Solargiga Energy Holdings Limited
阳光能源控股有限公司





2018 Interim Results
二零一八年度中期业绩

香港聯交所上市股份編號：757，台灣存託憑證代號：9157TT

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Contents

Solargiga Energy

Corporate Overview

Corporate Overview

- Established in 2001, the largest in Northeast China, high ranked photovoltaic manufacturer of the country. Focus on vertical integration for monocrystalline products, providing one-stop solutions from ingots, wafers, cells, modules to the development, design, construction, operation and maintenance of PV System.
- Listed in Hong Kong on 31 March 2008 (757.HK); listed in Taiwan on 11 December 2009 (9157.TT)
- 2017 Global New Energy Top 500 Enterprises (268); Top 50 Enterprises in China's Electronic Materials Industry (17); Top 3 Industrial Enterprises in Jinzhou City, Liaoning Province, China

Shareholding Structure as at 30 June 2018

Tan Wenhua and his associates 22.18%

Hiramatsu International Corp. 11.03%

Wafer Works Corp. 7.75%

Other Directors 0.43%

Public shareholders - Hong Kong 54.96%

Public shareholders - Taiwan (TDR) 3.65%

Solargiga Energy Holdings Limited
阳光能源控股有限公司

Number of issued shares 3,211,780,566

Manufacturing base

Mainland China

- Main production base at Jinzhou of Liaoning, Xining of Qinghai and Quijing of Yunnan.
- monocrystalline silicon ingot/wafer capacity 1.2GW (expansion in Qujing in two phases, first phase of 600MW capacity will be commenced production by 2nd half of 2018).
- photovoltaic cell capacity 400MW
- photovoltaic module capacity 2.2GW (expansion of 1GW has commenced production by the end of the 2nd quarter of 2018).
  *After expansion, the production chain will have 1.8GW capacity of ingot/wafer, 400MW capacity of cell and 2.2GW capacity of module production.
- Group's marketing centers in Shanghai and Beijing.

Japan, Taiwan, Germany

- Established subsidiaries to enrich our distribution channels of all products and expand customer base.
- A joint venture company DCH Solargiga GmbH with power plant construction company in Germany, which is mainly engaged in photovoltaic systems business

Others

- Developing EPC business in America, Turkey, Pakistan, Southeast Asia and Africa.

Map note:

- Manufacturing base
- Marketing centers
- Subsidiaries

Production Capacity and Product Range

Solargiga Energy

Ingot

- Existing capacity: 1.2GW
- Addition capacity of first phase of 600MW will commence mass production by the second half of 2018
- After the expansion, production capacity will reach 1.8GW.

Wafer

- Existing capacity: 1.2GW
- Addition capacity of first phase of 600MW will commence mass production by the second half of 2018
- After the expansion, production capacity will reach 1.8GW.

Cell

- 400MW

Strategic Alliances

1. Being strategic alliances with the large solar cell-focused manufacturer. Selling wafer products to strategic partners and hence purchase the solar cells from the strategic partners.
2. And thus, it will secure the sales channel of wafer and hence ensure stable supply of solar cells.

Module

- 2.2GW.

System

- Distributed power plants - Apart from the wholly-owned subsidiaries engaged in construction photovoltaic systems to expand the end-user market, the Group also plans to establish joint venture companies with companies from other industries, in order to share the profits and also provide extra distribution channels for the Group's module sales.
- Centralised power plants - the Group will, through investing as minority shareholders, seek construction opportunities as a EPC service provider and help drive the sales of the Group's modules.

Vertical integration Strategy

Product Procedure: 1. Monocrystalline Silicon Ingots

- Solargiga Energy focuses on monocrystalline production. So far, it has over 20 years of experience in the production of N-type/P-type monocrystalline silicon ingots. The Group is the only monocrystalline silicon manufacturer who has obtained the national product quality exemption certificate. Currently, it has 38 national utility new model patents.
- In recent years, through the transformation and upgrading of the ingot growing furnace (長晶爐), and participated in the research and design of the CL200T ingot growing furnace (單晶爐), the amount of the material put into production has reached more than 300kg and the entire mono crystalline ingot has been drawn to more than 3000mm. This achieved continuous drawing of multiple output resulted in strengthen the advanced electronic liquid level control system, automatic control process, reducing labour costs and being stable quality of the crystalline ingots. During the research and development process, it obtained 1 invention patent, 14 utility new model patents, and 2 software copyrights.
- Through the continuous upgrading and optimization of the ingot growing process in these years, it has altered the traditional finishing style, increased the yield of crystalline ingots, improved production efficiency, and achieved industry lead.
- Monocrystalline silicon ingots are excellent in terms of technical indicators, and oxygen content is controlled to below 15 ppm, forming a strictly reliable crystalline ingot index detection system.
- According to customer's requirements, the Group provides various specifications and sizes of N-type and P-type monocrystalline products, and also provides the highest quality silicon ingots for downstream components.
- The existing 1.2GW monocrystalline silicon ingot/wafer production capacity and products production capacity are among the top five in PRC. The production capacity will be expanded to 1.8GW by the 2nd half of 2018, and lower electricity fee and other favourable measures will also further reduce costs.

Product Procedure: 2. Monocrystalline Silicon Wafers

- Solargiga Energy has 13 years of wafer slicing experience and is one of the pioneers of large-size silicon wafers in the industry. According to customer's requirements, the Group provides various specifications and sizes of N-type and P-type monocrystalline products, and also provides the highest quality silicon wafers for downstream modules. Currently, it has 2 national invention patents and 8 national utility new model patents.
- The 180μm thin-slice technology has matured and has been supplying to the market. It has also developed and put thinner silicon wafers into production, effectively increasing the output rate by more than 11%.
- All the technological transformations on diamond saw slicing equipment were completed. The transformation project was the first in the industry to put centralized batch conversion machines into production in China. The performance are comparable to that of a specialized diamond saw machine. The output of wafer increased by more than 26% over the same period that reduced manufacturing costs.
- The research and development of the thin wire technology on the above transformed slicing equipment was completed. The entire production line completed the switch from 70μm electroplated diamond saw wire (金鋼綫) to 65μm electroplated diamond saw wire, and the output increased by more than 10% over the same period of last year.
- The advanced diamond saw cutting fluid recycling technology reduces the cutting fluid cost by 25%.
- The existing 1.2GW monocrystalline silicon ingot/wafer production capacity and products production capacity are among the top five in PRC. The production capacity will be expanded to 1.8GW by the 2nd half of 2018, and favourable measures will also further reduce manufacturing costs of monocrystalline silicon wafers.

Product Procedure: 3. Solar cells

- 8 standard cell production lines, with an annual capacity of 400MW, focusing on the production of monocrystalline N-type and P-type cell.
- Able to produce large-size monocrystalline cells and anti-PID cells with high conversion rate and consistency, and also produces N-type double-sided cells with a power generation efficiency gain of 20%. It has 2 national invention patents, 23 utility new model patents, and 1 appearance patent.
- It also possess the technology of the Passivated Emitter and Rear Cell (PERC) process of P-type monocrystalline cell and the polysilicon cell black silicon process, which are currently gaining in market share. The "black silicon cell project" has been listed in the National Science and Technology Department's 863 Program.
- Cooperating with world-class perovskite research team of university to jointly develop a perovskite superimposed P-type monocrystalline new generation multi-junction solar cell, which will pave the way for the development of solar cell in the next decade, and also keep abreast of the latest development trend in the photovoltaic industry.
- Long-term cooperation with Sharp in Japan for production of cells. A pioneer in development and production of the comprehensive anti-PID technology, while mastered the stringent cell manufacturing process with control requirements and testing methods equivalent to those on Sharp’s own plants.

Product Procedure: 4. Solar modules

- Highly automated production, with the industry's most advanced automatic splicing welding (拼接焊接), automatic junction box welding (接线盒焊接) and other supporting functions to achieve less labour, low cost, stable and reliable quality.
- The first largest OEM module manufacturer in PRC supplied to Sharp Japan for five consecutive years. Developed the anti-PID technology of module and mastered the design and production of high-end module in the Japanese market. Its OEM module accounted for more than 90% of the Sharp shipments of module in Japan.
- The unique quality control standards for Japanese production include a total of 104 inspection items from the auxiliary materials, process control requirements, and 3 to 10 times the finished module products in the environmental testing system requirements of the IEC standard.
- Master core technologies for the design and production of different modules such as lightweight components, ski components, and high-load components. Mastered the design and production technology of two-sided cell (P-PERC, N-PERT.HIT) module, and shipment for double glass components for four consecutive years.
- Developed and mastered half-slice modules, multi-gate cell modules, double-sided cell modules, high-efficiency ribbon (reflective film) modules, MBB modules, N-type double-glazed glass modules, smart photovoltaic modules, half-cell modules, and Other design techniques related to Super Top Runner Program high-end products.
- Mastering of manufacturing of IBC-cell modules ability. IBC-cell modules have high output performance, open circuit voltage, fill factor and other electrical performance advantages. The same-surface interconnected module process and the perfect appearance of almost black also meets the aesthetic requirements of mass consumers. .
- One of the first 17 module certified enterprises of Super Top Runner Program.
- Owned 17 national utility model patents.
- Existing 2.2GW module production capacity.

Products: Module Product Certification

- TUV、VDE、UL Certification
- First batch of Photovoltaic Power Generation Top Runner Program (領跑者) certified enterprises


太阳能产品认证证书

证书编号：CQC16024140155

申请人名称及地址

锦州锦德光伏科技有限公司

辽宁省锦州市经济技术开发区赤峰路三段1-1号

制造商名称及地址

锦州锦德光伏科技有限公司

辽宁省锦州市经济技术开发区赤峰路三段1-1号

生产企业名称及地址

锦州锦德光伏科技有限公司（Y0222992）

辽宁省锦州市经济技术开发区赤峰路三段1-1号

产品名称和系列、规格、型号

地面用晶体硅光伏组件

见附件

产品标准和技术要求

IEC61730-2:2004

认证模式

产品型式试验+初次工厂检查+获证后监管

上述产品符合CQC33-471541-2009认证规则的要求，特发此证。

发证日期：2016年03月03日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持

主任：

中国质量认证中心

中国·北京·南四环西路188号3区100070

http://www.cqc.com.cn


太阳能产品认证证书

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太阳能产品认证证书

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TUV认证


Certificate

VDE Prüf- und Zertifizierungsinstitut

ZEICHENGENEHMIGUNG
MARKS APPROVAL

VDE

VDE认证

Major Customers

Solargiga Energy

SHARP 夏普

国家电投 SPIC

BG北控 北京控股集团有限公司 BEIJING ENTERPRISES GROUP COMPANY LIMITED

中广核 CGN

中国华电集团公司 CHINAHUADIANCORPORATION

信義玻璃 XINYI GLASS 信义玻璃控股有限公司

通威太阳能 TW SOLAR

MOTECH 茂迪新能源有限公司

SUNTECH 尚德太阳能

GINTECH 台湾昱晶能源

Aikosolar 广东爱康太阳能科技有限公司

Solargiga Energy

Market Overview

Market Overview

China

- China's installed capacity has ranked first in the world for five consecutive years, in which, 2017 made history with 53.06GW of newly-added volume of photovoltaic power generation capacity. The newly-added volume of photovoltaic power generation to grid connection in China was 24.3GW (comparable to the 24GW in the corresponding period of 2017). Of which, distributed power plants accounted for 12.24GW (70% growth from the corresponding period of 2017). Accumulated Photovoltaic capacity reaches 154.5GW (31 December 2017: 130.2 GW).

- According to the targets for 2017 to 2010 announced by the National Energy Bureau, projects totaling an annual 8GW will be arranged under the Top Runner Program. By analysing the results of the successful tenders, mono-crystalline photovoltaic products still hold its absolute advantage, with double-sided power generation surpasses by over 50%. It is expected the products used in the successful bids will lead the technical levels of the industry and will become the mainstream of the market.

- As at the end of 2017, China has completed and exceeded the installation target of solar energy set out in the "13th Five-Year Plan for Solar Energy Development" (《太陽能發展「十三五」規劃》) ahead of schedule. However, in order to accelerate the ripening of photovoltaic grid parity and guide the photovoltaic industry into a more robust development direction, China National Development and Reform Commission (中國國家發展和改革委員會), Ministry of Finance (財政部), National Energy Bureau (國家能源局), jointly issued a "Notice on Matters Related to Photovoltaic Power Generation" in 2018 on 31 May 2018 (referred to as "531 New Policy" below). It guides the market and industry to adjust their development ideas, and changing the key structure of the development of the photovoltaic industry, from scale-expansion to quality and efficiency improvement. It also encourages high-end products, promotes technological advancement, reduces power generation costs, lowers dependence on subsidies, and promotes the industry to high quality development.

- Although the announcement of the "531 New Policy" has send shockwaves to the market in the short-term, it is in fact promoting the launch of a comprehensive market-oriented cycle of grid parity by 2020. By then, "photovoltaic solar power, wind power, energy storage", the core of the third generation of energy, will replace the core of second generation of energy of "coal, oil, natural gas".

Market Overview

India

- The planned photovoltaic construction for 2018 is 11GW and the installation capacity is expected to reach 12GW. They are hopeful of, after overtaking Japan in 2017, surpassing the U.S. and become the second largest market for photovoltaics in the world.

- Shri Anand Kumar, Secretary General of the Ministry of New Energy and Renewable Energy of India, said, “We must achieve 350GW solar capacity by 2030 to meet demands, of which it will reach 100GW by 2022. Therefore, we must tender at least 30GW per year from 2020 onwards to achieve an additional 250 GW.”

USA

- The installed capacity of photovoltaic power in the first quarter of 2018 in the United States amounted to 2.5GW, an increase of 13% from the corresponding period of last year.

- GTM Research and SEIA predicted the annual installed capacity of photovoltaic power for 2018 will reach 10.8GW. Thereafter, it is expected growth in solar power will gather further momentum in 2019 and accelerate in 2020, part of the reason is that California recently implemented a solar policy in all new homes. According to the analysis, by 2023, the United States will install more than 14GW of photovoltaic capacity each year.

Market Overview

Japan

- The government's zero-energy residential project "ZEH" is expected to continue to be the main catalyst for growth in the residential solar installation market. ZEH was launched in early 2016 to reduce the energy consumption of residential buildings and enhance its energy efficiency. The target is to have 50% of new residential buildings to be zero-energy housing by 2020.

- In addition, on 3 July 2018, the government passed the newly revised "Energy Basic Plan" aiming to position renewable energy sources such as solar energy and wind energy as the main power source, and to raise the proportion of renewable energy generation to total power generation from 22% to 24% by 2030, with the hope that renewable energy will become the mainstream by 2050.

Europe & emerging markets

- European market is entering a recovery phase and is expected to boost demand. Minimum Import Price (MIP) policy will end on 30 September 2018, which will make Europe a highly competitive market.

- In the emerging markets, Australia's demand is expected to boom this year. The Middle East, Morocco and Egypt in North Africa, Mexico and Brazil in South America are also expected to grow considerably this year. According to the GTM Research report, compared with only eight GW-class countries in 2017, there will be 13 countries in the world where the installed capacity of photovoltaics will reach GW-class in 2018, indicating that the demand for global photovoltaic products will increase significantly in emerging markets.

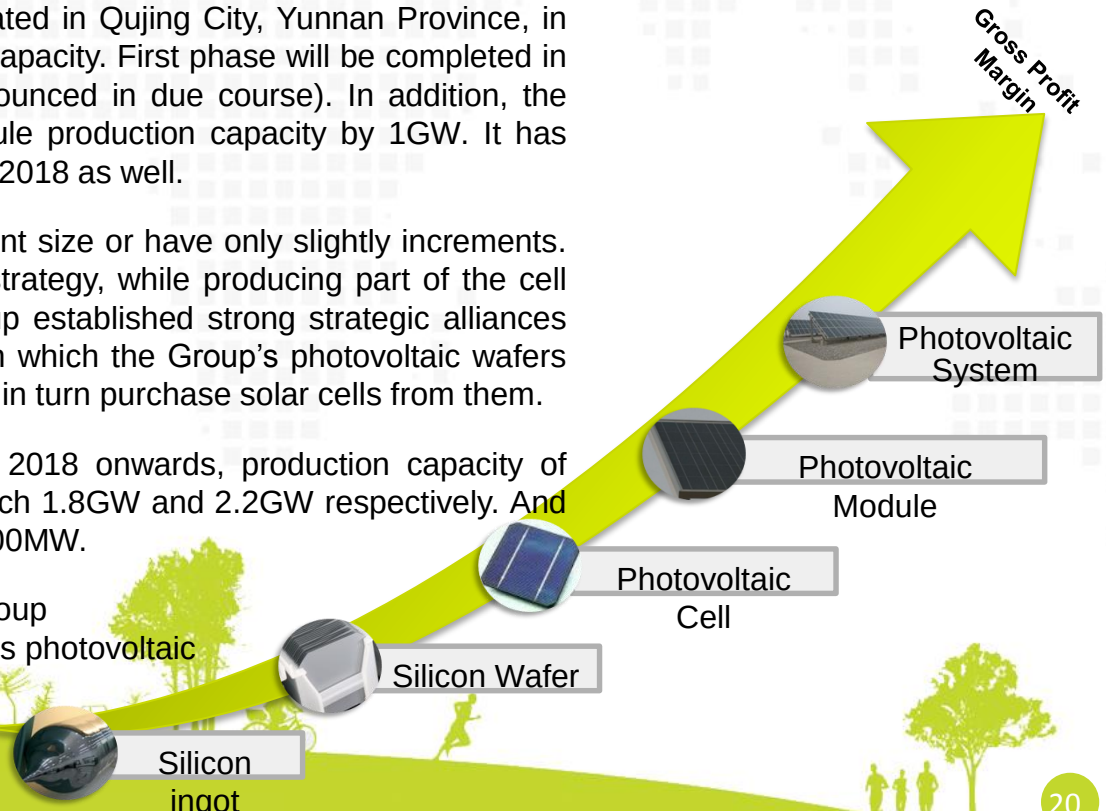
Solargiga Energy

Business Review

Group: Operations Strategy

1. Focus on the vertical integration of monocrystalline products, concentrate internal resources, and strengthen upstream monocrystallie silicon ingot/wafer products and downstream terminal components products sales

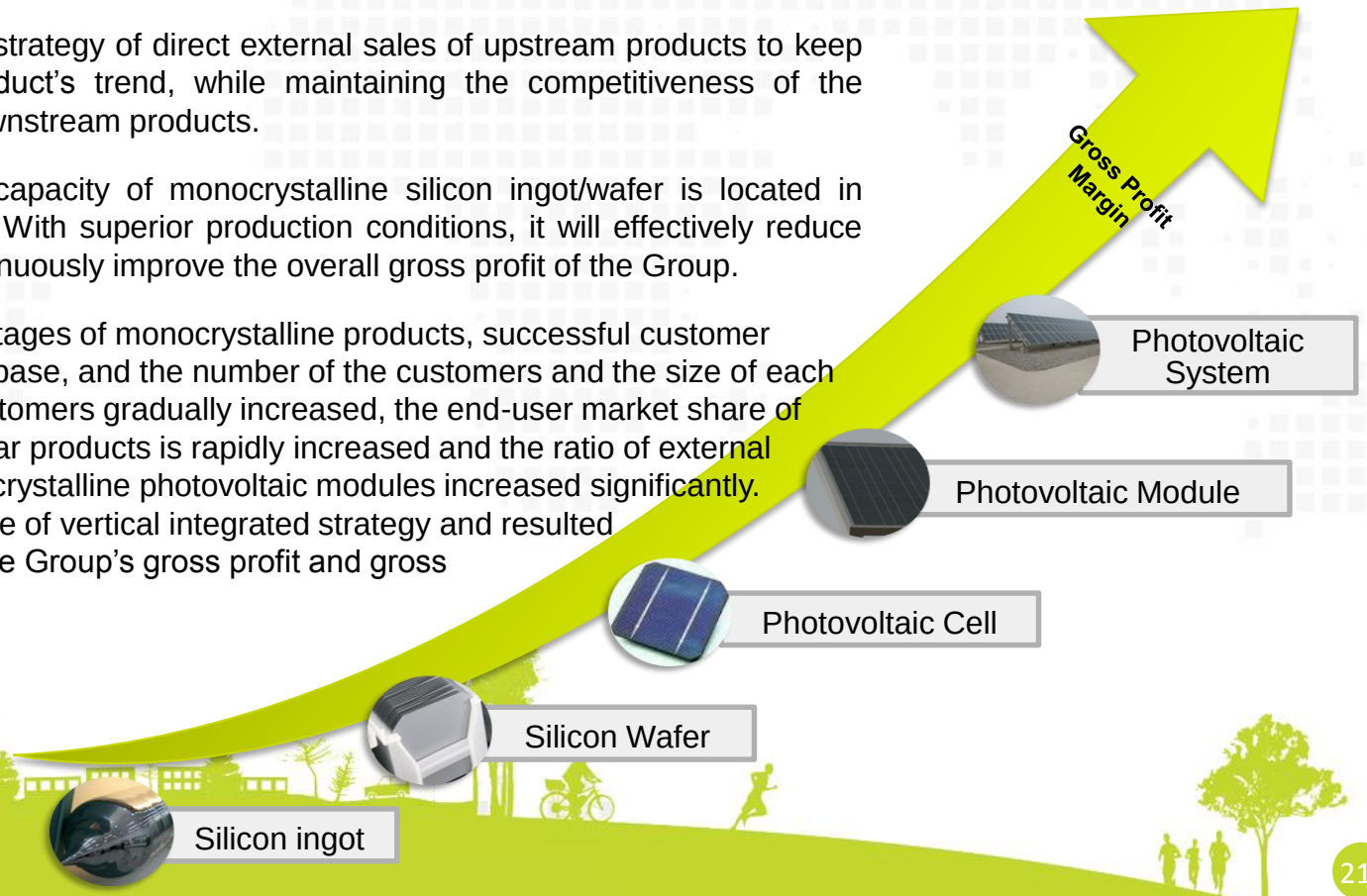
- The Group focuses on the vertical integration of photovoltaic monocrystalline products. Through satisfying external demands for its photovoltaic modules, at the same time, boosting the internal demands for its monocrystalline silicon ingots/wafers.
- The Group has been investing in a project located in Qujing City, Yunnan Province, in two phases, each phase representing 600MW capacity. First phase will be completed in the second half of 2018 (Phase 2 will be announced in due course). In addition, the Group expanded the annual photovoltaic module production capacity by 1GW. It has been completed in the end of second quarter of 2018 as well.
- For solar cell segment, it will maintain the current size or have only slightly increments. To strengthen the Group's vertical integration strategy, while producing part of the cell products internally, at the same time, the Group established strong strategic alliances with local and overseas manufacturers, through which the Group's photovoltaic wafers are sold to our strategic partners and the Group in turn purchase solar cells from them.
- After the expansion, from the second half of 2018 onwards, production capacity of monocrystalline ingot/wafer and module will reach 1.8GW and 2.2GW respectively. And production capacity of solar cell will remain at 400MW.
- Through this capacity allocation strategy, the Group will be able to satisfy the external demands for its photovoltaic modules, of which the Group has its largest manufacturing capacity, while, at the same time, boost the internal demands for its monocrystalline silicon ingots/wafers.



Group: Operations Strategy (Continued)

2. Improve overall gross profit margin under vertical integration, taking upstream products into account

- The Group is a vertically integrated manufacturer of upstream and downstream monocrystalline products. It is able to effectively utilise the advantages of vertical integration to enhance the Group's gross profit margin of self-manufacturing module products, which drive to increase the profitability of the Group.
- The Group also adopts a strategy of direct external sales of upstream products to keep abreast of upstream product's trend, while maintaining the competitiveness of the Group's upstream and downstream products.
- In addition, the addition capacity of monocrystalline silicon ingot/wafer is located in Qujing, Yunnan Province. With superior production conditions, it will effectively reduce production costs and continuously improve the overall gross profit of the Group.
- In recent years, the advantages of monocrystalline products, successful customer development of customer base, and the number of the customers and the size of each purchase by individual customers gradually increased, the end-user market share of monocrystalline silicon solar products is rapidly increased and the ratio of external shipment volume of monocrystalline photovoltaic modules increased significantly. This realised the advantage of vertical integrated strategy and resulted in significant increase in the Group's gross profit and gross profit margin.

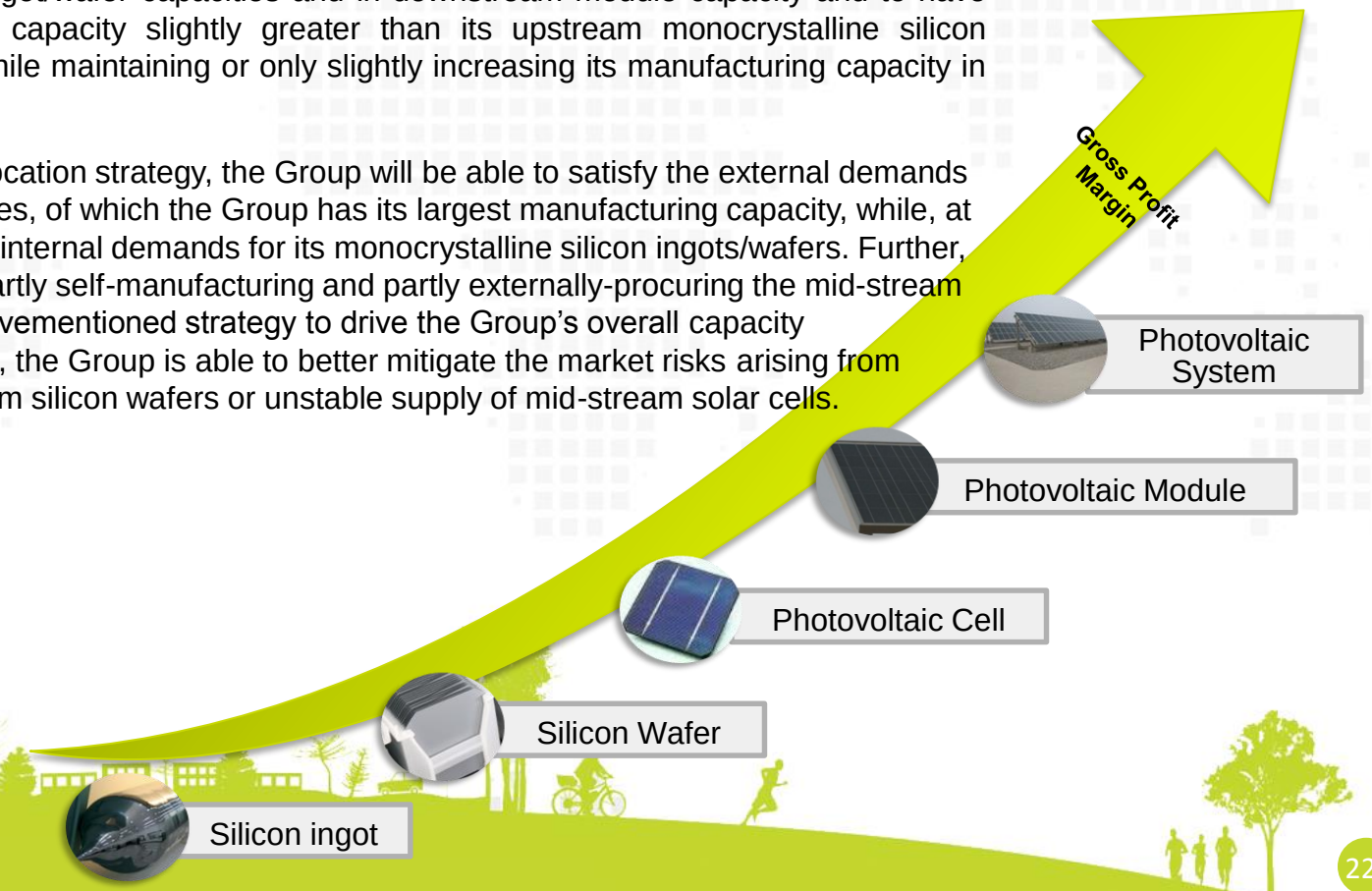


Group: Operations Strategy (Continued)

3. Under capacity allocation strategy, downstream production capacity is slightly larger than upstream production capacity, and through the natural integration mechanism of vertical integration, to reduce the risk of market fluctuations.

- Regarding the capacity allocation strategy, the Group is to focus its investments in upstream monocrystalline silicon ingot/wafer capacities and in downstream module capacity and to have its downstream module capacity slightly greater than its upstream monocrystalline silicon ingot/wafer capacities, while maintaining or only slightly increasing its manufacturing capacity in solar cells.

- Through this capacity allocation strategy, the Group will be able to satisfy the external demands for its photovoltaic modules, of which the Group has its largest manufacturing capacity, while, at the same time, boost the internal demands for its monocrystalline silicon ingots/wafers. Further, through the strategy of partly self-manufacturing and partly externally-procuring the mid-stream solar cells, under the abovementioned strategy to drive the Group's overall capacity utilisation from bottom up, the Group is able to better mitigate the market risks arising from fluctuant sales of upstream silicon wafers or unstable supply of mid-stream solar cells.



Group: Operations Strategy (Continued)

3. Under capacity allocation strategy, downstream production capacity is slightly larger than upstream production capacity, and through the natural integration mechanism of vertical integration, to reduce the risk of market fluctuations. (continued)

- Example of our strategy at work is the recent decline in wafer prices. By satisfying orders from downstream module customers with the Group's self-manufactured silicon wafers, we did not have to follow the market trend of slashing wafer prices. We consequently were able to effectively mitigate risks arising from market fluctuation, and protect the interests of all manufacturing segments of the Group.

- *Scenario A: Price of wafers drops*

A. Price of wafers drops	*Group's strategy :* *- Wafer not sold externally, subcontract production into solar cells, and to be used for Group's modules.*	*Benefit:* *- Risk of wafer price drop no longer exists in the natural defense mechanism of vertical integration. profitability can still be maintained from the sales of modules end products.*

- *Scenario B: Price of wafers rises*

B. Price of wafers rises	*Group's strategy :* *- Wafer sold externally, procure solar cells externally*	*Benefit:* *- Rise in wafer prices, under vertical integration, both wafer and module sales will drive overall gross profit and maximise bottom line*

Business Overview: Ingot & Wafer Segment

- With the continued realisation of advantages in better improvement in conversion efficiency, more stable decay rate in its photovoltaic systems, continued reduction in unit costs, etc. of monocrystalline products, it is expected that the advantages of monocrystalline products will become more obvious in the field of photovoltaic power generation, and the market share of monocrystalline silicon products will further increase significantly.
- Through long-term strategic partnerships with well-known solar cell-focused manufacturers, the Group may enjoy priority distribution channels for the sales of its monocrystalline wafers, and ensure long-term stable utilisation of the Group's capacity and shipment volume.
- During the period, the external shipment volume of monocrystalline silicon ingots was 206.4MW, representing an increase of 12% compared to 184.5MW in the corresponding period of 2017. External shipment volume of monocrystalline silicon wafers has remained stable at 323.3MW (331.7MW in the corresponding period of 2017).
- The company has been investing a total of 1.2GW newly added monocrystalline silicon ingots/wafers in two phases in Qujing City, Yunnan Province, the PRC. The first phase of 600MW production capacity is expected to commence mass production by the 2nd half of 2018. The second phase of 600 MW will be timely commenced.
- External sales mainly included sales to huge state-owned enterprises in China, such as State Power Investment Corporation (中國國家電力投資集團公司) ("SPIC"), TW Solar Group (通威太陽能集團), Motech Industries, Inc. (MOTECH), etc.

Business Overview: Cell Segment

- The Group's solar cell production line is located at the production base in Jinzhou, Liaoning. During the period, the annual production capacity of solar cells was 400MW.

- Focusing on the implementation of the vertical integration strategy on monocrystalline products, most of the solar cells being main products are mainly provided to the Group' s downstream solar modules companies for supplying the best quality raw materials. In addition, a small portion is also sold to customers in China and Japan, providing customised unique specifications cells.

- Under the Group' s vertical integration strategy, solar cell is the segment with less production capacity. The Group hence formed strong long-term strategic partnerships with local and overseas well-known solar cell-focused manufacturers, which strengthens the mutual working relationship. As a result, the Group will sell its upstream wafers to the strategic partners and in turn the strategic partners will provide the Group with the solar cells needed for module manufacturing. To the solar cell-focused manufacturers, they will be able to obtain a stable supply of monocrystalline wafers and also a stable sales channel of solar cells, and achieving a win-win target.

- In terms of solar cell production process, in addition to the current mass production capacity of monocrystalline P-type solar cells and the mainstream of the future of monocrystalline N-type solar cells, the Group also possesses the technology reserves including P-type mono-crystalline solar cell Passivated Emitter and Rear Cell (PERC) technology, which is gradually gaining market share, multi-crystalline black silicon solar cell technology, etc. In addition, the Group has also been collaborating with university teams of the highest levels in the field of global perovskite (鈣鈦礦) research in projects to jointly develop perovskite solar cells, in order to pave the way for solar cell development in the next decade and keep abreast of the latest trends in the photovoltaic industry.

Business Overview: Module Segment

- During the period under review, due to the influence of the aforementioned "531 New Policy" by the Chinese government, the unit price of the modules was irrationally lowered. This led to a decrease in total sales from RMB1,499.41 million in the first half of 2017 to RMB1,360.73 million in the first half of 2018. In terms of shipments, although the "531 New Policy" also caused sudden freezing in short-term market demand, the Group's photovoltaic module shipments maintained an upward trend during the period. The Group's external shipments during the period were 643.3 MW, greater than the 616.5MW external shipments in the corresponding period of 2017.

- With regard to the planning of module production capacity, the Group has newly added an annual production capacity of 1 GW of module production capacity, which was officially commenced mass-production at the end of the second quarter of 2018, adding that to the existing annual production capacity of 1.2 GW. The total production capacity has reached 2.2 GW.

- External sales was mainly made to huge Chinese state-owned enterprises and Japanese multinational composite enterprises, such as CGN New Energy Holdings Co., Ltd. (中國廣核新能源控股有限公司) ("CGN"), China Huadian Corporation (中國華電集團公司) ("Huadian"), Beijing Enterprises Holdings Limited (北京控股集團有限公司) ("BEGCL"), SHARP Corporation and SANSHIN ELECTRONICS CO., LTD. etc..

- Strengthen the development and sales of monocrystalline silicon high-efficiency module products such as N-type double-sized glass photovoltaic modules, half-cell photovoltaic modules, P-type monocrystalline solar cell Passivate Emitter and Rear Cell (PERC), smart photovoltaic modules, and Super Runner Program-related high-end products. From the market's awareness of the advantages of monocrystalline photovoltaic products, the Group's sales of monocrystalline module accounted for the total sales of module increased yearly.

Business Overview: Addition of production capacity

Jinzhou Chuanghui Module Project (Addition of 1 GW)

- The module production capacity of the project is 1GW, which commences mass production at the end of the second quarter of 2018. After the expansion, the module capacity reaches 2.2 GW.
- After expansion, the Group is able to cope with the substantial growth of customer demand for the Group's photovoltaic modules. By driving from the demand for downstream monocrystalline photovoltaic modules, it helps to strengthen the benefits of the Group' s competitive advantage of its vertical integration.

Yunnan Qujing Monocrystalline Ingot/wafer Project Phase I (Addition of 600 MW in Phase I)

- There are two phases of the Qujing project in Yunnan. The first phase will annually produce 3,000 tons of silicon ingots and 120 million pieces of wafers, each representing 60MW. It is expected to commence mass production by the second half of 2018. The second phase of the 600 megawatts will be announced timely.
- Qujing, Yunnan has better production conditions. There is local suppliers for raw material, polysilicon, required for the project, which will significantly reduce the cost involved in raw material transportation; the local water and electricity costs at the new plant has to be lower than that at our major production base, to facilitate the lowering of manufacturing cost of ingots and wafers.

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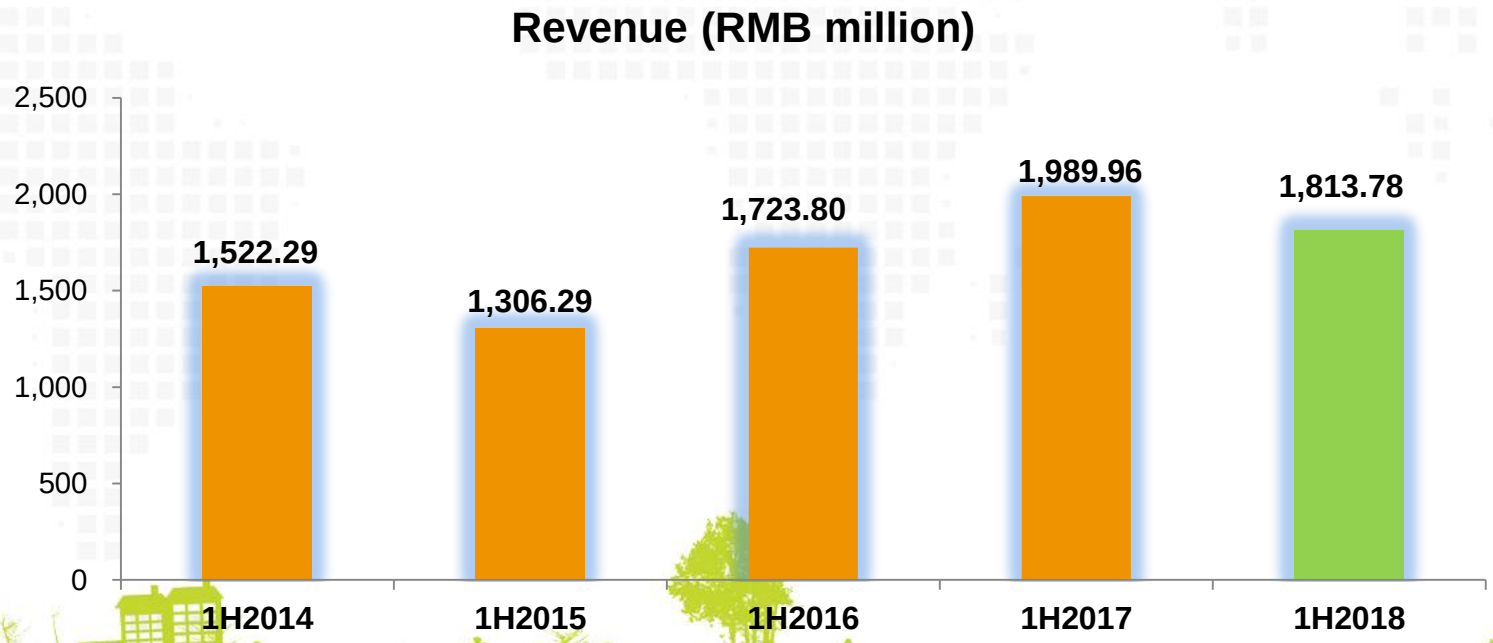
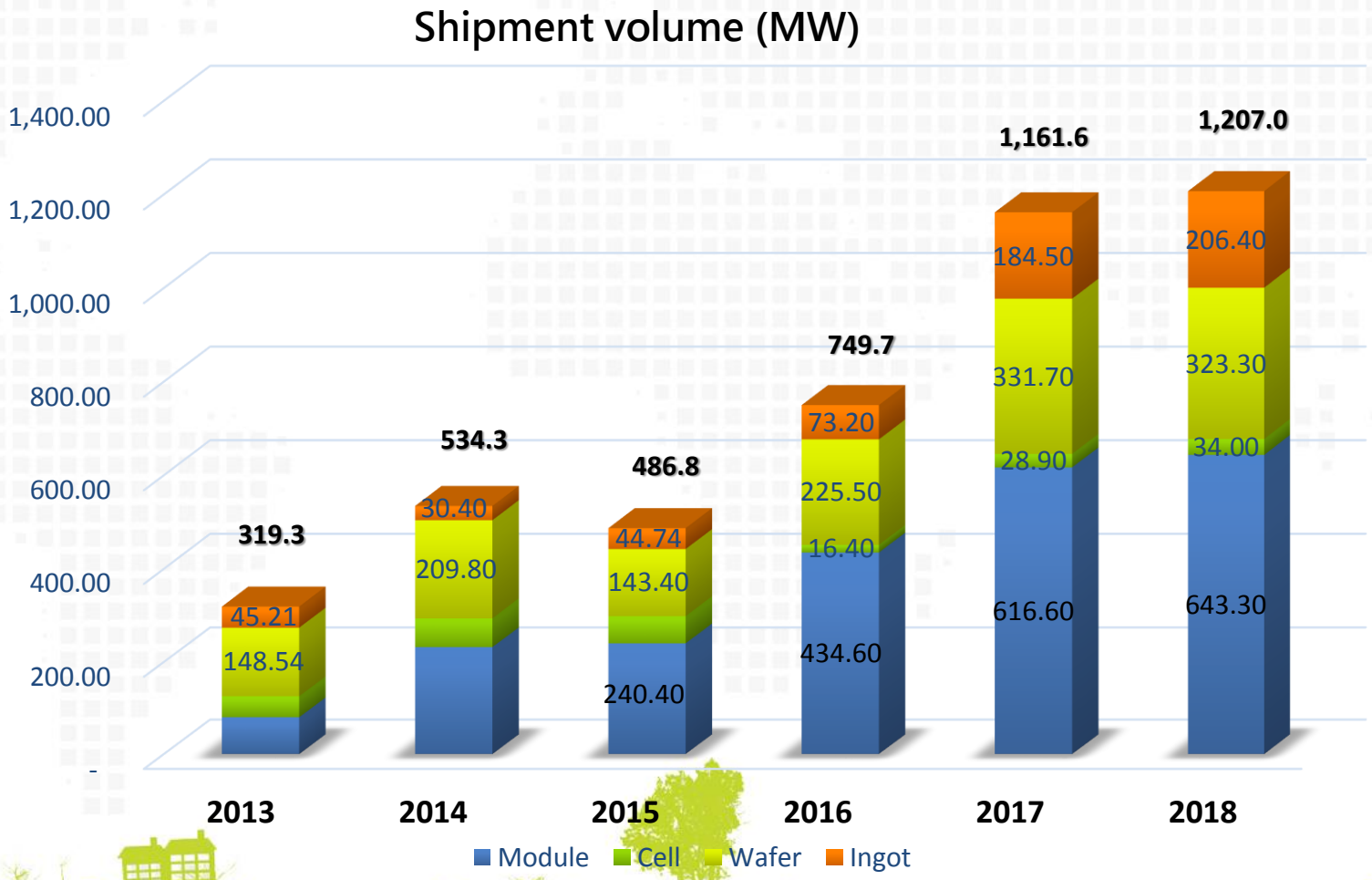
Financial Performance

Revenue

During the period ended 30 June 2018, although the market was affected by the “531 New Policy” of the Chinese government and market demand was irrationally frozen, reaping the benefits of the Group’s strengthening of its strategic partnerships with customers of its downstream module products over the years, high-end photovoltaic products are very popular by domestic SOEs and overseas composite companies. Total shipments increased from 1,161 MW in the first half of 2017 to 1,207 MW in the first half of 2018, of which total processing volume also increased from 338 MW in 2017 to 361 MW in 2018, which are both higher than the same period last year.

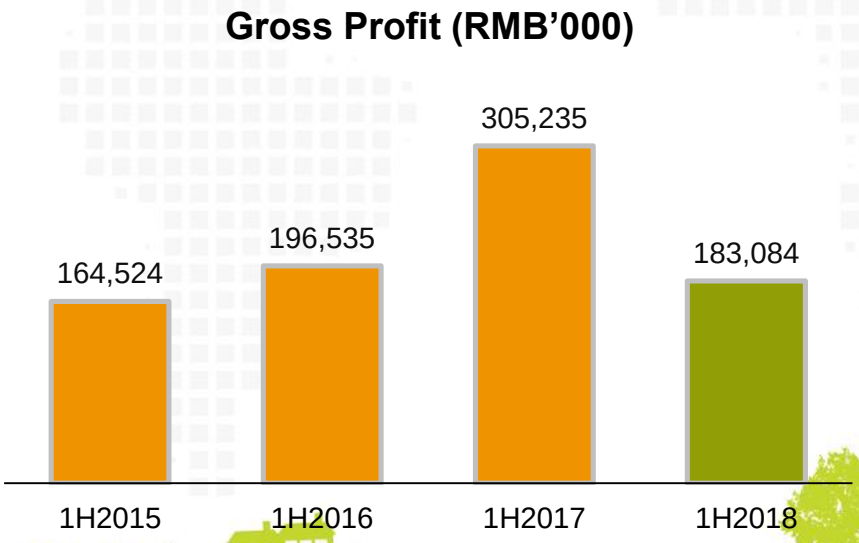


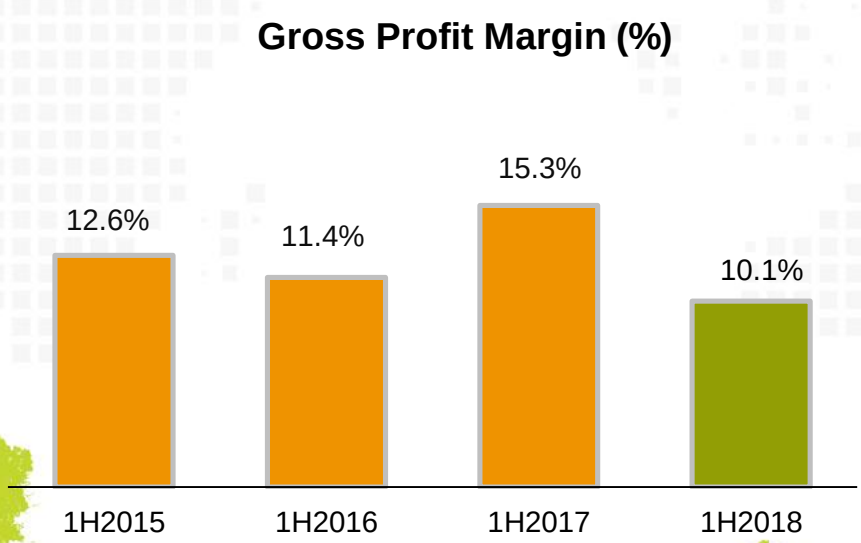
For 6 months ended Shipment Volume



Gross Profit and Gross Profit Margin

During the period, affected by the news of the “531 New Policy”, the sudden and rapid freezing of market demand caused the supply side to irrationally cut prices in the short term. However, not only did the price cuts failed to immediately stimulate demand, it even caused deferrals in procurement by the buy side. In addition, the decrease in purchase price of raw and auxiliary materials was not as elastic as in the said price cuts, causing significant inventory provision loss. Affected by the twofold influences, the Group recorded gross profit of RMB183.084 million in the first half of 2018, lower than the RMB305.235 million in the corresponding period of 2017. The Group’s overall gross profit was also being compressed. The gross profit margin reduced from 15.3% in the first half of 2017 to 10.1% in the first half of 2018.





Financial Results Highlight

- The significant increase in input in research and development expenses during the period, leading net loss attributable to the equity shareholders of the Company for the period under review amounted to RMB107.280 million (corresponding period in 2017: Net profit of RMB95.299 million).
- During the period under review, the net cash inflow from operating activities was RMB339.971 million, a significant increase of 103.3% from RMB167.219 million in the corresponding period of last year.

(RMB'000)	1H2018	1H2017	Change
Revenue	**1,813,778**	1,989,961	(8.9%)
Gross Profit	**183,084**	305,235	(40.0%)
Gross Profit Margin (%)	**10.1%**	15.3%	5.2pp
(Loss)/Profit Attributable to Equity Shareholders of the Company	**(107,280)**	95,299	n/a
Basic (loss)/earnings per share (RMB cents)	**(3.34)**	2.97	n/a

Condensed Statement of Cash flow			
Net cash flows generated from operating activities	**339,971**	167,219	166,880
Net cash flows (used in)/generated from investing activities	**(159,977)**	6,605	(166,582)
Net cash flows used in financing activities	**(255,812)**	(236,111)	(19,701)

Financial Results Highlight

(RMB'000)	As at 2018.6.30	As at 2017.12.31	Change
Current Assets	**2,765,210**	2,821,891	(56,681)
Current Liabilities	**3,340,266**	3,170,491	169,775
Total Assets	**4,679,086**	4,611,210	67,876
Total Liabilities	**3,748,896**	3,575,781	173,115
Net Assets	**930,190**	1,035,429	(105,239)
Net asset per share (RMB)	**0.26**	0.30	
Net asset per share (HKD)	**0.29**	0.37	

Note: RMB 1 = HKD 1.14

Financial Ratios

- The Group put enormous effort toward maintaining a level of lower inventory turnover days. the Group has been focusing its efforts in raising inventory turnover and lowering the inventory turnover days in order to mitigate the risk of a sudden decline in inventory prices, help reduce committed capital and, at the same time, further strengthen the Group' s operation working capital. As a result, the Group' s inventory turnover days has been lowered.
- Increase in AR turnover days mainly due to the solar modules sales, which accounted for over 70% of the Group' s overall sales. According to the terms of the industry' s general module sales contract, the recovery of module receivable depends on the construction progress of the photovoltaic power plant. For instance, some trade receivables can only be recovered after the customer' s photovoltaic power plant is connected to the grid. In addition, 10% of the total amount of receivable are retained as a warranties. This warranty will generally be recovered in around one year. As a result, the trade receivables turnover days of module business are generally longer. From the rapid growth of the ratio of revenue in modules sales of the Group, the trade receivables turnover days of the Group increased to 157 days in first half of 2018 (2017: 96 days).
- The trade payables turnover day was 120 days, which rose significantly comparing to 97 days of the corresponding period of last year, was mainly due to the strategic partnerships established with our major suppliers, under stable and frequent co-operations, and the suppliers have gradually increased our lines of credits and payment terms.

	2018.6.30	2017.12.31	Change
Turnover Day Analysis			
Trade Receivables Turnover (Days)	**157**	**96**	61
Trade Payable Turnover (Days)	**120**	**97**	23
Inventory Turnover (Days)	**44**	**58**	(14)
Gearing Analysis			
	2018.6.30	2017.12.31	Change
Current Ratio (Times)	**0.83**	**0.89**	(0.06)
Net Debt to Equity Ratio (%)	**161%**	**158%**	3 pp

Solargiga Energy

Future Plans and Strategies

Action Plans

Plans

- In second half of 2018, Group will focus on its investments in upstream monocrystalline silicon ingot/wafer capacities and in downstream module capacity and to have its downstream module capacity slightly greater than its upstream monocrystalline silicon ingot/wafer capacities, while maintaining or only slightly increasing its manufacturing capacity in solar cells. Therefore, through this capacity allocation strategy, the Group will be able to satisfy the external demands for its photovoltaic modules, of which the Group has its largest manufacturing capacity, while, at the same time, boost the internal demands for its monocrystalline silicon ingots/wafers. Further, driving the Group's overall capacity utilisation from bottom up, the Group is able to better mitigate the market risks arising from fluctuant sales of upstream silicon wafers or unstable supply of mid-stream solar cells.

- It is always the darkest before dawn. ?31 New Policy?will accelerate the early arrival of grid parity. The market is currently undergoing a structural transformation, in terms of production capacity and product quality improvement, encourage high-end and high-efficiency products, and promote technological advancement, reduce costs of power generation, reduce dependence on subsidies, promote industry to high quality development, and accelerate to reach grid parity. The problems in the power grid and energy storage are also improving continuously. Therefore, after reaching gird parity, without the need for government subsidies, it is expected that the photovoltaic market will erupt. So for those operators who survive, they shall enjoy fruitful results.

- the Group is currently actively exploring the migration of some downstream photovoltaic module production capacity to suitable locations overseas. It is planned to formally commence mass production and sales before the end of this year. It will further develop its overseas module production capacity and leverage on the solid foundation of strategic cooperation with existing overseas customers and further expand sales in the overseas markets.