

# CREATING A SUSTAINABLE FUTURE FOR OUR PLANET

SUSTAINABILITY REPORT 2018



CREATING  
A SUSTAINABLE FUTURE  
FOR OUR PLANET

Hanwha Q CELLS SUSTAINABILITY REPORT 2018

ABOUT THIS REPORT

OVERVIEW

This Sustainability Report (the "Sustainability Report") is the second Sustainability Report of **Hanwha Q CELLS Co., Ltd.** (hereinafter "**HQCL**" or the "Company") since the first Sustainability Report published in 2017, for the purpose of reporting its annual key performances and achievements to investors and stakeholders. This Sustainability Report covers both the financial and non-financial performances of **HQCL** and its activities for creating value.

REPORTING GUIDELINES

This Sustainability Report has been prepared in accordance with the “Core” option of the Global Reporting Initiative (GRI) Standards. **HQCL** manages its business activities in compliance with the Ten Principles of the United Nations Global Compact (UNGC), and the requirements of UNGC Communication on Progress (COP).

REPORTING SCOPE

The data presented in this Sustainability Report are based on **HQCL**’s Form 20-F filing. This Sustainability Report covers the following geographical areas: the headquarters office in South Korea, Cyberjaya in Malaysia, Qidong in China, and the Technology & Innovation Center in Germany. Additional data have been included and indicated separately where the business impact and effect of **HQCL** may significantly affect stakeholders’ decision-making. The Sustainability Report covers the time period from January 1, 2017 to December 31, 2017 and may cover up to July 2018 for certain activities.

THIRD PARTY ASSURANCE

This Sustainability Report is assured by Det Norske Veritas and Germanischer Lloyd (DNV GL), an internationally accredited registrar, in accordance with VeriSustain™, and includes the results of its assessment. Notwithstanding the third party assurance, however, this Sustainability Report may contain discrepancies between the expected and actual performances of the Company due to political, economic, and circumstantial uncertainties surrounding **HQCL**’s business operations.

INQUIRIES

**Hanwha Q CELLS Co., Ltd.**,  
86, Cheonggyecheon-ro, Jung-gu, Seoul, Republic of Korea  
Global Marketing & Communication Team

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# OUR BUSINESS

CEO MESSAGE

COMPANY PROFILE

BUSINESS MODEL

OUR PRODUCTS



# CEO MESSAGE

Dear stakeholders who value and support **Hanwha Q CELLS Co., Ltd. (HQCL)**

**HQCL**, which provides wide-ranging solar solutions based on its corporate philosophy of creating a sustainable future for Earth and mankind, is one of the largest photovoltaic manufacturers in the world offering high-quality and high-performance solar products and services.

While achieving corporate growth through product stewardship, we are faithfully fulfilling our roles as a global corporate citizen that grows with society by carrying out our social and environmental responsibilities. We are leading innovation in the solar energy industry and expanding our influence, thereby building trust and reliability in the global solar industry as the best partner offering a better future for our customers and stakeholders.

It is my great pleasure to share with our stakeholders, **HQCL's** key performances in economic, social and environmental areas and major business directions for the future in this Sustainability Report.

## ENHANCING PRODUCT RELIABILITY THROUGH QUALITY INNOVATION

**HQCL** works relentlessly to discover new approaches and technologies. By making large-scale investments in R&D and new technologies, the Company maintains a world-class quality in its product and manufacturing capacity, while establishing new technological standards in the industry. Notably, we hold the Q.ANTUM DUO technology which is our flagship solar cell technology, while our polycrystalline solar cells have been shown to yield the highest level of efficiency in the industry. Through continued innovation, **HQCL** will provide the highest quality and services to our consumers.

## ECO-FRIENDLY MANAGEMENT FOR FUTURE GENERATIONS

**HQCL** endeavors to reduce its environmental impact by not only developing eco-friendly products but minimizing environmental pollution that may be caused during its production process. To that end, we undertake environmental impact analysis with the supply chain throughout the entire process from cell production to module manufacturing and disposal of waste modules, thereby fundamentally minimizing the environmental impact caused by product manufacturing. Furthermore, we promote the use of renewable energy through high-quality solar cells and modules, playing a leading role in raising social awareness of the reduction of environmental impact.

## FURTHER TOGETHER

**HQCL** seeks to achieve sustainable growth whereby its stakeholders participate in the entire process from production to product sales and they actively communicate with the company. We want to cause a positive impact on long-term economic development and the generation of social values by supporting our employees and for suppliers to strengthen their capacity while facilitating growth firmly supported by an increase in the quality of life and respect for human rights. At the same time, we will faithfully carry out our social responsibilities as a global corporate citizen by reinforcing social contribution activities that align with our businesses and working for the development of local communities.

Based on the trust and respect of our stakeholders, we will continue our pursuit of becoming a global company leading the solar energy industry by strengthening our technological capacity and securing quality competitiveness.

I kindly ask for your continued support for and interest in our work.

October 2018

**Charles(Hee Cheul) Kim**  
CEO



# COMPANY PROFILE

As a manufacturer of solar cells and modules with a world-class quality and efficiency, **Hanwha Q CELLS Co., Ltd.**'s Global Executive Headquarters is located in Seoul, South Korea and its Technology & Innovation Headquarters in Thalheim, Germany. The Company operates large-scale manufacturing facilities in South Korea, Malaysia and China and has the world's largest cell and module production capacity of 8.0 GW per year.

## COMPANY OVERVIEW

COMPANY NAME	Hanwha Q CELLS Co., Ltd.
LOCATION OF HEADQUARTERS	5TH FLOOR, HANWHA BUILDING, CHEONGGYEcheon-ro 86, JUNG-GU, SEOUL, KOREA
CEO	HEE CHEUL KIM
CATEGORY OF BUSINESS	MANUFACTURING OF OTHER ELECTRICAL DEVICES
NUMBER OF EMPLOYEES	7,510 (AS OF DECEMBER 2017)

- COMPANY HEADQUARTERS
- COMPANY HEADQUARTERS FOR TECHNOLOGY AND INNOVATION
- SALES NETWORK
- RESERCH & DEVELOPMENT
- MANUFACTURING
- EPC

### R&D NETWORK

4 COUNTRIES  
GERMANY, SOUTH KOREA, CHINA, AND MALAYSIA

### MANUFACTURING SITES

3 COUNTRIES  
SOUTH KOREA, CHINA, AND MALAYSIA

### SALES NETWORK

40+ COUNTRIES  
EUROPE, NORTH AND SOUTH AMERICA, ASIA, AND THE MIDDLE EAST

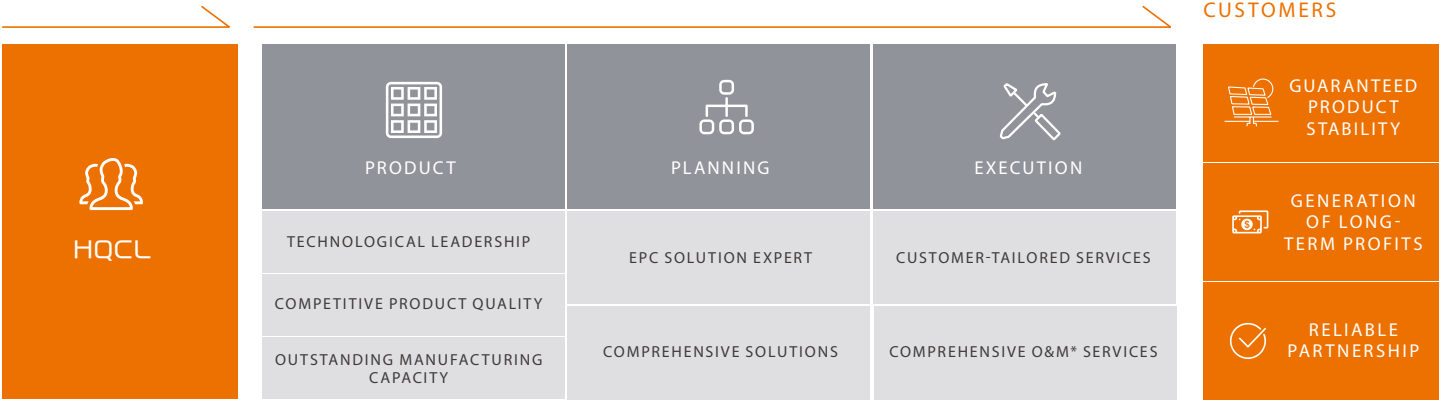
### GLOBAL PRODUCTION CAPACITY

CELL 8.0 GW    MODULE 8.0 GW

\* As of March 2018 and including Hanwha Q CELLS Korea Corporation<sup>1)</sup>  
1) An affiliate of Hanwha Q CELLS Co., Ltd.

Based on the Company's outstanding production capacity, **HQCL** promptly and flexibly responds to the demands of the market and its customers. Through its growing global business network spanning Europe, North, Central and South America, Asia, Africa and the Middle East, the Company provides outstanding services and expands partnerships in Engineering Procurement Construction (EPC), commercial, government and residential markets.

## THE HQCL VALUE STRUCTURE



\* O&M Services: Monitoring services to ensure optimal operation of photovoltaic plants

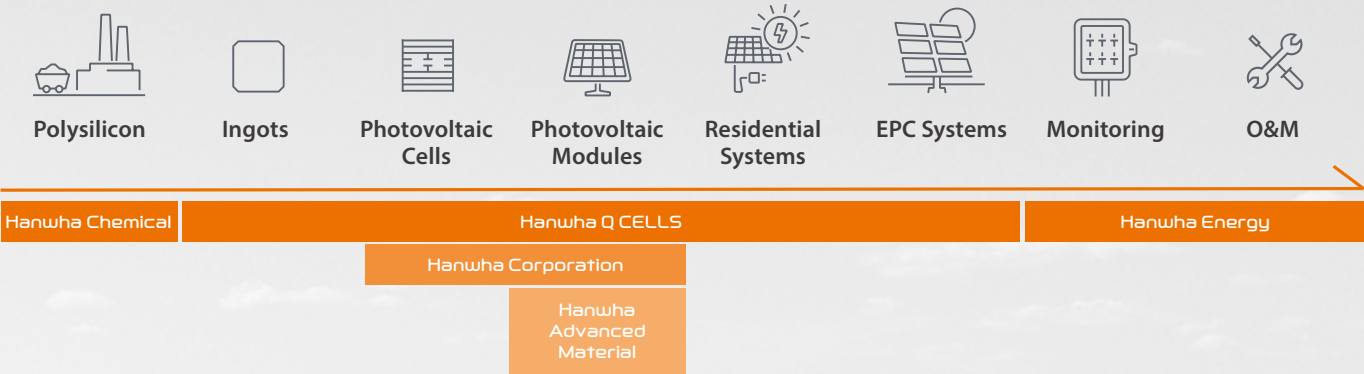
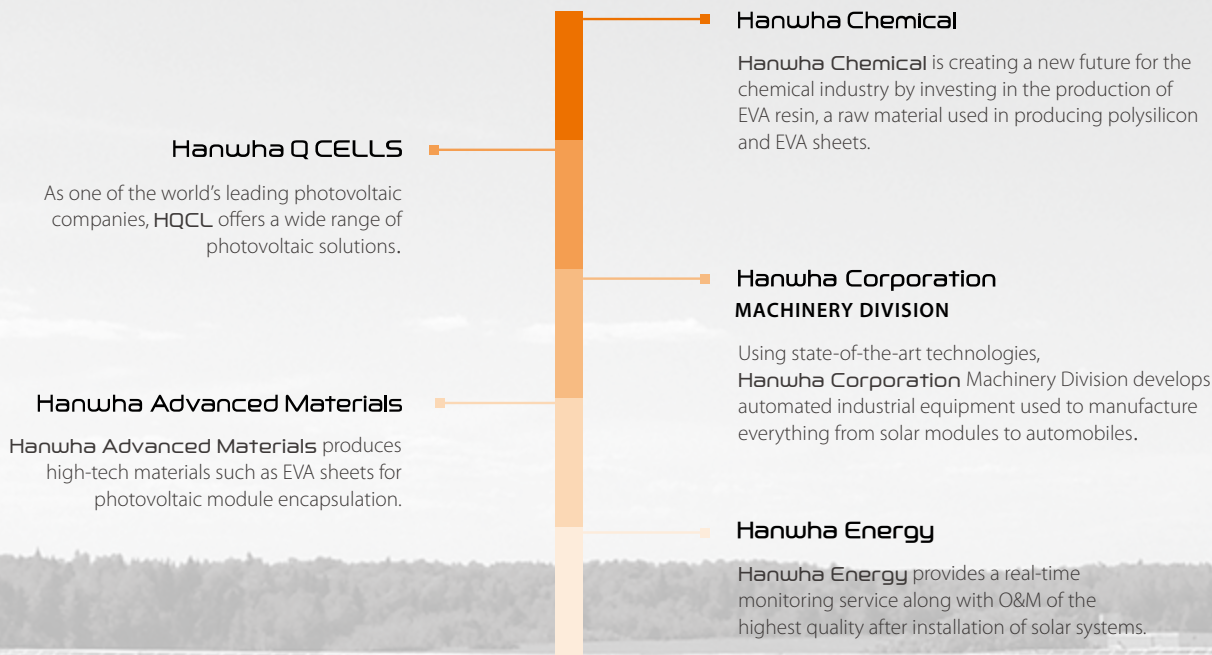


# BUSINESS MODEL

Hanwha Q CELLS Co., Ltd. (HQCL) offers solar energy products and solutions covering the entire process from the production of high-quality, high-performance solar cells and modules to residential/commercial systems and large-scale photovoltaic plant facilities.

## PHOTOVOLTAIC BUSINESS VALUE CHAIN

HQCL has completed the verticalization of the photovoltaic value chain from polysilicon to ingots, cells, modules, and large-scale power plant businesses.



7,510 PERSONS  
NUMBER OF EMPLOYEES

1,468 TJ  
ENERGY CONSUMPTION

3,292 THOUSAND TONS  
WATER CONSUMPTION

2,188.9 MILLION USD  
NET REVENUES

25.6 MILLION USD  
OPERATING INCOME

8.0 GW  
PV CELL PRODUCTION CAPACITY<sup>1)</sup>

8.0 GW  
PV MODULE PRODUCTION CAPACITY<sup>1)</sup>

1) As of March 2018 and includes Hanwha Q CELLS Korea Corporation



## OUR PRODUCTS

**Hanwha Q CELLS Co., Ltd. (HQCL)** product brand, offers a premium lineup of solar cell module products including Q.PEAK DUO, Q. PEAk, Q. PLUS, and Q.POWER solar modules. Through its excellent quality, the Q CELLS modules guarantee superior energy generation capacity and are utilized in all industrial fields that use solar energy including commercial facilities, government projects, residential markets and public services.

## Q.PEAK DUO Series

Applying the Q.ANTUM DUO technology, the Q.PEAK DUO module provides a higher efficiency than existing products, yielding a 20% higher output by dividing existing cells in half. By combining half cells, 6 Bus Bar, and a wiring design, it provides superior output even in harsh environments such as low sunlight and high temperatures and humidity. Its technological competitiveness as a product was recognized as the highest level in the world at the 2018 Intersolar Award.

**Q.PEAK** Series

Developed based on the application of Q.ANTUM monocrystalline technology, the high performance Q.PEAK module is ideal for various solutions such as residential, commercial and plant facilities as its high yield per surface area enables reduction of power generation costs. In 2017, the Q.PEAK module was the most preferred product\* in the Japanese residential market.

\*Based on the "Smart Hit Award 2017" criteria announced by Smart House, an energy equipment and energy-zero-house magazine.

**Q.PLUS** Series

Developed based on the application of Q.ANTUM technology, the Q.PLUS module features the highest output of 350 Wp among polycrystalline solar modules. With a maximum of 17.9% efficiency, it is designed to reduce system costs of medium- and large-sized photovoltaic facilities.

## Q.POWER Series

Developed based on the 6 Bus Bar technology for the first time in the industry, Q.POWER's minimized system generation costs and low cost of solar peripheral systems make it ideal for various photovoltaic solutions from residential homes to medium- and large-sized photovoltaic plants.



## Q.HOME KIT Series

A residential model composed of a solar module, an inverter and a battery, the Q.HOME KIT offers integrated residential energy solutions ranging from various sizes of solar modules to the ESS system. Equipped with a system that meets the daily energy needs of customers, it provides residential solutions in response to constantly increasing demands for solar modules.

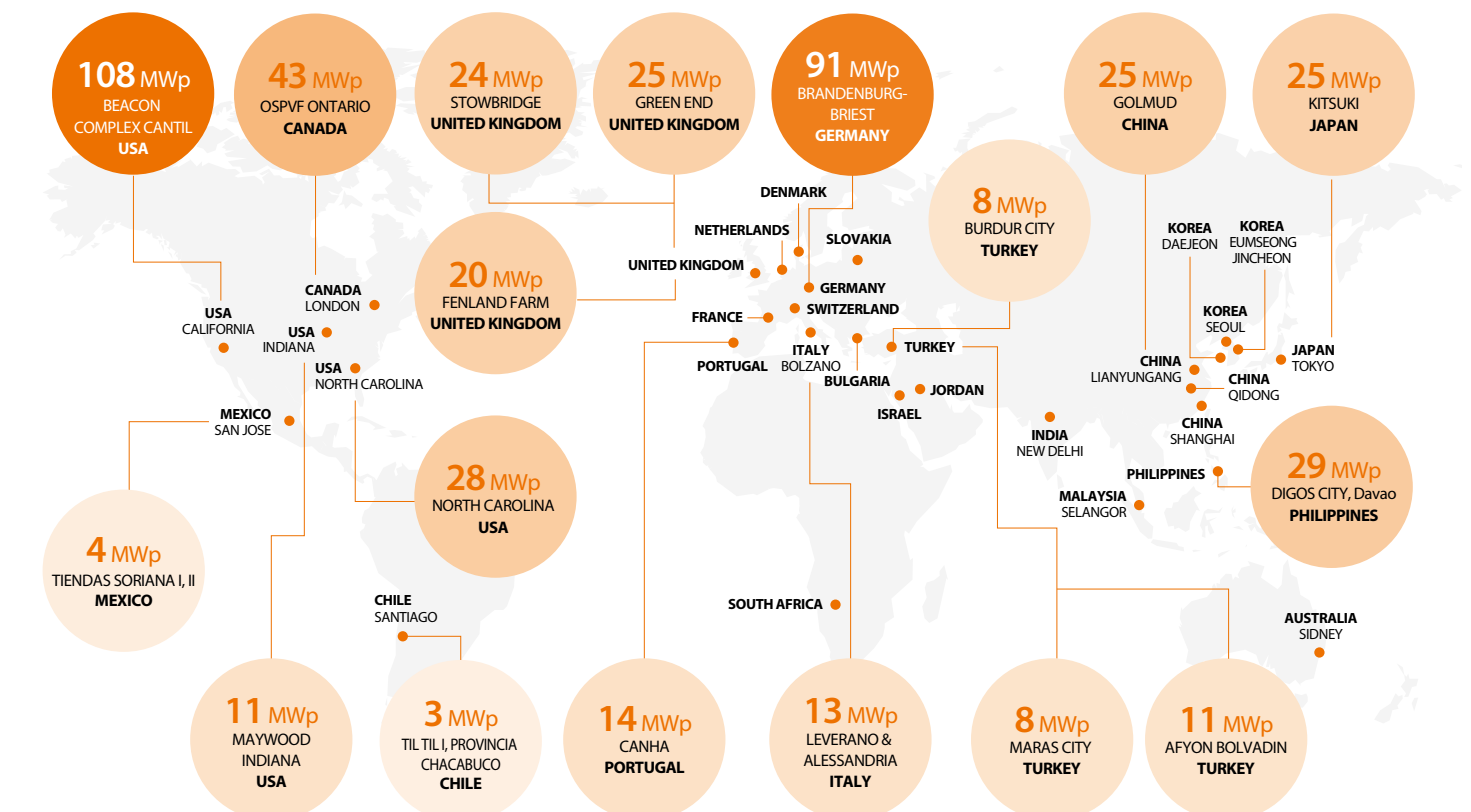
## Q.FLAT Series

Q.FLAT is a product developed based on solar modules and triangular mounting structure-based QUANTUM technology. Designed for flat roofs, it can be installed on narrow and inconvenient commercial roof spaces at relatively low installation cost and enables maximization of energy output.



## EPC PROJECT

Based on extensive experience and expertise in the field, **HQCL** provides EPC solutions in all areas of business including land acquisition, environmental analysis, authorization and qualification, building partnerships in the power industry, financial modeling and insurance. As of December 2017, it attained 1.24 GW in EPC performance including the performance of **Hanwha Q CELLS Korea Corporation**.





# CORPORATE GOVERNANCE

GOVERNANCE

STAKEHOLDER ENGAGEMENT

ETHICS AND COMPLIANCE

RISK MANAGEMENT



# GOVERNANCE

## ROLES AND STATUS OF THE BOARD OF DIRECTORS (BOD)

**Hanwha Q CELLS Co., Ltd. (HQCL)** has established a transparent and sound corporate governance structure in order to facilitate the Company's sustainable growth and protect the interests of its major stakeholders, including shareholders. **HQCL** Board of Directors (BOD) has the full authority to make decisions on major business affairs of the Company as well as to supervise the directors' execution of duties. The BOD also resolves matters provided under the laws, regulations and its Articles of Association, matters entrusted by the general meeting of shareholders, and important matters regarding execution of business. Furthermore, **HQCL** strives to promote transparent and reliable business conduct through continuous efforts to improve its corporate governance. The BOD consists of 7 directors (4 executive directors and 3 independent directors).

## TRANSPARENCY AND INDEPENDENCE OF THE BOD

**HQCL** fully complies with the NASDAQ Stock Market Rules regarding the independence of its independent directors, who are appointed in accordance with all applicable laws and regulations. To prevent any conflicts of interest, independent directors are not permitted to engage in any business dealings or serve as directors or employees with unlimited liability in another company within the same industry without prior approval from the BOD.

### Composition of the BOD

(As of October 2018)				
Name	Job Title	Experience	Appointment	Term
Hee Cheul Kim	Chief Executive Officer	<b>Hanwha Q CELLS</b> CEO (Former) <b>Hanwha Total Petrochemical Corp.</b> / <b>Hanwha General Chemicals Corp.</b> CEO	2018. 10	2020. 10
Jung Pyo Seo	Chief Financial Officer	<b>Hanwha Q CELLS</b> CFO (Former) <b>Hanwha SolarOne</b> CFO	2014. 04	2020. 12
Moon Seong Choi	SVP of Corporate Planning	<b>Hanwha Q CELLS</b> Head of Planning & Management Headquarters (Former) <b>Hanwha Q CELLS</b> Head of Southeast Asia Sales	2017. 11	2019. 12
Joo Yoon	SVP of Global Sales Planning	<b>Hanwha Q CELLS</b> Head of Global Sales Planning/Strategy/Marketing (Former) <b>Hanwha Q CELLS</b> Japan Head of Sales	2017. 11	2019. 12
Seung Heon Kim	Independent Director	(Former) Cost Accounting Head, Defense Acquisition Program Institute (Former) Samil PwC/CPA (Korea, U.S.)	2016. 01	2019. 12
Hyun Chul Chun	Independent Director	President of Saesidae Accounting Corporation (Former) Anjin Accounting Corp. / CPA (Korea, U.S.)	2016. 01	2019. 12
Young Soon Kim	Independent Director	(Former) Director of Manufacturing, YNCC (Former) Executive Officer at <b>Hanwha Chemical</b> R&D Center / Technology Officer	2016. 12	2018. 12

## AUDIT COMMITTEE AND ITS INDEPENDENCE

**HQCL** operates the Audit Committee in accordance with the rules and regulations of the U.S. Securities and Exchange Commission and the NASDAQ Stock Market Rules to ensure legitimacy in the execution of business affairs by its directors. Its composition, operation, authorities and responsibilities are set forth in the Audit Committee Charter. It consists only of independent directors and includes accounting and/or finance experts. The main roles of the Audit Committee include, but not limited to, auditing the Company's accounting and financial reporting, for which it reviews financial statements, any attached specifications, and the processes and results of audits conducted by independent audit firms, in addition to auditing material business matters and the status of the Company's internal accounting management system as reported by internal accounting managers and external auditors. The members of the Audit Committee serve their duties self-reliantly to ensure their independence from the BOD and other executive bodies.

## PREVENTING CONFLICTS OF INTEREST

**HQCL** ensures that its directors acquire prior approval in order to take any business opportunity that may potentially benefit the Company now or in the future, while managing and supervising conflicts of interest in accordance with applicable laws.

## INDEPENDENCE AND DIVERSITY OF THE BOD

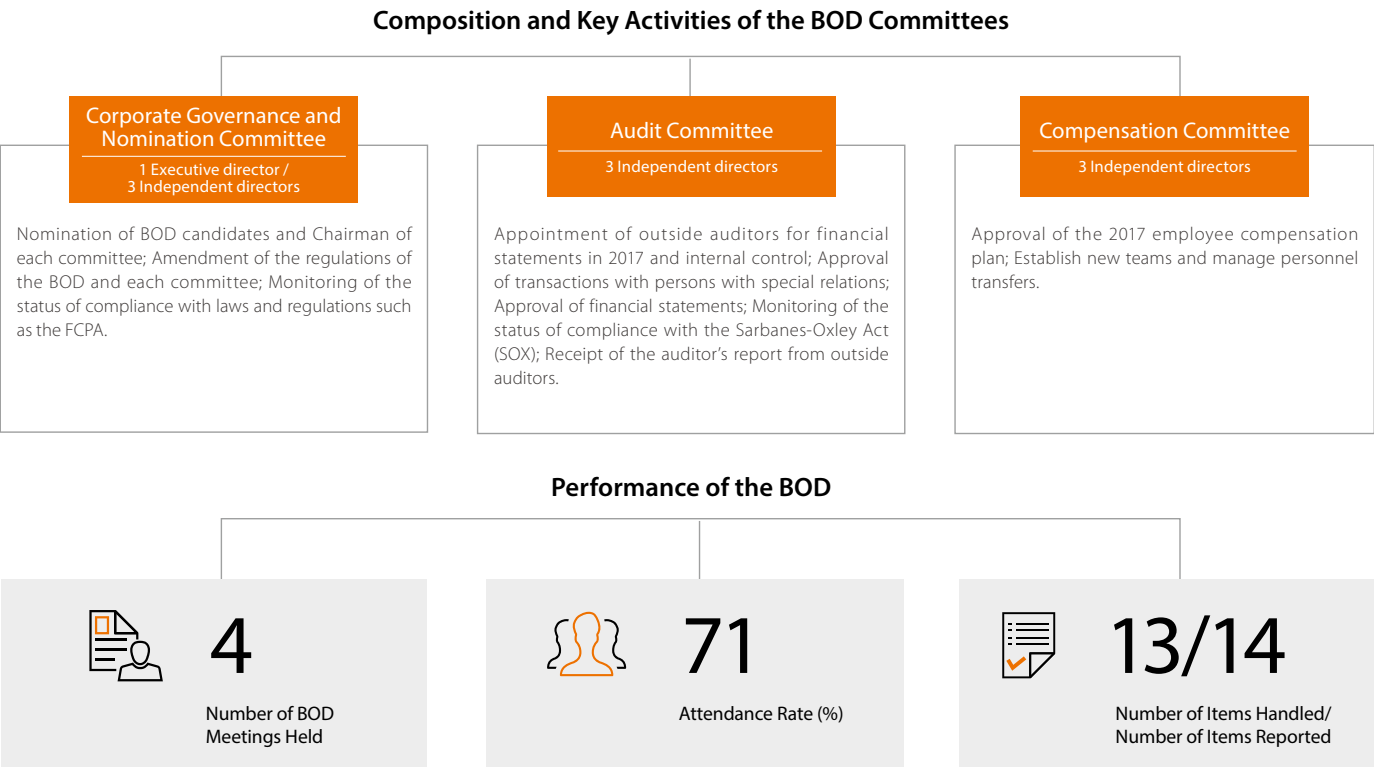
To ensure sound corporate governance, **HQCL** upholds the principle of independence and expertise of its independent directors, who are appointed based on the following qualifications.

In appointing independent directors, **HQCL** fully complies with the appointment process and principles to ensure their independence from the Company.

- ❶ An individual with extensive practical experience or expertise in the finance, economy, business management, accounting, legal, and/or other relevant fields necessary for performing the duties as an independent director or an Audit Committee member.
- ❷ An individual who is not in a conflict of interest as an independent director or an Audit Committee member and is able to serve his or her duties in a fair manner for the interest of all shareholders and financial consumers.
- ❸ An individual with a strong sense of ethics and responsibility requisite for the proper performance of his or her role as an independent director or an Audit Committee member.

**HQCL** ensures efficient business management by reviewing and selecting nominees from a variety of fields through a strategic decision-making process.

- ❶ The Company establishes a flexible corporate governance structure by electing persons who, even if not directly related to the solar energy industry, can contribute to **HQCL's** business in general with their experience in business management, law, administration and other fields.
- ❷ Independent directors hold regular (at least quarterly) and non-regular meetings to facilitate integration and mutual support of each other's expertise. They also hold regular meetings with management, the legal team, internal audit team, and independent auditors, in addition to a separate meetings at least once every quarter with independent auditors in order to grasp business affairs and audit activities regarding accounting and financial reporting in a more accurate and prompt manner.



EFFICIENT OPERATION OF THE BOD

The directors review and resolve important management matters and execution of business by establishing three committees under the BOD: the Corporate Governance and Nomination Committee, the Audit Committee, and the Compensation Committee. The purpose of these committees, established in accordance with the Articles of Association and their relevant Charters, is to ensure the propriety and legitimacy of business decisions as well as to promote transparency and fairness of the decision-making process by having important business decisions undergo internal review through the committees. In doing so, **HQCL** seeks to ensure sound corporate governance and responsible business practices. In 2017, four BOD meetings were held and the attendance rate was 71%. **HQCL** ensures that all members of the BOD are fully informed of the agenda prior to BOD meetings so that they can review each agenda item in advance and, if necessary, persons in charge of certain agenda items attend the meetings to provide further explanation to assist the BOD's understanding. By doing so, the Company was able to facilitate lively discussions between the directors, who each hail from diverse professional backgrounds. As a result, all resolutions and reported items in 2017 were approved without being deferred or changed. Each director, using his own expertise, faithfully served his duties as an advisor in order to protect the interests of stakeholders on the basis of full understanding of the Company's ethical and social responsibilities, ensuring they were fully considered in the decision-making process.

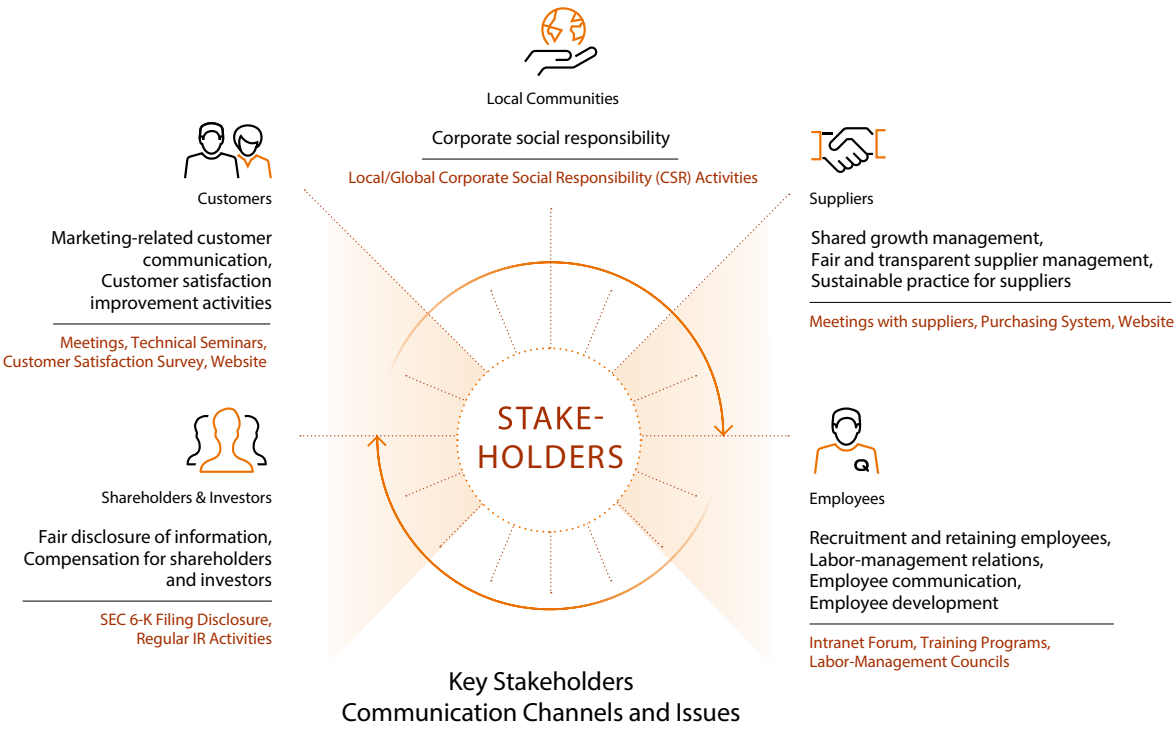
EVALUATION AND COMPENSATION OF THE BOD

**HQCL** examines the composition and operational status of the BOD and its committees on an annual basis prior to one of the general meetings of shareholders. The Corporate Governance and Nomination Committee makes a comprehensive assessment of the BOD's contribution to the interests of internal and external stakeholders – which is one of its major roles – its level of expertise, depth of understanding of business operations, commitment to ethics and social responsibility, and impartiality regarding any conflicts of interest, except for certain specific matters which are independently handled by supporting departments. **HQCL** also operates the Compensation Committee under the BOD to ensure that a fair remuneration system is properly designed and operates in line with the risk structure for executives and specific positions, while monitoring the system, financial situations, and risk control coordination.

Remuneration of the Directors			(Unit: Persons, USD thousand)
Total			
21	5,965.7	284.1	
Number of Directors	Total Amount <sup>1)</sup>	Amount per Person	
Executive Directors			
4	1,660.2	415.0	
Number of Directors	Total Amount	Amount per Person	
Executive Officers (Unregistered)			
14	4,152.5	296.6	
Number of Directors	Total Amount	Amount per Person	
Independent Directors			
3	153.0	51.0	
Number of Directors	Total Amount	Amount per Person	

1) Total amount of remuneration of incumbent directors in 2017; Average KRW-USD exchange rate of KRW 1,130.84 applied in calculation  
\* As of the end of December 2017

STAKEHOLDER ENGAGEMENT



STAKEHOLDERS

**HQCL** defines stakeholders as entities or individuals that either directly or indirectly affect or are affected by the Company's business activities and categorizes them into the following groups: customers, local communities, suppliers, shareholders, investors, and employees. Each stakeholder group is further categorized into subgroups having legal, financial, and operational responsibilities and those having an influence on **HQCL's** business activities and performance, based on their roles, social responsibilities, and relationships with the company. **HQCL** also operates various communication channels for each group based on its respective characteristics.

STAKEHOLDER ENGAGEMENT

**HQCL** supports a wide range of communication channels based on the major interests of its stakeholders. In order to accurately identify customer opinions of its products, **HQCL** conducts customer satisfaction surveys and actively reflects customer opinions in its product development and overall management activities. Meanwhile, it holds Labor-Management Councils on a regular basis and operates the intranet forum to enhance the level of employee satisfaction. At the same time, it holds regular meetings and promotes communication with its suppliers, important business partners of **HQCL**, thereby identifying and handling their needs as well as maintaining close business relationships. Furthermore, it carries out volunteer activities and holds meetings in local communities to generate values in those areas where it operates its businesses. **HQCL** will continue to expand its sustainability management efforts through active communication with and engagement of its stakeholders.



# ETHICS AND COMPLIANCE

## COMPLIANCE SYSTEM

As a NASDAQ-listed company, **HQCL** fully complies with all regulations required by the U.S. Securities and Exchange Commission (SEC). Being subject to the laws and regulations in South Korea and the United States, **HQCL** maintains a particularly high level of transparency in its business management and practices strict legal compliance. Notably, **HQCL** has established the Code of Business Conduct and Ethics to set out proper ethical standards and foster a sound value system among its employees in their business conduct.

## COMPANY-WIDE COMPLIANCE ACTIVITIES

**HQCL** actively executes cross-national agreements of subsidiary entities and affiliates abroad. In conducting overseas sales, **HQCL** ensures that it fully complies with all domestic and international laws, as well as the social norms, laws and regulations of the countries in which the Company conducts sales activities. In addition, **HQCL** has established strict internal guidelines to prevent its employees from responding to any inappropriate demand for entertainment from its business counterparts. Furthermore, the Company shares advanced compliance programs, adapting and further developing them to suit the current Korean business environment, by cooperating with the legal departments of its subsidiary entities located abroad, including Germany. In agreements to which its subsidiary entities located abroad are a contracting party, the Company further requires the counterparty in such agreement to sign a pledge of compliance stating their commitment to abide by all applicable laws and regulations during the term of the respective agreement or to stipulate the same in the agreement, to ensure strict compliance from its counterparties. With such efforts, there were no reported cases of bribery or corruption in 2017.

## COMPLIANCE ACTIVITIES

### FCPA Training

As a NASDAQ-listed company, **HQCL's** headquarters and its overseas subsidiaries are subject to the U.S. Foreign Corrupt Practices Act (FCPA). Accordingly, the Company conducts FCPA training on a regular basis for all employees of its headquarters and overseas subsidiaries, who are required to submit a pledge of compliance upon completion of the training to reemphasize the importance of compliance among its employees. Furthermore, through constant monitoring and reporting of sanctions on corruption relating to the operation of overseas business sites, **HQCL** understands and complies with the U.S. FCPA and the laws and regulations of other countries to the fullest extent possible.

### Anti-Graft Act Training

In November 2017, **HQCL** conducted training for all its employees regarding the Improper Solicitation and Graft Act (the "Anti-Graft Act") in order to prevent violations of the respective legislation in the course of carrying out their business duties. The Company also notified all employees of the amendments of the Enforcement Decree of the Anti-Graft Act effective from January 2018.

### Whistleblowing Policy

Protection of the rights and interests of whistleblowers, as required by the U.S. Securities and Exchange Commission (SEC), is implemented as part of **HQCL's** internal regulations. To protect the identities of whistleblowers, the Company ensures anonymity when receiving reports, while continuously supplementing its regulations to prevent any disadvantages to whistleblowers. **HQCL** seeks to build a healthy organization by actively encouraging its employees to report any unfair or non-compliant activities.

### Strengthening the Privacy Protection System

In response to the General Data Protection Regulation (GDPR) of the European Union (EU), **HQCL** is strengthening its privacy protection system. The GDPR applies to all enterprises operating business sites in the EU (the "establishment rule") or those supplying goods and services to persons residing in the EU even without having any business sites (the "marketplace rule"). Effective as of May 25, 2018, the GDPR is a far-reaching privacy regulation imposing fines of up to 4% of an organization's annual global turnover for breach of the GDPR. In responding to these changes in policy world-wide, **HQCL** has taken proactive measures for compliance with the GDPR, such as establishing a task force team in its Germany office, holding consultations among relevant departments at the headquarters, and taking internal review of relevant matters. In fact, the Germany office, directly subject to regulations under the GDPR, is in the process of establishing the Standard Data Protection Agreement for overseas transfer of personal information collected and handled. In order to prevent any negative impact on the Company that may be caused by breaching the GDPR, **HQCL** will continuously monitor related activities, establish and apply improvement measures, and devise a global privacy policy by identifying relevant policy changes in respective countries of the relevant offices.

### Practicing Fair Trade

In December 2017, **HQCL** amended its existing Subcontractor Agreement and Purchasing Agreement, adjusting its internal regulations to minimize the risks of violating the Fair Transactions in Subcontracting Act (the "Subcontracting Act"). In November 2017, in order to firmly establish a culture of legal compliance and fair trade, **HQCL** conducted training for its employees at the headquarters covering the topics of achieving shared growth with subcontractors and complying with the Subcontracting Act. As such, **HQCL** is establishing reasonable business and trade practices. In the future, it will focus on building transparent and equitable trade relationships by distributing fair trade manuals and reinforcing training.



# RISK MANAGEMENT

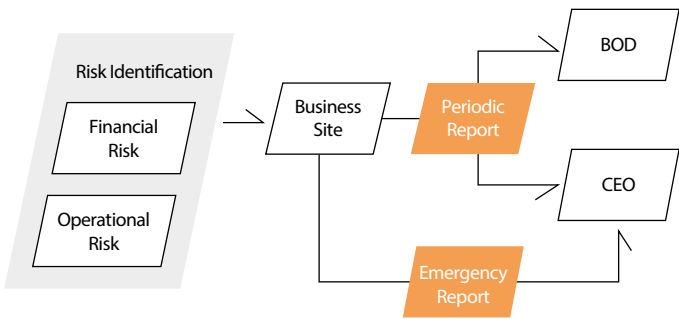
## RISK MANAGEMENT SYSTEM

In the face of both internal and external risks becoming increasingly diverse and interrelated, the importance of proactive risk management identifying and preventing risks from a company-wide perspective is critical than ever. In this context, **HQCL** has established a risk prevention system to minimize risks and their impact on its business practice, while identifying risks that hinder the Company from accomplishing its goals. Identified risks are classified as financial and non-financial risks, and each type of risk is defined to enable a more strategic response.

## RISK MANAGEMENT GOVERNANCE

The BOD has the final responsibility for overall decision making related to risk management. In addition, the Company identifies emerging risks in the decision-making process stage and makes decisions for major management issues. Monitoring of and responding to corporate level risks are also carried out at individual business sites.

Risk Management Process



## FINANCIAL RISKS

### Risks Related to Foreign Exchange

The currency used in **HQCL's** financial statements is U.S. Dollars (USD), and the performance, assets, and liabilities of its global subsidiaries are converted from local currencies into USD. For this reason, **HQCL's** performance on a consolidated basis may be influenced by fluctuations in the exchange rates of major currencies including the Chinese Yuan (CNY), Euro (EUR), Japanese Yen (JPY), Korean Won (KRW), and Malaysian Ringgit (MYR) against the USD. A considerable part of its revenues is stated in USD, EUR and YEN, while a large part of its costs is stated in CNY. Furthermore, liabilities and assets each stated in different currencies, such as long-term borrowings in MYR secured by the Malaysian government, are also influenced by fluctuations in foreign exchange rates. In this regard, fluctuations in exchange rates impact the Company's profits and financial status, in response to which it engages in hedging transactions in accordance with Internal Revenue Service regulations in order to mitigate the effects of short-term exchange rate fluctuations on foreign currency trade receivables and trade payables. Furthermore, **HQCL** organizes periodic meetings of the Currency Management Committee hosted by headquarters and participated by finance personnel from its global subsidiaries. It also studies the prospects of exchange rate fluctuations, by attending seminars on exchange rate fluctuations hosted by major research agencies and reviewing relevant reports.

### Debt-related Risks

As of December 31, 2017, **HQCL's** debt with financial institutions was USD 987.4 million, of which USD 385.2 million was short-term debt and USD 293.6 million was long-term borrowing. There is also a long-term bill in the amount of USD 99.5 million and long-term borrowing secured by the Malaysian government in the amount of MYR 835 million (equivalent to USD 205.3 million; exchange rate: MYR 1 = USD 0.2459). Debt may have considerable impact on the Company's operation of business and cash flow in regards to the following: difficulties in the repayment of debt or borrowings, default, or reduced cash flow for general operation of business such as working capital, capital expenditures, and corporate acquisitions. In this regard, for effective debt management, the daily status of the Company's deposits/savings and borrowings is directly received and reviewed by the CFO and the cash flow of each legal entity is reported to the CEO on a weekly basis. As such, debt-related risks are controlled through strict management of cash flow, while risks of external stakeholders are minimized through loan guarantee from its parent company **Hanwha Chemical Co., Ltd.**

## OPERATIONAL RISKS

### Production Management Risks

As a manufacturing company, it is vital for **HQCL** to effectively manage product manufacturing, quality improvement and cost reduction for its future growth. For cost reduction, it reduces the cost of auxiliary raw materials such as silicon. The Company is continuously considering an expansion of its production facilities to increase the productivity of the manufacturing process and achieving economies of scale. In the event that there is a miscarriage of the Company's expansion plans due to failure in obtaining the necessary financing or government approval, there still remain potential risks driven by external factors such as a reduction in market demand. In responding to these risks, **HQCL** engages in continuous R&D efforts to improve the quality of its PV products through, for instance, improving cell conversion efficiency.

### Quality Management Risks

Issues with product quality and performance may result in serious consequences such as loss of clients, decrease in revenues and market share, unexpected costs, and a fall in brand loyalty. In this regard, **HQCL** has established the Global Quality Management (GQM) Team, responsible for monitoring product quality and, where necessary, identifying the causes of and improvement measures for certain quality issues. **HQCL** also provides product warranty to ensure the safety and reliability of its products.

### Debt Collection Risks

There may be a delay in the collection of **HQCL's** accounts receivable or they may not be collected at all. In response to such risks, **HQCL** executes agreements that stipulate the purpose of their purchase and contractual conditions with the majority of its client companies. Such agreements, however, are legally binding only to the extent of the purchases thereunder, and in some cases major terms of sale may be adjusted. To deal with these risks, **HQCL** distributes its products mainly to clients whose credibility can be supported by a history of payments and, where necessary, assesses their credit ratings so as to minimize debt collection risks. Furthermore, the Company also implements measures such as advance payments and guarantees by parent companies and financial institutions.



# SUSTAINABILITY ISSUES

CARING FOR OUR PEOPLE

CARING FOR THE PLANET

FOCUSING ON CUSTOMERS

MAKING A BRIGHTER TOMORROW





## MANAGEMENT APPROACH

### KEY PERFORMANCE

CREATION OF JOBS:  
NEW HIRES

3,633 PERSONS

EDUCATION COST  
PER PERSON\*

469 USD

\* Based on average  
KRW-USD exchange rate  
in 2017 of KRW 1,130.84

### BACKGROUND

As companies seek continued growth amid fierce and dynamic competition, each individual member is an important source of the Company's competitiveness. It is important to establish a sound organizational culture in which the Company and its members can grow together by providing opportunities for individuals to fully demonstrate their abilities while respecting their own values.

### APPROACH

Hanwha Q CELLS Co., Ltd. (HQCL) recruits talented individuals through fair employment and offers various talent-fostering programs to help each employee find work that accords with his or her aptitude. It also promotes employee satisfaction by maximizing each individual's values and respecting diversity.

## HR MANAGEMENT



### RECRUITMENT

By hiring and fostering talented individuals with great potential and capacity, HQCL expands its global presence and secures its future competitiveness. In addition to annual recruitment, HQCL hires talented individuals as required by each project, thereby securing overseas investment experts and outstanding technical personnel for R&D. At its overseas business sites, it extensively hires local talent in the interests of benefiting local communities as well as enhancing the stability of its workforce.

#### Implementation Plans

- More efficient and diverse recruitment tools
- Development of recruitment strategies for each target group
- Development of industry-academia collaboration and internship programs

#### Expanding the Pool of Talent through Recruitment

HQCL uses a variety of channels to secure a pool of talented individuals. Most notably, the Company hires outstanding individuals with bachelors, masters, and doctoral degrees from universities with solar energy-related departments and research faculties. It also operates industry-academia internship programs with multiple universities, offering outstanding students with opportunities for full-time employment, thereby securing talent in relevant fields. HQCL will continue to develop and secure the industry's top talents with experience and technological expertise in the field.

### GLOBAL TALENT DEVELOPMENT

HQCL offers various training programs to foster talented individuals with the core values of challenge, dedication, and integrity. Through these programs, it seeks to become a global company leading the solar industry by fostering top talents.

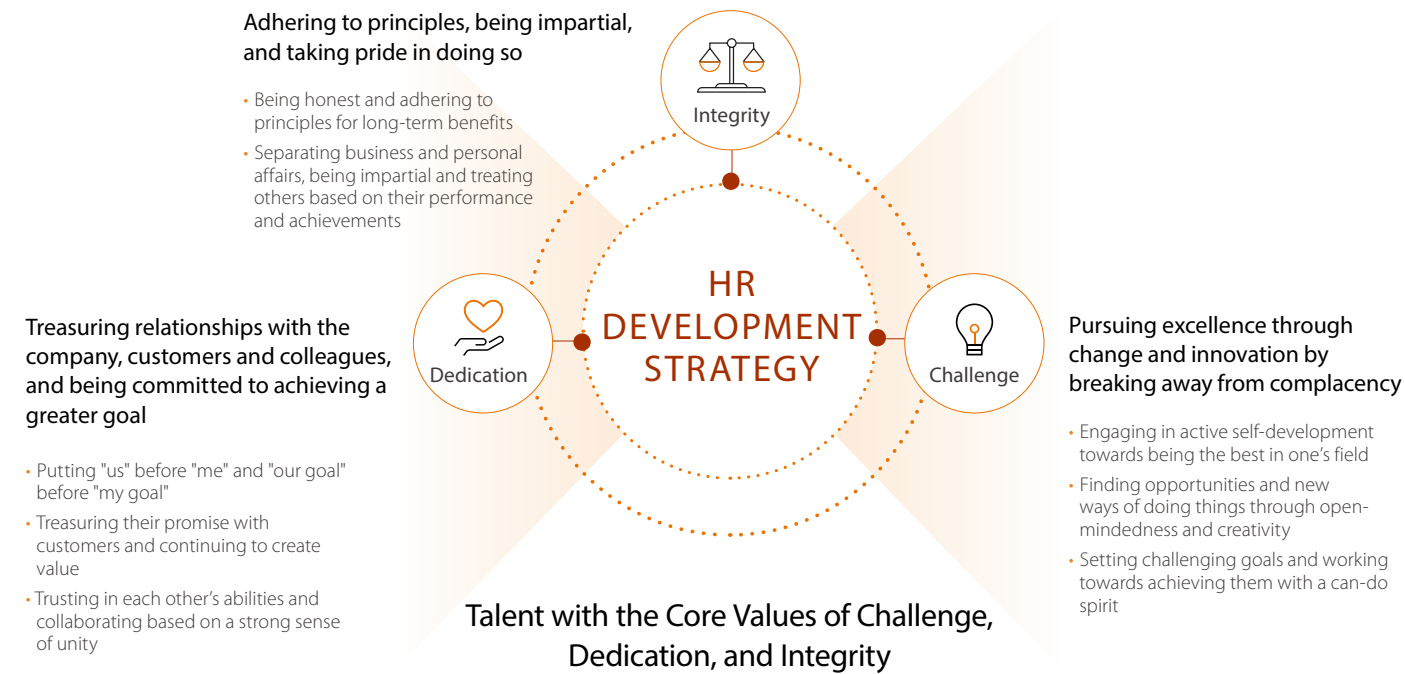
#### Internal Job Market

HQCL has created the "Job Market" forum on its intranet to best match individual employees' aptitude and their job duties. When there are staffing needs, the Company posts job announcements and receives applications from employees interested in the positions. Through the Job Market system, HQCL can find the right person for the right position, while employees feel more satisfied with their jobs by performing the kind of work that aligns with their individual aptitude.

#### Job Competency Development Program

HQCL offers various job competency development programs to help its employees receive the trainings at their needs. Newly hired employees receive mentoring to learn about their roles and set up individual long-term goals by gaining a thorough understanding of the Company's visions and businesses. Employees also receive production line training to gain first-hand experience and a better understanding of production plants, in addition to expert training to obtain professional knowledge in their field of work so that they can apply what they have learned to actual work practices. Furthermore, HQCL offers in-house language programs to strengthen the global competitiveness of its employees by enhancing their business communication skills.





### Competency Development Program after Involuntary Termination

HQCL offers various re-employment and start-up support programs for those employees who have involuntarily terminated from their positions, in order to support their stable living conditions. The Company provides counseling services and re-employment/start-up support programs with a 3-month follow-up process to ensure they obtained enough skills they need to begin the next chapter in their lives.

#### Annual Training Programs<sup>1)</sup>

##### New Employee Training Program

- Understanding the corporate vision and aligning it with individual goals
- Being introduced to the roles of each division and understanding their interrelationships
- Understanding the competencies required of new employees through in-depth conversations with senior staff
- Building team work and loyalty through group activities
- Gaining first-hand experience and a better understanding of the entire production process through production line training

##### Individual Job Competency Programs

- Obtaining professional knowledge in relevant fields and applying it to work practices

##### In-house Language Programs

- Enhancing global competitiveness
- Improving business communication skills

##### Legally Mandated Training on Anti-Sexual Harassment and Data Security

- Preventing sexual harassment and security breaches at the workplace
- Establishing a healthy organizational culture

<sup>1)</sup> Other group-wide training programs include regular executive breakfast, value program, programs for new executives and team managers, promotion candidate programs, core-talent program, entry programs for new and experienced employees and HPMP.

## PERFORMANCE EVALUATION AND COMPENSATION

By implementing a reasonable performance evaluation and compensation policy that associates individual performance and the Company's sustainable performance, HQCL enhances its employees' level of job satisfaction and encourages them to achieve outstanding performance.

### Fair Performance Evaluation System

At the beginning of each year, HQCL sets performance goals for the Company, executives, team managers and staff. These goals provide the basis for evaluation which is conducted in terms of two aspects: achievement of goals and level of competence. The Company ensures objectivity and fairness in the evaluation process through face-to-face evaluations among executives, team managers and staff members regarding their performance. In addition, the Company provides opportunities for early promotion based on evaluation outcome so that young employees can reach their full potential through a challenging spirit. **Hanwha Q CELLS (Qidong) Co., Ltd.** has established a monthly evaluation system for employees in production positions whereby their performance is evaluated based on evaluation by business units in connection with corporate goals. Through these efforts, HQCL effectively generates performance that aligns with its strategic goals by allowing managers and producers to work toward the same goals based on a common understanding.

### Reasonable Compensation System

HQCL implements a reasonable compensation system which comprehensively considers an individual's performance evaluation in align with the Company's sustainability issues. Wages include base pay and welfare allowances, while a performance bonus is offered in different amounts according to three categories: executives, team managers and staff.

# WELFARE AND HUMAN RIGHTS



## EMPLOYEE WELFARE

HQCL provides quality welfare programs for its employees to instill a sense of pride in the Company and create a pleasant work environment in which they can work energetically.



Day Care Center Provided

## PROMOTING COMMUNICATION

Each year, **Hanwha Group** offers a value training course as a platform of communication to internalize the core values of **Hanwha**. This course, consisting of programs designed to help employees learn the strengths of the Company based on the core values, is offered to executives, team managers and staff members so that each employee can undergo training required to perform their roles and responsibilities. In 2017, the Company organized training sessions based on the theme of "Young **Hanwha**". It also actively participates in a program named WITH organized by **Hanwha Group**, benchmarking various activities of other affiliates of **Hanwha Group** and sharing its best practices.

### Establishing a Sound Labor-Management Relationship

HQCL is committed to protecting the rights and interests of its employees. **Hanwha Q CELLS (Qidong) Co., Ltd.**, a subsidiary of HQCL, held an employee representative meeting in 2017, where representatives of employees examined the "collective bargaining" clause and reached an agreement with the management. Going forward, HQCL will continue in protecting the rights of employees, such as salary increases, through collective bargaining to ensure that the salary levels of its employees meet corporate labor productivity.



SUPPORTING WORK-LIFE BALANCE



Month Leaves

Promoted employees are granted with month leaves of 20 working days. This enables them to make plans and set goals in their new positions, and to recharge and adapt more efficiently after returning.



2 Hour Lunch Breaks

This policy was implemented to help employees better concentrate on their work by using the 2 hour lunch break to either take a break from work or to spend on self-development such as language-learning.

BEST PRACTICE



**Increasing Social Value by Improving Work Environment and Creating Jobs**  
On February 1, 2018, **Hanwha Q CELLS Korea Corporation** Jincheon Plant hosted an event titled “Joint Declaration of Job Sharing”. To create job positions, **Hanwha Q CELLS Korea Corporation** changed its shift schedule from a system of 3 to 3 (3 teams and 3 shifts, 56 hours) to a 4 to 3 (4 teams and 3 shifts, 42 hours) , thereby reducing working hours and increasing the job satisfaction of its employees. To reinforce the shortened workforce, we recruited more young people, thereby addressing unemployment and creating social values. President Moon Jae-in attended the Joint Declaration, complimenting **HQCL** and **Hanwha Q CELLS Korea Corporation’s** commitment to implementing key government policies such as expansion of the use of renewable energy, balanced regional development, job creation, and reduction of working hours. In recognition of these efforts to create a better workplace, **Hanwha Q CELLS Korea Corporation** was included in the “Top 100 Places to Work” selected by the Ministry of Employment and Labor.

RESPECT FOR HUMAN RIGHTS

Endorsement of Global Initiatives

**HQCL** fully endorses international standards and guidelines including the UN Universal Declaration of Human Rights, the Convention of the Protection of Human Rights and Fundamental Freedoms, and the UNGC Ten Principles. **HQCL** also strictly prohibits child labor and forced labor and any discrimination based on gender, religion, political opinion, social status, nationality, or race in its recruitment, job assignments, promotions, wages and training, in accordance with the International Labour Organization’s Conventions and labor-related laws and regulations of the Republic of Korea.

Prevention of Sexual Harassment

**HQCL** provides sexual harassment prevention training for all employees at least once a year to prevent sexual harassment at the Company's workplace, create a healthy work environment, and improve job satisfaction.

Category	Number of Trainees	Training Hours
Anti-sexual harassment training in 2017	78 persons	14 hours/person

\* Based on **HQCL’s** headquarters in Korea

HR & HRD PERFORMANCE

Category	Unit	2015	2016	2017
Total number of employees	Person(s)	9,905	8,003	7,510

Category		Unit	2016	2017
Region	China	Person(s)	5,270	4,626
	Germany		395	397
	Malaysia		2,150	2,309
	South Korea		90	95
	Others		78	83
Job Category	Manufacturing & Engineering	Person(s)	6,294	5,718
	Office & Administration		536	609
	Quality Control		541	483
	R&D		308	363
	Purchasing & Logistics		148	177
	Marketing & Sales		176	160
Gender	Male	Person(s)	4,809	4,617
	Female		3,194	2,893
New Employees	Male	Person(s)	2,103	2,573
	Female		1,033	1,060
Training <sup>1)</sup>	Training hours (per person)	Hours/Person	38	17
	Training cost (per person)	USD/Person	434	469
Performance Evaluation <sup>1)</sup>	Male	Persons (%)	58(68%)	53
	Female		27(32%)	30
Parental Leave & Continued Service <sup>2)</sup>	Employees on parental leave	Persons (%)	88	60
	Returnees from parental leave		85(96%)	54
	At least 1 year of service after returning from parental leave		65(76%)	37

1) Data related to training and periodic performance evaluation are based on the headquarters located in South Korea.

2) Data related to parental leave and continued services are based on the headquarters located in South Korea and business sites in China and Malaysia.



# HEALTH & SAFETY

## OCCUPATIONAL SAFETY AND HEALTH PRINCIPLES

HQCL places the highest priority on the safety and health of its employees. To that end, it has established a safety and health management system for accident prevention and health management, while complying with all relevant legal requirements. HQCL will continue its efforts to create a safe work environment for all employees by preventing safety accidents.

## OCCUPATIONAL SAFETY AND HEALTH SYSTEM

HQCL has established an occupational safety and health system to prevent severe and industrial accidents within business sites and proactively respond to external demands for occupational safety and health.

Hanwha Q CELLS Malaysia Sdn. Bhd. conducts safety and health monitoring on all activities based on OHSAS 18001. Its EHS & IMS Division, the organization in charge, is responsible for safety and health activities within business sites, while major issues are discussed at the Head of Department (HoD) meetings and the EHS Committee. Other activities include risk assessments regarding the Hazard Identification, Risk Assessment and Determining Control (HIRADC) documentation system, approval of operation for new installations, weekly and monthly site inspections, and chemical risk assessment and monitoring.

Hanwha Q CELLS (Qidong) Co., Ltd. Qidong prevents accidents, manages employee health and promotes safety awareness based on OHSAS 18001. The Company also controls risk factors, conducts monthly site inspections and daily risk assessments, and monitors chemical substances.

## OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT PERFORMANCE

Category		Unit	2015	2016	2017
employees	LTIFR	Case/1 Million Working Hours	2.59	2.48	1.84
	Industrial Accident Rate	%	0.45	0.45	0.33
	Fatalities	Cases	0	0	0

## ACTIVITIES TO PROMOTE EMPLOYEE HEALTH

In an effort to promote employee health, HQCL conducts monthly hygiene inspections, health consultations, and safety and health campaigns. The Company also regularly monitors employees with pre-existing medical conditions to prevent occupational diseases and offers health promotion programs for early treatment of diseases.

## EMERGENCY RESPONSE SYSTEM

Failure of an early response to a minor accident may lead to large accidents and greater damage. Each of HQCL and its subsidiaries' business sites is equipped with an Emergency Response Team (ERT) in charge of prompt early response and prevention of further damage in the event of an accident. Hanwha Q CELLS Malaysia Sdn. Bhd. conducts fire evacuation drills and responsive training for the leakage of visible and chemical substances in association with the fire authorities in Malaysia. Hanwha Q CELLS (Qidong) Co., Ltd. conducts annual emergency training against fires, leakage of chemicals, and food poisoning. In 2017, a total of 14 training sessions were held with the participation of 1,100 employees.



Emergency Drill

# CARING FOR THE PLANET



# MANAGEMENT APPROACH

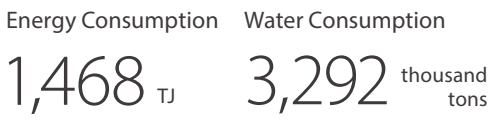
## BACKGROUND

In order to prevent potential environmental pollution that may occur in the course of producing solar photovoltaic modules, HQCL's products are manufactured through a process that applies microfabrication technology. Furthermore, new material substances included in solar modules must undergo strict environmental assessments and toxicity tests to detect any potential harmfulness. Given these circumstances, the solar industry is placed under increasing scrutiny by the government and society, requiring businesses to voluntarily undertake activities to reduce their environmental impact.

## APPROACH

Throughout the entire process from product planning to R&D, manufacturing, sales, distribution and disposal, HQCL establishes accident prevention systems and works to improve eco-efficiency in order to provide products and services that are safe and eco-friendly. In this regard, the Company identifies environmental and energy-related issues and their impact in accordance with the standards of the environmental management system (ISO 14001) and energy management system (ISO 50001).

## KEY PERFORMANCE





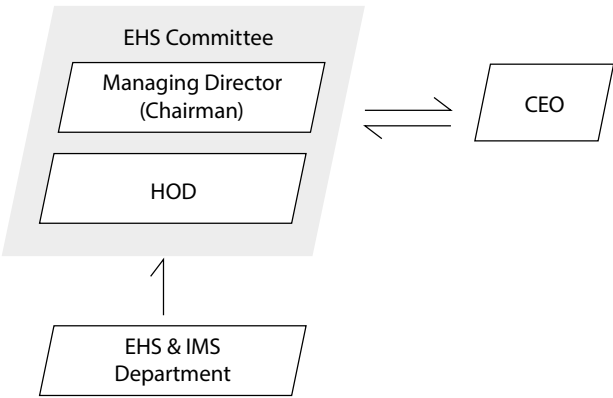
# ENVIRONMENTAL MANAGEMENT SYSTEM

## ENVIRONMENTAL MANAGEMENT POLICY

HQCL implements environmental management not only for its own development but to provide products and services that enhance the quality of life for humanity.

## ENVIRONMENTAL MANAGEMENT IMPLEMENTATION SYSTEM

HQCL complies with **Hanwha Group's** environmental safety and health policy (ECO-YHES). The Company has also established an environmental management system based on its annual KPI goals and a master plan for various environmental and safety performance indicators on, for instance, energy consumption and occupational accident rates, according to which targets will be managed until 2020. To minimize the environmental impact caused by HQCL's products and services as well as production, each business site has obtained the ISO 14001 certification and implements its own environmental management system. In addition, personnel in charge of environmental management are assigned to each business site to maximize the efficiency of its prevention activities. **Hanwha Q CELLS Malaysia Sdn. Bhd.** has acquired the ISO 14001:2015 environmental certification, the most updated standard of its kind as of 2017. Furthermore, environmental accidents are reflected in the performance evaluations of the highest level executives, while environmental impact assessments are conducted on all processes of business sites under the supervision of the manager of the division in charge.



# CLIMATE CHANGE

## CLIMATE CHANGE RESPONSE POLICY

As a result of the Paris Agreement, more concrete efforts are being made around the world to respond to climate change. As part of this movement, HQCL is actively engaged in responding to the global issue of climate change based on its own environmental management system.

## ENERGY CONSUMPTION AND GHG EMISSIONS CONTROL

HQCL makes various efforts to minimize GHG emissions caused in the course of manufacturing products at its business sites. Both direct emissions (Scope 1) and indirect emissions (Scope 2) are considered in calculating GHG emissions. To manage indirect emissions, which accounts for 95% of all emissions by HQCL's business sites, the company has installed and operates a power monitoring system.

## CASE STUDY

### Energy-Saving Activities at Business Sites

HQCL replaces energy consumed in the production process with renewable energy. In **Hanwha Q CELLS (Qidong) Co., Ltd.** and **Hanwha Q CELLS Korea Corporation Jincheon Plant**, a 2.2MW- and a 1MW-photovoltaic generator have been installed, respectively, for the generation and consumption of self-produced energy, as a result of which each business site was able to reduce electricity costs by USD 739,687 and USD 88,430, respectively.

\* Calculated based on average exchange rate in 2017. USD 1 = CNY 7.030, USD 1 = KRW 1,130.84



Use of renewable energy in the production process

# PRODUCT STEWARDSHIP

## COLLECTION AND RECYCLING SYSTEM

HQCL promotes the recollection and recycling of waste products by introducing the Extended Producer Responsibility (EPR) program. As part of its domestic efforts, HQCL participates in policy meetings to expand the use of waste products and actively supports related research activities. The Company participates in the PV Recycling Program.

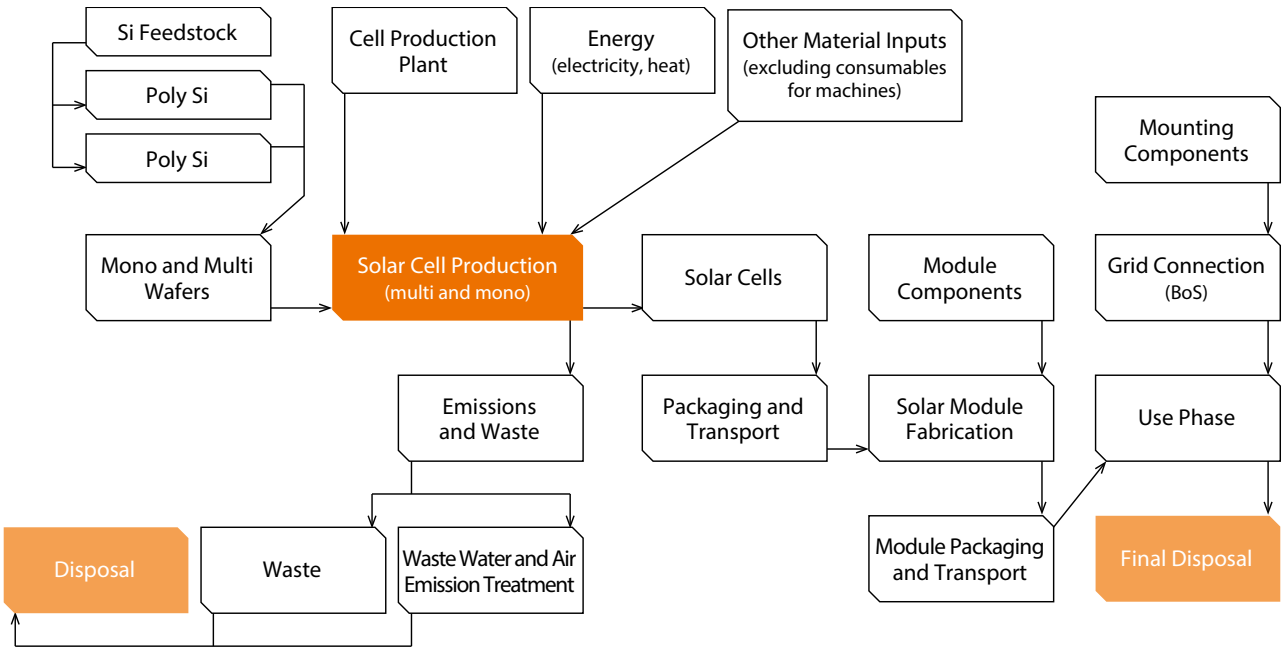
## MANAGING HAZARDOUS SUBSTANCES IN PRODUCTS

HQCL's products are strictly managed in accordance with regulations and standards on hazardous substances. In particular, its products do not contain beryllium, cadmium, lead, nickel or its compounds. In addition, halogen-free cables are used to prevent damage to customers and the environment caused by hazardous substances.

## LIFE CYCLE ASSESSMENT

HQCL conducts product Life Cycle Assessments (LCA) to identify the potential environmental impacts by the purchasing, development, production, distribution, usage, and disposal stages. Product life cycle assessment is an activity that analyzes the environmental impact of a product throughout its life cycle. This includes impacts on upstream processes including raw materials, additives, and consumables, as well as downstream processes including the use, transport, and disposal of products. HQCL considers the effects on its business sites and supply chains in order to take into account the actual environmental impact of the production process. The Company carries out LCAs throughout all stages of products involved in the use of solar modules, including cell production, module manufacturing, product and system installation.

## LCA | Life Cycle Assessment





# OPERATIONAL ECO-EFFICIENCY

## USE OF RAW MATERIALS

HQCL endeavors to use resources in a responsible manner. To this end, the Company uses raw materials, additives and consumables effectively and constantly improves its production processes, facilities, and raw materials in ways that can reduce the use of resources.

## WASTE MANAGEMENT

HQCL minimizes the generation of waste and recycles waste at the disposal stage. Disposal of waste is handled in accordance with the legal requirements and regulations of the countries in which HQCL's business sites are located, and regular audits are conducted on actual work facilities of waste management companies to guarantee legal compliance.

## HAZARDOUS SUBSTANCE MANAGEMENT

Whenever a new hazardous substance is used in production, HQCL's hazardous substance management team verifies the availability of alternative materials. All potential risks regarding hazardous substances are detected and managed, from use to disposal. HQCL also conducts employee training on chemicals and emergency drills to prepare for the possibility of hazardous chemical leakage. In 2017, Hanwha Q CELLS Malaysia Sdn. Bhd. secured an additional 350 tons of storage capacity for hazardous waste.

## WATER MANAGEMENT

For optimal use of water resources in the production process, the Company sets water consumption targets and implements water management accordingly. Wastewater generated in the course of production is purified through a water treatment system, some of which is resupplied to the production process.

## AIR POLLUTANT MANAGEMENT

The Company strictly manages air pollutants generated in the course of the manufacturing process by requiring air pollution management at each business site to meet its own standards that are stricter than the legal standards of local governments. In particular, it has installed pretreatment systems such as scrubbers dust collectors, and reduction devices to prevent the discharge of hazardous substances.

## BIODIVERSITY

In recognition of the importance of preserving biodiversity, HQCL manages its impact on biodiversity in the neighboring areas of its subsidiaries' business sites at home and abroad in cooperation with local governments and communities. HQCL and its subsidiaries' business sites are located within industrial development zones where no ecosystem protection zones or habitats of endangered species have been found in the vicinity. In addition, there has been no case of leakage of hazardous substances affecting biodiversity.

## ECO-FRIENDLY TRANSPORTATION

Hanwha Q CELLS Malaysia Sdn. Bhd. devised measures to diagnose and improve the inefficiency of the current cargo-loading practices in logistics. By adjusting the type and number of trucks used for transportation as well as the frequency of their operation, Hanwha Q CELLS Malaysia Sdn. Bhd. improved loading efficiency and reduced the amount of vehicle use, succeeding in establishing an environment-friendly logistics system. Through these efforts, transportation costs dropped by 40% and cost savings of USD 30,066 are expected.

\* Based on average KRW-USD exchange rate in 2017 of KRW 1,130.84

## COMPLIANCE REPORTING

HQCL strictly complies with the environmental laws and regulations of the local governments in which its subsidiaries' business sites are located. As of 2017, there has been no reported case of legal violations.

## ENVIRONMENTAL PERFORMANCE<sup>1)</sup>

Category	Item	Unit	2015	2016	2017
Energy	Energy consumption	TJ	1,157	1,386	1,468
	Electricity		1,133	1,362	1,443
	Steam		12	7	7
	LPG		12	17	18
GHG	GHG emissions	tCO <sub>2</sub> eq	226,003	273,422	289,544
	Scope 1		726	1,016	1,037
	Scope 2 <sup>2)</sup>		225,277	272,406	288,507
Water	Water consumption	Ton	2,997,120	3,244,264	3,291,808
	Wastewater discharge	Ton	905,127	1,307,057	1,214,834
Wastewater	Chemical Oxygen Demand (COD)	Malaysia	107	67	92
		China	76	89	85
	Biochemical Oxygen Demand (BOD)	Malaysia	1	1	13
		China	0	0	0
	Suspended solids (SS)	Malaysia	25	17	17
		China	8	57	26
Chemical substance <sup>3)</sup>	Chemical substance consumption	Ton	15,737	11,962	14,472
	Chemical substance discharge		0	0	0
	Acid waste discharge		-	-	2,139
General waste	Waste generation	Ton	4,787	7,909	7,906
	Landfill		2,736	5,781	4,497
	Recycling		2,010	2,128	3,409
	Incineration		41	0	0
Hazardous waste	Hazardous waste generation	Ton	8,526	10,074	11,406
	Heavy metal discharge		0	0	0
Air polluting substances	Volatile organic compounds (VOC)	Malaysia	0.04	0.03	0.02
	Nitrogen oxides (NOx)	Malaysia	0.00	0.00	0.55
		China	25.20	20.20	22.00
	Sulfur oxides (SOx)	China	0.20	0.19	0.00
	Particle matter (PM)	Malaysia	0.01	0.01	2.50
		China	0.23	0.02	0.27
Ozone depleting substance	Ozone depleting substance	China	1,589	5,562	908
Environmental investment	Environmental investment	USD	144,100	451,250	448,298
	Environmental facilities operation		3,500,000	3,200,000	2,727,137

1) Based on Hanwha Q CELLS Malaysia Sdn. Bhd. (Malaysia) and Hanwha Q CELLS (Qidong) Co., Ltd (China);  
Data corrected due to change of data scope (excluding Hanwha Q CELLS Technology Co., Ltd. (Lianyungang, China))

2) Energy data calculated based on 2006 IPCC Guidelines and IGES Grid EF (Electricity EF = 0.741 tCO<sub>2</sub>/MWh) for Malaysia, and 2006 IPCC Guidelines for China

3) Based on Hanwha Q CELLS Malaysia Sdn. Bhd.(Malaysia)



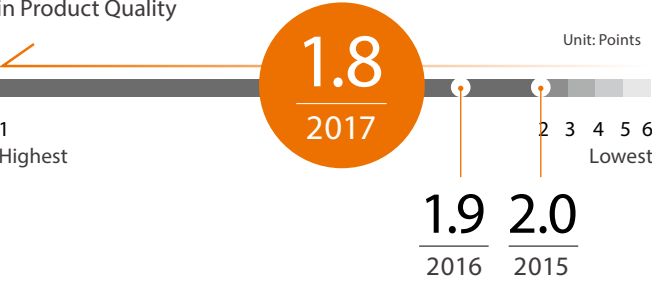


# FOCUSING ON CUSTOMERS

## MANAGEMENT APPROACH

### KEY PERFORMANCE

Customer Satisfaction Survey Results in Product Quality



### BACKGROUND

Customer satisfaction not only has an impact on maintaining existing customers but on securing new ones and improving corporate brand image. In recent years, customers look for more than excellence of quality in products, demanding positive socio-environmental impact through the use of eco-friendly materials and generation of social values.

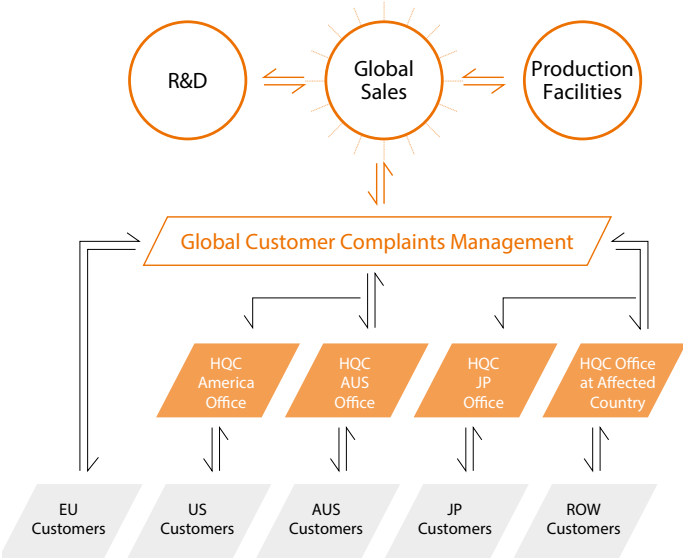
### APPROACH

In order to secure product quality and respond proactively to varying customer needs, HQCL is strengthening its efforts to improve the quality of its products. Furthermore, it operates a variety of customer communication channels to accurately identify customer needs and reflect them in developing products and services.

# CUSTOMER SATISFACTION

### CUSTOMER SATISFACTION SYSTEM

HQCL provides maximum customer satisfaction not only by making high-quality products but considering their socio-environmental impact by making them safe and eco-friendly. To this end, the Company has established the Global Customer Complaints Management System and applies it uniformly to its global sales organizations, research centers, and productions facilities to organically resolve and minimize customer complaints. Furthermore, complaints that have been reported are actively reflected in its efforts to improve product quality in order to further enhance customer satisfaction.



### COMMUNICATION WITH CUSTOMERS

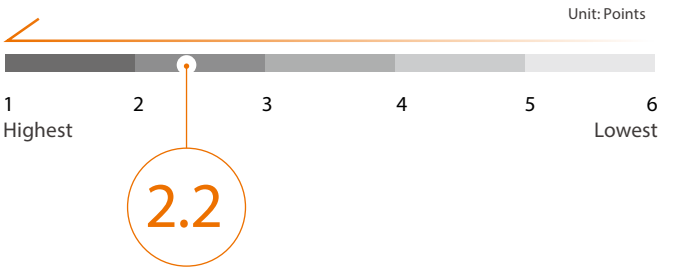
HQCL operates various communication channels to accurately identify customer needs and reflect them in developing products and services.

Website	• HQCL listens to the voices of customers through the use of its website.
Sales Network	• HQCL responds to customer claims through its direct and indirect sales networks in 40 countries worldwide and operates dedicated organizations in key regions (Europe, Japan and South Korea).
Customer Satisfaction Survey	• HQCL conducts customer satisfaction surveys in the categories of products, services, sales & distribution, and marketing support every fourth quarter.
Partner Programs	• HQCL provides partner programs in major markets including Europe, Japan and South Korea, maintaining close coordination and communication through product training, promotional support, newsletters and co-marketing. • HQCL provides services through exclusive channels for partners (website, phone calls, and dedicated organizations).

### CUSTOMER SATISFACTION SURVEY

HQCL conducts customer satisfaction surveys of its major customers in the areas of products, services, sales & distribution, pricing, and marketing. In 2017, surveys were conducted in Europe, the United States, the Middle East, Australia and South Korea, with a total of 132 respondents. On a scale of 1 to 6, 1 being the highest and 6 being the lowest level of satisfaction, each area received an average score of 2.2. In particular, the results identified product quality as HQCL's strength, confirming high customer satisfaction with its products.

Customer Satisfaction Survey Results in 2017 (November – December 2017)



### CASE STUDY

#### Solar Energy Exhibition for Customer Communication

HQCL participates in solar energy exhibitions in various parts of the world including China, Japan, the United States and Europe. In 2018, the Company joined 17 exhibitions as part of its customer communication efforts.

Notably, HQCL took part in Intersolar 2018, one of the four largest energy exhibitions participated in by major companies in Europe, China and Japan, where it introduced its solar modules as well as its total residential energy solution "Q.HOME+" and the commercial system "Q.FLAT". As the only solar module brand, HQCL was awarded the Intersolar Award for two consecutive years of its technological prowess and competitiveness.





# RESEARCH AND DEVELOPMENT

## RESEARCH AND DEVELOPMENT(R&D) POLICY

By keeping close track of changes in the market and technological developments, **HQCL** focuses on R&D with the aim of launching products in a timely manner that are competitive in terms of performance and cost by applying the most sophisticated technologies.

## R&D SYSTEM

**HQCL** operates its Technology & Innovation Headquarters in Thalheim, Germany to expedite the application of new technologies to mass production and respond to rapid technological change and innovation in the solar energy industry. The Technology & Innovation Headquarters develops products with superior technology and innovative manufacturing processes, thanks to its exclusive R&D capability, pilot production and testing process, on which **HQCL** bases its industry standards such as 6-inch solar cells, Q.ANTUM DUO technology, hot spot protection, PID (Potential-Induced Degradation) prevention technology,

and LID (Light-Induced Degradation) protection technology, setting a variety of industrial standards.

### Test Center

**HQCL** operates an in-house test center certified by Verband Deutscher Elektrotechniker (VDE), an independent verification agency based in Germany, and having passed VDE's Quality Tested Program, where it repeatedly tests its products under extreme conditions such as hail, shower and desert heat.

### Global R&D Network

**HQCL's** R&D centers operate in Germany, South Korea, China and Malaysia. At these facilities, the Company makes products using outstanding technologies and develops innovative manufacturing methods through unparalleled R&D, product tests, as well as the development of pilot production and test methods.

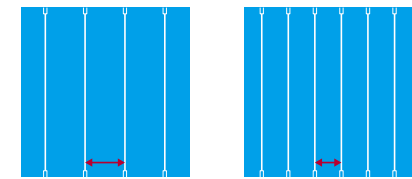
## CASE STUDY

### Solar Cell Technology Q.ANTUM DUO

**HQCL** owns proprietary solar cell technology known as Q.ANTUM DUO, which shows an increased output compared to existing technologies by dividing cells in half using the most advanced laser technology. By combining high-efficiency Half Cell and Wiring technologies, Q.ANTUM DUO has increased module efficiency by a maximum of 20% by dramatically reducing resistance and optical loss. The Company has also enhanced long-term performance and maximized energy efficiency within the lifespan of products by increasing their thermal stability and reducing power loss from micro cracks. Through the application of the 6 Bus Bar technology which narrows down the space between each Bus Bar, Q.ANTUM DUO cells show 1%

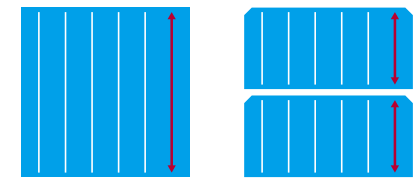
less power loss due to reduced electrical resistance. The Half Cell technology increases output per surface area by dividing existing cells in half, whereas the Wiring technology increases cross-sectional areas that absorb sunlight by 75% through wire-applied cells, thereby improving module output by 2.5% enabled by the absorption of light reflected from curved wires. **HQCL's** power generation guarantee technology is also a core element of the Q.ANTUM DUO technology, while the newly added Anti-LID<sup>1)</sup> and Anti-LeTID<sup>2)</sup> effectively minimize performance degradation caused by light, securing the highest level of energy efficiency in the long term. By launching the new Q.PEAK DUO module series based on Q.ANTUM DUO and guaranteeing at least 85% of performance 25 years after installation, **HQCL** has proven its technological prowess and strength in the solar energy market.

#### LOWER RESISTTENCE - 6 BUS BAR



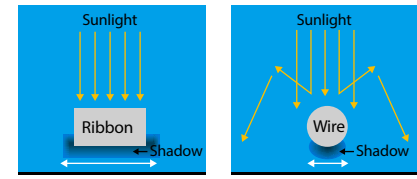
Existing 4 Bus Bar technology      Existing 6 Bus Bar technology

#### GREAT OUTPUT - HALF CELL

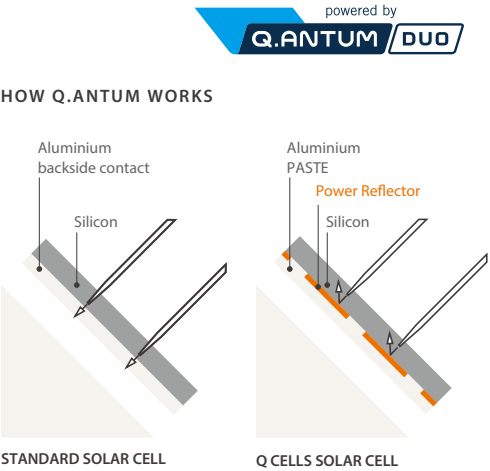


Existing cells      Half cells

#### REDUCED SHADING LOSSES



Ribbon      Wiring



1) Anti-LID (Light Induced Degradation): Technology preventing performance degradation caused by boron-oxygen complex due to light  
2) Anti-LeTID (Light and elevated Temperature Induced Degradation): Technology preventing performance degradation caused by boron-oxygen complex due to light and heat

# INFORMATION SECURITY

## INFORMATION SECURITY POLICY AND ACTIVITIES

**HQCL** implements an information security system based on the information security policy of the **Hanwha Group**. The Company has an organizational structure capable of handling information security incidents, which includes the Information Protection Committee. This consists of corporate planning, HR and relevant team manager in the event of a security breach or data leakage. In addition, **HQCL** has designated Information Security Managers at its production facilities and sales companies to distribute a set of information security rules and guidelines to all employees throughout the company. **HQCL** plans to expand information security education for its employees, sharing security breach cases and prevention guidelines both inside and outside the company.

### Strengthening Personal Information Protection System

In order to prevent leakage of personal information, hacking and malicious codes, **HQCL** has established and is continuously improving its personal information management system. By further strengthening its information security monitoring system in response to the enforcement of the EU-GDPR, **HQCL** will expand its security activities to include the participation of not only related departments but of all employees. In 2017, there was no case of personal information leakage at **HQCL**.

### Establishing a Response System for EU-GDPR

Enforced as of May 25, 2018, the GDPR is a far-reaching privacy regulation carrying heavy risk, as it imposes fines of up to 4% of an organization's annual global turnover for violations. In response to this new regulation, **HQCL** is reviewing the current state of matters relating to the collection of personal information and devising preparatory measures. **HQCL's** business activities directly subject to the regulations of the GDPR are mostly related to personal information collected and handled by its subsidiary office in Germany. With its legal part playing a central role, the German Office has established a task force team, taking preparatory steps such as making data lists and updating its current website, as well as reviewing the websites of **HQCL** subsidiaries' business sites outside of the EU to ensure that they do not collect personal information of entities inside the EU. All of **HQCL** subsidiaries' business sites will continuously monitor their compliance with the GDPR and implement improvement measures until it comes into force.

### Information Security System

To prevent the leakage of the Company's confidential information and personal information, **HQCL** has established an information security reporting system, constantly implementing PC, server and network security updates. PC and document security solutions are used to prevent leakage of the Company's core data, while Network Access Control (NAC) solutions are implemented to restrict the use of unauthorized illegal programs and control network security. In addition, **HQCL** has devised measures against WannaCry ransomware and distributed companywide guidelines to prevent information infringement caused by malicious codes. To date, there have been no information security incidents at **HQCL**, including leakage of customers' personal information and other technical information.

### Open Innovation

Currently, joint R&D projects are carried out with part material and equipment companies in more than 15 countries, more than five universities in Germany, and 15 public and private research labs and institutes. **HQCL** is working on various R&D projects on reliability assessments and standardization as well as cells, modules, part materials and equipment.

## KEY R&D PERFORMANCE

**HQCL** has secured technological superiority by two or more power classes compared to the average industrial module output through ongoing R&D investment. The Company has also succeeded in the commercialization of Multi-PERC, the next generation solar cell technology, for the first time in the industry, strengthening its position as a global technology leader by expanding its production line.

### High Efficiency Cells Based on Kerfless<sup>1)</sup> Wafer

**HQCL** is able to produce eco-friendly products with less carbon emissions by reducing the wafering process and using Kerfless technology. In addition, **HQCL** invests in and carries out joint R&D projects with companies with Kerfless technology. As a result, its cell efficiency has increased to the level of commercialization, reaching up to 20% in polycrystalline solar cells and up to 22% in monocrystalline solar cells.

1) Kerfless: Technology for manufacturing wafers without the cutting process

### Floating Module

A new method combining existing technology and the floating structure technology, the floating module efficiently utilizes land and maximizes module efficiency by preventing cooling effect and shade for all modules. By applying its water resistance and Anti-PID<sup>2)</sup> technologies, **HQCL** will produce modules that minimize power loss in humid environments and maintain long-term performance.

2) Anti-PID (Potential Induced Degradation): Technology preventing performance degradation due to leakage current

### Key Figures

R&D Input	R&D Investment	(Unit: USD thousand)
32,735	31,139	37,558
2015	2016	2017
Patent	Cumulative Patent Applications	(Unit: Cases)
	134	
	2017	





# MAKING A BRIGHTER TOMORROW

## MANAGEMENT APPROACH

### KEY PERFORMANCE

Participation in Social Contribution      Social Contribution Amount

208 Hours      82,461 USD

Social Contribution Participants      \* Average KRW-USD exchange rate in 2017 of KRW 1,130.84 applied in calculation

178 Persons

### BACKGROUND

As environmental issues become increasingly important worldwide, so does the importance of renewable energy. In turn, local communities should recognize the importance of renewable energy and expand its use. As an eco-friendly energy company, **HQCL** will not only introduce and promote the use of renewable energy in local communities but fulfill its role as a global company by carrying out sustainable social contribution activities.

### APPROACH

In the Company's subsidiaries' business sites worldwide, **HQCL** undertakes social contribution activities in various fields including social welfare, arts and culture, public services, and international aid. It understands the needs of those who benefit from the Company's social contribution activities, while sharing the energy of life in local and global communities.

## CSR ACTIVITIES

### CSR PHILOSOPHY

To achieve sustainable development, **HQCL** builds cooperative relationships with local communities based on its CSR philosophy, "Together, We Go Further". The Company seeks to go "further together" as a corporate citizen fulfilling its social responsibilities. With the vision of "building a happy tomorrow together", **HQCL** has established the following CSR strategic system, based on which it hopes to share the energy of life through sharing, consideration and cooperation for shared growth.



## Building a Happy Tomorrow Together

HQCL builds a "happy tomorrow" where we all go "further together".



Hanwha SOLAR FOREST

The "Hanwha Solar Forest" campaign is Hanwha Group's tree-planting project launched in 2011 in association with the social enterprise "Tree Planet". Through the campaign, Hanwha Group has planted 490,000 trees in 133m<sup>2</sup> of land in Mongolia, China and Korea, which is roughly the size of 180 soccer fields joined together. To date, Hanwha Group has built six Solar Forests. In the second half of 2018, Hanwha Group plans to build the seventh Solar Forest to prevent fine dust diffusion effectively. HQCL, in accordance with such efforts, is actively engaged in an effort to resolve environmental challenges by donating a 15 kW module manufactured in Hanwha Q CELLS (Qidong) Co., Ltd.



Before building  
Solar Forest No.2 in 2013



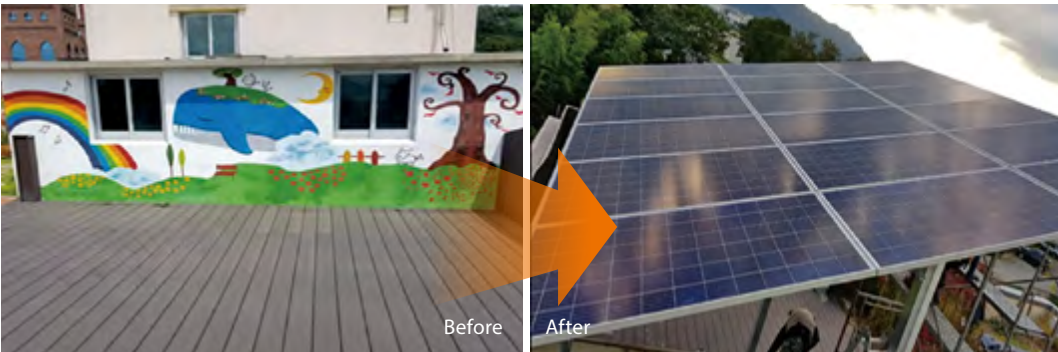
After building  
Solar Forest No.2 in 2015



• Before building Solar Forest No.2 in 2013  
• After building Solar Forest No.2 in 2015  
• Hanwha Solar Forest No.6 in 2016

DONATION OF SOLAR POWER FACILITIES

The "Happy Sunshine-Solar Power Facility Donation" is one of HQCL's key CSR programs which donate solar power facilities to social welfare facilities, enabling them to reduce electricity costs for other welfare services. In 2017, HQCL donated solar power facilities of 252 kW generation capacity (enough for 80 households) to 37 facilities across the country. Since its launch in 2011, Hanwha Group's Happy Sunshine Solar Power Facility Donation Campaign has supported 1,527 kW of solar power facilities to 216 facilities, having the effect of planting over 300,000 20-year-old pine trees by reducing more than 881 tons of carbon dioxide emissions. To ensure that this campaign becomes a sustainable CSR activity of the Company, HQCL implements thorough follow-up management to prevent safety accidents.



• Happy Sunshine-Solar Power Facility Donation Before and after installation at Haneul Daycare Center  
• Happy Sunshine-Solar Power Facility Donation After installing 5.85kW solar power facility at Haneul Daycare Center

SOLAR ENERGY START-UP SCHOOL

The Solar Energy Start-up School is a solar energy education program launched by HQCL in 2013 in cooperation with the Korean Federation for Environmental Movement. Individuals interested in starting up their own solar energy businesses participate in the program, building a consensus on HQCL's solar energy business and thereby contributing to the growth of the industry itself. The program had a total of 400 participants (100 participants per quarter) in 2017 and expects to have 320 participants (80 participants per quarter) in 2018.



• Lecture at the 6th Solar Energy Start-up School



CSR ACTIVITIES BY  
EMPLOYEES

LIGHTS OF HOPE

HQCL has launched the “Light of Hope” project which delivers lanterns made by the Company's employees to children in developing countries with low access to electricity. From the planning stage, the Company worked jointly with MIRAL Welfare Foundation with the aim of delivering hope to children in need in developing countries. The purpose of this project is to shed light on the dreams and hopes to children in the dark due to low access to electricity. In 2017, the Company's employees made solar lanterns and donated them alongside cards with messages of warm-hearted encouragement to children in Malawi. By using the donated kerosene lanterns, children in developing countries can avoid risks such as fire or night-time crime, as well as experiencing an improved living environment. HQCL will expand donation items for this annual matching grant project and promote a positive awareness of solar energy.



- Sending Lights of Hope
- Employees assembling solar lanterns
- Completed solar lanterns

EXPANDING CSR ACTIVITIES THROUGH MATCHING GRANT

A matching grant refers to a fund created by matching funds raised by voluntary donation and employee funds by 150% of corporate funds. HQCL's Matching Grant Fund established in July 2016 has raised approximately USD 22,107 to date which will be used for various social contribution activities in the future. Beginning in 2018, HQCL will launch “Hanwha Arts Plus”, a program combining culture and arts with volunteering through the Matching Grant. Hanwha Arts Plus will be a future-oriented volunteering activity participated in by HQCL employees, providing educational support in culture and arts for local children and youth through gukak (traditional Korean music), play, dance, craft, and various other forms of art.

\* Average KRW-US\$ exchange rate in 2017 of KRW 1,130.84 applied in calculation

GLOBAL CSR  
ACTIVITIES

- Commendation of Qidong City for Donation to Local Charity Funds

CSR ACTIVITIES IN CHINA

Hanwha Q CELLS (Qidong) Co., Ltd., China undertakes various community-based CSR programs. In 2017, 120 employees donated blood to help improve the blood shortage situation of blood banks in Qidong. Hanwha Q CELLS (Qidong) Co., Ltd. plans to make blood donations an annual event. In addition, it has been recognized for its contribution to the development of the local communities by being awarded the Commendation of Qidong City for donating USD 71,124\* to local charity funds.

\* Average exchange rate in 2017 of USD 1 = CNY 7.030 applied in calculation



CSR ACTIVITIES IN MALAYSIA

Hanwha Q CELLS Malaysia Sdn. Bhd. shared with local communities by donating air conditioners to four schools. It also engaged in the “Back to School” program, through which it donated 214 back packs and stationery to students in low-income areas, in addition to donating 400 packs of A4 paper to students at four schools including Hulu Langat and Semenyih. Furthermore, it donated 20 air conditioners to four schools, contributing to creating a pleasant learning environment for local children.



- Back to School Program
- Donating A4 Papers



# SUPPLY CHAIN REPORT

SUPPLY CHAIN MANAGEMENT

CONFLICT-FREE MINERALS

ENVIRONMENTAL IMPACTS

HEALTH & SAFETY MANAGEMENT







# MANAGEMENT APPROACH

## KEY PERFORMANCE

Total Purchasing  
Amount

1,384 Million USD

### BACKGROUND

As competition among companies expands to competition among suppliers, supply chain management (SCM) is considered an integral part of business operation. Referring to the management of the economic, social and environmental impact of suppliers that supply products and services to companies, SCM is emerging as a key part of fulfilling corporate social responsibility. Recently, global companies have played a central role in inviting more entities to participate in sustainability management by applying sustainability activities not only to their first-tier but also second and third-tier suppliers to promote sustainability management and improve their risk management.

### APPROACH

As a global company, **Hanwha Q CELLS Co., Ltd. (HQCL)** maintains business relationships with suppliers around the world. This requires the company to maintain stringent management of purchase and procurement. Its suppliers include manufacturers of photovoltaic cells and modules as well as various manufacturing and equipment companies.

# SUPPLY CHAIN MANAGEMENT

## ESTABLISHING A SUSTAINABLE PURCHASE SYSTEM

As a global company, **HQCL** maintains business relationships with suppliers around the world, engaging in global purchasing in line with its mid- and long-term strategy of becoming "Global No. 1 in Quality, Productivity and Cost Competitiveness." Furthermore, it selects and assesses its suppliers based on an integrated vendor management system, and ensures that all suppliers follow a specific set of principles in carrying out their business activities.

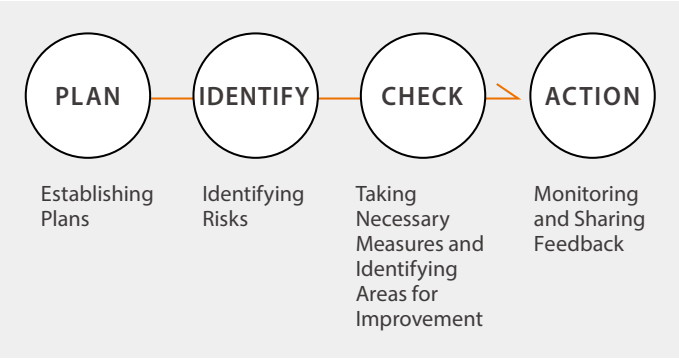
The purchase teams of **HQCL** is in charge of the Company's supply chain management and focuses on purchasing activities relating to its suppliers. The quality management team conducts periodic evaluations to proactively manage potential supplier risks.

### Establishing a Fair Purchasing Process

Through its product management process, **HQCL** secures stable delivery and quality of products while complying with environmental safety and health requirements in its purchase of raw materials and equipment. This process is applied throughout the overall purchasing activities covering raw materials, materials for production facilities, testing and measuring equipment, services, and construction work. In addition, the company encourages all of its suppliers to comply with **HQCL's** Code of Conduct while promoting their voluntary compliance.

## SUPPLIER RISK MANAGEMENT PROCESS

**HQCL** identifies and manages major risks relating to its suppliers and the overall supply chain. It has established a supplier risk management process that identifies supplier risks and draws improvement measures. At the same time, the company manages both financial and non-financial risks that may arise in the course of transactions with its suppliers by comprehensively assessing the status of their ethics and compliance management, environment and safety management, and human rights and labor management.



## Global Supplier Risk Management of Global Standard

### Risk Identification

**HQCL** has designated a group of major suppliers based on the Company's dependence on them and their impact on its business operation. **HQCL's** major suppliers are raw material companies, whose economic and social risks are identified and managed.

### Risk Management

**HQCL** reviews the financial statements, manpower status and ISO certification status of its suppliers, and operates a pool of vendors to classify them based on risk as part of its efforts to manage major risks.

### Risk Monitoring and Feedback

**HQCL** undertakes continuous and regular monitoring of measures taken and tasks implemented to make improvements. Major issues are reported to the purchase team and the quality management team and shared at the companywide level.



# CONFLICT-FREE MINERALS

## STATUS OF SUPPLIERS

As of the end of 2017, **HQCL** has business relations with 829 suppliers for the procurement of materials and parts needed for production. **HQCL** defines major suppliers as companies that have transactions with **HQCL** exceeding a certain amount, possess non-substitutable technology and supply core and major raw materials. It undertakes regular on-site inspections and actively communicates with 200 major suppliers.

Category	Unit	2015	2016	2017
Total Purchasing Amount	Million USD	1,107	1,005	1,384
Purchasing Amount from Major Suppliers		925	914	1,259
Total Number of Suppliers	Companies	874	803	829
Number of Major Suppliers		231	252	200

## SUPPLIER AUDIT PROCESS

### Supplier Audit Process

**HQCL** evaluates suppliers based on its Audit Guidelines established in 2015. The Audit Guidelines define the standardized procedures for approval, planning, implementation and reporting for each type of audit. Audits are categorized into qualification audits, surveillance audits, and process audits depending on their purpose and scope.

Category	Description
Qualification audit	Suppliers are required to pass the quality inspection of each item to be approved as a vendor.
Surveillance audit	Vendors undergo an audit process on a regular basis.
Process audit	Causes of critical claims and quality issues are identified and resolved.

### Methods and Major Items of Supplier Audits

Audits are prepared, executed and followed up based on the "FRM-15-06-0104-EN" document, which includes surveys and checklists. To check the quality management system of each supplier and the competence level of its products and services, auditors undertake on-site inspections of production facilities, the results of which are shared with the management and relevant departments through the company newsletter.

### Audit Process

Preparation	<ul style="list-style-type: none"><li>• Check audit schedule</li><li>• Define auditing organization, purpose and agenda</li><li>• Collect information on suppliers</li><li>• Prepare audit questionnaire</li><li>• Confirm detailed matters</li></ul>
Implementation	<ul style="list-style-type: none"><li>• Kick-off Meeting: Review agenda and purpose</li><li>• Conduct audit</li><li>• Hold final meeting on audit findings</li></ul>
Result Analysis	<ul style="list-style-type: none"><li>• Prepare audit report</li><li>• Define current status of suppliers</li><li>• Notify suppliers of audit results</li></ul>
Improvement	<ul style="list-style-type: none"><li>• Collect a list of suppliers' activities for improvement</li><li>• Monitor areas for improvement</li><li>• Complete audit report</li><li>• Update audit report</li><li>• Document audit process</li></ul>

Major audit items include quality, management system, environment and safety, and import inspections. **HQCL** also assesses the implementation status regarding labor, human rights and ethical management by its suppliers.

### Audit Items

Items	Description
Management System	Certification of ISO 19001, ISO 14001, OHSAS 18001, qualifications of QA engineers and administrators, etc.
Environment & Safety	Availability of REACH and RoHS, emergency procedures, safety training, risk identification and evaluation process (HIRAC, Hazard Identification Risk Assessment and Controls), etc.
Import Inspection	Compliance with the inspection process for raw materials and import inspections, material management, etc.

## SUPPLIER AUDIT RESULTS AND IMPROVEMENT MEASURES IN 2017

After an audit is completed, the findings are classified into Critical, Major, Minor and Opportunity for Improvement. Any critical noncompliance found is reported immediately to the heads of the Local and Global Quality Divisions, to whom the non-compliant division must also submit a report. The critical non-compliance status is then lifted by the head of the Global Quality Division upon validation of the efficiency of improvement measures. In 2017, **HQCL** audited 85 companies. **HQCL** identifies potential risk factors through supplier audits and requires measures for improvement when necessary.

Category	2014	2015	2016	2017
Audit CASE	76	54	58	85
Accepted	26	13	14	20
To be Developed	39	40	44	64
Not accepted	6	1	0	1
N/A	5	0	0	0

## ACHIEVING SHARED GROWTH WITH SUPPLIERS

### Supplier Evaluations and Improvements

For efficient logistics operation and management, **HQCL** undertakes supplier evaluations in terms of contract forms and issues regarding payment of logistics costs, from which it identifies areas of improvement. In 2017, **HQCL** executed separate contracts for suppliers in charge of inland container transportation and maritime forwarding businesses, which are major operational tasks for import and export transportation of goods. Prior to this change, forwarding suppliers executed comprehensive contracts and undertook both services and received a commission for inland container transportation. Through this measure, **HQCL** is now able to select suppliers specializing in each service area, thereby improving their expertise and efficiency of work.

## CONFLICT MINERAL POLICY

Recently, there have been increasing demands for social responsibility regarding the procurement of minerals. In particular, there are concerns over environmental pollution and human rights violations such as child labor that may arise in the process of mining minerals such as tantalum, tin, tungsten and gold found in the Democratic Republic of the Congo and surrounding countries. **HQCL** fully supports the social significance of restricting the use of conflict minerals and strictly adheres to the principle of using no conflict minerals in the process of manufacturing its products in an effort to strengthen a corporate culture that values human rights and environmental issues.

### Status Survey and Results

**HQCL** makes every effort to eliminate the use of conflict minerals across the entire value chain including suppliers' smelters, and closely monitors the status of conflict minerals.

### Status Survey Process

Tin is the only conflict mineral required to produce **HQCL's** products. **HQCL** has confirmed that the tin used in its products did not originate from a conflict zone by requesting its suppliers to provide the place of origin. **HQCL** will eliminate the use of conflict minerals by maintaining a high level of transparency and continuous monitoring of its suppliers' procurement process.

• Checking for any conflict minerals in the list of materials used in production processes
• Confirming no conflict minerals are used in suppliers' products
• Requesting the place of origin from suppliers that may be at risk of using conflict minerals
• Reviewing the use of conflict minerals in all <b>HQCL</b> products

### Future Plans

**HQCL** will request proof of the place of origin from all its suppliers that are at risk of using conflict minerals. In addition, suppliers will be evaluated to ensure that no conflict minerals are used.



# ENVIRONMENTAL IMPACTS

## GHG EMISSIONS CONTROL

In line with social standards, **Hanwha Q CELLS Korea Corporation** Jincheon Plant undertakes various activities to respond to climate change. In 2016, its business site in Jincheon was designated as a target management site under the Greenhouse Gas Target Management System, according to which it manages its energy consumption and greenhouse gas (GHG) emissions. **Hanwha Q CELLS Korea Corporation** Jincheon Plant minimizes GHG emissions from manufacturing products at its business sites, and considers direct emissions (Scope 1) and indirect emissions (Scope 2) in calculating GHG emissions. It operates a power-monitoring system to reduce indirect emissions (Scope 2) which accounts for 95% of emissions from its business sites, while limiting the application of chemicals relating to its direct emissions (Scope 1).

## WASTE MANAGEMENT

**Hanwha Q CELLS Korea Corporation** reduces waste generated in the course of production. To this end, it has established waste reduction targets and implements waste generation unit management.

## WATER MANAGEMENT

Water is mostly used in the production process and wastewater is treated through a waste water treatment system. To reduce its water consumption, **Hanwha Q CELLS Korea Corporation** Jincheon Plant has established a water resource recycling system by injecting antiscalant into reverse osmosis concentrated wastewater, reducing over 105,000 tons of annual water consumption.

## COLLECTION AND RECYCLING SYSTEM

**Hanwha Q CELLS Korea Corporation** supports domestic research on recycling of waste products by actively participating in policy meetings for product recycling with domestic research institutions and providing samples to waste disposal companies. It will contribute to better use of waste products by playing its role in establishing a stable recycling system in Korea.

## HAZARDOUS SUBSTANCE MANAGEMENT

Whenever a new chemical substance is used, **Hanwha Q CELLS Korea Corporation** requires prior verification and registration of such substances on its chemical substance management system in order to check for chemical hazards. **Hanwha Q CELLS Korea Corporation** provides training on chemicals and emergency drills to all employees at its Jincheon Plant to prepare for the possibility of hazardous chemical leakage, in addition to minimizing damage from chemical accidents by forming a chemical safety community with other SMEs in surrounding regions.

## AIR POLLUTANT MANAGEMENT

**Hanwha Q CELLS Korea Corporation** manages air pollutants generated at its business sites by treating them through a maximum of three steps of treatment process in order to minimize the concentration level of pollutants prior to discharge. The company monitors the concentration level of pollutants on a monthly basis to meet government standards and continuously analyzes the causes of any increase or decrease.

### CASE STUDY

#### Fine Dust Reduction Activities

As part of its efforts to reduce fine dust, a matter of national concern, **Hanwha Q CELLS Korea Corporation** signed the Voluntary Fine Dust Reduction Agreement participated in by 18 conglomerates under the jurisdiction of the North Chungcheong Province. Pursuant to this Agreement, **Hanwha Q CELLS Korea Corporation** has submitted its implementation plan of reducing 8.87% of relevant substances by 2020 compared to 2017, and undertakes various measures to attain the target.

## ENVIRONMENTAL PERFORMANCE<sup>1)</sup>

Category	Item	Unit	2015	2016	2017
Energy <sup>2)</sup>	Energy consumption		42	905	1,718
	Electricity	TJ	36	858	1,653
	Others		6	46	65
GHG <sup>2)</sup>	GHG emissions		2,059	44,136	83,761
	Scope 1	tCO <sub>2</sub> eq	324	2,443	3,478
	Scope 2		1,735	41,693	80,283

Water	Water consumption	Ton	190,092	744,822	1,075,720
	Wastewater discharge	Ton	-	563,471	818,794
Wastewater <sup>3)</sup>	Chemical Oxygen Demand (COD)		-	14	19
	Biochemical Oxygen Demand (BOD)	mg/L	-	10	6
	Suspended solids (SS)		-	15	18

General waste	Waste generation		937	6,019	9,880
	Landfill	Ton	-	739	723
	Recycling		937	5,280	7,287
	Others		-	0	1,870
Hazardous waste	Hazardous waste generation	Ton	-	7,640	27,541

Air pollution <sup>3)</sup>	Nitrogen oxides (NOx)		22.90	70.24	42.66
	Sulfur oxides (SOx)	mg/m <sup>3</sup>	-	0.78	0.00
	Particle matter (PM)		0.00	1.03	1.23

Environmental investment	Environmental investment	USD	-	0	895,161
	Environmental facilities operation		-	1,873,778	2,086,100

1) Based on the plants of **Hanwha Q CELLS Korea Corporation** in Jincheon and Eumseong; Environmental performance data in 2016 have generally increased due to an expansion of facilities at **Hanwha Q CELLS Korea Corporation's** Jincheon Plant  
2) Based on **Hanwha Q CELLS Korea Corporation** Jincheon Plant; Emissions have been calculated based on the Guidelines on the Greenhouse Gas and Energy Target Management System  
3) No emissions from **Hanwha Q CELLS Korea Corporation** Eumseong Plant



# HEALTH & SAFETY MANAGEMENT

## OCCUPATIONAL SAFETY AND HEALTH SYSTEM

Hanwha Q CELLS Korea Corporation implements a process safety management system for handling hazardous materials and OHSAS 18001, an international standard for safety and health management system. Hanwha Q CELLS Korea Corporation's Environment and Safety Team oversees matters relating to safety and health, while each department implements autonomous safety management according to a line responsibility system. Through these efforts, it has achieved “zero” severe industrial accident and occupational diseases, and holds on-site inspections and consultations on a regular basis to ensure that opinions of employees are reflected in management.

## ACTIVITIES TO PROMOTE EMPLOYEE HEALTH

In order to promote the health of its employees and prevent occupational diseases, Hanwha Q CELLS Korea Corporation provides health management on a regular basis to employees diagnosed with medical conditions at health exams to track their conditions. Through early treatment and health promotion programs, the company enables its employees to enjoy health and well-being at the workplace.

## EMERGENCY RESPONSE SYSTEM

Hanwha Q CELLS Korea Corporation operates an Emergency Response Team to prepare for unexpected accidents that may take place and minimize damages that may arise in such event. It also conducts regular scenario-based emergency drills in preparation for fires or leakage of chemicals, supplementing them with additional training and drills as necessary. Hanwha Q CELLS Korea Corporation maintains its emergency response system by providing emergency training and drills to its suppliers, so that not only its employees but all constituents can be fully prepared for any emergency situation that may take place in any of its business sites.



## OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT PERFORMANCE

Category		Unit	2015	2016	2017
Suppliers	LTIFR	Case/1 Million Working Hours	-	0.74	1.57
	Fatalities	Cases	0	0	0

\* Based on the critical suppliers at home and abroad

# APPENDIX

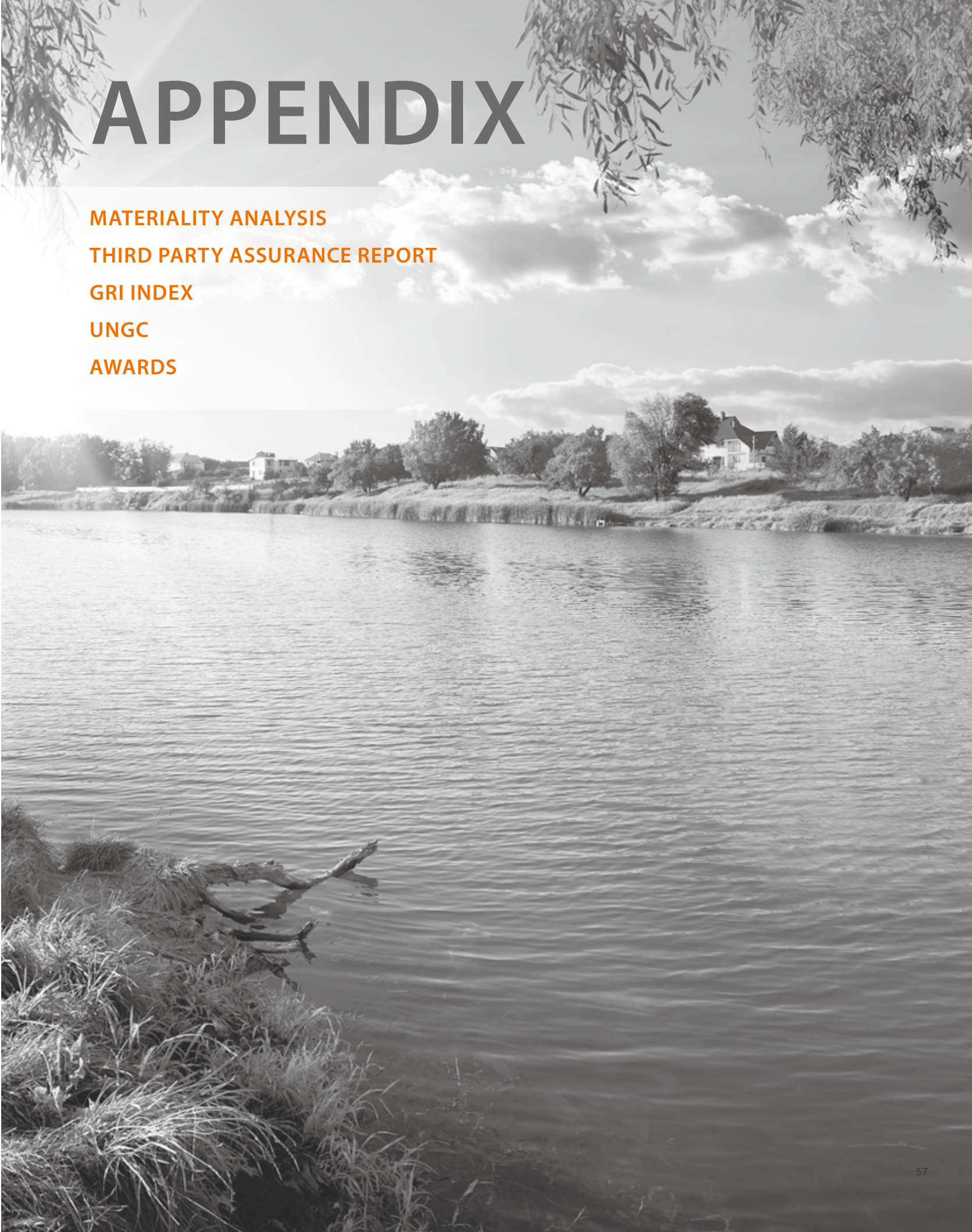
## MATERIALITY ANALYSIS

## THIRD PARTY ASSURANCE REPORT

## GRI INDEX

## UNGC

## AWARDS





# MATERIALITY ANALYSIS

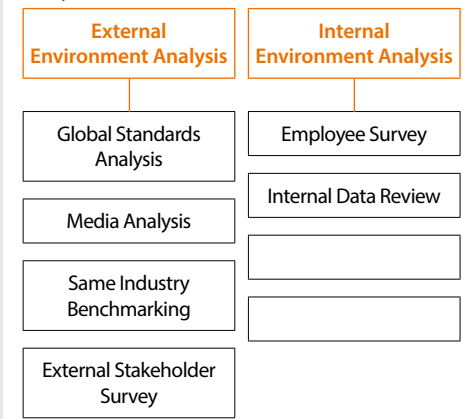
By conducting materiality analyses, **Hanwha Q CELLS Co., Ltd. (HQCL)** discloses details on material topics most closely relevant to the Company’s businesses and stakeholders.

## MATERIALITY ANALYSIS PROCESS

### Step 1.

#### Pool of Material Issues

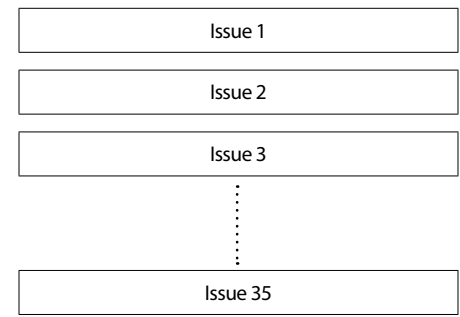
Analyze sustainability management issues relating to **HQCL** through multidimensional analysis



### Step 2.

#### Creating an Issue Pool

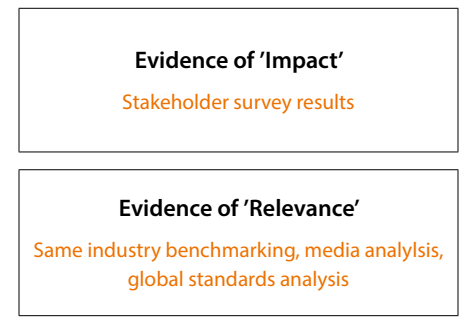
Create a pool of issues reflecting the characteristics of the industry



### Step 3.

#### Materiality Analysis

Conduct a materiality analysis of stakeholder interest and business relevance



## MATERIALITY ANALYSIS PROCESS

In order to identify issues that have an impact on its sustainability, **HQCL** has drawn 35 issues at the sustainability issue analysis stage based on an analysis of international standards, the media and internal management status. At the reporting issue selection stage, it conducted a quantitative analysis of the 35 issues from the perspective of “Impact on **HQCL** (X-axis)” and “Impact on Stakeholders (Y-axis),” resulting in nine material issues finally being selected.

## RESULT OF THE MATERIALITY ANALYSIS

The materiality analysis showed that global market development and business expansion were issues of the highest interest to stakeholders, demonstrating their high level of interest in the Company’s efforts and progress in becoming the best industry leader in the global market. The analysis also revealed that “reducing energy consumption and increasing energy efficiency” and “developing eco-friendly products and services” had high impact on **HQCL**, suggesting the increasing importance of environmental issues in the industry.

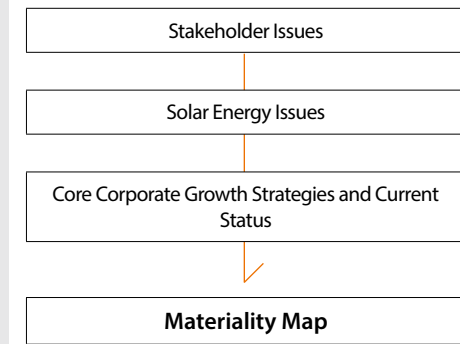
## COMPOSITION OF THE REPORT

Based on the material issues identified through the materiality analysis, **HQCL** reports its sustainability system, activities, progress and plans in line with the topics of the GRI Standards. The company also discloses its approach to management and performance through the “GRI Index” with regard to sustainability issues and aspects.

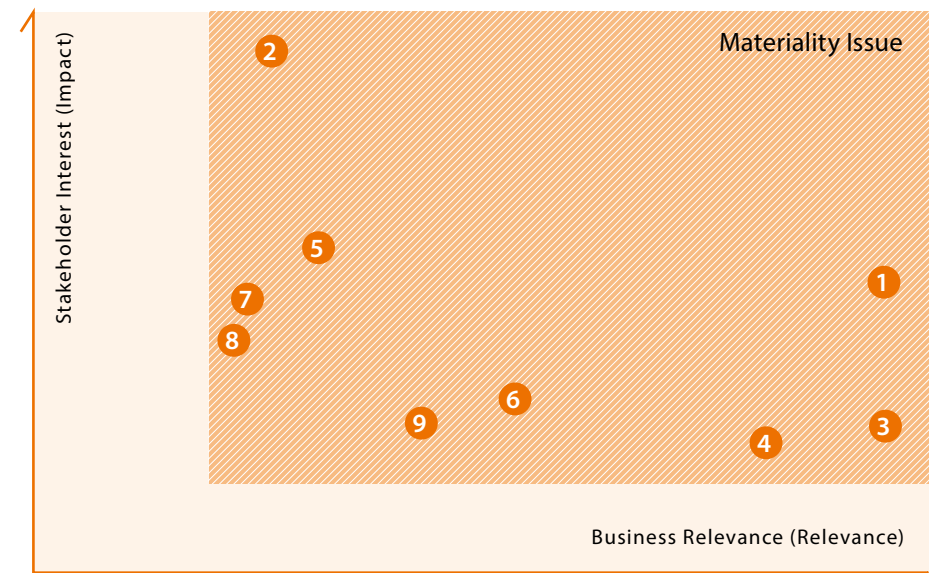
### Step 4.

#### Prioritization of Material Issues

Selection of Core Reporting Issues



## Materiality Map



## Material Issues

No.	Issue	Stakeholders	GRI Standards Topic	Page
1	Reducing Energy Consumption and Improving Energy Efficiency	Employees, Government	Energy	
2	Entering into Global Market and Expanding Business Sites	Customers, Shareholders, Investors	Economic Performance	
3	Developing Eco-friendly Products and Services	Employees, Customers	-	
4	Managing Pollutants	Employees, Suppliers, Local Community	Emissions	
5	Achieving Shared Growth with Suppliers	Suppliers	Supplier Social Assessment	
6	Selecting and Assessing Sustainable Suppliers	Suppliers	Supplier Environmental Assessment, Supplier Social Assessment	
7	Providing Education and Training for Capacity Building	Employees	Training and Education	
8	Undertaking Customer Satisfaction Activities	Customers	Marketing and Labeling	
9	Investing in Local Communities	Employees, Local Community	Local Communities	



# THIRD PARTY ASSURANCE REPORT

## Introduction

Hanwha Q CELLS Co., Ltd. (“HQCL”) commissioned DNV GL Business Assurance Korea, Ltd. (“DNV GL”), part of DNV GL Group, to undertake independent assurance of its ‘Sustainability Report 2018’ (the “Report”). The directors of HQCL have sole responsibility for the preparation of the Report. DNV GL’s assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been prepared in good faith.

## Scope of assurance

The scope of assurance includes a review of non-financial data and sustainability activities and performance data over the reporting period from 1st January to 31st December 2017 in the Report (Korean version). This also includes:

- Evaluation of the Report on the adherence to the reporting principles for defining report content and the reporting principles for defining report quality set forth in the Global Reporting Initiative (GRI) Sustainability Reporting Standards.
- Evaluation of the process for determining material topics for reporting and the management approach to material topics and the process for generating, gathering and managing the quantitative and qualitative data in the Report.

## Basis of our opinion

We’ve performed our work using DNV GL’s assurance methodology VeriSustain<sup>TM1</sup>, which is based on our professional experience, international assurance best practice including International Standard on Assurance Engagements 3000 (ISAE 3000). We applied the limited level of assurance. The assurance was carried out from August till September 2018. The site visits were made to headquarters of HQCL in Korea. Assurance activities were conducted based on sampling as follows:

- challenged the sustainability-related statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and controls;
- interviewed representatives from the various departments;
- conducted document reviews, data sampling and interrogation of supporting databases and associated reporting systems as they relate to selected content and performance data;
- reviewed the materiality assessment report.

## Limitations

The engagement excludes the sustainability management, performance and reporting practices of HQCL’s subsidiaries, associated companies, suppliers, contractors and any third-parties. DNV GL did not interview external stakeholders as part of this Assurance Engagement. The audited consolidated financial statements, the announcement disclosed at the website of Korea Financial Supervisory Service (<http://dart.fss.or.kr>) and disclosures in HQCL’s website ([www.hanwha-qcells.com](http://www.hanwha-qcells.com)) are not included in the assurance scope. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. Economic performance based on the financial data is cross-checked with internal documents and the audited consolidated financial statements. The baseline data for Environmental and Social performance are not verified, while the aggregated data at the corporate level are used for the verification. DNV GL expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement. The responsibility of DNV GL in performing the assurance work is limited to the management of HQCL in accordance with the terms of reference.

## Conclusion

On the basis of the work undertaken, nothing comes to our attention to suggest that the Report does not properly address the adherence to the Principles for defining report content in GRI Standards nor is prepared ‘in accordance’ with GRI Standards - Core option. Further opinions with regards to the adherence to the Principles are made below;

## Stakeholder Inclusiveness

HQCL has identified internal and external stakeholder groups such as Customers, Local communities, Suppliers, Shareholders/Investors and Employees. HQCL conducts stakeholder engagement activities through various channels. The way of engagement with respective stakeholder groups and major concerns of stakeholders are described in the Report.

<sup>1</sup> The VeriSustain protocol is available upon request at DNV GL Website ([www.dnvgi.com](http://www.dnvgi.com))

## Sustainability Context

The Report discloses to the stakeholders the HQCL’s management approach to material topics, reasons why the selected topics are material and HQCL’s strategy. In addition, the Report presents sustainable management performance created from its business models, major project stories, key achievements in 2017 relative to material topics, which helps the stakeholder understand the sustainability management of HQCL. HQCL could establish and report sustainability goals and strategies for mid and long term which are implemented in line with management strategy.

## Materiality

HQCL has conducted the materiality assessment to prepare the Report. The relevant 35 issues are selected from the review of the global sustainability initiatives and standards, the topics which industry peer group considers material, the subjects covered by mass media, internal and external stakeholder survey results and analysis of internal management topics. The issues in the pool are rated by combining the level of impact on HQCL’s business and the level of stakeholders’ interest in the issue. 9 material topics are prioritized accordingly. The PRJC-584251-2018-AST-KOR Page 3 of 3 assurance team reviewed the materiality assessment process and confirmed that the material topics prioritized from the process are addressed in the Report.

## Completeness

The Report has covered the material topics and sustainability performances of HQCL for the reporting period. The reporting boundary includes Headquarters in Korea, Cyberjaya in Malaysia, Oidong in China, and the Technology & Innovation Headquarters in Germany. The assurance team has not noted any intentional omission of the performance results on material topics within the reporting boundary.

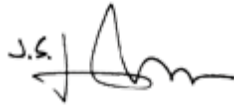
## Balance, Comparability, Accuracy, Timeliness, Clarity and Reliability

The assurance team has sampled data and tested accuracy and reliability. The assurance team interviewed the data owners and reviewed the data gathering process with the supporting documents and records. The depth of data verification is limited to the aggregated data level. Based on the test, the intentional error or misstatement is not noted. The data owners were able to demonstrate to trace the origin of the data and to interpret the processed data in a reliable manner. The data was identifiable and traceable. In addition, the Report provides the latest three-year performance on material topics, helping stakeholders understand the changes over years in organizational performance. Errors or unclear expressions found during the assurance process were corrected prior to the publication of the final Report.

## Competence and Independence

DNV GL applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV GL Code of Conduct<sup>2</sup> during the assurance engagement and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV GL was not involved in the preparation of statements or data included in the Report except for this Assurance Statement. DNV GL maintains complete impartiality toward stakeholders interviewed during the assurance process. DNV GL did not provide any services to HQCL that could compromise the independence or impartiality of our work.

September 2018  
Seoul, Korea



Jang Sup Lee

Acting Country Representative DNV GL  
Business Assurance Korea, Ltd.

<sup>2</sup> DNV GL Code of Conduct is available from DNV GL website ([www.dnvgi.com](http://www.dnvgi.com))



# GRI INDEX

## 1. General Standards

CLASSIFICATION	DISCLOSURE	INDICATORS	PAGE	NOTE
Organizational Profile	102-1	Name of the organization	8~9	
	102-2	Activities, brands, products, and services	8~9, 12~13	
	102-3	Location of headquarters	8~9	
	102-4	Location of operations	8~9	
	102-5	Ownership and legal form	8~9, Annual Report (Form 20-F)	
	102-6	Markets served	8~9	
	102-7	Scale of the organization	8~11	
	102-8	Information on employees and other workers	31, Annual Report (Form 20-F)	Based on the headquarters in South Korea, 70 male and 25 female Employees.
	102-9	Supply chain	52	
	102-10	Significant changes to the organization and its supply chain	-	No significant changes
	102-11	Precautionary Principle or approach	22~23	
	102-12	External initiatives	64, Official Website	
	102-13	Membership of associations	64, Official Website	
Strategy	102-14	Statement from senior decision-maker	6~7	
Ethics and Integrity	102-16	Values, principles, standards, and norms of behavior	20~21	
Governance	102-18	Governance structure	16~18	
Stakeholder Engagement	102-40	List of stakeholder groups	19	
	102-41	Collective bargaining agreements	-	97.6%
	102-42	Identifying and selecting stakeholders	19	
	102-43	Approach to stakeholder engagement	58~59	
	102-44	Key topics and concerns raised	19	
Reporting Practice	102-45	Entities included in the consolidated financial statements	Annual Report (Form 20-F)	
	102-46	Defining report content and topic Boundaries	About This Report	
	102-47	List of material topics	58~59	
	102-48	Restatements of information	-	Stated separately at the related content
	102-49	Changes in reporting	-	Stated separately at the related content
	102-50	Reporting period	About This Report	
	102-51	Date of most recent report	About This Report	
	102-52	Reporting cycle	About This Report	
	102-53	Contact point for questions regarding the report	About This Report	
	102-54	Claims of reporting in accordance with the GRI Standards	About This Report	
	102-55	GRI content index	62~63	
	102-56	External assurance	60~61	

## 2. Topic-Specific Standards

CLASSIFICATION	DISCLOSURE	INDICATORS	PAGE	NOTE
Economic Performance	103-1,2,3	Management Approach	8~9	
	201-1	Direct economic value generated and distributed	8~11, Annual Report (Form 20-F)	
Energy	103-1,2,3	Management Approach	33~34	
	302-1	Energy consumption within the organization	10, 34, 37	
Emissions	103-1,2,3	Management Approach	33~34	
	305-1	Direct (Scope 1) GHG emissions	37	
Supplier Environmental Assessment	103-1,2,3	Management Approach	50~51	
	308-1	New suppliers that were screened using environmental criteria	53	
Training and Education	103-1,2,3	Management Approach	26~28	
	404-2	Programs for upgrading employee skills and transition assistance programs	27~28, 31	

Local Communities	103-1,2,3	Management Approach	42~43	
	413-1	Operations with local community engagement, impact assessments, and development programs	44~47	The previous data have been modified due to changes to calculation standards
Supplier Social Assessment	103-1,2,3	Management Approach	50~51	
	414-2	Negative social impacts in the supply chain and actions taken	52~53	
Marketing and Labeling	103-1,2,3	Management Approach	38~39	
	417-2	Incidents of non-compliance concerning product and service information and labeling	39, Annual Report (Form 20-F)	No case
	417-3	Incidents of non-compliance concerning marketing communications	39, Annual Report (Form 20-F)	No case

## 3. Other Standards

Economic Performance(GRI 200)				
CLASSIFICATION	DISCLOSURE	INDICATORS	PAGE	NOTE
Economic Performance	201-2	Financial implications and other risks and opportunities due to climate change	34	
	201-4	Financial assistance received from government	-	No case
Indirect Economic Impact	203-1	Infrastructure investments and services supported	42~47	The previous data have been modified due to changes to calculation standards
	203-2	Significant indirect economic impacts	42~47	
Anti-corruption	205-1	Operations assessed for risks related to corruption	-	100%, No significant risk identified
	205-2	Communication and training about anti-corruption policies and procedures	20~21	
	205-3	Confirmed incidents of corruption and actions taken	-	No case
Anti-competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	-	No case

Environmental Performance(GRI 300)				
CLASSIFICATION	DISCLOSURE	INDICATORS	PAGE	NOTE
Water	303-1	Water withdrawal by source	36~37	
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	36	
	304-2	Significant impacts of activities, products, and services on biodiversity	36	
Effluents and Waste	306-1	Water discharge by quality and destination	36~37	
	306-2	Waste by type and disposal method	36~37	
	306-3	Significant spills	-	No case
Environmental Compliance	307-1	Non-compliance with environmental laws and regulations	-	No case

Social Performance(GRI 400)				
CLASSIFICATION	DISCLOSURE	INDICATORS	PAGE	NOTE
Employment	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	27~30	
	401-3	Parental leave	31	
Labor/Management Relations	402-1	Minimum notice periods regarding operational changes	29	
Occupational Health and Safety	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	32	
	403-3	Workers with high incidence or high risk of diseases related to their occupation	32	
	403-4	Health and safety topics covered in formal agreements with trade unions	32	
Training and Education	404-1	Average hours of training per year per employee	31	
	404-3	Percentage of employees receiving regular performance and career development reviews	-	100% of regular employees in managerial positions
Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	16, 31	
Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	-	No case
Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	-	No case
Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	-	No case
Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	-	No case
Human Rights Assessment	412-2	Employee training on human rights policies or procedures	-	100%, Sexual harassment prevention training
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	-	Review based on the supplier's code of conduct
Marketing and Labeling	417-3	Incidents of non-compliance concerning marketing communications	-	No case
Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	-	No case
Socioeconomic Compliance	419-1	Non-compliance with laws and regulations in the social and economic area	-	No case



HQCL supports the Ten Principles of the UN Global Compact (UNGC) regarding Human Rights, Labor Standards, Environment and Anti-Corruption. The Company is committed to fulfilling its social responsibilities by undertaking various activities and reflecting international standards in sustainability.

Category	Principles	Key Activities	Page
Human Rights	1. Businesses should support and respect the protection of internationally proclaimed human rights.	• Compliance with the Ten Principles of the UNGC • Compliance with International Labor Organization (ILO) Standards	
	2. Businesses should make sure they are not complicit in human rights abuses.	• Sexual harassment prevention training • Inclusion of a human rights provision in agreements	
Labor Standards	3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.	• Compliance with the Labor Standard Act • Operation of a labor union	
	4. Businesses should uphold the elimination of all forms of forced and compulsory labor.	• Compliance with laws regarding forced labor and child labor	
	5. Businesses should uphold the effective abolition of child labor.		
	6. Businesses should uphold the elimination of discrimination in respect of employment and occupation.		• Fair recruitment process • Performance-oriented employee evaluation
Environment	7. Businesses should support a precautionary approach to environmental challenges.	• Certification of the Environmental Management System (ISO14000) • Compliance with national environmental laws and regulations • Operation of waste product collection programs	
	8. Businesses should undertake initiatives to promote greater environmental responsibility.	• Pollutant discharge control • Reuse and recycling of waste • Energy efficiency	
	9. Businesses should encourage the development and diffusion of environmentally friendly technologies.	• Eco-friendly product (carbon footprint) certification • Life-cycle assessment	
Anti-Corruption	10. Businesses should work against corruption in all its forms, including extortion and bribery.	• FCPA compliance training • Employee compliance training	

AWARDS



**INTERSOLAR AWARD 2018**

The Intersolar Award is the largest photovoltaic exhibition in Europe. HQCL was selected as the winner of the Intersolar Award for two consecutive years, winning the award in 2017 for its steel frame module made with the Company's core technologies such as reinforced steel frame and Q.ANTUM for higher yields as well as lower installation costs and LCOE, followed by receiving the award in 2018 for its new half cell- and 6 Bus Bar-based Q.PEAK DUO-G5.



**PV MAGAZINE - TOP INNOVATION AWARD 2017**

PV Magazine, a global photovoltaics magazine, awards the top photovoltaic companies after thorough evaluations of their modules and technological innovations. HQCL was awarded the Top Innovation Award 2017 in recognition of technological innovation and practicality of its steel frame module combining a steel frame and HQCL's proprietary Q.ANTUM technology.



**PV MAGAZINE - ARRAY CHANGING TECHNOLOGY AWARD 2017**

HQCL was awarded the Array Changing Technology Award by PV Magazine in recognition of its technological innovations and product performance based on practicality and feasibility.



**TERAWATT DIAMOND AWARD AT SNEC 2018**

Awarded the SNEC Terawatt Award for four consecutive years as the only foreign company at SNEC, China's largest photovoltaic exhibition which awards the top ten companies out of 1,800 participating companies based on their technological strength and operation of exhibition.



**EUPD RESEARCH TOP BRAND PV 2018**

EuPD Research evaluates the level of brand management by module and inverter manufacturers in countries such as Germany, France, Italy and the U.K. HQCL was awarded the Top Brand PV by the EuPD five consecutive times in Europe and three in Australia.



**THE 13TH KOREA NEW GROWTH MANAGEMENT AWARDS: COMMENDATION OF THE MINISTER OF TRADE, INDUSTRY AND ENERGY**

Awarded the Commendation of the Minister of Trade, Industry and Energy in 2016 in recognition of HQCL's contribution to new growth management activities based on next-generation growth engines.



**SOLAR INDUSTRY AWARD 2015**

The Solar Industry Awards was created to understand the whole value chain of the solar industry and discover innovative people, products and services embodying groundbreaking technologies. HQCL won the Solar Industry Award 2015 (Germany) for its Q.ANTUM technology-based Q.PLUS module.



**PHOTON YIELD MEASUREMENT 2013/2014**

As a solar power magazine, Photon measures the actual yield and performance of modules as one of its key roles. HQCL's Q.PRO solar module was selected as the No. 1 polycrystalline module in the yield measurement test performed by Photon. The Q.PRO-G2 235 Wp module also outperformed 147 polycrystalline modules by other solar module manufacturers.



**SOLAR POWER PORTAL AWARD 2017**

The Solar Power Portal Award is an annual event held in the U.K. awarding top photovoltaic products with outstanding technological achievements in 13 categories. HQCL's Q.PEAK RSF L-G4.2 steel frame module was awarded the Solar Power Portal Award 2017 in recognition of its product innovation.



**SOLAR+POWER AWARD WINNER**

The Solar Power Award is an annual award for the solar power value chain hosted by the global solar power magazine "Solar+Power Management Magazine." HQCL was awarded in 2017 in recognition of the quality and innovation of The Company's new Q.PEAK DUO G5 module designed based on Q.ANTUM technology, followed by receiving the award in 2018 for its Q.FLAT-G5 in the Solar PV BOS(Balance of system - cable, inverter, switch, and mounting systems, etc.).



**CLIMATE CHANGE GRAND LEADERS' AWARD - CORPORATE SECTOR**

The Climate Change Grand Leaders' Award was created by the Climate Change Center to reward individuals and organizations who make outstanding efforts in various fields of the society to respond to climate change in Korea. HQCL was selected as the winner in the corporate sector.



**SMART HIT AWARD 2017**

HQCL won the Smart Hit Award 2017 awarded by Smart House, a Japanese energy equipment and energy-zero-house magazine. HQCL Japan's Q.PEAK G-4.1 was selected as the most preferred residential photovoltaic product with high cost competitiveness and cost effectiveness, outperforming products by all other manufacturers in Japan.



**DNV GL 2018**

HQCL's modules achieved a "Top Performer" ranking in the 2018 DNV GL PV Module Reliability Scorecard. For three consecutive years, HQCL achieved the Top Performer ranking in recognition of its outstanding product quality. Its Q.PLUS BFR-G4.1 was ranked "Top Performer" in terms of temperature, humidity and mechanical load, while the Q.PEAK-G4.1 received the same ranking in the PID test.



**"BEST PLACE TO WORK" IN KOREA**

In June 2018, Hanwha Q CELLS Korea Corporation was selected by the Ministry of Employment and Labor as a "Best Place to Work" in Korea. The Ministry selected 100 companies by analyzing the employment insurance database, locating local employment and labor offices, and receiving recommendations from the public, followed by on-site inspections and review of opinions from labor and management.





This Report has been printed on eco-friendly recycled paper certified with an environmental mark from the Korea Environmental Industry & Technology Institute.

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