2016 Corporate Social Responsibility Report

Customer-Centric
Open-Mindedness
Dedication
Excellence

Achieve Our Dream with Sunlight

www.trinasolar.com
Contents

About the Report 01
Message From the Leadership 03

Chapter 1 Governance and Development 05
- Company Profile 07
- Corporate Governance 09
- Corporate Culture 11
- Communication with Stakeholders 13
- Materiality Analysis 15
- Support SDGs 16
- Challenges and Opportunities 19
- Awards 21

Chapter 2 Care for Our Earth 23
- Green Sustainable Development 26
- Solutions to Climate Change 29
- Environment-friendly Operation 35
- Biological Diversity Management 40

Chapter 3 Focus on Supply Chain 41
- Sustainable Supply Chain 44
- Conflict-free Minerals 47
- Cooperation for Win-win Situation 48

Chapter 4 Care for Employees 51
- Employees’ Rights 54
- Employees’ Development 55
- Listen to Employees 57
- Employees’ Health 57
- Employees’ Occupational Health and Safety 59

Chapter 5 Contribution 67
- Education Support 70
- Donations 72
- Volunteer Programs 74

GRI Index 75
About the Report

Range and Scope of the Report
Trina Solar compiled and issued the Corporate Social Responsibility Report since 2011, and the last Report was published and issued in August, 2016.

The Report elaborates on Trina Solar’s ideas, strategies and concrete practices in relation to corporate social responsibility in 2016, covering all factories and operating business units which were under management control of Trina Solar. It includes all managed operations and consolidates our reporting on economy, environment, people and community. In this report, we explain our vision and policy with respect to corporate social responsibility and report on our management approaches, activities, initiatives and our key performance indicators in this field during 2016.

The annual Corporate Social Responsibility Report is dedicated to providing information to all stakeholders, including stockholders, potential investors, clients, the communities we live and work in, business partners, public welfare organizations, media and government, to help them understand and evaluate Trina Solar’s influence, risks and opportunities in relation to sustainable development. We will continue to improve the disclosure quality of social responsibilities and gradually widen our sustainable development road.

Report Frame
Trina Solar refers to Global Reporting Initiative’s (GRI) Sustainability Reporting Guidelines to compile our Corporate Social Responsibility Report every year. The 2016 Corporate Social Responsibility Report is based on the Global Reporting Initiative’s Sustainability Reporting Standards (GRI Standards) by revealing relevant information at comprehensive level.

Data Measurement
The data in this Report mainly comes from the original records of practical operation. The information in the Report will receive internal auditing by the company, and some special content will be subject to external auditing. We will periodically validate the effectiveness of the data collection process and data management system. We obtained ISO14001 Environmental Management System certification in 2008 and OHSAS18001 Occupational Health Management System certification in 2010. In 2011, we got ISO14064 certification for Greenhouse Gas Emission Data Verification. In 2012, we passed Product Carbon Footprint Verification PAS2050. In 2015, we were successfully certified with ISO50001/GBT 23331-1:2012: Energy Management System. We validate the effectiveness of these systems through external auditing every year.

Our CSR report is prepared both in Chinese and English. The report is retrievable at Trina Solar’s website. We appreciate your comments or feedbacks on this report via e-mailing to EHS_Department@trinasolar.com.

2016 Corporate Social Responsibility Report
About the Report Message from the Leadership Governance & Development Care for Our Earth Focus on Supply Chain Care for Employees Contribution to Society GRI Index
Message from the Leadership

Dear Distinguished Stakeholders,

Looking ahead, it is irreversible that the renewable energy will continue to take the place of conventional energy. Trina Solar will accelerate implementation of our six strategies — Innovation, Branding, Financing, Globalization, Intelligence and Platform. Trina Solar will uphold its core corporate value of “Customer-Centric, Open-Mindedness, Dedication, and Excellence”. Together with our stakeholders, we are in full confidence that we will be able to realize our solar dream and achieve the harmony between human beings and the nature.

The year of 2016 was extraordinary for renewable energies. Driven by improving renewables technologies, reaching of high-profile agreements (i.e., Paris Agreement, G20 Hangzhou Summit etc.), increasing environmental concerns, and growing demand for energy in developing and emerging economies etc., renewable energies are now becoming one of the mainstream sources of energy around the whole world. Solar PV installation experienced another year of record growth in 2016, with about 71 GW\(^2\) of new PV installation worldwide and 14.54 GW\(^2\) domestically. This brings the cumulative PV installation capacity to about 296 GW\(^2\) worldwide and 77.42 GW\(^2\) in China.

The year of 2016 was a both fruitful and challenging year for Trina Solar. We continuously made advances in manufacturing capability, PV technology, products’ efficiency, smart products, downstream business as well as progress in energy storage and its commercialization. Our new manufacturing facility in Thailand, with a designed capacity of producing 700 MW solar cells and 500 MW of solar modules, had successfully put into operation. Trina Solar has also completed its construction of the most advanced solar cell manufacturing plant with a capacity of 700 MW solar cells in Vietnam. We broke world records in PV cell and module efficiency thrice. In the downstream business, we continued to make impressive progress with cumulative grid connected projects of over 1.3 GW. We established a new Value Creation Unit (VCU) – Residential PV System. Trina Solar launched a range of products and solutions to meet its global customers’ needs and expectations. Trina Solar was evolving from a pure PV module manufacturer to a world’s top solar energy solution provider. As of end of 2016, Trina Solar achieved cumulative PV module shipments of above 23 GW to customers in over 70 countries and regions, ranked as number one worldwide.

Trina Solar actively engaged in various occasions to promote solar clean energy. Just before the opening of the G20 Summit in Hangzhou, Trina Solar took initiative to work with the Global Solar Council to send out an open letter to the G20, seeking for support from G20 members to develop environmental-friendly solar energy and to achieve a target of creating 10 million job opportunities by 2030. In the Summer Davos Forum in 2016 in Tianjin, energy issue and fighting against climate change became one of main discussion topics. Trina Solar appealed governments to ramp up efforts to support the development of clean solar energy. Trina Solar expressed that countries along the “One Belt, One Road” initiative would be hot destinations for energy infrastructure. Trina Solar will continue to hold the philosophy of giving back to society and PEG5. We unswervingly advocated and implemented low-carbon verification according to the requirements of ISO14067/PAS2050 international standard. We achieved significant reduction from a range of 18.7% to 25.4% for a portfolio of main products, including PV modules, PV systems and PEG5. We unswervingly advocated and implemented low-carbon development strategy and integrated green-manufacturing concepts throughout all the stages of our company’s operation.

Trina Solar was committed to creating safe, healthy and environmentally-friendly workplace for all our employees. We dedicated to reducing occupational injury and illness accidents and promoting employee health and well-being. In March, 2016, Trina Solar was granted a Silver Recognition Level in Corporate Social Responsibility (CSR) performance survey conducted by EcoVadis. In June, 2016, Trina Solar was conferred with the honor of “2015 Jiangsu Safety Culture Model Enterprise” by Jiangsu Work Safety Administration Bureau. In November, 2016, Trina Solar won a top regional award for sustainability reporting – Asia’s Best Workplace Reporting Award at the 2016 Asia Sustainability Reporting Awards in Singapore. The achievements were resulted from our adhering to the “employee-oriented” workplace policy.

As a responsible enterprise, we always adhere to the mission of “Solar Energy for All”. Early in 2003, Trina Solar built 40 solar off-grid power stations, allowing those vulnerable groups in electricity-deficient regions enjoy modern conveniences with clean solar energy. In 2015, Trina Solar donated RMB 10 million to set up the Siyuan Sunshine Entrepreneurship Fund, aiming to empower the college students in the underdeveloped and marginalized communities through PV-related vocational education and entrepreneurship trainings. In August, 2016, Trina Solar donated ambulances, worth of RMB 700,000, to Fening Manzou Autonomous County, Hebei Province for supporting local medical rescue in remote area. In December, 2016, Trina Solar rolled out two public photovoltaic training sessions in Xining, Qinghai and Wuwei, Gansu, helping college students in western region cultivate entrepreneurship and achieve success in photovoltaic industry. Trina Solar will continue to hold the philosophy of giving back to society through our technology and resources. Looking ahead, we will face a series of the challenges, such as international trade protectionism, fierce competition, FIT reduction and PV power curtailment in China etc. However, it is irreversible that the renewable energy will continue to take the place of conventional energy. We will accelerate implementation of our six strategies – Innovation, Branding, Financing, Globalization, Intelligence and Platform. Trina Solar will uphold its core corporate value of “Customer-Centric, Open-Mindedness, Dedication, and Excellence”. Together with our stakeholders, we are in full confidence that we will be able to realize our solar dream and achieve the harmony between human beings and the nature.

Chairman & CEO of Trina Solar

Jifan Gao

Chairman & CEO of Trina Solar
Trina Solar is committed to achieving and maintaining the highest level of corporate governance, maintaining sound and good corporate governance, so as to guarantee the long-term interests of shareholders, customers and employees. We strictly comply with applicable laws and regulations in the countries and regions where our business is operated. Trina Solar verifies its management system regularly. The company pays great attention to the compliance operation in good faith; follows the laws and regulations, international conventions and business ethics; sticks to taking care of the relationship with suppliers, clients, government departments, partners, competitors and other stakeholders with principles of fairness and honesty. We win customers’ respect and market share with our credibility, quality, services, quick response and effective management.
Company Profile

Founded in 1997, Trina Solar is the world’s leading total solution provider for solar energy. Trina Solar consistently aims to the mission of “Solar Energy for All”. Our core commitment will always be to provide customers with clean and reliable solar energy. As one of China’s earliest PV system integrators, Trina Solar devotes itself to the creation of smart energy together with its installers, distributors, utility and project developers worldwide. We are committed to taking initiatives to build a sustainable solar industry and lead the industry in terms of technology innovation, product quality, environmental protection and social responsibility.

Cumulative Shipments Over 23 GW

15,051 Employees

Thailand Plant Put into Operation

19 countries Manufacturing Bases/Marketing Centers

Mission

Solar Energy for All

Vision

The World Most Trusted and Respected Solar Energy Company

Core Values

Customer-Centric, Open-Mindedness, Dedication, Pursuit of Excellence

Strategic Objective

To be the Global Leading Overall Solution Provider of PV Smart Energy and Energy Internet
Corporate Governance

Legal compliance is not only the guarantee of the success of an enterprise, but also the foundation of its long-term, healthy and steady development. Trina Solar consistently adheres to business ethics, and aims to cultivate a management system with the highest standards and business ethics, so as to build a responsible, honest and compliant corporate management mechanism.

Organizational Structure

Our vision is to be “The World’s Most Trusted and Respected Solar Energy Company”. To achieve the vision, we improved our organizational structure according to the market demands. In 2016, focusing on value generation, we established Upstream Value Creation Unit (VCU), Downstream VCU, Finance Monitoring & Coordination Center and Shared Service Platform. We urge all employees to turn from passive management to be self-motivated, improve efficiency, make continuously innovation, and create more value for our stakeholders.

Risk Management

Risk management and control are necessary for the stable development of the enterprise and the guarantee of stakeholders’ interests. In order to properly identify and avoid various internal and external risks, and be responsible for our stakeholders as well, Trina Solar has set up its Risk Management Department to formulate a risk management system, optimize our workflows and regularly monitor potential environmental, corporate governance and economic risks in the daily operation.

Legal Compliance and Ethics

Trina Solar always adheres to legal compliance. We have integrated ethics construction and compliance requirements into the company’s daily operation. We formulated a series of rules and regulations to guide behaviors of employees and suppliers, e.g., Trina Solar Code of Business Conduct and Ethics, Anti-corruption Policy, Antitrust Compliance Policy, Reward and Punishment Regulations on Employee Behavior, etc. We also set up Business Ethics Committee, being responsible for ethics management. We have issued requirements and operation guidance about corporate governance on the company’s official website (www.trinasolar.com).

We ensure employees to abide by business ethics in a clear, simple and direct way, and ensure that the company’s operation and management is always in line with applicable business ethics policies.

Internal Audit

The Company has built a comprehensive internal control system based on SOX Act and COSO Internal Control-Integrated Framework. We formulate an authorization framework based on strategic objectives and operation planning. Trina Solar implements internal control for our daily operation through regular trainings and audits. Internal Audit (IA) Department conducts internal audit twice a year to ensure that the company’s internal control is effective. The audit findings will be communicated to responsible departments immediately for taking corrective and preventive measures. Besides, we also engage third-party organizations to audit our internal control system annually. Trina Solar has received positive audit conclusions from the third-party organization concerning the effectiveness of its internal control.

IA Department strictly carries out audit based on audit plan which is reviewed and approved by Company’s Audit Committee. IA Department discloses potential misconduct, identifies improvement opportunities, proposes and follows up corrective actions based on audit findings.

Intellectual Property Rights

Trina Solar respects all intellectual property rights and commits to comply with international conventions on intellectual property, as well as local laws and regulations. We established Intellectual Property Management Committee and formulated Intellectual Property Management General Principles, Patent Management System, and Business Secret Management Procedure, to protect Trina Solar’s intellectual property rights.

As of end of 2016, Trina Solar has applied for 1,317 patents, including 11 international patents and 585 invention patents. We boast 747 valid patents, among which 220 are patents for invention. In December, 2016, Trina Solar’s Interdigitated Back Contact (IBC) silicon solar cell was awarded the Excellence Award at the 18th China Patent Awards hosted by State Intellectual Property Office and World Intellectual Property Organization.

Complaint Channels:

Ethics Compliance Hotline: +86-519-85176933

Anti-fraud Reporting Email: IA@trinasolar.com
Corporate Culture

Corporate culture is the soul of an enterprise. It is the inner drive for sustainable development. Trina Solar always advances with the times, and updates our corporate culture in different stages of development so that we can improve corporate unity, ensure sound development, help employees realize self-values, and finally realize our mission and vision.

Trina 3.0 Value Statement

- **Customer-Centric**
  - Proactively seek to understand customer needs
  - Quickly respond to customer requests
  - Provide superior products and services to our customers
  - Create exceptional customer experience

- **Open-Mindedness**
  - Value honesty, integrity & candor, accept different view
  - Focus on teamwork & synergy, create and share team successes
  - Practice self-reflection and self-criticism
  - Face the future and embrace change

- **Dedication**
  - Be proactive and take quick actions
  - Dedicated to work and strive hard to achieve goals
  - Be fearless in the face of challenges and difficulties
  - Persevere and committed to achieve the mission

- **Excellence**
  - Seek transformational change and continuous improvement
  - Courage to innovate and adopt rapid iteration
  - Be a fast learner and develop and surpass ourselves
  - Strive to be the best with determination and no hesitation

“Solar Energy for All” is our common commitment for the future. Trina Solar’s vision of “Being the World’s Most Trusted and Respected Solar Energy Company” inspires us to advance forward. “Customer-Centric, Open-Mindedness, Dedication, and Excellence” is the mission rooted deeply in our hearts. It is the cultural gene that we insist and believe in for the long term, and the spiritual guidance leading us to achieve such a joint commitment.

Plans and Actions

In order to integrate the core values in the daily behaviors of each Trina employee and put words into action, we continue to take a variety of programs to ensure that the core values are rooted in every employee’s mind and every aspect of our business. We maintain consistency in both thought and action in daily operations, and provide effective services to our customers at the same pace.

We established Trina Solar Culture Construction Team to promote the company’s cultural construction so that we have correct guidance for thinking and action in daily work. We set up a mailbox for corporate culture communication to collect each employee’s suggestions and comments regarding the cultural construction. We also conduct 360-degree Trina Culture Evaluation to help employees have a deeper understanding of Trina Solar’s culture and core values, get aware of the importance of corporate culture. Let employees know their own advantages and improvement opportunities in the core value-related practice, and take this as the reference to make improvement. In April, 2016, our Wechat enterprise account, titled with “Trina Culture”, was officially launched, which can update information of activities and training to employees in real time and share stories of employees related to the company’s core value.

In 2014, we organized the Employee Engagement Survey for all management staff worldwide for the first time to identify the key factors affecting employee engagement, so as to work out a plan to make improvement. In order to verify the plan’s effectiveness, we conducted the Employee Engagement Survey again in 2016. 2,131 management employees participated in the survey. We got a participation rate of 84%. The survey’s results indicated that, compared to 2014, employee engagement was significantly improved in 2016 in aspects of transformation management, compensation and rewards, learning and development. Meanwhile, it also revealed what we should enhance, such as inter-departmental cooperation, effective follow-up and implementation of improvement measures, etc. We formulated upgrading programs based on the survey’s results to support the realization of the company’s strategic objective.

In September, 2016, we organized Trina Family Day. 3,000 employees and their family members participated in the event. The purpose of the activities held on the family day was to increase exchanges among the company, the employees and employees’ families, which enabled employees to share achievement and memorable moments with their families. Employees and their families enjoyed themselves in various kinds of wonderful activities, and learnt Trina Solar’s corporate culture in a cheerful and relaxed atmosphere.
Communication with Stakeholders

Facing the challenge of sustainable development, we need to work together with all stakeholders, with each one giving full effort to his strong point. We believe that bilateral, transparent and regular communication will bring about closer ties between us and stakeholders, and enhance mutual trust and respect.

Trina Solar pledges to respect, consider and respond to the interests of its stakeholders. Through systematic identification and classification of stakeholders, Trina Solar has established stakeholder communication channels. For many years, we have been listening to our stakeholders, responding to their needs in a comprehensive and timely manner, so as to meet their expectations.

We strengthen communication with employees via Quarterly Internal Communications Conference, Roundtable Communication Meeting, and Lunch Communication Meeting, etc. We timely understand our customers’ requirements to provide high-quality products and services by attending the Global Solar Energy Exhibition and carrying out customer satisfaction questionnaires.

In June, 2014, Jifan Gao, Chairman and CEO of Trina Solar, was elected as the first Director of China Photovoltaic Industry Association (CPIA). Mr. Jifan Gao was elected Co-chairman of Global Solar Council (GSC) which was established in December, 2015. Through these platforms, Trina Solar actively promote the healthy development of the PV industry, and benefit mankind by fighting against climate change.

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of Associations</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Global Solar Council</td>
<td>Jifan Gao, Chairman and CEO of Trina Solar, serves as the Chairman of the Joint Committee</td>
</tr>
<tr>
<td>2</td>
<td>United Nations Development Programme (UNDP)</td>
<td>Founding member of the UNDP Private Sector Advisory Board</td>
</tr>
<tr>
<td>3</td>
<td>World Economic Forum</td>
<td>Business Partner in PV industry</td>
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<tr>
<td>4</td>
<td>Boao Forum for Asia</td>
<td>Platinum Member</td>
</tr>
<tr>
<td>5</td>
<td>China PV Industry Association</td>
<td>Jifan Gao, Chairman and CEO of Trina Solar, serves as the Director</td>
</tr>
<tr>
<td>6</td>
<td>Chinese Renewable Energy Society (CRES)</td>
<td>Jifan Gao, Chairman and CEO of Trina Solar, serves as the Standing Director</td>
</tr>
<tr>
<td>7</td>
<td>Jiangsu Photovoltaic Industry Association</td>
<td>Director Unit</td>
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</tbody>
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Stakeholders        Communication Methods                                           Communication Activities

- Customers
  - Customer satisfaction survey
  - Meetings
  - Exhibitions
  - Website
  - Trina Solar showcased the leading photovoltaic technologies, products and solutions of the latest research and development (e.g. Trinapeak Intelligent Optimization) at SNEC 10th (2016) International Photovoltaic Power Industry Generation Conference & Exhibition in May, 2016.
- Employees
  - Communication Meeting
  - Roundtable meeting / lunch communication
  - HR hotline
  - Staff suggestion scheme
  - WeChat platform
  - Training
  - HR conducted a survey of belongingness and engagement of global management staff and identified their core factors in professional dedication and enjoyment of work in September, 2016.
- Shareholders
  - Periodically release operation performance
  - The company website (www.trinasolar.com) issued press releases or announcements to disclose company’s operation irregularly.
- Government
  - Sign cooperation memorandum
  - Participate in policy research
  - Participate in government’s project
  - “Proposal on Promoting Jiangsu PV Leader’ Program”, proposed by Jifan Gao, Chairman and CEO of Trina Solar, was nominated as 2015-2016 outstanding proposal by Jiangsu Province People’s Political Consultative Conference.
- Business Partners
  - Supplier meeting
  - Supplier research / audit
  - Supplier / contractor training
  - Trina Solar signed strategic cooperation agreement with financial institution (e.g. CITIC Bank, C2B, SCB) to obtain strategic credit extension and promote Trina’s development.
- Community
  - EHS Department conducted an EHS Satisfaction Survey for community residents surrounding the company in June, 2016.
- Charity Organizations
  - Supplier meeting
  - Participate in charity activities
  - Volunteers participate in social service activities
  - Trina Solar denoted ambulances which valued RMB 700,000 to Hebei province Fengning Manchu Autonomous Region to support medical care in remote area in August, 2016.
- Public Media
  - Disclose information on social responsibilities on a regular basis
  - Trina Solar released corporate social responsibility report annually.
- Research Institutions/ Standards Associations
  - Industry association
  - Seminars
  - Technical Cooperation
  - Trina Solar was selected as Changzhou Standardization Institution Chairman Unit on 13th January, 2016.
- OSU Solar Car Team equipped with the solar car OSU-Model-5 that developed by Trina Solar and Ohio State University, won the Dream Team of 2016 FIA Alternative Energies Cup Solar Car Race.
Materiality Analysis

Materiality analysis can help us have a thorough knowledge of the topics that are of greatest interest to our stakeholders, so as to make our report reveal relevant information at comprehensive level.

Identification of Materiality Issues

We identify issues from a wide range of stakeholders and sources by customer satisfaction survey, company website, email, employee blogs and forums, social media channels and meetings with government officials.

- **Economic**: financial management, revenues, profits, taxes, strategic investment, political conditions.
- **Environmental**: climate change, biodiversity, natural resource conservation, wastewater treatment, air emission, water recycle, waste minimization, environmental compliance, energy efficiency, carbon emission.

Priority of Materiality Issues

We prioritize the significance of each issue based on the key criteria including business continuity, finance performance, business strategy, product brand, company reputation, competitive advantage, excellent management and community impact.

We develop a materiality matrix according to the importance to stakeholders and the impact on Trina Solar’s business. The materiality matrix demonstrates the topics being of the greatest interests to our stakeholders. We engage with our stakeholders to periodically review the materiality matrix to ensure that it remains updated and continuous to meet stakeholders’ expectation.

Support SDGs

In September, 2015, the 2030 Agenda for Sustainable Development was adopted by 193 member states on the United Nations Sustainable Development Summit. The agenda, including 17 sustainable development goals, aims to create a more fair and environmental-friendly world, to eradicate extreme poverty, overcome inequality and unjust, and prevent climate change.

On September 1st, Global Solar Council (GSC) announced an open letter before Hangzhou G20 Summit in Beijing to urge leaders from 20 countries to support the target of creating 10 million solar jobs by 2030 and carry out close cooperation with GSC to build a national level data collection and communication network between governments and corporates in PV industry. The open letter was discussed and published by the Board of the GSC on the basis of the initiative proposed in May, 2016 by Jifan Gao, Chairman of Trina Solar, also Co-founder of the GSC and Director of China PV Industry Association.

The industry of solar energy regained strong growth momentum in 2015 worldwide. The global solar market in almost every region restarted progressing with an overall growth rate of 25%, and annual shipments of 50GW. More significantly, the Paris Agreement was reached during the 21st session of Conference of Paris (COP21), and was officially signed at the United Nations Headquarters on April 22nd, 2016, the World Earth Day. The agreement represents international communities’ common commitment to fight climate change, which will lead to a fundamental energy transformation from fossil fuels to renewable and clean energy. Solar energy is highly valued by international communities as an important part of renewable and clean energy. Almost every member of the G20 has developed a master plan for the development of solar energy. As one of the most influential global governance mechanisms, G20 has played an increasingly important role in addressing climate change and promoting energy transformation. The leaders of the member states of the G20 are fully aware of the importance of energy transformation, and passed G20 Principles on Energy Collaboration, G20 Energy Access Action Plan and Tool Kit of Voluntary Options for Renewable Energy Deployment, which show their leadership role and firm determination. The Global Solar Council (GSC) is sincerely grateful for the efforts made by the G20 in promoting energy transformation. The Global Solar Council hopes to make contribution to energy transformation in the aspect of PV industry.

On April 22nd, 2016, the Global Solar Council made an official declaration that plans to achieve a target of creating 10 million job opportunities in global solar industry by 2030. The target is set as a key index for evaluating GSC’s performance. The Global Solar Council will use its extensive network of more than 2,000 solar energy companies covering more than 40 countries and regions to track the progress. To accomplish this goal, additional support is required to achieve complete collection of data within the network. Therefore, the Global Solar Council urge the G20 to provide support in the following aspects:

- Support the Global Solar Council to create 10 million job opportunities by 2030.
- Promise the cooperation with the Global Solar Council and the government institutions, including International Renewable Energy Agency (IRENA), International Solar Alliance (ISA), and International Energy Agency (IEA), and to establish a national and public-private partnership in the solar energy field for data collection and dissemination network.

Promoting accessable, affordable and sustainable energy supply is a key agenda for the G20 Summit in 2016. Against the backdrop, G20 has realized that 1.1 billion people still live without electricity, and energy poverty is a serious challenge to developing countries. G20 should implement the Principles of Energy Collaboration to deal with the challenges. The principles include that the G20 should encourage and facilitate the collection and dissemination of high-quality energy data and analysis. The 2016 G20 Hangzhou Summit provides a platform for member states to strengthen cooperation on energy access, renewable energy and energy efficiency to ensure green, balanced and sustainable development. Based on these principles, the proposal to establish a national data collection and dissemination network in public-private partnerships is in line with the objectives of the G20 Summit.

The participation of the International Solar Alliance (ISA) has also facilitated the proposed data network initiative to help achieve the second principle of G20 Principles on Energy Collaboration, i.e., making international energy institutions more representative and inclusive of emerging and developing economies. The mission of ISA is to provide a platform for countries with sufficient sunshine to make good cooperation. The platform also enables international communities, including bilateral and multi-lateral organizations, enterprises, industries and stakeholders, to make positive contribution to achieving the common goal of promoting the use of solar energy and meeting the energy needs of ISA’s member states in a safe, convenient, affordable, fair and sustainable way.

Lastly, since China is both the rotating presidency of the 2016 G20 Summit and a global leader in manufacture and application of PV products, the initiative will bring more opportunities for China.
Challenges & Opportunities

We believe that, an excellent enterprise can embrace challenges, grasp opportunities and keep social demands in mind to explore a broader market as well.

The year of 2016 was full of challenges, and both opportunities and risks are co-existing. On February 22nd, 2016, more than 180 member states signed the Paris Agreement at United Nations Development Programme (UNDP), which ushered in a new era of fighting against climate change. The implementation of “One Belt, One Road” initiative exerts a positive influence on world economy and brings great progress for Asian and world economy. China National Energy Administration released the Thirteenth Five-year Plan for Solar Energy Development, which further promoted the application of distributed PV systems and PV plus. While facing various opportunities, PV industry also confronts many challenges, such as FIT (feed-in-tariff) postponement and PV power curtailment in China. Local governments request enterprises to construct both PV power station and its related infrastructure by taking advantage of PV quota. These challenges affected the healthy development of PV industry in China.

As the world’s leading PV enterprise, Trina Solar is committed to fighting against global climate change. We take efforts to manage opportunities and challenges worldwide and the locations where we operate. We continuously promote the technological innovation and sustainable development of the PV industry, so as to achieve our solar dream of “Solar Energy for All”.

Trina Solar and Sino-Sri Lanka Company Jointly Expanding Market in Sri Lanka

In November, 2016, Trina Solar signed the Strategic Cooperation Agreement with Sino-Sri Lanka Economic and Cultural Exchanges (Shanghai) Co., Ltd. (hereinafter referred to as Sino-Sri Lanka Company). The two parties will make all-round cooperation and jointly implement China’s “One Belt, One Road” initiative, and expand market of new energy in other countries. Sino-Sri Lanka Company mainly undertakes to explore the overseas market, while Trina Solar will provide the best PV products and pre-sale/after-sale services for the projects contracted by Sino-Sri Lanka Company.

Sri Lanka, an important hub along the “One Belt, One Road” initiative, launched the Million Solar Roofs Initiative in 2016. It has great market potential. Trina Solar, with a significant market share of 70% in Sri Lanka,boasts a strong brand awareness and good reputation there. The signed Strategic Cooperation Agreement integrates Trina Solar’s products and services to local market, which will bring more clean energy for local people and make contribution to the development of local economy and society.

Manufacturing Plant in Thailand Officially Put Into Operation

In March, 2016, as a subsidiary of Trina Solar - Trina Solar (Thailand) Science & Technology Co., Ltd, located in Chai-Na-Rayong Industrial Park, was officially put into production. The plant was equipped with the most advanced facilities worldwide and fully automated production lines.

“Thailand is an economic, financial and transportation hub in Southeast Asia. Thailand plays an important role in ASEAN integration process. As a pioneer in PV industry, Trina Solar made decision to invest in Rayong Industrial Park. This demonstrates that our investment policy, infrastructure and labor resources are recognized. The investment will definitely be beneficial to sustainable energy development in Thailand and Southeast Asia as well. With Trina Solar, a successful investment in Thailand, Trina Solar will make contribution to the long-term friendship and further mutual cooperation between China and Thailand.”

Aspects | Risks and Opportunities | Counter-measures
--- | --- | ---
**International level**
• **Opportunity:** United Nations World Summit on Sustainable Development (WSSD) approved 2030 Sustainable Development agenda in September, 2015, including 17 global sustainable goals.
• **Opportunity:** Paris Agreement was reached on the 21st United Nations Climate Change Conference (UNCCC). It was officially signed in UN headquarters on April 22nd, 2016, World Earth Day. The agreement significantly strengthens the energy conservation awareness among the member states.
• **Opportunity:** The countries along the “One Belt, One Road” initiative, located in Southeast Asia, South Asia, Middle Asia, North Africa, etc., are developing countries. The current power grid system is yet to improve. Based on the figures released by International Energy Association (IEA) at the end of 2013, about 200 million people in India and half of Myanmar population lived in a status of no electricity supply. In Indonesia, about 27% of local residents lived without electricity supply as well.
• **Opportunity:** In December, 2016, National Energy Administration (NEA) issued the “Thirteenth Five-year Plan for Solar Energy Development”.
  1) Propose distributed PV project and “PV plus” application; Establish 100 distributed PV model parks by 2020 with a target of 80% of newly-built buildings and 50% existing buildings being installed by PV power generation system;
  2) Implement “Top-Runner Program” in PV industry;
  3) Develop poverty relief program with PV energy: a) Earn RMB 3,000 per year for 2.8 million low income households archived; b) Encourage to develop poverty relief by connecting modern agriculture with PV projects.
• **Risk:** FITs (feed-in-tariff) postponement; Suspension and curtailment of PV power generation; Requesting PV enterprise to invest in both PV power plants and related infrastructure, leading to a higher solar energy price.
  • **Counter-measure:** Continue to reduce the price of solar energy by renovation and cooperation.
  • **Counter-measure:** Appeal government to resolve curtailment issue and on-time FIT grant, so as to promote the healthy development of PV industry.

**Domestic level**
• **Opportunity:** Formulate Trina Solar 2020 Sustainable Development target; participate in the Sustainable Development Advisory Committee initiated by United Nations Development Programme (UNDP); promote to realize the UN’s 17 global sustainable goals.
• **Opportunity:** Promote and participate in the enactment and improvement of international and domestic climate change policies.
• **Opportunity:** Trina Solar actively responded to “One Belt, One Road” initiative. We established either sale investment or joint venture projects in Thailand, Vietnam and Malaysia.
• **Opportunity:** Constantly pay attention to the energy demand in impoverished areas; Promote solar energy in the countries along the “One Belt, One Road” initiative; Create a beautiful ecological environment in future.
• **Risk:** Be legal compliance in the locations where we operate.
• **Counter-measure:** Strictly observe local laws and regulations.
• **Counter-measure:** Provide a safe and healthy work environment for our employees and contractors.
• **Counter-measure:** Minimize negative environmental impact and product carbon footprint through technological innovation and energy efficiency optimization.
  • **Counter-measure:** Provide better work condition and welfare.
  • **Counter-measure:** Provide more career development opportunities.
  • **Counter-measure:** Pay attention to the social responsibility of our global suppliers and partners. Push for the sustainable development of PV industry.

**Enterprise level**
• **Opportunity:** Provide technical training and income for employees.
• **Opportunity:** Provide job opportunities for local communities.
• **Opportunity:** Improve our suppliers’ social and environmental performance through supplier survey and audit.
• **Risk:** Strictly observe local laws and regulations.
• **Counter-measure:** Provide a safe and healthy work environment for our employees and contractors.
• **Counter-measure:** Minimize negative environmental impact and product carbon footprint through technological innovation and energy efficiency optimization.
<table>
<thead>
<tr>
<th>No.</th>
<th>Date</th>
<th>Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>February 2016</td>
<td>• Be named as the World’s Most Bankable PV Module Manufacturer by Bloomberg New Energy Finance (BNEF).</td>
</tr>
<tr>
<td>2</td>
<td>April 2016</td>
<td>• Hubei Trina Solar Energy Co., Ltd. was awarded with 2015 Advanced Organization in Safe Production by Shazui Street Committee of Xiantao City, Hubei Province.</td>
</tr>
<tr>
<td>3</td>
<td>May 2016</td>
<td>• Won Sustainable Development Enterprise Award in PV Industry by Shanghai New Energy Association.</td>
</tr>
<tr>
<td>4</td>
<td>May 2016</td>
<td>• Be granted a Silver Recognition Level in the Corporate Social Responsibility (CSR) performance survey conducted by EcoVadis.</td>
</tr>
<tr>
<td>5</td>
<td>May 2016</td>
<td>• Passed the quantification system certification of ISO 14064 greenhouse gas emission conducted by BSI.</td>
</tr>
<tr>
<td>6</td>
<td>June 2016</td>
<td>• Changzhou Trina Solar Co., Ltd. and Yancheng Trina Solar Science &amp; Technology Co., Ltd. was conferred with the honor of “2015 Jiangsu Safety Culture Model Enterprise” by Jiangsu Work Safety Administration Bureau</td>
</tr>
<tr>
<td>7</td>
<td>July 2016</td>
<td>• Be selected to the 100 Global Challengers List in 2016 by the Boston Consulting Group (BCG) at Tianjin Summer Davos Forum.</td>
</tr>
<tr>
<td>8</td>
<td>October 2016</td>
<td>• Be named as Lighthouse Enterprise of Sino-German Intelligent Manufacturing by Sino-German Intelligent Manufacturing Alliance, Sino-German Industry City Alliance and Robot Industry magazine.</td>
</tr>
<tr>
<td>10</td>
<td>November 2016</td>
<td>• Earned the title of Second Grade Safe Production Standardized Enterprise granted by Jiangsu Work Safety Administration Bureau.</td>
</tr>
<tr>
<td>11</td>
<td>November 2016</td>
<td>• Passed PAS 2050/ISO 14067 Product Carbon Footprint verification conducted by British Standard Institutes (BSI).</td>
</tr>
<tr>
<td>12</td>
<td>November 2016</td>
<td>• Won 2016 China Ten Green Responsibility Enterprise Award at the 7th China Green Development Forum.</td>
</tr>
<tr>
<td>13</td>
<td>December 2016</td>
<td>• Won China Model New Employer Award in the 2016 China Model Employer Award Ceremony of 51job.</td>
</tr>
<tr>
<td>15</td>
<td>December 2016</td>
<td>• Won Asia’s Best Workplace Reporting Award at the 2016 Asia Sustainability Reporting Awards in Singapore.</td>
</tr>
</tbody>
</table>
Care for Our Earth

Our environment is the foundation for human beings' survival and development. Trina Solar is committed to promoting sustainable development through continuous innovation. We have established ISO14001 Environment Management System and ISO50001 Energy Management System to minimize the negative impact of our business activities on the environment. We have setup our 2020 Environmental Sustainable Development Goals to ensure that our business is developed in an environmental-friendly, responsible and sustainable way.
Green Sustainable Development

Focusing on the mission of “Solar Energy for All”, Trina Solar always upholds the concept of sustainable development. We’ll work unremittingly to make our contribution towards UN’s 2030 Global Sustainable Goal.

Trina Solar has established ISO14001 Environment Management System and formulated the Trina Solar’s 2020 Sustainable Development Goal. We also actively cooperate with global partners, academic institutions, governments and NGOs to facilitate the realization of PV power parity by technological innovation. Trina Solar is committed to improving energy efficiency and increasing the share of renewable energy for sustainable development, including dealing with climate change.

Green Sustainable Development Goals by 2020

<table>
<thead>
<tr>
<th>No.</th>
<th>Trina Solar’s Green Sustainable Development Goals by 2020</th>
<th>2015</th>
<th>2016</th>
<th>Decreased Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15% reduction of CO₂ emissions per MW module compared to that of 2015</td>
<td>182.6</td>
<td>168.0</td>
<td>8%</td>
</tr>
<tr>
<td>2</td>
<td>10% reduction of consolidated energy consumption per MW module compared to that of 2015</td>
<td>13.15</td>
<td>13.12</td>
<td>0.2%</td>
</tr>
<tr>
<td>3</td>
<td>18% reduction of product carbon footprint compared to that of 2015</td>
<td>PD05</td>
<td>PD14</td>
<td>18.7%</td>
</tr>
<tr>
<td>4</td>
<td>15% reduction of electricity consumption per MW module compared to that of 2015</td>
<td>221</td>
<td>187</td>
<td>15.4%</td>
</tr>
<tr>
<td>5</td>
<td>10% reduction of water consumption per MW module compared to that of 2015</td>
<td>1885</td>
<td>1744</td>
<td>7.5%</td>
</tr>
</tbody>
</table>
EHS Policy

We have established and maintained a comprehensive environment management system and occupational health management system in line with international standards, i.e., ISO14001 and OHSAS18001. We have set up Environment, Occupational Health & Safety and Energy Management Policy, and advocate that all Trina Solar's employees have the responsibility of obeying and facilitating these policies.

Trina Solar is committed to designing and manufacturing of solar photovoltaic modules and related system-enhancing solutions to lower the overall costs of installed solar system. Whilst supplying clean energy products, we attach high importance to the occupational health and safety of all our employees, as well as environmental protection and sustainable development between our operating economies and environment. Our vision is to create a safe, healthy and environmentally-friendly workplace for employees and a harmonious green planet for mankind. Herewith we pledge the following:

- Comply with all applicable EHS & energy management laws & regulations and meet interested parties’ requirements.
- Promote sustainable manufacturing and build an environmentally-secure planet by making efficient use of energy and resources and maximizing raw material recycling.
- Commit to the prevention of pollution, occupational injury and illness to minimize its negative impact on environment and ensure employee’s health and safety.
- Proactively reduce occupational injury and illness risks and promote employee health and well-being.
- Consistently reduce energy consumption and carbon emission from production and commercial operations by enhancing energy efficiency.
- Enhance employee EHS & energy conservation awareness and encourage employees to participate in EHS & energy conservation programs.
- Continually improve EHS & energy management performance via perfecting EHS & energy management system.
- Provide transparent EHS reports to stakeholders and other relevant interested parties.
- Pledge our support and commitment to help our suppliers to improve their EHS & energy management performance and take social responsibility.

Environment Management System

In our continuing efforts to enhance and ensure protection of the environment, Trina Solar has always adhered to the highest standards of environmental protection in our daily operations. Most of our manufacturing plants have established ISO14001 Environment Management System. We integrate the protection of environment and sustainable development into our every work process, including site selection, designing, construction and plant operation. We effectively manage the environmental aspects of products, activities and related services through our established environmental management system.

Trina Solar commits to work together to promote sustained and inclusive economic growth, social development and environmental protection. Trina Solar’s Environment Management System is designed to help us improve our environmental performance. It gives us a systematic, organized approach to address the issues of environment protection and sustainable development. The system is part of our overall management system that includes organizational structure, planning activities, responsibilities, procedures, processes and resources for achieving and maintaining environmental performance.

<table>
<thead>
<tr>
<th>No.</th>
<th>Plants</th>
<th>Established ISO14001 Environment Management System</th>
<th>No.</th>
<th>Plants</th>
<th>Established ISO14001 Environment Management System</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Plants at Changzhou Headquarters</td>
<td>Yes</td>
<td>5</td>
<td>Hefei Plant</td>
<td>Yes</td>
</tr>
<tr>
<td>2</td>
<td>Changzhou Yabang Plant</td>
<td>Yes</td>
<td>6</td>
<td>Xinjiang Plant</td>
<td>No</td>
</tr>
<tr>
<td>3</td>
<td>Yancheng Plant</td>
<td>Yes</td>
<td>7</td>
<td>Thailand Plant</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>Hubei Plant</td>
<td>Yes</td>
<td>8</td>
<td>Vietnam Plant</td>
<td>No</td>
</tr>
</tbody>
</table>

Chains                  Measures

Site Selection, Designing and Construction of Plants/PV Power Stations

- Environment Impact Assessment, evaluate the positive and negative impacts of the proposed projects on the community’s environment;
- Ensure the environmental protection facilities to be designed, constructed and put into use simultaneously with the main part of construction project;
- Protect the community’s ecological environment and biological diversity.

Research & Development

- Ensure sustainable use of resources;
- Continuously promote the energy efficiency;
- Ensure that treated effluent and emission of waste gas meet national and local limits;
- Promote recycling of resources;
- Promote green office.

Manufacturing

- Reduce packaging materials without affecting package safety;
- Utilize recycled and degradable package materials.

Packaging

- Develop a resourceful transportation route;
- Choose the best mode of transportation;
- Improve the utilization rate of containers.

Logistics

- Be a member of PV CYCLE and dispose the waste PV products in an environmental friendly way;
- Be a member of the Glass Recycling Committee of Japan (GRCJ).
Global climate change is a serious environmental, economic and social challenge which requires governments and private sectors to make joint efforts. We exercise our leadership both in reducing our own carbon footprint and in working with others to influence the development of sound public policies in fighting against climate change.

The development of world economy is powered by energy. Fossil fuels are the major energy source that are being used in the world today. However, consumption of fossil fuels release greenhouse gases (GHGs), such as carbon dioxide, nitrogen dioxide, sulphur dioxide, carbon monoxide etc. The emission of GHGs can lead to serious environmental issues such as air pollution and global warming. Besides, fossil fuels are not renewable. Therefore, it is irreversible that the renewable energy, such as solar energy, will take the place of the conventional energy. The renewable energy is playing an increasingly important role and becoming one of the mainstream sources of energy around the world.

As the world’s leading PV enterprise, we have been considering on how to take advantage of our resources and influence to promote renewable energy worldwide. Trina Solar has established ISO50001 Energy Management System, received ISO14064 certification for Greenhouse Gas Emission Data Verification, and passed PAS2050/ISO14067 Product Carbon Footprint Verification. We are continuously dedicated to improving energy efficiency, reducing GHG emissions and saving resources.

Reduction of GHG Emissions and Product Carbon Footprint

Trina Solar pays ongoing attention to the harmonious development of the enterprise and the environment. We conduct ISO14064 Greenhouse Gas Emissions Verification annually. We carry out PAS2050/ISO14067 Carbon Footprint Verification every two years and verify the greenhouse gas emissions throughout the whole life cycle, including acquisition of raw materials, manufacturing, transportation, packaging, etc. The verification allows us to seek opportunities to reduce greenhouse gas emissions in the process of product design, manufacturing and packaging, and to explore the potential projects of energy-saving and pollution reduction.

We have set the goals of reducing GHG emission per MW module production by 15% and reducing product carbon footprint by 18% by 2020 compared to that of 2015. We will also follow up the statistics every year. According to the requirements of Vienna Convention for Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer, all refrigerants and extinguishants used by Trina Solar contain no ozone-depleting substances (ODS).

Greenhouse Gas Emissions

The figure below shows GHG emission per MW module production (T/MW) for manufacturing plants in China. The figures on the next page show the Composition (%) of Carbon Footprint for our major products. We also plan to cover our overseas plants to conduct greenhouse gas emissions verification in 2017. With the expansion of business, our total GHG emission amount has correspondingly increased. However, the GHG emissions of per MW module production achieved a reduction of 30% compared to that of 2012, and a reduction of 8% compared to that of 2015.
Enhancement of Energy Efficiency

Sustainable development requires not only clean energy, but also higher energy efficiency. We focus on enhancing energy efficiency in order to reduce CO₂ emission and produce more cost-competitive products.

In 2014, Trina Solar’s plant located in Changzhou Headquarters took a lead in PV industry to kick-off the establishment of ISO50001 Energy Management System. The establishment of the system aims to reduce energy consumption, improve energy efficiency and implement energy conservation measures and technologies systematically.

The primary energy mainly used in our company is natural gas, and the secondary energy includes electricity and diesel. The energy consumed mainly includes water, nitrogen, oxygen and argon. We record and analyze the consumption of primary and secondary energy and the consumption of indirect consumed energy medium, and report the standard coal consumption per MW module production on a monthly basis, i.e. consolidated energy consumption (Ton SCE/MW). Purchased electricity is the major energy type used in our production process, followed by nitrogen and natural gas.

In 2016, we continued to improve energy efficiency by identifying and implementing energy-saving projects and optimizing energy use. Due to the expansion of cell workshops in Changzhou plant, the consumption of natural gas, nitrogen and purchased electricity has shown a rise in 2016. However, the consumption of natural gas and nitrogen per MW module production is still stable compared to that of previous years. Besides, both the electricity consumption per MW module and the consolidated energy consumption in 2016 decreased compared to that of the previous year.

<table>
<thead>
<tr>
<th>Energy Types</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas (ten thousand m³)</td>
<td>403</td>
<td>321</td>
<td>272</td>
<td>271</td>
<td>455</td>
</tr>
<tr>
<td>Nitrogen (ten thousand m³)</td>
<td>1,756</td>
<td>2,130</td>
<td>2,371</td>
<td>2,580</td>
<td>4,205</td>
</tr>
<tr>
<td>Purchased Electricity (MWH)</td>
<td>476,265</td>
<td>527,074</td>
<td>589,501</td>
<td>634,931</td>
<td>861,112</td>
</tr>
</tbody>
</table>

### Nitrogen Consumption per MW Module Production

- **Natural Gas Consumption per MW Module Production (Ten Thousand m³/MW)**
  - 0.23 in 2012
  - 0.13 in 2013
  - 0.10 in 2014
  - 0.09 in 2015
  - 0.10 in 2016

- **Nitrogen Consumption per MW Module Production (Ten Thousand m³/MW)**
  - 1.62 in 2012
  - 0.83 in 2013
  - 0.86 in 2014
  - 0.90 in 2015
  - 0.91 in 2016

### Electricity Consumption per MW Module Production (MWH/MW)

- **Consolidated Energy Consumption per MW Module Production (TCE/MW)**
  - 237 in 2012
  - 206 in 2013
  - 210 in 2014
  - 211 in 2015
  - 187 in 2016

### Enhanced Energy Efficiency

- **Yancheng Plant**
  - • Perform PCW free cooling project in Yancheng plant to save electricity.
  - • Improve the lighting system in the public areas to be optically controlled.
  - Energy Saved (million kWh/year): 0.5
  - Reduction of CO₂ (Tons/Year): 400

- **Huabei Plant**
  - • Replace fluorescent lights with energy-saving LED lights.
  - • Update all air compressors to frequency converters.
  - Energy Saved (million kWh/year): 0.6
  - Reduction of CO₂ (Tons/Year): 480

- **Yabang Plant**
  - • Replace chillers with closed cooling tower system to cool down the vacuum pumps so as to reduce energy consumption.
  - • Install VSDs (Varied Speed Drivers) for air compressors to save electricity consumption.
  - Energy Saved (million kWh/year): 0.2
  - Reduction of CO₂ (Tons/Year): 160

- **Hefei Plant**
  - • The workshop roof in Hefei plant were made of colored steel plates without heat insulation materials, which makes the workshop hot in summer and cold in winter.
  - • The temperature in workshop could not meet the designing requirement (5-25°C), so chilled water system was always running in full load. In order to reduce energy consumption, we added insulation cotton on the inner side of the plates which not only ensures the required workshop temperature but also reduces electricity.
  - Energy Saved (million kWh/year): 0.5
  - Reduction of CO₂ (Tons/Year): 400

- **Xinjiang Plant**
  - • According to the climate features in Xinjiang plant, we added the temperature controlling system on cooling tower to save electricity.
  - Energy Saved (million kWh/year): 0.05
  - Reduction of CO₂ (Tons/Year): 40

- **Thailand Plant**
  - • Supply water for the storage tank according to the water level differences instead of using pump to save electricity.
  - • Collect the residual heat of cooling water and minimize running time of electric heating system.
  - Energy Saved (million kWh/year): 1.5
  - Reduction of CO₂ (Tons/Year): 1,200

**Total**

Energy Saved (million kWh/year): 40.35
Reduction of CO₂ (Tons/Year): 33,980
Clean & Green Energy

Compared to conventional fossil energy, solar energy can greatly reduce carbon emissions. Our most pressing challenge is to find out how to produce cleaner energy with higher efficiency and lower carbon emissions. We are devoted to exploring and using the technology that can improve product efficiency and reduce carbon emissions. We are committed to using low-carbon & eco-friendly green energy to facilitate the changes in energy usage patterns, so as to provide a systematic solution to sustainable development and to provide clean solar energy to the general public.

As of the end of 2016, Trina Solar reached its accumulative module shipments of more than 23 GW. The modules have been installed in various projects worldwide which may continuously provide solar clean energy for global users. Moreover, we actively explore photovoltaic in agriculture, fishery, poverty alleviation, transportation and other applications. On the basis of not changing the original use of the land, these projects can not only benefit ecological environment protection, but also produce clean solar energy. Trina Solar accumulated nearly 1.5 GW of solar power stations by the end of 2016.

Continuously Improving Solar Cell Efficiency

Trina Solar has partnered with Solar Energy Research Institute of Singapore, Australian National University and other world’s leading PV research institutes and universities, to advance solar technology and create cutting-edge solutions for our customers. Mono-crystalline cell developed by Trina Solar State Key Laboratory has reached a total-area efficiency of 22.61% which was also the largest single capacity of photovoltaic power project in East China until now. The layout of PV modules on the water can vastly improve the economic value of land, and achieve the sustainable development of economic efficiency, ecological efficiency and social efficiency.

In an innovation-driven PV industry, Trina Solar is always focused on developing leading-edge PV technologies and products with improved cell efficiency and reduced system cost. Our goal is to insist on technological innovation, and transform as quickly as possible the laboratory technology into commercial production.

Trina Solar's 120MW Fishing Farm Project

Trina Solar implemented 120 MW photovoltaic project above a fish pond in Xiangshui, Jiangsu Province. The project covered an area of 257 hectares and installed 480,000 pieces of modules. It was also the largest single capacity of photovoltaic power project in East China until now. The layout of PV modules on the water can vastly improve the economic value of land, and achieve the sustainable development of economic efficiency, ecological efficiency and social efficiency.

In December, 2016, the 18th awarding ceremony of China Patent Award, co-sponsored by the State Intellectual Property Office and the World Intellectual Property Organization, was held in State Intellectual Property Office. The patent "Manufacturing method of interdigitated back contact silicon solar cell (patent No.: ZL201210141633)", submitted by Trina Solar, won the China Patent Excellence Award.

In December, 2016, the 18th awarding ceremony of China Patent Award, co-sponsored by the State Intellectual Property Office and the World Intellectual Property Organization, was held in State Intellectual Property Office. The patent "Manufacturing method of interdigitated back contact silicon solar cell (patent No.: ZL201210141633)", submitted by Trina Solar, won the China Patent Excellence Award. The patent created a new world record that the mono-crystalline cell efficiency reaches 24.4%, which has higher conversion efficiency than traditional product. It put forward a new filming method, which successfully solved the difficulty that it takes long period and complicated technology to form P-emitter and N+ surface field through multiple filming during traditional all back contact electrode solar cell manufacturing, which has now been applied into solar energy powered race car and PV power station.
Compliant Disposal of Waste PV Products

The average lifespan of PV modules is approximately 25 years. The solar modules installed in the 1990s have reached their useful lifespan and will then be scrapped. The compliant disposal of waste PV modules and the recycling of valuable resources of waste modules will be a significant research subject. The investigation of relevant research institutions demonstrates that the number of scrapped PV modules will increase tremendously from 2020 and reach 800,000 T/year by 2030.

Many companies have not considered the problem of compliant disposal of scrapped PV modules which end product life cycle. As a responsible company, Trina Solar actively undertakes the responsibility to ensure compliant disposal of waste PV products. Trina Solar strictly abides by the e-waste management laws and regulations of the countries in which it operates, and proactively pushes for the recycling and reuse of waste electronic products.

Waste Electronic and Electrical Equipment Directive (WEEE, 2012/19/EU) specifies that manufacturers of electrical and electronic equipment must guarantee that waste products created in any EU member states must be recycled and reused, in order to ensure that electrical and electronic equipment, including PV modules, is properly managed by means of recycling, reusing, reclaimation and regeneration. In 2012, for the first time, the directive required PV modules and equipment into account. From February 1st, 2014 onwards, all photovoltaic manufacturers, distributors and installation contractors in Europe must fully abide by EU’s rules on waste management, including providing necessary funds and administration. All PV products must be labeled with the same "wheele bin" LOGO designed by WEEE.

Trina Solar (Japan) Limited joined in the Glass Recycling Committee of Japan (GRCJ) in 2015. The core members of the GRCJ consist of associations and companies who promote the use of waste glass. The GRCJ was established for the promotion of recycling PV modules, especially the recycling of waste glass. The recycling process includes collection, transportation, disassembly, sorting, separation and glass production of waste modules. Glass and cell scraps are mainly separated and collected by smashing and gravity separation. Glass scraps can be used as raw materials for building materials and ceramics. The metal component of cell scraps will be recycled and reused by specialized metal recycling companies.

Environment-friendly Operation

As an advocate and practitioner of environmental protection, Trina Solar has always been committed to sustainable development through out the whole product life cycle, from product development, raw material procurement and manufacturing, to resource & energy utilization and waste management.

We believe that the most precious resource is the natural environment where human beings live. Trina Solar will spare no efforts to fulfill our commitment to all stakeholders, and will always have concern for the sustainable development of humans and mother earth. Green manufacturing and environmental protection has always been the lifeline of our company. We implement green operations through rational use of natural resources, adequate treatment of wastewater and air emissions, waste recycling, and other environmental promotion activities.

Sustainable Use of Water Resource

According to the United Nation’s estimation, there are currently 770 million people who cannot access clean drinking water, 1 billion people without toilets and other environmental sanitation facilities. Water, being the necessary resource for maintaining human development, is the foundation for human survival. Trina Solar protects water resource as one of its important tasks, and strives to reduce the consumption of water resource per MW module production through sustainable use of water resource.

Production of solar module consumes a lot of water. To carry out water conservation management, we setup water saving goals for each workshops and implemented various of water saving projects, such as reuse of RO rejected water, treatment and reuse of wastewater, collection of condensed waste from air conditioning system etc. We setup a strict maintenance scheme to clean RO membrane to increase DI (De-ionized) water yield. With various water conservation measures in place, we have achieved an increasing water use efficiency in spite of the total amount water consumption increase due to business expansion.

<table>
<thead>
<tr>
<th>Type</th>
<th>Measures Taken to Save Water from 2012 to 2016</th>
<th>Water Saved (million tones/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reuse of RO Rejected Water</td>
<td>A lot of ultra-pure water is needed in the wafering and solar cell manufacturing processes. A lot of RO (Reverse Osmosis) rejected water is discharged from UPW (ultra-pure water) plants. We collect those RO rejected water and use it in those processes where high quality water is not required, such as pre-cleaning, alkaline cleaning, surface grinding, angle grinding in Wafering Workshops.</td>
<td>1.57</td>
</tr>
<tr>
<td>Wastewater Reuse</td>
<td>Trina Solar worked together with Wuxi Depple Water Investment to build a new water recycling plant. The plant was built using advanced dual-membrane (ultrafiltration and reverse osmosis) technology to treat industrial wastewater generated during the manufacturing process. The treated water was directed back to Trina Solar as supplementary raw water supply. At present, about 10,000 m³/day wastewater is sent to Wuxi Depple. Approximately 6,500 m³/day treated effluent water gets recycled.</td>
<td>2.14</td>
</tr>
<tr>
<td>Others</td>
<td>• Implementation of internal water recycle for wafer cleaning baths – water used in the post-cleaning bath was diverted and reused in the pre-cleaning bath. • Collection of condensate water from the air conditioners and use it as supplementary water supply for cooling tower and emission scrubber. • Collection and reuse of humidifying water for air conditioners in module workshop. • Use of biological-treated effluent water as solution preparation water in wastewater treatment plants. • Regularly clean RO (Reverse Osmosis) membrane so as to raise DI water yield and reduce RO rejected water.</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Total | 3.86 |
Wastewater Discharge

The wastewater from the manufacturing process which can’t be reused or recycled will be adequately treated by our wastewater treatment plant prior to being discharged into the municipal sewer for further treatment. There was no occurrence of chemical leakage or wastewater limit-exceeding event in 2016.

As a company with a strong orientation towards social responsibility, Trina Solar has been striving to lead the solar energy sector in proactively discovering wastewater de-nitrification and de-phosphorization technologies. After a few years of experimental exploration, Trina Solar has finally decided upon using the conventional technique-biological nitrification and de-nitrification technique to remove nitrogen and phosphorus from wastewater. The manufacturing base of Trina Solar is located in Changzhou, Jiangsu Province within the reaches of Lake Taihu - one of the most developed areas in China. To meet the requirement of zero chemical leakage or wastewater limit-exceeding event in 2016.

To meet the zero chemical leakage or wastewater limit-exceeding event in 2016, we have completed the wastewater de-nitrification modification project in West Campus, East Campus and Northeast Campus. We have successfully used the organic matter from wastewater generated in the wafer workshop as the necessary carbon source, and the small proportion of phosphoric acid generated in the diffusion process, as the phosphate source for biochemical nitrification, thereby realizing the goal of “treating waste with waste”, and lowering the negative impact on the environment.

The wastewater discharge per unit production (T/MW) in 2016 is 1,319 T/MW, which reduced by 25% compared to 1,760 T/MW in 2012.

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To meet the zero chemical leakage or wastewater limit-exceeding event in 2016, we have completed the wastewater de-nitrification modification project in West Campus, East Campus and Northeast Campus. We have successfully used the organic matter from wastewater generated in the wafer workshop as the necessary carbon source, and the small proportion of phosphoric acid generated in the diffusion process, as the phosphate source for biochemical nitrification, thereby realizing the goal of “treating waste with waste”, and lowering the negative impact on the environment.

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Waste Management

The waste from Trina Solar’s manufacturing processes mainly consist of wooden pallets, plastic foam, paper waste, and used oil and sludge from wastewater treatment. Trina Solar treats waste as a resource. We segregate different wastes, and manage them based on the principle of “3Rs” - Reduce, Reuse and Recycle. We adopt the following measures to reduce the amount of waste from manufacturing processes.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designing</td>
<td>- Take waste minimization into consideration at product design stage. Substitute or minimize those toxic materials with less toxic or non-toxic materials.</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>- Put waste management procedure in place. Categorize the different wastes into general waste, resource waste and toxic waste and manage them in different ways.</td>
</tr>
<tr>
<td></td>
<td>- Setup a recycle scheme for resource wastes, such as carton boxes, paper, plastics, metal scraps and woods.</td>
</tr>
<tr>
<td></td>
<td>- Setup an annual toxic waste disposal plan and maintain a disposal inventory according to environment regulation.</td>
</tr>
<tr>
<td></td>
<td>- Conduct environment awareness training for employees on waste minimization and segregation.</td>
</tr>
<tr>
<td>Packaging</td>
<td>- Try to use the recyclable materials for packaging. Under the condition of being non-jeopardizing product safety, try to use light-weighted materials.</td>
</tr>
</tbody>
</table>

Green Office

A quarter of our time each week is spent in the office. We provide a lamp switch for each cubicle to remind employees to turn off desk lamp when they leave their cubicle. We made nesting places for birds and bats, and planted many types of wild flowers in project locations. We kept a section of the land so that it can be a home for native plants and animals. Moreover, we always try to improve their living environment, and promote the evolution of local biodiversity, we place solar panel installations above fish ponds and farming land. In order to protect the evolution of biodiversity at the project location by conducting awareness-raising activities to improve environmental protection awareness.

Biological Diversity Management

How to balance the development between enterprise and ecology has been a serious issue of many enterprises. Trina Solar always conducts environmental impact assessment according to local requirements to evaluate the positive and negative environmental impact when developing a new project or constructing a new solar power plant. We are committed to protecting the ecological environment and biodiversity of local communities.

We conducted several projects by installing PV modules high above fish ponds and farming land. In order to protect the evolution of local biodiversity, we place solar panel installations at a sufficient height so that the land can continue to be used while our photovoltaic system is in operation. For example, Trina Solar built a solar farm in Dorset of London. We made nesting places for birds and bats, and planted many types of wild flowers in project locations. We kept a section of the land so that it can be a home for native plants and animals. Moreover, we always try to improve their living environment, and promote the evolution of biodiversity at the project location by conducting awareness-raising activities to improve environmental protection awareness.

SDG15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

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UN’s Sustainable Development Goals by 2030

SDG15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

Trina Solar constructed a 5 MW model project of photovoltaic and agriculture in New Menghe Town, Changzhou City, Jiangsu Province in 2016. The project covered an area of 20 hectares and developed ecological agriculture (e.g. fruits, vegetables and Chinese herbal medicine) and fishery. The dual-glass modules were installed on the greenhouse roof to ensure the sufficient light that the crops need.
Focus on Supply Chain

Trina Solar believes that every step of progress depends on the cooperation with, and support of, the entire supply chain. A healthy and stable supply chain is the key to sustainable development of Trina Solar. Not only we actively fulfill our social responsibilities, but also urge our global suppliers and partners to shoulder their social responsibilities as well, so as to lead the whole PV industry to a sustainable future.
Sustainable Supply Chain

We constantly focus on our suppliers’ performances on corporate social responsibility, and take it as the base line of choosing suppliers. We encourage our suppliers to make continuous improvement in overall performance, so as to promote the sustainable development of the whole supply chain.

Our multi-tiered supply chain comprises more than 6,700 suppliers in over 10 countries, including China, Korea, Japan, Malaysia, America, Thailand, Vietnam, etc. These suppliers provide more than 80 procurement items, covering raw materials, auxiliary materials, infrastructure, equipment, spare parts, packaging, logistics services, personal protective equipment, office suppliers, certification services, etc. Our headquarters located in Changzhou is responsible for purchasing raw materials, auxiliary materials, infrastructure, equipment, installation and logistics services. Local plant purchases those low-priced consumables, such as spare parts, personal protective equipment, office suppliers, etc.

Supplier Development

Trina Solar strives to integrate corporate responsibility factors into our supply chain management system. We share our expectations, our findings and best practices across the industry. We continuously improve the competitiveness of our entire supply chain through a comprehensive supplier review system and frequent communication with them to create a mutually beneficial mechanism. We classify our suppliers into three levels: potential, potentially qualified and qualified.

Potential Supplier: a supplier who is able to produce produce or deliver materials for Trina Solar but temporarily hasn’t obtained Trina Solar’s recognition for its qualification and ability. Such supplier will be recorded into our potential supplier database. Trina Solar will choose qualified supplier from that database and assess it through questionnaire and formal on-site evaluation.

Potentially Qualified Supplier: a supplier who has obtained Trina Solar’s recognition for its qualification/ability and is added to Trina Solar’s procurement system.

Qualified Supplier: once a potentially qualified supplier passes the assessment, it will be upgraded to qualified supplier.

A complete supplier development procedure, covering supplier investigation, assessment, approval of new spare parts/materials/services, and approval of qualified suppliers has been set up. The procedure is conducted by several responsible departments jointly to ensure fairness and transparency, and helps us assess, select or even eliminate the suppliers.

Supplier Development Procedure

Supplier Investigation: Procurement Department will distribute Supplier Questionnaire to a potential supplier to confirm its qualification. A Supplier Assessment Form will be completed through phone calls and in-person visits to make sure that the potential supplier can meet our requirements.

Supplier Assessment: Trina Solar has established detailed assessment guidelines to evaluate suppliers. For those potential suppliers that need on-site assessment, our Procurement Department will review and assess their integrated abilities in many aspects, such as quality management systems, supply assurance ability, product performance and reliability, corporate social responsibilities and business ethics, EHS management, new product development, quality management, supply assurance ability, product performance and reliability. Based on the assessment results, we classify the potential suppliers into four grades: Grade A (Acceptable), Grade B (Basically acceptable), Grade C (Conditionally acceptable) and Grade D (Disqualified). Among them, suppliers of Grade C or above may become our potentially qualified suppliers.

Approval of New Spare Parts/Materials/Services: Before the formal procurement process, the material request process of the new supplier can meet our requirements.

Approval of Qualified Suppliers: When a supplier passes the approval of new spare parts/material/service, Procurement Department will add it to qualified supplier list and update its qualification status on a regular basis according to the practical performance results.
Supplier Management

We classify our qualified suppliers into five status: approved suppliers, developing suppliers, abnormal suppliers, frozen suppliers, and eliminated suppliers. We can only place a batch purchasing order to an approved supplier and a small order to a developing supplier. For the abnormal, frozen and eliminated suppliers, purchasing orders are not placed.

- Approved: being approved as a qualified supplier to place a purchasing order.
- Developing: under development and only for small orders for trial.
- Abnormal: being disqualified more than three times, the supplier will be classified as "abnormal".
- Frozen: with no deal for one year, the supplier will be frozen and limited for any new orders.
- Eliminated: with no deal for over two years or classified as "abnormal".

Trina Solar provides suppliers with training on supplier management.

High Standards of Business Ethics

Trina Solar considers business ethics as a key criterion for the selection of suppliers. The integrity agreement is an essential part of the contracts signed with our suppliers, which aims to promote and maintain high standards of business ethics among our suppliers. The integrity agreement prohibits suppliers from offering bribes to anyone in Trina Solar in any form.

- Anti-fraud Reporting Email: IA@trinasolar.com

The integrity agreement states that suppliers are required to report any violation of business ethics, including offering, taking and demanding bribes.

CSR Audits for Key Suppliers

We believe that periodic audit is an effective approach to promote suppliers’ self-management. We carry out on-site audit of our key suppliers on a regular basis via document review, site inspection and employee interviews. In case of any problem encountered, we will request the supplier to rectify it within a reasonable time frame. In case of a major non-conformity during audit, Trina Solar will request the supplier to take corrective actions to rectify it within a time frame. The supplier is also required to establish its management system and procedure to prevent the similar non-conformity from happening again. In case that the supplier fails to fulfill our requirements, we may reduce the purchasing volume gradually or even disqualify the supplier permanently.

CSR Audits covers the following factors:

- Business ethics: following ethical standards of fairness and honesty.
- Health and safety: providing employees with a healthy and safe workplace, reducing accidents and injury as well as occupational health hazards.
- Environmental protection: adopting environmentally responsible manufacturing process.
- Elimination of discrimination: maintaining a workplace without discrimination, physical or verbal harassment.
- Prohibition of child labor, forced labor and abuse: prohibiting corporal punishment and forced labor, including use of prisoner labor, indentured labor, bonded labor, military labor or slave labor.
- Free association and collective negotiation: respecting employees' rights for joining, organizing or not joining labor unions.

We expect our suppliers to incorporate labor standards, environmental protection, occupational health and safety, business ethics and other aspects into their management systems. In order to ensure that our suppliers adhere to principles and values of Trina Solar, we request each of the new key suppliers to sign a Supplier CSR Commitment, which specifies that suppliers must pursue integrity management, create safe and healthy working conditions for workers, adopt fair methods of employment and give due dignity and respect to workers.

Manged by Key Suppliers

Exerting an influence on highly risky suppliers is an effective approach to promote better social responsibility of suppliers. Trina Solar has formulated a supplier CSR management procedure. We carry out CSR investigations and on-site audit of new key suppliers, and request them to sign on a CSR commitment to strengthen communication and cooperation. We are devoted to building a stable, economical and reliable supply chain.

Trina Solar assesses suppliers’ risks and identifies their risk grade annually. Suppliers providing products and services related to our goal of sustainable development are key ones on whom such influence should be definitely assessed.

- Suppliers providing products and services related to our goal of sustainable development, significant environment aspects or major risks;
- Suppliers providing products containing substances being restricted in use or liable to cause occupational diseases;
- Suppliers providing products, equipment and services with a great effect on our energy performance.

We classify our qualified suppliers into five status: approved suppliers, developing suppliers, abnormal suppliers, frozen suppliers, and eliminated suppliers. We can only place a batch purchasing order to an approved supplier and a small order to a developing supplier. For the abnormal, frozen and eliminated suppliers, purchasing orders are not placed.
Suppliers’ Performance Evaluation

Trina Solar has established Supplier Performance Evaluation Procedure. Based on their performance indicators, including quality, price, on-time delivery, services, innovation, risk levels of materials/substances, EHS and social performance etc., we will conduct an assessment to suppliers at different frequencies, such as monthly, quarterly or randomly when necessary. We classify our suppliers into different levels, five-star, four-star, three-star, two-star and one-star level based on the evaluation results, respectively representing excellent, good, normal, to be improved and disqualified. In 2016, Trina Solar evaluated 149 suppliers with the result of 69 five-star suppliers, 73 four-star suppliers, 5 three-star suppliers, 2 two-star suppliers and 0 one-star supplier. According to the annual evaluation results, we select Annual Excellent Supplier, Excellent Quality Supplier and Technology Innovation Supplier, aiming to improve suppliers’ performances with bilateral cooperation. We will provide training, guidance to help suppliers make improvement on a regular basis. For suppliers at low levels, we will urge them to improve performance through proper communication and guidance. If suppliers fail to improve as required, we will restrict purchase volume, stop purchasing or even eliminate the supplier from list permanently. In 2016, one supplier was evaluated as a two-star one because its process adjustment resulted in poor adhesion of EVA and glass. The supplier failed to make improvement, so we stopped cooperation with it.

Conflict-free Minerals

“Conflict minerals” refer to metallic minerals, such as tin, tantalum, tungsten, gold and cobalt exploited from Democratic Republic of Congo and surrounding nations, which may produce serious problems regarding human rights and environment during exploit and sales. Trina Solar has put its policy, systems and processes in place that will enable to declare that its supply chains are conflict-free. We are committed to sourcing only materials from environmentally and socially responsible suppliers. We highly focus on conflict minerals and work diligently to promote sustainable development by way of ethical sourcing. Copper strips coated with tin are used in the production process of PV modules. We have taken actions proactively since we realized that there is a possibility of conflict mineral in our supply chain. We require our direct suppliers to figure out sources of their used minerals. We take active actions to cooperate with our shareholders and seek sustainable solutions for conflict mineral problem. We have established Supplier Performance Evaluation Procedure. Based on their performance indicators, including quality, price, on-time delivery, services, innovation, risk levels of materials/substances, EHS and social performance etc., we will conduct an assessment to suppliers at different frequencies, such as monthly, quarterly or randomly when necessary. We classify our suppliers into different levels, five-star, four-star, three-star, two-star and one-star level based on the evaluation results, respectively representing excellent, good, normal, to be improved and disqualified. In 2016, Trina Solar evaluated 149 suppliers with the result of 69 five-star suppliers, 73 four-star suppliers, 5 three-star suppliers, 2 two-star suppliers and 0 one-star supplier. According to the annual evaluation results, we select Annual Excellent Supplier, Excellent Quality Supplier and Technology Innovation Supplier, aiming to improve suppliers’ performances with bilateral cooperation. We will provide training, guidance to help suppliers make improvement on a regular basis. For suppliers at low levels, we will urge them to improve performance through proper communication and guidance. If suppliers fail to improve as required, we will restrict purchase volume, stop purchasing or even eliminate the supplier from list permanently. In 2016, one supplier was evaluated as a two-star one because its process adjustment resulted in poor adhesion of EVA and glass. The supplier failed to make improvement, so we stopped cooperation with it.

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Cooperation for Win-win Situation

Trina Solar not only pays attention to its own green development, but also takes initiative to convey its vision and goal of sustainable development to its global partners. Together with our whole supply chain, we are committed to contributing inspiration and innovative solutions to the sustainable development of PV industry based on the actual situation.
Trina Solar Signed Cooperation Agreement with NDRCEI

Trina Solar signed cooperation agreement with National Development and Reform Commission Energy Institute (NDRCEI) on June 3rd, 2016. The cooperation agreement stipulated that both parties will cooperate closely in four areas, including demonstration projects, public welfare projects, public projects, as well as government projects at the national level (such as low-carbon city, smart energy city, leader plan). NDRCEI is a national research institution to do comprehensive research on China’s energy issues, and is a high-end think tank for central government to develop energy development strategies, plans, policies, and the corresponding energy regulations, energy standards.

Through this cooperation, Trina Solar can combine its advantages, such as technological innovation, efficient high-quality module and system solutions, with macroeconomic policy, market planning, business model innovation and other work of National Development and Reform Commission Energy Institute. The future cooperation will be further implemented into specific projects, such as Top Runner Program, research project of distributed PV power plant business model design and project of "brand power station". This will promote the transformation of China’s clean energy, reshape the wisdom of energy structure, and fulfill the climate commitments of Paris Agreement.

Adoption of Alibaba 1688 Key Account Procurement Platform

In 2016, Trina Solar signed a strategic agreement with Alibaba, adopting 1688 key customer procurement platform. The platform allowed purchase requesting departments have their own flexibility of doing business and achieve win-win cooperation with suppliers by making use of Internet.

- Push the enquiry forward to shorten the time interval between purchasing demand and purchasing execution, and improve efficiency of work.
- The 1688 platform has a large number of supplier resources. Purchase requesting departments may inquiry suppliers' information in the platform, including quoted price, transport distance, supplier rating etc. They can determine the best suppliers and achieve a best-buy option by evaluating the information.
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- The whole process from enquiry to placing an order, approval and receiving goods can be traced back. It ensures that the entire procurement process is transparent.

Conventional Procurement
- Raising of purchase requisition
- Supplier sourcing and price bidding
- Negotiation, signing of contract, and placing purchase order
- Goods receipt
- Making payment

Protocol Mall
- On-line operation mode
- On-line pricing enquiry and bidding
- On-line supplier selection and goods order
- Raise of purchase order and confirmation
- Making payment by orders
Employees are essential force for pushing forward Trina Solar’s sustainable development. We believe that it depends on every employee's support and dedication to achieve our mission and vision. Therefore, we are committed to providing our employees with safe and healthy working conditions. We also provide highly professional training, a competitive salary and benefit package, and open communication channels for our employees, hoping to stimulate their enthusiasm and to create a win-win future between the company and the employees.
UN’s Sustainable Development Goals by 2030

SDG8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Trina Solar strictly adheres to international conventions on human rights and labor standards, as well as local labor laws and regulations, and is determined to protect each employee’s legal rights according to such laws.

Employees’ Rights

Trina Solar treats talents as one of the most important factors of long-lasting development. In order to meet the increasing demand for talents, we recruit employees through Internet and campus-oriented channels. Moreover, we cooperate with domestic and overseas colleges, establish professional training courses, and organize Trina Solar exclusive job fairs. Our employees can really be regarded as a mini-UN.

Employees’ Development

Trina Solar strictly adheres to international conventions on human rights and labor standards, as well as local labor laws and regulations, and is determined to protect each employee’s legal rights according to such laws.

The competition in markets is never only about sales or technology, but also about talents strategy. We focus on employees’ personal development and have formulated a sustainable talent cultivating strategy. We attract and retain outstanding talents through reasonable performance evaluation, systematic training, competitive salaries and incentive mechanisms. Trina Solar makes every effort to offer a platform to match its talents.

As of the end of 2016, Trina Solar had a total of 15,051 staff from 23 countries and regions around the world. We strictly adhere to relevant international conventions, local laws and regulations, to ensure gender equality and prohibit employment discrimination. The proportion of female employees in Trina Solar remains quite stable during the past several years. In 2016, we have 5,540 female employees, occupying 36.8% of the total. While facilitating the diversification of our staff, we are also actively promoting the localization of employment, which widens our knowledge of local culture, and provides more working chances for local people as well. Till the end of 2016, Trina Solar hired a total of 2,136 overseas employees work locally.

Area Male Female
America 29 20
Europe 152 35
Africa 2 0
Asia Pacific & Middle East 914 1,359
Japan 18 7
China 8,396 4,119
Total 9,511 5,540

With the globalization of business, we learn local requirements about work time, holidays and social security systems to ensure compliance with international conventions on human rights and labor standards and to be an attractive and legitimate employer. We respect employees’ rights to exercise freedom of association and collective bargaining and establish labor union organizations in every plant at home and abroad.

Comply with local laws in the region where our factories or offices are located. Child labor is strictly forbidden. Men and women enjoy equality in the workplace. Resolutely eliminate forced labor in the production or service provision process. There has been no occurrence of forced labor event in Trina Solar’s operation process.

Adhere to the fair and equal recruitment policy to promote good relations between employer and employee. Trina Solar will never interfere with employees’ freedom of belief or discriminate any employee in terms of nationality, ethnicity, religion, gender, age, disability or marital status. Till now, no discrimination incidents related to gender and health status happened in Trina Solar.

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Employees enjoy paid vacations stipulated in the Measures for Employees’ Paid Vacation. We pay for endowments, work injury, unemployment, medical and maternity insurance, housing fund and other insurances for all employees. Company benefits also include birthday cake vouchers, health days, cash gifts for weddings, traditional festival allowances, accident insurance and medical hospitalization subsidies. We have formulated sound compensation policy to ensure our employees’ compensation higher than the lowest level of the regions our plants/offices located in.

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Employees' Development

Employees' passion and contribution is an inexhaustible source for the success of Trina Solar. We focus on our employees' personal growth and development and treasure the efforts made by them. We provide training courses and setup awards to motivate them and encourage them to keep same pace forward with the company.

Training and Education

Training and education helps employees to get improved and realize their value. Hence, Trina Solar continuously increases investment in training, education and culture cultivation to provide a strong career support system for our employees. We hope that they can make further progress in their daily work.

We have established a mature and complete training system, including institutions, courses, lecturers, etc. In 2016, we set up a lecturer club to cultivate and motivate lecturers inside the company. The lecturers will share their professional experience and knowledge with others. Along with the development of mobile internet and smartphones, employees are more inclined to use scattered time to learn their interested courses. Therefore, we launched the UMU online learning system and various micro-lectures in 2016 to meet those needs in a simple, more convenient and efficient way.

Ways of Learning and Training

| Library | • To build a better learning platform to support employees' development, Trina Solar has cooperated with Changzhou Library to jointly open a library with a collection of over 20,000 books. This library shares the same management system as the one used in Changzhou Library, and readers can borrow and return books to either one, as they are linked with each other.  
| Leadership Academy | • Trina Solar Leadership Academy aims to develop and conduct learning programs for middle and senior management. In 2016, the academy conducted various training projects according to different needs of middle and senior-level leaders.  
| New Employee Training | • To help each new comer quickly perceive our corporate culture and start their career in Trina Solar, we organize a two-day intensified training course for them. The contents of the training include:  
| Regular Face to Face Training | • In 2016, a total of 164,870 training hours are provided for employees, covering the following areas:  
| UMU Online Learning System | • UMU can make micro-lectures by presenting pictures, voices, passages and texts. It also supports video micro-lecture and live broadcasting. Trina Solar's employees can use their scattered time to learn their interested courses anytime, anywhere. | Contents |

Contents

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- There is also a dedicated electronic reading area for employees to read electronic journals and e-books. We organize book sharing activities on a regular basis to raise employees' interests in reading.
- Trina Solar Leadership Academy aims to develop and conduct learning programs for middle and senior management. In 2016, the academy conducted various training projects according to different needs of middle and senior-level leaders.
- In 2016, we conducted 24 training sessions with a total of 540 participants.
- To help each new comer quickly perceive our corporate culture and start their career in Trina Solar, we organize a two-day intensified training course for them. The contents of the training include:
- Welcoming: Company milestones review through communication with top leaders;
- Team building: Promoting employee communication and enhancing team cohesiveness;
- Policy and process introduction; Relevant positions introduction;
- Exhibition hall and workplaces visit: Products and process introduction.
- In 2016, a total of 164,870 training hours are provided for employees, covering the following areas:
- Purchasing, finance, sales, HR, EHS and other professional skills;
- Time, cost and team management;
- Stress and emotion management, EQ management, effective communication, software applications and other training to improve employees' overall abilities.
- UMU Online Learning System
- Employees worldwide can log in through smart mobile phone, ipad, etc. to search, share and learn courses online;
- Learners can create learning groups, interact with lecturers and learners online, which promotes collaboration spirit;
- UMU can make micro-lectures by presenting pictures, voices, passages and texts. It also supports video micro-lecture and live broadcasting. Trina Solar's employees can use their scattered time to learn their interested courses anytime, anywhere.

Development and Motivation

To attract, retain and motivate employees, Trina Solar has established an effective performance management mechanism. Employees are required to set personal development plan (PDP) every half year, and their leaders will evaluate and rate their performances. PDP is composed of business objectives and key tasks, employee management objectives and personal development goals to achieve balance between individual growth, team development and organizational goals.

We set objectives for management staff and leaders through performance management. Employees who are competent for their work can make their choices to take a technical or a managerial position by the advantage of the training system. Trina Solar will award and encourage excellent employees and teams every year. Employees with outstanding performance will be promoted according to the company's regulations. Trina Solar helps its employees to achieve individual values and keep same pace with the company.

Photovoltaic Quiz Competition

In 2016, Trina Solar organized the Photovoltaic Quiz Competition, including warming-up Q&A, preliminary competition, semi-final and final. Knowledge of photovoltaic, Internet of energy, PV power station and smart grid etc. are covered in the competition. These activities can broaden their PV knowledge in a happy and relaxed mode.

Rewards Qualifications

| Excellent Employee | Employees who have a strong sense of responsibility and outstanding performance will be awarded. In 2016, 192 employees were honored with Outstanding Trina Culture Awards, 194 employees with Outstanding Contribution Awards, and 18 new employees with Outstanding New Employee Awards. |
| Long Service Award | In order to appreciate employees who worked hard for a long term at Trina Solar, we awarded 2,270 employees who have been working for Trina Solar for 5 years, 189 employees for 10 years and 24 employees for 15 years. We encourage our employees to develop together with Trina Solar to create a bright future. |
| Excellent Team Award | Teams with excellent performances will be awarded. In 2016, 13 teams were awarded with Excellent Team Award. |
| Stocks Granting | Grant stocks to employees with excellent performance, key talents or rare talents. |
| Performance Prize | Set up quarterly, annual and individual performance prizes to encourage and acknowledge employees' contribution. |
| Model Worker | Set awards for employees who have outstanding performances in work, reasonable proposals, cost reduction, resources conservation, environmental protection and safe production. In 2016, 19 employees were awarded with the title of "Model Worker". |
| Female Model Workers | Set awards for female employees with professional competence and excellent performance. In 2016, 29 female workers were awarded with the title of "Female Model Workers". |
| Model Team and Star Employee | Teams and employees with excellent performance in energy-saving, cost reduction and safe production will be honored. In 2016, 139 teams were awarded with Model Teams, and 365 workers were honored with Star Employees. |
Listen to Employees

Trina Solar attaches high importance to employees’ involvement, and encourage them to join the Labor Union. We have created many efficient and transparent communication channels in the company. The purpose of these multi-channel and multi-level communication ways is to promote culture construction and allow employees to fully exercise their democratic rights as a real member of the company.

We reply to employees’ questions and provide solutions to fix any problem that has arisen. For the problems that cannot be resolved temporarily, we will acknowledge the problems and admit that the company will try to find a way to address them, so as to win employees’ recognition and forgiveness.

Channels | Contents of Communication
---|---
Quarterly Communication Meeting | The management communicates with employees about the company development, status in industry, challenges and opportunities, and the senior management answers employees’ questions at the meeting.
Round-Table Meeting | The management communicates with workers about company management, compensation and welfare, working environment, health & safety, and employees’ daily life.
Lunchtime Communication Meeting | Employees can have face-to-face lunch together with management and communicate about company management, life and family. The meeting helps the management to know the concerns of employees.
HR Hotline | Employees can get information about company activities, systems and policies, compensation and welfare, working environment, health & safety, etc.
Lync Internal Communication Platform | Employees worldwide can communicate with each other by Lync, which helps promote work efficiency.
Enterprise Wechat Account “Trina Culture” | Update company news, information of activities and training, workflows, for employees in real time and share stories of employees related to the company’s core value.
Trina Talk APP | All staff can install “Trina Talk APP”, an internal communication app and developed by our IT Department, on their mobile phones. Employees can use the app to communicate with others, propose suggestions and accomplish tasks effectively and timely.

Flexible Benefits Program

In 2015, we integrated employees’ liability insurance, accidental injury insurance, and supplementary commercial medical insurance, and launched the flexible benefit program to provide physical health insurance choices for management staff and their families. Employees can choose insurance items for themselves and their families according to their own demands. Besides the insurance items, employees can make phone calls to doctors, and receive discounts through the flexible benefit platform. In 2016, we upgraded the program and paid more attention to employees’ satisfaction evaluation. According to employees’ demands, we expand the coverage of the welfare program to include dental treatment, so that employees’ welfare can be fully guaranteed and they can balance their work and life.

Comfortable and Efficient Work Atmosphere

We believe that creating a good work atmosphere can help employees balance their work and life. Employees can release stress by participating in various kinds of cultural activities. Trina Solar has many sports clubs such as football, basketball, badminton, table tennis, swimming, fishing, etc. We organize sports competitions every year according to employees’ interests. For example, we held basketball league games for consecutive 8 years, badminton games for consecutive 7 years, tug-of-war events for 6 years, Ping-Pong matches for 5 years, and snooker competitions and marathon for 3 years.

In order to popularize local cultures and enrich employees’ cultural life outside of work, we prepare various activities to celebrate local traditional festivals. Moreover, we also have reading clubs, Taichi classes, Yoga classes, and flower arrangement classes especially for female employees. The relaxing, soft movements can help people calm down amidst the hustle and bustle of life, cultivating their minds and making them more confident in their work and life.

Thailand’s Songkran Festival

In Thailand, people celebrate the Songkran Festival, also known as the water-splashing festival, from April 13th to 15th to celebrate the traditional Thai New Year. On April 12th, 2016, Trina Solar’s Thailand plant celebrated its first Songkran Festival since its official operation. The factory organized a baptism ceremony of sprinkling water according to local customs. Employees sprinkled water on the heads of the leaders and gave their sincere blessings. The General Manager of Trina Solar’s Thailand plant prayed for success and prosperity for everyone in the New Year. After the ceremony, employees both from China and Thailand splashed each other to celebrate the New Year. They washed away worries and received the blessings by splashing water on each other.

Health of Employees’ Children

In order to facilitate relationships between parents and children, Trina Solar persists in conducting parents-children activities to benefit children’s physical and mental health. In 2016, we organized the painting and calligraphy competition titled with “My Technology Dream”, and held the summer camp for our employees’ children. We also gave Wechat courses with the topic of “Grow with Your Children”, and organized parents-children reading clubs. These activities are enjoyable and educational. They not only promote emotional exchanges between parents and children, but also require employees’ more attention on children’s physical and mental health.
Employees' Occupational Health and Safety

As stated in our EHS policy, Trina Solar is committed to creating a safe, healthy and environmentally-friendly workplace for our employees. Employees’ safety and health is always one of our top priorities. Health and safety allow employees to enjoy a better quality of life, so as to grow and develop together with Trina Solar.

Occupational Health and Safety Management System

We believe that the establishment and implementation of a good occupational health and safety management system is an important way to care for our employees and, more importantly, for their family members. We also care for our suppliers and local communities. That’s an essential and only path to the real success of Trina Solar.

Most of our manufacturing plants have established OHSAS18001 Occupational Health and Safety Management System. In 2017, we plan to certify OHSAS18001 for our newly built Vietnam plant. We continuously improve the system, and promote it in our whole work stream, including plant design, construction, research and development, manufacturing and packaging. We are dedicated to ensure the health and safety of our employees, contractors, customers and other interested parties.

We have set up the medium and long term objective of a decrease of 5% of total recordable accidents rate (TRR) towards 2020 compared to that of 2015. We take safety performance improvement as an essential part of our daily operation.

However, in 2016, increasing automation in workshops and the newly operated plants at home and abroad caused a rise in the company’s total recordable accidents. Thus, TRR raised accordingly. EHS Department and responsible departments jointly carried out a detailed analysis of the causes for TRR rising, and prepared corrective and preventive measures to lower TRR according to types and causes of accidents, so as to lower TRR continuously.

Occupational Health and Safety (OH&S) Management System.

- Occupational health and safety assessment and evaluation of potential negative impacts of the proposed projects on the employees and communities are provided and corresponding measures are taken to ensure safety and occupational health;
- Safety and occupational health facilities are designed, constructed and put into use simultaneously with the main part of a construction project.
- Only safe methods and materials with no or low occupational hazards are used.
- Identify hazards of every work process, and take protective measures according to the risk levels;
- Compile work instructions, improve and implement the responsibility system of safety and occupational health, and promote safety performance gradually;
- Ensure sufficient investment in safe production and occupational health to protect employees’ occupational health;
- Provide occupational health and safety training for employees;
- Conduct emergency evacuation drills;
- Promote employees’ safety awareness and cultivate safety culture.
- Utilize recycled and non-toxic package materials to ensure customers’ safety.

We are committed to providing clean solar energy and relentlessly working to achieve our mission of “Solar Energy for All”. We make efforts to create the best workplace for employees and improve employees’ health and wellness. In November, 2016, Trina Solar won a top regional award for sustainability reporting - Asia’s Best Workplace Reporting Award at the 2016 Asia Sustainability Reporting Awards in Singapore.

Trina Solar is a leading global provider of photovoltaic solar modules, system solutions and services. We are committed to providing clean solar energy and relentlessly working to achieve our mission of “Solar Energy for All”. We make efforts to create the best workplace for employees and improve employees’ health and wellness.

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Employees’ Occupational Health

No occurrence of occupational diseases is one of Trina Solar’s long-term objectives. Trina Solar has established and implemented occupational health policies and programs. We maintain adequate occupational health funds to protect our employees from developing occupational diseases arising from their exposure to occupational health hazards.

<table>
<thead>
<tr>
<th>Steps</th>
<th>Occupational Health Management</th>
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<tbody>
<tr>
<td></td>
<td>• Occupational Health Risk Identification: We evaluate occupational potential health risk regularly for every post of operations annually. We also take adequate risk control measures;</td>
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<tr>
<td>Risk Identification</td>
<td>• Occupational Hazards Monitoring: We carry out occupational hazards monitoring at the workplace in accordance with local laws and regulations every year, and take engineering and management measures to ensure a healthy working environment.</td>
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<td></td>
<td>• Occupational Health Examination: We conduct health examinations for employees who may be exposed to occupational health hazards, and adjust their posts for employees exhibiting occupational illness symptoms to prevent occupational diseases.</td>
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<tr>
<td>Risk Control</td>
<td>• Emergency Equipment: We set up emergency equipment in the posts that occupational injuries may occur, such as first-aid kits, eye-wash station;</td>
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<tr>
<td></td>
<td>• Medicare Green Channel: We pay for industrial injury insurance for all workers. To ensure employees get timely medical treatment, Trina Solar sets up Medicare Green-card Scheme with local hospitals in Changzhou for our employees. Employees can receive immediate medical attention after showing their &quot;Trina Solar Medicare Green-Card&quot;. Trina Solar will pay for medical expenses afterwards to make sure that employees receive timely treatment.</td>
</tr>
<tr>
<td>Emergency Management</td>
<td>• EHS Management of Change (MOC): EHS Management of Change (MOC) is an essential building block to maintain operation integrity and prevent serious EHS accident. Trina Solar set up a MOC procedure. An evaluation should be conducted if the changes have a strong relation with those that may be harmful to people, the environment, safety or quality of products.</td>
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Trina Solar proactively conducts risk assessments in relation to the health and safety risks posed to any person who may be affected by his undertaking in our workplace. A procedure has been established and implemented to systematically identify the hazards and assess the risks related to manufacturing activities, products and services. Risk control strategies have been implemented, focusing on elimination/replacement, engineering measures, administrative measures and personal protective equipment controls. Trina Solar maintains an active emergency response plan. The plan is to ensure, to the best of our abilities, that the site facilities are maintained and operated in a safe way.

Employees’ Workplace Safety

Trina Solar is dedicated to providing a safe workplace for all employees. Our goal is to continue to reduce work-related injuries in the workplace and make efforts to promote the safety culture construction so that our health and safety performance is continuously improved.

Trina Solar proactively conducts risk assessments in relation to the health and safety risks posed to any person who may be affected by his undertaking in our workplace. A procedure has been established and implemented to systematically identify the hazards and assess the risks related to manufacturing activities, products and services. Risk control strategies have been implemented, focusing on elimination/replacement, engineering measures, administrative measures and personal protective equipment controls. Trina Solar maintains an active emergency response plan. The plan is to ensure, to the best of our abilities, that the site facilities are maintained and operated in a safe way.

<table>
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<tr>
<th>Chains Safety Management</th>
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<tr>
<td>• Hazard Identification and Risk Assessment: We have put Hazard Identification and Risk Assessment Procedure in place to identify the hazards and assess the risks related to manufacturing activities, products and services. Hazard identification is the recognition process of sources or situations that can cause harm to people (accident or illness). Risk assessment is the process of estimating the risk levels for the hazards and their acceptability. Based on risk level determined, risks are categorized as major risks, medium risks and minor risks.</td>
</tr>
<tr>
<td>• Safety Inspection: Trina Solar has established the EHS Inspection and Management Procedure to assess the strengths and weaknesses in the plant’s safety system by the identification of unsafe acts and unsafe conditions. The procedure gives the notification of line management for appropriate, effective and prompt corrective actions.</td>
</tr>
<tr>
<td>• Near Miss Reporting: Trina Solar adheres to an open and effective reporting mechanism to encourage correct behaviors, practices and processes in order to avoid the occurrence of accidents and personal injury. Trina Solar has launched the Near miss reporting system plant-wide since 2010 to encourage all employees to report near misses. To ensure the successful implementation of the program, we provide different channels for employees to report near misses such as an EHS reporting card, near miss reporting database in E-flow system, email and telephone notification.</td>
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<tr>
<td>• Safe Production Responsibility: According to the principle of “Responsibility-oriented Management”, EHS Responsibility Agreement was signed to ensure safety precautionary measures to be implemented in every location and every department.</td>
</tr>
<tr>
<td>• EHS Training: We make EHS Trainings for employees, contractors and suppliers, such as New Employee Training, Job Training, Professional Safety Training (e.g. chemical safety, electricity safety, fire safety). That could help improve the employees and suppliers’ safety and health awareness, so they can take precautionary or proper measures in case of an emergency.</td>
</tr>
<tr>
<td>• Hazardous Work Management: We set up a permit-to-work system to ensure the safety of contractors and employees. This system requires employees and contractors to get an Area Work Permit prior to the commencement of any work within Trina Solar premises. We strictly control activities that may cause major injury or losses, such as working at a height, working with open flames and in a confined space. The responsible person for a project needs to complete a permit for such work, which must then be approved by relevant parties prior to commencement of the work.</td>
</tr>
<tr>
<td>• Chemical Management: We strictly adhere to all the applicable rules of not to use the prohibited or restricted chemicals in the places where we operate. We formulated “Chemical Management Procedure” to ensure the introduction, purchase, storage, usage and discard of chemicals are adequately supervised and the related risks are well controlled.</td>
</tr>
<tr>
<td>• EHS Management of Change (MOC): EHS Management of Change (MOC) is an essential building block to maintain operation integrity and prevent serious EHS accident. Trina Solar set up an MOC procedure. An evaluation should be conducted if the changes have a strong relation with those that may be harmful to people, the environment, safety or quality of products.</td>
</tr>
<tr>
<td>• Emergency Management: In case of an emergency, our response makes the difference between a positive and a negative outcome. We believe that effective contingency plans and periodic drills will play a crucial role in stabilizing the situation upon emergency. Therefore, we have developed a comprehensive emergency response plan, including fires, chemical spills and burns, power outages accidents, etc., to ensure that we are able to promptly and effectively respond to a variety of safety and environmental incidents. We also conduct emergency drills regularly in each responsible area to ensure our emergency response plan can work well while improving our emergency response capabilities.</td>
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</table>
Installation of Protective Panel and Interlock for PECVD Machine in Cell Workshop

Near Miss One: Employees who work in PECVD post are required to check whether the broken wafer debris is stuck in the PECVD machine chamber. When employees remove the debris in the chamber, employees are prone to get injured by moving machine arm due to low height of protective panel.

Near Miss Two: Employees may by-pass the PECVD safety interlock by removing the protective panel and get injured by moving machine arm when they try to clean the broken wafer debris in the machine chamber.

Engineering Measures:
1. Install a higher protective panel to prevent employees from by-passing safety interlock and entering into the machine while the machine is still running;
2. Install additional protective panels to prevent employees from reaching the point of moving machine arm;
3. Install infrared interlock on both sides for the machine. The machine stops automatically when employees are detected.

Installation of Protective Guard for EVA Cutting Machine in Module Workshop

Near Miss: There are some remaining EVA stuck on the EVA cutting machine due to static electricity in the Module workshop after a roll of EVA is used up. Employees are regularly required to remove the remaining EVA from the machine. They are prone to get cut by blade of cutting machine.

Engineering Measure: Protective guard is installed around the blade of cutting machine. The guard prevent employees from getting injured during cleaning up the remaining EVA.

Ventilation in Welding Post to Reduce Occupational Health Risk

Potential Occupational Health Risk: The framing post generates a lower level of hazardous smoke during welding junction box on the module. Although the monitoring results from our annual industrial hygiene monitoring show that the concentration of hazardous substance is far below the national limit, we still put additional engineering control measure to reduce the health risk.

Engineering Measure: Ventilation fans are installed for the post to further improve workplace air quality and reduce the potential health risk. Besides, the employees who work in the post are required to wear masks.

Thailand Plant Organized a Joint Fire Emergency and Evacuation Drill with Local Fire Brigade

In order to improve the emergency preparedness, Thailand plant established an Emergency Response Team (ERT) in early 2016. The members of the team consists of the employees from production, facility, EHS and administration. In June, 2016, Thailand plant invited local fire brigade to conduct fire safety training for our employees. In October, 2016, our Thailand plant organized a joint fire emergency and evacuation drill together with local fire brigade in Mabyangporn. We simulated that there was a fire emergency in the production building. A plant-wide evacuation was initiated. The drill tested the actions to be taken for each individual in event of a fire emergency, including activation of alarm, evacuation, ERT response, assembly etc. The drills not only improved ERT response skills, but also raised fire safety awareness for all employees.
Safety Culture Development

Caring for employees’ work safety is one of the key performance indicators of our corporate culture. Trina Solar always sticks to the “Safety First” principle. We persistently make our effort to foster a people-oriented culture. We have established various communication channels and programs, including monthly EHS training program etc., to raise employee’s safety awareness. The aim is to improve employee’s safe behavior and promote the corporate culture of “safety first”.

We carry out EHS Promotion Month in June every year to strengthen employee’s safety awareness. In 2016, we organized a series of EHS activities with the theme of “Strengthen Safety Development, Promote Safety Quality”.

- Opening Ceremony of EHS Promotion Month: The head of each department signed an agreement on EHS responsibility, and the responsibility system was put into practice at all levels. Five groups were awarded with Excellent Safety Performance awards, and 18 individuals were awarded for their outstanding safety performance.

- EHS Quiz: Each employee submitted an answer sheet in hard copy or electronic form. The content of the quiz covered chemical safety, electricity safety, occupational health, fire safety, traffic safety and so on. There were a total of 2,491 employees participated in the activity.

- ERT Competition: This was a preliminary contest covering fire, chemical spill, gas leakage, evacuation, first-aid, emergency knowledge of elevator accident and use of emergency suppliers. 10 teams were selected from the preliminary contest. The final stage was to test the ERT’s operation skills, including physical fitness test, selection and gowning of PPE, first aid and fire-fighting etc.

- First-aid Lecture: Professional first-aid doctors were invited to give lectures on first-aid methods like cardiopulmonary resuscitation and extra thoracic compression, to improve our ERT members’ emergency response abilities. In 2016, 33 employees received the primary first aid certificate issued by the Hangzhou Red Cross.

- Public Environmental Satisfaction Survey: EHS department conducted an environmental survey to the surrounding residents of the factory. The purpose of the survey is to seek for the opinions and views to the surrounding residents on Trina Solar’s operations. In 2016, there were more than 200 residents who fed back questionnaires.

As of end of 2016, EHS Risk Committee identified 29 EHS risks and successfully resolved 22 of them.

- Take different risk control measures based on different risk levels, labeled as red, yellow and green;
- Establish an EHS risk control mechanism. Assess risk level based on its severity and potential occurrence frequency;
- Take different risk control measures based on different risk levels, labeled as red, yellow and green;
- As of end of 2016, EHS Risk Committee identified 29 EHS risks and successfully resolved 22 of them.

Trina Solar not only focuses on employee’s work safety, but is also concerned about their traffic safety on their daily commute. To minimize injuries and losses caused by traffic accidents on the way to and from work, we conducted a series of traffic safety improvement measures.

- Formulate the Traffic Safety Management Procedure, which defines the responsibilities of each department in traffic safety management and summarizes the common violations of traffic safety, so as to regulate employees’ behaviors in the campus and on the way to or from work;
- Invite traffic patrolmen to explain about the traffic situation, common traffic violations, correct driving habits, and how to handle a hit-and-run accident, etc.;
- Provide reflective strips for motorcycles and electric bicycles to employees so as to reduce traffic accident rate at night;
- Deploy volunteers to guide the vehicle drivers and cyclists to follow traffic rules at crossroads;
- Inspect licenses of motorcycles and electric vehicles regularly;
- Distribute road safety pamphlets to our employees and post posters about traffic safety on promotion windows.

Traffic Safety Training

Pasting Reflective Strips for Electric Bicycles

Quarterly EHS Risk Committee Meeting

We convene quarterly EHS risk management meeting to manage EHS risks from daily operations. The discussion topics include:

- Formulate EHS risk control policy and EHS risk matrix;
- Establish an EHS risk control mechanism: Assess risk level based on its severity and potential occurrence frequency;
- Take different risk control measures based on different risk levels, labeled as red, yellow and green;
- As of end of 2016, EHS Risk Committee identified 29 EHS risks and successfully resolved 22 of them.

EHS Committee Meeting

We establish an EHS Committee. The committee consists of representatives of both the employees and the management from the departments/groups of production, equipment, technology, facility, HR and administration. We hold the meeting on a monthly basis. All EHS issues are discussed and communicated during the committee meeting.

- Potential risks and improvement measures;
- Proper work process and safe work procedure;
- EHS accident and performance indicator review;
- EHS continuous improvement proposals and suggestions;
- EHS objectives and future work plan;
- In 2016, 73 action items were put forward in EHS committee meetings and 68 of them got resolved.
Contribution to Society

As a responsible corporate citizen, we always adhere to the concept of returning to society, bringing positive change to the local economy, environment and communities, actively taking advantage of our own technical and resource-related superiority. We hope to promote a harmonious development between society and business through investment in education, public charities, and employee volunteer services.
Education Support

Trina Solar pays constant attention on education of the local communities and the next generation. We have invested in constructing the Trina Solar International School in order to promote the cultivation of innovational talents and provide a power for the sustainable development of the world economy and the local communities.

In 2016, Siyuan Sunshine Entrepreneurship Fund, sponsored by Trina Solar, launched the first public welfare Teacher Training Project in the PV industry in China. Trina Solar rolled out two public photovoltaic training sessions in Xining, Qinghai and Wuwei, Gansu, helping college students in West China cultivate entrepreneurship and achieve success in photovoltaic industry.

Trina Solar International School has adopted a high-quality international curriculum and hires experienced native teachers. The school has a 15-year international curriculum ranging from kindergarten to senior school education. It provides good educational chances to children with different cultural backgrounds and this in turn promotes their optimal development.

On April 22nd, 2016, the World Earth Day, students together with teachers in Trina Solar International School carried out a series of activities to promote environmental protection awareness. Children drew a picture of the ideal earth where people living in harmony with the nature. Through participating in these activities, children are encouraged to save energy in daily life and protect our mother earth anytime, anywhere.

From December 23rd to 24th, 2016, 30 students from senior years of Trina Solar International School volunteered in Changzhou Wujin People’s Hospital to experience social roles. Under the guidance of professional medical staff, they assisted doctors to measure blood glucose and blood pressure for patients. They served as guides in the Health Examination Center and helped old people to do check-ups. Students experienced happiness and satisfaction by helping others. They also learnt to love, care and share.
Siyuan Sunshine Fund for Entrepreneurship

In July, 2015, Siyuan Sunshine Fund for Entrepreneurship was founded by Trina Solar. The fund donated 10 million to China Siyuan Foundation for Poverty Alleviation. By adhering to the philosophy of “being grateful for the favour received, and paying back to the society”, the Fund desires to roll out public training courses and help poor college students cultivate entrepreneurship and achieve success in the PV industry.

On April 15th, 2016, Teacher Training Project was officially launched in Changzhou University and Changzhou Vocational Institute of Light Industry sponsored by Siyuan Sunshine Entrepreneurship Fund. “Siyuan Sunshine Entrepreneurship Fund Teacher Training Bases” was formally established in these two colleges in the opening ceremony.

Teachers participated in the Project were from ten colleges and universities of Qinghai and Gansu Provinces, including Qinghai University, Lanzhou University of Technology, etc. In this ten-day Training Project, they will learn basic knowledge about PV industry, solar cell, designing, construction and maintenance of distributed PV power station, application of PV products, etc. The ten colleges and universities will offer an optional course in photovoltaic area which allows more students to learn about PV industry, solar cell, designing, construction, and maintenance of distributed PV power stations, application of PV products, etc.

“Teacher training is only a starting point. We will extend the scope of teacher training to other colleges and universities in western region in China, and strive to cover 10,000 poor college students in five years.”

“Set Up Siyuan Sunshine Entrepreneurship Fund Teacher Training Base”

Donations

As a corporate citizen, Trina Solar actively joins the public charity. Together with local communities, we organize public welfare activities to build a safe, harmonious and green community.

In 2016, Trina Solar donated modules to earthquake disaster-stricken area in Nepal, and participated in reconstruction of disaster area together with British Prince Harry. Trina Solar took practical action in public welfare, disaster relief and infrastructure to create a better world.

Trina Solar Donated Modules to Earthquake-stricken Area in Nepal

A 7.8-magnitude earthquake occurred in Nepal in April, 2015. The village of Lapubesi in the Gorkha area was closer to the epicenter and suffered serious damage. The village has 3,000 inhabitants and 95% of the homes were destroyed and displaced.

Trina Solar donated about 7,000 watts solar modules to International Disaster Emergency Response Team (Team Rubicon) to build an off-grid solar power system for the villagers' lighting and daily electricity. And the British Prince Harry participated in the installation of modules personally.

International Disaster Emergency Response Team (Team Rubicon), a nonprofit organization, is comprised of experienced veterans who specialize in helping to rebuild the areas affected by natural disasters. The British Prince Harry participated in the reconstruction of the earthquake-stricken area. As the local infrastructure was severely damaged by the earthquake, volunteers of Team Rubicon, including Prince Harry, made a lot of clean-up work at the scene to lay a flat site for the construction of solar modules. After completing the installation of the modules, the volunteers also taught the villagers to use the solar power system.

“We are honored to have the opportunity to participate in poverty alleviation work in western China to help college students realize their entrepreneurial dreams in emerging industries such as the PV industry. Trina Solar will continue to actively fulfill our corporate social responsibility and achieve our mission of ‘Solar Energy for All’.”

“We believe that relieving poverty by education can not only encourage more poor college students cultivate entrepreneurship and achieve success in PV industry, but also make contribution to achieving the goal of a well-off society in western region in China.”

Ming Tao, Executive Vice Secretary-General of China Siyuan Foundation for Poverty Alleviation

Jian Gao, Chairman & CEO of Trina Solar
Chenzhou was a key demonstration city for PV poverty alleviation program in Hunan province in 2016. A PV poverty alleviation pilot project, located in Qingzhu village, Guidong county, Chenzhou in Hunan Province, was officially connected to power grid in September, 2016. This was the first village-level PV power station constructed by Trina Solar. PV power station generates green energy and stable income. The station is simple to operate and maintain. PV power station has a guarantee operation period of 25 years. It is a new model of poverty alleviation in China. Poor households can increase their income by selling the green power to the power grid. There are 498 poor villages in Chenzhou. Each village has a plan to install a 60 kilowatts PV station. PV power, generated by the PV station, is then connected to local power grid, so that those poor households can earn up to more than 60,000 RMB annually. This is an effective way to alleviate poverty for those unfortunate villagers, especially for the areas with good lighting conditions.

Volunteer Programs

Trina Solar focuses on mutual development with its local communities. We encourage our employees to voluntarily participate in public welfare activities, i.e., “left-behind” and impoverished children caring, vulnerable group helping etc. Trina Solar vigorously strengthens its volunteer fostering. We actively involved in various community services and sustainable development projects, so as to inherit the volunteer spirit of contribution, friendship, mutual help and progress.

Trina Solar Won the Award of “2015 Best Charitable Organization”

Trina Solar won the honorable award of “2015 Best Charitable Organization” during the Public Welfare Thanksgiving Party, which was jointly held by Changzhou Public Welfare Association, Changzhou Tian’ai Rehabilitation Center, Changzhou Women and Children Activity Center on January 24th, 2016.

Trina Solar’s Tian’ai Volunteer Team was established in 2014 by Labour Union. The team consists of 30 volunteer members. They often bring school supplies, daily necessities and educational toys etc. to the children in Changzhou Tian’ai Rehabilitation Center. They also made lectures and talks for the children and help them get out of autism.

Caring Students

Since 2009, the volunteers from Trina Solar have started to subsidize the students whose families have financial problems in Daibu Primary School and Hengjian Primary School in Liyang City. In the last 8 years, the volunteers subsidized 130 students with a total donation amount of RMB 300,000. Among them, thirty-seven students completed the nine-year compulsory education. The volunteers brought their loving donations for the students and encouraged them to live happily and confidently. The volunteers hope to build an ideal growing environment for students by economic help and psychological comfort, so as to help the students to complete the 9-year compulsory education.
## GRI Index

To enable stakeholders fully understand Trina Solar’s social responsibility, Trina Solar’s Social Responsibility Report 2016 discloses relevant information as the comprehensive disclosure plan based on GRI (Global Reporting Initiative).

### Organizational Profile

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-1—102-7</td>
<td>Name of the organization; Activities, brands, products, and services; Location of headquarters; Location of operations; Ownership and legal form; Markets served; Scale of the organization</td>
<td>-</td>
<td>Company Profile</td>
<td>07</td>
<td></td>
</tr>
<tr>
<td>102-8</td>
<td>Information on employees and other workers</td>
<td>-</td>
<td>Care for Employees</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>102-9—102-10</td>
<td>Supply chain, Significant changes to the organization and its supply chain</td>
<td>-</td>
<td>Sustainable Supply Chain</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>102-11</td>
<td>Precautionary Principle or approach</td>
<td>-</td>
<td>Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>102-12</td>
<td>External initiatives</td>
<td>-</td>
<td>Challenges &amp; Opportunities</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>102-13</td>
<td>Membership of associations</td>
<td>-</td>
<td>Communication with Stakeholders</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

### Ethics and Integrity

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-14—102-15</td>
<td>Statement from senior decision-maker; Key impacts, risks, and opportunities</td>
<td>-</td>
<td>Message from Leadership</td>
<td>03</td>
<td></td>
</tr>
</tbody>
</table>

### Governance

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-18</td>
<td>Governance structure</td>
<td>-</td>
<td>Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>102-19</td>
<td>Delegating authority</td>
<td>-</td>
<td>Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>102-20</td>
<td>Executive-level responsibility for economic, environmental, and social topics</td>
<td>-</td>
<td>Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>102-21</td>
<td>Consulting stakeholders on economic, environmental, and social topics</td>
<td>-</td>
<td>Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>102-22—102-24</td>
<td>Composition of the highest governance body and its committees; Chair of the highest governance body; Nominating and selecting the highest governance body</td>
<td>-</td>
<td>Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>102-25</td>
<td>Conflicts of interest</td>
<td>-</td>
<td>Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>102-26—102-28</td>
<td>Role of highest governance body in setting purpose, values, and strategy; Collective knowledge of highest governance body; Evaluating the highest governance body’s performance</td>
<td>-</td>
<td>Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>102-29—102-31</td>
<td>Identifying and managing economic, environmental, and social impacts; Effectiveness of risk management processes; Review of economic, environmental, and social topics</td>
<td>-</td>
<td>Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>102-32</td>
<td>Highest governance body’s role in sustainability reporting</td>
<td>-</td>
<td>About the Report</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>102-33—102-34</td>
<td>Communicating critical concerns; Nature and total number of critical concerns</td>
<td>-</td>
<td>Communication with Stakeholders</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

### Stakeholder Engagement

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-40—102-44</td>
<td>List of stakeholder groups; Collective bargaining agreements; Identifying and selecting stakeholders; Approach to stakeholder engagement; Key topics and concerns raised</td>
<td>-</td>
<td>Communication with Stakeholders</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

### Reporting Practice

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-45</td>
<td>Entities included in the consolidated financial statements</td>
<td>-</td>
<td>About the Report</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>102-46</td>
<td>Defining report content and topic Boundaries</td>
<td>-</td>
<td>About the Report</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>102-47</td>
<td>List of material topics</td>
<td>-</td>
<td>Materiality Analysis</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>102-48</td>
<td>Restatements of information</td>
<td>-</td>
<td>About the Report</td>
<td>01</td>
<td>No restatements of information</td>
</tr>
<tr>
<td>102-49—102-50</td>
<td>Changes in reporting; Reporting period; Date of most recent report; Reporting cycle; Contact point for questions regarding the report; Claims of reporting in accordance with the GRI Standards; GRI content index; External assurance</td>
<td>-</td>
<td>About the Report</td>
<td>01</td>
<td>No significant change in previous reports</td>
</tr>
</tbody>
</table>

### ECONOMIC

#### Management Approach

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>103-1</td>
<td>Explanation of the material topic and its Boundary</td>
<td>-</td>
<td>Materiality Analysis</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>103-2</td>
<td>The management approach and its components</td>
<td>-</td>
<td>Message from Leadership</td>
<td>03</td>
<td></td>
</tr>
<tr>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>-</td>
<td>Communication with Stakeholders</td>
<td>01</td>
<td></td>
</tr>
</tbody>
</table>

#### Economic Performance

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>201-1</td>
<td>Direct economic value generated and distributed</td>
<td>-</td>
<td>Message from Leadership</td>
<td>03</td>
<td></td>
</tr>
<tr>
<td>201-2</td>
<td>Financial implications and other risks and opportunities due to climate change</td>
<td>-</td>
<td>Message from Leadership</td>
<td>03</td>
<td></td>
</tr>
<tr>
<td>201-3</td>
<td>Defined benefit plan obligations and other retirement plans</td>
<td>-</td>
<td>Dealing with Climate Change</td>
<td>03</td>
<td></td>
</tr>
<tr>
<td>201-4</td>
<td>Financial assistance received from government</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Market Presence

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>202-1</td>
<td>Ratios of standard entry level wage by gender compared to local minimum wage</td>
<td>-</td>
<td>Employee Rights</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>202-2</td>
<td>Proportion of senior management hired from the local community</td>
<td>-</td>
<td>Employee Rights</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>203-1</td>
<td>Infrastructure investments and services supported</td>
<td>-</td>
<td>Contribution to Society</td>
<td>07-74</td>
<td></td>
</tr>
<tr>
<td>Indicator Number</td>
<td>Description</td>
<td>Status</td>
<td>Report Section(s)</td>
<td>Page(s)</td>
<td>Explanatory Notes</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
<td>-------------------</td>
</tr>
<tr>
<td>203-2</td>
<td>Significant indirect economic impacts</td>
<td></td>
<td>• Challenges &amp; Opportunities</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Procurement Practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>204-1</td>
<td>Proportion of spending on local suppliers</td>
<td></td>
<td>• Sustainable Supply Chain</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Anti-corruption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>205-1—205-3</td>
<td>Operations assessed for risks related to corruption; Communication and training about anti-corruption policies and procedures; Confirmed incidents of corruption and actions taken</td>
<td></td>
<td>• Corporate Governance</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>Anti-competitive Behavior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>206-1</td>
<td>Legal actions for anti-competitive behavior, anti-trust, and monopoly practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENVIRONMENTAL</td>
<td>Management Approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1</td>
<td>Explanation of the material topic and its Boundary</td>
<td>• Explanatory Notes</td>
<td>• Materiality Analysis</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>103-2</td>
<td>The management approach and its components</td>
<td>• Explanatory Notes</td>
<td>• Care for Our Earth</td>
<td>23-40</td>
<td>44</td>
</tr>
<tr>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>• Explanatory Notes</td>
<td>• Care for Our Earth</td>
<td>23-40</td>
<td>44</td>
</tr>
<tr>
<td>Materials</td>
<td>301-1—301-3</td>
<td>• Environment-friendly Operation</td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Energy</td>
<td>302-1—302-5</td>
<td>• Environment-friendly Operation</td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>303-1—303-3</td>
<td>• Environment-friendly Operation</td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Biodiversity</td>
<td>304-1—304-3</td>
<td>• Environmental-friendly Operation</td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>GRI Index</td>
<td>2016 Corporate Social Responsibility Report</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicator Number</td>
<td>Description</td>
<td>Status</td>
<td>Report Section(s)</td>
<td>Page(s)</td>
<td>Explanatory Notes</td>
</tr>
<tr>
<td>304-4</td>
<td>IUCN Red List species and national conservation list species with habitats in areas affected by operations</td>
<td></td>
<td>• Biological Diversity Management</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Emissions</td>
<td>305-1—305-5</td>
<td>• Dealing with Climate Change</td>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>305-6</td>
<td>Emissions of ozone-depleting substances (ODS)</td>
<td>• Dealing with Climate Change</td>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>305-7</td>
<td>Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions</td>
<td>• Dealing with Climate Change</td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Effluents and Waste</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>306-1</td>
<td>Water discharge by quality and destination</td>
<td>• Environment-friendly Operation</td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>306-2</td>
<td>Waste by type and disposal method</td>
<td>• Environment-friendly Operation</td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>306-3</td>
<td>Significant spills</td>
<td></td>
<td></td>
<td>No such incident</td>
<td></td>
</tr>
<tr>
<td>306-4</td>
<td>Transport of hazardous waste</td>
<td>• Environment-friendly Operation</td>
<td></td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>306-5</td>
<td>Water bodies affected by water discharges and/or runoff</td>
<td>• Environment-friendly Operation</td>
<td>Biological Diversity Management</td>
<td>35</td>
<td>40</td>
</tr>
<tr>
<td>Environmental Compliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>307-1</td>
<td>Non-compliance with environmental laws and regulations</td>
<td></td>
<td></td>
<td>No such incident</td>
<td></td>
</tr>
<tr>
<td>Supplier Environmental Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>308-1</td>
<td>New suppliers that were screened using environmental criteria</td>
<td>• Sustainable Supply Chain</td>
<td></td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>308-2</td>
<td>Negative environmental impacts in the supply chain and actions taken</td>
<td>• Sustainable Supply Chain</td>
<td></td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>SOCIAL</td>
<td>Management Approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1</td>
<td>Explanation of the material topic and its Boundary</td>
<td>• Materiality Analysis</td>
<td>• Product Stewardship Policy</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>103-2</td>
<td>The management approach and its components</td>
<td>• Materiality Analysis</td>
<td>• Sustainable Supply Chain</td>
<td>33</td>
<td>44</td>
</tr>
<tr>
<td>103-3</td>
<td>Evaluation of the management approach</td>
<td>• Materiality Analysis</td>
<td>• Sustainable Supply Chain</td>
<td>33</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>• Contribution to Society</td>
<td></td>
<td>• Sustainable Supply Chain</td>
<td>33</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>• Contribution to Society</td>
<td></td>
<td>• Sustainable Supply Chain</td>
<td>33</td>
<td>42</td>
</tr>
</tbody>
</table>

- Covered in the Report
- Partially Covered in the Report
- Not Covered in the Report
## Employment

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>401-1</td>
<td>New employee hires and employee turnover</td>
<td></td>
<td>Care for Employees</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>401-2</td>
<td>Benefits provided to full-time employees that are not provided to temporary or part-time employees</td>
<td></td>
<td>Employees’ Rights</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>401-3</td>
<td>Parental leave</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Occupational Health and Safety

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>403-1</td>
<td>Workers representation in formal joint management–worker health and safety committees</td>
<td></td>
<td>Employees’ Occupational Health and Safety</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>403-2</td>
<td>Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities</td>
<td></td>
<td>Employees’ Occupational Health and Safety</td>
<td>59</td>
<td>No work-related fatalities</td>
</tr>
<tr>
<td>403-3</td>
<td>Workers with high incidence or high risk of diseases related to their occupation</td>
<td></td>
<td>Employees’ Occupational Health and Safety</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>403-4</td>
<td>Health and safety topics covered in formal agreements with trade unions</td>
<td></td>
<td>Employees’ Health, Employees’ Occupational Health and Safety</td>
<td>57, 59</td>
<td></td>
</tr>
</tbody>
</table>

## Diversity and Equal Opportunity

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>405-1</td>
<td>Diversity of governance bodies and employees</td>
<td></td>
<td>Care for Employees</td>
<td>54</td>
</tr>
<tr>
<td>405-2</td>
<td>Ratio of basic salary and remuneration of women to men</td>
<td></td>
<td>Employees’ Rights</td>
<td>54</td>
</tr>
</tbody>
</table>

## Non-discrimination

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>406-1</td>
<td>Incidents of discrimination and corrective actions taken</td>
<td></td>
<td>Employees’ Rights</td>
<td>54</td>
</tr>
</tbody>
</table>

## Freedom of Association and Collective Bargaining

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>407-1</td>
<td>Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk</td>
<td></td>
<td>Sustainable Supply Chain, Employees’ Rights</td>
<td>44, 54</td>
</tr>
</tbody>
</table>

## Child Labor

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>408-1</td>
<td>Operations and suppliers at significant risk for incidents of child labor</td>
<td></td>
<td>Sustainable Supply Chain, Employees’ Rights</td>
<td>44, 54</td>
</tr>
</tbody>
</table>

## Forced or Compulsory Labor

<table>
<thead>
<tr>
<th>Indicator Number</th>
<th>Description</th>
<th>Status</th>
<th>Report Section(s)</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>409-1</td>
<td>Operations and suppliers at significant risk for incidents of forced or compulsory labor</td>
<td></td>
<td>Sustainable Supply Chain, Employees’ Rights</td>
<td>44, 54</td>
</tr>
</tbody>
</table>
Independent Assurance Statement

Introduction:
TÜV Rheinland (China) Ltd., (hereinafter referred to as TÜV Rheinland, We) has been commissioned by Changzhou Trina Solar Limited (hereinafter referred to as Trina Solar) to conduct independent assurance of Trina Solar Corporate Social Responsibility Report 2016 (Hereinafter referred to as the CSR Report 2016). All contractual contents for this assurance engagement rest with Trina Solar. Our task was to give a fair and adequate judgment on Trina Solar Corporate Social Responsibility Report 2016.

The intended readers of this assurance statement are stakeholders having relevance to Trina Solar’s overall sustainability performance and impacts of its operations during 2016 (1 Jan 2016 to 31 Dec 2016). We have maintained complete impartiality and independence during the assurance engagement and were not involved in the preparation of report contents.

Principles for External Assurance:
1. Trina Solar’s internal policy and regulations for Corporate Social Responsibility Report.
2. With reference to Global Reporting Initiative (GRI) Standards.

Scope of Assurance:
Our Assurance engagement covers the following:
- Trina Solar’s sustainability performance as described in the CSR Report 2016; and performance indicators and according disclosure on the general disclosures and key performance indicators (KPIs) from Environment aspects, as well as the reporting boundaries;
- Evaluation of disclosed information in the CSR Report 2016 as per the assurance methodology.

Limitation:
The assurance engagement was carried out at Trina Solar Headquarters at No. 2, Trina Road, Trina PV Industrial Park, Xinbei District, Changzhou City, Jiangsu Province, P.R.China. The consultations with external stakeholders were not carried out. We did not observe any significant situations to limit our assurance activity. The verification was carried out based on (i) the data and information provided by Trina Solar, assuming they are complete and true; and (ii) interview of the Trina Solar’s report preparation team, assuming information reliable.

Assurance Methodology:
The Independent Assurance was carried out based on the current best practices and the CSR Report 2016 was reviewed against the general reporting principles of Materiality, Quantitative, Balance and Consistency.
TÜV Rheinland has examined the report contents and assess the process undertaken by Trina Solar from source to aggregate in disclosure of information/data related to sustainability performance. Our judgment is based on the objective review of reported information as per the assurance principles mentioned above.

Analytical methods and the performance of interviews as well as verification of data, were done by random sampling to verify and validate the correctness of reported data and contents in light of contractual assurance agreement. Our work included interviewing about 20 Trina Solar’s representatives including senior management and report preparation staff. The approach deemed to be appropriate for the purpose of assurance of the Report since all data therein could be verified through document evidences, direct response, and verified database entries.

The Assurance was performed by our multidisciplinary team of experienced professionals in the field of Corporate Sustainability, Environment, Social and Stakeholder Engagement. Our work offers a sufficient and substantiated basis to enable us to come to a conclusion mentioned below and based on the content of our contract.

Conclusion:
In conclusion, we can mention that no instances or information came to our attention that would be to the contrary of the statement made below:
- Trina Solar Corporate Social Responsibility Report 2016 is prepared according to GRI Standards in respective of Comprehensive Option.
- For stakeholders to assess balance and overall sustainability performance of Trina Solar, the positive and necessary negative aspects are showcased to a certain degree in the CSR Report 2016 with its statements and claims in
respective of especially carbon emission control, energy efficiency and pollution management.

- The information provided in the CSR Report 2016 is accurate and consistent with documentary evidences and internal records.
- The performance presented in the CSR Report 2016 is focused on that are occurred during 2016.
- The CSR Report 2016 with its statements and claims is understandable and accessible in the Trina Solar official website.
- The performance showcased in the CSR Report 2016 is comparable to that provided in the previous annual Corporate Social Responsibility Report of Trina Solar in some context for stakeholder assessment of its changes overtime.
- The performance data is collected, stored and analyzed in a systematic and professional manner and were reasonable and reliable.
- TÜV Rheinland shall not bear any liability or responsibility to a third party for perception and decision based on this Assurance Statement.

TÜV Rheinland Greater China
Systems

Date: 14 September, 2017