

Ticker: 688599

Stock name: Trinasolar



**Abstract of the 2021 Interim Report of
Trina Solar Co., Ltd.**

Section I. Important Notice

1.1 The abstract of this interim report comes from the full text of the interim report. To fully understand the Company's operating results, financial status and future development plan, investors are suggested to read the full interim report carefully on the website of <http://www.sse.com.cn/>.

1.2 Major risk warning

The Company has described the possible risks in detail in the Report. Please refer to 5. Risk Factors in Section III. Discussion and Analysis of the Management.

1.3 The Board and the Supervisory Committee as well as the directors, supervisors and senior management of the Company hereby guarantee the factuality, accuracy and completeness of the contents of the interim report, and shall be jointly and severally liable for any misrepresentations, misleading statements or material omissions therein.

1.4 All directors of the Company attended the board meeting.

1.5 This interim report was unaudited.

1.6 Pre-arranged plan of profit distribution or conversion of capital reserve into share capital of the Company for the report period which has been reviewed and approved by the Board

Not applicable

1.7 Whether there are special arrangements for corporate governance and other important matters

Applicable Not applicable

Section II. Basic Information of the Company

2.1 Company profile

Stock profile

Stock profile				
Stock type	Stock exchange	Stock name	Ticker	Stock name before adjustment
A share	Shanghai Stock Exchange	Trinasolar	688599	/

	STAR Market		
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Depository receipts profile

Applicable Not applicable

Contact person and methods

Contact person and methods	Board secretary (domestic representative of information disclosure)	Securities representative
Name	Qun Wu	Zhiyong Li
Tel	0519-81588826	0519-81588826
Address	Southeast Area, No.2 Tianhe Road, Tianhe Photovoltaic Industrial Park, Xinbei District, Changzhou City	Southeast Area, No.2 Tianhe Road, Tianhe Photovoltaic industrial Park, Xinbei District, Changzhou City
E-mail	IR@trinasolar.com	IR@trinasolar.com

2.2 Major financial indicators

Unit: Yuan Currency: RMB

	As of the end of the Reporting Period	As of the end of last year	Variation in comparison with the end of last year (%)
Total assets	53,146,097,571.13	45,592,461,350.87	16.57
Net asset attributable to owners of the Company	15,457,890,534.44	15,081,182,547.72	2.50
	For the reporting period	Same period last year	YoY variation (%)
Operating income	20,187,529,236.34	12,545,938,891.04	60.91
Net profit attributable to owners of the Company	705,799,987.89	492,967,843.44	43.17
Net profit attributable to owners of the Company excluding non-recurring gains and losses	583,929,052.37	444,604,500.88	31.34
Net cash flow from operating activities	124,789,492.67	660,538,652.50	-81.11
Weighted average return on equity (%)	4.56	4.03	+0.53 percentage points
Basic earnings per share (yuan/share)	0.34	0.28	21.43
Diluted earnings per share (yuan/share)	0.34	0.28	21.43
Proportion of R&D investment in revenue (%)	6.05	6.85	-0.80 percentage points

2.3 Shareholdings of the top 10 shareholders

Unit: share

Total number of shareholders as of the end of the reporting period		30,148					
Total number of preferred shareholders with voting rights restored as of the end of the reporting period		0					
Total number of shareholders with shares of special voting rights as of the end of the reporting period		0					
Shareholdings of the top 10 shareholders							
Name of shareholders	Nature of shareholders	Shareholding ratio (%)	Total number of shares held	Number of shares held with restricted sales conditions	Number of restricted shares held including refinance securities	Number of shares pledged, marked or frozen	
Jifan Gao	Domestic natural person	17.00	351,565,275	351,565,275	351,565,275	None	
Jiangsu Panji Investment Co., Ltd	Domestic non-state-owned legal person	15.30	316,408,747	316,408,747	316,408,747	None	
Xingyin Growth Capital Management Co., Ltd.	State owned legal person	15.04	310,959,486	0	0	None	
Hangzhou Hongyu Investment Management Co., Ltd.	Domestic non-state-owned legal person	5.10	105,469,583	0	0	None	
Ningbo Meishan Bonded Port Area Jingmin Investment Co., Ltd.	Domestic non-state-owned legal person	4.07	84,199,883	0	0	None	
Changzhou Rongqi Investment	Domestic non-state-owned legal person	3.56	73,656,980	0	0	Pledged	35,000,000

Co., Ltd.	person						
Lu 'an Xinshi Assets Manageme nt Co., Ltd.-Dangt u Xinshi Emerging Industrial Fund (Limited Partnershi p)	Domestic non-state-ow ned legal person	3.25	67,211,05 6	0	0	None	
Zhuhai Qisheng Investment Manageme nt Co., Ltd.	Domestic non-state-ow ned legal person	2.89	59,766,09 7	0	0	Pledge d	59,000,0 00
Trinagroup Investment Co., Ltd	Domestic non-state-ow ned legal person	2.19	45,340,01 2	45,340,01 2	45,340,01 2	None	
Shanghai Xingjing Investment Manageme nt Co., Ltd.	State owned legal person	1.96	40,430,00 7	0	0	None	
Note on the above-mentioned shareholder-related relationship or concerted action		Among the top ten shareholders of the Company, Jiangsu Panji Investment Co., Ltd. and Trinagroup Investment Co., Ltd. are the co-actors of Mr. Gao Jifan, the controlling shareholder and the actual controller of the Company. Shanghai Xingjing Investment Management Co., Ltd. is the subsidiary of Xinyin Capital Co. Ltd.					
Note on preferred shareholders with voting rights restored and the total shares held		None					

2.4 Top ten holders of domestic depository receipts

Applicable Not applicable

2.5 Top ten shareholders with the most voting rights as of the end of the reporting period

Applicable Not applicable

2.6 The total number of preferred shareholders and the shareholdings of the top 10 preferred shareholders of the Company as of the end of the reporting period

Applicable Not applicable

2.7 Change of controlling shareholder or actual controller

Applicable Not applicable

2.8 Corporate bond in existence as of the approval date of the interim report.

Applicable Not applicable

Section III. Discussion and Analysis of the Management

3.1 Main business, products or services

A. Business of photovoltaic products

The Company has been deeply engaged in solar photovoltaic industry for more than 20 years. It has long been rated as one of the best PV module manufacturers in the world by Bloomberg New Energy Finance (BNEF), a world renowned research institute, and was named by it the most 'bankable' PV module manufacturer globally. With its great resources of equipment, rich experience of process and strong edge of industrialization, Trina Solar deeply integrated core technologies of solar cells and modules such as PERC, N-type, MBB, half-cut, dual-glass and bifacial. It also advocated the establishment of the 600W+ Photovoltaic Open Innovation Ecological Alliance to improve the supply chain of the PV industry based on the development needs of the industry, and coordinated with the whole industry to usher in the new era of 210 ultra-high-power modules that run on 410W, 510W, 550W, 600W, 670W, etc.

B. Business of photovoltaic systems

Business of photovoltaic systems mainly includes system products and photovoltaic power stations.

a) System products

According to the construction requirements of large-scale power stations, Trina Solar has developed intelligent photovoltaic solutions, covering both tracking and floating systems for ground and water surface scenarios respectively. By optimizing and integrating photovoltaic products such as efficient modules and intelligent trackers, it provides clients with one-stop system solution of large-scale power stations.

The Company's intelligent tracker solution has become the main approach to reduce LCOE in photovoltaic industry. The independently developed intelligent tracking algorithm combined with 210 Ultra-High-Power bifacial modules makes up for the disadvantage of traditional astronomical algorithm, and greatly improves the power generation efficiency based on trackers.

Focusing on the needs of customers and development requirements of the industry, Trina Solar continuously carries out business innovation to provide customers with one-stop smart energy solutions for homes as well as industrial and commercial distributed photovoltaic power station systems with its efficient photovoltaic modules. The Company now has over 1000 high-quality dealers.

b) Business of power stations

As the cost per kilowatt hour in the photovoltaic industry rapidly declines, large global energy groups and photovoltaic enterprises have accelerated project development and construction, and therefore the market for large-scale ground-mounted power stations has been growing rapidly. With its industrial leading R&D capability for system integration and rich integration experience, Trina Solar provides turnkey solution for customers covering the whole lifecycle, including development, design, construction, delivery, operation and maintenance.

C. Business of smart energy

Smart energy business mainly consists of photovoltaic power generation, operation and maintenance, intelligent energy storage solutions and energy cloud platform among others.

3.2 Core technologies and R&D progress

The Company is established in the R&D of innovative technologies of solar cells and modules. It constantly transfers research results into product values, and actively advances research of leading technologies based on the technological trend of the industry, laying solid foundation for enhancing the core competitiveness of the products and technologies.

(1) N-TOPCon cell technology: the Company continues to actively develop the next-generation core cell technology, and the efficiency of cell in TOPCon laboratory that allows mass production can reach 24.5%. A new 500MW 210mmx210mm large-size TOPCon cell pilot line has been built, providing technical reserve for subsequent large-scale production.

(2) HJT cell and module technology: HJT cell and module technology, as one of the future directions of high-efficiency cell and module, has always been the research focus of Trina Solar. The Company is undergoing the certification of 210 HJT module, and has completed the research work on HJT reliability, which is an important breakthrough.

(3) Perovskite/crystalline silicon tandem solar cell: as a new generation of photovoltaic technology, perovskite/crystalline silicon tandem solar cell is expected to replace crystalline silicon single junction solar cell to become the new core of photovoltaic technology. Trina Solar focuses on high-efficiency perovskite/N-type crystalline silicon tandem cell, undertakes the research of national key research and development projects, and continuously improves the efficiency of tandem cell to achieve new breakthroughs.

(4) PERC mass production technology: the mass production efficiency of the Company's 166 cell and 210 cell has reached 23.40%, both with product indicators taking the lead in the industry; the bifacial rate of PERC and modules increased by 2.5% and 1.3% respectively.

(5) Vertex DE S 400W black and white modules, Vertex 600W and 670W large-sized modules have been developed, and the yield of power meter of 550W modules has been constantly improved; related modules have been certified through comprehensive reliability test based on small spacing

technology.

(6) R&D and industrialization of electronic control system of intelligent trackers: the Company continuously optimizes intelligent tracking algorithms and refines the long-term reliability and power generation performance in complex climates, and has completed the development of the original version of SCADA application system for tracker integration with it tested and verified via projects.

The power of bearing modules of one tracker of the multi-point driven intelligent tracking system Vanguard 2P can reach 80kW. It is the world's first 2P multi-point driven tracker solution that is IEC certified and is compatible with 210 Ultra-High-Power modules.

The outdoor demonstration platform of intelligent tracking system based on ultra-high-power modules and the research institute platform of intelligent photovoltaic tracking system has been built and put into operation, and the WTDP certification has been obtained from SGS. The test capacity of the platform covers key certification projects of tracking systems including IEC 62109, IEC 62477-1, UL 2703 and UL 3703, and the product performance and quality of the tracking system has been improved.

(7) R&D of the cloud platform: in the first half of 2021, the HPLC products developed by the cloud platform have obtained the CE certification, and another product, Gateway is being certified. In addition, the cloud platform has independently developed and designed two high-performance products: smart energy terminal CMS product and smart energy terminal DCU product. CMS has the characteristics of non-invasive, low power consumption, high precision, low starting current and small size. It is the first of its kind in China, and has been certified by CNAS, a third party organization.

3.3 Discussion and Analysis of Operation

Part I: Overall business results of the Company in the first half of 2021

During the reporting period, the Company's sales reached 20.188 billion yuan, up 60.91% year over year, and the net profit attributable to the owners of the Company reached 706 million yuan, up 43.17% year over year. The shipment exceeded 10.5GW, the pipeline project of domestic photovoltaic power station system gained 1.5GW power station development quota, the pipeline project of overseas power station system continued to grow, and the shipment of the Company's original system of distributed photovoltaic business exceeded 500MW.

In the first half of the year, the Company continued to lead the industry with cutting edge photovoltaic module products, coordinated with the whole industrial chain leveraging the power of the 600W+ Photovoltaic Open Innovation Ecological Alliance, and actively expanded the market of 210mm large-sized Vertex modules, receiving great recognition from customers; tracker business gave fully play to the synergy based on its many years' accumulation of global module sales channels, and completed the delivery of several major projects; the business of photovoltaic power stations at home and abroad has been advancing steadily, with substantial growth of project indicators and profits. The distributed smart energy business focused on product development and one-stop service, and expanded to adjacent businesses like BIPV at a steady pace, making major breakthroughs; The energy business has been steadily building its core capabilities of energy storage and actively expanding sales and layout in domestic and international markets. The Company has also been relentlessly cultivating other emerging businesses to prepare for the future, and is committed to creating a new carbon-free energy system.

Part II: Operation of the Company in the first half of 2021

(1) Business development and sales operations

The expansion of the three business segments have been stepped up, and the Company has been developing rapidly and steadily:

A. The manufacturing and sales of photovoltaic modules continued to take the lead, and the market share increased.

a. During the reporting period, the photovoltaic industry faced multiple business challenges such as the surge of silicon material price, the increase of bulk material price, and the rise of freight fee. Internally, the Company continuously optimized its operation and management. In terms of manufacturing, the plants all reduced cost and expenses by improving key indicators such as product yield and mass production efficiency, and optimizing efficiency of plant operation and management. The newly built plants constantly refreshed the speed record of project completion and reaching full capacity operation. In terms of operation, the production scheduling, logistics and storage were reasonably optimized to reduce logistics cost.

Externally, the supply chain took active measures such as strategic material reserve, strategic material and price lock in and material and auxiliary technology optimization to further reduce product cost. The marketing team also negotiated with customers friendly to adjust the price, which could offset the inflation of prices. With multi-party coordination, the operating profit of the Company was jointly protected.

b. In terms of products and production capacity, the Company continued to adhere to the route of 210mm large-sized Vertex modules, unremittingly optimized its products to gain leading competitiveness, actively coordinated with enterprises in the upstream and downstream of the industrial chain, and accelerated the penetration of products with collaborative sales of products like trackers, energy storage system and SVG. In the first half of the year, the shipment of 210 modules exceeded 5GW, ranking first in the market of large-sized modules. And the demand for 210 modules continued to be strong. During the reporting period, many capacity projects, such as the Vietnam cell and module factories, Yancheng cell and module factories, and Suqian high efficiency cell factories were completed rapidly, ensuring the capacity matching the needs for leading products of the Company. In the first half of 2021, the Company's total shipments exceeded 10.5GW, and its market share further increased.

B. The Company continued to establish itself as the world's leading photovoltaic system integrated solution provider.

During the reporting period, the Company's tracker business completed the delivery of multiple large-size ground-mounted power stations at home and abroad against the on-going grim situation of the pandemic around the world. Combining the independently developed Agile™ and Vanguard™ products with the Company's ultra-high-power modules, the trackers of Trina Solar can help power station systems to generate much more power while reducing overall power generation cost, and create synergy with the other businesses of the Company.

In the first half of the year, with the rising module price, the business of large-scale ground-mounted power station system faced challenges such as order cancellation and postponement. Still, the domestic power station system business gained 1.5GW power station

development quota, increased significantly compared with last year. The overseas power station system business continued to be affected by the on-going pandemic, and the local employees overcame various challenges to strive to achieve the sales target of projects. The business of distributed PV original system achieved major sales breakthrough during the reporting period based on its finance backed business model and comprehensive service such as the exclusive digital smart cloud service system. Trinahome® original residential photovoltaic system and Trinablue® original industrial and commercial photovoltaic system targeting on residential as well as industrial and commercial markets respectively witnessed fast growth of market share, and the shipment of residential photovoltaic system increased by over 300% YoY. Meanwhile, the Company launched the BIPV product Trinaroof®, accelerated the application of BIPV and comprehensively laid out the new track of building integrated photovoltaic.

- C. The global smart energy layout was steadily carried forward.
- a. During the reporting period, the Company continued to enhance its strength in smart energy storage solution, and made breakthroughs in large scale benchmarking projects at home and abroad. In the aspect of capacity, Trina Solar's energy storage business coordinated with the whole industrial chain from battery to system, forming a vertically integrated competitive advantage. As for the residential energy storage business, Trina Solar is the first Chinese company that has been certified by JET and can handle bulk shipment.
- b. In June, the Company signed a strategic cooperation framework agreement with China Petrochemical Corporation, stipulating that with the dual-carbon goal as the core and the advantages of both parties complementing with each other, the two sides shall jointly promote the high-quality development of the new energy business through in-depth cooperation in technology, business and capital, targeting on areas of zero-carbon energy transformation of gas stations, renewable power for hydrogen generation and PV material supply and R&D.

(2) Research and development of technology and scientific research projects

Trina Solar insists on taking innovation as an important source to further enhance its core competitiveness. In the first half of 2021, the Company invested 1,220,890,900 yuan in R&D, including 336,289,100 yuan in R&D expenses, up 70.16% year-on-year. In the first half of the year, the Company won honors such as the Enterprise Award of the First Jiangsu Science and Technology Innovation and Development Award, and continued to lead and participate in government science and technology projects, taking the opportunity of the construction of national level platforms such as the State Key Laboratory of PV Science and Technology and National Enterprise Technology Center. It also participated in one more international cooperation project of Jiangsu Province – construction of overseas R&D institute of enterprise and one postdoctoral research funding project of Jiangsu Province.

Section 4 Material facts

The Company shall, according to the principle of materiality, explain the major changes in the operation of the Company during the reporting period, and the matters happened during the reporting period that had a significant impact on the Company's operation or were expected to have a significant impact

in the future.

Applicable Not applicable