinese Renewable Energy Conference & Exhibition (Wuxi)	National Energy Administration, China Council for the Promotion of International Trade, People's Government of Jiangsu Province
7	13th China SoG Silicon and PV Power Conference	China Renewable Energy Society, Shanghai Solar Energy Society
8	PVCEC 2017	China Photovoltaic Industry Association, China Renewable Energy Society, Chinese Renewable Energy Industries Association



SUSTAINABLE DEVELOPMENT MANAGEMENT



SUSTAINABLE DEVELOPMENT MANAGEMENT



GCL-Poly has been committed to sustainable development, integrating corporate social responsibility (CSR) into its long-term development strategies and daily operations. Through systematic and scientific management, we aim to maintain high-standard corporate governance while making green energy available to millions of households, creating economic, environmental and social values for stakeholders as well as building a promising future with China and the world.

SUSTAINABLE DEVELOPMENT MANAGEMENT

Corporate Responsibility Structure and Policy

We take corporate governance and business ethics as the foundation of the sustainable development of the Company and actively shoulder the responsibility toward stakeholders and environmental protection. We have formulated the *GCL-Poly Corporate Citizen White Paper*, *GCL-Poly Corporate Citizen Guide* and other CSR-related documents which have provided directions and guidance to our employees in understanding and implementing CSR values.

GCL-Poly Corporate Citizenship Framework

Our green promise:

We are committed to low-carbon, emission reduction and energy conservation principles in developing our PV business, which is our promise to Mother Earth.

Our corporate responsibilities:

We are dedicated to our responsibilities to our shareholders, investors, employees, clients, the industry, the society and future generations. We adhere to the operation concepts of equality, integrity, sharing and mutual benefits to serve our clients, care for our employees and create value for our investors and the society.

Our industry aspiration:

We see the production of energy-saving and environmentally-friendly polysilicon and affordable solar energy as our responsibility. We are exploring the energy issues of the current and future world through independent innovation.

Our charity actions:

We give back to society with gratitude by participating in various programs for public good. We are committed to our duties in education, charity and other areas to facilitate harmonious social development.

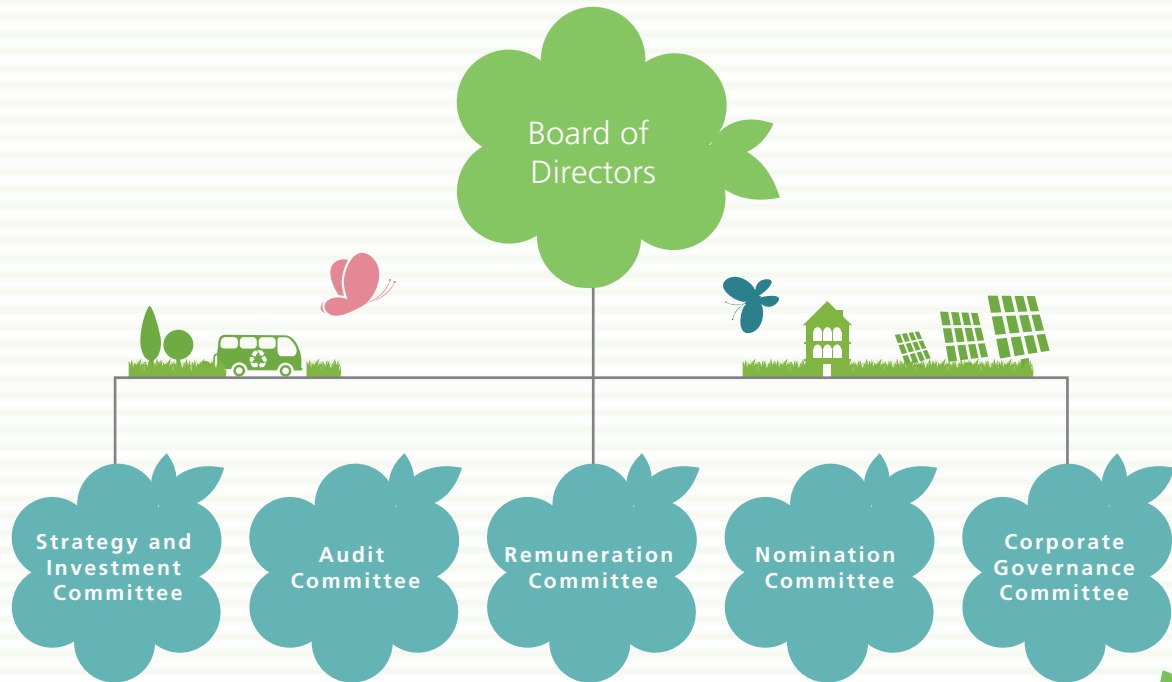
Our green mission:

Centering on photovoltaic power generation, we grow along the concept of “creating and sharing green energy”.

To ensure the implementation, supervision and feedback of responsibility management and actions, we have set up a complete corporate responsibility structure and management measures. The board of directors is fully aware of the specific duties of corporate governance and social responsibilities. Leaders will set an example for the employees in fulfilling responsibilities.

SUSTAINABLE DEVELOPMENT MANAGEMENT

GCL-Poly's Board Structure



The duties of GCL-Poly's Board of Directors on Corporate Governance and Social Responsibility:

- Evaluate long-term development plan
- Evaluate the Company's full-year performance; assess the execution and progress of the long-term development plan
- Evaluate the political, social and economic development that affects or may affect GCL-Poly and provide recommendations to the Board
- Review and monitor, or build the relationship with major strategic joint venture partners
- Monitor and assess the internal control system and risk management system
- Monitor and assess the performance of the internal control department
- Always be aware of the possibility of improper conduct; conduct independent investigations and adopt suitable follow-up actions
- Implement and review policies and practices on corporate governance
- Review and monitor the Company's policies and practices in compliance with laws and regulations
- Implement, review and monitor a suitable code of Conduct applicable to employees and the Board
- Review the Company's status in compliance with the Code and disclosure in the corporate governance report

SUSTAINABLE DEVELOPMENT MANAGEMENT

STAKEHOLDER ENGAGEMENT

The participation, support and coordination of stakeholders are indispensable in the development of our company. We have set up multiple bilateral and transparent communication channels to be informed of the appeals of the stakeholders in time and respond accordingly so as to enhance mutual trust and respect with the stakeholders, build harmonious relationships and achieve mutual sustainable development¹. We have identified the following 7 key stakeholder groups based on their impact on GCL-Poly's decision-making, and the influence of GCL-Poly's decision-making and actions on them, and their proximity to our operation (for example, contractually or geographically)²:



¹ GRI 102-43

² GRI 102-40

SUSTAINABLE DEVELOPMENT MANAGEMENT

We proactively communicate with stakeholders to understand their concerns, and regularly review the effectiveness of the exercise to enhance the communication channels and better reflect the stakeholders' opinions¹. The table below lists the stakeholders' concerns, major communication channels and reporting frequency.

Stakeholder Group	Concerns ²	Major Communication/ Feedback Channels	Reporting Frequency
Employees	<ul style="list-style-type: none"> Employee rights and benefit and guarantees Employee occupational health and safety Diversity and equal opportunities Career development and training Work-life balance The company's long-term development directions 	<ul style="list-style-type: none"> Employees' meeting Performance review Internal publications (GCL magazine, GCLer newspaper) 	<ul style="list-style-type: none"> Annual (performance review, employees' meeting) Monthly (GCLer newspaper) Quarterly (GCL magazine)
Shareholders/Investors	<ul style="list-style-type: none"> Business development Financial performance Corporate governance Compliance 	<ul style="list-style-type: none"> General meeting Special meeting Investor's meeting Result announcement meetings Press release/announcements On-site visits 	<ul style="list-style-type: none"> A general meeting is normally held once a year. In case of significant events, special meetings will be arranged. Other meetings are held irregularly when necessary.
Government Departments/ Regulators	<ul style="list-style-type: none"> Business development Compliance Employee career health and safety Contribution to the Community and charity work Corporate governance Business ethics and anti-corruption 	<ul style="list-style-type: none"> On-site visits Meetings Telephone 	<ul style="list-style-type: none"> Irregular
Clients	<ul style="list-style-type: none"> Product quality control Technology R & D Client services The company's development directions 	<ul style="list-style-type: none"> On-site visits Meetings Client acknowledgement and exchange meetings 	<ul style="list-style-type: none"> Irregular
Business partners	<ul style="list-style-type: none"> Technology R&D Supply chain management Industrial innovation Business performance Product quality management 	<ul style="list-style-type: none"> On-site visits Meetings Supplier meetings Industry exhibitions 	<ul style="list-style-type: none"> Irregular
Community members/ Organisations/NGOs	<ul style="list-style-type: none"> Environmental compliance performance Materials and water resources management Energy management and energy saving Sewage, exhaust and waste discharge Green house gas emissions Community contributions and charities Impact of business on communities CSR management system and concepts 	<ul style="list-style-type: none"> On-site visits Meetings Press release/public report 	<ul style="list-style-type: none"> Irregular
Media	<ul style="list-style-type: none"> Business development Compliance Industrial innovation Community contributions and charities 	<ul style="list-style-type: none"> Press release/announcement Conference Exhibition Luncheon Acknowledgement meeting Interview 	<ul style="list-style-type: none"> Irregular

¹ GRI 102-42

² GRI 102-44

SUSTAINABLE DEVELOPMENT MANAGEMENT

Materiality Assessment

Before preparing this report, we commissioned an independent consultant to conduct the materiality assessment to further understand the stakeholders' opinions, expectations and concerns regarding GCL-Poly's social responsibility. It also helped us to establish the framework of this report to respond to comments from stakeholders.

Our materiality assessment mainly consists of four phases. As shown in the diagram below, we first identified every possible material topic that may impact GCL-Poly's business and our stakeholders in terms of the environment, society and governance. We then prioritized the topics and validated the results with management. Finally, we reviewed and evaluated the materiality assessment procedure.

Materiality Assessment Process

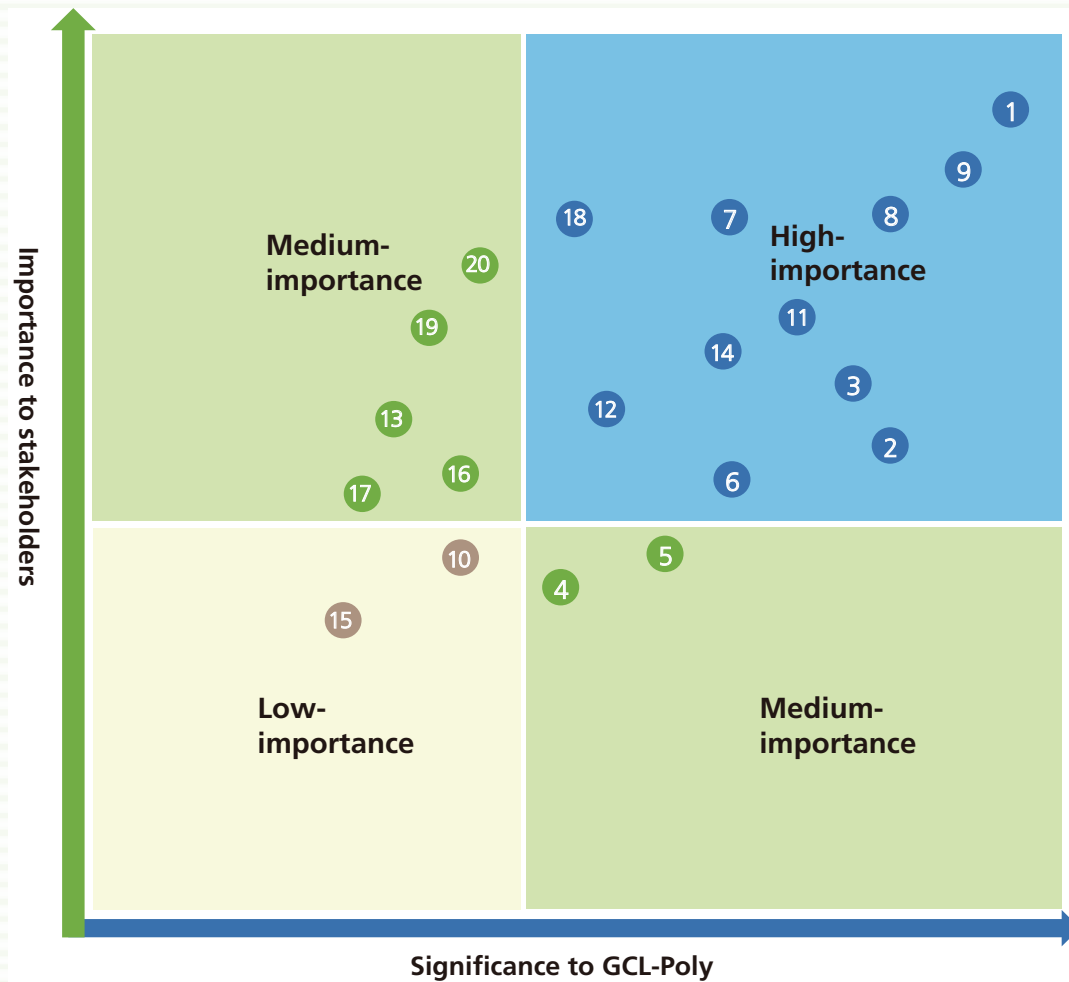
Identification of potentially material issues	Through reviewing internal publications and other relevant documents, and, at the same time, conducting media analysis and peer analysis, the consulting company identified a list of potentially material ESG issues that are related to GCL-Poly.
Prioritization of material issues	The independent consultant formulated a stakeholder communication plan, including designing a questionnaire and conducting surveys and interviews. The consulting company then analysed the result to understand the prioritized concerns of our stakeholders. Eventually, a materiality matrix was derived to identify the material issues of GCL-Poly.
Validation by Management	The result of the materiality matrix was submitted to management by our independent consultant for review to validate the materiality of the identified issues. GCL-Poly's performance on the relevant issues was also reflected truthfully in the report to ensure effective response to the demands and expectations of every stakeholder.
Review	The report content was reviewed to see if the sustainability performance of GCL-Poly provided was reasonably described, and whether the report content preparation procedures reflect the intention of the report. The independent consultant invited management, employees and other stakeholders to provide their comments in this regard.

Through the assessment process above, we identified 20 material social responsibility issues which form an important part of this report. We will disclose the relevant information in detail in this document. There aren't any significant changes in the scope and boundary of this report compared to the previous one.¹

¹ GRI 102-49

SUSTAINABLE DEVELOPMENT MANAGEMENT

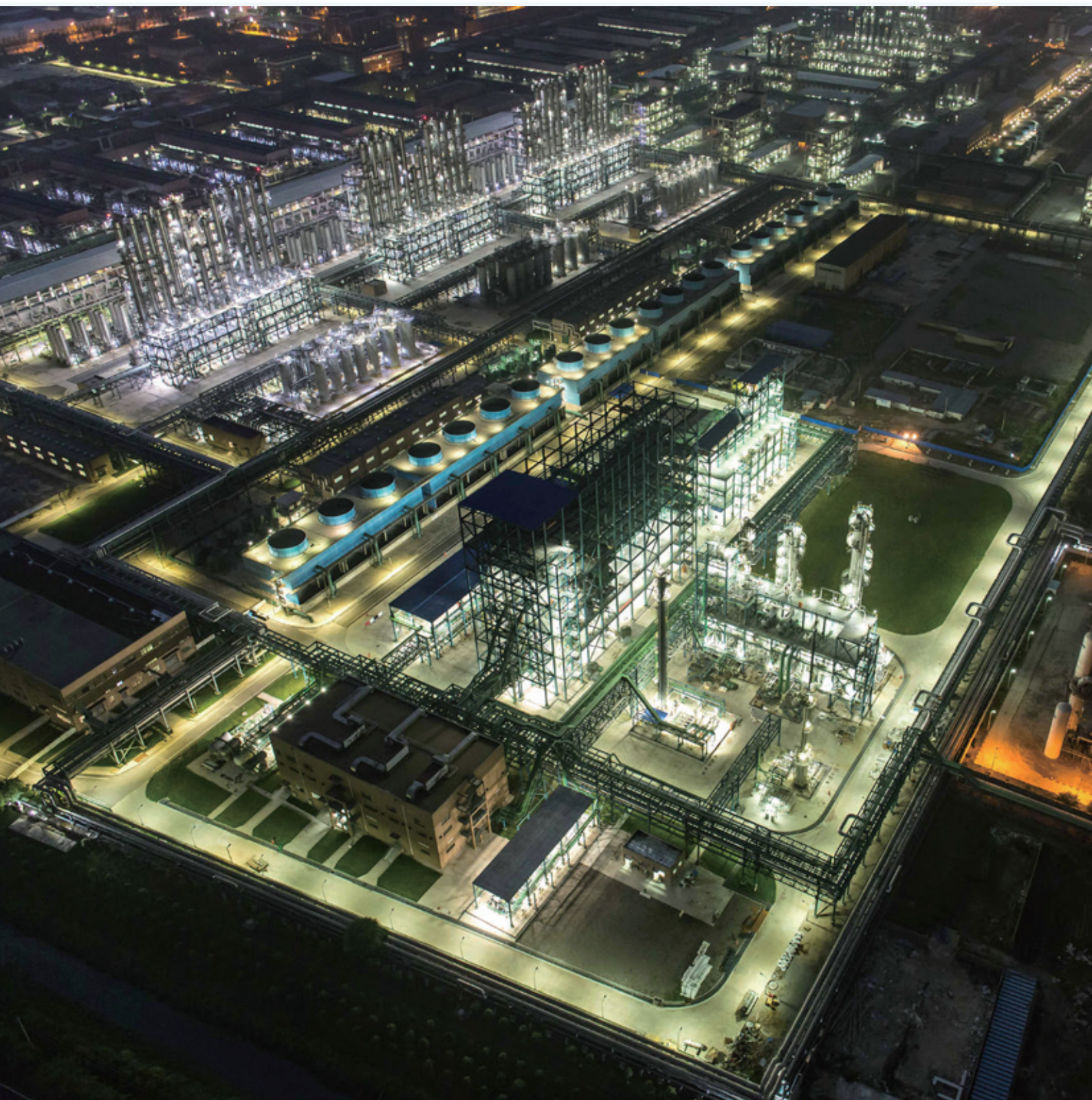
Materiality Matrix for GCL-Poly's Sustainable Development

LIST OF MATERIAL ISSUES¹

Economic Issues	Environmental Issues	Product and Services Responsibility Issues	Labour Issues	Social Issues
1 Business performance	3 Environmental compliance and performance	8 Products quality control	13 Employee rights and benefit and guarantees	18 Contributions to the Community and charities
2 Corporate Governance and risk management	4 Material and water resources management	9 Technology R & D	14 Employee occupational safety and health	19 Business impact on the community
	5 Energy management And saving	10 Client services	15 Diversity and equal opportunities	20 Business ethics and anti-corruption
	6 Sewage, exhaust and waste discharge	11 Supply chain management	16 Career development and training	
	7 Greenhouse gas emissions	12 Industrial innovation	17 Work-life balance	

¹ GRI 102-47

PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY



PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY



GCL-Poly has always been aware that improving the quality of the products and services is the key to promoting the sustainable development of the company, and is also the primary concern of the stakeholders. In order to pursue higher product quality and more satisfying services, we prioritize the development of smart manufacturing. We have increased the investment in R&D and technology improvement, and have tried to solve existing problems in the industry through high-tech solutions and lowered the cost of the products. As the leader in the PV industry, we are committed to coordinating upstream suppliers and downstream clients to build the PV industrial chain, and bringing the PV effectiveness to social production, so as to push forward the implementation of affordable PV power grid.

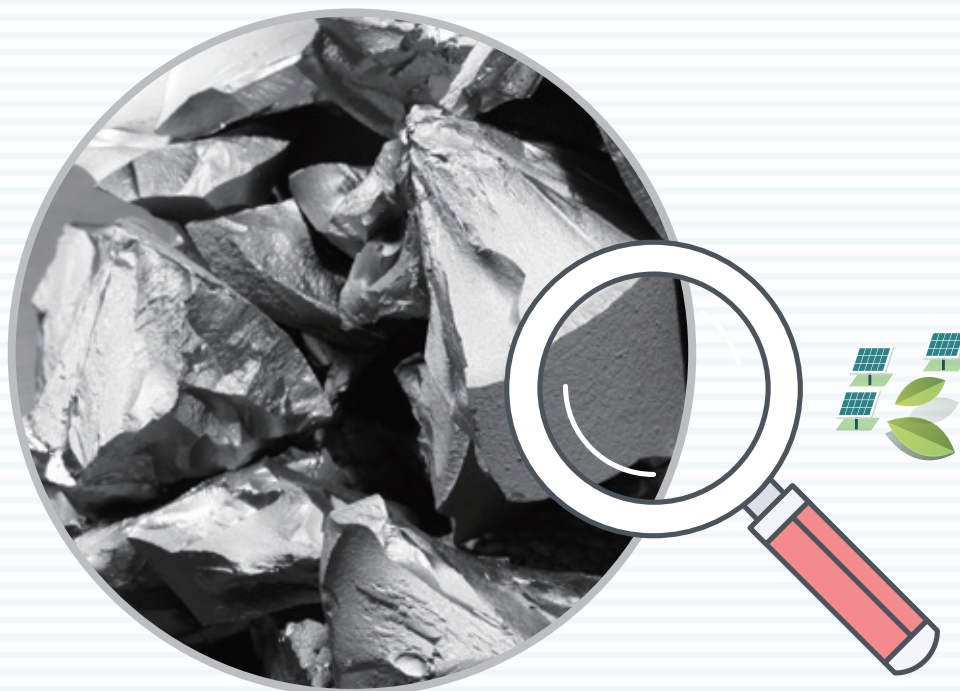
PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Product Quality Control

GCL-Poly has always been pursuing continuous improvement of product quality. As the upstream part of the photovoltaic industry, the stable and reliable product quality is the basis for the effective operation of subsequent photovoltaic products and photovoltaic power plants. We have adhered to refined management and have formulated a detailed process system for the selection of raw materials, production optimization and management monitoring. We control the quality of raw materials from the source and arrange the inspection of the products according to the procurement contract. Only qualified products are allowed to enter the market, and we strongly request the return or replacement of the products that fail to pass the inspection. During the production process, the management center is responsible for leading the feasibility evaluation of the silicon wafers' quality requirements and technical characteristics to ensure that they meet or exceed market and customer expectations. In 2017, there are no products that need to be recalled for safety or health issues. In addition, we are in the transition to smart manufacturing, insisting on the foundation of standardized production and lean production, and continuously improving the organisational structure and management mechanism. We are convinced that in the future, the decline in the cost of the photovoltaic industry chain and the promotion of cheaper PV power grid access will not only depend on the degree of decline in the price of raw materials, but also on the speed of the promotion of smart manufacturing.

GCL-Poly is able to achieve smart operations through three modules: smart production system, smart logistics system, and smart information system. In terms of smart production, the analysis of the VSM value chart helps intelligently guide the production process. In terms of smart logistics, the application of AGVs, manipulators, conveyor lines, and other equipment have made the whole process series plus the mobile production mode possible. At the same time, the construction of an automated warehouse in packaging logistics stage will save manpower and significantly increase production efficiency.

GCL-Poly actively embraces the trend of digitalization. Through the information management systems such as Alibaba Cloud, RFID, MES, and equipment management systems, all production process information is connected in series to build a blueprint for GCL's smart information system. Through the combination of small silicon wafers and Alibaba Cloud big data, the entire production process is monitored through real-time acquisition and upload of production data, real-time and long-term multi-dimensional analysis. Through Alibaba Cloud multivariate analysis algorithm model, the product quality is improved by real-time monitoring of all stages that impact the product quality.



PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Smart Manufacturing Drives Efficiency Improvement

On 28 March 2017, the 2nd China Green PV Smart Manufacturing Conference was held in Yancheng, Jiangsu Province. Nearly 300 experts from industries, universities, and research institutes attended the meeting. In recognition of the contribution made by Funing GCL Solar in promoting smart manufacturing, the organizing committee of the conference awarded the "China Photovoltaic Smart Manufacturing Demonstration Application Innovation Promotion Award" to Funing GCL Solar. At present, GCL-Poly has already realized full automation of the 8 major production procedures in slicing, and all the 5 factories in the slicing division have won the title of "Smart Workshop Model in Jiangsu Province". With the effective promotion of smart manufacturing, GCL-Poly's monthly output per person has increased by 668% compared to 2011; the production cycle has been shortened by 44.7%; energy consumption per ten thousand slices has decreased by 76.8%; direct labour has decreased by 34%, and the cost of silicon wafers has fallen rapidly during the past 7 years. In the future, GCL-Poly will strive to build a low-cost, high-quality, safe and orderly world-class factory where employees feel a simple happiness.



Our achievements:

Qualified product rate **92%**

Product return and exchange rate is lower than **0.4%**

Sales of new products **RMB3,565,240,900**

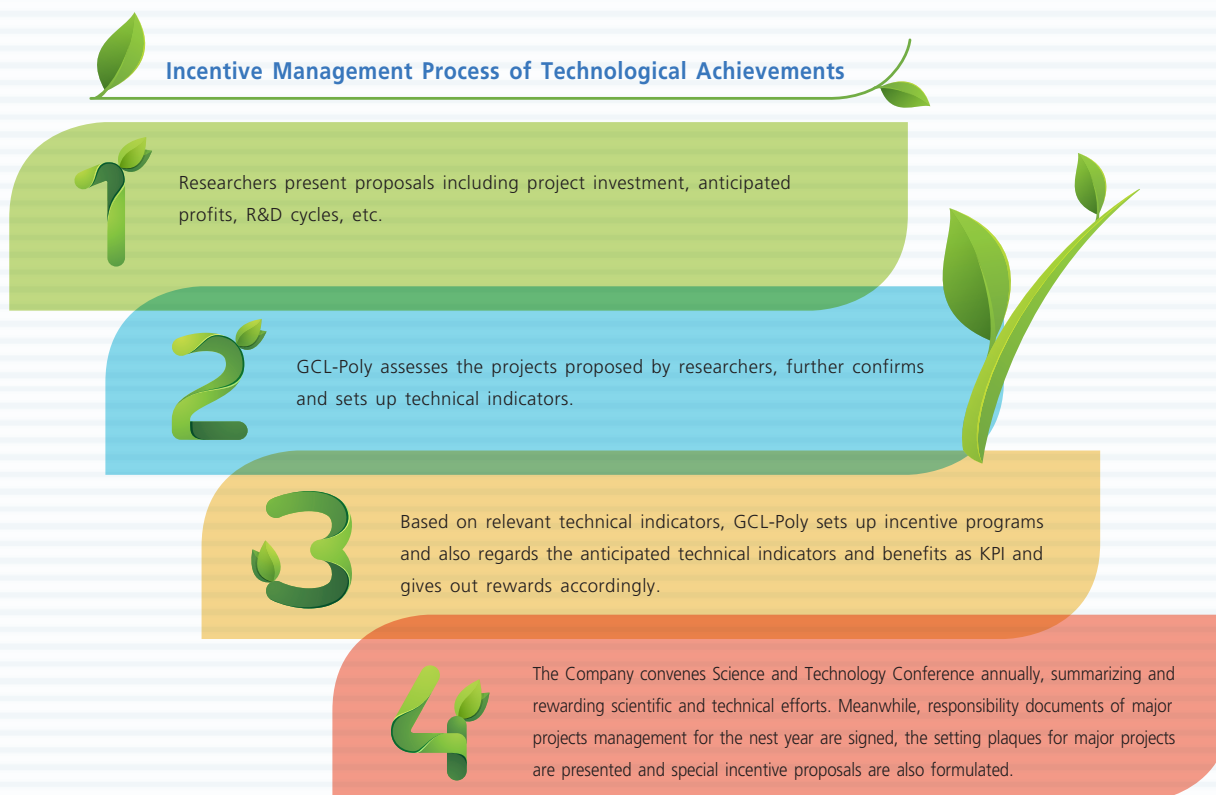
PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Technology R&D

GCL-Poly has always taken strong scientific research and innovation capabilities as the core guarantee of enterprise development. We have formulated four science and technology management policies, including management standards for science and technology work, standards for management of scientific research projects, management standards for technological transformation, and management methods for rewarding scientific and technological achievements. We have strict, standardized and complete management system for the technology R&D, transformation, evaluation and other work. We attach great importance to R&D investment in science and technology and invest no less than 3% of our operating revenue in innovation each year. In 2017, we conducted R&D and pursued innovation in many areas including silane fluidized bed technology, polycrystalline silicon growth technology, and diamond wire cutting wafer technology, with the R&D costs reaching RMB956 million, an increase of nearly 3 times compared to 2016, which has yielded great results. We have become the largest polysilicon enterprise in the world and a national high-tech enterprise. In 2017, we applied for 133 patents in total, including 49 applications for invention patents, and 120 patents were authorized. We have applied for 1,054 patents accumulatively and obtained 637 authorizations, of which 289 are authorized invention patents. Innovation-driven and bold reforms have always been associated with the growth of GCL-Poly.

We encourage and support employees to carry out scientific and technological R&D and help them transform the R&D into applications. Through a series of material and spiritual incentives, we have fully explored the R&D staff's business capabilities and improved the quality and progress of R&D output. From the beginning of the project, we have established a complete set of scientific research management processes:

Incentive Management Process of Technological Achievements



GCL-Poly attaches great importance to the protection of intellectual property rights. By integrating resources and doing overall planning, GCL-Poly has already set up complete management systems, regulatory systems, incentive mechanisms and risk prevention and control mechanisms for intellectual property rights.

PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Winning the 18th WIPO-SIPO Award

Among the results of the 18th WIPO-SIPO Award published by State Intellectual Property Office (SIPO), the patent of GCL Polysilicon Production Method of Zhongneng Polysilicon Technology Development Co. Ltd. has won the 18th WIPO-SIPO Award. This is the first time that the Company has been honored with a national level patent award, which is an affirmation to our continued efforts on innovation and our attention paid to intellectual property rights.



WIPO-SIPO Award

GCL-Poly insists on promoting the technological development of national clean energy industry and reducing the cost with the help of science and technology. The Company strives to develop the main businesses of photovoltaic manufacturing and photovoltaic power generation, improving our brand and social image, so that the Company, as a proactive leader of the industry, can represent the national photovoltaic power industry. At present, GCL-Poly has obtained fruitful achievements in the research of supporting technologies for the photovoltaic industry. By independent R&D and acquisition and integration, the Company has made major breakthroughs in areas of long-term stable operation of granular silicon fluidized bed, the digestion and absorption of constant czoehrski monocrystalline technology (CCZ), the research and development of rechargeable czoehrski monocrystalline technology (RCZ), the performance improvement of efficient polycrystalline products, the improvement of the yield of coagulation crucibles, the transformation of the diamond wire of abrasive slicing machines, wet black silicon and so on. We have realized the R&D and application of the most cutting-edge technologies worldwide.

PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Transformation Process of Diamond-Wire-Cutting Polysilicon Wafer Highly Increases Capacity

As early as 2011, GCL-Poly started to undertake R&D in the transformation of producing polysilicon chips via diamond wire cutting technology and has accumulated abundant experiences and owns complete independent intellectual property rights. In 2017, the project has had major breakthrough with large-scale transformation basically finished. Compared with traditional mortar cutting and with a similarly low cost guaranteed, this new technology can improve the production capacity of the silicon wafers in each cutting machine by 100%, reduce silicon consumption by 25%, improve production efficiency by 85% and decrease comprehensive cost by 30%. Cutting machines which have been transformed by the technology can have the cutting of polycrystalline silicon sheet have a yield of over 92%, thus achieving the cutting level of CCZ. In the future, with the optimization of cutting technologies, the improvement of the quality of polycrystalline silicon ingots and the development of the diamond-wire-cutting technology itself, the cutting speed and cutting yield of the technology will be closer to those of monocrystalline without any difference in cutting cost.

The production capacity
of the silicon wafers in each
machine can be improved by **100%**

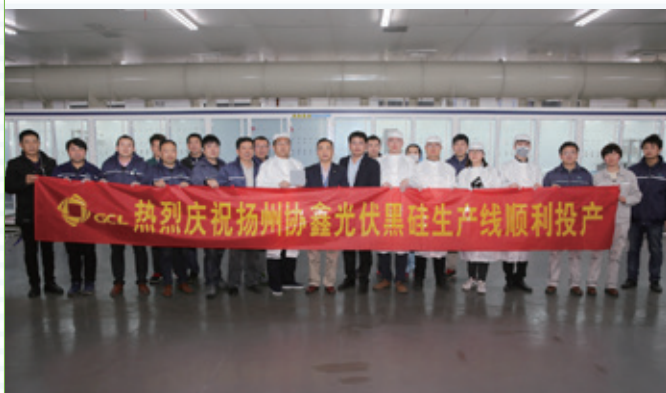


PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Black Silicon Technology Significantly Improves Photoelectric Conversion Efficiency

Since 2014, GCL-Poly has already begun to make layouts for surface cashmere technology in submicron level: the R&D of the black silicon technology. This is to solve problems such as the surface of polysilicon produced via diamond wire cutting technology being too smooth, the reflectivity rate being too high and ordinary polycrystalline battery technique being unfit for utilization. The photoelectric conversion efficiency of polycrystalline wafers with which the black silicon cashmere technology has been applied can be increased by over 0.3–0.4%, putting the Mass Production (MP) level among the leading rank of the industry. In the future, by continuous R&D investment, the black silicon technology will further increase the photoelectric conversion efficiency by over 0.4–0.5%. Apart from the optimization of the performance of the products themselves, GCL-Poly will also provide this technology to a part of our customers for free, giving full play to our leading role in the industry.

In November 2016, GCL-Poly successfully launched new black silicon wafers of the TS series and in November 2017 further developed the single side black silicon technique, reducing the production cost by 40%. The breakthroughs in diamond wire cutting technology and wet black silicon technology make it possible that the “1+1+1>3” effect can be achieved via the combination of efficient polycrystalline wafers produced by diamond wire cutting technology+black silicon+PERC solar power battery sheets. In this way, our differentiated competitiveness in the polycrystalline market is significantly strengthened.



The New Series of Monocrystalline Ingot G3 Wafers Makes PV More Efficient and Affordable

On April 19th 2017, GCL-Poly published the new series of monocrystalline ingot G3 wafers in SNEC 2017 PV Power Expo. This product uses the ingot technology to produce monocrystalline with multiple advantages such as high production capacity, high efficiency, low cost, and low light degradation. Data from several household appliances component enterprises has shown that with both normal battery techniques and PERC efficient battery technique, the efficiency differences between whole ingot monocrystalline G3 wafers and the CCZ are both less than 0.5%. Meanwhile, the new G3 wafers have greater advantages in cost and bear great significance for PV to be more efficient and affordable, which is likely to bring profound changes to the traditional monocrystalline technology.

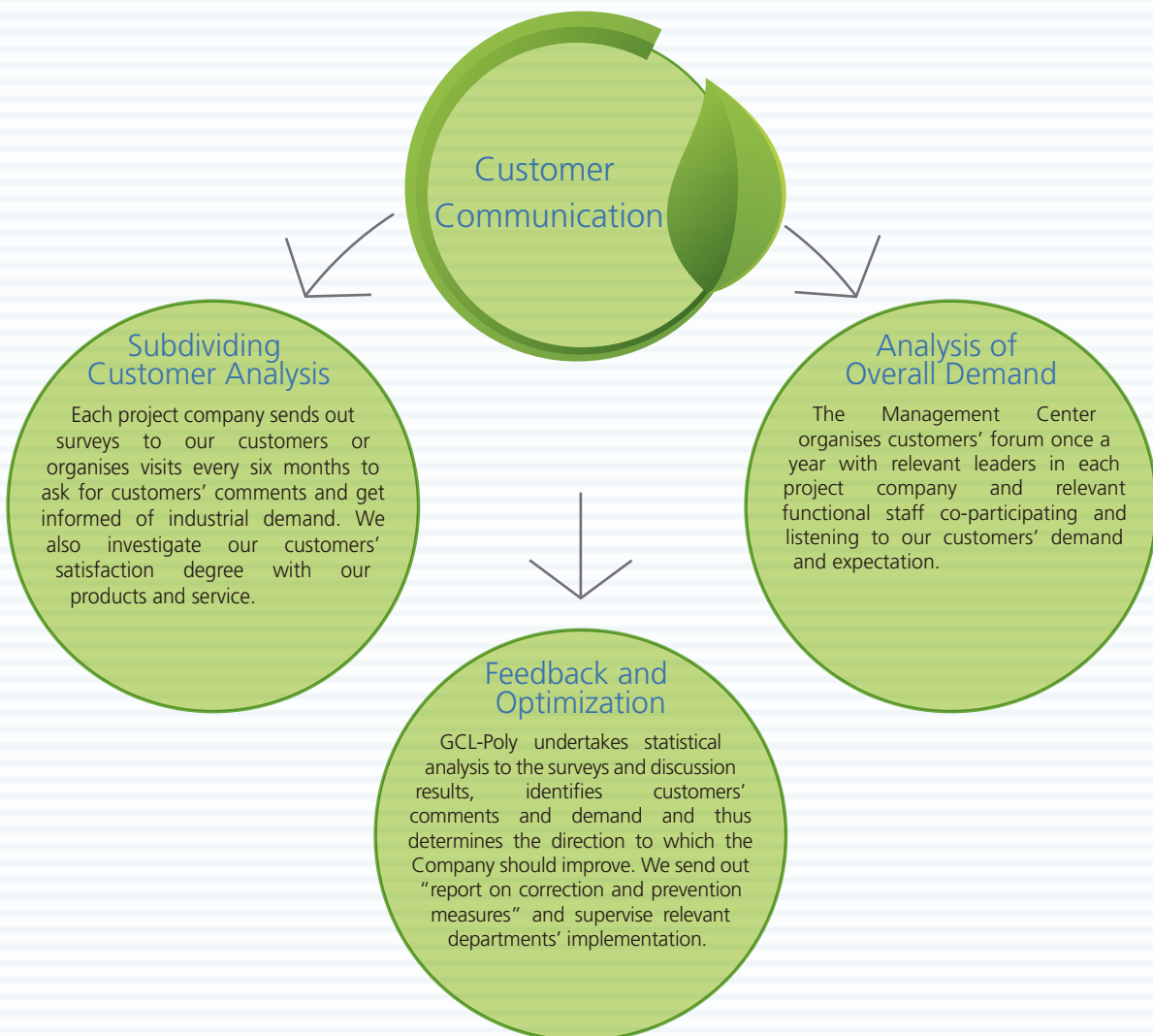


PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Join Hands for Win-Win Results

With the principle of “Embracing Customers”, GCL-Poly always regards customers’ interest as our priority and regards effectively meeting our customers’ need as our business priority. Focusing on upgrading our service, we follow and settle problems to our customers’ concerns in a timely manner, extensively respond to their appeals by constantly improving the efficient communication and complaint mechanisms, and thus realize the construction and maintenance of our customer relationship. We undertake constant technological innovation on areas that bear our customers’ concerns and the urgent need of the industry, seeking for higher product quality and striving to provide the best products for our customers. We pay customer visits and undertake surveys regularly so as to unceasingly improve our customers’ approval and trust both at home and abroad.

Customer Communication Procedure



PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

We attach great importance to improving our customers' satisfaction. We constantly keep up with our customers' feedback for the quality, delivery time, price and service of our products to improve and optimize our products and services. Based on this, we have also set up a complete customer complaint management system. By receiving, recording, judging, dealing with and following up comments, we improve existing problems in time and take prevention measures so as to prevent the occurrence of similar problems. In 2017, 22 cases of customers' complaint have been properly addressed. We undertake surveys on customer satisfaction degree every season and have discussions and analysis based on the results, so that proposals for further improvement can be formulated.

Achievements:

- In 2017, the satisfaction degree of our customers reached **92%**, a continuous increase for three consecutive years
- Handling rate of after-sale problems reached **100%**

Based on the service philosophy of equity, trust, sharing and all-win results, we forwardly recognize our customers' development direction and need and set up goals to make stable progress together, pushing the industry to develop via the coupling effect co-created. In 2017, in cutting the cost of wafers alone, we have made great achievements and share our success with the customers by cutting price to achieve win-win solution.

**Average Price for Wafers
(dollar/watt)**



Meanwhile, we also attach great importance to the strategic cooperation with local governments, industry leaders and other quality partners, so as to build a photovoltaic community and work together to push forward R&D. In this way, complementary advantages and powerful collaboration can be achieved. We can also push the photovoltaic and other clean energy industries to develop in a healthy way, and march forward steadily in establishing the social impact of photovoltaic industry.

PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Complementary Advantages, Powerful Collaboration

On 11 August 2017, GCL-Poly, a leading corporation in photovoltaic polycrystalline industry and Tianjin Zhonghuan Semiconductor Co., Ltd., a leading corporation in monocrystalline industry, have signed a strategic cooperation agreement in Tianjin. The two will undertake comprehensive and deep cooperation in terms of photovoltaic industry chain in the forms of mutual stock sharing and capital injection. The two parties also plan to cut down the cost of mono-and polycrystalline, largely improve technologies, quality and efficiency through cooperation, accelerating the arrival of an era of online affordable photovoltaic power in China.



PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Management of Supply Chain

A stable and quality supply chain system serves as the cornerstone for GCL-Poly to maintain the high quality of our products and services and to create our enterprise value. In order to improve the quality of suppliers, strengthen their cooperation willingness and reduce contractual risks, we implement supplier access management, contractual management and development management through the supplier membership system. We highly value the operation philosophy of win-win cooperation and stick to “sunshine purchase”, which is fair and impartial. We make payments to our suppliers strictly abiding by purchase contracts, protect suppliers’ legitimate rights, live up to our commitments and open up cooperation channels to all quality suppliers. In order to ensure the efficiency and standard of the purchase and management process while at the same time guarantee open and fair competitions for suppliers, we have set up a supplier portal system to realize a whole-life-cycle dynamic management for supply chains including source searching management, information delivery, supplier management, supplier service center and so on.

With the supplier management portal system, GCL-Poly can effectively optimize supplier chain management, improve purchase management and supervision level, and increase the core competitiveness of the Company; meanwhile, when realizing a collaborative development through the two-way interaction with our suppliers, we exert all our effort to build a supplier management blueprint featuring “one portal, one platform, one mechanism”.

Tendering and Procurement

By allowing suppliers to register and enter the access examination and approval process on their own so that the functions like registration and quote can be self-completed by suppliers, we have realized the digitization of tendering, bid evaluation, source searching, price inquiry and quote and supplier collaboration, making the supplier head-stream open and transparent and the process of publishing tendering and procurement information more efficient.

Management valuation

By supporting various supplier models of “group instruction, decentralized implementation”, “partly centralized, partly decentralized”, we have realized complete supplier management and evaluation systems. Suppliers can manage relevant information and submit their demand to GCL-Poly through the portal systems, so that the two-way interaction between GCL-Poly and our suppliers can be achieved.

PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

We have set up systematic and complete systems of supplier screening, access and evaluation, and established special implementation and regulations for each process to make sure that responsibility lies with specific individuals and that the root of every issue can be traced. We have a systematic hierarchical management policy for suppliers. For those quality partners, we continue to strengthen our exchange and communication, while for those suppliers that are not up to the mark, we gradually sift them out.

The access process for suppliers is as follows:



PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

When assessing and choosing suppliers, GCL-Poly attaches great importance to the process of investigation. Through spot and non-spot investigation of various forms, we verify suppliers' true supply capability and whether they observe laws and regulations. By undertaking different types of multilevel and specific investigations, GCL-Poly has set a solid guarantee for itself to get reliable and detailed raw material supply.



We take two ways of evaluation comprehensively for material suppliers: contractual performance evaluation and strategic evaluation. We also have strategic classification and differentiated treatment for all suppliers concerned based on the strategic evaluation results. We focus on cultivating suppliers that bear long-term cooperation significance. Through increasing our communication frequency and quality, we can achieve the goal of win-win cooperation; however, for those suppliers that cannot meet the requirements, we also phase them out in time. This reasonable evaluation mechanism also further urges suppliers to abide by our cooperation commitments so that the sustainable good development of the GCL-Poly's supplier system can be guaranteed.

PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY



In 2017, GCL-Poly had 1,701 suppliers. Among them, 782 have reached an annual purchase volume worth over RMB200,000.

GCL-Poly 100% implements responsibility purchase. When choosing and investigating suppliers, we pay great attention to their efforts in taking social responsibilities like environmental protection, so as to restrain and exert an impact on them. At present, most suppliers have passed the attestation of Quality Management System (QMS), Environmental Management System (EMS), and Occupation Health Safety Management System (OHSMS). By choosing suppliers that meet the requirements, GCL-Poly strives to push forward the upgrading of the supplier system and improve the development and application of the green products in the up-and downstream supply chain with relevant resources integrated.



PRODUCTS AND SERVICES: IN PURSUIT OF HIGHER QUALITY

Based on a good supply chain cooperation cycle, GCL-Poly strengthens communication and collaboration with suppliers. On one hand, we actively convene internal meetings on strategy review and development, and set up meeting communication between the leaders of the two parts; on the other hand, we extensively collect suppliers' comments through portal platforms, discuss together problems we encounter during cooperation and analyse technology development trends and plans for future products. Then, we set up teams for continuous improvement and goals based on different problems, so as to give full play to our leading role and constantly improve the supply chain cooperation. Our suppliers have always given us the greatest support and approval to our work, and a very good communication cycle has been formed.

Tony tech
感谢信

苏州协鑫光伏科技有限公司:

浙江东尼电子股份有限公司自成立以来一直得到贵司的大力支持和帮助。在过去的一年中贵司供应链管理与我们携手共进，定期下达订单到我司，清楚注明各项要求，能够及时沟通质量和交期变化，保证了订单的完成，能够体现贵司交货当中遇到的问题，协助我们处理各种质量投诉。这一年来，我们紧密合作保证了贵司订单的顺利交付以及贵司生产的稳定运行。这些，都离不开贵司供应链管理各位合作伙伴的努力。在此谨代表浙江东尼电子股份有限公司对贵司表达万分的感谢。希望我们在以后的合作中，共同发展为贵贵司日益壮大贡献我们的力量。也希望我们的合作更加的紧密。

顺祝贵司蒸蒸日上!



Thank-you letters from our suppliers



ENVIRONMENTAL PROTECTION: PROTECTING OUR GREEN HOME



ENVIRONMENTAL PROTECTION: PROTECTING OUR GREEN HOME



Environment Management Regulations

The photovoltaic industry is one of the key solutions to the global energy shortage and a provider of green and biological energy proposals. As a leader of the industry, we always regard protecting the environment as our unshirkable responsibility. We strictly abide by laws and regulations such as *Environmental Protection Law of People's Republic of China*, *Law of the People's Republic of China on Prevention and Control of Water Pollution*, *Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution*, *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste* and so on. We set up environment and security departments, formulate relevant management measures, recognize and evaluate important environment factors, actively supervise environmental factors and ensure environmentally-friendly production. The environmental protection investment in 2017 is RMB157,224,790. While trying to implement the philosophy of "Bring Green Power to Life", we also make sure that processes such as purchasing, R&D, production and services are all green and environmentally-friendly. At present, we have passed the ISO 14001: Environmental Management System Certification.

ENVIRONMENTAL PROTECTION: PROTECTING OUR GREEN HOME

We require that our companies at all levels attach great importance to environmental protection during production and implement “responsible environmental protection”. We encourage companies to formulate environmental protection policies according to different situations in accordance with the overall regulations. Abiding by the environmental protection regulations is also a must for companies at all levels. Every year, we set up goals of environmental protection for the year, which cover areas like reducing pollutants emission, recycling and reusing waste and conserving energy. During the process of production, we reduce the emission of waste by effectively recycling the by-products, dispose all the waste water and waste gas using fine management, R&D of technologies and so on, and make sure that we reach the national emission standard.

We proactively undertake environmental protection training to our staff so as to improve their awareness and practical ability. In 2017, we invested RMB255,600 and completed the training of 28,222 workers and of 34,081 hours, realizing an environmental protection training coverage of 100%.

Besides, GCL-Poly also responds actively to the appeal of “Charitable Environmental Protection”. We exert all our efforts to support environmental protection activities and organisations, and advocate our staff to improve their awareness and galvanize enterprises all along the industry chain to protect the environment together.

Our achievements:

The number
of illegality
cases and
volume of
penalty: Zero



Major
leakage:
Zero

ENVIRONMENTAL PROTECTION: PROTECTING OUR GREEN HOME

Green Production and Operation

GCL-Poly strictly abides by relevant regulations in the ISO 14001: Environmental Management System Certification during the process of purchasing, R&D and production, and sets up relevant policies to supervise and control the reasonable and recycling usage of materials. We set up Management Regulation for Three Wastes, properly manage the waste water, gas and solid waste during production. In 2017, GCL-Poly scaled up the investment for comprehensive utilization of resources with a total worth of RMB62.48 million. The value of products from comprehensive utilization of “three wastes” reached RMB230 million. Besides, we also set up 6S Management Standard for Office Areas, normalizing a green office system from six aspects: SEIRI, SEITON, SEISO, SEIKETSU, SHITSUKE and SAFETY. In this way, we can recognize and eliminate the inconvenience and waste during production, create a correct, simple, convenient, fast and pleasant working environment while at the same time improve the working level of every department.

Materials

The dozens of materials we use include silicon powder, hydrogen, and steel wire. The selection of each material has been fully verified by experiments to ensure optimality in terms of cost, environmental protection, and efficiency. We also collect and verify the Raw and Auxiliary Material Safety Data Sheets (MSDS) involved in relevant production to confirm the reliability of the raw materials. In addition, we use more environmentally friendly materials as much as possible and choose more low-consuming materials based on the differences in material consumption. In 2017, we continued to make breakthroughs in the selection of materials and process, achieving some results:

Innovation Progress	Achievements
New-type Resin Plates Development	With a high combustion value, the new-type resin plates can be recovered, fully burned, and do not generate harmful gases. Its development solves the problem that the original resin plates are difficult to degrade and can only be treated as solid waste.
R&D of Degumming Agent for Replacing Lactic Acid	The consuming amount of the newly developed degumming agent is 30% to 50% lower than that of lactic acid, and its phosphorus content is also less than that of traditional degumming agent, making it more environmentally friendly.
Experiment with Low-nitrogen, Low-phosphorus Cleaners	The new cleaner is greener and will attain higher environmental benefits if widely used.
Low-COD Coolant Development	Low-COD coolant has a higher recovery rate and is easier to recycle, and the recyclable parts can be reused to increase the material utilization.
Selection of Efficient Diamond Wires	Using efficient diamond wires can reduce single wafer consumption and increase cutting efficiency.

GCL-Poly is committed to continuously developing production processes and technologies with lower material consumption and more cyclical economy effects, among which the ultra-large-scale clean production technology of GCL polysilicon with international leading level and independent intellectual property rights has increased its material recovery rate of from 50% to 100%.

ENVIRONMENTAL PROTECTION: PROTECTING OUR GREEN HOME

Water Conservation and Emission Reduction

Confronted with global depletion of water resources, GCL-Poly complies with the provisions of *the Water Law of the People's Republic of China*, *the Water Resources Protection Law of the People's Republic of China*, and *the Water Pollution Prevention and Control Law of the People's Republic of China*, and reasonably chooses suitable water sources to ensure production on the premise of not destroying the environment and ecology. Meanwhile, we maintain good communication and cooperation with government environmental protection departments, strictly abide by *the Law of the People's Republic of China on Appraising of Environment Impacts*, and follow the principle of "clean water and sewage diversion, rainwater and sewage diversion, quality-based separation treatment, and multi-use" to make rational use of water resources and discharge in accordance with the standards. We have established *the Wastewater Discharge Control Procedure*, complied with the level-3 standard of *the Comprehensive Sewage Discharge Standards (GB8978)* and the takeover standards of the wastewater treatment plant. Sewage that has been separated from clean water and rainwater flows into the total discharge outlet for testing. After all types of pollutants are confirmed to be up to the standards, the sewage can be discharged into a municipal sewage treatment plant.

Wastewater Category	Treatment Methods
Restaurant Wastewater	As any grease-containing material must not be discharged with wastewater, wastewater is treated in a grease trap and then enters the municipal sewage station.
Domestic Wastewater	After pretreatment in the factory's wastewater treatment plant, wastewater enters the municipal sewage station.
Production Wastewater	Wastewater are collected separately. Chemical-free wastewater is pre-treated by the factory's wastewater treatment plant and then enters the municipal sewage station while specific chemicals are collected and treated as hazardous waste.

Our sewage station is installed with Chemical Oxygen Demand (COD) on-line detectors, and manual sampling detection of ammonia nitrogen, pH, fluoride ion are conducted to control and ensure that all indicators are within the scope of national standards. Every year, we commission a qualified professional organisation to carry out a comprehensive inspection of the Company's environmental factors, thereby promoting the continuous tracking and optimization of environmental management.

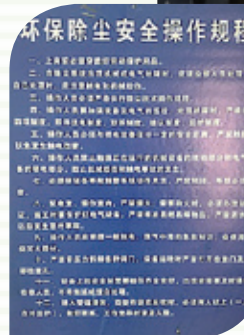
ENVIRONMENTAL PROTECTION: PROTECTING OUR GREEN HOME

Exhaust and Noise

GCL-Poly complies with the level-2 standard limit value of *the Integrated Emission Standard of Air Pollutants (GB16297)* for the treatment of exhaust gas, and implements *the Emission Standard of Air Pollutants for Boilers (GB13217)* for the gas-fired thermal oil furnace. We use baghouse filter technology to remove workshop dust, and then discharge it from the exhaust pipes of 15 meters or above in accordance with the regulations. The NH₃ and H₂S gas produced in the anaerobic tank, anoxic tank, and hydrolytic acidification tank of the sewage station are collected and then sprayed, ionized and entered the activated carbon adsorption device. After purification, these gases are also discharged into the atmosphere through a high exhaust pipe of 15 meters or above. At present, Having established *the Procedures for Controlling the Production Exhaust Emissions*, GCL-Poly has seen all the exhaust gas treatment facilities are under normal operation and all indicators are in compliance with the requirements of the corresponding national emission standards.

For the unavoidable noise generated during production such as cutting, in accordance with the relevant provisions of *the Law of the People's Republic of China on the Prevention and Control of Pollution from Environmental Noise*, we have adopted effective noise reduction measures like vibration reduction and sound insulation for high-noise equipment. The layout of the facilities is rationally designed to ensure that the noise at the plant boundary is up to standards.

Smoke Treatment Facilities and Operating Specifications



Solid Waste

Pursuant to *the "Three Waste" Management Regulations*, GCL-Poly classifies general solid waste into the recoverable and the non-recoverable, and requires all departments to collect and classify them in accordance with the unified standards for waste classification. Meanwhile, we have built general solid waste storage yards in accordance with the requirements of "anti-seepage, anti-leaching, and anti-scattering", and entrust qualified units to make comprehensive use of recyclable solid waste, achieving solid waste resource management. The sanitation department uses the garbage trucks to clear and dispose domestic garbage regularly and will take corresponding emergency measures if the domestic garbage is scattered and leaked during sanitation packaging and transport.

We have established *the Management and Control Procedures for Waste and Hazardous Waste* to implement strict management on hazardous waste. We have also implemented the duplicated form for the transfer of hazardous waste and sludge transfer confirmation systems, and strengthened the management of the qualifications of solid waste disposal units and the control of transportation and disposal process. Meanwhile, we seamlessly connect with the local environmental protection department's hazardous waste management system and online hazardous waste transfer approval system to ensure the compliance and effectiveness of hazardous waste management.



Sichuan GCL Waste Oil Collection and Storage Site

Conducting waste management drills to improve capabilities on waste disposal



ENVIRONMENTAL PROTECTION: PROTECTING OUR GREEN HOME

Resource and Emission Category*	2015	2016	2017
Emission			
Nitrogen oxides (tonnes)	96.71	106.85	94.97
Sulphur oxides/sulfur dioxide (tonnes)	2.66	2.76	2.70
Dust (tonnes)	13.40	15.24	16.07
Water Resources			
Tap water consumption (10,000 tonnes)	40,616	41,909	46,307
Surface water consumption (10,000 tonnes)	171.64	601.68	559.99
Recycled water consumption (10,000 tonnes)	30,652.73	32,437.58	34,474.77
Wastewater discharge (10,000 tonnes)	622.79	691.93	879.58
Total water consumption per unit of production value (tonnes per RMB10,000)	280.92	289.34	263.07
Materials			
Silicon ingot (tonnes)	38,921.56	39,094.41	45,938.42
Silicon carbide (tonnes)	15,664.54	12,915.30	13,356.36
Dicing solution (tonnes)	16,555.62	14,210.69	12,368.17
Packaging materials (tonnes)	458,580	528,752	674,640
Generation of hazardous waste (tonnes)	23,482.14	14,670.81	15,882.62
General waste (non-hazardous waste) generation (tonnes)	60,694.30	63,920.07	43,834.10

* As some subsidiaries started pilot production and formal production in 2017, a few data in 2017 were greater than previous years.

Actively Addressing Climate Change

As a responsible corporate citizen, GCL-Poly works to address realistic issues such as global climate change and energy shortages and strives to create green energy-efficient industries through technological transformation and process innovation. According to the *Law of the People's Republic of China on Conserving Energy*, we have formulated the *Enterprise Energy Management System* and set up a three-level energy management system. From the formulation of targets at the beginning of the year to the production inspection and to the assessment and conclusion, we have formed a systematic management and control process. Our benchmarking publicity which targets the energy control indicators in the form of competitions has fully spurred the awareness and initiative of companies at all levels in energy conservation and built the foundation for the future of GCL-Poly's green manufacturing.

In 2017, we have made a series of outstanding achievements in energy saving through technological innovation and transformation.

In respect of technological innovation, we further improved efficiency through the upgrade of polycrystalline ingot casting furnaces, the upgrade of diamond-wire cutting and the promotion of black silicon technology. We also introduced the world class polysilicon material technologies from SunEdison including the fluidized bed reactor (FBR) and the constant czochralski monosilicon (CCZ) technologies and applied the technologies on custom made and lower-cost domestic equipment, so as to provide a solid foundation for product quality improvement and efficient energy use.

ENVIRONMENTAL PROTECTION: PROTECTING OUR GREEN HOME

In terms of technological transformation, we have achieved good energy-saving effects through active explorations and rigorous experimental researches. Some of the results are as follows:

Projects	Optimization Content	Expected Energy-saving Amount (10,000 kWh)
The Second-stage Roots Blower Technological Transformation at Sewage Treatment Station	Energy-efficient air suspension or magnetic suspension centrifugal blower are replaced to reduce energy consumption and noise and to improve efficiency.	69.7
Transformation of Compulsory Ventilation System in Ingot Workshop	In transition seasons, such as April and October, ventilation system is used instead of air conditioner to reduce electricity consumption.	307
Technological Transformation of Public System of Ingot and Wafer Slicing	The ingot process and the slicing process is separated in the cooling tower and supplements each other through pipelines; in winter, the original winter and summer sharing mode of the slicing cooling tower is switched to the winter mode to save energy.	324
Upgrading and Transformation of Fine Work Furnace	The seventh-generation fine work furnace is newly developed, with single-machine production capacity increased by 0.78 ton and energy consumption decreased by 0.50 kWh/kg	703
Transformation of Diamond Wire	Slot pitch and wire diameter are reduced, and cutting speed is improved to increase unit production capacity and reduce energy consumption.	301
Technological Transformation Project for Allocating and Using the Reclaimed Water of the Development Zone	By drawing the reclaimed water from the development zone into the collection pool on the north side of the Company's water station, the amount of self-produced reclaimed water is reduced by 6,500 tonnes per day, and the electricity consumption of self-produced reclaimed water is also reduced.	120

Through comprehensive technological innovation and transformation, in 2017, the Company reduced its energy consumption by a total of 192,288,200 kWh.

GCL-Poly requires that companies at all levels regularly perform internal verification and external audit of energy use, and form an audit investigation report. We strictly follow national requirements and the Interim Measures on Clean Production Check to carry out clean production reviews. Over the years, we have achieved remarkable results in reducing the unit consumption of products. For example, Suzhou GCL Photovoltaic's unit output power consumption in 2017 was only 42% of that in 2012. The reduction in energy consumption not only saves costs for enterprises, but also effectively reduces the amount of greenhouse gas emissions, and makes our due contribution to combating global climate change.

Energy Consumption Category*	2015	2016	2017
Coal (10,000 tonnes)	N/A	1.65	1.78
Natural gas (10,000 cubic metres)	7,598.19	6,984.04	7,286.78
Diesel (tonnes)	37	37.0	35.1
Purchased electricity (10,000 kWh)	494,745.88	375,152.58	1,348,244.21
Self-generating electricity (10,000 kWh)	117,888	230,402	270,001
Heating power (million KJ)	50,739.0	11,798,181.6	12,521,738.5
Steam (tonnes)	4,289,269	3,743,037.7	4,052,168.8
Purchased energy consumption per unit of production value (tons standard coal per RMB10,000)	0.83	0.84	1.14
Greenhouse Gases Emissions	2015	2016	2017
Direct (scope 1) greenhouse gas emissions CO2 equivalent (10,000 tonnes)	1.05	0.84	1.16
Indirect (scope 2) greenhouse gas emissions CO2 equivalent (10,000 tonnes)	132.43	130.97	137.89

* As some subsidiaries started pilot production and formal production in 2017, a few data in 2017 were greater than previous years.

EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

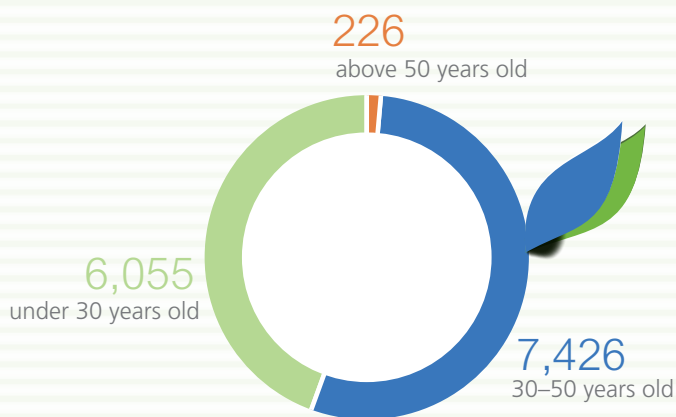


EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

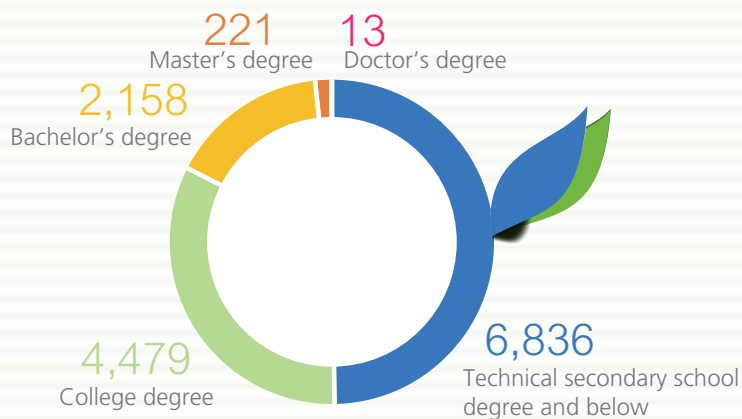
Human Resource Policies

The development of GCL-Poly is inseparable from the support and commitment of all employees. We treat each employees with respect and sincerity and strive to build a diverse, equal, passionate and future-oriented team. As at 31 December 2017, GCL-Poly had a total of 13,707* employees, of whom 10,490 are male and 3,217 are female, and 12,653 are regular employees and 1,054 are informal employees. Except for contractual employees who signed employment agreements and interns who signed internship agreement, most employees had signed labour contracts in accordance with the *Labour Contract Law of the People's Republic of China*. In 2017, there were 4,737 new employees and 3,362 employees had left. The proportion of local employees at key operation locations was approximately 34.36%, and the ratio of local senior management personnel was 25.79%.

2017 GCL-Poly Employees* Age Distribution



2017 GCL-Poly Employee* Educational Background Distribution



* not including GCL New Energy

EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

We strive for a standardised, fair, and effective human resources system. In recruitment, we would screen candidates based on academic qualifications, experience, skills, potential and interview performances. Other factors such as gender, marital status, race or disability are not considered and no child labour is allowed. We assume our fundamental responsibility as respecting the human rights of employees and strictly abide by laws and regulations such as the Labour Law of the People's Republic of China. To ensure that employees receive equal and reasonable treatment, we provide them with competitive salaries and achieve equal pay for equal work for men and women. In 2017, the minimum wage of employees of GCL-Poly is not less than 256% of the local minimum wage, and the proportion of female management personnel is 14.14% and there are 211 ethnic minorities. In the meantime, all employees are required to comply with the Sex Discrimination Ordinance, the Disability Discrimination Ordinance, the Family Status Discrimination Ordinance and all relevant codes. If any employee shows behaviour such as discrimination, slander or sexual harassment, he or she will be subject to disciplinary sanctions. During the reporting period, no discrimination, child labour or forced labour was found.

Strictly in compliance with the relevant laws and regulations such as the Social Insurance Law of the People's Republic of China, we provide employees with powerful welfare protection, such as pensions, health insurance, work-related injury insurance, maternity insurance, unemployment insurance, housing fund, and commercial critical illness coverage as well as employer liability insurance. We offer maternity leave to all female employees who are pregnant as well as paternity leave to male employees who need to take care of their spouse and a newborn baby. In 2017, GCL-Poly's average paid vacation was 6.5 days, 1,248 employees were entitled to maternity/paternity leave, and they remained with the Company 12 months after returning from their leave of absence.

We have established a democratic management system to cultivate employees' sense of ownership and provide employees with a smooth and varied internal communication mechanism.¹ Employees can submit advice and suggestions on the Company's system through monthly employee forums, telephone, email, WeChat official account, and blue letters. In 2017, two complaint applications from employees were properly handled. Meanwhile, we conduct employee satisfaction surveys every year and draw a certain percentage of employees to evaluate and give feedback on the Company's various systems and work to ensure the collective bargaining rights and to optimize the Company's system and enhance employees' sense of benefit and identity. In 2017, the employee satisfaction rate was 87%.

Our Achievements:

- Taicang GCL Photovoltaic was named as "100 Trade Union Demonstration Unit of Taicang City"
- Funing GCL Photovoltaic won the titles of "Model Workers' Home of Yancheng City" and "Democratic Management Demonstration Base of Yancheng City"
- Changzhou GCL Photovoltaic has become a "Party-building Demonstration Site for Non-public Enterprises in Changzhou City". It has its own characteristics and has achieved certain results in building communication platforms, solving practical difficulties, and enriching the cultural life of employees

¹ GRI 102-41

EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

Occupational Health and Safety

Production and manufacturing is one of the main businesses of GCL-Poly, therefore occupational health and safety is an indispensable part of the effective and sustainable operation of the Company. We continue to improve the OHSAS18001 occupational health and safety management system. Through the establishment of the EHS committee, the EHS organisational structure, and the *Safety, Occupational Health and Environmental Management Responsibility System*, with the general manager of each project company as the company's first responsible person for safety, the fulfillment of the occupational health and safety responsibility was effectively promoted.

Safe Production

In 2017, we continued to improve the safety production responsibility system, established a three-level safety management network for company, branch factory/department, and team management, and decomposed various safety goals. The *Safety and Environmental Protection Goal and Responsibility Letter* was signed level by level under the all-round protection principle of "horizontal to the edge, vertical to the end". All branches and subsidiaries have established detailed and complete safety standardization management manuals, program documents, rules and regulations, and operating rules on safety technology, and regularly organised revisions to ensure that relevant systems and regulations are in line with the latest needs in actual work and effectively prevent new potential risks. In 2017, the Company's investment in safety production accounted for 0.238% of production value, and the investment in safety technology transformation accounted for 0.15% of total assets.

In the meantime, we carried out a series of safety training, promotion and activities in various forms such as classroom training, live demonstrations, competitions, online media, television publicity, photo exhibition boards, and WeChat, and established a potential risk investigation system to strengthen the foundation of safety management and improve the safety knowledge and management capabilities of management personnel and front-line employees. All new employees are required to receive safety and environmental education at the company-level, the functional department/workshop-level and the position-level. In 2017, a total of 53,720 employees participated in occupational health and safety related trainings, and the goal of zero serious injuries or accidents above, zero fire accidents, zero occupational diseases and zero government penalties was achieved.

In accordance with the relevant requirements of the *Measures for the Administration of Contingency Plans for Work Safety Accidents* (Order No. 88) issued by the State Administration of Work Safety, GCL-Poly and its branches and subsidiaries have taken into account of their own conditions and formulated comprehensive contingency plans, special contingency plans, and on-site disposal plans. The contingency reporting process and rescue methods were clarified; risk assessment reports and emergency resource investigation reports were prepared; anti-accident drills were regularly carried out, and the contingency response capability of all levels was improved.



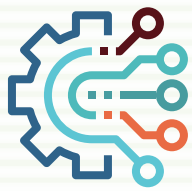
Emergency drills

EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

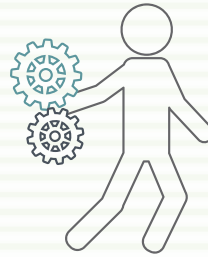
Our achievements:



The training and certification of key personnel, safety management personnel, team leaders, and special operators: **100%**



The legal testing of special equipment: **100%**



The rectification rate of security risks: **99%**



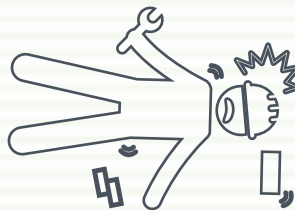
The production safety related trainings: **58,023** person times



Serious accidents: **0**



General accidents: **0**



Work-related fatalities: **0**

EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

Occupational Health

We work actively to promote and implement a management philosophy that protects every employee throughout the whole working process, integrate employees into our safety management of their own accord and exempt them from various hazards. In compliance with the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases, a sound occupational health system has been put in place: we conduct activities related to the management, control, inspection and notification of occupational hazards on a regular basis, distribute labour protection articles in time, and organise comprehensive pre-job, on-the-job, job-transfer and off-the-job occupational health check-up for employees. In 2017, no occupational diseases or suspected occupational diseases were reported.

Our achievements:



New occupational
disease patients:

0



Health check-up
coverage:

100%



Occupational health
file coverage:

100%



Pass rate of
occupational
health check-up:

100%



Inspection coverage of
occupational hazards at
operation sites:

100%

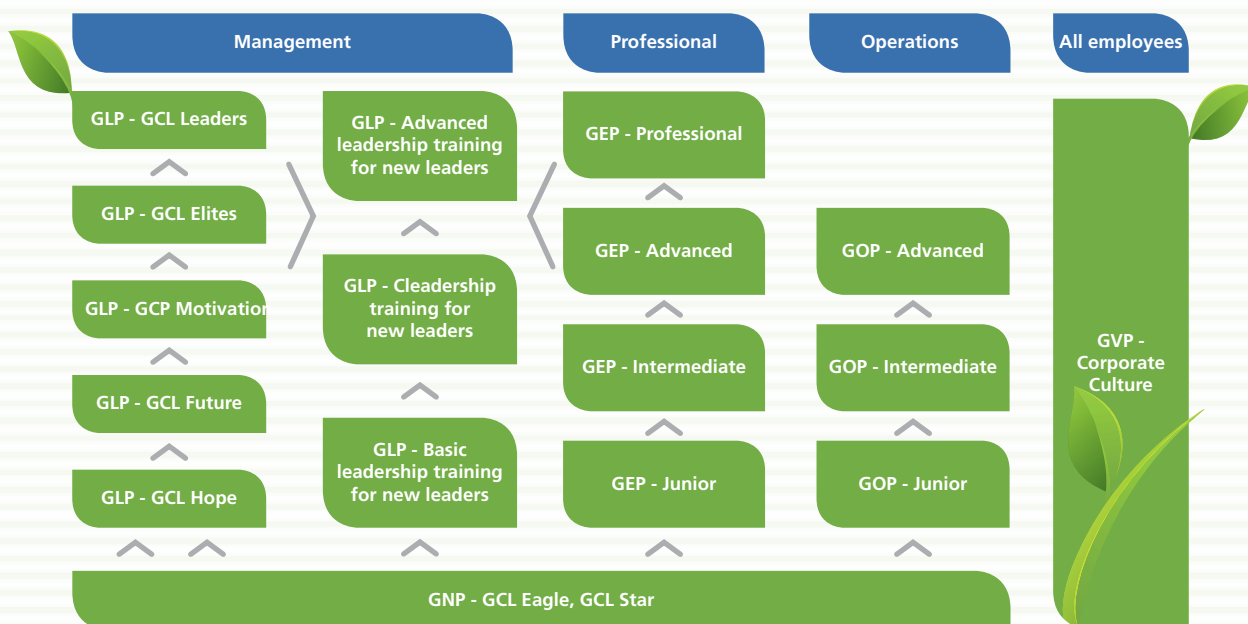
EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

Training and Development

Talents serve as the core driving force of GCL-Poly's sustainable development. Based on our development strategy and employee demands, we have optimized our cultivation and development mechanism and stimulate the potential of employees so as to align the progress and development of employees with those of the Company.

In terms of talent recruitment, we've been hunting for high-end technical talents in the industry at home and abroad while selecting outstanding graduates as a supplement. In respect to talent cultivation, with a vision to build ourselves into a "study-oriented" company, we have established a comprehensive training and management platform. As a consequence, targeted at employees with different occupations, job rankings, demands and educational backgrounds, the Company is able to carry out various online and offline theme study activities through platforms like WeChat, company library, training classroom, Xin Zhi Hai training system, enhancing employees' management and professional skills. Employees with prominent performance also have the opportunity to travel abroad to join exchange and training programs. Meanwhile, The Course for New Employees of GCL-Poly has helped new employees to understand and integrate themselves into our corporate culture. New employees of higher grades are provided with access to relevant courses at GCL University. In regard to talent development, we provide employees with an all-round career development plan and assist employees to define their development direction so as to shore up their development.

Employee Training System of GCL-Poly



EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

Our achievements:

- Employee training coverage: **100%**
- Investment in training per employee: **RMB1,206.5**
- Average length of training time per employee: **75.62 hours**
- The number of training courses: **2,619**

In 2017, GCL-Poly launched a 126-class-hour Excellent Operation and Management Training Course that spanned 21 days in seven months, with 36 production and management executives from various enterprises participating in this course. Covering contents like lean production, operation and management, quality, cost and safety, this training course combined theories and practices, and support participants in targeted knowledge learning and capability enhancement.



EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

GCL-Poly's Support for Employees' Career Development



GCL-Poly boasts branches around the globe. In the process of transregional production and operation, we conduct comprehensive investigations to understand local economic, cultural situation, lifestyle, customs, etc. and adapt ourselves accordingly. For overseas Business Unit, we provide technical support and training for local employees, promote and implement our corporate culture under the precondition of fully respecting local customs, and remain committed to forging a coordinated overseas talent team featured by high efficiency.

EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

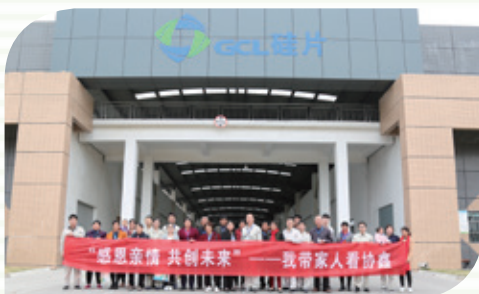
Employee Care

GCL-Poly is dedicated to building a friendly and harmonious cultural atmosphere. "Putting ourselves in the shoe of employees and satisfying their demands", we strive to make GCL an equivalence of "home" for employees and encourage them to walk a fine line between work and life. In 2017, we held a series of excellent sports activities like the third GCL Cup football game, the forth basketball tournament, the third table tennis and badminton games, and festival activities such as "Date of Rose" at Women's Day, "Night of Reunion" at the Mid-Autumn Festival and "Time for Revelry" at Christmas. These activities heartened the morale of our team, enriched our daily life, deepened friendship among departments and boosted employees' sense of belonging.



"We're relieved that our children work at Funing GCL!"

In 10 November 2017, with cool autumn breeze, Funing GCL Photovoltaic Technology Co. Ltd. held the first "Visit GCL with My family" — factory open day activity and 20 outstanding employees from every procedure in 11 workshops participated in this activity. Under the lead of the chairman of the Labour Union of Funing GCL, employees' family members attended the monthly award ceremony of skills and visited administrative office area, workshops, dormitories and so on. Accompanying employees acted as commentators on their own initiative and told their family about every procedure of producing solar wafers and funny stories in their work. During the visit, the mother of an employee said sincerely: "We're relieved that our children work at Funing GCL!" The half-day activity not only presented the parents a clear impression about how their children worked, but also offered one more chance for the employees to reunited with their parents and drawn their relationship even closer.



EMPLOYEE SUPPORT: BUILDING THE BEST TEAM

We never hesitate to lend a hand to those in need. We have initiated nearly 100 funds such as employee mutual-aid fund, assistance fund and care fund, and launched special assistance activities to employees whose family are in distress so as to ease their living burden. In 2017, Assistance Fund for Employees in Need expended RMB964,400. To integrate the assistance of employees in need into our daily management and put in place a standardised and well-organised assistance mechanism, in January 2016, GCL Sunshine Foundation set up Special Fund for GCL Employee Care targeted at employees who were impoverished because of illness or disasters. In 2017, GCL-Poly held 26 social responsibility and donation activities.

Voice from employees:

"Many people would say that as an employee, where you work doesn't matter much. However, GCL reveals a different picture. This is a team full of competition but also a team surrounded by brotherhood and even kinship. You have to have faith in everyone and rely on everyone, because only in this way can we get the most genuine data and better quality. GCL is becoming stronger, so are we. Together with those sharing my aspiration, I can see my spiritual homeland where there is the warmth of a home, the enthusiasm of fire, the aroma of spirits and the holiness of Shangri-La."

"Yangzhou Solar Power has long been like a family. From the slogan "Never Give up; Never Back up" at the toughest times to the coordinated philosophy of "Great Union" when the Company stepped onto the right track, "family" culture has been passed down and elevated. GCL honored its commitment of treating employees as family members, this is why in 2012 when GCL resumed its production, all the employees gave up other job opportunities and dedicated themselves to the development of the factory without hesitation, making an industrial wonder that every former employee took up their old post once the factory was reopened."

COMMUNITY AND CHARITY: CONTRIBUTION TO A HARMONIOUS SOCIETY

Committed to its social responsibilities and social value, GCL-Poly has made the corporate social responsibilities its core development strategy, and the development of clean energy its mission with the vision to play its due part in national development and public welfare through popularizing clean energy while maintaining high-level enterprise governance. We have implemented the *GCL-Poly Corporate Citizen White Paper* and *GCL-Poly Corporate Citizen Guide* alongside other CSR-related documents, which set out our CSR values. Having incorporated the support of public welfare into our long-term strategic goals, we strive to become an outstanding “corporate citizen”.



COMMUNITY AND CHARITY: CONTRIBUTION TO A HARMONIOUS SOCIETY

Over the years, GCL-Poly has borne in its mind the principle that “we should pay back what we have gained from the society.”. We have established a three-pronged approach incorporating environmental features, education and disaster rescue in our charity work, and paid particular attention to charity business of environmental protection, educational sponsorship and disaster rescue. Internally, we have put in place a well-designed voluntary service platform for our employees. Externally, based on local resources and corporate characteristics, we strive to live up to our social responsibilities, disseminate our brand traits featured by green, eco-friendliness and sustainable development, and boost our brand reputation and social influence.

In 2017, GCL-Poly organised 26 public welfare and volunteer activities, invested RMB964,400 in charity, among which RMB405,200 was donated to Chuanxin earthquake victims, RMB200,000 was used to sponsor Xuzhou International Dragon Boat Competition and goods worth RMB200,000 were donated to places in need.

Social Welfare

For years, GCL-Poly has organised and participated in over 100 social welfare projects, and has donated cash and goods worth almost RMB100 million. Taking advantage of GCL Sunshine Foundation and guided by *Management Measures for GCL Charity Work*, we have improved our system and procedures continuously, strengthened our supervision on the income and expenses of donations, imposed stringent project examination, coordinated social welfare, enhanced information disclosure, perfected measures like project files, and kept heightening our competency in managing and operating charity projects like disaster relief, poverty reduction, education sponsorship and new rural construction.

After years of explorations and practices, GCL-Poly has carved out a new path that bonds photovoltaic with poverty reduction and rural areas. We have made “multifunction photovoltaic and higher agricultural yields” a reality, led the revitalization of rural areas with green development and helped farmers raise their incomes. At present, as the forerunner of poverty reduction, GCL-Poly poverty reduction project has had the scale of its power station reaching 1,170 MW, supported nearly 38,000 poverty-stricken households and promised to raise its poverty reduction funds to RMB2.07 billion in the following 20 years. Regardless of investment scale or the number of beneficiaries, we act as the vanguard in terms of the volume of photovoltaic poverty reduction.

In August 2017, Sichuan province was struck by a 7-magnitude earthquake. GCL-Poly actively participated in the rescue and relief work as well as post-disaster reconstruction, and organised donation activities for the earthquake of Sichuan within the Company with the donation hitting RMB405,220.



COMMUNITY AND CHARITY: CONTRIBUTION TO A HARMONIOUS SOCIETY

“Support and Get Close to Left-behind Children with Love” — Xuzhou Crucible Charity Team Cared for Left-behind Children

On the morning of 25 March, Xuzhou Crucible charity team organised a charity activity for left-behind children themed by “Support and Get Close to Left-behind Children with Love”. The team sent school supplies and living supplies to 10 left-behind children in Chaohu village, Tongshan County, Xuzhou City. Chaohu village committee and villagers there received this activity with warm welcome. During the activity, the leader of Xuzhou Crucible charity team delivered safety training for children and the elderly, taught the children about precautions when they were at home alone and knowledge about the safe use of fire and electricity. This activity made the children realize the importance of safety and raised their awareness of safety protection.



Community Construction

GCL-Poly hopes to give full play to its strength in photovoltaic industry to create more value for the community where it operates and improve the life quality of the community. We have worked actively to develop integrated project of towns and industries such as towns with characteristics, green towns, and propelled resources with special features like homeland for talents, energy internet, green transportation to become an integral part of the community so as to increase the employment opportunities for urban and rural residents and fuel social and economic development. We have conducted comprehensive evaluations on the environmental and social implications of project investments or exits on local communities to ensure that project construction will not encroach on protective resources including farmlands, woodland and so on. In 2017, 7 new projects were all launched and passed the environmental and social impact assessment.

We play an active role in calling on employees to devote themselves to community construction, support them with open and favorable resources and philosophy, relentlessly creates new models and contents of volunteer services while delivering more outcomes in volunteer services, and erect the brand reputation of “Five Color Youth Volunteers”, i.e. “Red: Volunteer Blood Donors”, “Golden: Sunshine Volunteers”, “Green: Volunteers of Environmental Protection”, “White: Medical Volunteers” and “Yellow: Traffic Volunteers”. Such activities make youth volunteer services more target-specific, expand the coverage of volunteer work and guide young employees to carry forward positive components in the society.

COMMUNITY AND CHARITY: CONTRIBUTION TO A HARMONIOUS SOCIETY

Ningxia GCL Monocrystalline Silicon Visited Cleaners at Industry Park

On 30 November 2017, having winter supplies with them, the representatives of Ningxia GCL Monocrystalline Silicon Technology Development Co. Ltd., one of the subsidiaries of GCL-Poly, visited the cleaners at the Bureau of Social Affairs under Management Committee of Industry Park in Zhongwei. Ningxia GCL Monocrystalline Silicon distributed 20 suites of winter supplies worth RMB3,000-odd including vacuum flasks, cotton socks, gloves, and hand creams to over 20 cleaners respectively, and promised that the gatehouse of Ningxia GCL Monocrystalline Silicon would always provide hot water, charging equipment and others to cleaners in the park. Caring for cleaners in the park mirrored a strong sense of social responsibility and received high praise from the industrial park and city leaders.



Charity Advocation

GCL-Poly endeavors to see that its business operation undertake corresponding environmental and social responsibilities. While throwing ourselves to social welfare, conducting caring activities that benefit communities, we continue to lead by example, advocate green life and humanity care. Xuzhou Solar was selected as the Spokes Corporate of the Xuzhou Social Security Administration Center. The senior management and a group of employees of Xuzhou Solar enthusiastically participated in recording the public service advertisement regarding the employment injury insurance, with an aim to promote the importance of employee's safety.

New Energy Hall was Completed in Xuzhou

In 2017, GCL-Poly completed the construction of new energy hall. Its completion brought about support and convenience for GCL-Poly to showcase industrial development, popularize the industrial culture of photovoltaic, and exert social influence. It demonstrated to the public the impact of new energy business on future life and served as a pioneering work of GCL-Poly undertaking its social responsibility and enlarging its brand popularity.



HONORS AND AWARDS

Management and Brand

Time	Name of the honor/award	Awarded enterprises	Issuing body
2017.2	Demonstration Business for Credit Management in Jiangsu Province	Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd	Jiangsu Economy and Information Technology Commission
2017.3	Top-100 Innovative Demonstration Businesses for Strategic Emerging Industries of Jiangsu Province	Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd	Jiangsu Development and Reform Commission
2017.4	APVIA Award — Industrial Contribution	GCL-Poly	Asian Photovoltaic Industry Association (APVIA)
2017.4	State Attestation of "Integration of Informationization and Industrialization" Management System	Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd	Ministry of Industry and Information Technology of the People's Republic of China
2017.7	Outstanding Enterprise Achievement	GCL-Poly	<i>Capital Magazine</i>
2017.8	Huapu Award	GCL	Brand Union (Beijing) Consulting Co., Ltd., China Convention and Exhibition Society
2017.9	Leading Business for Chinese Energy Equipment (Polysilicon)	GCL-Poly	<i>China Energy News</i>
2017.11	Listed Companies with Best Investment Value during the 13th Five-year Plan Period.	GCL-Poly	Hong Kong Ta Kung Wen Wei Media Group, the Listed Company Association of Beijing
2017.11	Outstanding PV Material Supplier	GCL-Poly	Solar.OFweek.com
2017.12	2017 Global Top 500 Technology Innovation Enterprises in New Energy Category	GCL-Poly	<i>China Energy News</i>
2017.12	Best CFO	GCL-Poly	<i>China Finance</i>
2017.12	Top-50 Prominent Businesses for Independent Industrial Brands of Jiangsu Province in 2017	Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd	Jiangsu Economy and Information Technology Commission



HONORS AND AWARDS

Product and Technology

Time	Name of the honor/award	Awarded product and technology	Issuing body
2017.1	Chinese Outstanding Patented Invention Award of the 18th Chinese Patent Award	<i>GCL Polysilicon Production Method</i> of Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd	State Intellectual Property Office
2017.4	Terawatt Diamond Award, the top award of the "Top 10 Highlights" of SNEC exhibition	GCL-Poly TS Series of Black Silicon Wafer	Organizing Committee of SNEC 2017 International Photovoltaic Power Generation Conference and Exhibition
2017.6	2016 Excellent Technology in China	10,000-tonne-level ultra-large-scale green production technology of GCL polysilicon	China Association of Productivity Promotion Centers
2017.11	Annual Best PV Product	GCL-Poly D series silicon wafer of diamond multi-line cutting	The Organizing Committee of Chinese Renewable Energy Conference and Exhibition (CREC)

Personal Awards

Time	Name of the honor/award	Winner	Issuing body
2017.3	Technological Vanguard Influencing China in Intelligent Era	Zhou Xiaodong, head of Information Management Department of Suzhou GCL Photovoltaic	Cloud Union, China Business News
2017.8	China Solar PV Achievement	Wan Yuepeng, CTO of GCL-Poly	Chinese Renewable Energy Society



OUTLOOK

Clean energy has become the development trend. The consensus of the international community to tackle climate change reached in the Paris Agreement, and the action of International Energy Agency (IEA) to increase the power generation capacity prediction of global renewable energy in the next five years indicate a large-scale increase on the demand of clean energy and its production value. Owing to supporting policies for low-carbon energy and the cost reduction of solar energy, China's PV installed capacity has been increased remarkably in recent years, with faster growth than that of any other fuel for the first time. During this process, GCL-Poly has demonstrated our mature capacity to respond to market changes and to update our products. In the future, we will continue our exploration to provide more products that meet market demands as well as social expectations.

China takes an important share in the global PV energy development. As a clean energy industry, the PV industry has gained the preference of Chinese national policy makers. As a domestic company with great sense of commitment, GCL-Poly has closely followed China's national strategy and plan and seized every opportunity in the development trend. The 13th Five-year Plan for Energy Industry estimates that, China's non-fossil energy will account for more than 15% of the total primary energy consumption by 2020. *Energy Production and Consumption Revolution Strategy (2016–2030)* issued by the National Development and Reform Commission (NDRC) and National Energy Administration (NEA) sets out that by 2030, the non-fossil power plants will account for approximately 50% of total power generation, with an increase of approximately 70% to 80% by 2050. Under such background, GCL-Poly is committed to launching PV industry innovations and constructing an industrial chain. We aim at realizing a "Big Synergy" by means of technical strategic cooperation with our industry parties. Through developing new technology and sharing the results of cost reduction, we aim to improve the output and efficiency of clean energy and to promote the sound development of PV industry.

On this occasion, GCL-Poly wish to express our heartfelt gratitude to the Board of Directors, management team, all dedicated staff of the Company and our partners in the value chain for your efforts and hard work in 2017, to our shareholders and stakeholders for your long-term attention and strong support to our Company.

Seizing the opportunity of the booming global clean energy industry and relying on our continuous efforts, GCL-Poly will surely realize our goal of bringing green energy to tens of millions of households in the future not far away!



KEY STATISTICS

Business Performance

Index	2015	2016	2017
Revenue (RMB'Million)	20,484.45	22,024.54	23,794.46
Gross profit (RMB'Million)	5,740.87	7,044.20	8,198.70
Income tax expense (RMB'Million)	484.30	537.17	637.88
Polysilicon production (tonnes)	74,358	69,345	74,818
Wafer production *(MW)	14,968	17,327	23,902
Customer satisfaction rate (%)	88	90	92

Environmental Performance

Index	2015	2016	2017
Environmental training coverage (%)	100	100	100
Environmental training hours (hour)	15,429	14,933	34,081
Sulphur oxides/sulfur dioxide emission (tonnes)	2.66	2.76	2.70
Dust (tonnes)	13.40	15.24	16.07
Total amount of recycled and reused water (10,000 tonnes)	30,652.73	32,437.59	34,474.77
Generation of hazardous waste (tonnes)	23,482.14	14,670.81	15,882.62
General waste (non-hazardous waste) generation (tonnes)	60,694.30	63,920.07	43,834.10
Renewable energy/clean energy use (10,000kWh)	867.65	1,016.00	2,371.62
Completion rate of new projects' assessment over environmental and social influence (%)	100	100	100

* including processing business with supplied materials

KEY STATISTICS

Employee Performance

Index	2015	2016	2017
Total number of employees	17,705	11,528	13,707
Number of employees from ethnic minority groups	86	110	211
Female employment (%)	28.2	21.7	23.5
Ratio of employees remained in their position 12 months after returning from maternal/paternal leaves (%)	97.1	100	100
Investment in labour protection (RMB10,000)	4,269.88	6,181.98	6,557.80
Work-related fatalities	0	0	0
Work-related injuries	12	47	23
Loss of working days due to work-related injuries (day)	3,253	3,016	2,359
Average training hours completed per employee (hour)	23	75	75.6
Employee training coverage rate (%)	100	100	100

Corporate Governance Performance

Index	2015	2016	2017
Compliance training coverage (%)	100	100	100
Cases involving bribery and corruption (piece)	0	0	0
Cases involving unfair competition, antitrust and anti-monopoly lawsuits (piece)	0	0	0

APPENDIX 1: GRI STANDARDS CONTENT INDEX



Disclosure	Description	Chapters	Pages
GRI 101: Foundation 2016			
GRI 102: General Disclosures 2016			
Organizational Profile			
102-1	Name of the organization	About the Report	2
102-2	Activities, brands, products, and services	Company's Profile — Our Business	11
102-3	Location of headquarters	Company's Profile	9
102-4	Location of operations	Company's Profile	9
102-5	Ownership and legal form	Company's Profile	9
102-6	Markets served	Company's Profile — Our Business	11
102-7	Scale of the organization	Company's Profile	9
102-8	Information on employees and other workers	Employee Support — Human Resource Policies	53
102-9	Supply chain	Product and Services-Management of Supply Chain	39
102-10	Significant changes to the organization and its supply chain	Not applicable. There is no significant changes to the organization and its supply chain during the reporting period.	—
102-11	Precautionary Principle or approach	Product and Services — Technology R&D	32
102-12	External initiatives	Company's Profile — Corporate Governance and Risk Management	14
102-13	Membership of associations	Company's Profile — Industry Promotion	18
Strategy			
102-14	Statement from senior decision-maker	Chairman's Statement	4
102-15	Key impacts, risks, and opportunities	Chairman's Statement	4
Ethics and Integrity			
102-16	Values, principles, standards, and norms of behavior	Company's Profile — Our Philosophy	10
Governance			
102-18	Governance structure	Company's Profile — Corporate Governance and Risk Management	14

APPENDIX 1: GRI STANDARDS CONTENT INDEX

Disclosure	Description	Chapters	Pages
Stakeholder Engagement			
102-40	List of stakeholder groups	Sustainable Development Management — Stakeholder Engagement	24
102-41	Collective bargaining agreements	Employee Support — Human Resource Policies	54
102-42	Identifying and selecting stakeholders	Sustainable Development Management — Stakeholder Engagement	25
102-43	Approach to stakeholder engagement	Sustainable Development Management — Stakeholder Engagement	24
102-44	Key topics and concerns raised	Sustainable Development Management — Stakeholder Engagement	25
Reporting Practice			
102-45	Entities included in the consolidated financial statements	Company's Profile — Our Business	13
102-46	Defining report content and topic Boundaries	About the Report	2
102-47	List of material topics	Sustainable Development Management — Materiality Assessment Process	27
102-48	Restatements of information	About the Report, there is no restatements of information in this report.	2
102-49	Changes in reporting	Sustainable Development Management — Materiality Assessment Process	26
102-50	Reporting period	About the Report	2
102-51	Date of most recent report	About the Report	2
102-52	Reporting cycle	About the Report	2
102-53	Contact point for questions regarding the report	Appendix 5	98
102-54	Claims of reporting in accordance with the GRI Standards	About the Report	2
102-55	GRI content index	Appendix 1	72
102-56	External assurance	Appendix 4	96

APPENDIX 1: GRI STANDARDS CONTENT INDEX

Disclosure	Description	Chapters	Pages
Topic — Specific Disclosures			
Economic			
GRI 201: Economic Performance 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Company's Profile — Our Business	11
	103-2 The management approach and its components	Company's Profile — Corporate Governance and Risk Management	14
	103-3 Evaluation of the management approach	Company's Profile — Corporate Governance and Risk Management	14
201-1	Direct economic value generated and distributed	Company's Profile — Our Business	11
201-2	Financial implications and other risks and opportunities due to climate change	Chairman's Statement	4
GRI 202: Market Presence 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Employee Support — Human Resource Policies	53
	103-2 The management approach and its components	Employee Support — Human Resource Policies	53
	103-3 Evaluation of the management approach	Employee Support — Human Resource Policies	53
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	Employee Support — Human Resource Policies	53
202-2	Proportion of senior management hired from the local community	Employee Support — Human Resource Policies	53
GRI 203: Indirect Economic Impacts 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Products and Services	29
		Community and Charity	63
	103-2 The management approach and its components	Products and Services	29
203-1		Community and Charity	63
	103-3 Evaluation of the management approach	Products and Services	29
		Community and Charity	63
203-1	Infrastructure investments and services supported	Company's Profile — Our Business	11
		Products and Services	29
		Community and Charity	63
203-2	Significant indirect economic impacts	Products and Services	31
		Community and Charity	63

APPENDIX 1: GRI STANDARDS CONTENT INDEX

Disclosure	Description	Chapters	Pages
GRI 205: Anti-corruption 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Company's Profile — Corporate Governance and Risk Management	17
	103-2 The management approach and its components	Company's Profile — Corporate Governance and Risk Management	17
	103-3 Evaluation of the management approach	Company's Profile — Corporate Governance and Risk Management	17
205-1	Operations assessed for risks related to corruption	Company's Profile — Corporate Governance and Risk Management	17
205-2	Communication and training about anti-corruption policies and procedures	Company's Profile — Corporate Governance and Risk Management	17
205-3	Confirmed incidents of corruption and actions taken	Not applicable. There is no incidents of corruption during the reporting period.	—
GRI 206: Anti-competitive Behavior 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Company's Profile — Corporate Governance and Risk Management	17
	103-2 The management approach and its components	Company's Profile — Corporate Governance and Risk Management	17
	103-3 Evaluation of the management approach	Company's Profile — Corporate Governance and Risk Management	17
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Company's Profile — Corporate Governance and Risk Management	17
Environmental			
GRI 301: Materials 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Environmental Protection — Green Production and Operation	47
	103-2 The management approach and its components	Environmental Protection — Green Production and Operation	47
	103-3 Evaluation of the management approach	Environmental Protection — Green Production and Operation	47
301-1	Materials used by weight or volume	Environmental Protection — Green Production and Operation	50
301-2	Recycled input materials used	Environmental Protection — Green Production and Operation	47

APPENDIX 1: GRI STANDARDS CONTENT INDEX

Disclosure	Description	Chapters	Pages
GRI 302: Energy 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Environmental Protection — Actively Addressing Climate Change	50
	103-2 The management approach and its components	Environmental Protection — Actively Addressing Climate Change	50
	103-3 Evaluation of the management approach	Environmental Protection — Actively Addressing Climate Change	50
302-1	Energy consumption within the organization	Environmental Protection — Actively Addressing Climate Change	51
302-3	Energy intensity	Environmental Protection — Actively Addressing Climate Change	51
302-4	Reduction of energy consumption	Environmental Protection — Actively Addressing Climate Change	51
302-5	Reduction in energy requirements of products and services	Environmental Protection — Actively Addressing Climate Change	51
GRI 303: Water 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Environmental Protection — Green Production and Operation	48
	103-2 The management approach and its components	Environmental Protection — Green Production and Operation	48
	103-3 Evaluation of the management approach	Environmental Protection — Green Production and Operation	48
303-1	Water withdrawal by source	Environmental Protection — Green Production and Operation	50
303-3	Water recycled and reused	Environmental Protection — Green Production and Operation	50
GRI 305: Emissions 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Environmental Protection — Green Production and Operation	50
	103-2 The management approach and its components	Environmental Protection — Green Production and Operation	50
	103-3 Evaluation of the management approach	Environmental Protection — Green Production and Operation	50
305-1	Direct (Scope 1) GHG emissions	Environmental Protection — Actively Addressing Climate Change	51
305-2	Energy indirect (Scope 2) GHG emissions	Environmental Protection — Actively Addressing Climate Change	51
305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	Environmental Protection — Green Production and Operation	50

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Disclosure	Description	Chapters	Pages
GRI 306: Effluents and Waste 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Environmental Protection — Green	48
		Production and Operation	49
	103-2 The management approach and its components	Environmental Protection — Green	48
		Production and Operation	49
	103-3 Evaluation of the management approach	Environmental Protection — Green	48
		Production and Operation	49
306-1	Water discharge by quality and destination	Environmental Protection — Green	48
		Production and Operation	50
306-2	Waste by type and disposal method	Environmental Protection — Green	50
		Production and Operation	
306-3	Significant spills	Not applicable. There is no significant spills during the reporting period.	—
306-4	Transport of hazardous waste	Environmental Protection — Green	49
		Production and Operation	
GRI 307: Environmental Compliance 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Environmental Protection — Environment Management Regulations	45
	103-2 The management approach and its components	Environmental Protection — Environment Management Regulations	45
	103-3 Evaluation of the management approach	Environmental Protection — Environment Management Regulations	45
307-1	Non-compliance with environmental laws and regulations	Environmental Protection — Environment Management Regulations	46
GRI 308: Supplier Environmental Assessment 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Product and Services — Management of Supply Chain	42
	103-2 The management approach and its components	Product and Services — Management of Supply Chain	42
	103-3 Evaluation of the management approach	Product and Services — Management of Supply Chain	42
308-1	New suppliers that were screened using environmental criteria	Product and Services — Management of Supply Chain	42

APPENDIX 1: GRI STANDARDS CONTENT INDEX

Disclosure	Description	Chapters	Pages
Social			
GRI 401: Employment 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Employee Support — Human Resource Policies	54
	103-2 The management approach and its components	Employee Support — Human Resource Policies	54
	103-3 Evaluation of the management approach	Employee Support — Human Resource Policies	54
401-1	New employee hires and employee turnover	Employee Support — Human Resource Policies	53
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employee Support — Human Resource Policies	54
401-3	Parental leave	Employee Support — Human Resource Policies	54
GRI 403: Occupational Health and Safety 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Employee Support — Occupational Health and Safety	55
	103-2 The management approach and its components	Employee Support — Occupational Health and Safety	
	103-3 Evaluation of the management approach	Employee Support — Occupational Health and Safety	55
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Employee Support — Occupational Health and Safety	56
403-3	Workers with high incidence or high risk of diseases related to their occupation	Employee Support — Occupational Health and Safety	57
403-4	Health and safety topics covered in formal agreements with trade unions	Employee Support — Occupational Health and Safety	55

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Disclosure	Description	Chapters	Pages
GRI 404: Training and Education 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Employee Support — Training and Development	58
	103-2 The management approach and its components	Employee Support — Training and Development	58
	103-3 Evaluation of the management approach	Employee Support — Training and Development	58
404-1	Average hours of training per year per employee	Employee Support — Training and Development	59
404-2	Programs for upgrading employee skills and transition assistance programs	Employee Support — Training and Development	58
404-3	Percentage of employees receiving regular performance and career development reviews	Employee Support — Training and Development	59
GRI 405: Diversity and Equal Opportunity 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Employee Support — Human Resource Policies	53
	103-2 The management approach and its components	Employee Support — Human Resource Policies	53
	103-3 Evaluation of the management approach	Employee Support — Human Resource Policies	53
405-1	Diversity of governance bodies and employees	Employee Support — Human Resource Policies	53
405-2	Ratio of basic salary and remuneration of women to men	Employee Support — Human Resource Policies	54
GRI 408: Child Labor 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Employee Support — Human Resource Policies	54
	103-2 The management approach and its components	Employee Support — Human Resource Policies	54
	103-3 Evaluation of the management approach	Employee Support — Human Resource Policies	54
408-1	Operations and suppliers at significant risk for incidents of child labor	Employee Support — Human Resource Policies	54

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Disclosure	Description	Chapters	Pages
GRI 409: Forced or Compulsory Labor 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Employee Support — Human Resource Policies	54
	103-2 The management approach and its components	Employee Support — Human Resource Policies	54
	103-3 Evaluation of the management approach	Employee Support — Human Resource Policies	54
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Employee Support — Human Resource Policies	54
GRI 412: Human Rights Assessment 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Employee Support — Human Resource Policies	54
	103-2 The management approach and its components	Employee Support — Human Resource Policies	54
	103-3 Evaluation of the management approach	Employee Support — Human Resource Policies	54
412-2	Employee training on human rights policies or procedures	Employee Support — Human Resource Policies	54
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Employee Support — Human Resource Policies	54
GRI 413: Local Communities 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Community and Charity	64
	103-2 The management approach and its components	Community and Charity	64
	103-3 Evaluation of the management approach	Community and Charity	64
413-1	Operations with local community engagement, impact assessments, and development programs	Community and Charity	64

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Disclosure	Description	Chapters	Pages
GRI 414: Supplier Social Assessment 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Product and Services — Management of Supply Chain	42
	103-2 The management approach and its components	Product and Services — Management of Supply Chain	42
	103-3 Evaluation of the management approach	Product and Services — Management of Supply Chain	42
414-1	New suppliers that were screened using social criteria	Product and Services — Management of Supply Chain	42
GRI 416: Customer Health and Safety 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Products and Services — Product Quality Control	30
	103-2 The management approach and its components	Products and Services — Product Quality Control	30
	103-3 Evaluation of the management approach	Products and Services — Product Quality Control	30
416-1	Assessment of the health and safety impacts of product and service categories	Products and Services — Product Quality Control	30
GRI 419: Socioeconomic Compliance 2016			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	Company's Profile — Corporate Governance and Risk Management	15
	103-2 The management approach and its components	Company's Profile — Corporate Governance and Risk Management	15
	103-3 Evaluation of the management approach	Company's Profile — Corporate Governance and Risk Management	15
419-1	Non-compliance with laws and regulations in the social and economic area	Not applicable. There is no non — compliance with laws and regulations in the social and economic area during the reporting period.	—

APPENDIX 2: SEHK ESG REPORTING GUIDE CONTENT INDEX

Subject Areas, Aspects, General Disclosures and KPIs		Relevant chapter(s) in ESG Report 2017 or other references/ Explanation
A. Environmental		
Aspect A1 Emissions		
General Disclosure	<p>Information on:</p> <p>(a) the policies; and</p> <p>(b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.</p> <p>Note: Air emissions include NO_x, SO_x, and other pollutants regulated under national laws and regulations.</p> <p>Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.</p> <p>Hazardous wastes are those defined by national regulations.</p>	<p>Environmental Protection</p> <p>— Environment Management Regulations</p> <p>Environmental Protection</p> <p>— Green Production and Operation</p>
KPI A1.1	The types of emissions and respective emissions data.	<p>Environmental Protection</p> <p>— Green Production and Operation</p>
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<p>Environmental Protection</p> <p>— Actively Addressing Climate Change</p>
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<p>Environmental Protection</p> <p>— Green Production and Operation</p>
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	<p>Environmental Protection</p> <p>— Green Production and Operation</p>
KPI A1.5	Description of measures to mitigate emissions and results achieved.	<p>Environmental Protection</p> <p>— Green Production and Operation</p>
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	<p>Environmental Protection</p> <p>— Green Production and Operation</p>

APPENDIX 2: SEHK ESG REPORTING GUIDE CONTENT INDEX

Subject Areas, Aspects, General Disclosures and KPIs		Relevant chapter(s) in ESG Report 2017 or other references/ Explanation
Aspect A2 Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials. <i>Note:</i> Resources may be used in production, in storage, transportation, in buildings, electronic equipment, etc.	Environmental Protection — Green Production and Operation Environmental Protection — Actively Addressing Climate Change
KPI A2.1	Directed and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Environmental Protection — Actively Addressing Climate Change
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Environmental Protection — Green Production and Operation
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	Environmental Protection — Actively Addressing Climate Change
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Environmental Protection — Green Production and Operation
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Environmental Protection — Green Production and Operation
Aspect A3 The Environment and Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Environmental Protection — Environment Management Regulations
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Environmental Protection — Environment Management Regulations Environmental Protection — Green Production and Operation

APPENDIX 2: SEHK ESG REPORTING GUIDE CONTENT INDEX

Subject Areas, Aspects, General Disclosures and KPIs		Relevant chapter(s) in ESG Report 2017 or other references/ Explanation
B. Social		
Employment and Labor Practices		
Aspect B1 Employment		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination and other benefits and welfare.	Employee Support — Human Resource Policies
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	Employee Support — Human Resource Policies
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Employee Support — Human Resource Policies
Aspect B2 Health and Safety		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Employee Support — Occupational Health and Safety
KPI B2.1	Number and rate of work-related fatalities.	Employee Support — Occupational Health and Safety
KPI B2.2	Lost days due to work injury.	Key Statistics
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Employee Support — Occupational Health and Safety

APPENDIX 2: SEHK ESG REPORTING GUIDE CONTENT INDEX

Subject Areas, Aspects, General Disclosures and KPIs		Relevant chapter(s) in ESG Report 2017 or other references/ Explanation
Aspect B3 Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities. <i>Note:</i> Training refers to vocational training. It may include internal and external courses paid by the employer.	Employee Support — Training and Development
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Employee Support — Training and Development
KPI B3.2	The average training hours completed per employee by gender and employee category.	Employee Support — Training and Development
Aspect B4 Labor Standards		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	Employee Support — Human Resource Policies
KPI B4.1	Description of measures to review employment practices to avoid child and forced labor.	Employee Support — Human Resource Policies
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Employee Support — Human Resource Policies
Operating Practices		
Aspect B5 Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Product and Services — Management of Supply Chain
KPI B5.1	Number of suppliers by geographical region.	Product and Services — Management of Supply Chain
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Product and Services — Management of Supply Chain

APPENDIX 2: SEHK ESG REPORTING GUIDE CONTENT INDEX

Subject Areas, Aspects, General Disclosures and KPIs		Relevant chapter(s) in ESG Report 2017 or other references/ Explanation
Aspect B6 Product Responsibility		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Product and Services — Product Quality Control Product and Services — Join Hands for Win-Win Results
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Product and Services — Product Quality Control
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	Product and Services — Join Hands for Win-Win Results
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Product and Services — Technology R&D
KPI B6.4	Description of quality assurance process and recall procedures.	Product and Services — Product Quality Control
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Not collecting consumer privacy data and thus not applicable.
Aspect B7 Anti-corruption		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Company's Profile — Corporate Governance and Risk Management
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Company's Profile — Corporate Governance and Risk Management
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Company's Profile — Corporate Governance and Risk Management

APPENDIX 2: SEHK ESG REPORTING GUIDE CONTENT INDEX

Subject Areas, Aspects, General Disclosures and KPIs		Relevant chapter(s) in ESG Report 2017 or other references/ Explanation
Community		
Aspect B8 Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Community and Charity
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	Community and Charity
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Community and Charity

APPENDIX 3: CASS CSR INDICATOR INDEX

Level 1 Indicator	Level 2 Indicator	Chapters
Aspect A: Report Preface (Series P)		
(P1) Reporting Specification	P1.1 Report quality assurance procedure	About the Report
	P1.2 Report information description	About the Report
	P1.3 Report boundary	About the Report
	P1.4 Report system	About the Report
	P1.5 Contact information	Appendix 5
(P2) Reporting Process	P2.1 Report compiling process	About the Report
	P2.2 Materiality selection process	Sustainable Development Management — Materiality Assessment Process
	P2.3 Stakeholders participation in the report compiling process	Sustainable Development Management — Materiality Assessment Process
(P3) Management Statement	P3.1 Opportunities and challenges for Corporate Social Responsibility	Chairman's Statement
	P3.2 A summary of achievements and deficiencies of the annual social responsibility work of company	Chairman's Statement
(P4) About the Company	P4.1 Company name, the nature of ownership, and headquarter location	Company's Profile
	P4.2 Major brands, products and services	Company's Profile — Our Business
	P4.3 Operation regions, including operating companies, subsidiaries and joint ventures	Company's Profile — Our Business
	P4.4 Service market divided by industry, customer type and geography	Company's Profile — Our Business
	P4.5 The total number of the employees according to the employment contracts (both formal and informal) and gender	Employee Support — Human Resource Policies
	P4.6 List of membership or other status of the company in associations, national organizations or international organizations	Company's Profile — Industry Promotion
	P4.7 Significant changes in the size, structure, ownership or supply chain of the organisation during the reporting period	No significant changes
(P5) Annual Progress	P5.1 Annual major works related to social responsibility	Highlights in 2017
	P5.2 Annual responsibility performance	Highlights in 2017
	P5.3 Annual responsibility honour	Honors and Awards

APPENDIX 3: CASS CSR INDICATOR INDEX

Level 1 Indicator	Level 2 Indicator	Chapters
Aspect B: Responsibility Management (Series G)		
(G1) Responsibility Strategy	G1.1 Social responsibility concept, vision and values	Company's Profile — Our Philosophy
	G1.3 Identify the core social responsibility issues of the company	Sustainable Development Management — Materiality Assessment Process
(G2) Responsibility Governance	G2.1 Social responsibility leadership	Sustainable Development Management — Corporate Responsibility Structure and Policy
	G2.2 Channels and procedures for the communication between stakeholders and the highest governing body of the enterprise	Sustainable Development Management — Stakeholder Engagement
	G2.3 Social responsibility organization system	Sustainable Development Management — Corporate Responsibility Structure and Policy
	G2.4 Responsibility and division of internal social responsibility	Sustainable Development Management — Corporate Responsibility Structure and Policy
	G2.5 CSR management system	Sustainable Development Management — Corporate Responsibility Structure and Policy
(G5) Responsibility Communication	G5.1 List of stakeholders of the company	Sustainable Development Management — Stakeholder Engagement
	G5.2 The procedure of define and select core stakeholders	Sustainable Development Management — Stakeholder Engagement
	G5.3 Stakeholders' concerns and response measures	Sustainable Development Management — Stakeholder Engagement
	G5.4 Internal social responsibility communication mechanism	Sustainable Development Management — Stakeholder Engagement
	G5.5 External social responsibility communication mechanism	Sustainable Development Management — Stakeholder Engagement
	G5.6 Corporate social responsibility communication and exchange activities	Sustainable Development Management

APPENDIX 3: CASS CSR INDICATOR INDEX

Level 1 Indicator	Level 2 Indicator	Chapters
Aspect C: Market Performance (Series M)		
(M1) Responsibility of the Shareholder	M1.1 Policies and mechanisms of shareholders' participation in corporate governance	Company's Profile — Corporate Governance and Risk Management
	M1.2 Protect the interests of small and medium investors	Company's Profile — Corporate Governance and Risk Management
	M1.3 Regulatory information disclosure	Company's Profile — Corporate Governance and Risk Management
	M1.4 Growth	Company's Profile — Our Business
	M1.5 Profitability	Company's Profile — Our Business
	M1.6 Safety	Company's Profile — Our Business
(M2) Customer Responsibility	M2.1 Customer relationship management system	Products and Services — Join Hands for Win-Win Results
	M2.5 Product quality management system	Products and Services — Product Quality Control
	M2.6 Qualified rate of products	Products and Services — Product Quality Control
	M2.7 Support system of product and service innovation	Product and Services — Technology R&D
	M2.8 Technology and R&D investment	Product and Services — Technology R&D
	M2.10 Number of new patents	Product and Services — Technology R&D
	M2.11 New product sales	Products and Services — Product Quality Control
	M2.12 Major innovation awards	Product and Services — Technology R&D
	M2.13 Customer satisfaction survey and customer satisfaction	Products and Services — Join Hands for Win-Win Results
	M2.14 Actively deal with customers' complaints and the resolution rate of customers' complaints	Products and Services — Join Hands for Win-Win Results

APPENDIX 3: CASS CSR INDICATOR INDEX

Level 1 Indicator	Level 2 Indicator	Chapters
(M3) Partner Responsibility	M3.1 Strategic sharing mechanism and platform	Company's Profile — Industry Promotion Products and Services — Join Hands for Win-Win Results
	M3.2 The concept and institutional guarantee of business integrity	Products and Services — Management of Supply Chain
	M3.3 The concept and institutional guarantee of fair competition	Products and Services — Management of Supply Chain
	M3.4 Economic contract compliance rate	Products and Services — Management of Supply Chain
	M3.5 Definition and description of supply chain and its impact	Products and Services — Management of Supply Chain
	M3.8 Responsibility procurement system and/or policy	Products and Services — Management of Supply Chain
	M3.9 Procedures and frequency of supplier social responsibility assessment and investigation	Products and Services — Management of Supply Chain
	M3.12 Responsible purchase ratio	Products and Services — Management of Supply Chain
Aspect D: Society Performance (Series S)		
(S1) Government Responsibility	S1.1 Compliance system	Company's Profile — Corporate Governance and Risk Management
	S1.2 Compliance training	Company's Profile — Corporate Governance and Risk Management
	S1.3 Prohibit commercial bribery and commercial corruption	Company's Profile — Corporate Governance and Risk Management
	S1.4 Compliance audit performance	Company's Profile — Corporate Governance and Risk Management
	S1.5 Total tax payment	Key Statistics
	S1.6 Respond to national policies	Company's Profile — Industry Promotion Outlook
	S1.7 Policies or measures to ensure employment and/or to promote employment	Employee Support — Human Resource Policies
	S1.8 Absorption of employment during the reporting period	Employee Support — Human Resource Policies

APPENDIX 3: CASS CSR INDICATOR INDEX

Level 1 Indicator	Level 2 Indicator	Chapters
(S2) Employee Responsibility	S2.1 Labor contract signing rate	Employee Support — Human Resource Policies
	S2.2 Collective bargaining and collective contract coverage	Employee Support — Human Resource Policies
	S2.3 Democratic management	Employee Support — Human Resource Policies
	S2.5 Number of employee complaints applied, processed and resolved through employee complaint mechanisms	Employee Support — Human Resource Policies
	S2.7 Protection of rights and interests of part-time workers, temporary workers and labor dispatch workers	Employee Support — Human Resource Policies
	S2.8 Percentage of minimum wage and local minimum wage divided by operating area	Employee Support — Human Resource Policies
	S2.9 Social insurance coverage	Employee Support — Human Resource Policies
	S2.11 Annual paid leave per capita	Employee Support — Human Resource Policies
	S2.12 Welfare System divided by nature of employment (formal or informal)	Employee Support — Human Resource Policies
	S2.13 Proportion of female management	Employee Support — Human Resource Policies
	S2.14 Proportion of minority and other ethnic employees	Employee Support — Human Resource Policies
	S2.17 Occupational disease prevention and control system	Employee Support — Occupational Health and Safety
	S2.18 Occupational safety and health training	Employee Support — Occupational Health and Safety
	S2.19 Annual increase in occupational diseases and accumulated occupational diseases in company	Employee Support — Occupational Health and Safety
	S2.20 Work injury prevention system and measures	Employee Support — Occupational Health and Safety
	S2.22 Physical examination and health file coverage	Employee Support — Occupational Health and Safety
	S2.24 The occupational development channel of employees	Employee Support — Training and Development
	S2.25 Staff training system	Employee Support — Training and Development
	S2.26 Staff training performance	Employee Support — Training and Development
	S2.27 Input in helping the needy employees	Employee Support — Employee Care
	S2.29 Respect employees' family responsibilities and spare time to ensure work-life balance	Employee Support — Employee Care
	S2.30 Employee satisfaction	Employee Support — Human Resource Policies
	S2.31 Employee turnover rate	Employee Support — Human Resource Policies

APPENDIX 3: CASS CSR INDICATOR INDEX

Level 1 Indicator	Level 2 Indicator	Chapters
(S3) Safe Production	S3.1 Safety production management system	Employee Support — Occupational Health and Safety
	S3.2 Safety emergency management mechanism	Employee Support — Occupational Health and Safety
	S3.3 Safety education and training	Employee Support — Occupational Health and Safety
	S3.4 Safety training performance	Employee Support — Occupational Health and Safety
	S3.5 Safety production investment	Employee Support — Occupational Health and Safety
	S3.6 Number of safety production accidents	Employee Support — Occupational Health and Safety
	S3.7 Number of casualties	Employee Support — Occupational Health and Safety
(S4) Community Responsibility		Key Statistics
	S4.1 Assessment of the impact on the community's environment and social when entering or exiting a community	Community and Charity — Community Construction
	S4.2 New projects which implement environment and social impact assessment	Community and Charity — Community Construction
	S4.4 Development or support socially beneficial projects in the communities	Community and Charity — Social Welfare
	S4.6 Employee localization rate	Employee Support — Human Resource Policies
	S4.7 Proportion of local staff in senior management according to the main place of operation	Employee Support — Human Resource Policies
	S4.9 Public welfare policy or major public interest areas	Community and Charity
	S4.12 Total amount of donations	Community and Charity
	S4.13 Policies and measures of the company to support volunteer activities	Community and Charity
	S4.14 Employee volunteer activity performance	Community and Charity

APPENDIX 3: CASS CSR INDICATOR INDEX

Level 1 Indicator	Level 2 Indicator	Chapters
Aspect E: Environment Performance (Series E)		
(E1) Green Operations	E1.1 The establishment of environmental management organization system and institution	Environmental Protection — Environment Management Regulations
	E1.2 Environmental drill and emergency system	Environmental Protection
	E1.4 Environmental impact assessment	Community and Charity — Community Construction
	E1.5 Total investment in environmental protection	Environmental Protection — Environment Management Regulations
	E1.6 Environmental training and publicity	Environmental Protection — Environment Management Regulations
	E1.7 Environmental protection training performance	Environmental Protection — Environment Management Regulations
	E1.10 Measures of building green office	Environmental Protection — Green Production and Operation
	E1.11 Green office performance	Environmental Protection — Green Production and Operation

APPENDIX 3: CASS CSR INDICATOR INDEX

Level 1 Indicator	Level 2 Indicator	Chapters
(E2) Green Factory	E2.1 Energy management system	Environmental Protection — Actively Addressing Climate Change
	E2.2 Energy saving policies and measures	Environmental Protection — Actively Addressing Climate Change
	E2.3 Annual total energy consumption	Environmental Protection — Actively Addressing Climate Change
	E2.4 Comprehensive energy consumption per output value	Environmental Protection — Actively Addressing Climate Change
	E2.5 Policies and measures on using new energy, renewable energy and clean energy	Environmental Protection
	E2.6 New energy, renewable energy and clean energy consumption	Key statistics
	E2.7 Policies, measures or techniques to reduce waste gas emissions	Environmental Protection — Green Production and Operation
	E2.8 Waste gas emissions and emissions reductions	Environmental Protection — Green Production and Operation
	E2.9 Regulations, measures or techniques to reduce wastewater discharges	Environmental Protection — Green Production and Operation
	E2.10 Wastewater discharges and discharges reductions	Environmental Protection — Green Production and Operation
	E2.11 Regulations, measures or techniques to reduce waste emissions and discharges	Environmental Protection — Green Production and Operation
	E2.12 Waste emissions and discharges, and the reductions	Environmental Protection — Green Production and Operation
	E2.13 Policies/measures to develop circular economy	Environmental Protection — Green Production and Operation
	E2.14 Recycling utilization rate of renewable resources	Environmental Protection — Green Production and Operation
	E2.15 Building a water-saving enterprise	Environmental Protection — Green Production and Operation
	E2.16 Annual fresh water consumption/fresh water consumption per unit of industrial added value	Environmental Protection — Green Production and Operation
	E2.17 Recycled water usage amount	Environmental Protection — Green Production and Operation
	E2.18 Plan of reducing greenhouse gas emissions and its achievements	Environmental Protection — Actively Addressing Climate Change
	E2.19 GHG emissions and emission reductions	Environmental Protection — Actively Addressing Climate Change

APPENDIX 3: CASS CSR INDICATOR INDEX

Level 1 Indicator	Level 2 Indicator	Chapters
(E3) Green products	E3.2 Measures to improve supplier environmental protection awareness and ability E3.4 Support the development and sales of green and low carbon products E3.6 Packaging reduction and packaging recycling policies and performance	Product and Services — Management of Supply Chain Products and Services — Product Quality Control Product and Services — Technology R&D Environmental Protection — Green Production and Operation
Aspect F: Report Postscript (Series A)		
(A1) Future Plan: corporate plan for social responsibility		Outlook
(A2) Report evaluation: evaluation of reports by social responsibility experts or industry experts, stakeholders or professional organizations		Appendix 4
(A3) Reference index: the adoption of the indicators required by this guide		Appendix 3
(A4) Feedback: reader feedback form and feedback channel		Appendix 5

APPENDIX 4: RATING REPORT ON THE GCL-POLY 2017 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



中国企业社会责任报告
评级专家委员会
Chinese Expert Committee on CSR Report Rating

Rating Report on the GCL-Poly Energy Holdings Limited 2017 Environmental, Social and Governance Report

Upon the request of GCL-Poly Energy Holdings Limited, the “Chinese Expert Committee on CSR Report Rating” invited experts to form rating team to rate the “GCL-Poly Energy Holdings Limited 2017 Environmental, Social and Governance Report ” (hereinafter referred to as “the Report”).

I. Rating Criteria

Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 4.0) and Rating Standard on Corporate Social Responsibility Reporting for Chinese Enterprises (2018).

II. Rating process

- (1) The panel for process appraisal makes interview to key members of the Report preparation team and examines materials related to the preparation process;
- (2) The rating group draws up the rating report based on its appraisal made toward the preparation process and information disclosure of the Report.
- (3) The rating report is submitted to and signed by both the vice-chairman of the Expert Committee and head of the rating group.

III. Rating results

Process Management (★★★★☆)

The Company establishes a special report preparation team: the vice president is responsible for the overall direction of the Report; the chief executive officer and the senior management are responsible for the final validation; and the Investor Relations Department takes the lead in promoting the preparation procedure. The Company positions the Report as a tool to promote corporate responsibility management, to meet the requirement of releasing compliance information and the demand of stakeholders, and to improve corporate brand image. The Company constructs a basic report system that includes complete report, electronic version and other forms of the Report. Substantive issues are identified in accordance with major corporate matters, interpretation of regulator policies, industry benchmarking analysis, stakeholder survey, and so on. The Company plans to release the report through SEHK and the official website, and to present electronic and print-out versions of the Report (in both Chinese and English), achieving leading performance in the aspect of process.

Materiality (★★★★★)

The Report systematically discloses key industrial issues relating to product quality management, innovation in products and services, occupational health management, work safety assurance, responsible purchasing, R&D and application of environmentally-friendly technologies and equipment, energy-saving and resource conservation, reduction of “three wastes,” and so on, achieving excellent performance in the aspect of materiality with detailed and complete explanation.

Completeness (★★★★☆)

The main contents of the Report discloses 88.3 percent of core indicators of the industry from the aspects of “Sustainable Development Management”, “Products and Services: In Pursuit of Higher Quality”, “Environmental Protection: Protecting Our Green Home”, “Employee Support: Building the Best Team”, and “Community and Charity: Contribution to a Harmonious Society”, achieving leading performance in the aspect of completeness.

Balance (★★★★★)

The Report discloses detailed negative indicator information such as the “number of illegality cases”, “number of major leakage”, “number of work-related fatalities”, “generation of hazardous waste”, “product return and exchange rate”, “number of accidents”, and “number of new occupational disease patients”, and it also briefly describes the solution to negative events such as “customers’ complaints”, achieving excellent performance in the aspect of balance.

Comparability (★★★★★)

The Report discloses over 50 key indicators including “customer satisfaction rate”, “wafer and polysilicon production”, “compliance training coverage”, “total number of employees”, “female employment”, “environmental training coverage” and “energy consumption” for three years in a row, and conducts horizontal comparison on the performance such as “global market share of products”, “business performance” and “overall performance of sustainable development”, achieving excellent performance in the aspect of comparability.

APPENDIX 4: RATING REPORT ON THE GCL-POLY 2017 ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



中国企业社会责任报告
评级专家委员会
Chinese Expert Committee on CSR Report Rating

Readability (★★★★☆)

Adopting blue and green as its keynote colors, the Report applies green leaves in the design of its cover and inside pages and improves its inimitable identity by involving and highlighting major businesses and features of the Company. The Reports increases its readability by highlighting the fulfillment of responsibility of the Company with visual comparison chart. It is also interesting to read with cute cartoon figures demonstrating contents such as organisation chart and key performances, achieving leading performance in the aspect of readability.

Innovativeness (★★★★☆)

The Report initiates “Highlights in 2017”, which focuses on key events and highlights of the Company in its annual responsibility fulfillment. The main body clarifies the Company’s clean energy strategy and plan, responding to the national policy and demonstrating the corporate social responsibility the Company takes. Through “voice from employees” and “thank-you letters”, the Report shows the Company’s fulfillment of responsibility in the voice of stakeholders, which strengthens the dissemination effect and trustworthiness of the Report, achieving leading performance in the aspect of innovativeness.

Overall rating (★★★★☆)

According to the assessment of the rating team, the “GCL-Poly Energy Holdings Limited 2017 Environmental, Social and Governance Report” was awarded a rating of four and a half star. It is a leading CSR report.

IV. Suggestions for improvement

1. Deepen the engagement of external stakeholders and further improve the process management of the Report.
2. Reveal more core industrial indicators to improve the completeness of the Report.

Rating team

Team leader: Executive Deputy Director of the Research Center for Corporate Social Responsibility of the Economics Division of Chinese Academy of Social Sciences Zhang En
Team members: Journalist from CCTV News Center Zhang Wei
Process evaluator Yang Jing

Vice-chairman of Chinese Expert
Committee on CSR Report

张恩

Head of the rating group

Date of issuance: July 11, 2018



Scan QR code to view rating files of GCL-poly

APPENDIX 5: READER FEEDBACK FORM

Dear readers,

Thank you for reading the 2017 Environmental, Social and Governance Report of GCL-Poly Energy Holdings Limited.

We value and expect to hear your feedback on GCL's sustainability performance and this report. Your opinions and suggestions are the important basis for us to improve the management and practice of sustainable development and enhance our environmental, social and governance performance.

You can fill in the form below and send us your feedback by post or email. Thank you again for your valuable comments and suggestions.

Reader Feedback Form	
1. What's your role for GCL-Poly?	<input type="checkbox"/> A. Employee <input type="checkbox"/> B. Shareholder/Investor <input type="checkbox"/> C. Government official <input type="checkbox"/> D. Customer <input type="checkbox"/> E. Partner (E.g. Supplier/Contractor/Industrial Partner) <input type="checkbox"/> F. Member of the community/organisation/non-government organisation <input type="checkbox"/> G. Media
2. In what way did you access the 2017 Environmental, Social and Governance Report of GCL-Poly Energy Holdings Limited?	<input type="checkbox"/> A. Business visit <input type="checkbox"/> B. Exhibition <input type="checkbox"/> C. Business communication <input type="checkbox"/> D. Website <input type="checkbox"/> E. Company mail <input type="checkbox"/> F. Others (_____)
3. How do you view the overall report of the 2017 Environmental, Social and Governance Report of GCL-Poly Energy Holdings Limited?	<input type="checkbox"/> A. Excellent <input type="checkbox"/> B. Good <input type="checkbox"/> C. Ordinary <input type="checkbox"/> D. Bad <input type="checkbox"/> E. Terrible
4. (I) Do you think the information you are concerned about is disclosed and responded in the report?	<input type="checkbox"/> A. Fully <input type="checkbox"/> B. Partly <input type="checkbox"/> C. No
(II) What information do you think has not been fully disclosed and responded?	(_____)
5. What display form do you expect to be enriched in the 2018 Environmental, Social and Governance Report of GCL-Poly Energy Holdings Co., Ltd.?	<input type="checkbox"/> A. Management philosophy, policies and system <input type="checkbox"/> B. Data and charts <input type="checkbox"/> C. Cases <input type="checkbox"/> D. Photos <input type="checkbox"/> E. Others (_____)
6. What topics or contents do you hope to be added in the Environmental, Social and Governance Report of GCL-Poly Energy Holdings Limited in 2018?	<input type="checkbox"/> A. Management in sustainable development, in terms of (_____) <input type="checkbox"/> B. Products and services, in terms of (_____) <input type="checkbox"/> C. Environmental protection, in terms of (_____) <input type="checkbox"/> D. Employee welfares, in terms of (_____) <input type="checkbox"/> E. Community and charity, in terms of (_____) <input type="checkbox"/> F. Others, in terms of (_____)
7. What are your opinions and suggestions on the social responsibility management and practice of GCL-Poly Energy Holdings Limited?	(_____)

Contact US

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GCL-Poly Energy Holdings Limited
保利協鑫能源控股有限公司

Report Release

This report is released in both Chinese and English versions,
Further information can be found on the GCL-Poly website
(<http://www.gcl-poly.com.hk>).

www.gcl-poly.com.hk