

Solar Energy for All

Customer-Centric

Open-Mindedness

Dedication

Excellence

2016 Corporate Social Responsibility Report



Achieve Our Dream with Sunlight



Achieve Our Dream with Sunlight



[www.trinasolar.com](http://www.trinasolar.com)



Trinasolar



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## 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, staff, 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- 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](mailto:EHS_Department@trinasolar.com).

## Message from the Leadership

**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.**

### Dear Distinguished Stakeholders,

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<sup>(1)</sup> of new PV installation worldwide and 34.54 GW<sup>(2)</sup> domestically. This brings the cumulative PV installation capacity to about 296 GW<sup>(2)</sup> worldwide and 77.42 GW<sup>(2)</sup> 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 2016 in Tianjing, 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 called for a sophisticated system to support solar companies expanding overseas, especially for those private companies.

While developing our business, we spared no efforts to take care of the environment. We focused on energy efficiency improvement by identifying and implementing energy-saving projects and optimizing energy use. We achieved 32% and 39% reduction for electricity and water consumption per MW module production in 2016 compared to that of 2012. We made our efforts in establishing a greenhouse gas verification system - ISO14064, to quantify, report and disclose Greenhouse Gases (GHGs) emissions, which helped us foster employees' awareness for natural resources conservation and GHGs reduction. We sustained a consecutive reduction of carbon dioxide emission and achieved a reduction of 30% of GHG emission per MW module

in 2016 (168 tones/MW) compared to that of 2012 (239.4 tones/MW). In November, 2016, we were successfully passed carbon footprint 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 PD05, PD15 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 Fengning Manzhou 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.



Jifan Gao  
Chairman & CEO of Trina Solar

#### Note:

1. Renewable Energy Capacity Statistics 2017, IRENA.
2. PV Energy Statistics 2016, National Energy Administration, P R China.

A large solar plane with "isa" on its tail is flying over a calm lake. In the background, there are snow-capped mountains and a line of trees with autumn foliage. The scene is reflected in the water.

# Governance & Development

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

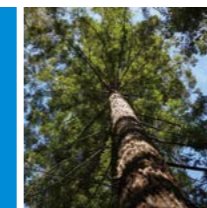
## Strategic Objective



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



**Branding**



**Globalization**



**Platform**



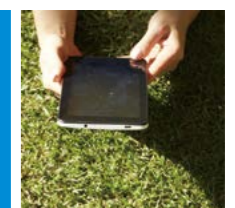
**Innovation**



**Financing**



**Intelligence**



## Corporate Governance

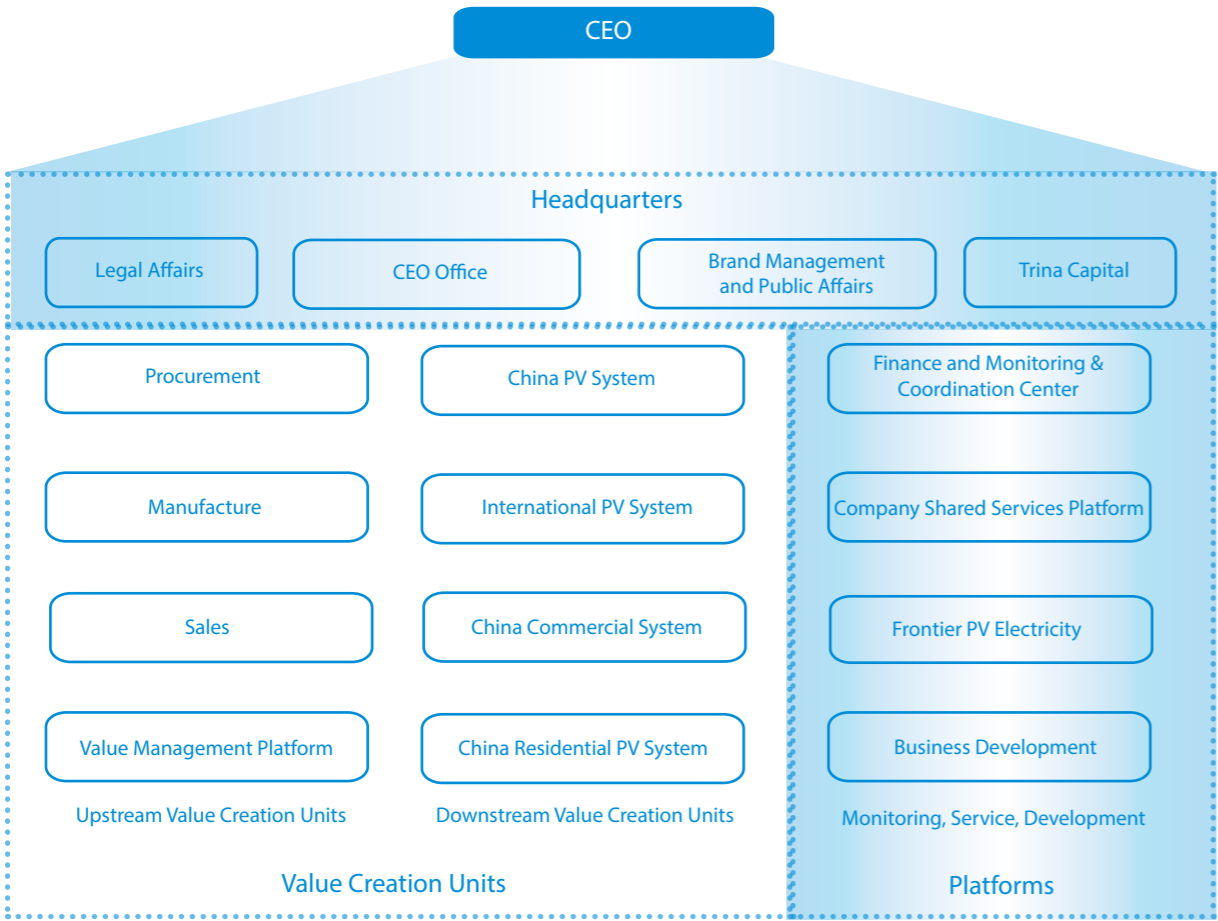
Legal compliance is not only the guarantee of the success of an enterprise, but also the foundation of its long-term, healthy and steady development. Trina Solar consistently adheres to business ethics,

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.

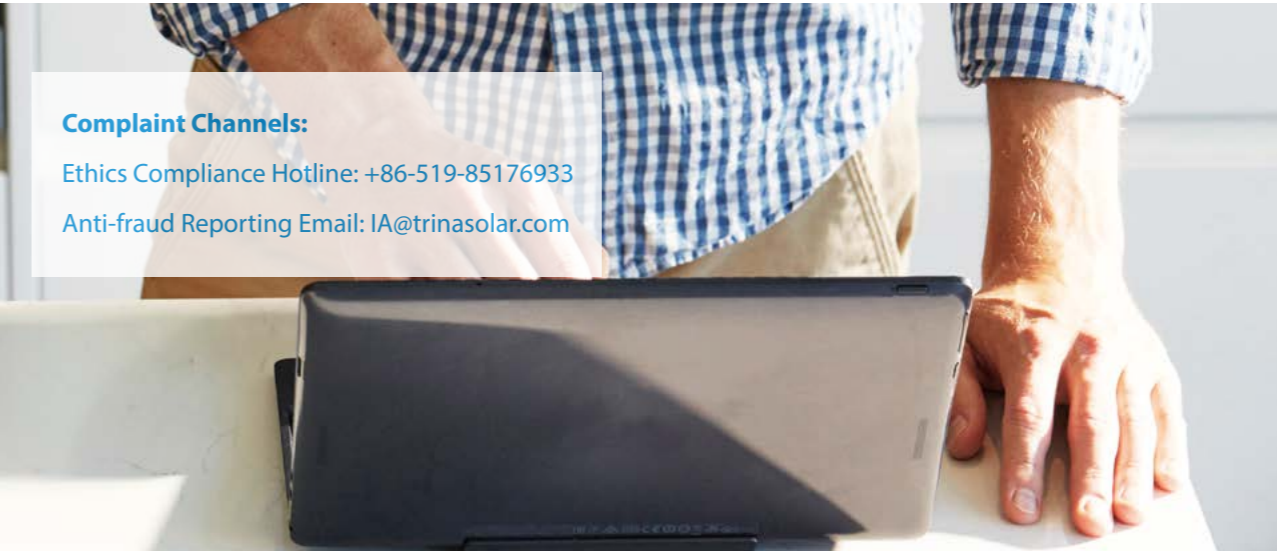
Trina Solar has put its Board of Directors (BOD) and governance rules in place. BOD is sub-grouped into three special committees. Major issues to be considered by BOD will be discussed in a special committee to form a formal proposal. This is to ensure that decision-making is made in a scientific, standardized and efficient way.

## 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](http://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.

- 01 Provide codes of conduct and anti-corruption training for all employees.
- 02 Require new employees to learn and sign on the Code of Business Conduct and Ethics.
- 03 Conduct annual self-disclosure of conflicts of interests for employees on key positions.
- 04 Establish complaint channels for the public through email and telephone.



## 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 18<sup>th</sup> China Patent Awards hosted by State Intellectual Property Office and World Intellectual Property Organization.

## 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.

“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.

### 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

## 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.

### 2016 Trina Family Day My Trina & My Love



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.



Children Wonderland



High-tech Experience



Vocational Experience



Folk Art

## 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.

No.	Name of Associations	Position
1	 Global Solar Council	Global Solar Council <ul style="list-style-type: none"><li>Jifan Gao, Chairman and CEO of Trina Solar, serves as the Chairman of the Joint Committee</li></ul>
2	 United Nations Development Programme (UNDP)	United Nations Development Programme (UNDP) <ul style="list-style-type: none"><li>Founding member of the UNDP Private Sector Advisory Board</li></ul>
3	 World Economic Forum	World Economic Forum <ul style="list-style-type: none"><li>Business Partner in PV industry</li></ul>
4	 Boao Forum for Asia	Boao Forum for Asia <ul style="list-style-type: none"><li>Platinum Member</li></ul>
5	 China PV Industry Association	China PV Industry Association <ul style="list-style-type: none"><li>Director Unit</li><li>Jifan Gao, Chairman and CEO of Trina Solar, serves as the Director.</li></ul>
6	 Chinese Renewable Energy Society (CRES)	Chinese Renewable Energy Society (CRES) <ul style="list-style-type: none"><li>Jifan Gao, Chairman and CEO of Trina Solar, serves as the Standing Director.</li></ul>
7	 Jiangsu Photovoltaic Industry Association	Jiangsu Photovoltaic Industry Association <ul style="list-style-type: none"><li>Director Unit</li><li>Jifan Gao, Chairman and CEO of Trina Solar, serves as the Chairman.</li></ul>

Stakeholders	Communication Methods	Communication Activities
 Customers	<ul style="list-style-type: none"><li>Customer satisfaction survey</li><li>Meetings</li><li>Exhibitions</li><li>Website</li></ul>	<ul style="list-style-type: none"><li>Trina Solar showcased the leading photovoltaic technologies, products and solutions of the latest research and development (e.g. Trinapeak Intelligent Optimization) at SNEC 10<sup>th</sup> (2016) International Photovoltaic Power Industry Generation Conference &amp; Exhibition in May, 2016.</li><li>Trina Solar was selected as the only one photovoltaic enterprise in the National "The 12<sup>th</sup> Five-Year Plan" Science and Technology Innovation Achievement Exhibition and showcased IBC cells and other latest innovations which researched and developed by State Key Laboratory of PV Science and Technology of Trina Solar in June, 2016.</li></ul>
 Employees	<ul style="list-style-type: none"><li>Communication Meeting</li><li>Roundtable meeting / lunch communication</li><li>HR hotline</li><li>Staff suggestion scheme</li><li>Wechat platform</li><li>Training</li></ul>	<ul style="list-style-type: none"><li>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.</li><li>HR and Labor Union organized forty cultural and sports activities, e.g. stage play competition, Trina PV knowledge contest, billiard competition and outdoor hiking.</li></ul>
 Shareholders	<ul style="list-style-type: none"><li>Training</li><li>General meeting of shareholders</li><li>Periodically release operation performance</li></ul>	<ul style="list-style-type: none"><li>The company website (www.trinasolar.com) issued press releases or announcements to disclose company's operation irregularly.</li></ul>
 Government	<ul style="list-style-type: none"><li>Sign cooperation memorandum</li><li>Participate in policy research</li><li>Participate in government's project</li></ul>	<ul style="list-style-type: none"><li>"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.</li></ul>
 Business Partners	<ul style="list-style-type: none"><li>Sign strategic partnership agreement</li><li>Supplier meeting</li><li>Supplier research / audit</li><li>Supplier / contractor training</li></ul>	<ul style="list-style-type: none"><li>Trina Solar signed strategic cooperation agreement with financial institution (e.g. CITIC Bank, CZB, SCB) to obtain strategic credit extension and promote Trina's development.</li><li>Trina Solar organized 2016 Global Suppliers Conference. About 400 people from Trina Solar's suppliers and Yancheng local municipal government officials attended the conference.</li></ul>
 Community	<ul style="list-style-type: none"><li>Participate in community activities</li><li>Employee volunteer activities</li><li>Collect feedback from community</li><li>Hire local employees to improve profits, and pay tax in accordance with law</li></ul>	<ul style="list-style-type: none"><li>EHS Department conducted a EHS Satisfaction Survey for community residents surrounding the company in June, 2016.</li></ul>
 Charity Organizations	<ul style="list-style-type: none"><li>Supplier meeting</li><li>Participate in charity activities</li><li>Volunteers participate in social service activities</li></ul>	<ul style="list-style-type: none"><li>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.</li></ul>
 Public Media	<ul style="list-style-type: none"><li>Disclose information on social responsibilities on a regular basis</li></ul>	<ul style="list-style-type: none"><li>Trina Solar released news regularly.</li><li>Trina Solar released Corporate Social Responsibility Report annually.</li></ul>
 Research Institutions/Standards Associations	<ul style="list-style-type: none"><li>Industry association</li><li>Seminars</li><li>Technical Cooperation</li></ul>	<ul style="list-style-type: none"><li>Trina Solar was selected as Changzhou Standardization Institution Chairman Unit on 13<sup>th</sup> January, 2016.</li><li>OSU Solar Car Team equipped with the solar car OSU-Model-S that developed by Trina Solar and Osaka Sangyo University, won the Dream Team of 2016 FIA Alternative Energies Cup Solar Car Race.</li></ul>

# 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

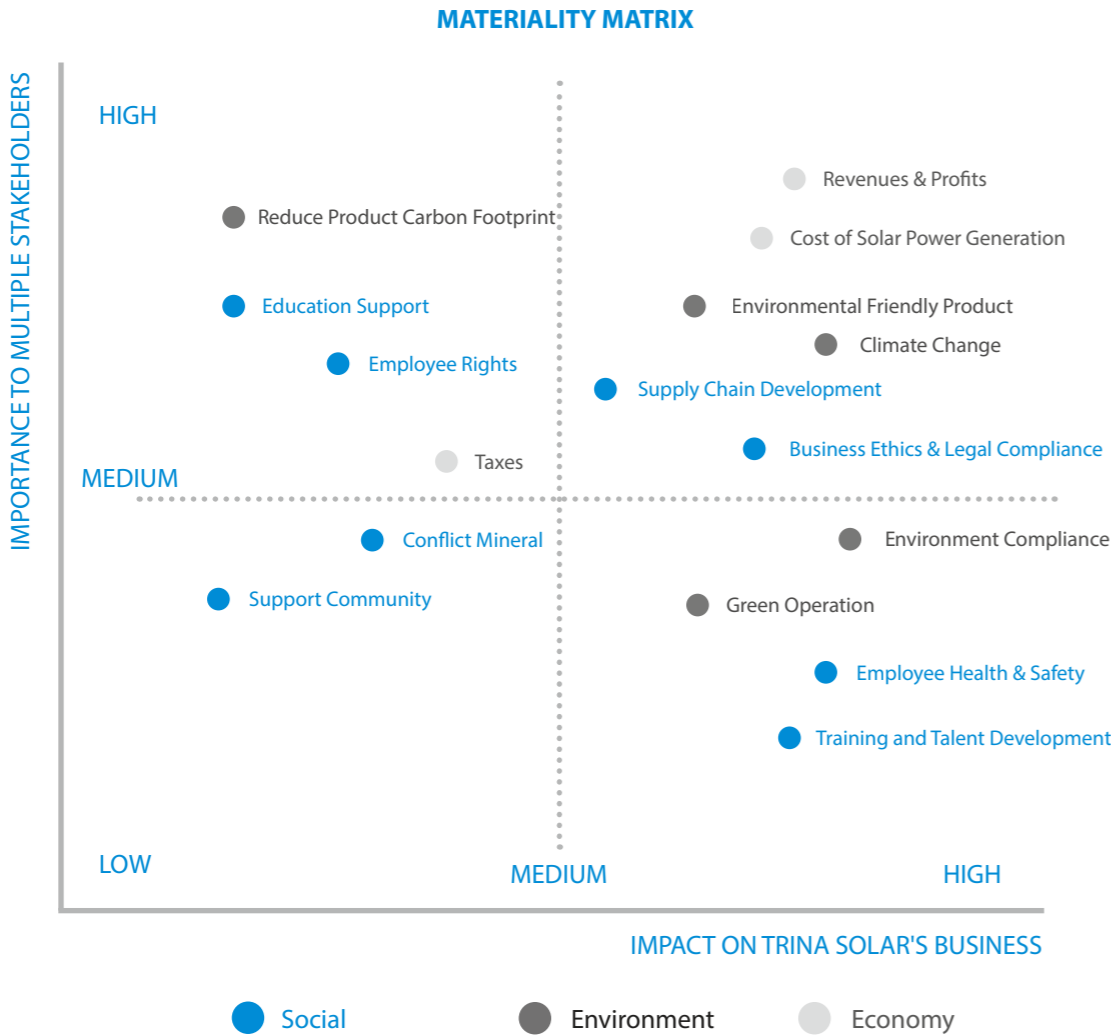
We identify issues from a wide range of stakeholders and sources by customer satisfaction survey, company website, email, employee blogs and forums, social media channels and meetings with government officials.

- 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.

- Social:** occupational health and safety, emergency preparedness, human rights, supply chain responsibility, conflict minerals, community support, employee relationship, talent development and retention, corporate culture, intellectual property right, security, labor union, gender equalization.

## 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 continues 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.

## SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS

17 GOALS TO TRANSFORM OUR WORLD

Remark: The above contents are quoted from the United Nations website (<http://www.un.org/sustainabledevelopment>).

Jifan Gao, Chairman and CEO of Trina Solar, Elected as One of the Founding Members of UNDP Private Sector Advisory Board



In January, 2016, Private Sector Advisory Board, United Nations Development Programme (UNDP), composed of influential Chinese entrepreneurs, was founded, aiming to realize the 17 sustainable development goals of United Nation in China. Jifan Gao, Chairman and CEO of Trina Solar, was invited to be one of the founding members of the Advisory Board. All the founding members signed sustainable development declaration, committing to support the realization of global sustainable development goals. The members negotiated the core issues confronted the sustainable development. The Advisory Board focuses on many aspects, such as Poverty Elimination, Sustainable Cities, Climate Change, Low Carbon and Energy Efficiency, Gender Equality, Disaster Response, Poverty Alleviation based on big-data, and solutions to other global issues.



Noudehou,  
UN Resident  
Coordinator and  
UNDP Resident  
Representative  
in China

"Corporate can promote the realization of sustainable development goals in multiple ways, including creating new comprehensive business model, seeking for shared values and insisting in environmental operation ways, all of which will definitely promote the sustainable development in China."

Realization of the 2030 Sustainable Development Goals of the United Nations

In November, 2016, Jifan Gao, Chairman and CEO of Trina Solar, was invited to visit Shamshad Akhtar, under secretary general of United Nation and executive secretary of ESCAP (UN Economic and Social Commission for Asia and the Pacific), in Bangkok, Thailand, where headquarters of ESCAP was located. Both of them had a deep conversation about how to promote development of new energy and how to settle the shortage of electricity supply in Asia and Pacific area.

Currently, about 500 million people have no access to electricity and 350 million of them come from Middle-South Asia, which is really an urgent issue for each government to resolve. Both government and corporate have to work together to find the best solution to resolve the shortage of electricity supply and promote the popularity of clean energy. Promoting the development of new energy industry is the most practicable solution.

Jifan Gao shows his strong willingness to cooperate with ESCAP to promote the popularity and application of new energy. Taking the vision of "Solar Energy for All", Trina Solar will devote to realizing the UN 2030 Sustainable Development Goals.



Shamshad Akhtar,  
Under Secretary-  
general of the  
UN and executive  
secretary of ESCAP

"Among the UN 2030 Sustainable Development Agenda, energy popularity is defined as a significant goal. With the fast development of renewable energy and application of energy storage technology, a self-sufficient energy supply system will definitely be established to meet the energy demand in developing countries. China can utilize its advantages in technology research and development experience to promote establishment of new energy system under the guidance of "One Belt, One Road" initiative."

An Open Letter from GSC to G20: Create 10 million solar jobs by 2030

On September 1<sup>st</sup>, 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 and CEO of Trina Solar, also Co-chairman of the GSC and Director of China PV Industry Association.

To G20 Leaders

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 50 GW. More significantly, the Paris Agreement was reached during the 21<sup>st</sup> session of Conference of Paris (COP21), and was officially signed at the United Nations Headquarters on April 22<sup>nd</sup>, 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 majestic 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 Accessibility 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 22<sup>nd</sup>, 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 also mobilize 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 urges 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

GSC is an international organization with members from advanced regions and national solar associations, aiming to share successful experience and promote global solar industry. GSC believes that PV generation has been the cheapest and common used source of electricity power. As clean energy, solar power costs much less in dealing with climate change. GSC proposes that PV generation is now an imperative solution to ensure that the global temperature increase is less than 2°C. Guided by the correct market circumstance, the percentage of solar generating capacity to global power generating market should increase from less than 1% at present to 10% in 2030.

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 accessible, 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 22<sup>nd</sup>, 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 China-Thai Rayong Industrial Park, was officially put into production. The plant was equipped with the most advanced facilities worldwide and fully automated production lines.



Vesanu Kean,  
Deputy Prime  
Minister of Thailand

"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 renewable energy development in Thailand and Southeast Asia as well. Wish 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
<div> International level</div>	<ul style="list-style-type: none"><li><b>Opportunity:</b> United Nations World Summit on Sustainable Development (WSSD) approved 2030 Sustainable Development agenda in September, 2015, including 17 global sustainable goals.</li><li><b>Opportunity:</b> Paris Agreement was reached on the 21<sup>st</sup> United Nations Climate Change Conference (UNCCC). It was officially signed in UN headquarters on April 22<sup>nd</sup>, 2016, World Earth Day. The agreement significantly strengthens the energy conservation awareness among the member states.</li><li><b>Opportunity:</b> 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.</li></ul>	<ul style="list-style-type: none"><li>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.</li><li>Promote and participate in the enactment and improvement of international and domestic climate change policies.</li></ul>
<div> Domestic level</div>	<ul style="list-style-type: none"><li><b>Opportunity:</b> In December, 2016, National Energy Administration (NEA) issued the “Thirteenth Five-year Plan for Solar Energy Development”. 1) Propel 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.</li><li><b>Risk:</b> FITs (feed-in-tariffs) 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.</li></ul>	<ul style="list-style-type: none"><li>Upgrade PV technology and improve efficiency to meet the requests of "Top Runner Program".</li><li>Establish the Residential PV System Value Creation Unit. Achieve the common development goals together with famous enterprises, financial agencies and investors by taking advantage of our manufacturing capability and brand popularity.</li><li>Accelerate innovation in PV development and application; forge a PV ecological chain with R&amp;D, manufacturing and PV application; resolve the issue of electricity shortage in impoverished area; benefit every family and mankind with solar energy.</li><li>Continue to reduce the price of solar energy by renovation and cooperation.</li><li>Appeal government to resolve curtailment issue and on-time FIT grant, so as to promote the healthy development of PV industry.</li></ul>
<div> Enterprise level</div>	<ul style="list-style-type: none"><li><b>Opportunities:</b><ul style="list-style-type: none"><li>Provide technical training and income for employees.</li><li>Provide job opportunities for local communities.</li><li>Improve our suppliers' social and environmental performance through supplier survey and audit.</li></ul></li><li><b>Risks:</b><ul style="list-style-type: none"><li>Be legal compliance in the locations where we operate.</li><li>Safety risks in the production and installation processes.</li><li>Negative environmental impacts, including climate change, caused by production, installation and transportation.</li></ul></li></ul>	<ul style="list-style-type: none"><li>Provide better work condition and welfare.</li><li>Provide more career development opportunities.</li><li>Pay attention to the social responsibility of our global suppliers and partners. Push for the sustainable development of PV industry.</li><li>Strictly observe local laws and regulations.</li><li>Provide a safe and healthy work environment for our employees and contractors.</li><li>Minimize negative environmental impact and product carbon footprint through technological innovation and energy efficiency optimization.</li></ul>

Awards

No.	Date	Awards
1	February 2016	• Be named as the World's Most Bankable PV Module Manufacturer by Bloomberg New Energy Finance (BNEF).
2	April 2016	• Hubei Trina Solar Energy Co., Ltd. was awarded with 2015 Advanced Organization in Safe Production by Shazui Street Committee of Xiantao City, Hubei Province.
3	May 2016	• Won Sustainable Development Enterprise Award in PV Industry by Shanghai New Energy Association.
4	May 2016	• Be granted a Silver Recognition Level in the Corporate Social Responsibility(CSR) performance survey conducted by EcoVadis.
5	May 2016	• Passed the quantification system certification of ISO14064 greenhouse gas emission conducted by BSI.
6	June 2016	• Changzhou Trina Solar Co., Ltd. and Yancheng Trina Solar Science & Technology Co., Ltd. was conferred with the honor of “2015 Jiangsu Safety Culture Model Enterprise” by Jiangsu Work Safety Administration Bureau
7	July 2016	• Be selected to the 100 Global Challengers List in 2016 by the Boston Consulting Group (BCG) at Tianjin Summer Davos Forum.
8	October 2016	• 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.
9	October 2016	• Won 2016 Outstanding Achievement Award of China Energy Enterprise at the 8 <sup>th</sup> China Overseas Investment Fair and 2016 China International Energy Leaders Summit.
10	November 2016	• Earned the title of Second Grade Safe Production Standardized Enterprise granted by Jiangsu Work Safety Administration Bureau.
11	November 2016	• Passed PAS2050/ISO14067 Product Carbon Footprint verification conducted by British Standard Institutes (BSI).
12	November 2016	• Won 2016 China Ten Green Responsibility Enterprise Award at the 7 <sup>th</sup> China Green Development Forum.
13	December 2016	• Won China Model New Employer Award in the 2016 China Model Employer Award Ceremony of 51job.
14	December 2016	• Won 2016 PV Poverty Alleviation Award in the second China Energy Development & Innovation Forum and 2016 Energy Annual Conference.
15	December 2016	• Won Asia’s Best Workplace Reporting Award at the 2016 Asia Sustainability Reporting Awards in Singapore.



# 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.



An estimated 1.1 billion people, about 15% of the global population, did not have access to electricity. According to the United Nation's World Population Prospects Report, the world's population is expected to reach 9.7 billion by 2050. Providing access to reliable and affordable energy services for all people is a challenge goal.

As a leading PV enterprise, Trina Solar is dedicated to developing clean solar energy worldwide. While providing affordable and clean solar energy, we pay much attention to environmental protection and sustainable development.



GHG Emission per MW Module Production in 2016 reduced by 30% compared to that in 2012



Product carbon footprint reduced by 18.7% compared to that in 2012



Electricity consumption per MW Module Production in 2016 reduced by 32% compared to that in 2012



Water Consumption per MW Module Production in 2016 reduced by 39% compared to that in 2012


## 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

No.	 Trina Solar's Green Sustainable Development Goals by 2020	2015	2016	Decreased Percentage
1	• 15% reduction of CO <sub>2</sub> emissions per MW module compared to that of 2015	182.6	168.0	8%
2	• 10% reduction of consolidated energy consumption per MW module compared to that of 2015	13.15	13.12	0.2%
3	• 18% reduction of product carbon footprint compared to that of 2015		PD05	18.7%
			PD14	21.8%
			PEG5	25.4%
4	• 15% reduction of electricity consumption per MW module compared to that of 2015	221	187	15.4%
5	• 10% reduction of water consumption per MW module compared to that of 2015	1885	1744	7.5%

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, Product Stewardship 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.

No.	Plants	Established ISO14001 Environment Management System	No.	Plants	Established ISO14001 Environment Management System
1	Plants at Changzhou Headquarters	Yes	5	Hefei Plant	Yes
2	Changzhou Yabang Plant	Yes	6	Xinjiang Plant	No
3	Yancheng Plant	Yes	7	Thailand Plant	Yes
4	Hubei Plant	Yes	8	Vietnam Plant	No

Chains	Measures
 Site Selection, Designing and Construction of Plants/PV Power Stations	<ul style="list-style-type: none"><li>Environment Impact Assessment, evaluate the positive and negative impacts of the proposed projects on the community's environment;</li><li>Ensure the environmental protection facilities to be designed, constructed and put into use simultaneously with the main part of construction project;</li><li>Protect the community's ecological environment and biological diversity.</li></ul>
 Research & Development	<ul style="list-style-type: none"><li>Incorporate the concept of environmental protection into R&amp;D and improve the product conversion efficiency.</li></ul>
 Manufacturing	<ul style="list-style-type: none"><li>Ensure sustainable use of resources;</li><li>Continuously promote the energy efficiency;</li><li>Ensure that treated effluent and emission of waste gas meet national and local limits;</li><li>Promote recycling of resources;</li><li>Promote green office.</li></ul>
 Packaging	<ul style="list-style-type: none"><li>Reduce packaging materials without affecting package safety;</li><li>Utilize recycled and degradable package materials.</li></ul>
 Logistics	<ul style="list-style-type: none"><li>Develop a resourceful transportation route;</li><li>Choose the best mode of transportation;</li><li>Improve the utilization rate of containers.</li></ul>
 Product Recycling	<ul style="list-style-type: none"><li>Be a member of PV CYCLE and dispose the waste PV products in an environmental friendly way;</li><li>Be a member of the Glass Recycling Committee of Japan (GRCJ).</li></ul>

## Dealing with Climate Change

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

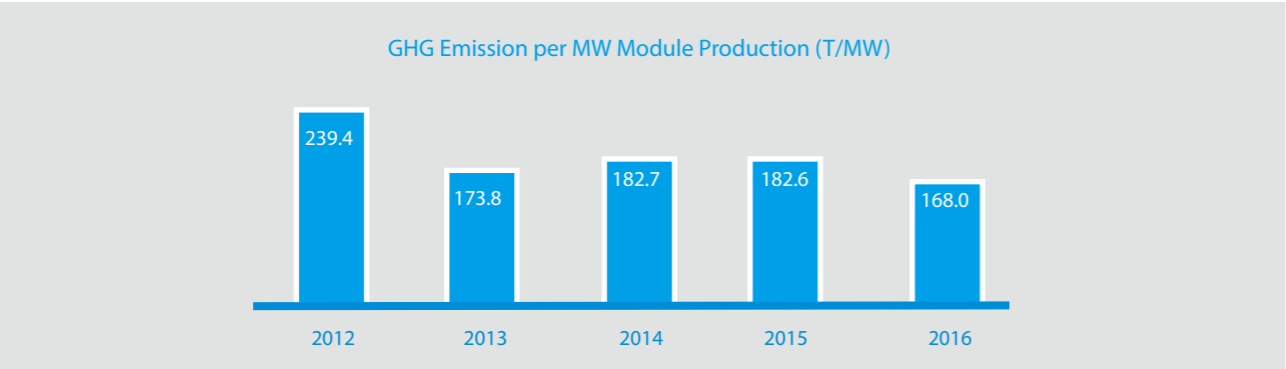
projects of energy-saving and pollution reduction.

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

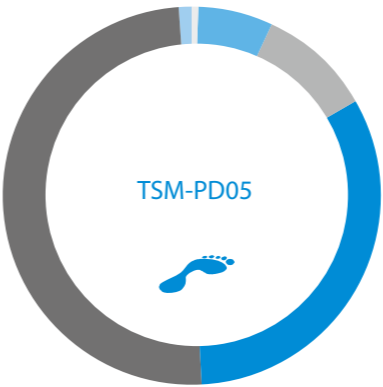
verification in 2017. With the expansion of business, our total GHG emission amount has correspondingly increased. However, the GHG emissions of per MW module production achieved a reduction of 30% compared to that of 2012, and a reduction of 8% compared to that of 2015.



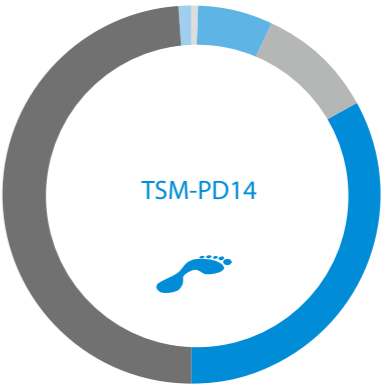
GHG Emissions (metric tonne CO <sub>2</sub> -e)	2012	2013	2014	2015	2016
Scope 1	19,000	17,600	14,900	11,600	15,100
Scope 2	394,900	426,800	475,800	513,200	636,100
Total	413,900	444,400	490,700	524,800	651,200

Types of GHG	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	HFCs	PFCs	SF <sub>6</sub>
GHG Emissions in 2016 (metric tonne CO <sub>2</sub> -e)	645,000	40	4	5,100	0	1,030

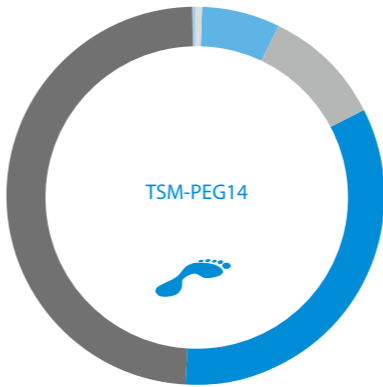
### 2016 Product Footprint Verification: Composition of Product Carbon Footprint



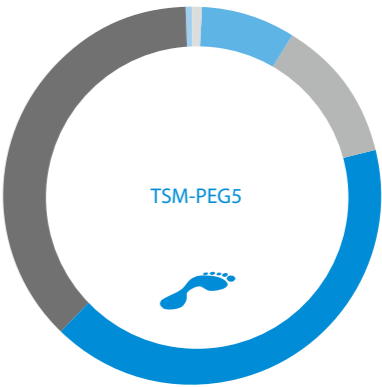
- Silicon 0.7%
- Other Activities 1.1%
- Casting 6.3%
- Wafer 9.9%
- Cell 32.3%
- Module 49.7%



- Silicon 0.7%
- Other Activities 1.1%
- Casting 6.4%
- Wafer 10.1%
- Cell 33.0%
- Module 48.7%



- Silicon 0.7%
- Other Activities 1.1%
- Casting 6.3%
- Wafer 9.9%
- Cell 32.3%
- Module 49.7%



- Silicon 0.7%
- Other Activities 1.1%
- Casting 6.3%
- Wafer 9.9%
- Cell 32.3%
- Module 49.7%

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 CO<sub>2</sub> emission and produce more cost-competitive products.

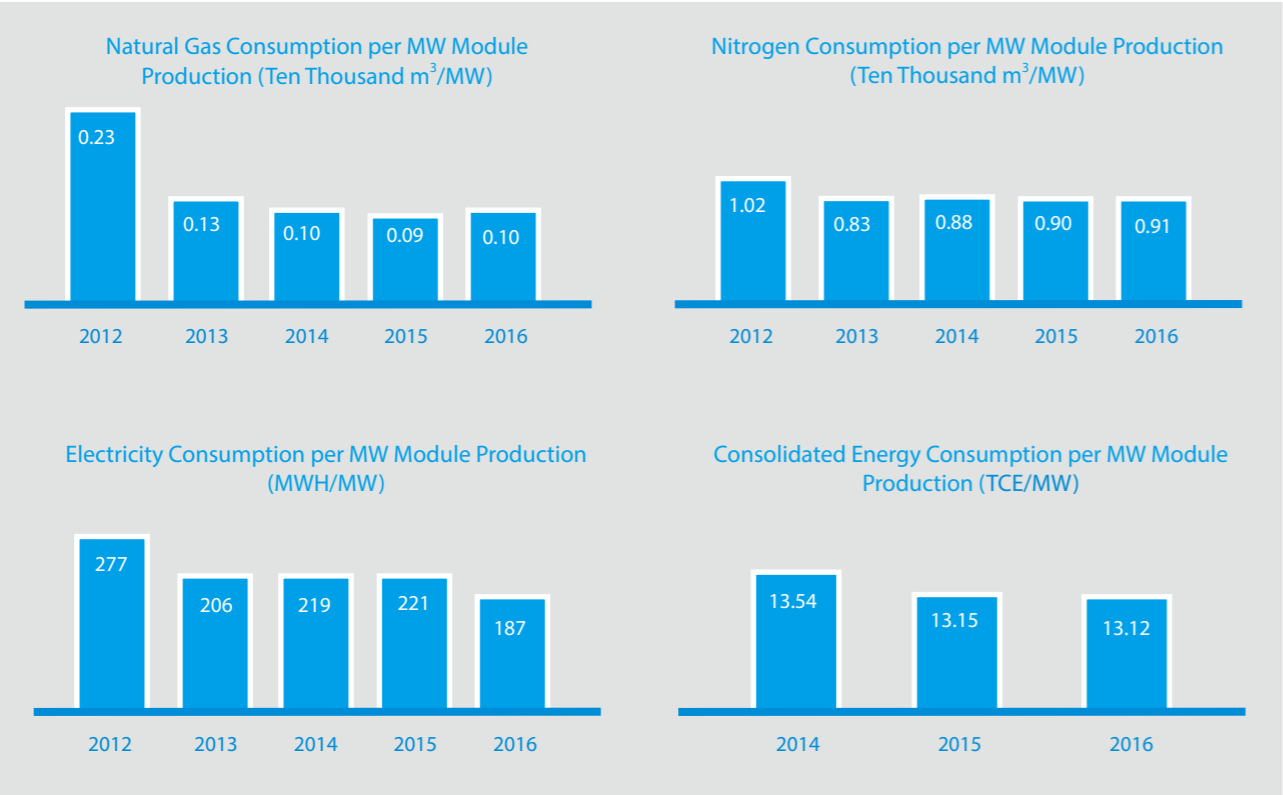
In 2014, Trina Solar's plant located in Changzhou Headquarters took a lead in PV industry to kick-off the establishment of ISO50001 Energy Management System. The establishment of the system aims to reduce energy consumption, improve energy efficiency and implement energy conservation measures and technologies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

The primary energy mainly used in our company is natural gas, and the secondary energy includes electricity and diesel. The energy-consumed mediums include 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.

Energy Types	2012	2013	2014	2015	2016
Natural Gas (ten thousand m <sup>3</sup> )	403	321	272	271	455
Nitrogen (ten thousand m <sup>3</sup> )	1,756	2,130	2,371	2,580	4,205
Purchased Electricity (MWH)	478,265	527,074	589,501	634,931	861,112



CASE STUDY

### Upgrade of PCW System for Multi-crystalline Workshop in West Campus



To ensure safe operation of equipment, the multi-crystalline furnaces are cooled by process cooling water (PCW). The temperature of cooling water entering the furnaces was set to 24±1°C in Trina Solar's Changzhou plant. To meet the water temperature requirement, chillers needed to be used in summer which consumed a large amount of electricity. Our equipment engineers, process engineers, together with the equipment manufacturer made many experiments and found that the water temperature could be set at 32±2°C. We made use of two idle plate heat exchangers to the main coolant pump system, and added another two plate heat exchangers with a heat exchange area of 490m<sup>2</sup>. After modification, the exchanged and radiated heat from the cooling tower can be utilized to ensure that the temperature of water entering the furnaces meets the requirement. The project could lead to a saving of 1,220 MWh/year electricity consumption, equivalent to a reduction of 976 tons/year of carbon emission.

Plant	Energy-saving Projects from 2012 to2016	Energy Saved (million kWh/year)	Reduction of CO <sub>2</sub> Emission (Tons/Year)
Changzhou Plant	<ul style="list-style-type: none"><li>Replace high energy consumption equipment with energy saving and high efficiency equipment. For example, use energy saving and high efficiency motors, replace angle grinders with sandblasters in silicon workshops, and replace centrifuge with filter press at the wastewater treatment plant to save energy.</li><li>Collect residual heat and energy from chillers' cooling water, air compressors and refrigerators and use it for workshops to reduce natural gas consumption.</li><li>Retrofit the running equipment based on actual load needs. For example, we minimise to the amount of running machines, such as blowers, air compressors, water pumps etc. based on the production needs. We connected vacuum pumps in parallel way so that we are able to keep running vacuum pumps at minimum amount in multi-crystalline workshops.</li><li>Continuously optimize the production process to reduce electricity consumption. For example, casting workshop adopted silica sol process to replace high-temperature stoving on the crucible; silicon workshop added drying machines to shorten the stoving time and reduce electricity consumption.</li></ul>	37	31,300
Yancheng Plant	<ul style="list-style-type: none"><li>Perform PCW free cooling project in Yancheng plant to save electricity.</li><li>Improve the lighting system in the public areas to be optically controlled.</li></ul>	0.5	400
Hubei Plant	<ul style="list-style-type: none"><li>Replace fluorescent lights with energy-saving LED lights.</li><li>Update all air compressors to frequency convertors.</li></ul>	0.6	480
Yabang Plant	<ul style="list-style-type: none"><li>Replace chillers with closed cooling tower system to cool down the vacuum pumps so as to reduce energy consumption.</li><li>Install VSDs (Varied Speed Drivers) for air compressors to save electricity consumption.</li></ul>	0.2	160
Hefei Plant	<ul style="list-style-type: none"><li>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 (5-28°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.</li></ul>	0.5	400
Xinjiang Plant	<ul style="list-style-type: none"><li>According to the climate features in Xinjiang plant, we added the temperature controlling system on cooling tower to save electricity.</li></ul>	0.05	40
Thailand Plant	<ul style="list-style-type: none"><li>Supply water for the storage tank according to the water level differences instead of using pump to save electricity.</li><li>Collect the residual heat of cooling water and minimize running time of electric heating system.</li></ul>	1.5	1,200
Total		40.35	33,980



Environmental-friendly Operation

Creating a more sustainable future requires cleaner energy. We not only operate in a responsible way, but also are committed to providing clean solar energy to meet the global energy demand through implementation of product stewardship policy, technical innovation, improvement of product conversion efficiency, and adequate disposal of defective or end-of-life PV products

Product Stewardship Policy

Trina Solar is committed to protecting our employees, customers and communities in a responsible manner. We have put Product Stewardship Policy in place to ensure product safety and environmental protection throughout the product life span, including R&D, manufacturing, transportation, use and end-of-life module disposal.



Trina Solar conducts business in a manner that ensures compliance with all applicable regulatory requirements and industry standards. We commit to integrating environment, health and safety responsibilities into all stages of our product life cycle.



We believe that product stewardship, the ongoing performance improvement of products in terms of environmental, health and safety aspects, is one of the cornerstones of sustainable business. We act in a responsible manner to protect our employees, customers and the communities in which we operate.



Trina Solar pledges to implement effective product stewardship management programs, and shows our commitment and leadership to meet the customers' increasing demands on safer and more environmentally sustainable products.



Trina Solar actively strives to develop new raw materials and products in a responsible manner by assessing their risks for current and future generations. We commit to conflict-free materials and products, and work diligently to promote sustainable development by way of ethical and green sourcing.



Trina Solar offers product guidance to customers, distributors and users so that our products are safely transported, stored and used. We voluntarily participate in take-back and recycling program for defective and/or end-of-life (EOL) solar modules.



We pledge to actively engage in fighting against climate change by way of continuously enhancing energy efficiency and reducing greenhouse gas emission.



Trina Solar engages with stakeholders to periodically review the policy statement to ensure that it remains adequate and continues to meet stakeholders' expectations.

UN's Sustainable Development Goals by 2030



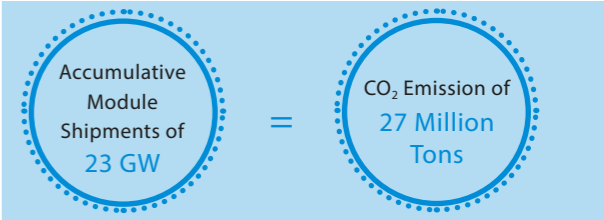
SDG7: Ensure access to affordable, reliable, sustainable and modern energy for all

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.



CASE STUDY

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.

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 created a new world record again on December 19<sup>th</sup>, 2016. As of

the end of 2016, Trina Solar has broken the world record for 15 times accumulatively.

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.

CASE STUDY

Trina Solar's Interdigitated Back Contact (IBC) Silicon Solar Cell Won China Patent Excellence Award



In December, 2016, the 18<sup>th</sup> 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 (SIPO). 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 firming during traditional all back contact electrode solar 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 institution 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.

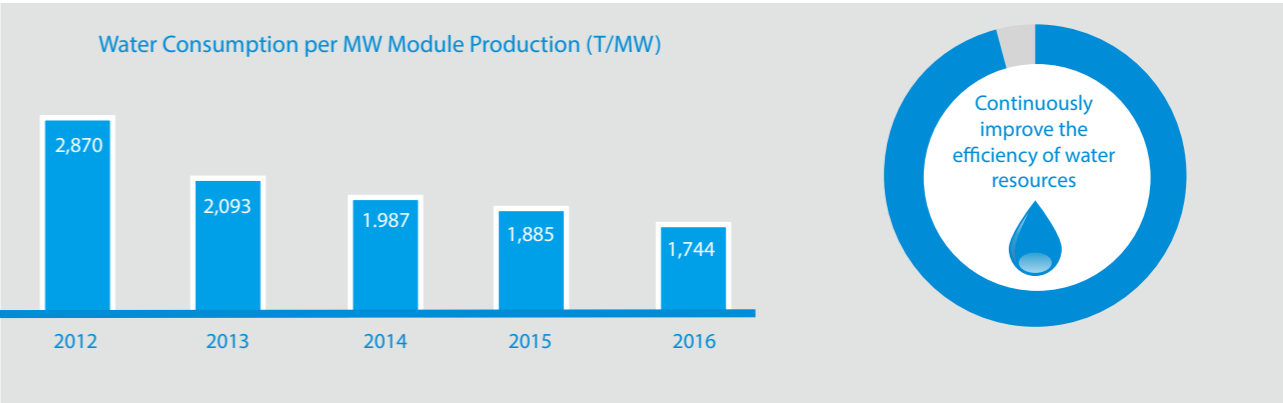
Waste Electrical and Electronic Equipment Directive (WEEE, 2012/19/EU) specifies that manufacturers of electrical and electronic equipment must guarantee that waste products created in any EU member states must be recycled and reused, in order to ensure that electrical and electronic equipment, including PV modules, is properly managed by means of recycling, reusing, reclamation and regeneration. In 2012, for the first time, the directive took PV modules and equipment into account. From February 1<sup>st</sup>, 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 "wheelie 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.

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 re-use of wastewater, collection of condensated water 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.



CASE STUDY

Compliant Disposal of Waste PV Modules

Trina Solar always focuses on extended producer and has become a part of the non-profit organization PV CYCLE (European Photovoltaic Module Take-back and Recycling Organization) founded in 2007. PV CYCLE is committed to centralized or customized services for the recycling of global waste photovoltaic products.

- EU member countries: PV CYCLE establishes a network consisting of hundreds of certified and recycling points, waste transport firms and dedicated recycling facilities across the Europe. It provides solutions for sustainable PV module take-back and recycling, and uses recycled materials for the making of various new products.
- Other areas: PV CYCLE provides customized services, for example, whoever needs international parcel service can inquire on the PV CYCLE's website ([www.pvcycle.com](http://www.pvcycle.com)) or can send an email to [info@pvcycle.com](mailto:info@pvcycle.com).

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.

UN's Sustainable Development Goals by 2030

SDG12: Ensure sustainable consumption and production patterns

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.

Type	Measures Taken to Save Water from 2012 to 2016	Water Saved (million tones/year)
 Reuse of RO Rejected Water	<ul style="list-style-type: none"><li>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 water quality is not required, such as pre-cleaning, alkaline cleaning, surface grinding, angle grinding in Wafering Workshops.</li></ul>	1.57
 Wastewater Reuse	<ul style="list-style-type: none"><li>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.</li></ul>	2.14
 Others	<ul style="list-style-type: none"><li>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.</li><li>Collection of condensate water from the air conditioners and use it as supplementary water supply for cooling tower and emission scrubber.</li><li>Collection and reuse of humidifying water for air conditioners in module workshop.</li><li>Use of biological-treated effluent water as solution preparation water in wastewater treatment plants.</li><li>Regularly clean RO ( Reverse Osmosis) membrane so as to raise DI water yield and reduce RO rejected water.</li></ul>	0.15
Total		3.86

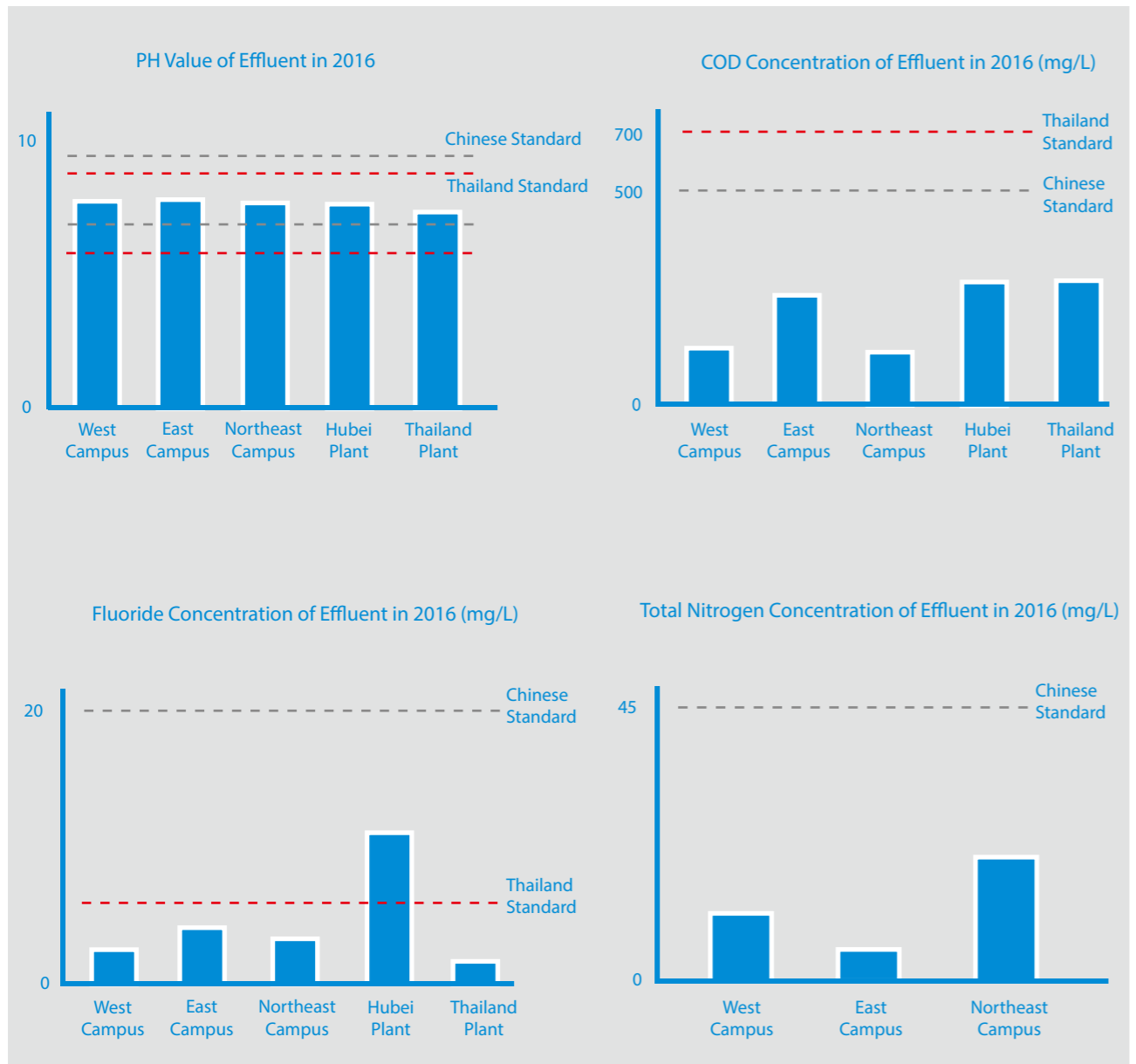
Wastewater Discharge

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-biochemical nitration 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

emission of nitrogen and phosphorus for projects within Taihu reserve regulated in Jiangsu Provincial Ordinance of Lake Taihu Water Pollution Prevention and Treatment, 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 nitration, thereby realizing the goal of "treating waste with waste", and lowering the negative impact on the environment.

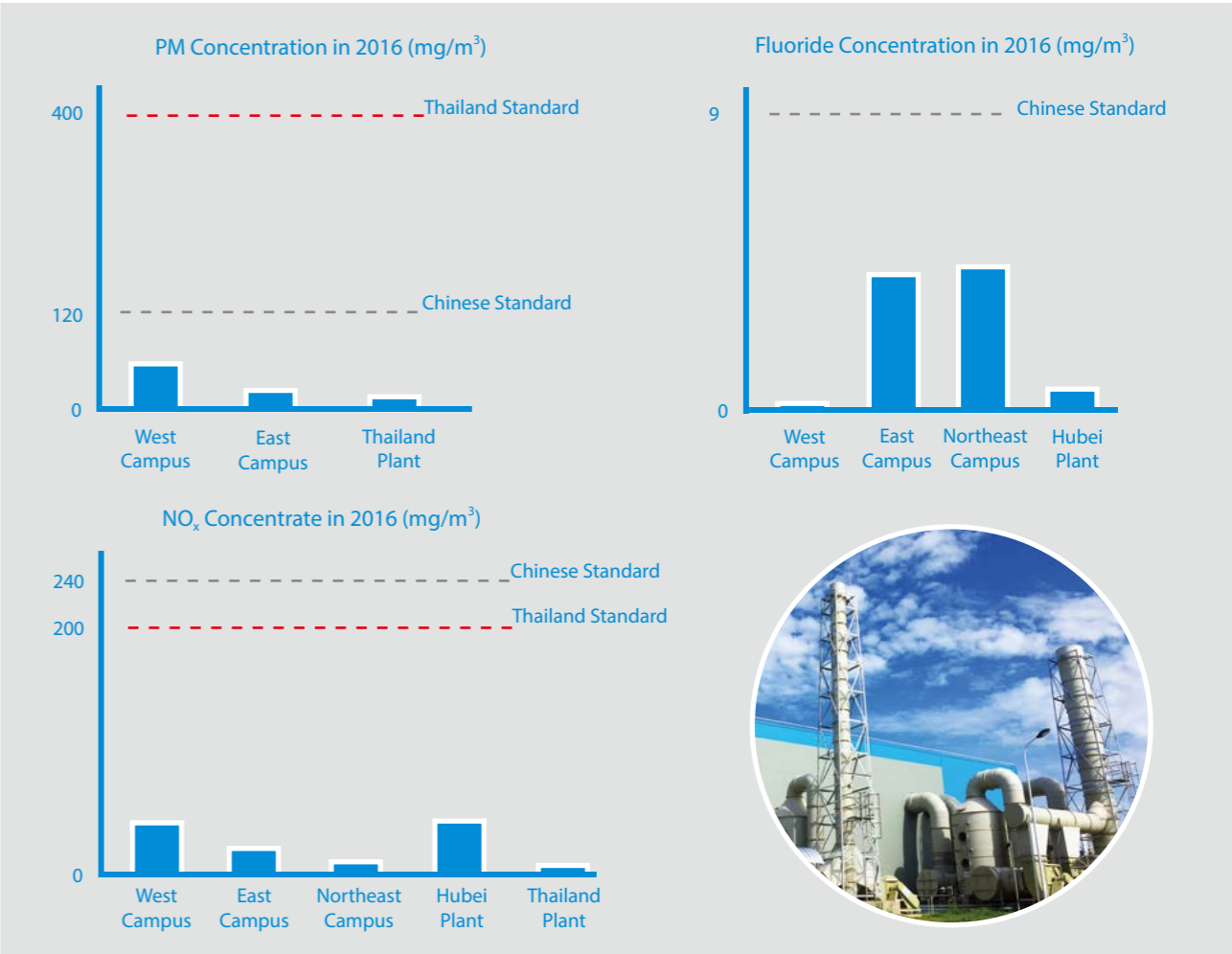
The wastewater discharge per unit production (T/MW) in 2016 is 1,319 T/MW, which reduced by 25% compared to 1,760 T/MW in 2012.



Waste Gas Emission

Trina Solar has also built a range of scrubbers, such as acidic/caustic scrubbers and organic scrubbers to remove pollutants from air emissions according to relevant laws and regulations, to lower the concentration of emissions and to avoid or lessen the hazards that arise from air pollution.

Trina Solar engaged an accredited third party to carry out annual monitoring of air emissions from our exhausts and scrubbers. Results show that air emissions from exhaust and scrubbers are well below the local standards.



CASE STUDY

Reduce VOCs Emission in Cell Workshops

The paste used for ink printing in cell workshops contains organic matter. The volatile organic compounds (VOCs) may be generated under the high temperature of a welding furnace, which was originally disposed by an organic scrubber and emitted within regulated limits. We have implemented a modification project to reduce the emission of organic matter and lower negative impacts on the environment. After rounds of communication and practices, our Equipment engineers, EHS engineers and

Equipment suppliers have finally decided to add a high temperature combustor at the bottom of equipment, so as to turn organic compounds into CO<sub>2</sub> and H<sub>2</sub>O. After modification, more than 95% of the organic compounds can be removed, which not only significantly lowers the negative impacts on environment, but also prevents accidents caused by organic matters accumulated in the high temperature air pipeline.

ink printing and welding process  
organic matter

Combustor




CO<sub>2</sub>, H<sub>2</sub>O

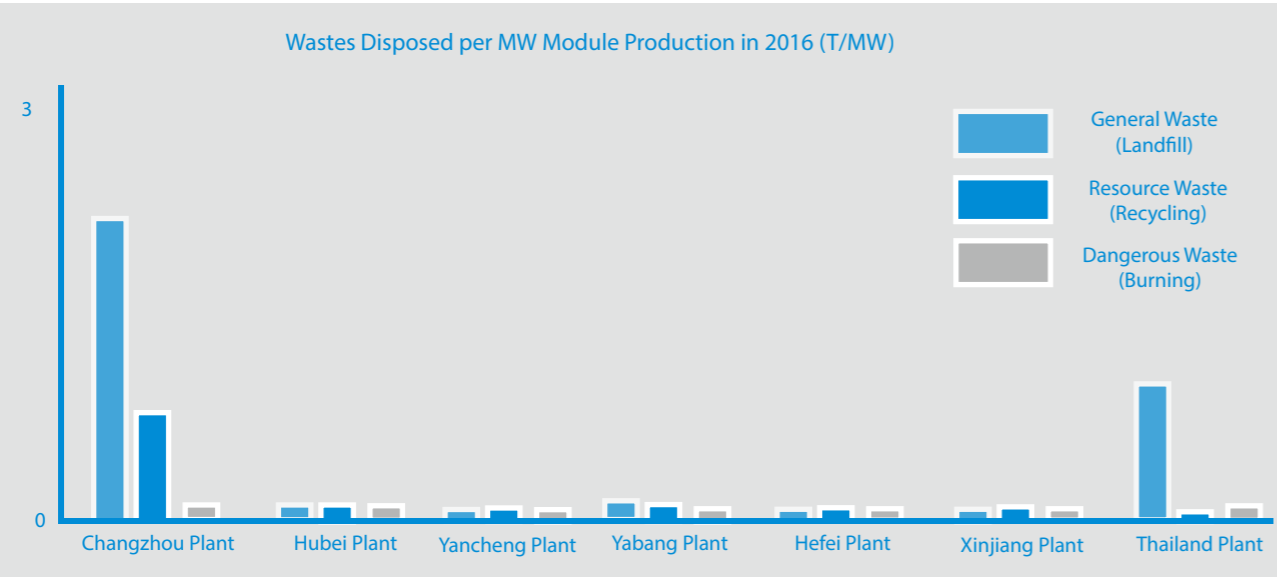
Blower

Emitted to the atmosphere

Waste Management

The wastes 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.

Stage	Measures
 Designing	<ul style="list-style-type: none"><li>Take waste minimization into consideration at product design stage. Substitute or minimize those toxic materials with less toxic or non-toxic materials.</li></ul>
 Manufacturing	<ul style="list-style-type: none"><li>Put waste management procedure in place. Categorize the different wastes into general waste, resource waste and toxic waste and manage them in different ways.</li><li>Setup a recycle scheme for resource wastes, such as carton boxes, paper, plastics, metal scraps and woods.</li><li>Setup an annual toxic waste disposal plan and maintain a disposal inventory according to environment regulation.</li><li>Conduct environment awareness training for employees on waste minimization and segregation.</li></ul>
 Packaging	<ul style="list-style-type: none"><li>Try to use the recyclable materials for packaging. Under the condition of being non-jeopardizing product safety, try to use light-weighted materials.</li></ul>



Green Office

A quarter of our time each week is spent in the office. We believe that green office not only means minimizing the environmental impact of office activities, but also means creating an environment beneficial to the physical and mental health of employees so that they feel physically comfortable and are spiritually uplifted.

We work to gradually incorporate the “green office” theme into fine detail of our work, to greatly reduce the impact of office activities on the environment. We are gradually reducing the use of hard copies of documents, and promoting the use of electronic documents. We established a video conference system in order to reduce our average annual mileage by 15,000 km, thus reducing the carbon emissions generated during travels. We provide a lamp switch for each cubicle to remind employees to turn off desk lamp when they leave their cubicle.



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.

UN's Sustainable Development Goals by 2030




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

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.

CASE STUDY


PV + Agriculture Project in Changzhou



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.

CASE STUDY

PV + Agriculture Project in Yunnan



Trina Solar constructed a 51 MW model project of photovoltaic and agriculture in Xishuang-banna, Yunnan Province. The dual-glass modules were installed over the tea trees so that the space could be used sufficiently. The project is expected to generate electricity of 80 million kWh per year which can reduce 60,000 tons of CO<sub>2</sub> emission.

# 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,

### 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 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.

#### UN's Sustainable Development Goals by 2030



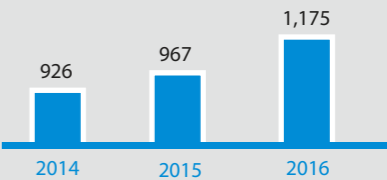
**SDG17: Strengthen the means of implementation and revitalize the global partnership for sustainable development.**

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.

**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, 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.

Total Number of Qualified Suppliers from 2014 to 2016



### 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 reliabilities, corporate social responsibilities and business ethics, EHS management, new product development, costs, and technical support and sales service. 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 potential qualified supplier shall be approved. Only after sample assessments, batch test and examination of product reliability can the new supplier go through the next step.

**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.



A total of 6,700 suppliers, 4,023 suppliers cooperated with Trina Solar for more than 3 years



Cooperated with Alibaba Adopted 1688 key account procurement platform



More than 100 suppliers and 400 representatives attended Trina Solar's 2016 Supplier Meeting



OSU's solar car equipped with Trina Solar's IBC cells won 2016 FIA Alternative Energies Cup Solar Car Race



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 ones, we don't place any order.

- Approved: being approved as a qualified supplier to place a batch purchasing order.
- Developing: under development and only small order 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 "disqualified", the supplier will be eliminated from the list.

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. Once it is found that the supplier violates business ethics or laws and regulation, Trina Solar will terminate cooperation with the supplier immediately. Open compliant channels for suppliers are stated in the integrity agreement. Suppliers can report to Trina Solar's Internal Audit (IA) Department if there is any violation of business ethics, including offering, taking and demanding bribes.

Web Link for Anti-fraud Reporting with Award

Open Complaint Channels:

Ethics Compliance Hotline: +86-519-85176933

Anti-fraud Reporting Email: IA@trinasolar.com

Reporting Platform: http://wb.trinasolar.com:8090/RCPFM/Trinasolar/report

Submit New Report

Address From Chairman Of Board

Trina Solar has been running its business under high moral standards, which have also been deeply rooted in the Company's culture values governing its business operations and all employees' code of conduct. Dishonest and devious corruption means crass and immoral behavior that would seriously damage the

Management of 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.

Chains	Content
CSR Investigation on Key Suppliers	<ul style="list-style-type: none"><li>A good social responsibility is a key criterion for the selection of suppliers. Trina Solar carries out a comprehensive CSR investigation on new key suppliers. We investigate their overall performance in guaranteeing safety, health and welfare of workers, honest operation, compliance with laws and regulations and other aspects. In case of failure to meet such criteria, the suppliers may never become our qualified suppliers.</li><li>In 2016, we investigated 140 suppliers in long-term cooperative relations with Trina Solar, about their certificates of Environmental Management System, and Occupational Health and Safety Management System (EHS system). More than 38% suppliers have established complete EHS management system.</li></ul>
Key Suppliers' CSR Commitment	<ul style="list-style-type: none"><li>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.</li></ul>

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 for Key Suppliers

Supplier Audit 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 labor 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.

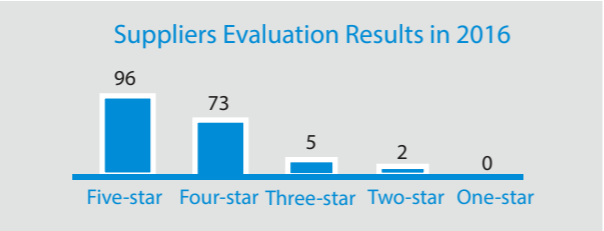
Suppliers' Performance Evaluation

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.



CASE STUDY

Trina Solar's First Excellent Quality Supplier Award



In October, 2016, Trina Solar organized the first Excellent Quality Supplier Award. The aim of the award is to encourage our suppliers to continuously improve product quality and reduce production cost, so as to promote the sustainable development of the whole supplier chain.

The suppliers providing raw and auxiliary materials for Trina Solar's casting, silicon, cell and module workshops proposed a total of 29 excellent improvement projects. Finally, six projects obtained the awards, including improvement of PERC wafer efficiency, improvement of compound backsheet efficiency, reduction of cell fragment rate on production lines, improvement of efficiency in process of module frame, etc.

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.

CASE STUDY

Trina Solar's 2016 Annual Supplier Meeting



Trina Solar's 2016 Annual Supplier Meeting was held in Yancheng, where nearly 400 supplier representatives from 100 companies worldwide were invited to present. With the theme of "Share Trina Solar's Platform and Achieve Success in PV Industry", Jifan Gao, Trina Solar's CEO and Chairman, and the leaders of Trina Solar's Technology Department, Quality Department and Procurement Department shared the development trend, technology direction, and quality and procurement strategy of Trina Solar and the industry. We set up four awards, including Excellent Quality Supplier Award, Excellent Quality Award, Excellent Cooperation Partner and Excellent Supplier Award. A total of 22 suppliers were granted with the honors. These awards aim to encourage suppliers to make continuous improvement so as to achieve win-win cooperation.

CASE STUDY

Trina Solar Signed Strategic Cooperative Framework Agreement with CR Power



On November 17<sup>th</sup>, 2016, Trina Solar signed a strategic cooperative framework agreement with China Resources Power Holdings Company Limited (hereinafter referred to as "CR Power"). According to the agreement, the two parties will further broaden cooperation by taking advantage of each other's strengths to achieve a win-win situation. The two parties will deepen cooperation in fields of module products, PV power stations and business operation, and explore cooperation in international business, technology development and energy sources complementarity.

By combining Trina Solar's experience in module production, PV power stations and state-of-the-art technology with CR Power's advantage in power generation efficiency and benefits, we will endeavor to learn each other and achieve win-win cooperation.

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.

- Formulate formal conflict mineral management policy;
- Establish management system and conduct conflict mineral survey for supply chain;
- Organize conflict mineral training for key suppliers;
- Inquire all suppliers to sign formal agreement to promise no conflict mineral in their products, and deliver the requirement to downstream suppliers.

CASE STUDY

Trina Solar Signed Cooperation Agreement with NDRCEI

Trina Solar signed cooperation agreement with National Development and Reform Commission Energy Institute (NDRCEI) on June 3<sup>rd</sup>, 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.

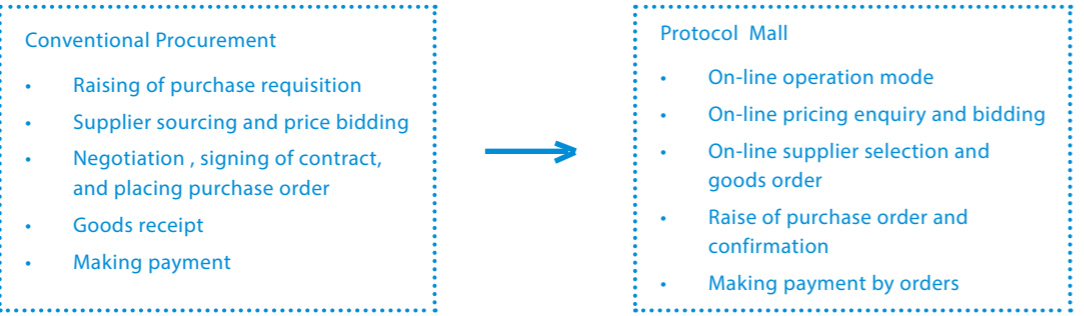
CASE STUDY

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.
- 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.
- 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.



CASE STUDY

IBC Cells of Trina Solar Supported Osaka Sangyo University to Win the “Dream Group” in 2016 FIA Alternative Energies Cup Solar Car Race



On August 6<sup>th</sup>, 2016, the “OSU-Model-S” of Osaka Sangyo University in 2016 FIA Alternative Energies Cup Solar Car Race has won “Dream Group” and the overall scores ranked the second in 22 teams of “Dream Group”, “Olympic Group”, “Challenge Group”.

Since 2015, Trina Solar has been cooperating with OSU. The “OSU-Model-S” was 100% powered by interdigitated back contact (IBC) cells developed by State Key Laboratory of PV Science and Technology of Trina Solar, and won the “2015 FIA Alternative Energies Cup Solar Car Race”. On the basis of 2015 winning car, the 2016 “OSU-Model-S” equipped with higher conversion IBC cells which developed by State Key Laboratory of PV Science and Technology of Trina Solar. The cells matched the car’s shape better. And the optimized packaging materials also made the car much lighter.

IBC cell, meaning of full back electrode contact with crystalline silicon solar cells, is a highly efficient crystalline silicon cells. Compared with other solar cells, all electrodes are in the back of IBC cells, which could reduce the front shading loss, equivalent to increasing the effective semiconductor area and improving cell efficiency. The cells use one-piece design in the front which makes the appearance more beautiful.

Solar car racing has an extremely important meaning: Through researching how to combine efficient clean energy with light cars, the racing car can run four to five hours. This is not just a speed race, but also inspires young people to use renewable solar energy resources to create a cleaner future.



Ye Chen,  
President of Trina  
Solar (Japan) Limited

“Let’s congratulate OSU in the ‘Dream Group’ to win the first prize. We are happy that IBC cells, developed by Trina Solar, support OSU to win the car racing. The IBC cells used this year is more advanced. The racing car makes victory by the results of 69 circles, which is 3 more circles than that in the same time last year. ‘Dream Group’ as the highest level among three groups is mainly powered by solar cells, not accumulators, so the impact of weather is more obvious than other groups. Although the overall scores ranked the second in three groups, we are excited that they overcome the bad weather to complete the race. We also look forward to further cooperating with OSU in near future.”

# Care for Employees

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.



The competition in markets is never only about sales or technology, but also about talents strategy. We focus on employees' personal development and has 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.



Won Asia's Best Workplace Reporting Award in 2016 Asia Sustainability Reporting Awards Ceremony



2,483 Employees Honored with Long Service Award



Won China Model New Employer Award in 2016 China Model Employer Award Ceremony



OH&S Investment of US\$ 3.189 Million

UN's Sustainable Development Goals by 2030



SDG5: Achieve gender equality and empower all women and girls.

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.

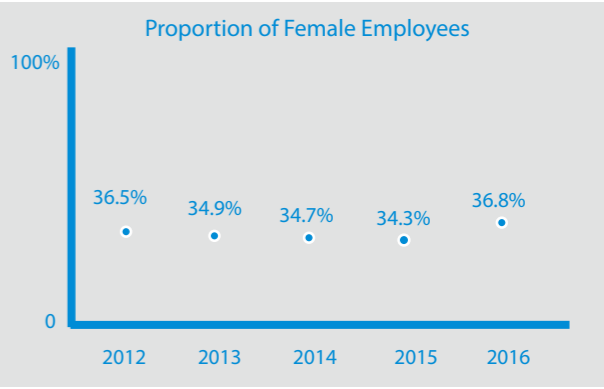
Area	Male	Female
America	29	20
Europe	152	35
Africa	2	0
Asia Pacific & Middle East	914	1,359
Japan	18	7
China	8,396	4,119
Total	9,511	5,540

UN's Sustainable Development Goals by 2030



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

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.



Employees' Rights

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.



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.



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.



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.

## 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

### 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

by them. We provide training courses and setup awards to motivate them and encourage them to keep same pace forward with the company.

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 simpler, more convenient and efficient way.

Ways of Learning and Training	Contents
Library	<ul style="list-style-type: none"><li>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.</li><li>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.</li></ul>
Leadership Academy	<ul style="list-style-type: none"><li>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.</li><li>In 2016, we conducted 24 training sessions with a total of 540 participants.</li></ul>
New Employee Training	<p>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:</p> <ul style="list-style-type: none"><li>Welcoming: Company milestones review through communication with top leaders;</li><li>Team building: Promoting employee communication and enhancing team cohesiveness;</li><li>Policy and process introduction: Relevant positions introduction;</li><li>Exhibition hall and workplaces visit: Products and process introduction.</li></ul>
Regular Face to Face Training	<p>In 2016, a total of 164,870 training hours are provided for employees, covering the following areas:</p> <ul style="list-style-type: none"><li>Purchasing, finance, sales, HR, EHS and other professional skills;</li><li>Time, cost and team management;</li><li>Stress and emotion management, EQ management, effective communication, software applications and other training to improve employees’ overall abilities.</li></ul>
UMU Online Learning System	<p>To provide convenient learning resources for employees worldwide, Trina Solar’s Learning and Development Department launched the multi-functional UMU app.</p> <ul style="list-style-type: none"><li>Employees worldwide can log in through smart mobile phone, ipad, etc. to search, share and learn courses online;</li><li>Learners can create learning groups, interact with lecturers and learners online, which promotes collaboration spirit;</li><li>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.</li></ul>

### 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.

CASE STUDY

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 admits 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.
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## Employees' Health

Employees with sound body and mind will have high efficiency and great passion in work. Trina Solar is continuously concerned about employees’ mental and physical health. We try to create a relaxed and friendly working atmosphere and help employees make a good balance between work and life.

Trina Solar has established the Employee Assistance Program (EAP) and invited experts periodically to give guidance in terms of stress management, occupational mental health, and healthy lifestyles to help employees ease the work pressure, which helps to eliminate psychological distress and improve work efficiency.

We have established an internal clinic to provide the employees with medical and health counseling services. We provide annual

health examination for those senior management staff and the employees who are over 40. We organize health examination once every two years for other employees. We also organize health examinations for women annually and provide free traditional acupuncture therapy for employees. In brief, we spare no efforts to create a healthy, safe and comfortable workplace for our employees to make their life more enjoyable.

UN's Sustainable Development Goals by 2030



SDG3: Ensure healthy lives and promote well-being for all at all ages.



### Flexible Benefits Program

In 2015, we integrated employer’s 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 benefits 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.

CASE STUDY

Thailand's Songkran Festival



In Thailand, people celebrate the Songkran Festival, also known as the water-splashing festival, from April 13<sup>th</sup> to 15<sup>th</sup> to celebrate the traditional Thai New Year. On April 12<sup>th</sup>, 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 hands of their 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.

Trina Solar in Europe Area holds a day called "Future Career Planning Day" every year. On this day, parents can take their children to workplaces and spend the whole special day with their children. Children can also get to know their parents' work content, and have an opportunity to know how the real world works, and understand the value and meaning of labor. We deeply believe that taking children to their parents' workplaces can not only help employees and their children to understand each other better , but also help employees make a good balance between work and life.

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 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

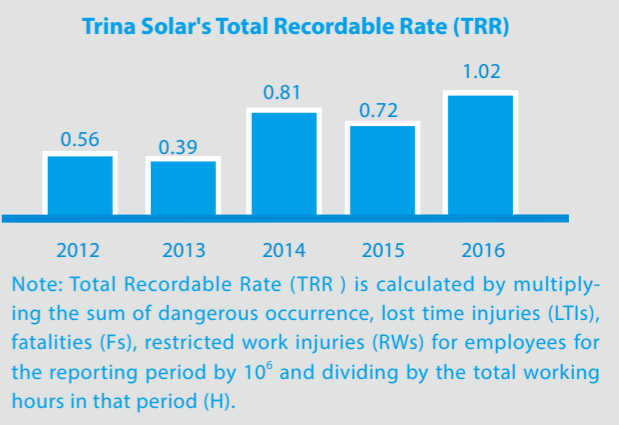
Occupational Health and Safety Management System. In 2017, we plan to certify OHSAS18001 for our newly built Vietnam plant. We continuously improve the system, and promote it in our whole work stream, including plant design, construction, research and development, manufacturing and packaging. We are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

No.	Plant	Established OHSAS18001 Occupational Health and Safety Management System	No.	Plant	Established OHSAS18001 Occupational Health and Safety Management System
1	Plants at Changzhou Headquarters	Yes	5	Hefei Plant	Yes
2	Changzhou Trina Yabang Plant	Yes	6	Xinjiang Plant	No
3	Yancheng Plant	Yes	7	Thailand Plant	Yes
4	Hubei Plant	Yes	8	Vietnam Plant	No

Chains	Measures
 Designing and Construction of Plants	<ul style="list-style-type: none"><li>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;</li><li>Safety and occupational health facilities are designed, constructed and put into use simultaneously with the main part of a construction project.</li></ul>
 Research & Development	<ul style="list-style-type: none"><li>Only safe methods and materials with no or low occupational hazards are used.</li></ul>
 Manufacturing	<ul style="list-style-type: none"><li>Identify hazards of every work process, and take protective measures according to the risk levels;</li><li>Compile work instructions, improve and implement the responsibility system of safety and occupational health, and promote safety performance gradually;</li><li>Ensure sufficient investment in safe production and occupational health to protect employees' occupational health;</li><li>Provide occupational health and safety training for employees;</li><li>Conduct emergency evacuation drills;</li><li>Promote employees' safety awareness and cultivate safety culture.</li></ul>
 Packaging	<ul style="list-style-type: none"><li>Utilize recycled and non-toxic package materials to ensure customers' safety.</li></ul>

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.



Trina Solar Won Asia’s Best Workplace Reporting Award



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. 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.

Hosted in Singapore, the Asia Sustainability Reporting Awards (ASRA) is the highest recognition for sustainability reporting in the region. To encourage more Asian companies to embrace sustainability reporting, CSRWorks International, a Singapore-based sustainability firm, has created the Asia Sustainability Reporting Awards. The Asia Sustainability Reporting Awards are the only Asia-level recognition for sustainability reporting excellence, and are aimed at celebrating best practices by honouring the leaders. The Asia Sustainability Reporting Awards are organised by csmatters, a unit of CSRWorks International, a leading provider of corporate social responsibility services. It aims to encourage sustainability reporting in more organizations. An impressive 68 companies from 14 countries made it to the final round of the 2016 Asia Sustainability Reporting Awards. The finalists were shortlisted by the members of an independent judging panel following rigorous criteria, so as to choose enterprises with best performances of each category.



Jifan Gao,  
Chairman & CEO  
of Trina Solar

"I am great honored to receive this prestigious award. As a global leading provider of photovoltaic modules, solutions, and services, while supplying clean energy products worldwide, Trina Solar is committed to creating safe, healthy and environmentally-friendly workplace for all our employees. Employees are our greatest assets. Trina Solar has established and maintained its mature Occupational Health & Safety (OH&S) Management System. We always dedicate to reducing occupational injury and illness accidents and promoting employee health and well-being. Trina Solar adheres faithfully to the "employee-oriented" workplace policy to attract, grow and retain talent to stay competitive. We are firmly dedicated to creating the best workplace for employees so as to develop a truly engaged, motivated and productive workforce and to achieve our mission of 'Solar Energy for All!'"



Rajesh Chhabara,  
Managing  
Director,  
CSRWorks  
International

"Sustainability reporting has become a key indicator to assess a company's long term success. Trina Solar's win at ASRA 2016 reflects the company's leadership in sustainability reporting and a commitment to long term value creation for all stakeholders."



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.

Steps	Occupational Health Management
Risk Identification	<ul style="list-style-type: none"><li>Occupational Health Risk Identification: We evaluate occupational potential health risk regularly for every post of operations annually. We also take adequate risk control measures;</li><li>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.</li></ul>
	<ul style="list-style-type: none"><li>Occupational Risk Notification: We set notification card of potential occupational hazards in the operation site to remind employees of potential occupational hazardous aspects and corresponding protective measures, so as to improve employees’ self-protection awareness;</li><li>Occupational Health Examination: We conducts 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.</li></ul>
Emergency Management	<ul style="list-style-type: none"><li>Emergency Equipment: We set up emergency equipment in the posts that occupational injuries may occur, such as first-aid kits, eye-wash station;</li><li>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 “Trina Solar Medicare Green Card”. Trina Solar will pay for medical expenses afterwards to make sure that employees receive timely treatment.</li></ul>

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

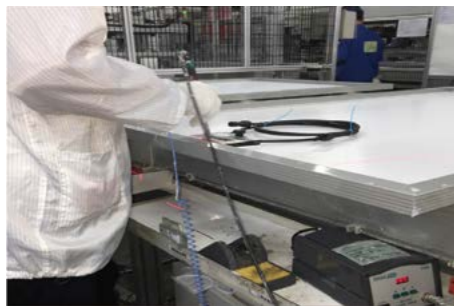
affected by his undertaking in our workplace. A procedure has been established and implemented to systematically identify the hazards and assess the risks related to manufacturing activities, products and services. Risk control strategies have been implemented, focusing on elimination/replacement, engineering 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.

Chains	Safety Management
Risk Identification	<ul style="list-style-type: none"><li><u>Hazard Identification and Risk Assessment</u>: 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.</li></ul>
	<ul style="list-style-type: none"><li><u>Safety Inspection</u>: 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.</li><li><u>Near Miss Reporting</u>: 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.</li></ul>
Risk Control	<ul style="list-style-type: none"><li><u>Safe Production Responsibility</u>: 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.</li><li><u>EHS Training</u>: 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 porper measures in case of an emergency.</li><li><u>Hazardous Work Management</u>: 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.</li><li><u>Chemical Management</u>: 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 chemical are adequately supervised and the related risks are well controlled.</li><li><u>EHS Management of Change (MOC)</u>: 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.</li></ul>
Emergency Management	<ul style="list-style-type: none"><li><u>Emergency Management Plan</u>: 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.</li></ul>

CASE  
STUDY**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.



Before Improvement



After Improvement

CASE  
STUDY**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 struck 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.



Before Improvement



After Improvement

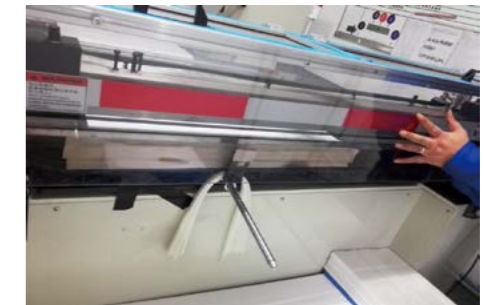
CASE  
STUDY**Installation of Protective Guard for EVA Cutting Machine in Module Workshop**

**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.



Before Improvement



After Improvement

CASE  
STUDY**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.



Fire Hose Usage



Putting-out Fire



Activation of Local Fire Brigade



Evacuation and Assembly

## Safety Culture Development

Caring for employee's 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

committee meeting, annual EHS promotion month and 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".

### CASE STUDY

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 Changzhou 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.



Mr. Michael Hua, Vice-president of manufacturing VCU, signed 2016 EHS Responsibility Agreement with Mr. Xiaofeng Jin, Yangbang Plant Manager.



2016 Excellent Safety Performance Team



First Aid CPR Training



Public Environmental Satisfaction Survey

### CASE STUDY

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

### CASE STUDY

#### 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.



Trina Solar is devoted to building mutual trust, respect and support with its local communities. We take environmental impact on communities into full consideration. We persistently promote and implement public welfare programs and try to achieve the target of a sustained prosperity and development together with local communities.



Establish Siyuan Sunshine Fund Teacher Training Base



Won 2016 PV Industry Award for Poverty Alleviation



Provide Financial Support for 130 Impoverished Students



Won 2015 Best Charitable Organization Award

## 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.

UN's Sustainable Development Goals by 2030

SDG4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

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.

CASE STUDY

### Trina Solar International School



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.

#### The World Earth Day



On April 22<sup>nd</sup>, 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.

#### Volunteering in Changzhou Wujin People's Hospital



From December 23<sup>rd</sup> to 24<sup>th</sup>, 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.

CASE  
STUDY

Set Up Siyuan Sunshine Entrepreneurship Fund Teacher Training Base



On April 15<sup>th</sup>, 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 system systematically.



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

"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."



Jifan Gao,  
Chairman & CEO  
of Trina Solar

"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."

CASE  
STUDY

Public Photovoltaic Training Sessions Help College Students in Western Regions Start Business in PV Industry

Provinces in western China have long lagged in economic development, but rich in solar energy resources which enable them to be hot spots for developing PV industry. As the world's leading PV enterprise, Trina Solar takes it as its own responsibility to help the impoverished western regions get rid of poverty.

From December 15<sup>th</sup> to 16<sup>th</sup>, 2016, Trina Solar rolled out two public PV training sessions respectively in Qinghai College of Architectural Technology and Renewable Energy and Power Engineering College, Lanzhou Jiaotong University. We shared the development trend of PV industry and introduced entrepreneurial opportunities in PV-related industries, so as to help students in western China to start their own business.



Colin Yang,  
Chief Brand  
Officer of  
Trina Solar

"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!'"

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-suffered 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.

CASE  
STUDY

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 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 modules, the volunteers also taught the villagers to use the solar power system.

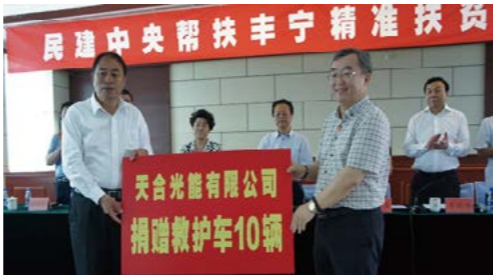


CASE STUDY

Donation of Ambulances to Fengning to Support Local Medical Rescue in Remote Area

Fengning Manchu Autonomous County, located in the west of Chengde, Hebei Province, is the second largest county of Hubei province. The county was nominated as one of the key targeted counties for poverty alleviation in 2010 by the State Council.

In August, 2006, Trina Solar donated 10 ambulances, worth of RMB 700,000, to Fengning County, Hebei Province through China Siyuan Foundation for Poverty Alleviation. The donation aims to support local medical rescue in the remote area and relief the shortage of local medical resource.



CASE STUDY

Chenzhou PV Poverty Alleviation Pilot Project Connected to Power Grid

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 year. 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.

CASE STUDY

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 24<sup>th</sup>, 2016.

Trina Solar’s Tian'an 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.



CASE STUDY

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).

Indicator Number	Description	Status	Report Section(s)	Page(s)	Explanatory Notes
Organizational Profile					
102-1—102-7	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	●	• Company Profile	07	
102-8	Information on employees and other workers	●	• Care for Employees	54	
102-9—102-10	Supply chain; Significant changes to the organization and its supply chain	●	• Sustainable Supply Chain	42	
102-11	Precautionary Principle or approach	●	• Corporate Governance • Challenges & Opportunities	09 19	
102-12	External initiatives	●	• Support SDGs	16	
102-13	Membership of associations	●	• Communication with Stakeholders	13	
Strategy					
102-14—102-15	Statement from senior decision-maker; Key impacts, risks, and opportunities	●	• Message from Leadership • Corporate Governance • Challenges & Opportunities	03 09 19	
Ethics and Integrity					
102-16—102-17	Values, principles, standards, and norms of behavior; Mechanisms for advice and concerns about ethics	●	• Corporate Governance • Corporate Culture	09 11	
Governance					
102-18	Governance structure	●	• Corporate Governance • Employees' Occupational Health and Safety	09 59	
102-19	Delegating authority	●	• Corporate Governance • Green Sustainable Development	09 26	
102-20	Executive-level responsibility for economic, environmental, and social topics	◐	• Corporate Governance • Materiality Analysis	09 15	
102-21	Consulting stakeholders on economic, environmental, and social topics	◐	• Corporate Governance • Materiality Analysis	09 15	
102-22—102-24	Composition of the highest governance body and its committees; Chair of the highest governance body; Nominating and selecting the highest governance body	◐	• Corporate Governance	09	
102-25	Conflicts of interest	◐	• Corporate Governance	09	
102-26—102-28	Role of highest governance body in setting purpose, values, and strategy; Collective knowledge of highest governance body; Evaluating the highest governance body's performance	◐	• Corporate Governance	09	
102-29—102-31	Identifying and managing economic, environmental, and social impacts; Effectiveness of risk management processes; Review of economic, environmental, and social topics	●	• Corporate Governance • Materiality Analysis	09 15	
102-32	Highest governance body's role in sustainability reporting	●	• About the Report	01	
102-33—102-34	Communicating critical concerns; Nature and total number of critical concerns	●	• Communication with Stakeholders • Challenges & Opportunities	13 19	

● Covered in the Report   ◐ Partially Covered in the Report   ○ Not Covered in the Report

Indicator Number	Description	Status	Report Section(s)	Page(s)	Explanatory Notes
102-35—102-39	Remuneration policies; Process for determining remuneration; Stakeholders' involvement in remuneration; Annual total compensation ratio; Percentage increase in annual total compensation ratio	●	• Corporate Governance • Communication with Stakeholders	09 13	
Stakeholder Engagement					
102-40—102-44	List of stakeholder groups; Collective bargaining agreements; Identifying and selecting stakeholders; Approach to stakeholder engagement; Key topics and concerns raised	●	• Communication with Stakeholders	13	
Reporting Practice					
102-45	Entities included in the consolidated financial statements	●	• About the Report	01	
102-46	Defining report content and topic Boundaries	●	• About the Report	01	
102-47	List of material topics	●	• Materiality Analysis	15	
102-48	Restatements of information	●	• About the Report	01	No restatements of information
102-49—102-56	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	●	• About the Report	01	No significant change in previous reports
ECONOMIC					
Management Approach					
103-1	Explanation of the material topic and its Boundary	●	• Materiality Analysis	15	
103-2	The management approach and its components	●	• Message from Leadership • Challenges & Opportunities	03 19	
103-3	Evaluation of the management approach	●	• About the Report • Communication with Stakeholders	01 13	
Economic Performance					
201-1	Direct economic value generated and distributed	◐	• Message from Leadership	03	
201-2	Financial implications and other risks and opportunities due to climate change	●	• Message from Leadership • Dealing with Climate Change	03 29	
201-3	Defined benefit plan obligations and other retirement plans	○			
201-4	Financial assistance received from government	○			
Market Presence					
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	●	• Employees' Rights	54	
202-2	Proportion of senior management hired from the local community	●	• Employees' Rights • Employees' Development	54 55	
Indirect Economic Impacts					
203-1	Infrastructure investments and services supported	●	• Contribution to Society	67-74	

● Covered in the Report   ◐ Partially Covered in the Report   ○ Not Covered in the Report

Indicator Number	Description	Status	Report Section(s)	Page(s)	Explanatory Notes
203-2	Significant indirect economic impacts	●	• Challenges & Opportunities	19	
Procurement Practices					
204-1	Proportion of spending on local suppliers	●	• Sustainable Supply Chain	44	
Anti-corruption					
205-1—205-3	Operations assessed for risks related to corruption; Communication and training about anti-corruption policies and procedures; Confirmed incidents of corruption and actions taken	●	• Corporate Governance	09	
Anti-competitive Behavior					
206-1	Legal actions for anti-competitive behavior, anti-trust,and monopoly practices	○			
ENVIRONMENTAL					
Management Approach					
103-1	Explanation of the material topic and its Boundary	●	• Materiality Analysis	15	
103-2	The management approach and its components	●	• Care for Our Earth • Sustainable Supply Chain	23-40 44	
103-3	Evaluation of the management approach	●	• Care for Our Earth • Sustainable Supply Chain	23-40 44	
Materials					
301-1—301-3	Materials used by weight or volume; Recycled input materials used; Reclaimed products and their packaging materials	●	• Environment-friendly Operation	35	
Energy					
302-1—302-5	Energy consumption within the organization; Energy consumption outside of the organization; Energy intensity; Reduction of energy consumption; Reductions in energy requirements of products and services	●	• Dealing with Climate Change	29	
Water					
303-1—303-3	Water withdrawal by source; Water sources significantly affected by withdrawal of water; Water recycled and reused	●	• Environment-friendly Operation	35	
Biodiversity					
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	●	• Biological Diversity Management	40	
304-2	Significant impacts of activities, products, and services on biodiversity	●	• Biological Diversity Management	40	
304-3	Habitats protected or restored	◐	• Biological Diversity Management	40	

● Covered in the Report   ◐ Partially Covered in the Report   ○ Not Covered in the Report

Indicator Number	Description	Status	Report Section(s)	Page(s)	Explanatory Notes
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	◐	• Biological Diversity Management	40	
Emissions					
305-1—305-5	Direct (Scope 1) GHG emissions; Energy indirect (Scope 2) GHG emissions; Other indirect (Scope 3) GHG emissions; GHG emissions intensity; Reduction of GHG emissions	●	• Dealing with Climate Change	29	
305-6	Emissions of ozone-depleting substances (ODS)	●	• Dealing with Climate Change	29	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	●	• Dealing with Climate Change	35	
Effluents and Waste					
306-1	Water discharge by quality and destination	●	• Environment-friendly Operation	35	
306-2	Waste by type and disposal method	●	• Environment-friendly Operation	35	
306-3	Significant spills	●			No such incident
306-4	Transport of hazardous waste	●	• Environment-friendly Operation	35	
306-5	Water bodies affected by water discharges and/or runoff	●	• Environment-friendly Operation • Biological Diversity Management	35 40	
Environmental Compliance					
307-1	Non-compliance with environmental laws and regulations	●			No such incident
Supplier Environmental Assessment					
308-1	New suppliers that were screened using environmental criteria	●	• Sustainable Supply Chain	44	
308-2	Negative environmental impacts in the supply chain and actions taken	●	• Sustainable Supply Chain	44	
SOCIAL					
Management Approach					
103-1	Explanation of the material topic and its Boundary	●	• Materiality Analysis	15	
103-2	The management approach and its components	●	• Product Stewardship Policy • Sustainable Supply Chain • Care for Employees • Contribution to Society	33 44 51-66 67-74	
103-3	Evaluation of the management approach	●	• Product Stewardship Policy • Sustainable Supply Chain • Care for Employees • Contribution to Society	33 42 51-66 67-74	

● Covered in the Report   ◐ Partially Covered in the Report   ○ Not Covered in the Report

Indicator Number	Description	Status	Report Section(s)	Page(s)	Explanatory Notes
Employment					
401-1	New employee hires and employee turnover	●	• Care for Employees	54	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	●	• Employees' Rights	54	
401-3	Parental leave	○			
Labor/Management Relations					
402-1	Minimum notice periods regarding operational changes	○			
Occupational Health and Safety					
403-1	Workers representation in formal joint management–worker health and safety committees	●	• Employees' Occupational Health and Safety	59	No work-related fatalities
403-2	Types of injury and rates of injury, occupational diseases,lost days, and absenteeism, and number of work-related fatalities	●	• Employees' Occupational Health and Safety	59	
403-3	Workers with high incidence or high risk of diseases related to their occupation	●	• Employees' Occupational Health and Safety	59	
403-4	Health and safety topics covered in formal agreements with trade unions	●	• Employees' Health • Employees' Occupational Health and Safety	57 59	
Training and Education					
404-1	Average hours of training per year per employee	●	• Employees' Development	55	
404-2	Programs for upgrading employee skills and transition assistance programs	●	• Employees' Development	55	
404-3	Percentage of employees receiving regular performance and career development reviews	●	• Employees' Development	55	
Diversity and Equal Opportunity					
405-1	Diversity of governance bodies and employees	●	• Care for Employees	54	
405-2	Ratio of basic salary and remuneration of women to men	●	• Employees' Rights	54	
Non-discrimination					
406-1	Incidents of discrimination and corrective actions taken	●	• Employees' Rights	54	
Freedom of Association and Collective Bargaining					
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	●	• Sustainable Supply Chain • Employees' Rights	44 54	
Child Labor					
408-1	Operations and suppliers at significant risk for incidents of child labor	●	• Sustainable Supply Chain • Employees' Rights	44 54	
Forced or Compulsory Labor					
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	●	• Sustainable Supply Chain • Employees' Rights	44 54	
Security Practices					
410-1	Security personnel trained in human rights policies or procedures	○			

● Covered in the Report    ● Partially Covered in the Report    ○ Not Covered in the Report

Indicator Number	Description	Status	Report Section(s)	Page(s)	Explanatory Notes
Rights of Indigenous Peoples					
411-1	Incidents of violations involving rights of indigenous peoples	●			No such incident
Human Rights Assessment					
412-1	Operations that have been subject to human rights reviews or impact assessments	●	• Employees' Rights	54	
412-2	Employee training on human rights policies or procedures	●	• Employees' Development	55	
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	●	• Employees' Rights	54	
Local Communities					
413-1	Operations with local community engagement, impact assessments, and development programs	●	• Education Support • Volunteer Programs	70 74	
413-2	Operations with significant actual and potential negative impacts on local communities	●	• Environment-friendly Operation • Volunteer Programs	35 74	
Supplier Social Assessment					
414-1	New suppliers that were screened using social criteria	●	• Sustainable Supply Chain	44	
414-2	Negative social impacts in the supply chain and actions taken	●	• Sustainable Supply Chain	44	
Public Policy					
415-1	Political contributions	○			
Customer Health and Safety					
416-1	Assessment of the health and safety impacts of product and service categories	●	• Product Stewardship Policy	33	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	●			No such incident
Marketing and Labeling					
417-1	Requirements for product and service information and labeling	●	• Product Stewardship Policy	33	
417-2	Incidents of non-compliance concerning product and service information and labeling	●			No such incident
417-3	Incidents of non-compliance concerning marketing communications	●			No such incident
Customer Privacy					
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	●			No such incident
Socioeconomic Compliance					
419-1	Non-compliance with laws and regulations in the social and economic area	●			No such incident

● Covered in the Report    ● Partially Covered in the Report    ○ Not Covered in the Report

## 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

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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