

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549**

**FORM 20-F**

(Mark One)

☐ **REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934**

**OR**

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the fiscal year ended December 31, 2013

**OR**

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

**OR**

☐ **SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Date of event requiring this shell company report .....

For the transition period from                      to

Commission file number 001-33290

**JA Solar Holdings Co., Ltd.**

(Exact name of Registrant as specified in its charter)

**The Cayman Islands**

(Jurisdiction of incorporation or organization)

**No. 36, Jiang Chang San Road  
Zhabei, Shanghai**

**The People's Republic of China**

(Address of principal executive offices)

**Mr. Hexu Zhao**

**JA Solar Holdings Co., Ltd.**

**No. 36, Jiang Chang San Road**

**Zhabei, Shanghai 200436**

**The People's Republic of China**

**Tel: +86-21-60955999**

**Fax: +86-21-60955727**

(Name, Telephone, E-mail and/or Facsimile and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class
American depositary shares, each representing five ordinary share, par value US\$0.0001 per share
Ordinary shares, par value US\$0.0001 per share*

Name of each exchange on which registered
The NASDAQ Stock Market LLC

\* Not for trading but only in connection with the registration of American depositary shares

Securities registered or to be registered pursuant to Section 12(g) of the Act:

<b>None</b>
(Title of Class)

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Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

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**None**  
(Title of Class)

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Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:  
227,499,837 ordinary shares, par value US\$0.0001 per share, as of December 31, 2013.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☐ No ☒

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes ☐ No ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or such shorter period that the registrant was required to submit and post such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐

Accelerated filer ☒

Non-accelerated filer ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

US GAAP ☒

International Financial Reporting Standards as issued  
by the International Accounting Standards Board ☐

Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☒

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

Yes ☐ No ☐

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## CERTAIN TERMS AND CONVENTIONS

Unless otherwise indicated, in this annual report:

- “ADS” refers to American depositary shares, each representing five ordinary share of JA Solar, par value US\$0.0001 per share;
- “China” and the “PRC” refer to the People’s Republic of China, excluding, for the purposes of this annual report only, Taiwan and the special administrative regions of Hong Kong and Macau;
- “conversion efficiency” refers to the ability of solar power products to convert sunlight into electricity; “conversion efficiency rate” is commonly used in the solar power industry to measure the percentage of light energy from the sun that is actually converted into electricity;
- “price per watt” refer to the price of solar power products, respectively, relative to the number of watts of electricity a solar power product generates;
- “Hebei Jinglong” refers to Hebei Jinglong Industry and Commerce Group Co., Ltd., which is controlled by the shareholders of Jinglong BVI;
- “JA BVI” refers to JA Development Co., Ltd., our directly wholly-owned subsidiary, a British Virgin Islands company;
- “JA Fengxian” refers to Shanghai JA Solar Technology Co., Ltd., our indirectly wholly-owned subsidiary in Shanghai, China;
- “JA Hebei” refers to JingAo Solar Co., Ltd., our predecessor and indirectly wholly-owned subsidiary in Hebei, China;
- “JA Hefei Renewable Energy” refers to JA (Hefei) Renewable Energy Co., Ltd., our indirectly wholly-owned subsidiary in Hefei, China;
- “JA Hefei Technology” refers to Hefei JA Solar Technology Co., Ltd., our indirectly wholly-owned subsidiary in Hefei, China;
- “JA Lianyungang” refers to Jing Hai Yang Semiconductor Material (Donghai) Co., Ltd., our indirectly wholly-owned subsidiary in Jiangsu, China;
- “JA Solar,” “we,” “us,” “the company,” “our company” and “our” refer to JA Solar Holdings Co., Ltd. and, unless otherwise indicated or as the context may otherwise require, its predecessor entities and its consolidated subsidiaries;
- “JA Wafer R&D” refers to Donghai JA Solar Technology Co., Ltd., our indirectly wholly-owned subsidiary in Jiangsu, China;
- “JA Yangzhou” refers to JA Solar Technology Yangzhou Co., Ltd., our indirectly wholly-owned subsidiary in Jiangsu, China;
- “Jinglong BVI” refers to Jinglong Group Co., Ltd., a British Virgin Islands company and our largest shareholder;
- “Jinglong Group” refers to Hebei Jinglong and its consolidated subsidiaries;
- “Lehman Entities” shall include Lehman Brothers Holdings Inc. and its subsidiaries, including Lehman Brothers Inc., Lehman Brothers International (Europe), Lehman Brothers Treasury Co. BV and Lehman Brothers OTC Derivatives Inc.;
- “Ningjin Songgong” refers to Hebei Ningjin Songgong Semiconductor Co., Ltd.
- “rated manufacturing capacity” refers to the total amount of solar power products that can be made by a manufacturing line per annum operating at its maximum possible rate and is measured in megawatts, or MW;
- “RMB” and “Renminbi” refer to the legal currency of the PRC;
- “Solar Silicon Valley” refers to Solar Silicon Valley Electronics Science and Technology Co., Ltd., our indirectly wholly-owned subsidiary in Hebei, China;
- “US\$” and “U.S. dollars” refer to the legal currency of the United States;
- “voltage” or “volts” refers to the rating of the amount of electrical pressure that causes electricity to flow in the power line; and
- “watts” refers to the measurement of total electrical power, where “kilowatts” or “KW” means one thousand watts, “megawatts” or “MW” means one million watts and “gigawatts” or “GW” means one billion watts.

## FORWARD-LOOKING STATEMENTS

This annual report includes “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical facts, included in this annual report that address activities, events or developments which we expect or anticipate will or may occur in the future are hereby identified as forward-looking statements for the purpose of the safe harbor provided by Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934.

Forward-looking statements typically are identified by words or phrases such as “may,” “will,” “expect,” “anticipate,” “aim,” “estimate,” “intend,” “plan,” “believe,” “potential,” “continue,” “is/are likely to” or other similar expressions or the negative of these words or expressions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements include, among other things, statements relating to:

- our expectations regarding the worldwide demand for electricity and the market for solar energy;
- our beliefs regarding the inability of traditional fossil fuel-based generation technologies to meet the demand for electricity;
- our beliefs regarding the importance of environmentally friendly power generation;
- our expectations regarding governmental incentives for the deployment of solar energy;
- our beliefs regarding the solar power industry revenue growth;
- our expectations with respect to advancements in our technologies;
- our beliefs regarding the low-cost advantage of solar power product production in China;
- our beliefs regarding the competitiveness of our solar power products;
- our expectations regarding the scaling of our solar power capacity;
- our expectations with respect to increased revenue growth and our ability to achieve profitability resulting from increases in our production volumes;
- our expectations with respect to our ability to secure raw materials in the future;
- our expectations regarding the price trends of solar power products;
- our expectations with respect to our ability to develop relationships with customers in our target markets;
- our expectations with respect to our ability to secure sufficient funds to meet our cash needs for our operations and to service our indebtedness;
- PRC government policies regarding foreign investments;
- our ability to maintain and strengthen our position as a low-cost vertically-integrated manufacturer of photovoltaic, or PV products;
- our future business development, results of operations and financial condition; and
- competition from other manufacturers of solar power products and conventional energy suppliers.

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The forward-looking statements made in this annual report on Form 20-F relate only to events or information as of the date on which the statements are made in this annual report on Form 20-F. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events. You should read this annual report on Form 20-F completely and with the understanding that our actual future results may be materially different from what we expect.

**PART I**

**ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

Not applicable.

**ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**ITEM 3. KEY INFORMATION**

**A. SELECTED FINANCIAL DATA**

The selected consolidated statements of operations data presented below for the three years ended December 31, 2011, 2012 and 2013 and our balance sheet data as of December 31, 2012 and 2013 have been prepared in accordance with U.S. generally accepted accounting principles (“U.S. GAAP”) and are derived from our audited consolidated financial statements included elsewhere in this annual report, which have been audited by PricewaterhouseCoopers Zhong Tian LLP, an independent registered public accounting firm. Our selected consolidated statements of operations data for the years ended December 31, 2009 and 2010 and selected consolidated balance sheet data as of December 31, 2009, 2010 and 2011 have been derived from our audited consolidated financial statements that are not included in this annual report on Form 20-F. Historical results are not necessarily indicative of results to be expected in any future period.



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	Year ended December 31,					
	2009	2010	2011	2012	2013	
	(in millions, except for share and per share data)					
	RMB	RMB	RMB	RMB	RMB	US\$
<b>Consolidated Statements of Operations and Comprehensive Income/(Loss) Data:</b>						
Revenues						
Solar modules	83	2,511	3,709	4,044	4,388	725
Solar cells and other products	3,289	8,184	6,223	2,357	2,386	394
Engineering, procurement and construction	—	—	147	136	28	5
Solar products processing	407	1,066	654	182	381	63
Total revenues	3,779	11,761	10,733	6,719	7,183	1,187
Cost of revenues						
Solar modules	(91)	(2,222)	(3,428)	(4,029)	(3,861)	(638)
Solar cells and other products	(2,986)	(6,485)	(6,243)	(2,476)	(2,254)	(372)
Engineering, procurement and construction	—	—	(108)	(85)	(16)	(3)
Solar products processing	(220)	(508)	(493)	(183)	(290)	(48)
Total cost of revenues	(3,297)	(9,215)	(10,272)	(6,773)	(6,421)	(1,061)
Gross profit (loss)	482	2,546	461	(54)	762	126
Operating expenses						
Selling, general and administrative expenses	(325)	(458)	(510)	(902)	(765)	(126)
Research and development expenses	(45)	(64)	(69)	(86)	(88)	(15)
Impairment loss on property, plant and equipment	(18)	(47)	(303)	(398)	—	—
Total operating expenses	(388)	(569)	(882)	(1,386)	(853)	(141)
Income/(loss) from continuing operations	94	1,977	(421)	(1,440)	(91)	(15)
Change in fair value of derivatives	(49)	75	85	9	(52)	(9)
Convertible notes buy back (loss)/gain						
gain/(loss)	(24)	—	4	(8)	—	—
Interest expense	(232)	(221)	(374)	(489)	(285)	(47)
Interest income	12	13	26	36	17	3
Foreign exchange gain/(loss)	5	(74)	(69)	(25)	(44)	(7)
Loss for equity investment in a joint venture	—	—	(1)	(43)	(2)	(0)
Investment loss	(2)	—	—	—	—	—
Other income, net	7	258	236	399	16	3
(Loss)/income from continuing operations before income taxes	(189)	2,028	(514)	(1,561)	(441)	(72)
Income tax (expense)/benefit	(8)	(253)	(58)	(101)	15	2
(Loss)/income from continuing operations	(197)	1,775	(572)	(1,662)	(426)	(70)
Gain/(loss) from discontinued operations, net of tax	3	(20)	8	—	—	—
Net (loss)/income	(194)	1,755	(564)	(1,662)	(426)	(70)
Less: fair value of warrants in excess of net proceeds of equity offering	—	—	—	—	44	7
Less: earnings attributable to the noncontrolling interest	—	—	—	—	3	1
Net (loss)/income attributable to JA Solar Holdings	(194)	1,755	(564)	(1,662)	(473)	(78)
Net income/(loss) per share from continuing operations:						
Basic	(1.22)	10.90	(3.42)	(8.53)	(2.35)	(0.39)
Diluted	(1.22)	10.72	(3.42)	(8.53)	(2.35)	(0.39)
Net (loss)/income per share from discontinued operations:						

Basic	0.02	(0.12)	0.04	—	—	—
Diluted	0.02	(0.12)	0.04	—	—	—
Net (loss)/income per share						
Basic	(1.20)	10.78	(3.38)	(8.53)	(2.35)	(0.39)
Diluted	(1.20)	10.61	(3.38)	(8.53)	(2.35)	(0.39)
Net (loss)/income per ADS						
Basic	(6.00)	53.88	(16.90)	(42.67)	(11.76)	(1.94)
Diluted	(6.00)	53.03	(16.90)	(42.67)	(11.76)	(1.94)
Weighted average number of shares outstanding:						
Basic	161,643,312	162,900,657	167,101,076	194,788,429	201,317,884	201,317,884
Diluted	161,643,312	171,116,684	167,101,076	194,788,429	201,317,884	201,317,884

	As of December 31,					
	2009	2010	2011	2012	2013	
	(in millions)					
	RMB	RMB	RMB	RMB	RMB	US\$
Consolidated Balance Sheet Data:						
Cash and cash equivalents	1,867	2,290	3,889	3,031	2,120	350
Total current assets	3,661	6,418	7,709	7,150	6,352	1,049
Total assets	7,462	11,619	14,736	13,132	11,882	1,963
Total current liabilities	629	2,044	3,325	5,889	5,041	833
Total long-term liabilities	2,011	2,895	4,862	2,350	2,137	353
Total liabilities	2,640	4,939	8,187	8,239	7,178	1,186
Total Shareholders' equity	4,822	6,680	6,549	4,893	4,704	777
	Year ended December 31,					
	2009	2010	2011	2012	2013	
	(in millions)					
	RMB	RMB	RMB	RMB	RMB	US\$
Operating Data:						
Products sold (in MW)	508.8	1,462.6	1,694.7	1,702.1	2,072.0	—
Average PV cells selling price per watt	9.0	8.7	5.7	2.8	2.4	0.39
Average PV modules selling price per watt	13.0	11.5	8.9	4.5	4.0	0.66

### Exchange Rate Information

Our functional currency is Renminbi. The conversion of RMB into U.S. dollars in this annual report is based on the noon buying rate in New York City for cable transfers in RMB as certified for customs purposes by the Federal Reserve Board. Except as otherwise stated in this annual report, all amounts in this annual report have been translated from RMB to U.S. dollars and from U.S. dollars to RMB at a rate of RMB6.0537 to US\$1.00, the noon buying rate in effect as of December 31, 2013. We make no representation that any RMB or U.S. dollar amounts could have been, or could be, converted into U.S. dollars or RMB, as the case may be, at any particular rate, or at all. See “Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China—Fluctuation in exchange rates could have a material adverse effect on our results of operations and the value of your investment.” The PRC government imposes control over its foreign currency reserves in part through direct regulation of the conversion of RMB into foreign exchange and through restrictions on foreign trade. On April 18, 2014, the noon buying rate was RMB6.2240 to US\$1.00.

The following table sets forth information concerning exchange rates between the RMB and the U.S. dollar for the periods indicated.

Period	Noon Buying Rate			
	Period-End	Average <sup>(1)</sup>	High	Low
	(RMB per U.S. Dollar)			
2009	6.8259	6.8295	6.8470	6.8176
2010	6.6000	6.7696	6.8330	6.6000
2011	6.2939	6.4475	6.6364	6.2939
2012	6.2301	6.3093	6.3879	6.2221
2013	6.0537	6.1412	6.2438	6.0537
October	6.0943	6.1032	6.1209	6.0815
November	6.0922	6.0929	6.0993	6.0903
December	6.0537	6.0738	6.0927	6.0537
2014				
January	6.0590	6.0509	6.0600	6.0402
February	6.1448	6.0816	6.1448	6.0591
March	6.2108	6.2154	6.2246	6.2105
April (through April 18, 2014)	6.2240	6.2121	6.2240	6.1966

Source: Federal Reserve Statistical Release

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- (1) Annual averages are calculated by averaging the noon buying rates on the last business day of each month. Monthly averages are calculated using the average of the daily rates during the relevant period.

**B. CAPITALIZATION AND INDEBTEDNESS**

Not applicable.

**C. REASONS FOR THE OFFER AND USE OF PROCEEDS**

Not applicable.

**D. RISK FACTORS**

**Risks Related to Our Business and Industry**

***Our business is sensitive to domestic and global economic conditions. A severe or prolonged downturn in the global or Chinese economy could materially and adversely affect our business and our financial condition.***

Our business is sensitive to domestic and global economic conditions. The global financial markets experienced significant disruptions in 2008 and the United States, Europe and other economies went into recession. The recovery from the lows of 2008 and 2009 was uneven and it is facing new challenges, including the escalation of the European sovereign debt crisis in 2011 and the slowdown of the Chinese economy in 2012. It is unclear whether the Chinese economy will resume its high growth rate. There is considerable uncertainty over the long-term effects of the expansionary monetary and fiscal policies that have been adopted by the central banks and financial authorities of some of the world's leading economies, including China. China's GDP grew by 7.7% from 2012 to 2013, the slowest since 1999. There have also been concerns over unrest in the Middle East and Africa, which have resulted in volatility in oil and other markets, tension in the Korean peninsula, and over the possibility of a war involving Iran. There have also been concerns about the economic effect of the tensions in the relationship between China and Japan. Any prolonged slowdown in the global or Chinese economy may have a negative impact on our business, results of operations and financial condition, and continued turbulence in the international markets may adversely affect our ability to access the capital markets to meet liquidity needs.

***Changes in international trade policies and barriers have adversely affected, and may continue to adversely affect, our ability to export our products to customers in certain countries, or import raw materials from certain countries.***

We generate a significant portion of our revenues from sales to customers located outside of China, including those in the United States and the European Union, and our customer mix varies geographically from period to period. Trade barriers, such as tariffs, taxes, duties, restrictions and expenses, have adversely affected, and may continue to adversely affect, our ability to export our products to customers in certain countries, especially the European Union and the United States. For the years ended December 31, 2011, 2012 and 2013, we generated 6.5%, 3.6% and 5.2%, respectively, of our revenue from sales to customers located in the United States, and during the same periods, we generated 32.9%, 32.5% and 15.3 %, respectively, of our revenue from sales to customers located in the European Union.

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On September 6, 2012 and November 8, 2012, respectively, the European Commission announced the initiations of anti-dumping and anti-subsidy investigations regarding crystalline silicon PV modules and key components (i.e., cells and wafers) originating from China into the European Union. On June 4, 2013, the European Commission announced that it would, from June 6, 2013, impose a provisional anti-dumping duty of 11.8% to all solar panels, cells and wafers imported from China into the European Union. This provisional anti-dumping duty at 11.8% lasted until August 6, 2013, at which point it could be increased to the proposed 47.6% for us unless a settlement was otherwise achieved between the PRC government and the European Commission. The European Commission made its decision after forming the opinion that Chinese solar companies in general were selling solar panels to European customers at prices that were far below their normal market value. The PRC Ministry of Commerce refuted the finding by the European Commission. On August 2, 2013, the European Commission accepted a price undertaking offered by China Chamber of Commerce for Import and Export of Machinery and Electronic Products, or CCCME, and four other industry associations. Under such undertaking, crystalline silicon PV modules and key components (i.e., cells and wafers) originated in or consigned from China will be sold to the European Union above fixed floor prices subject to quota limitation. Companies that accept such fixed floor prices, including us, will not be subject to any anti-dumping levies. The fixed floor prices we accepted are higher than our selling prices prior to the acceptance of such undertaking and are subject to re-evaluation from time to time. Such fixed floor prices have had an adverse effect on our ability to secure orders from customers in the European Union due to the increase of our selling price under the undertaking. The European Union determined to lower the fixed floor prices starting from April 1, 2014 after re-evaluation; however, such fixed floor prices are still higher than our selling prices prior to the acceptance of such undertaking and we expect the fixed floor prices after future re-evaluation continue to be higher than our selling prices prior to the acceptance of such undertaking, which will continue to have an adverse effect on our ability to secure orders from customers in the European Union. In addition, our sales to customers in the European Union are subject to quota limitations, which may further affect our ability to sell additional products in the European markets. In addition, the anti-dumping and anti-subsidy duties would be automatically imposed on us provided that we are found not conforming to the undertaking by the European Union, which would materially and adversely affect our revenues generated from the European Union.

Furthermore, in May 2012, the U.S. Department of Commerce, or DOC, imposed a tariff of up to 31% on products manufactured by Chinese solar companies. The specific tariff applicable to us is 29.18%. The decision to impose the tariff to Chinese solar companies was also triggered by a finding of the DOC that Chinese solar companies are selling their products to U.S. customers at prices far below their normal market value.

In addition, in January 2014, the DOC announced the initiation of anti-dumping duty investigations on imports of certain crystalline silicon PV products from China and Taiwan and a countervailing duty, or CVD, investigation on imports of certain crystalline silicon photovoltaic products from China. In February 2014, the U.S. International Trade Commission, or the ITC, announced its preliminary ruling that it had found “reasonable indication” that imports of China- and Taiwan-made silicon PV equipment in the U.S. are materially injuring the U.S. solar industry. Following the ITC ruling, the results of DOC’s preliminary anti-dumping duty and CVD investigations will be released in June 2014. The outcome of these preliminary investigations may limit our ability to continue sourcing cells from suppliers overseas (including Taiwan) for our modules to be sold to the U.S.

Although we have accepted the fixed floor prices for our solar products sold to the European Union countries, if the European Union or U.S. tariffs were reinstated, the competitiveness of our products to customers located in the European Union and the United States would be significantly affected and we may have to secure additional orders from customers located outside of these regions. If we were not able to gain additional orders from other customers to replace orders from those in the European Union and the United States, our revenue could be materially and adversely affected.

India has also initiated anti-dumping investigations against solar cell products imported from China, the United States, Malaysia and Taiwan. We have not been significantly impacted by India’s investigations to date, but we cannot assure you that such investigations will not lead to the imposition of trade tariffs or duties, and that if imposed, our sales will not be adversely affected.

Furthermore, we import some of our raw materials, including polysilicon, from suppliers located outside of China, such as the European Union, the United States and Korea. The PRC Ministry of Commerce, or MOFCOM, initiated investigations on solar grade polysilicon imported from the United States and the European Union in July 2012 and November 2012, respectively. In July 2013, MOFCOM announced in a preliminary ruling that it found exporters in the United States and Korea dumped their products on the PRC market and caused material harm to China's domestic solar industry and decided that it planned to impose provisional anti-dumping duties on imported solar-grade polysilicon from the United States and Korea. In January 2014, MOFCOM upheld its previous ruling that investigated products from South Korea and the United States are subject to import tariffs at different rates with the highest rate being 48.7% and 57%, respectively. South Korean polysilicon producer OCI Company Ltd., or OCI, is one of our main suppliers and its products are subject to a tariff of 2.4%. On March 18, 2014, MOFCOM and Wacker Chemie AG, or Wacker, one of our main suppliers, reached a mutual agreement concerning its polysilicon exports to China. Pursuant to this agreement, Wacker undertakes not to sell polysilicon produced at its European plants in China below a specific minimum price, in return, MOFCOM will refrain from applying anti-dumping and anti-subsidy tariffs on Wacker. Various import tariffs and limitations imposed on foreign polysilicon suppliers have contributed to the increased prices of products from domestic suppliers the price increase may continue in the future. We may not be able to pass on such cost increase to our customers and our earnings may be negatively affected. For 2011, 2012 and 2013, we sourced 60.9%, 54.5% and 78.7%, respectively, of our polysilicon purchases from suppliers located in the United States, the European Union and Korea.

***Our revenues derived from Japan-based customers have increased significantly in recent years, and our results of operations may be adversely affected by the political and business relationship between China and Japan as well as other events affecting Japan in general.***

Our revenues derived from our Japan-based customers have increased significantly in recent years, accounting for 0.2%, 6.5% and 22.2% of our total revenues in 2011, 2012 and 2013, respectively. Our revenues generated from Japan-based customers have grown from RMB24.7 million in 2011 to RMB436.4 million in 2012 and RMB1.6 billion (US\$263.8 million) in 2013 due to the increase in demand for PV products resulting from Japan's feed-in tariff program. However, from time to time there have been tensions and conflicts between China and Japan. Adverse changes in political and economic policies, geopolitical uncertainties, and international conflicts between China and Japan may lead to a reduced demand of solar power products from Japan-based customers. Any future conflicts between China and Japan may have an adverse impact on the political and business relationship of the two countries. If the business activities between Japan and China decrease due to political, economic or other issues, demand for solar power products from Japan-based customers may decline and our business and results of operations may be adversely affected.

Furthermore, events affecting Japan in general, such as natural disasters, may also have a negative impact on our business, financial condition and results of operations. Such crisis may have a negative impact on the business operation of Japan-based customers, which may in turn discourage them from importing our solar power products, thus adversely affecting our business and results of operations.

***We may be adversely affected by volatile market and industry trends, in particular, the demand for our solar power products may decline, which may reduce our revenues and earnings.***

We are affected by solar power market and industry trends. Industry-wide oversupply of solar power products has caused a substantial decline in prices of solar power products. In addition, various European countries have reduced subsidies, such as feed-in tariff, which was initially designed to require public utility companies to pay higher prices for solar power than for power generated through conventional means. Combined with other factors, such as the European sovereign debt crisis, lack of available financing to solar power projects and an oversupply of solar power products, the average selling prices of solar power products have declined significantly. We expect that the oversupply of solar products will continue, which may further intensify the competition in our industry. In addition, we expect that cost reduction in the solar power industry will continue and prices of our products may be materially and adversely affected.

The demand for solar power products is also influenced by macroeconomic factors, including global economic development, credit markets, the supply and prices of other energy products, such as oil, coal and natural gas, as well as government regulations and policies concerning the electric utility industry. A decrease in oil prices, for example, may reduce demand for investment in alternative energy. If negative market and industry trends continue in the future, the prices of our solar power products could further decrease and our business and results of operations may be materially and adversely affected.

***The reduction or elimination of government subsidies and economic incentives or change in government policies and regulations may have a material adverse effect on our business and prospects.***

Demand for our products depends substantially on government incentives aimed to promote greater use of solar power. Countries that provided significant incentives for solar power include Japan, Germany, Spain, Italy, Greece, Canada, the United States and China, among others. In many of the countries that constitute our major markets, solar power systems, particularly those for on-grid applications, would not be commercially viable without government incentives because the cost of generating electricity from solar power currently exceeds the cost of generating electricity from conventional or other non-solar renewable energy sources.

The scope of government incentives for solar power depends, to a large extent, on political and policy developments relating to environmental concerns in a given country. Policy shifts could reduce or eliminate these government economic incentives altogether. For example, the rapid growth of the German, Spanish and Italian solar power markets in 2010 was largely due to the government policies of those countries that set feed-in tariff terms at attractive rates. However, the escalation of the European sovereign debt crisis in 2011 affected the fiscal ability of several governments to offer incentives for the solar power industry. Japan, our largest overseas solar power products market in 2013, reduced its feed-in tariff for large-scale installation by 10% from 2012 to 2013, and 11% from 2013 to 2014. Germany, our second largest overseas solar power products market in 2013, has continued to cut back feed-in tariffs since 2010 after installations in the market exceeded government expectation in 2009 and in the following years, and has cut back its feed-in tariffs with a monthly reduction in 2013. Any further significant reduction in the scope or discontinuation of government incentive programs, especially those in markets significant to our business, could cause demand for our products and our revenues to decline, and have a material and adverse effect on our business, financial condition, results of operations and prospects.

The market for power generation products is also heavily influenced by government regulations and policies concerning the electric utility industry, as well as internal policies of electric utilities companies. These regulations and policies often relate to electricity pricing, safety, utility interconnection, metering and related matters. End users' purchases of alternative energy sources, including solar power products, could be deterred by unfavorable changes in regulations and policies, which could result in a significant reduction in the potential demand for our solar power products. For example, public utility companies commonly charge fees to larger, industrial customers for disconnecting from the electricity transmission grid or for having the capacity to use power from the electricity transmission grid for back-up purposes. These fees could increase end users' costs of using our solar power products and make products that use our solar power products less desirable, thereby having an adverse effect on our business, financial condition, results of operations and prospects.

***Our growth depends on the continued availability of financing to our customers as well as third-party financing arrangements for end-users of our products, and is affected by general economic conditions.***

Given the general economy, particularly the tightening of credit markets, we have extended credit to many new and existing customers or provided them with improved credit terms, including increasing credit limits and extending the time period before payments are due, ultimately increasing our accounts receivable and exposure to credit risks of our customers. We are exposed to the credit risk of our customers, some of which are new customers with whom we have not historically had extensive business dealings. Starting from May 2011, we began to insure part of our overseas sales through China Export & Credit Insurance Corporation, or Sinosure. As of December 31, 2013, 41.5% of our total overseas accounts receivable was insured by Sinosure. The amount of insurance coverage for each transaction is based on a rating assigned by Sinosure to the customer based on such customer's credit history. However, we cannot assure you that all our accounts receivable are sufficiently covered or that Sinosure will be able to make payments on our claims. Our balance of provision for doubtful accounts increased from RMB32.6 million in 2011 to RMB190.0 million in 2012 and to RMB281.0 million (US\$46.4 million) in 2013 due to increased accounts receivables overdue from PV module sales, in particular, increased financial and operational difficulties encountered by a few customers. The failure of any of our new or existing customers to meet their payment obligations would deteriorate our working capital and materially and adversely affect our financial position, liquidity and results of operations.

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Furthermore, our products are components of solar power and energy systems, which are used in both on-grid applications and off-grid applications. Government agencies and the private sector have, from time to time, provided financing on preferential terms to promote the use of solar energy in both on-grid and off-grid applications. We believe that the availability and cost of such financing programs could have a significant effect on the level of sales of solar power products. If existing financing programs for on-grid and off-grid applications are eliminated or if financing in general become inaccessible or inadequate, the growth of the market for on-grid and off-grid applications may be materially and adversely affected, which could cause sales of our solar power products to decline significantly.

Due to the general reduction in available credit to would-be borrowers, customers may be unable or unwilling to finance the cost of our products, or parties that have historically provided this financing may cease to do so, or only do so on terms that are substantially less favorable for us or our customers. In addition, an increase in interest rates would likely increase the cost of financing to end users of our products and could reduce their profits and expected returns on investment in our products. A prolonged disruption in the ability of our significant customers or downstream players to access sources of liquidity could cause serious disruptions to or an overall deterioration in their businesses. This could lead to a significant reduction in their future orders for our products and cause their inability or failure to meet their payment obligations to us, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

***In light of our increased sales to customers outside China, we face risks associated with the marketing, distribution and sale of our products overseas, and if we are unable to effectively manage these risks, they could impair our ability to grow our business overall.***

Historically, revenues from customers in China represented a significant portion of our overall revenues. Since 2010, in connection with our overseas marketing efforts as well as commercial manufacturing and selling of solar modules, we have substantially increased the portion of our products sold to customers outside China. Our revenues from customers outside China increased from 48.3% in 2011 to 54.1% in 2012 and to 58.2% in 2013. The stability and viability of any existing, new or potential overseas markets are subject to many uncertainties and may expose us to a number of risks, including:

- trade barriers such as export requirements, tariffs, taxes and other restrictions and expenses, which could increase the prices of our products and make us less competitive in some countries;
- fluctuations in currency exchange rates;
- difficulty in engaging and retaining distributors who are knowledgeable about, and can function effectively in, overseas markets;
- increased costs associated with maintaining the ability to understand local markets and follow their trends, as well as develop and maintain effective marketing and distribution presence in various countries;
- increased costs associated with providing customer service and support in these markets;
- difficulty and costs relating to compliance with the different commercial and legal requirements of the overseas markets in which we offer our products;
- failure to develop appropriate risk management and internal control structures tailored to overseas operations;
- failure to obtain or maintain certifications for our products in these markets; and
- failure to obtain, maintain or enforce intellectual property rights.



If we are unable to effectively manage these risks, we may not be able to successfully grow our business as we have planned.

***Increases in electricity costs or a shortage or disruption in electricity supply may adversely affect our business.***

We consume a significant amount of electricity in our operations. Electricity prices in China have increased in the past few years and are expected to continue to increase in the future. As a result, our electricity costs may become substantially higher than our competitors, which could diminish our competitive advantage and adversely affect our business, financial condition and results of operations. Moreover, with the rapid development of the PRC economy, demand for electricity has continued to increase. There have been shortages or disruptions in electricity supply in various regions across China, especially during peak seasons, such as the summer, or when there are severe weather conditions. We cannot assure you that there will not be any disruptions or shortages in our electricity supply or that there will be sufficient electricity available to us to meet our future requirements. Increases in electricity costs and shortages or disruptions in electricity supply may significantly disrupt our normal operations, cause us to incur additional costs and adversely affect our profitability.

***Difficulties in identifying, consummating and integrating acquisitions and alliances and potential write-offs in connection with our investment or acquisitions may have a material and adverse effect on our business and results of operations.***

As part of our growth strategy, we have acquired, and may in the future acquire, companies that are complementary to our business. From time to time, we may also make alternative investments and enter into strategic partnerships or alliances as we see fit. For instance, in November 2011, we completed the acquisition of 100% of the equity interests in Silver Age Holdings Limited, or Silver Age, a British Virgin Islands company that owns 100% of Solar Silicon Valley, in order to increase our silicon wafer manufacturing capability, secure wafer supplies and reduce costs of silicon wafers for our solar cell manufacturing. Silver Age was 70% owned by Jinglong BVI, our largest shareholder, and 30% owned by an independent third party. In January 2013, we completed the acquisition of 65% of the equity interests in Ningjin Songgong as a part of prepayment settlement arrangement with M.SETEK. In January 2014, we entered into a joint venture agreement with Powerway PV SA (Pty), Ltd, or PWSA, to establish JA Powerway South Africa (Proprietary) Limited, or JA South Africa, a solar module manufacturing facility in Port Elizabeth, South Africa, in which we hold 65% of the equity interests and PWSA hold 35% of the equity interests. Past and future acquisitions, partnerships or alliances may expose us to potential risks, including risks related to:

- the integration of new operations and the retention of customers and personnel;
- the potential write-offs in connection with acquisitions;
- unforeseen or hidden liabilities;
- the diversion of resources from our existing business and technology;
- failure to achieve synergies with our existing business as anticipated and generate revenues as anticipated;
- failure of the newly acquired business, technologies, services and products to perform as anticipated;
- inability to generate sufficient revenue to offset additional costs and expenses;
- breach or termination of key agreements by the counterparties;
- the costs of acquisitions; or
- the potential loss of or harm to relationships with our employees, customers or suppliers resulting from our integration of new businesses.

Any of the potential risks listed above could have a material and adverse effect on our ability to manage our business and our results of operations.

***Our business is subject to the risks associated with international operations.***

In January 2014, we entered into a joint venture agreement with PWSA to establish a solar module manufacturing facility in Port Elizabeth, South Africa, in which we hold 65% of the equity interests and PWSA hold 35% of the equity interests. We also have operations in the United States, Luxembourg, Germany and Japan. Expanding our business internationally exposes us to a number of risks, including:

- fluctuations in currency exchange rates;
- our ability to select the appropriate geographical regions for international expansion;
- difficulty in identifying appropriate partners and establishing and maintaining good cooperative relationships with them;
- difficulty in understanding local markets and culture; and
- increased costs associated with doing business in foreign jurisdictions.

Our financial condition and operating results also could be significantly affected by these and other risks associated with international activities. Furthermore, we have implemented policies and procedures designed to facilitate compliance with laws and regulations in foreign jurisdictions applicable to us, but there can be no assurance that our employees, contractors, or agents will not violate such laws and regulations or our policies. Any such violations could individually or in the aggregate materially and adversely affect our financial condition or operating results.

***We have expanded our business into upstream and downstream markets for a relatively short period of time and plan to continue implementing our integration strategy. Any failure to successfully implement this strategy could have a material adverse effect on our growth, results of operations and business prospects.***

We have expanded into upstream and downstream markets, such as silicon wafer and solar module businesses since the fourth quarter of 2009, engineering, procurement and construction services, or EPC services, since the third quarter of 2011. We also started to engage in project development activities in 2013. Our ability to successfully implement our upstream and downstream business integration is subject to various risks and uncertainties, including:

- our short history in the new businesses;
- our possible lack of competitiveness in product quality and cost structure in the new businesses;
- the need for additional capital to finance our new business operations, which may not be available on reasonable terms or at all;
- the need to recruit additional skilled employees, including technicians and managers at different levels;
- the need to grant longer credit terms to our customers and to maintain a higher level of inventory, resulting in longer cash conversion cycles compared with our traditional solar cell business;
- the need to expand warranty liabilities associated with the solar module business, with the warranty period for solar modules lasting for 10 to 25 years;
- the need to accrue warranty from sales of solar modules, which may not be adequate and we may have to incur substantial expense to repair or replace defective solar modules in the future;
- the nature of the business model and key success factors of our EPC service, which are significantly different from those of our traditional business in solar power product manufacturing;
- potential conflict with our downstream customers as a result of our direct competition with them in the solar module and EPC businesses; and
- new risks associated with the silicon wafer, solar module, EPC service and project development businesses yet to be fully understood by the industry and market.

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If we are unable to effectively manage these risks, we may not be able to successfully operate these new businesses and achieve the expected value of vertical business integration.

In addition, the expansion into the downstream solar module market has resulted in substantial changes to our business, including, among others, the change of our customer base and product mix. Our customer base has evolved from primarily module manufacturers and distributors to include system integrators and solar power project developers. We have limited experience managing relationships with these new customers. The expansion to project development business has also exposed us to risks related to the development and construction of solar power plants, such as risks related to (i) receipt of or delays in obtaining land rights and related permits and other required governmental permits and approvals; (ii) unforeseen engineering problems; (iii) potential challenges from local residents, environmental organizations and others who may not support the project. We may not be able to manage our business growth strategy as planned and our results of operations may be adversely affected.

***We may encounter various risks and uncertainties in our project development business, all of which could increase our costs, delay or cancel a project, and have a material adverse effect on our results of operations and business prospects.***

The project development business involves various risks and uncertainties. We may be required to invest significant amounts of capital for land and interconnection rights, preliminary engineering, licenses and permits, legal and other expenses before we can determine whether a project is feasible. Developing and completing a particular project face various risks and uncertainties, including without limitation to the following:

- failure to identify suitable sites in a timely manner;
- failure to secure and receive required governmental permits, licenses and approvals, such as land use rights, construction permits and approvals and satisfactory environmental assessments;
- potential challenges from local residents, environmental organizations, and others who may not support the project;
- failure to obtain construction financing, including debt, equity and tax credits;
- failure to receive rights to interconnect to the electric grid;
- unable to pay interconnection and other deposits (some of which are non-refundable); and
- failure to negotiate satisfactory EPC agreements;
- unforeseen engineering problems; construction delays; subsurface land conditions; cost over-runs; shortage of labor, equipment and materials supply;
- disruptions (including labor strikes);
- additional complexities when conducting project development or construction activities in foreign jurisdictions, including operating in accordance with the U.S. Foreign Corrupt Practices Act and applicable local laws and customs; and
- force majeure events, including adverse weather conditions and other events out of our control.

If we fail to address the above risks and uncertainties, our costs may be increased and construction of our projects may be delayed or even cancelled; therefore, our financial condition, results of operations and growth prospects may be materially and adversely affected.

***Lack of transmission capacity availability and other system constraints could significantly impact our ability to build solar power plants and generate revenue from electricity generation or project sales.***

In order to deliver electricity, the solar power plants need to connect to the transmission grid. The lack of available capacity on the transmission grid could substantially impact our projects and cause reductions in project size, delays in project implementation, increases in costs from transmission upgrades and potential forfeiture of deposits that we may have made with respect to a given project. These transmission issues, as well as issues relating to the availability of large systems such as transformers and switch gear, could significantly impact our ability to build solar power plants, connect them to the grid, successfully complete customer acceptance testing, and receive payment for such solar power plants. These issues could also materially and adversely impact our sales price to project purchasers for solar power plants.

***Curtailment of power purchases by the grid could significantly impact our project sales price and our ability to generate revenue from electricity generation.***

Due to various reasons, such as mismatch between output and demand of power in China and the grid's dispatch among different sources of energy within its network, the electricity generated by our solar power plants may be prevented from feeding into the grid even if our solar power plants are connected to the transmission grid. Grid curtailment varies from region to region but mainly occurring in China's northwest regions, such as Qinghai and Gansu provinces. As a result, our project sales price could be materially and adversely effected, the electricity that has already been generated will be wasted and we will not generate revenue from electricity generation, we may also be forced to reduce our output, all of which will significantly affect our results of operations.

***We may be required to make significant upfront investment prior to commencing construction of solar power projects, which could adversely affect our business and results of operations.***

It may take many months or years before our solar power plant development cycles can mature. As a result, we may be required to invest significant amounts of capital for land and interconnection rights, preliminary engineering, licenses and permits, legal and other expenses in advance of commencing construction, and the receipt of any revenue, much of which is not recognized for several additional months following contract signing.

Furthermore, we may not be able to simultaneously fund our other business operations and these system investments through our long project development cycles. Our liquidity may be adversely affected to the extent the project sales market weakens or we are not able to successfully complete the customer acceptance testing due to various reasons, such as technical difficulties, equipment failure, or adverse weather, and we are unable to sell our solar projects at prices and on terms and timing that are acceptable to us. Accordingly, our business and results of operations may be materially and adversely affected.

***Prepayment arrangements for procurement of silicon wafers and/or polysilicon from our major suppliers expose us to the credit risks of such suppliers and may also significantly increase our costs and expenses, either of which could in turn have a material adverse effect on our financial condition, results of operations and liquidity.***

We face significant specific counterparty risk under long-term supply contracts when dealing with suppliers without a long, stable production and financial history. We make prepayments to these suppliers for procurement of polysilicon, ingots or wafers without receiving collateral to secure such payments. In the event any such supplier experiences financial difficulties, or even bankruptcy, it may be difficult or impossible, or may require substantial time and expenses, for us to recover any or all of our prepayments.

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For example, in 2011, one of our long-term suppliers failed to deliver silicon wafers pursuant to the applicable contracts, and we recorded a provision of prepayment and other payment due totaling RMB42.2 million. We reached a settlement with such supplier in August 2013, under which such supplier agreed to pay us RMB21 million and such payment is awaiting court execution. In March 2011, M.SETEK, historically one of our major suppliers, failed to make majority of its scheduled delivery after a magnitude-9 earthquake struck Japan and triggered a tsunami affecting vast areas in Japan. As a result, we entered into a framework agreement with M.SETEK in March 2012 for the repayment of prepayment amounts made by us to M.SETEK, under which (i) M.SETEK will use the dividends distributed by Ningjin Songgong, which was 65% owned by M.SETEK prior to the transfer to us, to repay part of prepayments, (ii) M.SETEK will transfer its 65% equity interests in Ningjin Songgong to us to offset part of the remaining unpaid prepayments, and (iii) M.SETEK will continue to deliver polysilicon to fully utilize the remaining unpaid prepayments, if any. The share transfer agreement was signed on July 23, 2012 and the share transfer was completed in January 2013.

These efforts incurred legal expenses and distracted our management. In addition, legal actions are required to recover our prepayments. Our claims for prepayments would rank as unsecured claims, which expose us to the credit risks of our suppliers in the case of an insolvency or bankruptcy of such suppliers. Under such circumstances, our claims against the suppliers would rank below those of secured creditors, which would undermine our chances of obtaining the return of the prepayments. Accordingly, if a supplier to which we make prepayment defaults on its obligations under a supply contract, we may not be able to recover all or a portion of our outstanding prepayment, which may have a material adverse effect on our financial condition, results of operations and liquidity.

***Our ability to adjust our raw materials costs may be limited as a result of our entering into long-term supply agreements with many of our polysilicon and silicon wafer suppliers, and it may be difficult for us to respond in a timely manner to rapidly changing market conditions, which could materially and adversely affect our cost of revenues and profitability.***

In order to secure adequate and timely supply of polysilicon and silicon wafers, we entered into a number of long-term supply agreements for polysilicon, ingots and wafers with a limited number of suppliers, including Hebei Jinglong, Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd., an affiliate of GCL-Poly Energy Holdings Limited, or GCL, Wacker, OCI and Hemlock Semiconductor Pte. Ltd., or Hemlock. Some agreements provide for fixed pricing or pricing adjustable within a relatively small range of plus or minus 5% to 10%, substantial prepayment obligations, and/or firm purchase commitments that require us to pay for the supply whether or not we accept delivery. The prices of polysilicon and silicon wafers declined in the second half of 2008, increased since the second half of 2010 but declined again in 2011 and 2012. In 2013, polysilicon prices stabilized as market conditions improved. In this regard, we have renegotiated the unit price and volume terms of many of our long-term supply agreements and have entered into amendments for many of them, but cannot always adjust terms to fully take advantage of market changes. In view of the significant volatility of the polysilicon prices during the past few years, we plan to continue to renegotiate the unit price and volume terms of our long-term supply agreements, but if prices of polysilicon or silicon wafers we pay to our suppliers continue to be higher than the market prices after such re-negotiations, we may be placed at a competitive disadvantage versus our competitors, and our cost of revenues as well as profitability would be materially and adversely affected. In addition, if demand for our solar power products decreases and such agreements require us to purchase more raw materials than required to meet our demand, we may incur costs associated with carrying excess inventory, which may have a material adverse effect on our cash flow. To the extent we are not able to pass these increased costs to our customers, our business and results of operations may be materially and adversely affected.

We have failed to perform certain of our obligations under that certain long-term polysilicon supply contract entered into with one of our suppliers due to the continuously declining market price of polysilicon, and we are still in the process of renegotiating with such supplier on various terms, such as the unit price, volume and delivery schedule. While we continue to renegotiate with such supplier, our efforts may not be successful and the supplier may require us to perform our obligations pursuant to the original terms and conditions. For the year ended December 31, 2013, we did not recognize any provision based on our assessment of our purchase commitments under such long-term polysilicon supply contract and the then current market price of polysilicon products and current status of our performance of, and negotiations with our supplier, under the long-term polysilicon supply contract. If the demand for our solar power products as well as the selling price decrease, we may be required to make re-assessment of our purchase commitment, as a result, provisions may be provided to reflect such new assessment, which may have a material and adverse effect on our business, financial condition, results of operations and prospects.

Furthermore, we may choose not to procure polysilicon, ingots or wafers under certain contracts if we deem the prices under such contracts are unfavorable to us under prevailing market conditions and/ or we are unable to renegotiate the price or volume terms to our satisfaction. In the event we choose not to procure polysilicon, ingots or wafers under these contracts, we may be forced to forfeit certain prepayment amounts to, and face contractual damage claims from, these suppliers if no mutual agreement can be reached. We cannot assure you that the outcome of any such potential litigation would be in our favor. Such litigation may be costly and may divert management attention and other resources away from our business and could materially and adversely affect our reputation, business, financial condition, results of operations and prospects.

***Disposal of outdated production lines can result in an increased impairment on property, plant and equipment, which may have a negative impact on our results of operations.***

In the fourth quarter of 2012, we retired some outdated production lines of solar cells and solar modules in each of our facilities in Ningjin, Hebei and Fengxian, Shanghai. We recorded impairment loss for property, plant and equipment of RMB147.1 million related to the retirement of such production lines in 2012, accounting for 2.2% of our total revenues in 2012. With our business development, we may introduce new manufacturing equipment with higher production efficiency rates to replace old manufacturing equipment or we may eliminate outdated production capacity from time to time. If we continue to retire outdated production lines or replace outdated manufacturing equipment with new manufacturing equipment in the future, we may incur increased impairment loss on property, plant and equipment, which may have a negative impact on our results of operations.

***We may require a significant amount of cash to fund our future capital expenditure requirements and working capital needs; if we cannot obtain additional sources of liquidity when we need it, our growth prospects and future profitability may be materially and adversely affected.***

We expect that we will need a significant amount of cash to fund our future capital expenditures. Besides capital expenditures, we have significant working capital commitments because suppliers of silicon wafers and polysilicon usually require us to make prepayments in advance of shipments. Future acquisitions, market changes or other developments may also cause us to require additional funds. Historically, we have relied on equity and debt offerings, borrowings and operating cash flow to finance our capital expenditure and working capital requirements. If we cannot generate sufficient operating cash flow to fund our capital expenditure and working capital needs, we may seek to sell additional equity or debt securities or borrow from lending institutions, which may not be available when needed. Our existing borrowings may decrease if our existing loans are cancelled or not renewed. Since the end of 2012, approximately RMB1.3 billion (US\$214.6 million) of our borrowings matured and were not extended or renewed. See “Risk Factors—Risks Related to Our Business and Industry—We have substantial indebtedness and may incur substantial additional indebtedness in the future, which could adversely affect our financial health and our ability to generate sufficient cash to satisfy our outstanding and future debt obligations.”

In addition, we historically required our customers to make prepayments to us to help us reduce the amount of funds that we need to finance our working capital requirements. The balance of prepayments we received from our customers increased from RMB76.9 million as of December 31, 2012 to RMB202.7 million (US\$33.5 million) as of December 31, 2013 as the market slowly recovered.

Therefore, we expect that we may need to obtain additional financing to meet our working capital requirements. Our ability to obtain external financing is subject to a number of uncertainties, including:

- our future financial condition, results of operations and cash flows;
- the state of global credit markets;
- general market conditions for financing activities by companies in our industry; and
- economic, political and other conditions in China and elsewhere.

If we are unable to obtain funding in a timely manner or on commercially acceptable terms, or at all, our growth prospects and future profitability may be materially and adversely affected. For example, the tightening of PRC credit market and interest rate increases in China since 2010 may limit the availability of financing to us, or at all, or increase the costs of such financing. In addition, the sale of additional equity securities, including convertible debt securities, would dilute our existing shareholders. The incurrence of debt would result in increased interest rate risk, divert cash for working capital and capital expenditures to service debt obligations and could result in operating and financial covenants that restrict our operations and our ability to pay dividends to our shareholders, if any. A shortage of such funds could in turn impose limitations on our ability to plan for, or react effectively to, changing market conditions or to expand through organic and acquisitive growth, thereby reducing our competitiveness.

***We have substantial indebtedness and may incur substantial additional indebtedness in the future, which could adversely affect our financial health and our ability to generate sufficient cash to satisfy our outstanding and future debt obligations.***

As of December 31, 2013, our total short-term borrowings were RMB1.1 billion (US\$185.4 million), and our total long-term borrowings were RMB2.5 billion (US\$411.3 million), among which RMB936.2 million (US\$154.6 million) were due in one year.

Our substantial indebtedness could have important consequences to you. For example, it could:

- limit our ability to satisfy our obligations under our debt;
- increase our vulnerability to adverse general economic and industry conditions;
- require us to dedicate a substantial portion of our cash flow from operations to servicing and repaying our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures and other general corporate purposes;
- limit our flexibility in planning for or reacting to changes in our businesses and the industry in which we operate;
- place us at a competitive disadvantage compared to our competitors that have less debt;
- limit, along with the financial and other restrictive covenants of our indebtedness, among other things, our ability to borrow additional funds; and
- increase the cost of additional financing.

In the future, we may from time to time incur substantial additional indebtedness and contingent liabilities. If we incur additional debt, the risks that we face as a result of our already substantial indebtedness and leverage could intensify.

Our ability to generate sufficient cash to satisfy our outstanding and future debt obligations will depend upon our future operating performance, which will be affected by prevailing economic conditions and financial, business and other factors, many of which are beyond our control. Banks may lower our credit lines or reject our loan applications, and we cannot assure you that our existing credit facilities will not be cancelled, or will be renewed in the future on reasonable commercial terms or at all. As a result, we may not generate or obtain sufficient cash flow to meet our anticipated operating expenses and to service our debt obligation as they become due. If we are unable to service our indebtedness, we will be forced to adopt an alternative strategy that may include actions such as reducing or delaying capital expenditures, selling assets, restructuring or refinancing our indebtedness or seeking equity capital. These strategies may not be instituted on satisfactory terms, if at all.

***Our efforts to further develop our technology and know-how through increased research and development of crystalline silicon technology may not yield satisfactory results, if any.***

The solar power industry is rapidly evolving and becoming more competitive. We will need to invest significant financial resources in research and development to keep pace with technological advances in the solar power industry and to effectively compete in the future. We have expended and may continue to expend significant financial resources in research and development of crystalline silicon and commercialization of new technologies to effectively compete with other market players in the future. However, research and development activities are inherently uncertain, and we might encounter practical difficulties in commercializing our research results. A variety of competing PV technologies that other companies may develop could prove to be more cost-effective and have better performance than solar power products that we develop. Therefore, our development efforts may be rendered obsolete by the technological advances of others.

Breakthroughs in PV technologies that do not use crystalline silicon could mean that companies such as us that rely entirely on crystalline silicon would encounter a sudden, sharp drop in sales. One of the alternative technologies in the production of solar cells is thin film technology. The use of thin film technology in the production of solar cells would significantly reduce the consumption of silicon materials and manufacturing costs. New developments in commercialization of thin film technology may render our existing technologies obsolete and our products uncompetitive, which would result in loss in our profitability and market share and could materially and adversely affect our business, financial condition and results of operations.

***If PV technology is not suitable for widespread adoption, or sufficient demand for solar power products does not develop or takes longer to develop than we anticipated, our sales may not continue to increase or may even decline, and we may be unable to sustain profitability.***

The solar power market is at a development stage and the extent to which solar power products will be widely adopted is uncertain. Market data in the solar power industry is not as readily available as those in other more established industries where trends can be assessed more reliably from data gathered over a longer period of time. Many factors may affect the viability of widespread adoption of PV technology and demand for solar power products, including:

- cost-effectiveness of solar power products compared to conventional and other non-solar energy sources and products;
- performance and reliability of solar power products compared to conventional and other non-solar energy sources and products;
- availability of government subsidies and incentives to support the development of the solar power industry;
- success of other alternative energy generation technologies, such as fuel cells, wind power and biomass;
- fluctuations in economic and market conditions that affect the viability of conventional and non-solar alternative energy sources, such as increases or decreases in the prices of oil and other fossil fuels; and
- capital expenditures by end users of solar power products, which tend to decrease when the economy slows down.

The solar power market also competes with other sources of renewable energy and conventional power generation. If prices for conventional and other renewable energy resources decline, or if these resources enjoy greater policy support than solar power, the solar power market could suffer. If PV technology proves unsuitable for widespread adoption or if demand for solar power products fails to develop sufficiently, we may not be able to grow our business or generate sufficient revenues to sustain our profitability. In addition, demand for solar power products in our target markets may not develop or may develop to a lesser extent than we anticipated.



***A small number of our customers account for a significant portion of our revenues.***

A significant portion of our revenues is derived from a small number of customers. Our three largest customers for the three years ended December 31, 2011, 2012 and 2013 accounted for 19.4%, 12.9% and 28.6%, respectively, of our total revenues.

Our results of operations and financial condition will continue to depend on, among others, the following:

- our ability to continue to obtain orders from these customers;
- the financial condition and success of these customers; and
- the commercial success of our customers' products which incorporate our solar power products.

Our ability to maintain close relationships with these key customers is essential to our strategies and to the ongoing growth of our business. We cannot guarantee that we will be able to retain any of our largest customers or any other customers. We have in the past been, and may in the future be, requested to reduce prices, and in an industry downturn, order cancellations may be expected. Any material delay, cancellation or reduction of orders from our major customers could cause our net sales to decline significantly and, in any such event, our results of operations may be materially and adversely affected.

Our results of operations and financial condition also depend on the financial condition and commercial success of these customers. If one or more of our customers were to become insolvent or otherwise were unable to pay for the services provided or products supplied by us, this could have a material adverse effect on our business, financial condition, results of operations and future prospects.

***Cancellation of customer orders could cause our operating results to fluctuate.***

We have signed long-term sales arrangements with certain customers and required them to make prepayments. However, even though we charge a prepayment under many contracts, our customers may still cancel or reschedule purchase orders with us on relatively short notice. Cancellations or rescheduling of customer orders could result in delay or loss of anticipated sales without allowing us sufficient time to reduce, or delay the incurrence of, our corresponding inventory and operating expenses. In addition, changes in forecasts or the timing of orders from these or other customers expose us to the risks of inventory shortages or excess inventory. These circumstances, in addition to variations in average selling prices, and the fact that our supply agreements are generally long-term in nature and many of our other operating costs are fixed, in turn could cause our operating results to fluctuate and may result in a material adverse effect in our business.

***We may be subject to non-competition or other similar restrictions or arrangements relating our business.***

We may from time to time enter into non-competition, exclusivity or other restrictions or arrangements of a similar nature as part of our sales agreements with our customers. Such restrictions or arrangements may significantly hinder our ability to sell additional products, or enter into sales agreements with new or existing customers that plan to sell our products, in certain markets. As a result, such restrictions or arrangements may have a material adverse effect on our business, financial condition and results of operations.

***We compete in a highly competitive market and many of our competitors have greater resources.***

The solar power market is intensely competitive and rapidly evolving. We expect to face increased competition, which may result in price reductions, reduced margins or loss of market share. Although we have expanded into upstream silicon wafer manufacturing and downstream solar module business since the fourth quarter of 2009, some of our competitors have become vertically integrated for a longer period of time than us. We expect to compete with future entrants to the PV market that offer new technological solutions. Furthermore, many of our competitors are developing or currently producing products based on new PV technologies, including thin film, ribbon, sheet and nano technologies, which they believe will ultimately cost the same as or less than crystalline silicon technologies used by us. In addition, the entire PV industry also faces competition from conventional and non-solar renewable energy technologies. Due to the relatively high manufacturing costs compared to most other energy sources, solar energy is generally not competitive without government incentive programs.

Many of our existing and potential competitors have substantially greater financial, technical, manufacturing and other resources than we do. Our competitors' greater size and longer operating history in some cases provide them with a competitive advantage with respect to manufacturing costs because of their economies of scale and their ability to purchase raw materials at lower prices. Many of our competitors also have greater brand name recognition, more established distribution networks and larger customer bases. In addition, many of our competitors have well-established relationships with our existing and potential customers and have extensive knowledge of our target markets. As a result, they may be able to devote greater resources to the research, development, promotion and sale of their products and respond more quickly to evolving industry standards and changes in market conditions. Our failure to adapt to changing market conditions and to compete successfully with existing or new competitors may materially and adversely affect our financial condition, results of operations and business prospects.

***We obtain certain manufacturing equipment from sole or a limited number of suppliers and if such equipment is damaged or otherwise unavailable, our ability to deliver products on time will suffer, which in turn could result in order cancellations and loss of revenue.***

Some of our equipment used in the manufacture of our solar power products has been developed and made specifically for us, is not readily available from alternative vendors and would be difficult to repair or replace if it were to become damaged or stop working. In addition, we obtain some equipment from sole or a limited number of suppliers. If any of these suppliers were to experience financial difficulties or go out of business, or if there were any damage to or a breakdown of our manufacturing equipment at a time when we are manufacturing commercial quantities of our products, our business would suffer. In addition, a supplier's failure to supply our ordered equipment in a timely manner, with adequate quality and on terms acceptable to us, could delay and otherwise disrupt our production schedule or increase our costs of production.

***Problems with product quality or product performance may cause us to incur warranty expenses, damage our market reputation and prevent us from achieving increased sales and market share, or result in a decrease in our revenues and market share.***

Our solar power products may contain defects that are not detected until after they are shipped or installed. These defects could cause us to incur significant re-engineering costs, divert the attention of our engineering personnel from product development efforts, lead to returns of, or requests to return our products and significantly affect our customer relations and business reputation. If we deliver solar power products with errors or defects, or if there is a perception that our solar power products contain errors or defects, our credibility and the market acceptance and sales of our products could be harmed.

With respect to our solar module business, in 2011, we extended our product warranty period from five years to ten years, warranting that the modules will be free from defects in materials and workmanship from the time of delivery. Starting from the third quarter of 2012, we began to provide a 25-year linear performance warranty against declines of power generation capacity from the time of delivery. As a result of these warranties, we bear the risk of extensive warranty claims long after we have sold our products and recognized revenues. We therefore, in accordance with our own history, industry data and industry practices, accrue 1% of our net revenues from sales of solar modules as general warranty costs and also separately accrue specific warranty costs to cover potential liabilities that could arise from customer claims based on an individual assessment. However, such warranty cost accruals may not be adequate. Starting from 2012, we also began to work with PowerGuard Specialty Insurance Services to provide a range of long-term insurance and warranty-related coverage for our products. Because we only started to manufacture and sell solar modules in the fourth quarter of 2009, which have been in use for only a relatively short period, we cannot assure you that our assumptions regarding the durability and reliability of our products are reasonable. Our warranty provisions and insurance coverage may be inadequate, and we may have to incur substantial expense to repair or replace defective products in the future.

***Our failure to maintain sufficient collateral under certain mortgage contracts for our loans may materially and adversely affect our financial condition and results of operations.***

From time to time, we may enter into bank loans secured by our real property or other assets. For example, as of December 31, 2013, our short-term borrowings of RMB85.4 million (US\$14.1 million) with Oversea-Chinese Banking Corporation were secured by certain restricted cash, our long-term borrowings of RMB136 million (US\$22.5 million) with Agricultural Bank of China were secured by certain of our buildings and land use right in Shanghai Jinglong Solar Technology Co., Ltd., or Shanghai Jinglong. In January 2014, we renewed an entrustment loan of RMB1.44 billion (US\$237.9 million) with Hefei High-Tech Industrial Development Zone Management Co., Ltd., which is secured by certain machinery and equipment and land use rights owned by JA Hefei Technology and all our equity interests in JA Hefei Renewable Energy and JA Hefei Technology. We cannot assure you that we will not be requested by the mortgagees to provide additional collateral to bring the value of the collateral to the level required by the mortgagees. If we fail to provide additional collateral, the mortgagees will be entitled to require the immediate repayment by us of the outstanding loans, otherwise, the mortgagees may auction or sell our office building and negotiate with us to apply the proceeds from the auction or sale to the repayment of the underlying loan. Furthermore, we may be subject to liquidated damages pursuant to relevant mortgage contracts. If any of the foregoing occurs, our financial condition and results of operations may be materially and adversely affected.

***If we fail to adequately protect our intellectual property rights, our business and results of operations could be materially and adversely affected.***

Given the importance of intellectual property to our business, we rely primarily on a combination of patent, trademark, trade secret and copyright, as well as employee and third party confidentiality agreements to safeguard our intellectual property. As of the date of this annual report, we had a total of 138 issued patents and 79 pending patent applications in China. However, we cannot assure you that the steps which we have taken will be sufficient to protect our intellectual property rights or that third parties would not infringe upon or misappropriate any such rights. Moreover, it is costly to litigate in order to protect any of our intellectual property rights. If we are unable to prevent third parties from infringing or misappropriating these rights in our self-owned products, the future financial condition and the ability to develop our business could be materially adversely affected.

***We may be exposed to infringement or misappropriation claims by third parties, which, if determined adversely to us, could cause us to lose significant rights and pay significant damage awards.***

Our success also depends largely on our ability to use and develop our technology and know-how without infringing the intellectual property rights of third parties. Although we are not currently aware of any parties pursuing or intending to pursue infringement claims against us, we cannot assure you that we will not be subject to such claims in the future. Also, because patent applications in many jurisdictions are kept confidential for 18 months before they are published, we may be unaware of other persons' pending patent applications that relate to our products or processes. Our suppliers may also become subject to infringement claims, which in turn could negatively impact our business as they may no longer be able to fulfill their delivery obligations under their contracts with us or refund our outstanding prepayments in a timely manner or at all. The defense and prosecution of intellectual property suits, patent opposition proceedings and related legal and administrative proceedings can be both costly and time consuming and may significantly divert the efforts and resources of our technical and management personnel. An adverse determination in any such litigation or proceedings to which we may become a party could subject us to significant liability to third parties, require us to seek licenses from third parties, to pay ongoing royalties, or to redesign our products or subject us to injunctions prohibiting the manufacture and sale of our products or the use of our technologies. Protracted litigation could also result in our customers deferring or limiting their purchase or use of our products until resolution of such litigation. The occurrence of any of the foregoing could have a material adverse effect on our business, results of operations and financial condition.

***Our quarterly revenues and operating results may be difficult to predict and could fall below investor expectations, which could cause the market price of our ADSs to decline.***

Our quarterly revenues and operating results have fluctuated in the past and may continue to fluctuate significantly depending upon numerous factors, including seasonality of demand for solar power products, changes in market conditions and industry environment, and changes in government policies or regulations. For example, purchases of solar power products tend to decrease due to severe weather conditions in winter months, which complicate the installation of solar power systems. Many of these factors are beyond our control, making our quarterly results difficult to predict, which could cause the trading price of our ADSs and the value of our other securities to decline if our operating results for any particular quarter fall below investor expectations.

***Our senior management has worked together for a relatively short period of time, which may make it difficult for you to evaluate their effectiveness and ability to address challenges.***

Due to recent changes to our management team, certain of our senior management and employees have worked together at our company for a relatively short period of time. For example, we have experienced turnover in our senior management ranks and hired or appointed a number of executive officers and senior management in the past few years. In light of the foregoing circumstances, it may be difficult for you to evaluate the effectiveness of our senior management and their ability to address future challenges to our business. Members of our senior management may not work together effectively as a team to manage our growth successfully, which may expose us to a higher risk of internal control deficiencies and result in us losing market share, business opportunity and revenues.

***The success of our business depends on the continuing efforts of our key personnel and our business may be severely disrupted if we lose their services.***

Our future success depends, to a significant extent, on our ability to attract, train and retain qualified technical personnel, particularly those with expertise in the solar power industry. There is substantial competition for qualified technical personnel, and there can be no assurance that we will be able to attract or retain our qualified technical personnel. If we are unable to attract and retain qualified technical personnel, our business may be materially and adversely affected.

We rely heavily on the continued services of our executive officers. If one or more of our executive officers are unable or unwilling to continue in their present positions, we may not be able to replace them easily or at all. As a result, our business may be severely disrupted and we may incur additional expenses to recruit and retain new officers. In addition, if any of our executive officers joins a competitor or forms a competing company, we may lose some or all of our customers. We believe our future success will depend upon our ability to retain these key employees and our ability to attract and retain other skilled managerial, engineering and sales and marketing personnel. Each of our executive officers and other key personnel has entered into an employment agreement with us, which contains confidentiality and non-competition provisions. However, if any disputes arise between our employees and us, we cannot assure you, in light of uncertainties associated with the PRC legal system, the extent to which any of these agreements could be enforced in China, where some of our executive officers reside and hold some of their assets.

***As we have awarded and will continue to award employee share options and other share-based compensation to certain of our directors, officers, employees and consultants, our net income will be adversely affected.***

Under our 2006 stock incentive plan, we may award stock options and other share-based compensations to purchase up to 10% of our issued share capital to certain of our directors, employees and consultants. As of March 31, 2014, we have granted options to purchase 23,224,000 ordinary shares and awarded 4,912,000 restricted share units to a number of our directors, employees and consultants. See “Item 6. Directors, Senior Management and Employees —B. Compensation—Stock Option Plans.”

In accordance with Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718, Compensation-Stock Compensation, which requires all companies to recognize, as an expense, the fair value of share options and other share-based compensation to employees, we are required to account for compensation costs for all restricted share units and share options granted to our directors, employees and consultants using a fair-value based method and recognize expenses in our consolidated statement of operations and comprehensive income/(loss) in accordance with the relevant rules under U.S. GAAP. Our share-based compensation expenses have a material and adverse effect on our reported earnings for the year during which the share-based compensation are granted and over their vesting periods.

Moreover, the additional expenses associated with administering share-based compensation may reduce the attractiveness of such incentive plan to us. However, if we stop granting options, or reduce the number of options granted, under our stock incentive plan, we may not be able to attract and retain key personnel, as share options are an important employee recruitment and retention tool. In addition, the decline in the price of our ADSs representing our ordinary shares below the exercise price of many of the previously granted options has lessened the effectiveness of the options as a means to retain the services of the option holders. As a result, we have granted more stock options to certain individuals and will continue to grant employee share options or other share-based compensation in the future that may adversely affect our net income/(loss).

***Change in the fair value of warrants issued by us to a single institutional investor in conjunction with our issuance of ordinary shares in August 2013 may have an material and adverse effect on our net income.***

On August 14, 2013, we entered into a securities purchase agreement with a single institutional investor, or institutional investor, to issue 15,228,425 ordinary shares, US\$0.0001 par value per share, represented by 3,045,685 ADS at a price of US\$7.88 per ADS, for an aggregate consideration of US\$24 million. The offering price is 94% of the volume-weighted average price of our ADSs on August 13, 2013 (i.e. US\$ 8.383 per ADS per Bloomberg on August 13, 2013). In conjunction with the ordinary share offering, we also issued to the institutional investor Series A-1 Warrant, Series A-2 Warrant, Series A-3 Warrant, and Series B Warrant to acquire up to 12,724,164 ordinary shares (or 2,544,833 ADSs), 12,724,164 ordinary shares (or 2,544,833 ADSs), 12,724,164 ordinary shares (or 2,544,833 ADSs), and 50,896,656 ordinary shares (or 10,179,332 ADSs), respectively. In November 2013 and February 2014, Series A-1 Warrant and Series A-2 Warrant were exercised in full at the price of US\$ 9.43 per ADS.

The warrants are deemed legally detachable and separately exercisable from the ordinary shares and thus accounted for as a freestanding instrument in according with U.S. GAAP. As the warrants are denominated in U.S. dollar, yet our functional currency is RMB, warrants are not considered indexed to our own stock. Accordingly, the warrants are liability derivatives which need to be fair valued on day one and mark to market subsequently at the end of each reporting period, and the fair value gain or loss arising from the re-measurement may have a material and adverse effect on our net income/(loss).

***There are potential conflicts of interest between us and our largest shareholder, Jinglong BVI.***

Jinglong BVI, which is controlled by the shareholders of Hebei Jinglong, is our largest shareholder. In addition, Mr. Baofang Jin, the executive chairman of our board of directors and our chief executive officer, is a shareholder of Jinglong BVI and is also the chairman of Hebei Jinglong. Jinglong Group currently provides a number of products and services to us, including silicon wafer supply (on prepayment terms) and real property leases. Our transactions with Jinglong Group are governed by a number of contracts, the terms of which were negotiated at what we believe are on an arm's length basis. In November 2011, we also completed the acquisition of Silver Age, a British Virgin Islands company controlled by Jinglong BVI. See "Item 7. Major Shareholders and Related Party Transactions—B. Related Party Transactions." However, the interest of Jinglong BVI may conflict with our own interest with respect to our transactions with Jinglong Group. As a result, we may have limited ability to negotiate with Jinglong Group over the terms of the agreements because Jinglong BVI may exert significant influence on our affairs through our board of directors. In addition, Jinglong BVI may be able to prevent us from taking actions to enforce or exercise our rights under the agreements we entered into with Jinglong Group. Furthermore, we cannot assure you that our transactions with Jinglong Group will always be concluded on terms favorable to us or maintained at the current level or at all in the future. As a result, when these situations arise, our financial condition, results of operations and implementation of strategy may be materially and adversely affected.

***We have limited insurance coverage and may incur significant losses resulting from operating hazards, product liability claims or business interruptions.***

As with other solar power product manufacturers, our operations involve the use, handling, generation, processing, storage, transportation and disposal of hazardous materials, which may result in fires, explosions, spills and other unexpected or dangerous accidents causing personal injuries or death, property damages, environmental damages and business interruptions. Although we currently carry third-party liability insurance against property damages, these insurance policies are limited in scope and may not cover all claims relating to personal injury, property or environmental damage arising from accidents on our properties or relating to our operations. Any occurrence of these or other accidents in our operations that are not insured under our existing insurance policies could have a material adverse effect on our business, financial condition or results of operations.

In addition, the normal operation of our manufacturing facilities may be interrupted by accidents caused by operating hazards, power supply disruptions, equipment failures, as well as natural disasters. As the insurance industry in China is still in an early stage of development, business interruption insurance available in China offers limited coverage compared to that offered in many other countries, and we do not carry any business interruption insurance. Any business disruption or natural disaster could result in substantial costs and diversion of resources, and our business and results of operations may be materially and adversely affected.

We are also exposed to risks associated with product liability claims in the event that the use of the solar power products we sell results in injury. Because our solar products are generally incorporated into solar power devices to generate electricity, it is possible that users could be injured or even killed by the solar power devices incorporating our solar products, whether by product malfunctions, defects, improper installation or other causes. While we have not experienced any product liability claims brought against us, we are unable to predict whether such claims will be brought against us in the future or the effect of any resulting adverse publicity on our business. Although we began purchasing product liability insurances in 2010, there is no assurance that our insurance policies will provide adequate coverage in the event of a successful product liability claim against us. If our product liability insurances are not adequate, the successful assertion of product liability claims against us could result in potentially significant monetary damages and require us to make significant payments.

***Compliance with environmental regulations is expensive, and noncompliance may result in adverse publicity and potentially significant monetary damages and fines or suspension of our business operations.***

We are required to comply with all national and local regulations regarding the protection of the environment. Compliance with environmental regulations is expensive. The PRC government is adopting more stringent environmental protection regulations and the costs of complying with these regulations are expected to increase.

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Each of our solar product manufacturing facilities is required to conduct an environmental impact assessment, obtain approval of the assessment before commencing construction and complete an examination and obtain an environmental acceptance approval before it is able to begin production. We cannot assure you that we will be able to comply with all applicable environmental protection requirements, obtain the requisite approvals and permits upon completion of construction or commencement of commercial production on a timely basis or at all. Governmental authorities may impose fines or deadlines on us as a result of any non-compliance, and these authorities may also order us to cease construction or production if we fail to comply with applicable requirements.

In addition, we are subject to licensing requirements, regulations and periodic monitoring by local environmental protection authorities. If we fail to obtain the required permits and licenses, we will not be able to obtain an environmental acceptance approval and may not be allowed to produce. We may also be subject to substantial fines or damages or suspension of our production operations, and our reputation may be harmed, which could negatively affect our results of operations and financial position.

***For strategic reasons and in an effort to maximize returns on our unused capital reserves, we may, from time to time, invest in securities purchased on the open market, which may, due to market forces beyond our control, result in the recognition of losses that will adversely affect our financial results.***

Although we did not invest in any securities as of December 31, 2013, for both strategic reasons and in an effort to maximize the return on our unused capital reserves, we had, and may, from time to time invest in certain securities purchased on the open market. The fair value of the securities in which we may invest is driven by market forces beyond our control and may decline over time. To protect the value of our investment and minimize the recognition of losses, if any, we may, from time to time, dispose of such securities at the discretion of our board of directors. To the extent that we, in compliance with U.S. GAAP and other applicable rules and regulations, determine that a decline in the fair value of any of our securities is other-than-temporary, we are obligated to recognize such decline as a loss, which will in turn adversely affect our financial results.

***We may incur significant legal expenses in connection with, and allocate management time and attention to, legal actions involving us that may take place from time to time and it is possible that we will not be able to prevail in our legal actions.***

We were previously involved in two putative securities class actions and were able to reach an agreement to settle the lawsuits. During the process, we incurred significant legal expenses and allocated management time and attention to the litigations. We may face other legal actions that may take place from time to time in the future, and we may continue to incur significant legal expenses and allocate management time and attention to the legal actions. No assurance can be provided that we will be able to prevail in our legal actions.

### **Risks Related to Doing Business in China**

***Our independent registered public accounting firm, like other independent registered public accounting firms operating in China, is not permitted to be subject to inspection by the Public Company Accounting Oversight Board and, as such, you are deprived of the benefits of such inspection.***

Our independent registered public accounting firm that issues the audit reports included in our annual reports filed with the U.S. Securities and Exchange Commission, or SEC, as auditors of companies that are traded publicly in the United States and a firm registered with the U.S. Public Company Accounting Oversight Board (United States), or the PCAOB, is required by the laws of the United States to undergo regular inspections by the PCAOB to assess its compliance with the laws of the United States and professional standards. Because our auditors are located in the People's Republic of China, a jurisdiction where the PCAOB is currently unable to conduct inspections without the approval of the Chinese authorities, our auditors are currently not inspected by the PCAOB.



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Inspections of other firms that the PCAOB has conducted outside China have identified deficiencies in those firms' audit procedures and quality control procedures, which may be addressed as part of the inspection process to improve future audit quality. This lack of the PCAOB inspections in China prevents PCAOB from regularly evaluating our auditor's audits and its quality control procedures. As a result, investors may be deprived of the benefits of PCAOB inspections.

The inability of the PCAOB to conduct inspections of auditors in China makes it more difficult to evaluate the effectiveness of our auditor's audit procedures or quality control procedures as compared to auditors outside of China that are subject to PCAOB inspections. Investors may lose confidence in our reported financial information and procedures and the quality of our financial statements, which may have a material adverse effect on our ADS price.

***Proceedings instituted recently by the SEC against five PRC-based accounting firms, including our independent registered public accounting firm, could result in our financial statements being determined to not be in compliance with the requirements of the Exchange Act.***

In December 2012, the SEC brought administrative proceedings against five accounting firms, including our independent registered public accounting firm, in China, alleging that they had refused to produce audit work papers and other documents related to certain other China-based companies under investigation by the SEC for potential accounting fraud. On January 22, 2014, an initial administrative law decision was issued, censuring these accounting firms and suspending four of the five firms from practicing before the SEC for a period of six months. The decision is neither final nor legally effective unless and until reviewed and approved by the SEC. The accounting firms have the ability to appeal and the four firms which are subject to the six month suspension from practicing before the SEC have indicated that they will appeal. The sanction will not become effective until after a full appeal process is concluded and a final decision is issued by the SEC. The accounting firms can also further appeal the final decision of the SEC through the federal appellate courts. We are not involved in the proceedings brought by the SEC against the accounting firms. However, our independent registered public accounting firm is one of the four accounting firms subject to the six month suspension from practicing before the SEC in the initial administrative law decision. We may therefore be adversely affected by the outcome of the proceedings, along with other U.S.-listed companies audited by these accounting firms.

On May 24, 2013, the PCAOB announced that it had entered into a Memorandum of Understanding on Enforcement Cooperation with the China Securities Regulatory Commission, or the CSRC, and the Ministry of Finance which establishes a cooperative framework between the parties for the production and exchange of audit documents relevant to investigations in the United States and China. However, it is not clear how these recent developments could affect the SEC's final decision in the case against the five accounting firms or any subsequent appeal to courts that the accounting firms may initiate. Therefore, it is difficult to determine the final outcome of the administrative proceedings and the potential consequences thereof.

If our independent registered public accounting firm were denied, temporarily, the ability to practice before the SEC and we were unable to timely find another registered public accounting firm to audit and issue an opinion on our financial statements, our financial statements could be determined to not be in compliance with the requirements of the Exchange Act. Such a determination could ultimately lead to delisting of our ADSs from the NASDAQ Global Select Market or deregistration from the SEC, or both, which would substantially reduce or effectively terminate the trading of our ADSs in the United States.

***Adverse changes in political and economic policies of the PRC government could have a material adverse effect on the overall economic growth of China, which could reduce the demand for our products and materially and adversely affect our competitive position.***

A significant portion of our business operations are conducted in China. Accordingly, our business, financial condition, results of operations and prospects are affected significantly by economic, political and legal developments in China. The Chinese economy differs from the economies of most developed countries in many respects, including:



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- the amount of government involvement;
- the level of development;
- the growth rate;
- the control of foreign exchange; and
- the allocation of resources.

While the Chinese economy has grown significantly in the past years, the growth has been uneven, both geographically and among various sectors of the economy. The PRC government has implemented various measures to encourage economic growth and guide the allocation of resources. Some of these measures benefit the overall Chinese economy, but may also have a negative effect on us. For example, our financial condition and results of operations may be adversely affected by government control over capital investments or changes in tax regulations that are applicable to us.

The Chinese economy has been transitioning from a planned economy to a more market-oriented economy. Although in recent years the PRC government has implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets and the establishment of sound corporate governance in business enterprises, a substantial portion of the productive assets in China is still owned by the PRC government. The continued control of these assets and other aspects of the national economy by the PRC government could materially and adversely affect our business. The PRC government also exercises significant control over Chinese economic growth through the allocation of resources, controlling payment of foreign currency denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. From late 2003 to mid-2008, the PRC government implemented a number of measures, such as increasing the People's Bank of China's statutory deposit reserve ratio and imposing commercial bank lending guidelines that had the effect of slowing the growth of credit, which in turn may have slowed the growth of the PRC economy. In response to the global and Chinese economic downturn in 2008, the PRC government promulgated several measures aimed at expanding credit and stimulating economic growth including decreasing the People's Bank of China's statutory deposit reserve ratio and lowering benchmark interest rates several times. Since January 2010, however, the People's Bank of China has increased the statutory deposit reserve ratio in response to rapid growth of credit in 2009. In 2011 the PRC government introduced measures in certain sectors to avoid overheating of the economy, including tighter bank lending policies and increases in bank interest rates. In 2012, the PRC government introduced measures to stimulate consumption and promote economic recovery in response to slowed growth in the PRC economy, including decreasing the People's Bank of China's statutory deposit reserve ratio and lowering in bank interest rates. It is unclear whether PRC economic policies will be effective in maintaining stable economic growth in the future. Any slowdown in the growth of the Chinese economy could result in decreased capital expenditure by solar energy users, which in turn could reduce demand for our products.

Any adverse change in the economic conditions or government policies in China could have a material adverse effect on the overall economic growth and the level of renewable energy investments and expenditures in China, which in turn could lead to a reduction in demand for our products and consequently have a material adverse effect on our businesses.

***Fluctuations in exchange rates could have a material adverse effect on our results of operations and the value of your investment.***

As we increase our sales to customers outside China, our revenues denominated in foreign currencies have increased, amounting to 58.2% of our total net revenues in 2013. We have entered into, and may continue to enter into, foreign currency forward contracts with commercial banks to hedge part of our exposure to foreign currency exchange risk for our overseas sales. As with all hedging instruments, there are risks associated with the use of foreign currency forward contracts. While the use of such foreign currency forward contracts provides us with protection from certain fluctuations in foreign currency exchange, we potentially forgo the benefits that might result from favorable fluctuations in foreign currency exchange. Any default by the counterparties to these transactions could adversely affect our financial condition and results of operations. Furthermore, these financial hedging transactions may not provide adequate protection against future foreign currency exchange rate fluctuations and, consequently, such fluctuations could result in foreign exchange losses and adversely affect our financial condition and results of operations.

The conversion of Renminbi into foreign currencies, including U.S. dollars, is based on rates set by the People's Bank of China. The PRC government allowed the Renminbi to appreciate by more than 20% against the U.S. dollar between July 2005 and July 2008. Between July 2008 and June 2010, this appreciation was halted and the exchange rate between the Renminbi and the U.S. dollar remained within a narrow band. As a consequence, the RMB fluctuated significantly during that period against other freely traded currencies, in tandem with the U.S. dollar. Since June 2010, the PRC government has allowed the Renminbi to appreciate slowly against the U.S. dollar again. It is difficult to predict how market forces or PRC or U.S. government policy may impact the exchange rate between the Renminbi and the U.S. dollar in the future. In April 2012, the PRC government turned the Renminbi into a global currency by doubling the size of its trading band against the U.S. dollar, adopting reform that further liberalizes its financial markets. Effective from April 16, 2012, the People's Bank of China allows the Renminbi to rise or fall 1% from a mid-point every day, compared with its previous 0.5% limit. On March 15, 2014, it was further widened to 2%. Notwithstanding the above, it is still difficult to predict how market forces or PRC or U.S. government policy may impact the exchange rate between the Renminbi and the U.S. dollar in the future.

There remains significant international pressure on the Chinese government to adopt a substantial liberalization of its currency policy, which could result in further appreciation in the value of the RMB against the U.S. dollar. To the extent that we need to convert U.S. dollars into RMB for capital expenditures and working capital and other business purposes, appreciation of the RMB against the U.S. dollar would have an adverse effect on the RMB amount we would receive from the conversion. Conversely, if we decide to convert RMB into U.S. dollars for the purpose of making payments for dividends on our ordinary shares or ADSs, strategic acquisitions or investments or other business purposes, appreciation of the U.S. dollar against the RMB would have a negative effect on the U.S. dollar amount available to us.

***Natural disasters, acts of war, political unrest and epidemics, which are beyond our control, may cause damage, loss or disruption to our business.***

Natural disasters, acts of war, political unrest and epidemics, which are beyond our control, may adversely affect the economy, infrastructure and livelihood of the people of the PRC. Some cities in the PRC are particularly susceptible to floods, earthquakes, sandstorms and droughts. The business, financial condition and results of operations of us may be materially and adversely affected if such natural disasters occur. Political unrest, acts of war and terrorists attacks may cause damage or disruption to us, our employees, our facilities, the sales channels operated by authorized third-party retailers of us and our markets, any of which could materially and adversely affect our sales, overall operating results and financial condition. The potential for war or terrorists attacks may also cause uncertainty and cause our business to suffer in ways that we cannot currently predict. In addition, certain Asian countries, including the PRC, have encountered epidemics such as SARS, incidents of the avian flu or the H1N1 flu. In March 2013, a new virus subtype H7N9, commonly known as "bird flu" or "avian flu," was discovered in eastern China and sickened and killed some people. Past occurrences of epidemics have caused different degrees of damage to the national and local economies in the PRC. A recurrence of an outbreak of SARS, avian flu, the H1N1 flu, the H7N9 flu or any other similar epidemic, could cause a slowdown in the levels of economic activity generally, which could in turn adversely affect our results of operations.

***Price inflation in China could erode some of the advantages of operating in a relatively low-cost jurisdiction such as China, which could negatively affect our competitive advantages and our results of operations.***

In the last three years, inflation in China has not materially impacted our results of operations. According to the National Bureau of Statistics of China, the year-over-year percent changes in the consumer price index for December 2011, 2012 and 2013 were increases of 4.1%, 2.5% and 2.5%, respectively. Although we have not been materially affected by inflation in the past, we cannot assure you that we will not be affected in the future by higher rates of inflation in China. Because we conduct manufacturing and purchase raw materials primarily from suppliers in China, price inflation increases the costs of labor and raw materials for manufacturing and risks counteracting the competitive advantage we enjoy as a result of the relatively lower manufacturing costs we incur from operating in China. If inflationary trends continue in China, China could lose its competitive advantage as a low-cost manufacturing venue, which could in turn lessen any competitive and reputational advantages we gain through China-based manufacturing. Although we have started the process and will continue to gradually automate our production lines in order to reduce the impact of increases in labor cost in the long run, inflation in China may still weaken our competitiveness in our markets and have a material adverse effect on our business, financial condition, results of operations and prospects.

***Uncertainties with respect to the PRC legal system could have a material adverse effect on us.***

We conduct a significant portion of our business inside China through our various wholly-owned subsidiaries. Our operations in China are governed by PRC laws and regulations. Our PRC subsidiaries are foreign-invested enterprises (“FIE”) or enterprises invested by FIE and are therefore subject to laws and regulations applicable to foreign investment in China. The PRC legal system is based on written statutes. Unlike in the common law system, prior court decisions may be cited for reference but have limited precedential value. Since 1979, PRC legislation and regulations have significantly enhanced the protections afforded to various forms of foreign investments in China. Furthermore, since these laws and regulations are relatively new and the PRC legal system continues to rapidly evolve, the interpretations of many laws, regulations and rules are not always uniform and enforcement of these laws, regulations and rules involve uncertainties, which may limit legal protections available to us. In addition, the PRC legal system is based in part on government policies and internal rules, some of which may not be published on a timely basis or at all, and some of which may have a retroactive effect. As a result, we may not be aware of our violation of these policies and rules until some time after the violation. Any administrative and court proceedings in China may be protracted, resulting in substantial costs and diversion of resources and management attention. However, since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be more difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we enjoy than in more developed legal systems. These uncertainties may also impede our ability to enforce the contracts we have entered into. As a result, these uncertainties could materially and adversely affect our business and results of operations.

***Rapid urbanization and changes in zoning and urban planning in China may cause our properties to be demolished, removed or otherwise affected.***

China is undergoing a rapid urbanization process, and zoning requirements and other governmental mandates with respect to urban planning of a particular area may change from time to time. When there is a change in zoning requirements or other governmental mandates with respect to the areas where our operating facilities are located, the affected facilities may need to be demolished and removed. As a result, we may have to relocate our facilities to other locations. We have not experienced such demolition and relocation in the past, but we cannot assure you that we will not experience demolitions or interruptions of our operating facilities due to zoning or other local regulations. Any such demolition and relocation could cause us to lose primary locations for our operating facilities and we may not be able to achieve comparable operation results following the relocations. While we may be reimbursed for such demolition and relocation, we cannot assure you that the reimbursement, as determined by the relevant government authorities, will be sufficient to cover our direct and indirect losses. Accordingly, our business, results of operations and financial condition may be materially and adversely affected.

***Our operating subsidiaries in China are subject to legal limitations in paying dividends to us, which may restrict our ability to satisfy our liquidity requirement.***

As a holding company, we depend on receipt of dividends and the interest and principal payments on intercompany loans or advances from our subsidiaries to satisfy our obligations. The ability of our subsidiaries to pay dividends and make payments on intercompany loans or advances to us is subject to, among other things, distributable earnings, cash flow conditions, restrictions contained in the articles of association of our subsidiaries, applicable laws and restrictions contained in the debt instruments or certain PRC project loan agreements. Pursuant to such PRC project loan agreements, some of our PRC subsidiaries are restricted from distributing dividends or making other distributions to us unless such loans are paid off, certain financial requirement is met, if any, or otherwise consent is obtained from the relevant lenders entering into such project loan agreements. These restrictions could limit the ability of our subsidiaries to pay dividends.

Further, PRC Corporation Law permits payment of dividends by our PRC subsidiaries only out of accumulated profits as determined in accordance with accounting standards and regulations in China. Our subsidiaries are also required to set aside at least 10% of their after-tax profits based on PRC accounting standards each year to their general reserves until the accumulative amount of such reserves reach 50% of their respective registered capital. These reserves are not distributable as cash dividends. In addition, at the discretion of their respective board of directors, our PRC subsidiaries may allocate a portion of their after-tax profits to their respective staff welfare and bonus funds, which may not be distributed to equity owners except in the event of liquidation. Furthermore, if our PRC subsidiaries incur debt on their own behalves in the future, the instruments governing the debt may restrict their ability to pay dividends or make other distributions to us, which may restrict our ability to satisfy our liquidity requirement. In addition, dividends paid by our PRC subsidiaries to their non-PRC parent companies will be subject to a 10% withholding tax, unless there is a tax treaty between the PRC and the jurisdiction in which the overseas parent company is incorporated, which specifically exempts or reduces such withholding tax. Limitations on the ability of our PRC subsidiaries to pay dividends to us could materially and adversely limit our ability to grow, make investments or acquisitions that could be beneficial to our businesses, pay dividends, or otherwise fund and conduct our business.

***PRC regulations on currency exchange and foreign investment may limit our ability to receive and use our revenues effectively and may delay or prevent us from using the proceeds from our fundraising activities to make loans or additional capital contributions to our PRC operating subsidiaries.***

A significant portion of our revenues and expenses are also denominated in Renminbi. If our revenues denominated in Renminbi increase or expenses denominated in Renminbi decrease in the future, we may need to convert a portion of our revenues into other currencies to meet our foreign currency obligations, including, among others, payment of dividends declared, if any, in respect of our ordinary shares. Under PRC regulations the Renminbi is currently convertible under the “current account,” which includes dividends, trade and service-related foreign exchange transactions, but not under the “capital account,” which includes foreign direct investment and loans, without the prior approval of the State Administration of Foreign Exchange, or SAFE. Currently, our PRC subsidiaries may purchase foreign currencies for settlement of current account transactions, including payments of dividends to us, without prior approval from SAFE, by complying with certain procedural requirements. However, we cannot assure you that the PRC government will not take further measures in the future to restrict access to foreign currencies for current account transactions.

Foreign exchange transactions by our PRC subsidiaries under the capital account continue to be subject to significant foreign exchange controls and require the approval of or need to be registered with PRC governmental authorities, including SAFE. To utilize the proceeds of any equity or debt offering as an offshore holding company of our PRC operating subsidiaries, we may make loans to our PRC subsidiaries, or we may make additional capital contributions to our PRC subsidiaries. Any loan from offshore companies to our PRC subsidiaries is subject to PRC regulations. For example, loans by us to our subsidiaries in China, which are foreign-invested enterprises, or FIEs, to finance their activities cannot exceed the difference between the total investment and the registered capital of that subsidiary and must be registered with SAFE.

We may also finance our subsidiaries by means of capital contributions. These capital contributions must be approved by certain government authorities, including the National Development and Reform Commission, or NDRC, MOFCOM, or their local counterparts. We may not be able to obtain these government approvals on a timely basis, if at all, with respect to future capital contributions by us to our subsidiaries. If we fail to receive such approvals, our ability to use the proceeds we have received, or may receive, from our equity or debt offerings and to capitalize our PRC operations may be negatively affected, which could materially and adversely affect our liquidity and our ability to fund and grow our business.

***Our business benefits from certain PRC government incentives. Expiration of, revocation of, or changes to, these incentives could have a material adverse effect on our operating results.***

Under the previous PRC Income Tax Law for Enterprises with Foreign Investment and Foreign Enterprises, or the FEIT Law, and the related implementation rules, FIEs established in China were generally subject to enterprise income tax at a state tax rate of 33% on PRC taxable income. The PRC government provided certain incentives to FIEs in order to encourage foreign investments, including tax exemptions, tax reductions and other measures. Under the FEIT Law and the related implementation rules, FIEs were entitled to be exempted from foreign enterprise income tax for a two-year period starting from their first profit-making year followed by a 50% reduction of foreign enterprise income tax payable for the subsequent three years, provided that they fell into the category of production-oriented enterprises with an operational period of more than 10 years in China. Such two-year tax exemption and three-year 50% tax reduction period are referred to as the Tax Holiday.

In March 2007, China enacted a new PRC Corporate Income Tax Law, or CIT Law, which became effective on January 1, 2008 and replaced the FEIT Law. The CIT Law imposes a unified income tax rate of 25% on all domestic enterprises and FIEs unless they qualify under certain limited exceptions. The CIT Law provides a five-year transition period to FIEs, during which they are permitted to grandfather their existing preferential income tax treatment until such treatment expires in accordance with its current terms. In addition, certain enterprises may still benefit from a preferential tax rate of 15% under the CIT Law if they qualify as an advanced and new technology enterprise, or ANTE, subject to certain general factors described therein. Where the transitional preferential policies and the preferential policies for ANTE as prescribed under the CIT Law and its implementation rules overlap, an enterprise shall choose to carry out the most preferential policy, but shall not enjoy multiple preferential policies.

JA Hebei, JA Yangzhou, Solar Silicon Valley and JA Fengxian were production-oriented enterprises established prior to the effective date of the CIT Law, and therefore, were entitled to their then-existing preferential income tax treatment provided under the FEIT Law and its related interpretations rules until December 31, 2012.

With respect to income related to JA Hebei's initial capital contribution, JA Hebei received approval from the relevant tax authorities to enjoy the Tax Holiday commencing from 2006. In 2007, JA Hebei effected a capital injection, or the 2007 Capital Injection, and was approved by the local tax bureau of Xingtai City, Hebei Province, to enjoy a separate Tax Holiday on taxable income attributable to the 2007 Capital Injection commencing from 2007. In November 2010, JA Hebei was recognized as an ANTE and was entitled to the preferential income tax rate of 15% from 2010 to 2012. JA Hebei chose to use the Tax Holiday applicable to the 2007 Capital Injection for the overlapping year of 2010. For the years ended December 31, 2011 and 2012, JA Hebei chose to enjoy the preferential income tax rate of 15% for an ANTE. In February 2013, JA Hebei received a notice from the local tax bureau of Xingtai City, Hebei Province, revoking its original approval that JA Hebei was entitled to enjoy a separate Tax Holiday for taxable income attributable to the 2007 Capital Injection, which caused us to record an additional income tax expense of RMB82.5 million at the end of 2012 and to make subsequent payment in March 2013. In July 2013, JA Hebei was again recognized as an ANTE and was entitled to the preferential income tax rate of 15% from 2013 to 2015.

JA Yangzhou and JA Fengxian both had cumulative losses in 2008 and their Tax Holidays were deemed to commence in 2008.

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In August 2011, JA Yangzhou was recognized as an ANTE and was entitled to the preferential income tax rate of 15% from 2011 to 2013. JA Yangzhou chose to use the Tax Holiday for the overlapping years of 2011 and 2012.

In December 2011, JA Fengxian was recognized as an ANTE and was entitled to the preferential income tax rate of 15% from 2011 to 2013. JA Fengxian chose to enjoy the Tax Holiday for the overlapping years of 2011 and 2012.

In November 2011, JA Lianyungang, was recognized as an ANTE and was entitled to the preferential income tax rate of 15% from 2011 to 2013.

In August 2012, JA Wafer R&D, was recognized as an ANTE and was entitled to the preferential income tax rate of 15% from 2012 to 2014.

The ANTE status and preferential tax treatment will be reviewed by the government every three years. JA Hebei, JA Yangzhou, JA Wafer R&D, JA Fengxian and JA Lianyungang are collectively referred to as ANTE Entities.

However, we cannot assure that the current tax benefits enjoyed by the ANTE Entities will be extended upon expiration. If these tax benefits cannot be extended or otherwise become unavailable, the effective income tax rate of the ANTE Entities will increase significantly, and any such increase in the future could have a material adverse effect on our financial condition and results of operations. In addition, we cannot assure you that the relevant tax authorities will not have different interpretations of the existing laws in the future. Any discontinuation or revocation of preferential tax treatment or any increase of the enterprise income tax rate applicable to us could have a material adverse effect on our financial condition and results of operations.

Various PRC governmental authorities have promulgated a series of laws and regulations to encourage the development of solar energy and other renewable energy, including the Renewable Energy Law, Medium and the Long-Term Development Plan for the Renewable Energy Industry and circulars concerning the Golden Sun Demonstration Program. Under these laws and regulations, financial incentive, such as national funding, preferential loans and tax preferential treatment are provided to the renewable energy industry. However, no assurance can be given that these incentives will not be reduced or eliminated altogether. Any reduction or eliminations of governmental incentive policies will reduce demand for our solar power products and adversely affect our financial condition and results of operations.

### ***We may be deemed a PRC resident enterprise under the CIT Law and be subject to the PRC taxation on our worldwide income.***

The CIT Law also provides that enterprises established outside of China whose “de facto management bodies” are located in China are considered “resident enterprises” and are generally subject to the uniform 25% enterprise income tax rate as to their worldwide income. Under the implementation regulations for the CIT Law, “de facto management body” is defined as a body that has material and overall management and control over the manufacturing and business operations, personnel and human resources, finances and treasury, and acquisition and disposition of properties and other assets of an enterprise. In addition, the State Administration of Taxation issued the Notice Regarding the Determination of Chinese-Controlled Offshore Incorporated Enterprises as PRC Tax Resident Enterprises on the Basis of De Facto Management Bodies on April 22, 2009, or Circular 82, which sets out the standards and procedures for recognizing the location of the “effective management” of an enterprise registered outside of the PRC and funded by Chinese enterprises as controlling investors. Circular 82 specifies that certain PRC-invested enterprises will be classified as PRC resident enterprises if the following are located or resident in the PRC: senior management personnel and departments that are responsible for daily production, operation and management; financial and personnel decision making bodies; key properties, accounting books, the company seal, and minutes of board meetings and shareholders’ meetings; and half or more of the senior management or directors having voting rights. In addition, the State Administration of Taxation promulgated the Interim Provisions on Administration of Income Tax of Chinese-Controlled Resident Enterprise Registered Overseas, effective from September 1, 2011, which further clarified certain matters concerning the determination of resident status, post-determination administration, and competent tax authorities. These interim provisions also specify that when an enterprise that is Chinese-controlled and incorporated outside of mainland China receives PRC-sourced income such as dividends and interest, PRC withholding tax would not apply if such enterprise has obtained a certificate evidencing its status as a PRC resident enterprise registered overseas and controlled by Chinese.

Although Circular 82 explicitly provides that the above standards shall apply to enterprises which are registered outside the PRC and funded by Chinese enterprises as controlling investors, it is still uncertain whether such standards under this circular may be cited for reference and be adopted when considering whether our “effective management” is in the PRC or not, and whether we may be considered a resident enterprise under the CIT Law. If we are treated as a resident enterprise for PRC tax purposes, we will be subject to PRC tax on our worldwide income at the 25% uniform tax rate, which could have an impact on our effective tax rate and an adverse effect on our net income and results of operations, although dividends distributed from our PRC subsidiaries to us could be exempt from Chinese dividend withholding tax, since such income is exempted under the new CIT Law when paid to a PRC resident recipient. In January 2014, the State Tax Bureau issued a Circular on the Determination of PRC Tax Resident Enterprises Subject to Criteria of “De Facto Management Body”, which requires a Chinese-controlled offshore-incorporated enterprise that falls within the criteria of “De Facto Management Body” to make an application for the classification as a “resident enterprise”, which in turn will be confirmed by the province-level tax authority. However, it is still unclear how the PRC tax authorities will determine whether a non-PRC entity (that has not already been notified of its status for EIT purposes) will be classified as a “resident enterprise”.

***Dividends payable by us to our non-PRC holders of our ordinary shares and ADSs and gain on the sale of our ADSs or ordinary shares may become subject to PRC taxes.***

Under the CIT Law and its implementation regulations, PRC income tax at the rate of 10% is applicable to PRC sourced dividends payable to investors that are “non-resident enterprises” and that do not have an establishment or place of business in the PRC, or which have such establishment or place of business but the relevant income is not effectively connected with the establishment or place of business, to the extent such dividends have their sources within the PRC. The implementation regulations for the CIT Law further sets forth that dividend income is viewed as PRC-sourced income if the enterprise that pays dividend is a “resident enterprise.” Similarly, any gain realized on the transfer of ADSs or shares by such investors is also subject to 10% PRC income tax if such gain is regarded as income derived from sources within the PRC. It is unclear whether we may be considered as a “resident enterprise” under the CIT law. If we are deemed as a PRC “resident enterprise” for PRC tax purposes, dividends we pay with respect to our ordinary shares or ADSs, or the gain our shareholders may realize from the transfer of our ordinary shares or ADSs, would be treated as income derived from sources within the PRC and be subject to PRC tax. If we are required under the CIT Law to withhold PRC income tax on dividends payable to our non-PRC holders of ordinary shares and ADSs who are “non-resident enterprises,” or if our non-PRC holders of ordinary shares and ADSs are required to pay PRC income tax on the transfer of our ordinary shares or ADSs, the value of their investment in our ordinary shares or ADSs may be materially and adversely affected.

***We and our non-resident investors face uncertainty with respect to indirect transfers of equity interests in PRC resident enterprises by their non-PRC holding companies.***

Pursuant to the Notice on Strengthening Administration of Enterprise Income Tax for Share Transfers by Non-PRC Resident Enterprises, or Circular 698, issued by the State Administration of Taxation on December 10, 2009 with retroactive effect from January 1, 2008, where a non-PRC resident enterprise transfers the equity interests of a PRC resident enterprise indirectly by disposition of the equity interests of an overseas holding company, or an indirect transfer, and such overseas holding company is located in a tax jurisdiction that: (i) has an effective tax rate of less than 12.5% or (ii) does not tax foreign income of its residents, the non-PRC resident enterprise, being the transferor, must report this indirect transfer to the competent tax authority of the PRC resident enterprise.

Using a “substance over form” principle, the PRC tax authority may disregard the existence of the overseas holding company if it lacks a reasonable commercial purpose and was established for the purpose of reducing, avoiding or deferring PRC tax. As a result, gains derived from an indirect transfer may be subject to PRC tax at a rate of up to 10%. Circular 698 also provides that, where a non-PRC resident enterprise transfers its equity interests in a PRC resident enterprise to its related parties at a price lower than the fair market value, the relevant tax authority has the power to make a reasonable adjustment to the taxable income of the transaction.



There is uncertainty as to the application of Circular 698. For example, while the term “indirect transfer” is not clearly defined, it is understood that the relevant PRC tax authorities have jurisdiction regarding requests for information over a wide range of foreign entities having no direct contact with China. In addition, there are not any formal declarations with regard to how to determine whether a foreign investor has adopted an abusive arrangement in order to reduce, avoid or defer PRC tax. Even though Circular 698 may not apply to this offering, the tax authorities may consider it apply to the transfer of our ordinary shares or ADSs held by non-resident investors, if any of such transfer were determined by the tax authorities to lack reasonable commercial purpose. As a result, we and our non-resident investors may be at risk of being taxed under Circular 698 and may be required to expend valuable resources to comply with Circular 698 or to establish that we should not be taxed under Circular 698.

***Labor laws in the PRC may adversely affect our results of operations.***

In June 2007, the PRC government promulgated a new labor law, the Labor Contract Law of the PRC, or the Labor Contract Law, which became effective on January 1, 2008. The Labor Contract Law was further amended on December 28, 2012 which became effective on July 1, 2013. Labor Contract Law and its amendment impose greater liabilities on employers and significantly increase the cost of an employer’s decision to reduce its workforce. Furthermore, it requires certain terminations to be based upon duration of employment and not the merits of employees. In the event we decide to significantly change or decrease our workforce, the Labor Contract Law could adversely affect our ability to enact such changes in a manner that is most advantageous to our business or in a timely and cost effective manner, thus materially and adversely affecting our financial condition and results of operations.

***PRC regulations relating to the establishment of offshore special purpose companies by PRC residents may subject our PRC resident shareholders to personal liability and limit our ability to inject capital into our PRC subsidiaries, limit our PRC subsidiaries’ ability to distribute profits to us, or otherwise adversely affect us.***

In October 2005, SAFE issued a circular concerning foreign exchange regulations on investments by PRC residents in China through special purpose companies incorporated overseas, or Circular 75. According to Circular 75 and the relevant SAFE regulations, prior registration with the local SAFE branch is required for PRC residents to establish or to control an offshore company for the purposes of financing that offshore company with assets or equity interests in an onshore enterprise located in the PRC. An amendment to registration or filing with the local SAFE branch by such PRC resident is also required for the injection of equity interests or assets of an onshore enterprise in the offshore company or overseas funds raised by such offshore company or another material change involving a change in the capital of the offshore company.

Moreover, Circular 75 applies retroactively. As a result, PRC residents who have established or acquired control of offshore companies that have made onshore investments in the PRC before November 1, 2005 are required to complete the relevant registration with the local SAFE branch before March 31, 2006. Failure to comply with the registration procedures set forth in Circular 75 may result in restrictions on the foreign exchange activities of the relevant foreign-invested enterprises, including the payment of dividends and other distributions, such as proceeds from any reduction in capital, share transfer or liquidation, to its offshore parent or affiliate and the capital inflow from the offshore parent, and may also subject relevant PRC residents to penalties under PRC foreign exchange administration regulations.

PRC resident shareholders of our offshore companies that have made onshore investments in the PRC have completed the registration as required under Circular 75 and are currently in the process of updating the registration to reflect the offshore financing and change of share ownership in some of our offshore companies. Historically, certain shareholders of Jinglong BVI, our largest shareholder, were imposed of administrative penalties by Hebei SAFE branch for failure to fully comply with the registration requirements of Circular 75. We cannot assure you that PRC resident shareholders of our offshore companies will continue to be in full compliance with the registration requirements under Circular 75 in the future.



As it is uncertain how SAFE will interpret or implement Circular 75, we cannot predict how this circular and other SAFE circulars will affect our business operations or future strategies. For example, we may be subject to more stringent review and approval process with respect to our foreign exchange activities, such as remittance of dividends and foreign currency-denominated borrowings, which may adversely affect our business and prospects.

***PRC rules on mergers and acquisitions may subject us to sanctions, fines and other penalties and affect our future business growth through acquisition of complementary business.***

On August 8, 2006, six PRC government and regulatory authorities, including MOFCOM, promulgated a rule entitled Interim Provisions on the Takeover of Domestic Enterprises by Foreign Investors, or the M&A Rules, which became effective on September 8, 2006 and was subsequently revised on June 22, 2009. The M&A Rules provide procedures and requirements that could make merger and acquisition activities by foreign investors more time-consuming and complex, including requirements in some instances that MOFCOM be notified in advance of any change-of-control transaction in which a foreign investor takes control of a PRC domestic enterprise. In the future, we may grow our business in part by acquiring complementary businesses. Complying with the requirements of the M&A Rule to complete such transactions could be time-consuming, and any required approval processes, including obtaining approval from MOFCOM, may delay or inhibit the completion of such transactions, which could affect our ability to grow our business or maintain our market share. If any of our acquisitions were subject to the M&A Rule and were found not to be in compliance with the requirements of the M&A Rule in the future, relevant PRC regulatory agencies may impose fines and penalties on our operations in the PRC, limit our operating privileges in the PRC, or take other actions that could have a material adverse effect on our business, financial condition, results of operations, reputation and prospects.

***Failure to comply with PRC regulations regarding the registration requirements for stock incentive plans may subject the PRC plan participants or us to fines and other legal or administrative sanctions.***

On December 25, 2006, the People's Bank of China, issued the Administration Measures on Individual Foreign Exchange Control, and its Implementation Rules was issued by SAFE on January 5, 2007, both of which became effective on February 1, 2007. Under these regulations, all foreign exchange matters involved in employee share ownership plans, share option plans and other equity incentive plans participated by PRC individuals shall be transacted upon the approval from SAFE or its authorized branch.

On February 15, 2012, SAFE promulgated the Notice relating to Foreign Exchange Administration for PRC Residents Participating in Stock Incentive Plan of Overseas-Listed Company, or SAFE Notice 7, replacing the Application Procedure of Foreign Exchange Administration for PRC Residents Participating in Employee Stock Holding Plan or Stock Option Plan of Overseas-Listed Company promulgated in March 2007. SAFE Notice 7 is applicable to domestic directors, supervisors, senior management and other employees of an overseas-listed domestic company, PRC subsidiaries or branches of an overseas-listed company and any PRC entities which are directly or indirectly controlled by an overseas-listed company, or Domestic Company, including PRC citizens and foreign citizens who have resided in the PRC for one year or more, or PRC Residents. Under SAFE Notice 7, PRC Residents who are granted stock options or any other stock-related rights and benefits under a stock incentive plan by an overseas publicly listed company are required, through the Domestic Company or a PRC agent, or Domestic Agent, to complete certain procedures and transactional foreign exchange matters under the stock incentive plan upon the examination by, and the approval of, SAFE or its authorized local counterparts; the Domestic Agent is required to register relevant information of the stock incentive plan with the authorized local counterparts of SAFE within three business days of each quarter and is also required to complete foreign exchange cancellation procedures within twenty business days after termination of the stock incentive plan. SAFE Notice 7 further requires that an offshore agent should also be designated to handle matters in connection with the exercise or sale of share options granted under the share incentive plan.

We have advised our employees and directors participating in the 2006 stock incentive plan to handle foreign exchange matters in accordance with SAFE Notice 7 and they completed registration with Hebei branch of SAFE on August 28, 2012. However, we cannot assure you that our PRC individual beneficiary owners and the stock options holders can always successfully register with SAFE in full compliance with SAFE Notice 7. PRC individuals and PRC companies in violation of SAFE Notice 7 will be punished by SAFE, according to the Regulation of the People's Republic of China on Foreign Exchange Administration, Detailed Rules for the Implementation of the Measures for the Administration of Individual Foreign Exchange and other regulations.

## **Risks Related to Our Ordinary Shares and ADSs**

### ***The market price for our ADSs has been volatile and may continue to be volatile.***

The trading prices of our ADSs have been and may continue to be highly volatile and could fluctuate widely due to factors beyond our control. From the initial listing of our ADSs on the NASDAQ Global Select Market on February 7, 2007 to February 7, 2008, the closing prices of our ADSs ranged from US\$16.30 to US\$75.43 per ADS. Then from the day after the date of our 3-for-1 ADS split (February 7, 2008) to December 7, 2012, the closing price of our ADSs ranged from US\$0.6 to US\$25.75. On October 11, 2012, NASDAQ notified us that, based upon the closing bid price of our ADSs for 30 consecutive business days, we failed to meet the US\$1.00 per ADS minimum bid price requirement set forth in the listing rule. In order to regain compliance with NASDAQ listing rule, we changed the ratio of our ADSs to ordinary shares from one ADS representing one ordinary share to one ADS representing five ordinary shares, effective on December 10, 2012. The trading price of our ADSs from December 10, 2012 through April 22, 2014 has ranged from US\$3.21 to US\$13.14 per ADS. This is due to broad market and industry factors, such as the anti-dumping and countervailing duty investigation in the United States, the escalation of the European sovereign debt crisis in 2011, significant government subsidy reduction, the performance and fluctuation in the market prices or the underperformance or declining financial results of other companies based in China that have listed their securities in the United States in recent years. The securities of some of these companies have experienced significant volatility since their initial public offerings, including, in some cases, substantial price declines in the trading prices of their securities. The trading performances of other Chinese companies' securities after their offerings may affect the attitudes of investors toward Chinese companies listed in the United States, which consequently may impact the trading performance of our ADSs, regardless of our actual operating performance. In addition, any negative news or perceptions about inadequate corporate governance practices or fraudulent accounting, corporate structure or matters of other Chinese companies may also negatively affect the attitudes of investors towards Chinese companies in general, including us, regardless of whether we have conducted any inappropriate activities. In addition, the market price of our ADSs may continue to fluctuate in response to factors including the following:

- changes in international trade policies;
- announcements of technological or competitive developments;
- regulatory developments in our target markets affecting us, our customers, our potential customers or our competitors;
- announcements regarding patent litigation or the issuance of patents to us or our competitors;
- announcements of studies and reports relating to the conversion efficiencies of our products or those of our competitors;
- actual or anticipated fluctuations in our quarterly operating results;
- changes in financial estimates by securities research analysts;
- changes in the performance or market valuations of other PV technology companies;
- addition or departure of our executive officers;
- fluctuations in the exchange rate between the U.S. dollar and Renminbi;
- detrimental negative publicity about us, our competitors or our industry; and
- sales or perceived sales of additional ordinary shares or ADSs.

In addition, securities markets may from time to time experience significant price and volume fluctuations that are not related to our operating performance, such as the large decline in share prices in the United States, China and other jurisdictions in late 2008, early 2009 and the second and third quarters of 2011 and second quarter of 2012. These market fluctuations may also have a material adverse effect on the market price of our ADSs.

***Our most current memorandum and articles of association contain anti-takeover provisions that could have a material adverse effect on the rights of holders of our ordinary shares and ADSs.***

Our most current memorandum and articles of association limit the ability of others to acquire control of our company or cause us to engage in change-of-control transactions. These provisions could have the effect of depriving our shareholders of an opportunity to sell their shares at a premium over prevailing market prices by discouraging third parties from seeking to obtain control of our company in a tender offer or similar transaction. For example, our board of directors has the authority, without further action by our shareholders, to issue preferred shares in one or more series and to fix their designations, powers, preferences, privileges, and relative participating, optional or special rights and the qualifications, limitations or restrictions, including dividend rights, conversion rights, voting rights, terms of redemption and liquidation preferences, any or all of which may be greater than the rights associated with our ordinary shares, in the form of ADS or otherwise. Preferred shares could be issued quickly with terms calculated to delay or prevent a change in control of our company or make removal of management more difficult. If our board of directors decides to issue preferred shares, the price of our ADSs may fall and the voting and other rights of the holders of our ordinary shares and ADSs may be materially and adversely affected.

***Holders of our ADSs have fewer rights than holders of our ordinary shares, and you may not receive voting materials in time to be able to exercise your right to vote.***

Holders of our ADSs do not have the same rights of holders of our ordinary shares and may only exercise the voting rights attaching to the ordinary shares evidenced by our ADSs in accordance with the provisions of the deposit agreement. Under our most current memorandum and articles of association, the minimum notice period required to convene a general meeting will be ten days. When a general meeting is convened, holders of our ADSs may not receive sufficient notice of a shareholders' meeting to permit them to withdraw their ordinary shares to cast vote with respect to any specific matter. In addition, the depositary and its agents may not be able to send voting instructions to holders of our ADSs or carry out their voting instructions in a timely manner. We will make all reasonable efforts to cause the depositary to extend voting rights to holders of our ADSs in a timely manner, but we cannot assure you that holders of our ADSs will receive the voting materials in time to ensure that they can instruct the depositary to vote their ADSs. Furthermore, the depositary and its agents will not be responsible for any failure to carry out any instructions to vote, for the manner in which any vote is cast or for the effect of any such vote. As a result, holders of our ADSs may not be able to exercise their right to vote and they may lack recourse if their ADSs are not voted as requested. In addition, an ADS holder, under such capacity, will not be able to call a shareholder meeting.

***You may be subject to limitations on transfers of our ADSs.***

Our ADSs are transferable on the books of the depositary. However, the depositary may close its transfer books at any time or from time to time when it deems expedient in connection with the performance of its duties. In addition, the depositary may refuse to deliver, transfer or register transfers of ADSs generally when our books or the books of the depositary are closed, or at any time if we or the depositary deem it advisable to do so because of any requirement of law or of any government or governmental body, or under any provision of the deposit agreement, or for any other reason.

***Your right to participate in any future rights offerings may be limited, which may cause dilution to your holdings and you may not receive cash dividends if it is impractical to make them available to you.***

We may from time to time distribute rights to our shareholders, including rights to acquire our securities. However, we cannot make rights available to our ADS holders in the United States unless we register the rights and the securities to which the rights relate under the Securities Act or an exemption from the registration requirements is available. Also, under the deposit agreement, the depositary bank will not make rights available to our ADS holders unless the distribution to ADS holders of both the rights and any related securities are either registered under the Securities Act, or exempted from registration under the Securities Act. We are under no obligation to file a registration statement with respect to any such rights or securities or to endeavor to cause such a registration statement to be declared effective. Moreover, we may not be able to establish an exemption from registration under the Securities Act. Accordingly, you may be unable to participate in our rights offerings and may experience dilution in your holdings.

In addition, the depositary of our ADSs has agreed to pay to you the cash dividends or other distributions it or the custodian receives on our ordinary shares or other deposited securities after deducting its fees and expenses. You will receive these distributions in proportion to the number of ordinary shares your ADSs represent. However, the depositary may, at its discretion, decide that it is inequitable or impractical to make a distribution available to any holders of ADSs. For example, the depositary may determine that it is not practicable to distribute certain property through the mail, or that the value of certain distributions may be less than the cost of mailing them. In these cases, the depositary may decide not to distribute such property and you will not receive such distribution.

***We are a Cayman Islands company and, because judicial precedent regarding the rights of shareholders is more limited under Cayman Islands law than that under U.S. law, you may have less protection for your shareholder rights than you would under U.S. law.***

Our corporate affairs are governed by our most current memorandum and articles of association, the Cayman Islands Companies Law and the common law of the Cayman Islands. The rights of shareholders to take action against the directors, actions by minority shareholders and the fiduciary responsibilities of our directors to us under Cayman Islands law are to a large extent governed by the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as that from English common law, which has persuasive, but not binding, authority on a court in the Cayman Islands. The rights of our shareholders and the fiduciary responsibilities of our directors under Cayman Islands law are not as clearly established as they would be under statutes or judicial precedent in some jurisdictions in the United States. In particular, the Cayman Islands has a less developed body of securities laws than the United States. In addition, some U.S. states, such as Delaware, have more fully developed and judicially interpreted bodies of corporate law than the Cayman Islands.

As a result of all of the above, our public shareholders may have more difficulty in protecting their interests in the face of actions taken by our management, our board of directors or our controlling shareholders than they would as shareholders of a U.S. public company.

***You may have difficulty enforcing judgments obtained against us.***

We are a Cayman Islands company and substantially all of our assets are located outside of the United States. A significant portion of our current operations are conducted in China. In addition, most of our directors and officers are nationals and residents of countries other than the United States. A substantial portion of the assets of these persons are located outside the United States. As a result, it may be difficult for you to effect service of process within the United States upon these persons. It may also be difficult for you to enforce in U.S. courts judgments obtained in U.S. courts based on the civil liability provisions of the U.S. federal securities laws against us and our officers and directors, most of whom are not residents in the United States and the substantial majority of whose assets are located outside of the United States. In addition, there is uncertainty as to whether the courts of the Cayman Islands or the PRC would recognize or enforce judgments of U.S. courts against us or such persons predicated upon the civil liability provisions of the securities laws of the United States or any state. In addition, it is uncertain whether such Cayman Islands or PRC courts would be competent to hear original actions brought in the Cayman Islands or the PRC against us or such persons predicated upon the securities laws of the United States or any state.

***We may be classified as a passive foreign investment company for United States federal income tax purposes, which could result in adverse United States federal income tax consequences to U.S. holders of our ADSs or ordinary shares.***

We believe that, as a result of difficult market conditions negatively affecting our gross income, it is very likely that we were a “passive foreign investment company” or “PFIC” for our taxable year ended December 31, 2012. As a result of improving market conditions, however, we believe that we were not a PFIC for our taxable year ended December 31, 2013 and, provided these market conditions remain stable or improve, we would not expect to be a PFIC for our current taxable year ending December 31, 2014 or in the foreseeable future. We can give no assurances in this regard, however, as PFIC determination is inherently factual and, in addition, depends upon certain questions of law for which there is inadequate or uncertain authority. Accordingly, we cannot assure you that we will not be a PFIC for our current or any future taxable year. U.S. Holders who held our ADSs or ordinary shares at any time in 2012 should consult with their advisors regarding the consequences to them if we were a PFIC for the taxable year ending 2012 and the possibility of making a “deemed sale” election.

A non-United States corporation, such as our company, will be classified as a PFIC for United States federal income tax purposes for any taxable year, if either (1) 75% or more of its gross income for such year consists of certain types of “passive” income, or (2) 50% or more of its average quarterly assets as determined on the basis of fair market value during such year produce or are held for the production of passive income. Because there are uncertainties in the application of the relevant rules and PFIC status is a fact-intensive determination made on an annual basis, no assurance may be given with respect to our PFIC status for any taxable year.

If we are classified as a PFIC for any year during which a U.S. Holder holds the ADSs or ordinary shares, a U.S. Holder may incur significantly increased United States income tax on gain recognized on the sale or other disposition of the ADSs or ordinary shares and on the receipt of distributions on the ADSs or ordinary shares to the extent such gain or distribution is treated as an “excess distribution” under the United States federal income tax rules. Furthermore, a U.S. Holder will generally be treated as holding an equity interest in a PFIC in the first taxable year of the U.S. Holder’s holding period in which we become a PFIC and subsequent taxable years even if, we, in fact, cease to be a PFIC in subsequent taxable years. Accordingly, a U.S. Holder should, to the extent an election is available, consider making a “deemed sale” election. See the discussion under “Item 10 Additional Information—Taxation—Certain United States Federal Income Taxation Considerations—Passive Foreign Investment Company Considerations” concerning the United States federal income tax consequences of an investment in the ADSs or ordinary shares if we are or become classified as a PFIC, including the possibility of making a “deemed sale” election.

#### **ITEM 4. INFORMATION ON THE COMPANY**

##### **A. HISTORY AND DEVELOPMENT OF THE COMPANY**

Our ultimate holding company, JA Solar, was incorporated on July 6, 2006 as an exempted company with limited liability. JA Solar is governed by the Companies Law of the Cayman Islands.

We commenced our business in May 2005 through JA Hebei, a limited liability company established in China. To enable us to raise equity capital from investors outside of China, we incorporated JA BVI in the British Virgin Islands in July 2006, and established a holding company structure by restructuring JA Hebei as a wholly-owned subsidiary of JA BVI.

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In August 2006, we undertook a further restructuring by issuing shares of JA Solar to all existing shareholders of JA BVI in exchange for all of the shares that these shareholders held in JA BVI. As a result, JA BVI became a wholly-owned subsidiary of JA Solar. We completed our initial public offering in February 2007 and had our ADSs listed on the NASDAQ Stock Market.

Historically, we have primarily been engaged in the manufacturing and sales of solar cells. Since the fourth quarter of 2009, we have expanded our business to upstream silicon wafer manufacturing and downstream manufacturing and sales of solar modules. We further expanded our business into providing EPC services in the third quarter of 2011. In addition, we further expanded our business to engage in project development activities in 2013. We mainly operate our business through the following significant subsidiaries:

Name	Jurisdiction of Incorporation	Relationship with us
JA Development Co., Ltd.	British Virgin Islands	Wholly-owned subsidiary
JA Solar Hong Kong Limited	Hong Kong	Wholly-owned subsidiary
JA Solar GmbH	Germany	Wholly-owned subsidiary
JingAo Solar Co., Ltd.	China	Wholly-owned subsidiary
Shanghai JA Solar Technology Co., Ltd.	China	Wholly-owned subsidiary
Shanghai JA Solar PV Technology Co., Ltd.	China	Wholly-owned subsidiary
JA Solar Technology Yangzhou Co., Ltd.	China	Wholly-owned subsidiary
Yangzhou JA Solar PV Engineering Co., Ltd.	China	Wholly-owned subsidiary
Jing Hai Yang Semiconductor Material (Donghai) Co., Ltd.	China	Wholly-owned subsidiary
JA (Hefei) Renewable Energy Co., Ltd.	China	Wholly-owned subsidiary
Hefei JA Solar Technology Co., Ltd.	China	Wholly-owned subsidiary
Solar Silicon Valley Electronic Science and Technology Co., Ltd.	China	Wholly-owned subsidiary
Hebei Ningjing Songgong Semiconductor Co., Ltd.	China	65% owned subsidiary

Our principal executive offices are located at No. 36, Jiang Chang San Road, Zhabei, Shanghai, the People's Republic of China. Our telephone number at this address is (86) 21-60955999 and our fax number is (86) 21-60955727.

Investor inquiries should be directed to us at the address and telephone number of our principal executive offices set forth above. Our website is [www.jasolar.com](http://www.jasolar.com). The information contained on our website is not part of this annual report. Our agent for service of process in the United States is JA Solar USA, Inc., located at 2570 North First Street, Suite 360, San Jose, CA 95131.

## **B. BUSINESS OVERVIEW**

### **Overview**

Our primary business is to design, develop, manufacture and sell solar cell and module products that convert sunlight into electricity for a variety of uses. Historically, we primarily engaged in the manufacturing and sales of solar cells. Since 2009, we have expanded our business to the manufacturing and sales of solar modules as well as silicon wafer manufacturing. Our principal products consist of both monocrystalline and multicrystalline solar cells and solar modules in a variety of standards and specialties. We sell our products mainly under our "JA Solar" brand name, and also produce original equipment for manufacturers or customers, known as OEMs, under their brand names. We also started to engage in project development activities in 2013.

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We began commercial production of solar cells in April 2006 and have since grown rapidly to become one of the world's largest manufacturers of solar cells, according to NPD Solarbuzz, an independent third-party solar energy consultancy. As of December 31, 2013, we had a solar cell manufacturing capacity of 2.5 GW per annum. We manufacture solar cells from silicon wafers utilizing crystalline silicon technology, which converts sunlight into electricity through a process known as PV effect. Performance of solar cells is primarily measured by their conversion efficiency rate, the percentage that sunlight energy is converted into electricity. As of December 31, 2013, the average conversion efficiency rates of our mainstream monocrystalline and multicrystalline solar cells were 19.4% and 17.9%, respectively.

We expanded our business to the manufacturing and sales of solar module products in the fourth quarter of 2009. We now produce and sell a wide variety of module types that fulfill different requirements of our customers, from on-grid systems to off-grid systems, from commercial use to industrial use, and from residential to public utility use. We also manufacture customized module products according to our customers' and end-users' specifications. As of December 31, 2013, we had a solar module manufacturing capacity of 1.8 GW per annum.

We also began manufacturing silicon wafers in the fourth quarter of 2009 to achieve more vertical integration. In 2011, we acquired all the equity interests in Silver Age in order to increase our silicon wafer manufacturing capability, secure wafer supplies and reduce costs of silicon wafers for our solar cell manufacturing. Silver Age owns 100% equity interests of Solar Silicon Valley, a leading producer of monocrystalline silicon wafer based in Sanhe, Hebei Province, China. Our silicon wafer manufacturing capability helps us secure wafer supplies and reduce costs of silicon wafers for our solar cell manufacturing. Currently, we manufacture silicon wafers primarily to meet our internal demand. As of December 31, 2013, we had a silicon wafer manufacturing capacity of 1.0 GW per annum.

We sell our solar cell and module products to module manufacturers, system integrators, project developers and distributors. Through our marketing efforts, we have developed a diverse customer base in various markets worldwide, including China, Germany, Japan, Italy, United Kingdom, the United States, Hong Kong, Australia and Singapore. In 2013, 58.2% of our total revenues were generated from sales to customers outside China. We have also developed cooperative relationships with a number of leading Chinese independent power producers and leading Chinese utility companies, such as China Power Investment Corporation, China Guangdong Nuclear Solar Energy Development Co., Ltd. and China Three Gorges New Energy Corporation. In addition to selling solar power products, we also provide silicon wafer and solar cell processing services to certain customers to maximize the utilization of our manufacturing capacity.

We have grown rapidly since we began manufacturing solar power products in 2006. In 2011, 2012 and 2013, we sold 1.69 GW, 1.70 GW and 2.07 GW of solar power products, respectively. Our total revenues increased from RMB6.7 billion in 2012 to RMB7.2 billion (US\$1.2 billion) in 2013 as a result of improved worldwide solar market condition, increased shipment, and increased proportion of our module sales.

The average selling price per watt of our PV cells decreased from RMB5.7 in 2011 to RMB2.8 in 2012 and to RMB2.4 (US\$0.39) in 2013. The average selling price per watt of our PV modules decreased from RMB8.9 in 2011 to RMB4.5 in 2012 and to RMB4.0 (US\$0.66) in 2013. We expect the prices of solar power products will continue to decline in the long run due to reduced manufacturing costs from improving technology and economies of scale, and industry pursuit to grid cost parity with traditional forms of electricity. In an effort to deepen our downstream reach in the solar market value chain, we began to provide EPC services in the third quarter of 2011. Expanding our business reach into EPC services allows us to broaden our customer base and diversify our revenue stream.



## **Our Products and Services**

We are primarily engaged in the design, development, manufacturing and sales of solar power products based on crystalline silicon technologies. We also derive a portion of our revenues through the provision of solar product processing services and EPC services for solar power projects.

### ***Solar Cells***

Solar cells are semiconductor devices that directly convert sunlight into electricity and are the most elementary component of a solar power system. Solar cells consist of a light-absorbing layer mounted on a substrate, together with top and back electrical contact points, much like a household battery.

We currently produce and sell a variety of monocrystalline and multicrystalline solar cells. In addition to conventional solar cells, we introduced a monocrystalline solar cells named “SECIUM” in 2010 and “MAPLE” in 2011. In 2012, we introduced the new Cypress series, which have higher conversion efficiency, to replace the SECIUM and the MAPLE technology. The Cypress series cells feature excellent solderability and lower encapsulation power loss resulting from high-voltage, low-current electrical performance parameters, elaborated current rating, and positive tolerance for cell power compensation. In 2013, improving upon the Cypress series, we introduced a new generation of cell technology named Cypress2, featuring even better conversion efficiency and reliability performance. We also introduced monocrystalline PERCIUM series with a conversion efficiency of over 20.3% and multicrystalline RIECIUM series with a conversion efficiency of over 18.3%.

### ***Solar Modules***

A solar module is an assembly of solar cells that have been electrically interconnected and encapsulated via a lamination process into a durable and weather-proof package. We produce multicrystalline and monocrystalline solar modules in 48-cell, 60-cell, and 72-cell formats. The power output of our mainstream multicrystalline and monocrystalline 60-cell modules ranges from 245W to 265W and from 250W to 270W, respectively. In 2013, solar modules constituted nearly 57% of our total shipments.

### ***Silicon Wafers***

Silicon wafers are the most important raw materials for producing solar cells, with monocrystalline and multicrystalline silicon wafers as the most commonly used materials. Currently, we produce multicrystalline silicon wafers with dimensions of 156\*156mm and an average thickness of 180 microns and monocrystalline silicon wafers with dimension of 125\*125mm and an average thickness of 185 microns.

### ***Solar product processing***

In order to maximize the effective utilization of our manufacturing capacity, we also provide solar product processing services to some of our customers. Depending on the arrangements with our customers, we may charge a fee for the processing services provided, or alternatively, we may purchase raw materials from our customers, such as polysilicon or silicon wafers, process these raw materials into solar cells or solar modules, and then sell these products back to our customers.

### ***Engineering, Procurement and Construction Services (EPC Services)***

We provide EPC services to independent power project developers and systems owners such as public utility companies. Under the EPC arrangement, we design the PV system, deploy our solar modules, procure the balance of system parts, construct the project system, and connect the system to the grid. Depending on customers’ needs and market opportunities, we may also provide any combination of EPC services within our capacities.



### ***Solar Power Plant Project Development***

Project development involves securing land use rights, obtaining and maintaining necessary regulatory approvals and permits, arranging project financing, project construction, and eventually selling the project assets in a lump sum or retaining them to generate revenues from electricity sales. We began to engage in solar project development both domestically and abroad in 2013.

### **Raw Materials and Utilities**

The raw materials used in our manufacturing process consist primarily of silicon materials, including polysilicon, silicon wafers and, from time to time, ingots, as well as other materials such as metallic pastes, ethylene vinyl acetate, tempered glass, aluminum frames and related consumables.

#### ***Polysilicon and Silicon Wafers***

The basic raw material for producing solar cell and module products is silicon wafers, which are sliced from crystalline ingots developed from melted polysilicon. As such, polysilicon is an essential raw material in the manufacturing of silicon wafers, including our own wafer production.

The prices of polysilicon have seen significant fluctuation over the years due to various factors. Historically, through the first half of 2008, an industry-wide shortage of polysilicon coupled with rapidly growing demand from the solar power industry, caused rapid escalation of polysilicon prices and an industry-wide silicon shortage. However, during the second half of 2008 and the first half of 2009, polysilicon prices fell substantially as a result of significant new manufacturing capacity coming on line and falling demand for solar power products resulting from the global economic crisis and credit market contraction. As the demand for solar power products significantly recovered in response to a series of factors, including the recovery of the global economy, the implementation of incentive policies for renewable energy including solar power and increasing availability of financing for solar power projects, the price of polysilicon went up in the second half of 2010. However, polysilicon prices substantially fell again during 2011 and 2012 due to an industry-wide oversupply. In 2013, polysilicon prices stabilized as market conditions improved. We expect prices of polysilicon continue to fluctuate in the near future.

We procure silicon raw materials through a combination of long-term supply contracts and spot market purchases. We anticipate to obtain silicon raw materials from the spot market to supplement supplies under our existing long-term supply contracts. The unit prices of silicon wafers and polysilicon under our long-term supply contracts were either fixed or fixed during an initial period of several months, after which, the prices would be determined by further negotiations. We have completed re-negotiations on various terms of our supply agreements with certain of our suppliers and are continuing to engage in discussions with our other various suppliers to re-adjust the pricing, prepayment, quantity, delivery and other terms of our existing supply agreements to better reflect current market conditions.

We have entered into major long-term supply contracts with the following polysilicon or silicon wafer suppliers, all of which have prepayment requirements:

- Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd., an affiliate of GCL. The supply contracts with GCL are for silicon wafers and polysilicon and have a delivery term from 2008 to 2015. We have also agreed with GCL in principle to enter into supply arrangements for the years 2016 to 2020, terms of which are subject to further negotiation.
- Wacker. The supply agreements with Wacker are for polysilicon and have a delivery term from 2009 to 2016.
- OCI Company Ltd., or OCI. The supply agreement with OCI is for polysilicon and has a delivery term from 2012 to 2018.
- Hemlock Semiconductor Pte. Ltd., or Hemlock. The supply agreement with Hemlock is for polysilicon and has a delivery term from 2013 to 2020.

#### ***Other Raw Materials***

We use metallic pastes as raw materials in our solar cell production process. Metallic pastes are used to form the grids of metal contacts that are printed on the front and back surfaces of the solar cells through screen-printing to create negative and positive electrodes. In addition, we use ethylene vinyl acetate, tempered glass, aluminum frames and other raw materials in our solar module production process. We seek to maintain active relationships with multiple suppliers for each of these auxiliary raw materials, and we believe we can readily find alternative sources of supply on terms acceptable to us if any of our current suppliers cannot meet our requirements.

### *Utilities*

We consume a significant amount of electrical power and water in our production of solar power products. We have obtained the necessary approvals and/or permits from the relevant PRC governmental authorities for our water and electricity usage in our existing manufacturing and research and development centers.

## **Manufacturing Process**

### *Solar Cells*

We use a semi-automated manufacturing process to lower our production costs and capital expenditures. We intend to optimize the balance between automation and manual operations in our manufacturing process to take advantage of our location in China, where the costs of skilled labor and engineering and technical resources tend to be lower than those in developed countries. The following provides a brief overview of the most important steps in our solar cell manufacturing process:

- *Texturing and cleaning.* The solar cell manufacturing process begins with texturing of the surface of wafers which reduces the solar cell's reflection of sunlight, followed by surface cleaning of the cells. The texturing process for multicrystalline wafers is slightly different from that for monocrystalline wafers.
- *Diffusion.* Next, through a thermal process, a negatively charged coating is applied to the positively charged raw wafers in a diffusion furnace. At the high furnace temperature, the phosphorous atoms diffuse into the wafer surface. As a result, the wafer now has two separate layers—a negatively charged layer on the surface and a positively charged layer below it.
- *Isolation.* To achieve a clean separation of the negative and positive layers, the edges of the wafers are isolated through etching, a process that removes a very thin layer of silicon around the edges of the solar cell resulting from the diffusion process.
- *Anti-reflection coating.* We then apply an anti-reflection coating to the front surface of the solar cell to enhance its absorption of sunlight.
- *Printing.* In a screen printing process, we print silver paste and aluminum paste to the front and back surfaces of the solar cell, respectively, to act as contacts, with the front contact in a grid pattern to allow sunlight to be absorbed.
- *Co-firing.* Subsequently, contacts are connected through an electrode firing process in a conveyor belt furnace at high temperature. The high temperature causes the silver paste to become embedded in the surface of the silicon layer forming a reliable electrical contact. The aluminum paste on the back of the cell serves as a mirror for particles, further enhancing the efficiency level.
- *Testing and sorting.* Finally, we complete the manufacturing of solar cells by testing and sorting. The finished cells are sorted according to efficiency levels and optical criteria. Each cell is tested and subsequently assigned to a performance and quality class depending on the testing results.

### *Solar Modules*

Our solar modules are formed by interconnecting multiple solar cells in the desired electrical configuration through taping and stringing. The interconnected cells are laid out and laminated in a vacuum and then go through a curing process, or a heating process. Through these processes, our solar modules are sealed and become weatherproof and are able to withstand high levels of ultraviolet radiation and moisture. Assembled solar modules are packaged in a protective aluminum frame prior to testing.

## Silicon Wafers

Currently we produce both multicrystalline and monocrystalline silicon wafers. Our production process with multicrystalline silicon wafers starts with producing multicrystalline ingots from polysilicon in multicrystalline furnaces through a casting process. The multicrystalline ingots are then cut into pre-determined sizes. After a testing process, multicrystalline ingots are cropped and the usable parts of the ingots are sliced into wafers by wire saws by high-precision cutting techniques. After being inserted into frames, the wafers go through a cleansing process to remove debris from the previous processes, and are then dried. Wafers are inspected for contaminants and then packed and transferred to our solar cell production facilities.

Our production process with monocrystalline silicon wafers starts from producing monocrystalline ingots from polysilicon. After the ingots are inspected, monocrystalline ingots are squared by squaring machine. Through high-precision cutting techniques, the squared ingots are then sliced into wafers by wire saws using steel wires and silicon carbon powder. After inserting into frames, the wafers are cleaned to remove debris from the previous processes and then dried. Finally, the wafers are inspected for contaminants and then packed and transferred to our solar cell production facilities.

## Production Equipment

The major manufacturing equipment for the production of our solar power products includes ingot furnaces, stringer, laminator, texturing machines, diffusion furnaces, edge isolators, wafer cleaning machines, coating systems, contact printers, co-firing machines and sorting machines. We purchase our equipment from various recognized equipment manufacturers in China, the United States, Europe and Japan. We have developed relationships with the world's leading equipment manufacturers in the solar power industry and work closely with selected equipment manufacturers to develop and build our manufacturing lines. In addition, we have developed technical specifications for the design of certain equipment and engaged manufacturers to construct the equipment in accordance with our specifications. This custom-made equipment is manufactured in China and used to substitute for certain equipment that we would otherwise be required to import from overseas at a higher cost. Our technical team is responsible for overseeing the installation of the manufacturing lines to ensure that the interaction between the various individual components and the entire production process is optimized.

## Manufacturing Capacity and Facilities

As of December 31, 2013, our manufacturing capacities for silicon wafers, solar cells and solar modules were 1.0 GW, 2.5 GW and 1.8 GW per annum, respectively.

All of our manufacturing facilities are located in China and are owned by us through our wholly-owned subsidiaries. Our solar cell manufacturing facilities are located in Ningjin, Hebei Province and Yangzhou, Jiangsu Province. Our solar module manufacturing facilities are located in Fengxian, Shanghai and Hefei, Anhui Province, and our silicon wafer manufacturing facilities are located in Lianyungang, Jiangsu Province and Sanhe, Hebei Province. The table below sets forth certain information regarding our current and planned manufacturing capacity in our various manufacturing facilities:

Product	Facilities location	Rated manufacturing capacity per annum in 2013 (in MW)	Rated manufacturing capacity per annum expected in 2014 (in MW)
Solar cell	Ningjin, Hebei	900	1,200
	Yangzhou, Jiangsu	1,600	1,600
	Total Rated Capacity	2,500	2,800
Solar module	Fengxian, Shanghai	1,300	800
	Hefei, Anhui	500	1,350
	Ningjin, Hebei	0	500
	Port Elizabeth, South Africa	0	150
	Total Rated Capacity	1,800	2,800
Silicon wafer	Lianyungang, Jiangsu	500	500
	Sanhe, Hebei	500	500
	Total Rated Capacity	1,000	1,000

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In February 2011, we entered into an investment agreement with the Management Committee of Hefei High-Tech Industrial Development Zone, or Hefei Committee, in relation to the establishment and development of the Hefei manufacturing center. Under this agreement, we agreed to develop an integrated solar power product manufacturing center in the Hefei High-Tech Industrial Development Zone, with a long-term target manufacturing capacity of 3.0 GW of solar power products, including silicon wafer, solar cells and solar modules. Our solar module manufacturing facility in Hefei has commenced operation in the second quarter of 2012.

In January 2014, we entered into a joint venture agreement with PWSA, a leading provider of comprehensive solar farm construction services, to establish a solar module manufacturing facility in Port Elizabeth, South Africa. Production is scheduled to begin in the second quarter of 2014, with the plant targeted to reach an initial annualized capacity of 150 MW.

As our business develops, we may introduce new manufacturing equipment with higher conversion efficiency rates to replace old manufacturing equipment or we may eliminate outdated production capacity from time to time. In the fourth quarter of 2012, we retired outdated production lines of solar cells and solar modules in each of our facilities in Ningjin, Hebei and Fengxian, Shanghai, each by 300 MW. We incurred impairment loss for property, plant and equipment of RMB397.8 million in 2012, accounting for 5.9% of our total revenues in 2012. See “Item 3. Key Information—D. Risk Factors — Risks Related to our Business and Industry — Disposal of outdated production lines can result in an increased impairment on property, plant and equipment, which may have a negative impact on our results of operations.”

We expect to finance the above capital requirements through our cash flows from operations and borrowing from lending institutions.

## Quality Assurance and Certifications

We employ strict quality control procedures at each stage of the manufacturing process in accordance with ISO 9001 quality management standards to ensure the consistency of product quality and compliance with the our internal production benchmarks. We have also received CE and TÜV certifications for all of our solar modules sold in Europe and UL certifications for all solar modules sold in the United States. As part of our effort to be a clear technology leader in the solar power industry, in December 2011, we entered into a strategic cooperative agreement with TÜV SÜD. With TÜV SÜD's support, we have established at our Fengxian facility a world-class testing center, which will be qualified to conduct IEC61215/61730 testing. As part of the process of establishing the center, TÜV SÜD has already awarded TMP (Testing at Manufacturers' Premises) certification to our in-house laboratories in Fengxian and Hefei. The TMP qualification has enabled us to complete our product certification more quickly and has improved our cost efficiencies. In February 2012, we joined Intertek's "Satellite Program" to strengthen cooperation in the fields of quality, safety and ecology, the designation by Intertek as a "Satellite Program" certified laboratory is a professional recognition of our quality management system, and enables us to become more independent in controlling our product testing and certification processes, thereby significantly improving the product operating cycle and helping us further strengthen our leadership in product quality. Our Hefei laboratory also received the Satellite Program certification in 2013. In August 2012, JA Fengxian also obtained the accreditation of ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories from China National Accreditation Service for Conformity Assessment.

The following table sets forth the certifications we have received and major test standards our products and manufacturing processes have met:

Date	Certification and Test Standard	Relevant Product or Process
November 29, 2007	ISO 9001: 2008	JA Hebei's quality management system in designing, manufacturing and sale of solar cells
November 29, 2007	ISO 14001: 2004	JA Hebei's environmental management system in designing, manufacturing and sale of solar cells
November 29, 2007	OHSAS 18001: 2007	JA Hebei's safety management system in designing, manufacturing and sale of solar cells
May 8, 2009	ISO 9001:2008	JA Yangzhou's quality management system in designing, manufacturing and sale of solar cells
May 8, 2009	ISO 14001: 2004	JA Yangzhou's environmental management system in designing, manufacturing and sale of solar cells
May 8, 2009	OHSAS 18001: 2007	JA Yangzhou's safety management system in designing, manufacturing and sale of solar cells
April 28, 2009	ISO 9001:2008	JA Fengxian's quality management system in designing, manufacturing and sale of solar modules
November 15, 2010	ISO 14001: 2004	JA Fengxian's environmental management system in designing, manufacturing and sale of solar modules
November 15, 2010	OHSAS 18001: 2007	JA Fengxian's safety management system in designing, manufacturing and sale of solar modules
July 25, 2011	ISO 9001:2008	JA Wafer R&D's quality management system in designing, manufacturing and sale of solar wafers
July 25, 2011	ISO 14001: 2004	JA Wafer R&D's environmental management system in designing, manufacturing and sale of solar cells
July 25, 2011	OHSAS 18001: 2007	JA Wafer R&D's safety management system in designing, manufacturing and sale of solar cells
May 9, 2012	ISO 9001:2008	JA Hefei Technology's quality management system in designing, manufacturing and sale of solar modules
May 9, 2012	ISO 14001: 2004	JA Hefei Technology's environmental management system in designing, manufacturing and sale of solar modules
May 9, 2012	OHSAS 18001: 2007	JA Hefei Technology's safety management system in designing, manufacturing and sale of solar modules

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Our senior management team is actively involved in setting quality assurance policies and managing quality assurance performance to ensure the high quality of our solar power products. During the manufacturing process, we continuously monitor the quality of our products in process by following procedures including: (i) automatic monitoring and sorting system based on measurement of the efficiency level, breakage rate, and purity level of solar products and (ii) manual inspection of the surface outlook of solar cells. If any solar power product is damaged, defective, or does not meet other quality standards, it will be removed during the monitoring process.

We have a strong equipment maintenance team with well-trained personnel to oversee the operation of our manufacturing lines to avoid any unintended interruption, and to minimize the regular down time, of such manufacturing lines. To ensure that our quality assurance procedures are effectively applied, manufacturing line employees are provided with regular job training.

## Markets and Customers

We sell our solar cell and module products primarily to module manufacturers, system integrators and project developers. We have developed a diverse customer base in various markets worldwide, including China, Germany, Japan, Italy, United Kingdom, the United States, Hong Kong, Australia, Singapore and Belgium. We perform ongoing credit evaluations of our customers' financial condition whenever deemed necessary and generally does not require collateral. We maintain an allowance for doubtful accounts based upon the expected collectability of all accounts receivable, which takes into consideration an analysis of historical bad debts, specific customer credit worthiness and current economic trends. We plan to continue to expand our direct sales both internationally and domestically as well as to establish long-term relationships with existing customers to develop a loyal customer base.

Historically, we sold a significant portion of our products to customers in China. Since 2010, in connection with our overseas marketing efforts as well as commercial manufacturing and selling of solar modules, we have substantially increased the portion of our products sold to customers outside China. For the years ended December 31, 2011, 2012 and 2013, approximately 48.3%, 54.1% and 58.2% of our revenues were generated from customers outside China, respectively. No single customer accounted for more than 10% of our total net revenues for the years ended December 31, 2011 and 2012. For the year ended December 31, 2013, there is one customer located in Japan accounting for 18.6% of our total revenues.

The following table summarizes our net revenues generated from different geographic markets:

	Year Ended December 31,		
	2011	2012	2013
	(RMB in millions)		
China	5,547	3,087	3,001
Outside China			
Germany	2,111	1,266	661
Japan	25	436	1,597
Rest of the world	3,050	1,930	1,924
Total revenues	10,733	6,719	7,183

## **Sales and Marketing**

We market and sell our solar power products worldwide primarily through a direct sales force and via market-focused sales agents. We have established subsidiaries in Germany and the United States to conduct sales, marketing and brand development for our products in the European and North American markets. Our marketing activities include trade shows, conferences, sales training, product launch events, advertising and public relations campaigns. Working closely with our sales and product development teams, our marketing team is also responsible for collecting market intelligence and supporting our sales team's lead generation efforts.

We sell our products primarily under two types of arrangements:

- Sales contracts with module manufacturers for the sale of solar cells, and with systems integrators, project developers and distributors for the sale of solar modules. We deliver solar power products according to pre-agreed schedules set forth in purchase orders. We require prepayment prior to shipping under some of our sales contracts, we also extend credit terms under some of our sales contracts depending on the general market condition and credit worthiness of customers.
- OEM/tolling manufacturing arrangements. Under these arrangements, we purchase polysilicon or silicon wafers from customers, and then sell solar cell or solar module products back to the same customers, who then sell those products under their own brands. In addition, we have been using our own solar cells to make modules for a limited number of strategic customers who brand the finished solar module products with their own labels.

## **Seasonality**

Our business is subject to seasonal variations in demand linked to construction cycles and weather conditions. Purchases of solar power products tend to decrease during the winter months in our key markets, such as Germany, due to adverse weather conditions that can complicate the installation of solar power systems. Demand from other countries, such as the China, Germany and the U.S., may also be subject to significant seasonality.

## **Intellectual Property**

We rely primarily on a combination of patent, trademark, trade secret and copyright, as well as employee and third party confidentiality agreements to safeguard our intellectual property. As of the date of annual report, we had a total of 138 issued patents and 79 pending patent applications in China as well as 1 pending patent application in the United States.

With respect to, among other things, proprietary know-how that is not patentable and processes for which patents are difficult to enforce, we rely on trade secret protection and confidentiality agreements to safeguard our intellectual property. We believe that many elements of our solar power products and manufacturing processes involve proprietary know-how, technology or data that are not covered by patents or patent applications, including technical processes, equipment designs, algorithms and procedures. We have taken security measures to protect these elements. Our research and development personnel are required to enter into confidentiality, non-competition and proprietary information agreements with us. These agreements address intellectual property protection issues and require our employees to assign to us all of their inventions, designs and technologies they develop during their terms of employment with us. We also take other precautions, such as internal document and network assurance and using a separate dedicated server for technical data.

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In order to protect our reputation and brand, we currently maintain 15 trademark registrations in China, including the Chinese characters “晶澳” of our name and “JA Solar.” We also maintain 10 trademarks outside China.

We have not had any material intellectual property claims against us since our inception.

### **Competition**

The solar power market is intensely competitive and rapidly evolving. As we build out our solar module and wafer manufacturing capacity to become more vertically integrated, we mainly compete with integrated manufacturers of solar power products such as Trina Solar Limited, Yingli Green Energy, and Canadian Solar as well as specialized manufacturers of solar cells, such as Motech Industries Inc., Gintech Energy Corp., and Neo Solar Power Corp. We expect to face increased competition, which may result in price reductions, reduced margins or loss of market share. Some of our competitors have become vertically integrated, from upstream silicon wafer manufacturing to solar power system integration for a longer period than we do. We expect to compete with future entrants to the PV market that offer new technological solutions. Furthermore, many of our competitors are developing or currently producing products based on new PV technologies, including thin film, ribbon, sheet and nano technologies, which they believe will ultimately cost the same as or less than crystalline silicon technologies used by us. In addition, the entire PV industry also faces competition from conventional and non-solar renewable energy technologies. Due to the relatively high manufacturing costs compared to most other energy sources, solar energy is generally not competitive without government incentive programs.

### **Regulation**

This section sets forth a summary of the most significant regulations or requirements that affect our business activities in China and our shareholders' rights to receive dividends and other distributions from us.

#### ***Renewable Energy Law and Other Government Directives***

On December 26, 2009, China revised its Renewable Energy Law, which originally became effective on January 1, 2006. The revised Renewable Energy Law became effective on April 1, 2010 and sets forth policies to encourage the development and on-grid application of solar energy and other renewable energy. The law also sets forth a national policy to encourage the installation and use of solar energy water heating systems, solar energy heating and cooling systems, solar PV systems and other systems that use solar energy. It also provides financial incentives, such as national funding, preferential loans and tax preferential treatment for the development of renewable energy projects and authorizes the relevant pricing authorities to set favorable prices for electricity generated from solar and other renewable energy sources.

On September 4, 2006, China's Ministry of Finance and Ministry of Construction jointly promulgated the Interim Measures for Administration of Special Funds for Application of Renewable Energy in Building Construction, pursuant to which the Ministry of Finance will arrange special funds to support the application of renewable energy systems in building structures, or BIPV applications, to enhance building energy efficiency, protect the environment and reduce consumption of fossil fuel energy. Under these measures, applications to provide hot water supply, refrigeration, heating and lighting are eligible for such special funds. On March 8, 2011, the Ministry of Finance and the Ministry of Housing and Urban-Rural Development jointly released the Notice on Further Application of Renewable Energy in Building Construction to increase the utilization of renewable energy in buildings.

On March 23, 2009, China's Ministry of Finance promulgated the Interim Measures for Administration of Government Subsidy Funds for Application of Solar PV Technology in Building Construction, or the Interim Measures, to support the promotion of solar PV applications in China. Local governments are encouraged to issue and implement supporting policies for the development of solar PV technology. Under these Interim Measures, a subsidy of RMB20 per watt-peak, or wp, covering BIPV applications installed on or after March 23, 2009 was set for 2009.



The solar power industry ranked prominently in the revised Guidelines of Prioritized Hi-tech Industrialization Areas promulgated by the NDRC, the Ministry of Science and Technology, the Ministry of Commerce, State Intellectual Property Office and the Ministry of Industry and Information Technology on June 23, 2011.

On August 31, 2007, the NDRC promulgated the Medium and Long-Term Development Plan for the Renewable Energy Industry. This plan sets forth national policy to provide financial allowance and preferential tax regulations for the renewable energy industry. This new energy plan is intended to stimulate the development of selected energy industries over the next ten years.

The PRC government has promulgated a number of directives to support energy conservation and the use of solar energy. On April 1, 2008, the PRC Energy Conservation Law came into effect. Among other objectives, this law encourages the utilization and installation of solar power facilities on buildings for energy-efficiency purposes.

On July 16, 2009, Ministry of Finance, Ministry of Science and Technology and National Energy Administration, or NEA, jointly published an announcement containing the guidelines for the Golden Sun Demonstration Program. Under the program, the PRC government will provide, up to 20 MW of PV projects per province, a 50% to 70% subsidy for the capital costs of PV systems and the relevant power transmission and distribution systems. The program further provides that each PV project must have a minimum capacity of 300 kWp with an operation period of not less than 20 years. On September 21, 2010, Ministry of Finance, Ministry of Science and Technology, National Energy Administration and Ministry of Housing and Urban-Rural Development jointly released an announcement to strengthen the administration of, and provide details for, the implementation of the Golden Sun Demonstration Program and government subsidies for BIPV applications. Among other things, the announcement clarified that the PRC government will subsidize 50% of the cost of key equipment for on-grid PV projects and 70% of that for off-grid PV projects in remote regions. In addition, the government will offer subsidies of RMB4 per watt for on-grid PV projects, RMB6 per watt for BIPV projects and RMB10 per watt for off-grid PV projects in remote regions. On January 18, 2012, Ministry of Finance, Ministry of Science and Technology and National Energy Administration released an announcement to clarify that the subsidies for on-grid PV projects offered by the PRC government were RMB8 per watt for the year of 2011, and RMB7 for the year of 2012. On November 7, 2012, General Offices of Ministry of Finance, Ministry of Science and Technology, Ministry of Housing and Urban-Rural Development and National Energy Administration jointly released an announcement on the applications of Golden Sun and BIPV Demonstration Program, which clarified that the subsidies for Golden Sun and common BIPV Demonstration Programs approved and completed on or before June 30, 2013 were RMB5.5 per watt, and the subsidies for highly-integrated BIPV projects of that were RMB7 per watt. The subsidies offered to off-grid PV projects and household systems in remote regions were RMB25 per watt and RMB18 per watt respectively.

On September 26, 2009, the PRC State Council approved and circulated the Opinions of National Development and Reform Commission and other Nine Governmental Authorities on Restraining the Manufacturing Capacity Surplus and Duplicate Construction in Certain Industries and Guiding the Industries for Healthy Development. These opinions concluded that polysilicon manufacturing capacity in China has exceeded demand and adopted a policy to impose more stringent requirements on the construction of new facilities for manufacturing polysilicon in China. These opinions also stated in general terms that the government should encourage polysilicon manufacturers to enhance cooperation and affiliation with downstream solar product manufacturers to expand their product lines. However, these opinions do not provide any detailed measures for the implementation of this policy. As we are not a polysilicon manufacturer and do not expect to manufacture polysilicon in the future, we believe the issuance and circulation of these opinions will not have any material impact on our business.

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On October 10, 2010, the PRC State Council promulgated a decision to accelerate the development of seven strategic new industries. Pursuant to this decision, the PRC government will promote the popularization and application of solar thermal technologies by increasing tax and financial policy support, encouraging investment and providing other forms of beneficial support.

In March 2011, the National People's Congress approved the Outline of the Twelfth Five-Year Plan for National Economic and Social Development of the PRC, which includes a national commitment to promote the development of renewable energy and enhance the competitiveness of the renewable energy industry. Accordingly, in January 2012, the Ministry of Industry and Information Technology, or MIIT, Ministry of Finance and the Ministry of Science and Technology promulgated the detailed Twelfth Five-Year Special Plans respectively regarding the new materials industry and the high-tech industrialization to support the development of the PRC solar power industry.

On July 24, 2011, the NDRC issued the Notice on Improvements to the Feed-in Tariff Policy for On-grid Solar Power Generation to provide a unified national standard tariff price for solar power generation. Pursuant to this notice, non-tendered projects are required to implement the unified national standard tariff price, while tendered projects are required to implement the tender price not higher than the national standard unified tariff price. The NDRC indicates that it will adjust the national standard tariff price in the future based on changes in investment costs and technical progress, among other factors. According to this notice, the national standard tariff price will bolster the adoption of the PV applications in China and benefit the solar power industry. The implementation rules for this notice have not been issued yet.

On January 18, 2012, Ministry of Science and Technology and National Energy Administration reintroduced the Golden Sun Demonstration Projects preliminary plan. On April 28, 2012, Ministry of Finance, Ministry of Science and Technology and National Energy Administration finalized the plan, which would provide approved projects with a subsidy of RMB5.5 per watt. The plan authorized the projects for 2012 with a total manufacturing capacity of 1,709 MW.

On March 14, 2012, Ministry of Finance, the NDRC and National Energy Administration jointly issued Interim Measures on Administration of Additional Subsidy for Renewable Energy Electricity Price, which provides details regarding the subsidies for grid connection fees and project operation fees.

On July 7, 2012, National Energy Administration issued The Twelfth Five-Year Plan of Solar Energy Development, targeting to achieve 21 GW solar energy installation with an annual electricity generation of 25 billion kWh by the end of 2015. Both distributed PV solar capacity and grid-connected capacity will reach 10 GW. The Plan also sets the target to achieve 50 GW of the total solar installation by 2020.

On September 14, 2012, NEA issued Distributed Power Generation Demonstration Area Notice, requiring establishing the PV demonstration area in certain cities. Each city shall not support more than three projects and the maximum capacity shall not exceed 500 MW.

On October 26, 2012, State Grid Corporation announced a distributed generation grid connection policy to provide convenience for solar power station projects with single connection point less than 6 MW and voltage under 10 kV by simplifying the application procedures and increasing service efficiency.

On January 1, 2013, the State Council released an announcement in connection with The Twelfth Five-Year Plan of Energy Development, targeting to reach an annual solar power generation of 21 GW with an annual growth rate of 89.5% by 2015. The announcement also requires establishment of 1,000 solar energy demonstration villages by 2015.

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On February 16, 2013, the NDRC promulgated the revised Guideline Catalogue for Industrial Restructuring which categorizes the solar power industry as an encouraged item.

On July 4, 2013, the PRC State Council promulgated a guideline to promote the development of PV industry, stating that new PV projects shall satisfy the following standards: 1) the conversion efficiency of single crystal silicon PV battery shall be no less than 20%; 2) the conversion efficiency of polysilicon PV battery shall be no less than 18%; 3) the conversion efficiency of thin film PV battery shall be no less than 12%; and 4) the general power consumption of polysilicon production shall be no more than 100 kwh/kg.

On July 18, 2013, the NDRC issued the *Interim Measures on Management of Distributed Generation* to support the development of distributed generation of PV projects.

On August 26, 2013, the NDRC issued an updated feed-in tariff scheme for utility-scale and distributed generation PV projects approved after September 1, 2013, or approved before September 1, 2013 with construction completed on or after January 1, 2014. Under this new scheme, utility scale PV projects are eligible for feed-in tariff ranging from RMB0.90 to RMB1.0 depending on the project location, while distributed generation projects are eligible for feed-in tariff of RMB0.42. The feed-in tariff is scheduled to last for 20 years.

On August 27, 2013, the NDRC announced that the renewable energy electricity fee was increased to RMB1.5 cent/kWh starting from September 25, 2013.

On September, 16, 2013, the MIIT issued *PV Manufacturing Industry Standards*, detailing a set of standards to promote healthy development of the Chinese PV industry. The standards include various manufacturing topics such as plant permitting, capacity expansion financing, minimum product performance requirements, resource consumption requirements, environment protection measures and quality controls. On December 31, 2013, the MIIT issued a list of 109 manufacturers qualified for the previously announced *PV Manufacturing Industry Standards*, certain of our subsidiaries are included in the list.

On January 17, 2014, the NEA issued a notice regarding the additional capacity of the 2014 PV Power Generation Project, stating the total target installation capacity in 2014 is 14 GW, consisting of 6 GW utility scale projects and 8 GW of distributed generation projects. The notice also details the installation capacity breakdown by province.

On January 20, 2014, the NEA issued the Guideline of Energy Work in 2014 to support the solar power generation. The Guideline stated that the NEA will put emphasis on the building of the 18 demonstration plots of distributed PV generation, develop the practical business mode of distributed PV, lower the cost of distributed PV generation and try to achieve the parity use of PV power at low voltage in 2020.

### ***Environmental Regulations***

We may use, generate and discharge toxic, volatile or otherwise hazardous chemicals and wastes in our research, development and manufacturing activities. We are subject to a variety of governmental regulations related to the storage, use and disposal of hazardous materials. The major environmental regulations applicable to us include the Environmental Protection Law of the PRC, the Law of PRC on the Prevention and Control of Water Pollution, Implementation Rules of the Law of PRC on the Prevention and Control of Water Pollution, the Law of PRC on the Prevention and Control of Air Pollution, the Law of PRC on the Prevention and Control of Solid Waste Pollution, the Law of PRC on the Prevention and Control of Noise Pollution and PRC regulations regarding Administration of Construction Project Environmental Protection.

### ***Restrictions on Foreign Businesses and Investments***

The principal regulation governing foreign ownership of solar PV businesses in China is the Catalogue of Industries for Guiding Foreign Investment, updated and effective as of January 30, 2012. Under this regulation, the solar PV business is listed as an industry where foreign investments are encouraged. Encouraged foreign investment companies are entitled to certain preferential treatment, including exemption from tariff on equipment imported for their operations, after obtaining approval from the PRC government authorities.

## ***Dividend Distribution***

The principal regulations governing distribution of dividends paid by wholly foreign-owned enterprises include:

- Wholly Foreign-Owned Enterprise Law of 2001, as amended; and
- Wholly Foreign-Owned Enterprise Law Implementation Rules of 2001, as amended.

Under the current regulatory regime in China, foreign-invested enterprises in China may only pay dividends out of their accumulated profits, if any, determined in accordance with the PRC accounting standards and regulations. In addition, a wholly foreign-owned enterprise in China is required to set aside at least 10% of its after-tax profit calculated in accordance with the PRC accounting standards and regulations each year as its general reserves until the cumulative amount of such reserves reaches 50% of its registered capital. These reserves are not distributable as cash dividends. The board of directors of a wholly foreign-owned enterprise has the discretion to allocate a portion of its after-tax profits to its staff welfare and bonus funds, which is also not distributable to its equity owners except in the event of a liquidation of the foreign-invested enterprise.

## ***Antimonopoly Law***

On August 30, 2007, China adopted an anti-monopoly law, or AML, which took effect as of August 1, 2008. On August 1, 2008, the PRC State Council adopted the Provisions of the State Council on the Standard for Declaration of Concentration of Business Operators, or the SDCBO, which took effect as of August 3, 2008. The AML includes provisions related to merger control, monopoly agreements, restraints on trade, and abuses of dominant market positions. Under the AML and the SDCBO, any business combination (e.g., mergers, acquisitions and joint ventures) that may restrict or eliminate competition in the Chinese domestic market require that a notification be sent to the Ministry of Commerce for approval for such combination.

In addition, certain types of agreements between competitors are forbidden by law if such an agreement eliminates or restricts competition. These agreements include price fixing, output or sales restrictions, market sharing, restrictions on the purchases of new technology or facilities, and collective boycotts. In the case of vertical agreements between parties at different levels of the supply chain, fixing resale prices and restricting minimum resale prices are forbidden unless an exemption applies.

Combinations resulting in fair competition are encouraged in the AML. However, it is an infringement when a company with a “dominant market position” abuses its power by taking actions that restrict or eliminate competition. Behaviors that may be considered as an abuse of power include selling goods at unfairly high or low prices, selling goods below cost without a justified reason, refusing to deal with another party without justified reasons, requiring another party to trade exclusively without justified reasons, certain tying arrangements, and unjustified discriminatory pricing. The NDRC further clarified the scope of the aforementioned behaviors by promulgating Provisions against Price Fixing on December 20, 2010, which came into effect on February 1, 2011. The abovementioned regulations make it possible that our mergers and acquisitions in the PRC will be subject to review by PRC government authorities.

## ***Foreign Currency Exchange***

Pursuant to applicable PRC regulations on foreign currency exchange, Renminbi is freely convertible only to the extent of current account items, such as trade-related receipts and payments, interest and dividends. Capital account items, such as direct equity investments, loans and repatriation of investment, require the prior approval from SAFE or its local branch for conversion of Renminbi into a foreign currency, such as U.S. dollars. Payments for transactions that take place within the PRC must be made in Renminbi. Domestic companies or individuals can repatriate foreign currency payments received from abroad, or deposit these payments abroad subject to the requirement that such payments shall be repatriated within a certain period of time. Foreign-invested enterprises may retain foreign exchange in accounts with designated foreign exchange banks. Foreign currencies received for current account items can be either retained or sold to financial institutions that have foreign exchange settlement or sales business without prior approval from SAFE, subject to certain regulations. Foreign exchange income under capital account can be retained or sold to financial institutions that have foreign exchange settlement and sales business, with prior approval from SAFE, unless otherwise provided.

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In addition, another notice issued by SAFE, or Circular 142, regulates the conversion by foreign-invested enterprises of foreign currency into Renminbi by restricting how the converted Renminbi may be used. Circular 142 requires that Renminbi converted from the foreign currency-denominated capital of a foreign-invested enterprise may only be used for purposes within the business scope approved by the relevant government authority and may not be used to make equity investments in PRC, unless specifically provided otherwise. SAFE further strengthened its oversight over the flow and use of Renminbi funds converted from the foreign currency-denominated capital of a foreign-invested enterprise. The use of such Renminbi may not be changed without approval from SAFE, and may not be used to repay Renminbi loans if the proceeds of such loans have not yet been used. Any violation of Circular 142 may result in severe penalties, including substantial fines.

### C. ORGANIZATIONAL STRUCTURE

For a description of our organizational structure, See “Item 4. Information on the Company—A. History and Development of the Company.”

### D. PROPERTY, PLANTS AND EQUIPMENT

We own our principal executive office building (approximately 12,695 square meters) located in Zhabei, Shanghai. In addition, we own and lease factory and office space in various locations around the world in connection with our operations. We believe that our existing facilities, together with the facilities under construction and to be constructed under our current plans, are adequate for our current requirements. The following table sets forth a summary of our material properties relating to our production and research and development as of December 31, 2013:

Location	Space (in square meters)	Usage of Property	Owned or Leased	Encumbrance
Ningjin, Hebei	184,719	Factory	Leased	None
Yangzhou, Jiangsu	466,200	Factory and R&D center	Owned	None
Fengxian, Shanghai	204,262	Factory	Owned	Yes
Lianyungang, Jiangsu	219,909	Factory and R&D center	Owned	None
Hefei, Anhui	379,616	Factory	Owned	Yes
Sanhe, Hebei	104,740	Factory	Leased	None

See also “Item 4. Information on the Company—B. Business Overview—Manufacturing Capacity and Facilities.”

### Environmental Matters

As we use, generate and discharge toxic, volatile and otherwise hazardous chemicals and wastes in our research and development and manufacturing activities, we are required by PRC law to obtain pollutant discharging permits and undergo government-administered safety examinations with respect to our production facilities. So far, we have not been assessed any penalties for any non-compliance with PRC environmental law and regulations. However, if we fail to comply with such laws and regulations in the future, we may be required to pay fines, suspend production or cease operation. Any failure by us to control the use of or to adequately restrict the discharge of hazardous substances could restrict our utilization of our properties and facilities, subject us to potentially significant monetary damages and fines or suspensions in our business operations.

#### ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

#### ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

*The following discussion and analysis of our financial condition and results of operations are based upon and should be read in conjunction with our consolidated financial statements and the related notes included in this annual report. This discussion contains forward-looking statements that involve risks, uncertainties and assumptions. We caution you that our business and financial performance are subject to substantial risks and uncertainties. Our actual results could differ materially from those projected in the forward-looking statements as a result of various factors, including those set forth in “Item 3. Key Information—D. Risk Factors” and elsewhere in this annual report.*

##### A. OPERATING RESULTS

###### Overview

We are a leading manufacturer of high-performance solar power products based in China. We conduct our business primarily through our wholly-owned subsidiaries in China, and operate and manage our business as a single segment. We commenced our business through JA Hebei in May 2005. Pursuant to a recapitalization plan, all of the former shareholders of JA Hebei transferred their equity interests in JA Hebei to JA BVI, our wholly-owned subsidiary incorporated under the laws of the British Virgin Islands. This recapitalization is accounted for as a legal reorganization of entities under common control, in a manner similar to a pooling-of-interest. Accordingly, our consolidated financial statements have been prepared as if the current corporate structure had been in existence throughout the periods presented.

We derive revenues primarily from sales of solar cell and module products to module manufacturers, system integrator, project developers and distributors. For the year ended December 31, 2013, our total revenues and net loss were RMB7.2 billion (US\$1.2 billion) and RMB426.5 million (US\$70.5 million), respectively.

###### Factors Affecting Our Results of Operations

We believe that the following factors have had, and we expect that they will continue to have, a significant effect on the development of our business, financial condition and results of operations.

- **Industry Demand.** Demand for solar power products is critical to our business and revenue growth. Our business and revenue growth were closely related to industry demand as well as our ability to retain existing customers and attract new customers. Global industry demand experienced a sharp decline from the second half of 2008 to the third quarter of 2009 due to unfavorable economic conditions globally, coupled with increased manufacturing capacity and decreased prices of solar power products. Although solar power industry demand has progressively revived since the fourth quarter of 2009 and throughout the course of 2010 in our key markets, as well as other national economies, the European sovereign debt crisis since 2011 as well as reductions in feed-in tariff in various European countries have again impeded the growth in these markets. The demand in the European Union has been restrained by the fixed floor price offered by CCCME and accepted by us in response to the anti-dumping levies imposed by the European Commission. Such fixed floor prices are higher than our selling prices and are subject to evaluation from time to time. The demand in the European Union is further restrained by the quota limitations applicable to sales of crystalline silicon PV modules and key components originated in or consigned from China to customers in the European Union. The demand in the U.S. market for solar power products manufactured in China was also substantially restrained by the anti-dumping and countervailing duty investigation initiated by the U.S. DOC and ITC in October 2011. The U.S. DOC and the ITC ruled in their final orders that crystalline silicon PV cells produced in China, whether or not assembled into modules, as well as modules assembled from those cells that are exported to the U.S., would be subject to anti-dumping and countervailing duties; and our cells and modules assembled from our cells are subject to an average effective net rate of 29.18%, comprised of a net anti-dumping duty margin of 13.94% and a subsidy rate of 15.24%. We expect that our sales to the U.S. market would be materially and adversely affected. In view of the foregoing, the growth prospects still have a great level of uncertainty and trade policy change can occur unexpectedly, which could temporarily lead to fluctuations in industry demand for solar power products including ours.

- ***Government Subsidies and Economic Incentives***. The near-term growth of the market for solar power products depends largely on the availability and scale of government subsidies and economic incentives, as the current cost of solar power substantially exceeds the cost of electricity generated from conventional or non-renewable sources of energy. Various governments such as those of Germany, Spain, Italy, Greece, Canada, the United States, China and Japan have used different policy initiatives, such as capital cost rebates, feed-in tariffs, tax credits, net metering, to encourage or accelerate the development and adoption of solar power and other renewable energy sources. However, governments may reduce or eliminate existing incentive programs for political, financial or other reasons, which will be difficult for us to predict. Reductions in feed-in tariff programs may result in a significant fall in the price of and demand for solar power products. For example, Japan, our largest overseas solar power products market in 2013, reduced its feed-in tariff for large-scale installation by 10% from 2012 to 2013. Germany, our second largest overseas solar power products market in 2013, has continued to cut back feed-in tariffs since 2010 after installations in the market exceeded government expectation in 2009 and in the following years, and has cut back its feed-in tariffs with a monthly reduction in 2013. Demand for and pricing of our products are highly sensitive to incentive policy decisions by governments in our major markets. Although the implementation of incentive policies for solar power significantly stimulates demand for solar power products, including our products, reductions or limitations on such policies, as have occurred in Japan, Germany and other countries, may reduce demand for such products or change price expectations, causing manufacturers of solar power products, including us, to reduce prices to adjust to demand at lower price levels. Our sales of solar modules and offering of EPC services in China are expected to benefit from the recently promulgated PRC laws, regulations and government policies regarding solar energy and other renewable energy, which are intended to provide incentives or otherwise encourage the development of the solar or other renewable energy sector in China.
- ***Capacity Utilization***. Our silicon wafer manufacturing capacity remained unchanged at 1.0 GW in 2011, 2012 and 2013. Our solar cell manufacturing capacity decreased from 2.8 GW in 2011 to 2.5 GW in 2012 and remained unchanged at 2.5 GW in 2013. Our solar module manufacturing capacity increased from 1.2 GW in 2011 to 1.8 GW in 2012 and remained unchanged at 1.8 GW in 2013. As our business develops, we may introduce new manufacturing equipment with higher production efficiency rates to replace old manufacturing equipment or we may eliminate outdated production capacity from time to time. In the fourth quarter of 2012, we reduced manufacturing capacity in each of our facilities in Ningjin, Hebei and Fengxian, Shanghai, by retiring the outdated production lines of solar cells and solar modules, each by 300 MW. Our ability to achieve satisfactory utilization rates will depend upon a variety of factors, including our ability to attract and retain sufficient customers, the ability of our customers and suppliers to perform their obligations under our existing contracts, our ability to secure a sufficient supply of raw materials and production equipment for our production activities, the availability of working capital and the selling prices for our products.
- ***Pricing of Our Solar Power Products***. The prices of our products are based on a variety of factors, including our silicon raw materials costs, supply and demand conditions for solar power products, product mix, product quality and the terms of our customer contracts, including sales volumes. The average selling price of our solar cells declined from approximately RMB2.8 per watt in 2012 to RMB2.4 per watt in 2013, primarily due to an industry-wide oversupply. The average selling price of our solar module products also declined from RMB8.9 per watt in 2011 to RMB4.5 in 2012 and to RMB4.0 in 2013, primarily due to an industry-wide oversupply. We expect the prices of solar power products, including our own products, will continue to decline over time due to reduced manufacturing costs from improving technology and economies of scale, and industry pursuit to grid cost parity with traditional forms of electricity.



- ***Changing Product Mix.*** We began vertically integrating our business by expanding our production capabilities to manufacture both upstream silicon wafers and downstream solar modules in the fourth quarter of 2009. In addition, expansion to downstream solar module production has changed our product mix. Each of solar cells and solar modules represents a separate stage of the solar power production chain, with each involving different production processes, costs and selling prices. Prior to 2010, our sales consisted almost entirely of solar cells. By the end of December 31, 2013, the sale of solar modules, including solar modules tooling, has accounted for 56.6% of our total shipments and 63.3% of our total revenues, respectively. We expect that our operating results for future periods will continue to be influenced by the change of our product mix.
- ***Price of Silicon Wafers and Related Raw Materials.*** The success of our business and our growth strategy depends heavily on acquiring a supply of polysilicon and silicon wafers at commercially reasonable prices and terms that is consistent with our existing and planned manufacturing capacity. We have entered into prepaid long-term supply contracts with suppliers, including Jinglong Group, GCL and OCI. In some instances, these agreements provide for fixed pricing, substantial prepayment obligations and/or firm purchase commitments that require us to pay for the supply whether or not we accept delivery. We also purchase silicon wafer and polysilicon from the spot market to supplement supplies under our existing long-term supply contracts. The availability and pricing of silicon wafers and polysilicon will affect results of operations.
- ***Technology Improvement.*** The advancement of manufacturing technologies is important in increasing the conversion efficiency of solar cells and reducing the production costs of solar power products. Higher conversion efficiency, together with low price per watt, generally leads to higher revenues from sales of solar power products. As a result, solar power products manufacturing companies, including us, are continuously developing advanced process technologies to improve the conversion efficiency of solar cells while reducing costs to maintain and improve profit margins.

#### **Critical Accounting Policies**

The discussion and analysis of our operating results and financial condition are based on our audited financial statements, which we have prepared in accordance with U.S. GAAP. The preparation of financial statements in conformity with U.S. GAAP requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amount of revenues and expenses during the reporting periods. We base our estimates and assumptions on historical experience and various other factors that we believe to be reasonable under the circumstances, the result of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Our management evaluates these estimates on an ongoing basis. Actual results may differ from these estimates as facts, circumstances and conditions change or as a result of different assumptions.

In reviewing our financial statements, our management considers (i) the selection of critical accounting policies; and (ii) the judgments and other uncertainties affecting the application of those critical accounting policies. The selection of critical accounting policies, the judgments and other uncertainties affecting application of those policies and the sensitivity of reported results to changes in conditions and assumptions are factors to be considered when reviewing our financial statements. Our principal accounting policies are set forth in detail in Note 2 to our audited consolidated financial statements included elsewhere in this annual report. We believe the following critical accounting policies involve the most significant judgments and estimates used in the preparation of our financial statements.



## **Revenue recognition**

### *Revenue recognition for solar modules, solar cells and other products (hereafter “solar products”)*

We recognize revenue from the sale of solar products when the goods are delivered and title and risk of loss transfer is passed to the customers. We sell our solar products at agreed upon prices to our customers, which reflect prevailing market prices.

Our considerations for recognizing revenue are based on the following:

- Persuasive evidence that an arrangement (sales contract) exists between a willing customer and us that outlines the terms of the sale (including customer information, product specification, quantity of goods, purchase price and payment terms). Customers do not have a right of return. We do provide a warranty on our solar module products.
- For EX Works, or EXW, terms, which mean that a seller has the goods ready for collection at its premises (works, factory, warehouse, plant), the contract specifies that the risks are assumed by the customer when the customer picks up the goods from our warehouse, at which time revenue is recognized. For FOB shipping point terms, the contract specifies that the customer takes title to the goods and is responsible for all risks and rewards of ownership once products are over shipping rail at the named loading port from our premises, at which time revenue is recognized. For CIF terms, we pay the costs of insurance and freight necessary to bring the goods to the named port of destination, but the title to and risk/rewards of ownership of the goods is passed to the buyer according to each of the contract term, which is defined in each contract. For Delivered Duty Paid (“DDP”) terms, we pay the costs of insurance and freight necessary to bring the goods to the named port of destination as well as the import duty, and the title to and risk/rewards of ownership of the goods is passed to the buyer once the goods are delivered and the import duty is paid. The point of delivery could be at the port of shipping, or it could also be when the goods arrive at the named port of destination. When title to the goods transfers at the port of shipping, the beneficiary of the insurance is the buyer and we have no obligations to the buyer if goods are damaged during shipping. Revenue is therefore, recognized when the title to and risk/rewards of ownership of the goods is passed to the buyer which is at port of shipping or port of destination, depending on the terms of the contract.
- Our price to the customer is fixed and determinable as specifically outlined in the sales contract.
- For customers to whom credit terms are extended, we assess a number of factors to determine whether collection from them is reasonably assured, including past transaction history with them and their credit worthiness. All credit extended to customers is pre-approved by management. If we determine that collection is not reasonably assured, including circumstances where the customers retain a portion of the full contract price as retainage after a specific period, we defer the recognition of revenue until the aforementioned criterion is met, which is generally upon receipt of payment.

*Revenue recognition for solar product processing*

We provide solar product processing services to customers with their own wafer/polysilicon supplies. Under certain of these solar product processing service arrangements, we purchase raw materials from a customer and agree to sell a specified quantity of solar products produced from such materials back to the same customer. We record revenues from these processing transactions on a net basis, recording revenues based on the amount received for solar products sold less the amount paid for the raw materials purchased from the customer.

*Revenue recognition for engineering, procurement and construction services*

We recognize revenue using the percentage of completion method for systems integration projects for which the Group provides EPC services under the EPC contracts. We estimate our revenues by using the cost-to-cost method, whereby it derives a ratio by comparing the costs incurred to date to the total costs expected to be incurred on the project. We apply the ratio computed in the cost-to-cost analysis to the contract price to determine the estimated revenues earned in each period. We use this method because management considers costs incurred to be the best available measure of progress on these contracts and management believes it has the ability to reasonably estimate and track costs. When we determine that total estimated costs will exceed total revenues under a contract, we record a loss accordingly. No contract losses were recorded in the years ended December 31, 2011, 2012 and 2013.

***Fair Value of Financial Instruments***

We estimated the fair value of its financial assets and liabilities in accordance with ASC 820, *Fair Value Measurements and Disclosure*. ASC 820 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (also referred to as an exit price). ASC 820 establishes a hierarchy for inputs used in measuring fair value that gives the highest priority to observable inputs and the lowest priority to unobservable inputs. Valuation techniques used to measure fair value shall maximize the use of observable inputs.

When available, we measure the fair value of financial instruments based on quoted market prices in active markets, valuation techniques that use observable market-based inputs or unobservable inputs that are corroborated by market data. Pricing information we obtains from third parties is internally validated for reasonableness prior to use in the consolidated financial statements. When observable market prices are not readily available, we generally estimates the fair value using valuation techniques that rely on alternate market data or inputs that are generally less readily observable from objective sources and are estimated based on pertinent information available at the time of the applicable reporting periods. In certain cases, fair values are not subject to precise quantification or verification and may fluctuate as economic and market factors vary and our evaluation of those factors changes. Although we use our best judgment in estimating the fair value of these financial instruments, there are inherent limitations in any estimation technique. In these cases, a minor change in an assumption could result in a significant change in our estimate of fair value, thereby increasing or decreasing the amounts of our consolidated assets, liabilities, shareholders' equity and net income or loss.

***Allowance for doubtful accounts.*** Provisions are made against accounts receivable for estimated losses resulting from the inability of our customers to make payments. We periodically assess accounts receivable balances to determine whether an allowance for doubtful accounts should be made based upon historical bad debts, specific customer creditworthiness and current economic trends. Accounts receivable in the balance sheets are stated net of such provision, if any. We had an allowance for doubtful account balance of RMB32.6 million, RMB190.0 million and RMB281.0 million (US\$46.4 million) as of December 31, 2011, 2012 and 2013. If the financial condition of our customers were to deteriorate such that their ability to make payments was impaired, additional allowances could be required.

**Short-term and long-term advances to suppliers.** We provide short-term and long-term advances to secure our raw material needs, which are then offset against future purchases. We do not require collateral or other security against our advances to our related or third party suppliers. We continually assess the credit quality of our suppliers and the factors that affect the credit risk. If there is deterioration in the credit worthiness of our suppliers, we will seek to recover our advances from the suppliers and provide for losses on advances which are akin to receivables in selling, general and administrative expenses because of their inability to return our advances. We had a provision balance of RMB94.2 million, RMB158.5 million and RMB72.3 million (US\$11.9 million) for potential losses against supplier advances as of December 31, 2011, 2012 and 2013. If the financial condition of our suppliers were to deteriorate such that their ability to deliver product or repay our advances was impaired, additional provisions could be required. Recoveries of the allowance for advances to supplier are recognized when they are received. We classified short-term and long-term advances to suppliers based on management's best estimate of the expected purchase in the next twelve-months as of the balance sheet date and our ability to make requisite purchases under existing supply contracts. The balances expected to be utilized outside of the twelve months are recorded in long-term advances to suppliers.

**Inventories.** Inventories are stated at the lower of cost or market value. Cost of inventories is determined by the weighted-average method. Cost of work-in-progress and finished goods are comprised of direct materials, direct labor and related manufacturing overhead based on normal operating capacity. Adjustments are recorded to write down the carrying amount of any obsolete and excess inventory to its estimated net realizable value. Certain factors could impact the realizable value of inventory, so we continually evaluate the recoverability based on assumptions about customer demand and market conditions. The evaluation may take into consideration historical usage, expected demand, anticipated sales price, new product development schedules, the effect new products might have on the sale of existing products, product obsolescence, customer concentrations, and other factors. The write-down is equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. If actual market conditions are less favorable than those projected by management, additional inventory provisions may be required that could negatively impact our gross margin and operating results. If actual market conditions are more favorable, we may have higher gross margin when products that have been previously written down are eventually sold. The sale of previously reserved inventory did not have a material impact on our gross margin percentage for any of the years presented. As of December 31, 2011, 2012 and 2013, the provision balance for inventories was RMB 223.3 million, RMB141.3 million and RMB69.2 million (US\$11.4 million), respectively.

In addition, we analyze our purchase commitments, which primarily consist of long-term fixed price polysilicon purchase agreements, at each period end. Provision, if any, is made in the current period if the anticipated inventories cost from future execution of such purchase agreements is in excess of market value. There was no loss provision recorded related to these long-term contracts in the years ended December 31, 2011, 2012 and 2013.

**Impairment of long-lived assets.** We evaluate our long-lived assets and finite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Factors considered important that could result in an impairment review include significant underperformance relative to expected historical or projected future operating results, significant changes in the manner of use of acquired assets and significant negative industry or economic trends. Impairments are recognized based on the difference between the fair value of the asset and its carrying value. Fair value is generally measured based on either quoted market prices, if available, or discounted cash flow analyses. Additionally, determining fair values requires probability weighting the cash flows to reflect expectations about possible variations in their amounts or timing and the selection of an appropriate discount rate. Although cash flow estimates are based on relevant information available at the time the estimates are made, estimates of future cash flows are, by nature, highly uncertain and may vary significantly from actual results. Any write-downs would be treated as permanent reductions in the carrying amounts of the assets and an operating loss would be recognized.

**Project assets.** We began to engage in solar project development in 2013. Project assets consist primarily of direct costs relating to solar power projects in various stages of development that are capitalized prior to the sale of the solar power projects. A project asset is initially recorded at the actual cost. For a self-developed project asset that is initially obtained by application of feed-in-tariff ("FIT") contract and other required permits and consents, the actual cost capitalized is the amount of the expenditure incurred for the application of the FIT contracts, permits, consents and other similar direct costs. For a project asset acquired from external parties, the initial cost is the acquisition cost which includes the consideration transferred and certain direct acquisition cost. Modules, construction expenditure and other development costs incurred in the project development process will build up the cost of project assets.

We review project assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. In determining whether or not the project assets are recoverable, we consider a number of factors, including changes in environmental, ecological, permitting, marketing price or regulatory conditions that affect the project. Such changes may cause the cost of the project to increase or the selling price of the project to decrease. No impairment of the project assets was recorded in the year ended December 2013. We intend to sell the project assets once they are completed and the plants will not be operated prior to the sales. However, in case the plants are operated by us, the project assets will be reclassified to property, plant and equipment.

**Issuance of ordinary shares and warrants.** On August 14, 2013, we entered into a Securities Purchase Agreement (the “Purchase Agreement”) with a single institutional investor to issue 15,228,425 ordinary shares for an aggregate cash of US\$ 24 million (RMB equivalent 147,998). In conjunction with the ordinary share offering, we also issued to the Investor Series A-1 Warrant, Series A-2 Warrant, Series A-3 Warrant, and Series B Warrant (“Warrants”) to acquire up to 12,724,164 ordinary shares (or 2,544,833 ADSs), 12,724,164 ordinary shares (or 2,544,833 ADSs), 12,724,164 ordinary shares (or 2,544,833 ADSs), and 50,896,656 ordinary shares (or 10,179,332 ADSs), respectively.

Accordance with ASC 815-10, the warrants are deemed legally detachable and separately exercisable from the ordinary shares and, thus accounted for as a freestanding instrument. As the warrants are denominated in US Dollar, yet our functional currency is RMB, warrants are not considered indexed to our own stock. Accordingly, the warrants are liability derivatives which need to be fair valued on day one and mark to market subsequently at each reporting period end, with the fair value gain or loss arising from the re-measurement recognized in the consolidated statements of operations and comprehensive Loss.

On the transaction date, the sales proceeds are first allocated to the warrant based on the warrants’ full fair value of RMB172.9 million (US\$28.6 million), and the residual amount of the sales proceeds is allocated to the ordinary shares. The fair value of the warrants in excess of net proceeds of the equity offering of RMB44.4 million (US\$7.3 million) is charged to retained earnings as a deemed dividend due to this portion is a benefit transferred from existing shareholders to the new investor. Such amount is charged as deemed dividend on the transaction date and is an adjustment to net loss available to attributable to JA Solar Holdings for basic and diluted EPS calculation, as an effective dividend from existing ordinary shareholders. For the year ended December 31, 2013, RMB51.1 million (US\$8.4 million) of loss was recognized based on a subsequent change in fair value of the warrants in our Consolidated statements of Operations and Comprehensive loss.

These warrants are participating securities because they had contractual rights to share our profits but not losses. For the years ended December 31, 2013, the computation of basic loss per share using the two-class method was not applicable as we were in a net loss position.

**Share-based compensation.** In accordance with ASC 718, *Compensation-Stock Compensation*, we measure the costs of employee services received in exchange for share-based compensation at the grant date fair value of the award.

We recognize the share-based compensation costs, net of a forfeiture rate, on a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award was, in-substance, multiple awards.

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ASC 718 requires forfeitures to be estimated at the time of grant and revised in subsequent periods if actual forfeitures differ from those estimates. For the stock options granted in the years ended December 31, 2011, 2012 and 2013 we used the forfeiture rate of 9.79%, 9.82% and 10.92%, respectively.

### *Grants to Employees*

The determination of the fair value of share-based awards and related share-based compensation expense requires input of subjective assumptions, including but not limited to the valuation model adopted, risk-free interest rate, expected life of the share-based awards, stock price volatility, and expected forfeiture rate. The selection of an appropriate valuation technique or model depends on the substantive characteristics of the instrument being valued. Risk free interest rates are decided based on the yield to maturity of U.S. government bonds as at respective dates of grant of options. Expected life of stock options granted is based on the average between the vesting period and the contractual term for each grant, taking into account assumptions used by comparable companies. Volatility is measured using a combination of historical daily price changes of comparable companies stock over the respective expected life of the option and implied volatility derived from traded options of comparable companies. Forfeiture rate is estimated based on our expectation for the future.

The assumptions used in calculating the fair value of share-based awards and related share-based compensation represent management's best estimations, but these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change or we utilize different assumptions, our share-based compensation expense could be materially different for any period.

### *Income taxes.*

We account for income taxes under the asset and liability method. We recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statements carrying amounts of existing assets and liabilities and their respective tax assets bases and operating loss and tax credit carry forwards. We measure deferred tax assets and liabilities using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. We recognize the effect on deferred tax assets and liabilities of a change in tax rates in income in the period that includes the enactment date. A valuation allowance is provided to reduce the carrying amount of deferred tax assets if it is considered more likely than not that some portion, or all, of the deferred tax assets will not be realized. We recorded valuation allowances to reduce our net deferred tax assets and the balance of such valuation allowance was RMB202.2 million, RMB576.5 million and RMB683.3 million (US\$112.9 million) as of December 31, 2011, 2012 and 2013, respectively.

Uncertain tax position is accounted for in accordance with ASC 740-10-25, which clarifies the accounting for uncertain tax positions and requires that we recognize in the consolidated financial statements the impact of an uncertain tax position, if that position is more likely than not of being sustained upon examination, based on the technical merits of the position. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. Our accounting policy is to accrue interest and penalties related to uncertain tax positions, if and when required, as interest expense and a component of general and administrative expenses, respectively, in the consolidated statements of operations. In the years ended December 31, 2011, 2012 and 2013, we did not record any interest and penalties associated with uncertain tax positions as there were no uncertain tax positions.

### ***Product warranties.***

It is customary in our business and industry to warrant or guarantee the performance of our solar module products at certain levels of conversion efficiency for extended periods. Our standard solar modules are typically sold with a 10 years warranty for defects in materials and workmanship and a 10 to 25 years warranty against declines of more than 10% and 20%, respectively, of the initial minimum power generation capacity at the time of delivery. In addition, we usually provide the same warranty for solar modules assembled for third party OEM customers. We therefore maintain warranty reserves (recorded as accrued warranty costs) to cover potential liabilities that could arise from these guarantees and warranties. The potential liability is generally in the form of product replacement or repair. We accrue 1% of our net revenues from sales of solar modules as general warranty costs at the time revenues are recognized and include that amount in our cost of revenues. We also separately accrue specific warranty costs to cover potential liabilities that could arise from customer claims based on an individual assessment. Due to limited warranty claims to date, we accrue the estimated costs of warranties based on our own history, industry data and an assessment of our competitors' accrual history. Through our relationships with, and management's experience working at, other solar power companies and on the basis of publicly available information regarding other solar power companies' accrued warranty costs, we believe that accruing 1% of our net revenues from sales of solar modules as general warranty costs is within the range of industry practice and is consistent with industry-standard accelerated testing, which assists us in estimating the long-term reliability of solar modules, estimates of failure rates from our quality review and other assumptions that we believe to be reasonable under the circumstances. However, although we conduct quality testing and inspection of our solar module products, our solar module products have not been and cannot be tested in an environment simulating the up to 25-year warranty periods. Actual warranty costs are accumulated and charged against the accrued warranty liability. To the extent that the actual warranty costs differ from the estimates, we will prospectively revise our accrual rate.

### ***Investments.***

Investments in entities where we do not have a controlling financial interest, but have the ability to exercise significant influence over the operating and financial policies of the investee, are accounted for using the equity method of accounting. Investment in a joint venture is accounted for by the equity method of accounting as we have the ability to exercise significant influence but do not own a majority equity interest. Under the equity method of accounting, our share of the investee's results of operations is included in equity gain/(loss) for the investee in our consolidated statements of operations. Unrealized gains on transactions between us and the joint venture are eliminated to the extent of our interest in the joint venture, if any; unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. When our share of losses in the joint venture equals or exceeds our interest in the joint venture, we do not recognize further losses, unless we have incurred obligations or made payments on behalf of the joint venture.

We review our investment in the joint venture to determine whether a decline in fair value below the carrying value is other- than-temporary. The primary factors we consider in our determination are the length of time that the fair value of the investment is below our carrying value and the financial condition, operating performance and near term prospects of the investee. In addition, we consider the reason for the decline in fair value, including general market conditions, industry-specific or investee-specific reasons, changes in valuation subsequent to the balance sheet date and our intent and ability to hold the investment for a period of time sufficient to allow for a recovery in fair value. If the decline in fair value is deemed to be other than temporary, the carrying value of the security is written down to fair value. We recorded an impairment loss of RMB2.1 million (US\$0.3 million) on our investment in the joint venture for the year ended December 31, 2013.

### ***Business combination***

We account for business combinations under the acquisition method in accordance with ASC 805, *Business Combinations*. We measure consideration transferred as the aggregate of the fair values at the date of exchange of the assets given, liabilities incurred, and equity instruments issued. We expense the costs directly attributable to the acquisition as incurred. We measure identifiable assets, liabilities and contingent liabilities acquired or assumed separately at their fair value as of the acquisition date, irrespective of the extent of any non-controlling interests. We record the excess of the (i) the fair value of consideration transferred fair value of the non-controlling interests and acquisition date fair value of any previously held equity interest in the acquiree over (ii) the fair value of the identifiable net assets of the acquiree is recorded as goodwill. If the fair value of consideration transferred, fair value of the non-controlling interests and acquisition date fair value of any previously held equity interest in the acquiree is less than the fair value of the net assets of the entity acquired, we recognize the difference, a bargain purchase, as a gain directly in the statements of operations and other comprehensive income/(loss) upon obtaining controlling interests. For business combinations in which we obtain controlling interests through several acquisitions, the acquirer shall remeasure its previously held equity interests in the acquiree at its fair value on the acquisition date and recognize the resulting gain or loss, if any, in earnings.

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The determination and allocation of fair values to the identifiable assets acquired and liabilities assumed is based on various assumptions and valuation methodologies requiring considerable management judgment. The most significant variables in these valuations are discount rates, terminal values, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. We determine discount rates to be used based on the risk inherent in the related activity's current business model and industry comparisons. Terminal values are based on the expected life of assets and forecasted life cycle and forecasted cash flows over that period. Although we believe that the assumptions applied in the determination are reasonable based on information available at the date of acquisition, actual results may differ from the forecasted amounts and the difference could be material. (See also "Notes to Consolidated Financial Statements—3. Acquisition of Hebei Ningjin Songgong.")

In January 2013, we completed the acquisition of 65% equity interest in Hebei Ningjin Songgong for a total consideration of RMB 150.5 million (US\$24.9 million).

### ***Accounting for share lending arrangement***

We accounted for share lending agreement in accordance with ASU 2009-15, *Accounting for Own-Share Lending Arrangements in Contemplation of Convertible Debt Issuance or Other Financing*, which requires an entity that enters into an equity-classified share lending agreement, utilizing its own shares, in contemplation of a convertible debt issuance or other financing to initially measure the share lending arrangement at fair value and treat it as a cost of the financing. In addition, if it becomes probable that the counterparty to the arrangement will default, the issuer shall recognize an expense for the fair value of the unreturned shares, net of probable recoveries. In the fall of 2008, the Lehman Entities entered into insolvency proceedings in various countries. As a result, we recognized an expense of RMB469.0 million, which equaled to the then fair value of the 1,312,552 ADSs lent to the Lehman Entities, net of the fair value of probable recoveries, with an offset to additional paid-in capital. Probable recoveries were estimated as nil then in 2008.

In June 2012, we entered into a Claims Determination Deed with Lehman Brothers International (Europe) Limited, or LBIE, admitting the claim, or Claim, against LBIE as a general unsecured claim which qualifies for dividends from LBIE for an amount of GBP 38.2 million. On June 29, 2012, we entered into an agreement through private negotiation with a carefully selected group of claims purchasers to sell certain rights pertaining to the Claim and all rights to receive distribution payments from LBIE in exchange for cash consideration of GBP 37.1 million. As required under the claim transfer procedures, the joint administrators of LBIE have acknowledged the sale of the Claim to the purchaser on August 9, 2012. There is no recourse from the purchaser to us if the Claim is not satisfied in full by LBIE. A gain of RMB369.2 million was recorded as other income in the consolidated statements of operations and comprehensive income/(loss).

See also "Notes to Consolidated Financial Statements—16. Senior Convertible Notes.

### **Revenues**

Our revenues for the years ended December 31, 2011, 2012 and 2013 and as a percentage of our total revenues over the same period are as follows:

	Year ended December 31,					
	2011		2012		2013	
	(in millions, except for percentages)					
	RMB	%	RMB	%	RMB	%
Solar modules	3,709	34.6%	4,044	60.2%	4,388	61.1%
Solar cells and other products	6,223	58.0%	2,357	35.1%	2,386	33.2%
Engineering, procurement and construction	147	1.4%	136	2.0%	28	0.4%
Solar product processing	654	6.0%	182	2.7%	381	5.3%
Total Revenues	10,733	100.0%	6,719	100.0%	7,183	100.0%

We derive revenues primarily from the sale of solar cell and module products to module manufacturers, system integrators, project developers and distributors. For the years ended December 31, 2011, 2012 and 2013, approximately 48.3%, 54.1% and 58.2% of our total sales were to customers outside China, respectively. For the years ended December 31, 2011, 2012 and 2013, sales to our largest customer represented approximately 7.3%, 4.8% and 18.6% of our total revenues, respectively; and sales to our three largest customers represented approximately 19.4%, 12.9% and 28.6% of our total revenues, respectively. Our three largest customers were all unrelated third parties. Sales to our top ten customers accounted for approximately 40.4%, 27.7% and 42.5% of total revenues for the years ended December 31, 2011, 2012 and 2013, respectively.

For the year ended December 31, 2013, our revenues from sales of solar modules amounted to approximately RMB4.4 billion (US\$724.8 million), or 61.1% of our total revenues. We sold approximately 1,092.3 MW of solar modules in 2013, compared to 890.0 MW in 2012. The increase of sales of solar modules was primarily due to the change of our transition to focus more on solar modules. We accrued 1.0% of our net revenues from sales of solar modules as general warranty costs at the time revenues are recognized and separately accrued specific warranty costs to cover potential liabilities that could arise from customer claims based on an individual assessment and include that amount in our cost of revenues. Because we have limited warranty claims to date, we accrue the estimated costs of warranties based on our own history, industry data and an assessment of our competitors' accrual history.

For the year ended December 31, 2013, our revenues from sales of solar cells and other products amounted to approximately RMB2.4 billion (US\$0.4 million), or 33.2% of our total revenues. We sold approximately 674.5 MW of solar cells in 2013, compared to approximately 715.5 MW in 2012. The decrease in sales volume was due to an increase in the shipment of solar modules in our product mix. The average selling price of our solar cell products declined from RMB2.8 per watt in 2012 to RMB2.4 per watt in 2013 due to an industry-wide oversupply. We expect the prices of solar cell products, including our own products, to continue to decline over time due to increased supplies, reduced manufacturing costs from improving technology and economies of scale and industry pursuit to grid cost parity with traditional forms of electricity.

For the year ended December 31, 2013, our revenues included revenues from engineering, procurement and construction services, which amounted to approximately RMB27.9 million (US\$4.6 million), or 0.4% of our total revenues. We provide engineering, procurement and construction services to Chinese project owners, most of whom are utility companies and independent power generators.

For the year ended December 31, 2013, our revenues also included revenues from solar product processing services of 305.2MW, which amounted to approximately RMB380.9 million (US\$62.9 million), or 5.3% of our total revenues. We provide solar production processing services to customers who have their own raw material supplies, including polysilicon and wafers. We provide solar product processing services to customers mainly to utilize our excess production capacities when our polysilicon or wafer supplies or customer orders are insufficient for us to operate our manufacturing lines at their full capacities.



## Cost of Revenues

Our cost of revenues primarily consists of costs related to solar modules, solar cells and other products, EPC and solar products processing. The following table sets forth, for the periods indicated, our cost of revenues, in absolute amounts and as a percentage of our total revenues:

	Year ended December 31,					
	2011		2012		2013	
			(in millions, except for percentages)			
	RMB	%	RMB	%	RMB	%
Cost of Revenues						
Solar modules	3,428	31.9%	4,029	60.0%	3,861	53.8%
Solar cells and other products	6,243	58.2%	2,476	36.9%	2,254	31.4%
Engineering, procurement and construction	108	1.0%	85	1.3%	16	0.2%
Solar products processing	493	4.6%	183	2.6%	290	4.0%
Total cost of revenues	10,272	95.7%	6,773	100.8%	6,421	89.4%

**Solar modules.** For the years ended December 31, 2011, 2012 and 2013, our cost of revenues for solar modules accounted for 31.9%, 60.0% and 53.8% of our total revenues, respectively. The decrease in costs of solar modules in absolute amounts and as a percentage of our total revenues from 2012 to 2013 is primarily due to cost reduction effort we made in 2013.

**Solar cells and other products.** For the years ended December 31, 2011, 2012 and 2013, cost of solar cells and other products accounted for 58.2%, 36.9% and 31.4% of our total revenues, respectively. The decrease in the cost of solar cell and other product in absolute amounts and as a percentage of our total revenues from 2011 to 2013 is primarily due to an increase in the production of solar modules in our product mix as well as cost reduction effort we made in 2013.

**Engineering, procurement and construction.** We started providing EPC services in the third quarter of 2011. For the years ended December 31, 2011, 2012 and 2013, the cost of revenues for our EPC services decreased from RMB108 million to RMB85 million in 2012 and to RMB16 million in 2013, due to decrease in the scale of the projects commenced and completed in the years 2011, 2012 and 2013. As a percentage of our total revenues, the cost of revenues for our EPC services accounted for 1.0%, 1.3% and 0.2% for the years ended December 31, 2011, 2012 and 2013, respectively.

**Solar products processing.** For the years ended December 31, 2011, 2012 and 2013, cost of revenues for our solar products processing services accounted for 4.6%, 2.6% and 4.0% of our total cost of revenues, respectively. The increase in the cost of solar products processing in absolute amounts and as a percentage of our total revenues from 2012 to 2013 is primarily due to the increased processing service rendered by us to customers to utilize our excess production capacities.

## Operating Expenses

Our operating expenses consist of selling, general and administrative expenses and research and development expenses. The following table sets forth the components of our operating expenses and each of them as a percentage of our total revenues for the periods indicated:

	Year ended December 31,					
	2011		2012		2013	
	(in millions, except for percentages)					
	RMB	%	RMB	%	RMB	%
Operation Expenses						
Selling, general and administrative expenses	510	4.8%	902	13.4%	765	10.7%
Research and development expenses	69	0.6%	86	1.3%	88	1.2%
Impairment loss for property, plant and equipment	303	2.8%	398	5.9%	—	—
Total operating expenses	882	8.2%	1,386	20.6%	853	11.9%

**Selling, general and administrative expenses.** Selling expenses primarily consist of promotional and other sales and marketing expenses and salaries and benefits for our sales and marketing personnel. General and administrative expenses primarily consist of leasing expenses associated with our administrative offices, salaries and benefits for our administrative, finance and human resources personnel, share-based compensation, bad debt provision, impairment provision against advance payments made to suppliers, freight expenses, business travel expenses and professional services expenses. Our selling, general and administrative expenses accounted for 4.8%, 13.4% and 10.7% of our total revenues for the years ended December 31, 2011, 2012 and 2013, respectively. The decrease in our selling, general and administrative expenses from 2012 to 2013 in absolute amounts and as a percentage of our total revenues was primarily due to tightened expense control and a decrease in allowance for doubtful accounts in 2013, while the decrease in allowance for doubtful accounts in 2013 was primarily due to increased prepayments collected from our customers.

We did not grant any options in 2011 and 2013. In 2012, we granted options to purchase 2,207,000 ordinary shares, respectively, to a number of our directors, employees and consultants. See “Item 6. Directors, Senior Management and Employees—B. Compensation—Stock Option Plans.” Our share-based compensation expenses relating to our option grants and stock awards have had a material and adverse effect on our reported earnings for the years ended December 31, 2011, 2012 and 2013. We recognized a share-based compensation charge of RMB40.2 million, RMB33.2 million and RMB9.4 million (US\$1.6 million) for the years ended December 31, 2011, 2012 and 2013, respectively. The above charges are net of forfeiture reversal amounts of RMB8.5 million, RMB2.7 million and RMB2.8 million (US\$0.5 million) for the years ended December 31, 2011, 2012 and 2013, respectively. Share-based compensation expenses are amortized over the vesting period of these options ranging from two to four years starting from the grant date.

**Research and development expenses.** Research and development expenses primarily consist of research materials, compensation and benefits for research and development personnel. Research and development expenses are expensed when incurred. Our research and development expenses accounted for 0.6%, 1.3% and 1.2% of our total revenues for the years ended December 31, 2011, 2012 and 2013, respectively. We believe that research and development is critical to the success of our business. We intend to focus on innovation of our manufacturing technology as well as imposing stringent measures to maintain a competitive cost structure.

**Impairment loss for property, plant and equipment.** We did not incur any impairment loss for property, plant and equipment in 2013. In 2012 and 2011, we incurred impairment loss of RMB397.8 million and RMB303.1 million for property, plant and equipment, respectively.

#### Interest (Income) Expense, net

We generated interest income of RMB25.8 million, RMB36.2 million and RMB17.1 million (US\$2.8 million) and incurred interest expense of RMB373.7 million, RMB489.3 million and RMB285.6 million (US\$47.2 million) for the years ended December 31, 2011, 2012 and 2013, respectively. Our net interest expense in 2011, 2012 and 2013 was primarily the interest related to the 2008 Senior Notes and our short-term and long-term borrowings. The interest expense recognized for interest payable to the 2008 Senior Notes holders was RMB66.0 million, RMB56.9 million and RMB12.3 million (US\$2.0 million) for the years ended December 31, 2011, 2012 and 2013, respectively. The interest expense recognized for accretion to the redemption value of the 2008 Senior Notes was RMB104.2 million, RMB96.5 million and RMB24.2 million (US\$4.0 million) for the years ended December 31, 2011, 2012 and 2013, respectively. The amount of interest expense recognized relating to the amortization of the issuance cost associated with the share-lending arrangement were RMB27.3 million, RMB29.5 million and RMB8.2 million (US\$1.4 million) for the years ended December 31, 2011, 2012 and 2013, respectively. Other interest expenses were RMB176.2 million, RMB306.4 million and RMB240.9 million (US\$39.8 million) for the years ended December 31, 2011, 2012 and 2013, respectively. The increase or decrease in other interest expenses is consistent with the increase or decrease in borrowings.

## Foreign Exchange Loss

We incurred foreign exchange losses of RMB69.0 million, RMB24.5 million and RMB43.8 million (US\$7.2 million) for the years ended December 31, 2011, 2012 and 2013, respectively. The exchange losses were incurred because a significant portion of our monetary assets and liabilities are denominated in US dollars and Euros, which depreciated in 2011, 2012 and 2013 relative to the RMB. Fluctuations in currency exchange rates may continue to have a significant effect on our financial results as we continue to grow our sales to markets outside China.

## Inflation

Since our inception, inflation in China has not materially affected our results of operations. According to the National Bureau of Statistics of China, the year-over-year percent changes in the consumer price index for December 2011, 2012 and 2013 were increases of 4.1%, 2.5% and 2.5%, respectively. Although we have not been materially affected by inflation in the past, we may be affected if China experiences higher rates of inflation in the future.

## Recently Pronounced Accounting Standards

In February 2013, the FASB issued ASU 2013-02, “Comprehensive Income: Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income”. This update does not change the current requirements for reporting net income or other comprehensive income in financial statements. However, this update requires an entity to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, an entity is required to present, either on the face of the statement where net income is presented or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income but only if the amount reclassified is required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period. For other amounts that are not required under U.S. GAAP to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures required under U.S. GAAP that provide additional detail about those amounts. This update is effective prospectively for reporting periods beginning after December 15, 2012 for public entities. The adoption of this Update beginning on January 1, 2013 does not have a material impact on our consolidated financial statements.

In July 2013, the FASB issued ASU 2013-11, “*Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*”, which is an update to provide guidance on the financial statement presentation of an unrecognized tax benefit when a net operating loss carryforward exists. The guidance requires an entity to present an unrecognized tax benefit in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, except for when a net operating loss carryforward is not available as of the reporting date to settle taxes that would result from the disallowance of the tax position or when the entity does not intend to use the deferred tax asset for purposes of reducing the net operating loss carry forward. The guidance is effective for fiscal years beginning after December 15, 2013 and for interim periods within that fiscal year. We do not expect the adoption of this pronouncement to have a material impact on our consolidated financial statements.

## Results of Operations

The following table sets forth certain consolidated results of operations data in terms of amount and as a percentage of our total revenues for the periods indicated.

	Year ended December 31,					
	2011		2012		2013	
	(in millions, except for operating data and percentages)					
	RMB	%	RMB	%	RMB	%
<b>Income Statement and Comprehensive Loss Data:</b>						
Total Revenues	10,733	100.0%	6,719	100.0%	7,183	100.0%
China	5,547	51.7%	3,087	45.9%	3,002	41.8%
Outside China	5,186	48.3%	3,632	54.1%	4,181	58.2%
Cost of revenues	(10,272)	(95.7)%	(6,773)	(100.8)%	(6,421)	(89.4)%
Gross profit/(loss)	461	4.3%	(54)	(0.8)%	762	10.6%
Operating expenses	(882)	(8.2)%	(1,386)	(20.6)%	(853)	(11.9)%
Selling, general and administrative expenses	(510)	(4.8)%	(902)	(13.4)%	(765)	(10.7)%
Research and development expenses	(69)	(0.6)%	(86)	(1.3)%	(88)	(1.2)%
Impairment loss for property, plant and equipment	(303)	(2.8)%	(398)	(5.9)%	—	—
Loss from continuing operations	(421)	(3.9)%	(1,440)	(21.4)%	(91)	(1.3)%
Change in fair value of derivatives	85	0.8%	9	0.1%	(52)	(0.7)%
Convertible notes buyback gain/(loss)	4	0.0%	(8)	(0.1)%	—	—
Interest expense	(374)	(3.5)%	(489)	(7.3)%	(285)	(4.0)%
Interest income	26	0.2%	36	0.5%	17	0.2%
Foreign exchange loss	(69)	(0.6)%	(25)	(0.4)%	(44)	(0.6)%
Loss for equity investment in a joint venture	(1)	(0.0)%	(43)	(0.6)%	(2)	(0.0)%
Other income, net	236	2.2%	399	6.0%	16	0.2%
Loss from continuing operations before income taxes	(514)	(4.8)%	(1,561)	(23.2)%	(441)	(6.2)%
Income tax (expense)/benefit	(58)	(0.5)%	(101)	(1.5)%	15	0.2%
Net loss	(572)	(5.3)%	(1,662)	(24.7)%	(426)	(6.0)%
Gain from sales of discontinued operations, net of tax	8	0.1%	—	—	—	—
Net loss	(564)	(5.2)%	(1,662)	(24.7)%	(426)	(6.0)%

#### *Year Ended December 31, 2013 compared to Year Ended December 31, 2012*

**Total revenues.** Our total revenues increased from RMB6.7 billion in 2012 to RMB7.2 billion (US\$1.2 billion) in 2013. The increase was primarily due to improvement in the general demand for PV products and our success in capturing the growth in key markets. Our total shipments increased from 1.7 GW in 2012 to 2.1 GW in 2013. Our total revenues from sales in China decreased slightly from RMB3.1 billion in 2012 to RMB3.0 billion (US\$495.8 million) in 2013, which was primarily due to a decrease in average selling price of products sold in China as well as our transition to focus less on solar cells, which are more likely to be sold in China. Our total revenues from sales outside China increased from RMB3.6 billion in 2012 to RMB4.2 billion (US\$690.7 million) in 2013, primarily due to our effort in expanding the overseas market. Our revenues from sales in China, as a percentage of our total revenues, decreased from 45.9% in 2012 to 41.8% in 2013, and our revenues from sales outside China, as a percentage of our total revenues, increased from 54.1% in 2012 to 58.2% in 2013. This reflected our transition to focus more on solar modules, which are more likely to be sold to customers outside of China. In 2013, Japan became our largest overseas market, where we derived 22.2% of our total revenues.

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*Cost of revenues.* Our cost of revenues decreased from RMB6.8 billion in 2012 to RMB6.4 billion (US\$1.1 billion) in 2013. The decrease in our cost of revenues was primarily due to a decrease in the unit price of raw materials and processing cost.

*Gross profit/(loss).* We recorded a gross profit of RMB762.3 million (US\$125.9 million) in 2013 as compared to a gross loss of RMB54.4 million in 2012, primarily due to improvement in the market condition, offsetting the impact of a slight decrease in the average selling price of our solar power products, and our success in reducing manufacturing costs. Our gross profit as a percentage of our total revenues was 10.6% in 2013 and our gross loss as a percentage of our total revenues was -0.8% in 2012.

*Total operating expenses.* Our total operating expenses decreased from RMB1.4 billion in 2012 to RMB853.5 million (RMB141.0 million) in 2013. The decrease in our total operating expenses was primarily due to a decrease in impairment loss on long-lived assets from RMB397.8 million in 2012 to nil in 2013. Total operating expenses as a percentage of our total revenue decreased from 20.6% in 2012 to 11.9% in 2013.

- *Selling, general and administrative expenses.* Our selling, general and administrative expenses decreased from RMB901.6 million in 2012 to RMB765.2 million (US\$126.4 million) in 2013, and as the percentage of our total revenues decreased from 13.4% in 2012 to 10.7% in 2013. The decrease in our selling, general and administrative expenses in absolute amounts and as a percentage of our total revenues was primarily due to tightened expense control and a decrease in allowance for doubtful accounts in 2013, while the decrease in allowance for doubtful accounts in 2013 was primarily due to increased prepayments collected from our customers.
- *Research and development expenses.* Our research and development expenses increased from RMB86.4 million in 2012 to RMB88.3 million (US\$14.6 million) in 2013 and as a percentage of our total revenues decreased slightly from 1.3% in 2012 to 1.2% in 2013. The increase in the absolute amount of our research and development expenses was due primarily to greater research and development activities undertaken by us.
- *Impairment loss for property, plant and equipment.* In 2013, we did not incur any impairment loss for property, plant and equipment. In 2012, we incurred impairment loss of RMB397.8 million for property, plant and equipment.

*Change in fair value of derivatives.* Our changes in fair value of derivatives changed from a gain of RMB9.3 million in 2012 to a loss of RMB51.9 million (US\$8.6 million) in 2013. The change reflects fair value changes associated with our derivative assets and liabilities for the years ended December 31, 2012 and 2013, respectively, in particular our embedded derivatives in association with the 2008 Senior Notes and derivatives underlying warrants we issued to a single investor in conjunction with the ordinary share offering on August 13, 2013, the value of which is a combined result of change in share price, volatility, expected term to maturity, risk-free rate and credit spread, etc.

*Convertible notes buyback gain/(loss).* We did not incur any convertible notes buyback gain/(loss) in 2013.

*Interest expenses.* We incurred an interest expenses of RMB489.3 million and RMB285.6 million (US\$47.2 million) in 2012 and 2013, respectively. The decrease in our interest expense was primarily due to reduction in outstanding debt.

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*Interest income.* Our interest income decreased from RMB36.2 million in 2012 to RMB17.1 million (US\$2.8 million) in 2013, respectively. The decrease in our interest income was primarily due to a reduction in cash balance.

*Foreign exchange loss.* Our foreign exchange loss increased from RMB24.5 million in 2012 to RMB43.8 million (US\$7.2 million) in 2013, primarily due to the continuing depreciation of the U.S. dollar and Euro against Renminbi in 2013.

*Other income.* Our other income decreased from RMB398.9 million in 2012 to RMB16.1 million (US\$2.7 million) in 2013 primarily because our other income in 2012 was due to a one-time gain of RMB369.2 million from sales proceeds pertaining to the sale of certain rights related to a claim against LBIE, originating from an ADS lending agreement between us and LBIE, dated May 13, 2008.

*Income tax (expense)/benefit.* Our income tax benefit was RMB15 million (US\$2.5 million) in 2013, compared to an income tax expense of RMB100.6 million in 2012, primarily because we reversed certain valuation allowance in 2013 when certain subsidiaries generated sufficient taxable income to utilize the deferred tax assets.

*Net Loss.* As a result of the above factors, we recorded a net loss of RMB426.5 million in 2013, compared to a net loss of RMB1.7 billion in 2012.

***Year Ended December 31, 2012 compared to Year Ended December 31, 2011***

*Total revenues.* Our total revenues decreased from RMB10.7 billion in 2011 to RMB6.7 billion in 2012. The decrease was primarily due to a decline in the average selling price per watt of our solar power products and severe market condition, intense competition and industry-wide oversupply. The average selling price per watt of our PV cells decreased from RMB5.7 in 2011 to RMB2.8 in 2012. The average selling price per watt of our PV modules decreased from RMB8.7 in 2011 to RMB4.5 in 2012. Our total shipments increased slightly from 1.69 GW in 2011 to 1.7 GW in 2012. We started to consolidate the financial results of Solar Silicon Valley since December 1, 2011. Our total revenues from sales in China decreased from RMB5.5 billion in 2011 to RMB3.1 billion in 2012, which was primarily due to a decrease in average selling price of products sold in China as well as our transition to focus less on solar cells, which are more likely to be sold outside China. Our total revenues from sales outside China decreased from RMB5.2 billion to RMB3.6 billion as a result of a decrease in average selling price of products sold outside China. Our revenues from sales in China, as a percentage of our total revenues, decreased from 51.7% in the 2011 to 45.9% in 2012, and our revenues from sales outside China, as a percentage of our total revenues, increased from 48.3% to 54.1% in 2012. This reflected our transition to focus more on solar modules, which are more likely to be sold to customers outside of China. In 2012, Germany remained our largest overseas market, where we derived 18.8% of our total revenues in 2012.

*Cost of revenues.* Our cost of revenues decreased from RMB10.3 billion in 2011 to RMB6.8 billion in 2012. The decrease in our cost of revenues was primarily due to a decrease in the unit price of raw materials and processing cost.

*Gross profit/(loss).* We had a gross profit of RMB461.3 million in 2011 and a negative gross profit of RMB54.4 million in 2012 as a result of the decline in the average selling price of our solar power products due to an industry-wide oversupply.

*Total operating expenses.* Our total operating expenses increased from RM881.8 million in 2011 to RMB1.4 billion in 2012. The increase in our total operating expenses was primarily due to an increase in long-lives assets impairment loss and an increase in selling, general and administrative expenses. Total operating expenses as a percentage of our total revenue increased from 8.2% in 2011 to 20.6% in 2012.

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- *Selling, general and administrative expenses.* Our selling, general and administrative expenses increased from RMB509.8 million in 2011 to RMB901.6 million in 2012, and as the percentage of our total revenues increased from 4.8% in 2011 to 13.4% in 2012. The increase in our selling, general and administrative expenses was primarily due to an increase in selling and marketing expenses of RMB122.0 million as a result of geographical diversification of our solar module sales in 2012 of RMB122.0 million, an increase in bad debt provision of RMB160.8 million as a result of financial difficulties of a few customers, impairment provision against advance payments made to suppliers of RMB58.0 million as a result of an impairment provision against prepayment made to M.SETEK, and an increase in salary and benefit expenses of RMB55.2 million as a result of an increase in headcount in 2012. The selling expenses increased as we continue to explore new overseas market, such as Japan. The per unit freight expense also increased as we shipped a greater proportion of solar modules in our product mix. Increased selling, general and administrative expenses in 2012 also reflected the impact related to our acquisition of Solar Silicon Valley in November 2011.
- *Research and development expenses.* Our research and development expenses increased from RMB68.9 million in 2011 to RMB86.4 million in 2012 and as a percentage of our total revenues increased from 0.6% in 2011 to 1.3% in 2012. The increase in our research and development expenses was due primarily to greater research and development activities undertaken by us.
- *Impairment loss for property, plant and equipment.* We incurred impairment loss for property, plant and equipment in relation to our multicrystalline wafer manufacturing facility in Lianyungang, Jiangsu Province, which amounted to RMB250.7 million; and retirement of outdated production lines in each of our facilities in Ningjin, Hebei and Fengxian, Shanghai, which amounted to RMB147.1 million in total.

*Change in fair value of derivatives.* Our changes in fair value of derivatives changed from a loss of RMB84.9 million in 2011 to a gain of RMB9.3 million in 2012. The change reflects fair value changes is associated with our derivative assets and liabilities for the years ended December 31, 2011 and 2012, respectively, in particular our embedded derivatives in association with the 2008 Senior Notes, the value of which is a combined result of change in share price, volatility, expected term to maturity, risk-free rate and credit spread, etc.

*Convertible notes buyback gain/(loss).* Our convertible notes buyback gain/(loss) changed from a gain of RMB 4.3 million in 2011 to a loss of RMB 8.5 million in 2012, primarily due to an increase in the market price.

*Interest expenses.* We incurred net interest expenses of RMB347.9 million and RMB453.1 million in 2011 and 2012, respectively. Our interest expenses were primarily related to our 4.5% senior convertible notes maturing on May 15, 2013, or the 2008 Senior Notes, and our short-term and long-term bank borrowings. The interest expense recognized for interest payable to the 2008 Senior Notes holders was RMB66.0 million and RMB56.9 million in 2011 and 2012, respectively. The interest expenses recognized for accretion to the redemption value of the 2008 Senior Notes were RMB104.2 million and RMB96.5 million in 2011 and 2012, respectively. The amount of interest cost recognized relating to the amortization of the issuance cost associated with the share-lending arrangement were RMB 27.3 million and RMB29.5 million for the years ended December 31, 2011 and 2012, respectively. Other interest expenses were RMB176.2 million and RMB306.4 million in 2011 and 2012, respectively. The increase in other interest expenses was primarily due to an increase in total bank borrowings. The interest income incurred in 2011 and 2012 were RMB25.8 million and RMB36.2 million, respectively.

*Foreign exchange loss.* Our foreign exchange loss decreased from RMB69.0 million in 2011 to RMB 24.5 million in 2012, primarily due to the continuing depreciation of the U.S. dollar and Euro against Renminbi in 2012.



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*Other income.* Our other income, net increased from RMB235.7 million in 2011 to RMB398.9 million in 2012 primarily due to a one-time gain of RMB369.2 million from sales proceeds of certain rights pertaining to a claim against LBIE, originating from an ADS lending agreement between us and LBIE, dated May 13, 2008.

*Income tax expenses.* We incurred income tax expenses of RMB57.8 million and RMB100.6 million in 2011 and 2012, respectively. The increase in income tax expense was primarily due to additional income tax expense from of RMB82.5 million paid to local tax bureau in Xingtai City, Hebei Province. In February 2013, JA Hebei received a notice from the local tax bureau of Xingtai City, Hebei Province, revoking its original approval that JA Hebei was entitled to enjoy a separate Tax Holiday for taxable income attributable to the 2007 Capital Injection. As a result, we recorded an additional income tax expense of RMB82.5 million at the end of 2012 and made subsequent payment in March 2013.

*Loss from continuing operations.* We incurred a loss of RMB572.1 million and RMB1.7 billion from continuing operations in 2011 and 2012, respectively.

*Income from discontinued operations.* As a result of our discontinued operations in South Korea in 2011, we recorded an income of RMB7.8 million from discontinued operations in 2011. We had no discontinued operations in 2012.

*Net Loss.* As a result of the above factors, we generated net loss of RMB1.7 billion in 2012 compared to a net loss of RMB564.3 million in 2011.

## **B. LIQUIDITY AND CAPITAL RESOURCES**

### **Cash Flows and Working Capital**

We have financed our operations primarily through equity contributions by our shareholders through our initial and follow-on public offerings, the 2008 Senior Notes, short-term and long-term borrowings and cash flow from operations. As of December 31, 2011, 2012 and 2013, we had RMB4.0 billion, RMB3.2 billion and RMB2.7 billion (US\$447.4 million) in cash and cash equivalents and restricted cash, respectively. Our cash and cash equivalents consist primarily of cash on hand, demand deposits and money market funds. Restricted cash represents amounts temporarily held by banks as collateral for issuance of letters of credit, letters of guarantee, bank acceptance notes as well as certain bank borrowings, which are not available for our use. As of December 31, 2011, 2012 and 2013, we had RMB4.9 billion, RMB4.9 billion and RMB3.6 billion (US\$596.7 million), respectively, in outstanding borrowings. The unused lines of credit were RMB1.1 billion (US\$181.6 million) as of December 31, 2013. These loan facilities do not contain specific renewal terms. Our short-term borrowings of RMB85.4 million (US\$14.1 million) with Overseas-Chinese Banking Corporation were secured by certain restricted cash, our long-term borrowings of RMB136 million (US\$22.5 million) with Agricultural Bank of China were secured by certain of our buildings and land use right in Shanghai Jinglong. Our entrustment loan of RMB1.44 billion (US\$237.9 million) with Hefei High-Tech Industrial Development Zone Management Co., Ltd. is secured by certain machinery and equipment and land use rights owned by JA Hefei Technology and all our equity interests in JA Hefei Renewable Energy and JA Hefei Technology. No collateral is created on other properties we own.

As of December 31, 2011, 2012 and 2013, we had RMB1.4 billion, RMB2.8 billion and RMB2.1 billion (US\$340.0 million), respectively, in outstanding short-term borrowings and current portion of long-term borrowings. As of December 31, 2011, 2012 and 2013, we had RMB3.5 billion, RMB2.1 billion and RMB1.6 billion (US\$256.7 million), respectively, outstanding long-term borrowings. These loans were borrowed from various financial and non-financial institutions and generally have terms of 4 to 91 months and expire at various times. Our borrowings outstanding as of December 31, 2013 bore average interest rates of 6.42% per annum. These credit facilities were granted for long-term project development as well as working capital usages. These facilities contain no specific renewal terms, but we have historically been able to obtain extensions of some of the facilities shortly before they mature. On September 3, 2010, we entered into a Financial Partnership Agreement with China Development Bank Shanghai Branch, or CDB. The Financial Partnership Agreement is a commercial framework agreement, pursuant to which CDB agrees to provide up to RMB30 billion of credit facilities to us from 2010 to 2015 to support our capital needs under its long-term growth and corporate development plans. As a result of the Financial Partnership Agreement, the Company is qualified to have an expedited approval process for individual credit agreements. Detailed terms including interest rate and covenants of each such credit facility will be determined by CDB in accordance with its risk management and operational guidelines, and set forth in individual credit agreements between CDB and the Company. As of December 31, 2013, we had not utilized any credit facilities from CDB.



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Working capital and access to financing for purchase of silicon raw materials are critical to growing and sustaining our business. We have significant working capital commitments because suppliers of silicon wafers and polysilicon require us to make prepayments in advance of shipments. Our prepayments to suppliers decreased from RMB1.9 billion as of December 31, 2011 to RMB1.5 billion as of December 31, 2012, as a combined result of utilization of prepayments previously made as well as additional allowance provided against prepayments. Our net inventory increased from RMB 730.6 million as of December 31, 2011 to RMB930.1 million as of December 31, 2012 and to RMB1.3 billion (US\$222.5 million) as of December 31, 2013 as a result of our increase in sales forecast.

Our accounts receivable increased from RMB1.2 billion as of December 31, 2011 to RMB1.7 billion as of December 31, 2012 but decreased to RMB1.0 billion (US\$172.5 million) as of December 31, 2013. The increase in our accounts receivable from 2011 to 2012 was primarily due to the increased sales of solar modules, which generally requires provision of longer credit terms. For customers to whom credit terms are extended, we assess a number of factors to determine whether collection from them is reasonably assured, including past transaction history with them and their credit worthiness. The decrease in our accounts receivable from 2012 to 2013 is because we required some customers to make partial prepayment as the market slowly recovered and we implemented stringent credit and collectability control.

We believe that current cash and cash equivalents and anticipated cash flow from operations will be sufficient to meet our anticipated cash needs, including our cash needs for working capital and capital expenditures, for at least the next twelve months. We may, however, require additional cash to repay existing debt obligations or to re-finance our existing debts or due to changing business conditions or other future developments.

The following table sets forth a summary of our cash flows for the periods indicated:

	Year ended December 31,		
	2011	2012	2013
	(in millions)		
	RMB	RMB	RMB
Net cash provided by operating activities	364	8	1,465
Net cash used in investing activities	(2,061)	(630)	(614)
Net cash provided by/(used in) financing activities	3,310	(233)	(1,772)
Effect of exchange rate changes on cash and cash equivalents	(14)	(3)	10
Net increase in cash and cash equivalents	1,599	(858)	(911)
Cash and cash equivalents at the beginning of the year	2,290	3,889	3,031
Cash and cash equivalents at the end of the year	3,889	3,031	2,120

***Operating Activities.***

Net cash provided by operating activities consisted primarily of our net income, or net loss, offset or mitigated by non-cash adjustments, such as depreciation and amortization, impairment on property, plant and equipment, allowance for doubtful accounts, and adjusted by changes in operating assets and liabilities, such as accounts receivable, inventories, accounts payable and accrued expenses and other liabilities. The fluctuations of net cash provided by operating activities largely correspond to the changes in net income or net loss.

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Net cash provided by operating activities for the year ended December 31, 2013 was RMB1,464.7 million (US\$241.9 million), primarily attributable to a net loss of RMB426.5 million (US\$70.5 million), positively adjusted for certain items such as a depreciation and amortization of RMB595.8 million (US\$98.4 million), allowance for doubtful accounts of RMB91.0 million (US\$15.0 million), an inventory provision of RMB119.9 million (US\$19.8 million), a decrease in accounts receivables from third party customers of RMB847.5 million (US\$140.0 million), an increase in accounts payable of RMB598.7 million (US\$98.9 million) due to longer credit term being granted by suppliers, a decrease in advance to third-party suppliers of RMB175.6 million (US\$29.0 million) due to continuous deduction from the advance as a result of our purchase of materials, a decrease in other current assets of RMB256.6 million (US\$42.4 million), partially offset by certain items such as an increase in inventories of RMB500.8 million (US\$82.7 million) based on the increase in sales forecast, an increase in prepaid land use rights of RMB225.4 million (US\$37.2 million), and an increase in accounts receivables from related party customers of RMB196.5 million (US\$32.5 million).

Net cash provided by operating activities for the year ended December 31, 2012 was RMB8.6 million, primarily attributable to net loss of RMB1.7 billion, positively adjusted for certain items such as a depreciation and amortization of RMB657.1 million, allowance for doubtful accounts of RMB187.1 million, an inventory provision of RMB171.2 million, an impairment on property, plant, and equipment of RMB397.8 million, an increase in accounts payable of RMB608.4 million due to longer credit term being granted by suppliers, a decrease in notes receivables from customers of RMB271.3 million as we endorsed some notes to suppliers, a decrease in advance to third-party suppliers of RMB428.1 million due to continuous deduction from the advance as a result of our purchase of materials, partially offset by certain items such as an increase in inventories of RMB370.7 million based on the increase in sales forecast, an increase in accounts receivables from third-party customers of RMB660.2 million due to longer credit terms granted to customers and a decrease in advance from customers of RMB243.4 million as more customers were granted credit terms.

Net cash provided by operating activities for the year ended December 31, 2011 was RMB364.4 million, primarily attributable to net loss of RMB564.3 million, adjusted for decrease in inventories of RMB261.3 million, an add-back of depreciation and amortization of RMB484.8 million, impairment on property, plant, and equipment of RMB303.1 million, inventory provision of RMB386.6 million, gain on acquisition of a subsidiary of RMB187.4 million, partially offset by increase in accounts receivable of RMB162.4 million and decrease in accounts payable of RMB466.5 million.

### ***Investing Activities.***

Net cash used in investing activities largely reflects our purchase of property, plant and equipment, and increase in restricted cash.

Net cash used in investing activities for the years ended December 31, 2011, 2012 and 2013 amounted to RMB2.1 billion, RMB630.0 million and RMB614.0 (US\$101.4 million), respectively, primarily as a result of purchases of property and equipment, investment in project assets, business combination, government grant received for assets acquisition and changes in restricted cash balances in each of the periods. The significant decrease from 2011 to 2012 are primarily due to the fact that we purchased much less property and equipment in 2012 than we did in 2011. Net cash used in investing activities did not change significantly from 2012 to 2013.

### ***Financing Activities.***

Net cash used in financing activities for the year ended December 31, 2013 was RMB1,771.9 million (US\$292.7 million), primarily consisting of repayment of short-term borrowings of RMB1.4 billion (US\$233.2 million), repayment of the 2008 Senior Notes of RMB740.0 million (US\$122.2million) and repayment of long-term borrowings of RMB1.4 billion (US\$236.1 million), partially offset by proceeds from short-term borrowings of RMB1.5 billion (US\$253.5 million) and proceeds from issuance of ordinary shares and exercise of warrants of RMB271.6 million (US\$44.9 million).

Net cash used in financing activities for the year ended December 31, 2012 was RMB233.0 million, primarily consisting of repayment of short-term borrowings of RMB1.5 billion, repurchase of the 2008 Senior Notes of RMB617.9 million and repayment of long-term borrowings of RMB946.0 million, partially offset by proceeds from short-term bank borrowings of RMB2.0 billion, proceeds from long-term borrowings of RMB538.0 million and proceeds from sales of claim against loaned shares of RMB369.2 million.

Net cash provided by financing activities for the year ended December 31, 2011 was RMB3.3 billion, primarily consisting of proceeds of borrowings (net) of RMB3.3 billion and repurchase of 2008 Senior Notes of RMB28.5 million.

### ***Dividends from Subsidiaries.***

Except for certain administrative, research and development and after-sales activities conducted through our wholly-owned subsidiary in the United States and Germany, we conduct a significant portion of our operating activities inside China through our various PRC subsidiaries. As such, we do not rely heavily on dividends remitted to us by our PRC subsidiaries to sustain our worldwide operations; and restrictions under PRC law on the remittance of dividends outside the PRC have not had a material adverse effect on our liquidity or capital resources. See “Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China—Our operating subsidiaries in China are subject to legal limitations in paying dividends to us, which may restrict our ability to satisfy our liquidity requirement.”

### **Capital Expenditures**

We made capital expenditures of RMB2.2 billion, RMB526.2 million and RMB381.7 million (US\$63.0 million) in the years ended December 31 2011, 2012 and 2013, respectively. Our capital expenditures have historically been used primarily to purchase property and equipment and to construct and expand our solar product manufacturing lines.

We expect to incur limited capital expenditures of RMB758.2 million (US\$125.2 million) in 2014, which will be used primarily for upgrading and expanding our solar product manufacturing facilities.

## **C. RESEARCH AND DEVELOPMENT, PATENTS AND LICENSES, ETC.**

We believe that we have an experienced and committed research and development team. Upon our formation, we acquired proprietary technical know-how related to the commercial production process of solar cells from Australia PV Science & Engineering Co., as part of its capital contribution to us within an implied value of RMB9.0 million.

Since our commencement of production in April 2006, we have significantly improved our solar cell fabricating process technologies, including improvements in the processing steps of texturing, diffusion, and drying and firing. These technological improvements have increased cell conversion efficiencies in the various types of silicon wafers that we produce and have improved the production yields of our manufacturing lines. In 2010, our research and development efforts resulted in the introduction of the SECIUM solar cells. In February 2011, we introduced the MAPLE technology, a significant breakthrough in multicrystalline silicon technology that has increased the conversion efficiency rate of multicrystalline solar cells. In 2012, we introduced the new Cypress series, which have higher conversion efficiency, to replace the SECIUM and the MAPLE technology. In addition, the Cypress series cells also feature excellent solderability and lower encapsulation power loss resulting from high-voltage, low-current electrical performance parameters, elaborated current rating, and positive tolerance for cell power compensation. In 2013, we introduced the second generation of the Cypress series, named Cypress2, which have an even higher conversion efficiency and more reliable performance compared with the Cypress series. Using the Cypress 2 technology, monocrystalline and multicrystalline cells can reach conversion efficiency of 19.4% and 17.9%, respectively.

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We intend to continue to focus our research and development efforts on improving and developing processing technologies for production of solar cells aimed at increasing solar cell conversion efficiency and other qualities as well as reducing production costs, including one or more of the following projects and topics:

- *Ultra-thin Wafer Industrial Manufacturing.* To refine our techniques used in the processing of ultra-thin wafers, we plan to study the stress and defect rates of wafers in each stage of the manufacturing process in order to control wafer breakage.
- *Quality Control Techniques.* We intend to develop enhanced techniques to be applied in the quality control of our products and manufacturing lines, including characterization of product performance, in-line diagnostics, and methods to control production yield, product durability and reliability.
- *High-efficiency Cell Technology.* We intend to continuously improve the conversion efficiency of solar cells by utilizing cutting-edge technologies including metal through (MWT) technology, N-type cell technology, etc.

Our research and development expenditures were RMB68.9 million, RMB86.4 million and RMB88.3 million (US\$14.6 million) in 2011, 2012 and 2013, respectively.

For intellectual property, see “Item 4. Information on the Company—B. Business Overview—Intellectual Property.”

#### **D. TREND INFORMATION**

Other than as disclosed elsewhere in this annual report, we are not aware of any trends, uncertainties, demands, commitments or events since January 1, 2013 that are reasonably likely to have a material adverse effect on our net revenues, income, profitability, liquidity or capital resources, or that caused the disclosed financial information to be not necessarily indicative of future operating results or financial conditions.

#### **E. OFF-BALANCE SHEET ARRANGEMENTS**

As of December 31, 2013 we did not have any material off-balance sheet arrangements, including guarantees, outstanding derivative financial instruments or interest rate swap transactions, that had or were reasonably likely to have a current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

## F. TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The following table sets forth our contractual obligations and commercial commitments as of December 31, 2013:

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
	(amounts in RMB thousands)				
Loan obligations (including interest averaging 6.42%)	4,122,899	2,221,668	250,061	900,320	750,850
Operating lease obligations	133,352	51,763	81,032	557	—
Non-cancelable capital expenditures	758,171	758,171	—	—	—
Purchase commitments under take-or-pay agreements	10,528,374	2,548,873	3,294,338	3,148,744	1,536,419
Purchase commitments under other agreements <sup>(1)</sup>	1,109,758	337,763	771,995	—	—
Accrued warranty cost reflected on the company's balance sheet	158,897	—	—	—	158,897
Total	16,811,451	5,918,238	4,397,426	4,049,621	2,446,166

(1) include only purchase commitments with fixed or minimum price provisions. In addition, we have also entered into other supply agreements with variable price provisions, under which the purchase price is based on market prices with price adjustment terms.

### *Loan obligations*

Our loan obligations relate to borrowings borrowed from various financial and non-financial institutions in China with an average interest rate of 6.42% per annum. The borrowings have terms of 4 to 91 months and expire at various times throughout 2014 to 2019.

### *Operating lease obligations*

Our operating lease obligations mainly relate to non-cancelable lease for certain land and assets used by our manufacturing facilities in Ningjin, Hebei, and offices used by JA Solar USA Inc., JA Solar GmbH and JA Japan.

### *Non-cancelable purchase obligations*

As of December 31, 2013, we had contracted for capital expenditures on machinery and equipment of RMB758.2 million (US\$125.2 million).

### *Purchase commitments under agreements*

In order to better manage our unit costs and to secure adequate and timely supply of polysilicon and silicon wafers during the recent periods of shortages of polysilicon and silicon wafer supplies, we entered into a number of long-term supply contracts from 2007 through 2020 in amounts that were expected to meet our anticipated production needs. As a condition to our receiving the raw materials under those agreements, and in line with industry practice, we were required to, and have made advances to suppliers for all, or a portion, of the total contract price to our suppliers, which are then offset against future purchases.

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Set out below are our fixed obligations under these long-term contracts including “take or pay” arrangements.

### “Take or Pay” Supply Agreements

Our long-term supply agreements with some suppliers are structured as fixed price and quantity “take or pay” arrangements which allow the supplier to invoice us for the full stated purchase price of polysilicon or silicon wafers we are obligated to purchase each year, whether or not we actually purchases the contractual volume.

### Other Long-Term Supply Agreements

In addition to the “take or pay” arrangements above, we have also entered into other long-term supply agreements to purchase fixed volumes of polysilicon or silicon wafers from certain suppliers. Under these agreements, the purchase price is to be periodically adjusted based on relevant energy price index. The purchase price is stated in certain of these agreements for periods less than six months with price adjustment terms.

### ***Accrued warranty cost reflected on the company’s balance sheet***

Accrued warranty cost reflected on our balance sheet relate to product warranty costs we accrued for module sales, which is expected to increase as we generate more module revenue.

## **G. SAFE HARBOR**

This annual report on Form 20-F contains forward-looking statements. These statements are made under the “safe harbor” provisions of Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements can be identified by terminology such as “will,” “expects,” “anticipates,” “future,” “intends,” “plans,” “believes,” “estimates,” “may,” “intend,” “is currently reviewing,” “it is possible,” “subject to” and similar statements. Among other things, the sections titled “Item 3. Key Information—Risk Factors,” “Item 4. Information on the Company,” and “Item 5. Operating and Financial Review and Prospects” in this annual report on Form 20-F, as well as our strategic and operational plans, contain forward-looking statements. We may also make written or oral forward-looking statements in our reports filed with or furnished to the Securities and Exchange Commission, in our annual report to shareholders, in press releases and other written materials and in oral statements made by our officers, directors or employees to third parties. Statements that are not historical facts, including statements about our beliefs and expectations, are forward-looking statements and are subject to change, and such change may be material and may have a material adverse effect on our financial condition and results of operations for one or more prior periods. Forward-looking statements involve inherent risks and uncertainties. A number of important factors could cause actual results to differ materially from those contained, either expressly or impliedly, in any of the forward-looking statements in this annual report on Form 20-F. Potential risks and uncertainties include, but are not limited to, a further slowdown in the growth of China’s economy, government measures that may adversely and materially affect our business, failure of the wealth management services industry in China to develop or mature as quickly as expected, diminution of the value of our brand or image due to our failure to satisfy customer needs and/or other reasons, our inability to successfully execute the strategy of expanding into new geographical markets in China, our failure to manage growth, and other risks outlined in our filings with the Securities and Exchange Commission. All information provided in this annual report on Form 20-F and in the exhibits is as of the date of this annual report on Form 20-F, and we do not undertake any obligation to update any such information, except as required under applicable law.

## ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

### A. DIRECTORS AND SENIOR MANAGEMENT

#### Directors and Executive Officers

The following table sets forth our directors and executive officers, their ages as of the date of this annual report and the positions held by them. The business address for each of our directors and executive officers is No. 36, Jiang Chang San Road, Zhabei, Shanghai, the People's Republic of China.

Name	Age	Position
Baofang Jin	62	Executive Chairman of the Board of Directors and Chief Executive officer
Jian Xie	36	Director and President
Yong Liu	47	Director and Chief Operating Officer
Bingyan Ren	68	Director
Erying Jia	59	Director
Hope Ni	42	Independent Director
Jiqing Huang	77	Independent Director
Yuwen Zhao	75	Independent Director
Shaohua Jia	64	Independent Director
Hexu Zhao	57	Chief Financial Officer
Min Cao	57	Chief Strategy Officer

**Baofang Jin, Executive Chairman of the Board of Directors and Chief Executive Officer.** Mr. Jin has been our chairman since May 2005 and our executive chairman since July 2009. Mr. Jin also served as our chief executive officer from August 2009 to January 2010 and since January 2003. Mr. Jin has been the chairman and chief executive officer of Hebei Jinglong since 2003. From April 1984 to January 1992, Mr. Jin was the general manager of Ningjin County Agricultural Equipment Company. Mr. Jin currently also serves as a vice-chairman of the Chinese People's Political Consultative Conference of Ningjin County. Mr. Jin graduated from Hebei Broadcast and Television University, China, with an associate's degree in 1996.

**Jian Xie, Director and President.** Mr. Xie has been our president since December 2013 and our director since August 2009. Since joining us in April 2006, Mr. Xie has served in such capacities as our director of corporate finance, director of investor relations, assistant to the chief executive officer, secretary of the board of directors and chief operating officer. Prior to joining us, Mr. Xie worked in the investment banking department of Ping'an Securities Co., Ltd., and as an associate in the investment department at Dogain Holdings Group Co., Ltd. Mr. Xie received his master's degree in finance from Guanghua School of Management at Beijing University in 2004.

**Yong Liu, Director and Chief Operating Officer.** Mr. Liu has been our director since January 2011 and chief technology officer since December 2010. Mr. Liu joined us in July 2008 and served as the general manager of JA Yangzhou. Mr. Liu has more than 15 years of operation management experience at semiconductor wafer and solar cell manufacturing facilities. Prior to joining us, he served as a fabrication director at Semiconductor Manufacturing International Corporation (SMIC), responsible for running three 12-inch wafer foundry fabs. Mr. Liu had held various management positions in R&D and manufacturing since joining SMIC in 2001. Previously, Mr. Liu worked as a deputy production manager at Wacker Siltronic Singapore. Mr. Liu received his master's degree in solid state chemistry and bachelor's degree in solid state physics from the University of Science and Technology of China in 1992 and 1990, respectively.

**Bingyan Ren, Director.** Mr. Ren has been our director since May 2005. He has also served as a director and vice chairman of Hebei Jinglong since 2003. Prior to becoming our director, he was a professor of semiconductor materials and PV materials at the Hebei University of Technology from 1972 to May 2003. Mr. Ren currently is a member of the semiconductor material academic committee of China and a member of semiconductor standardization technical committee of China. He also serves as a vice-director of semiconductor material research institute of Hebei University of Technology and a consultant to Hebei Ningjin Monocrystalline Silicon Industry Park. Mr. Ren graduated from North Jiaotong University, China, in July 1970.

**Erying Jia, Director.** Mr. Jia has been our director since September 2007. He has also served as the chief operating officer and director of Hebei Jinglong since January 2006. Prior to that, he served at several administrative positions in Ningjin County, Hebei Province, China. Mr. Jia holds a bachelor's degree in public administration.

**Hope Ni, Independent Director.** Ms. Ni has been our independent director since August 2009. Ms. Ni is currently the chairman of Inspire Capital. She currently also serves on the boards of KongZhong Corporation (NASDAQ: KONG), ATA, Inc. (NASDAQ: ATAI) and Digital China Holdings Ltd. (Stock code: 00861.HK). From 2004 to 2007, Ms. Ni was the chief financial officer and director of COGO Group Inc. (NASDAQ: COGO, previously known as Comtech Group Inc.). In 2008, Ms. Ni served as the vice chairman of COGO Group Inc. Prior to that, Ms. Ni spent six years as a practicing attorney at Skadden, Arps, Slate, Meagher & Flom LLP in New York and Hong Kong. Earlier in her career, Ms. Ni worked at Merrill Lynch's investment banking division in New York. Ms. Ni received her J.D. degree from University of Pennsylvania Law School and her B.S. degree in Applied Economics and Business Management from Cornell University.

**Jiqing Huang, Independent Director.** Mr. Jiqing Huang has been our independent director since August 2009. Mr. Huang has extensive experience in the research and manufacturing of monocrystalline silicon and related products. He currently serves as a committee member at the Academic Committee of Semi-conductive Materials of the Nonferrous Metals Society of China. He also currently serves as an independent director of EGing Photovoltaic Technology. From 2001 to 2007, Mr. Huang served as the chief representative of the Beijing representative office of Space Energy Corporation, where he pioneered the introduction of the TDR-80 monocrystalline puller into China and subsequent modifications to improve its efficiency. Prior to his engagement at Space Energy Corporation, Mr. Huang was a director of manufacturing, chief engineer and deputy director of Beijing 605 Factory, as well as general manager of Beijing Mingcheng Optical & Electronic Material Co., Ltd. Mr. Huang graduated from Nanjing Institute of Technology (now Southeast University).

**Yuwen Zhao, Independent Director.** Mr. Yuwen Zhao has been our independent director since October 2009. Mr. Zhao has extensive experience in the study of high efficiency solar cell and solar energy materials. He is a well-known international solar industry expert, currently serving as vice chairman of the Chinese Renewable Energy Industries Association and is a director of international solar energy industry associations such as PVSEC and WCPEC. Since 1978, Mr. Zhao has been the vice chairman, chief engineer, director of academy committee and chief scientist of Beijing Solar Energy Institute. He is also a member of the editorial board of Solar Energy Journal. Prior to his engagement at Beijing Solar Energy Institute, Mr. Zhao was a researcher in the Institute of Mechanics in the Chinese Academy of Sciences and 501 Institute of Ministry of Aerospace Industry. He is also the founder of Chinese National New Energy Engineering Research Center. Mr. Zhao graduated from Tianjin University in 1964 and studied in Germany in 1990 and 1991.

**Shaohua Jia, Independent Director.** Dr. Jia has been our independent director since October 2012. Dr. Jia is an academic committee member of the China Taxation Association, as well as an executive member of the Beijing Taxation Association. He also serves as vice chairman of the China Financial and Tax Law Institute. Dr. Jia worked as chief editor of the China Tax Publishing House from 2006 to 2011. Prior to that, he was the deputy director of the State Taxation Administration of Hainan province and president of the Yangzhou Tax Institute of the State Administration of Taxation. Dr. Jia received his Ph. D. in Economics from Graduate School of Chinese Academy of Social Sciences in 2001.



**Hexu Zhao, Chief Financial Officer.** Mr. Zhao has been our chief financial officer since December 2013. Mr. Zhao previously served as our chief financial officer from July 2006 to May 2008. Since then, he has served as the chief financial officer at Legend Silicon Corporation, a Silicon Valley-based fabless semiconductor company, and Sky Solar Holdings Co., Ltd., a downstream solar-project developer. Mr. Zhao received his MBA degree in accounting from Golden Gate University in 1990, and his B.S. degree in naval engineering from Dalian Maritime University, China in 1982.

**Min Cao, Chief Strategy Officer.** Mr. Cao has been our chief strategy officer since December 2013. Mr. Cao has also served as our chief financial officer from August 2011 to December 2013. Mr. Cao has worked in the solar industry since 2006, having previously spent over a decade in the financial services sector. He served as vice president of Jinglong Group, and managing director of JL Capital, an investment company under Jinglong Group focused on the cleantech and renewable energy sectors. Prior to joining JL Capital, Mr. Cao served as vice president of finance with Solarfun, where he was responsible for the company's private placement and its successful initial public offering on NASDAQ in 2006. Before moving into the solar industry, he held senior management positions with leading Chinese securities firms, including Ping An Securities and Industrial Securities. Mr. Cao holds a bachelor's degree in Business Administration from the Shanghai University of Engineering Science, and an MBA from Fudan University.

There is no family relationship between any of our directors and officers named above. There are no arrangements or understandings with major shareholders, customers, suppliers or others, pursuant to which any person referred to above was selected as a director or officer.

### **Employment Agreements**

We have entered into employment agreements with each of our executive officers. Under these agreements, we may terminate his or her employment for cause at any time, without notice or remuneration, for certain acts of the employee, including but not limited to a conviction or plea of guilty to a felony or to an act of fraud, misappropriation or embezzlement, negligence or dishonest act to the detriment of the company, or misconduct of the employee and failure to perform his or her agreed-to duties after a reasonable opportunity to cure the failure. Furthermore, we may terminate the employment without cause at any time, in which case we will pay the employee a certain amount of compensation. An executive officer may terminate the employment at any time upon one to three months written notice.

Each executive officer has agreed to hold, both during and subsequent to the term of the agreement, our confidential information in strict confidence and not to disclose such information to anyone except to our other employees who have a need to know such information in connection with our business or except as required in the performance of his or her duties in connection with the employment. An executive officer is prohibited from using our confidential information other than for our benefits. The executive officers have also agreed to assign to us all rights, titles and interests to or in any inventions that they may conceive or develop during the period of employment, including any copyrights, patents, mark work rights, trade secrets or other intellectual property rights pertaining to such inventions.

### **Term of Directors and Officers**

The term of each director is three years. Our directors may be removed from office by resolutions of the shareholders. Under the employment agreement generally entered into by us and our executive officers, the initial term is three to four years.

## **B. COMPENSATION**

### **Compensation of Directors and Executive Officers**

For the year ended December 31, 2013, we paid an aggregate compensation of RMB9.0 million (US\$1.5 million) to our directors and executive officers. For the year ended December 31, 2013, we did not grant any options or restricted share units to our executive officers. Other than fees paid to our independent directors for board services rendered, we only paid compensation to those directors who also served as executive officers.

### **Code of Ethics**

We have adopted a code of ethics for chief executive and senior financial officers, which we filed with the SEC as an exhibit to our annual report on Form 20-F for the year ended December 31, 2006. This home country practice of ours was established by us by reference to similarly situated foreign private issuers and differs from the NASDAQ Stock Market Rules that require listed companies to adopt one or more codes of conduct applicable to all directors, officers and employees and make those codes of conduct publicly available. There are, however, no specific requirements under Cayman Islands law requiring the adoption of codes of conduct.

### **Stock Option Plan**

We adopted our 2006 stock incentive plan on August 18, 2006, which provides for the grant of incentive stock options, non-qualified stock options, restricted stock and restricted stock units, referred to as “awards.” The purpose of the plan is to provide additional incentive to those officers, employees, directors, consultants and other service providers whose contributions are essential to the growth and success of our business, in order to strengthen the commitment of such persons to us and motivate such persons to faithfully and diligently perform their responsibilities and attract and retain competent and dedicated persons whose efforts will result in our long-term growth and profitability.

*Plan Administration.* Our 2006 stock incentive plan is administered by our board of directors or a committee or subcommittee appointed by our board of directors. In each case, our board of directors or the committee will determine the provisions and terms and conditions of each award grant, including, but not limited to, the exercise price for the options, vesting schedule, form of payment of exercise price and other applicable terms.

*Award Agreement.* Awards granted under our 2006 stock incentive plan are evidenced by an award agreement that sets forth the terms and conditions for each award grant, which include, among other things, the vesting schedule, exercise price, type of option and expiration date of each award grant.

*Eligibility.* We may grant awards to an officer, director, employee, consultant, advisor or other service providers of our company or any of our parent or subsidiary companies, provided that directors of our company or any of our parent or subsidiary companies who are not also employees of our company or any of our parent or subsidiary companies, or consultants or advisors to our company or any of our parent or subsidiary may not be granted incentive stock options.

*Option Term.* The term of each option granted under the 2006 Incentive Stock Option may not exceed ten years from the date of grant. If an incentive stock option is granted to an eligible participant who owns more than 10% of the voting power of all classes of our share capital, the term of such option shall not exceed five years from the date of grant.

*Exercise Price.* In the case of non-qualified stock option, the per share exercise price of shares purchasable under an option shall be determined by the plan administrator in its sole discretion at the time of grant. In the case of incentive stock option, the per share exercise price of shares purchasable under an option shall not be less than 100% of the fair market value per share at the time of grant. However, if we grant an incentive stock option to an employee, who at the time of that grant owns shares representing more than 10% of the voting power of all classes of our share capital, the exercise price cannot be less than 110% of the fair market value of our ordinary shares on the date of that grant.

*Amendment and Termination.* Our board of directors may at any time amend, alter or discontinue the plan, provided that no amendment, alteration, or discontinuation shall be made that would impair the rights of a participant under any award theretofore granted without such participant's consent. Unless terminated earlier, our 2006 stock incentive plan shall continue in effect for a term of ten years from the effective date of the plan.

Under our 2006 stock incentive plan, we may grant options to purchase up to 10% of share capital of the company. During the year ended December 31, 2013, we did not grant any options or restricted share units to our employees.

Our board has authorized a committee, currently consisting of Mr. Baofang Jin, our executive chairman and Mr. Jian Xie, our chief operating officer and director, to approve option grants under our 2006 stock incentive plan.

As of March 31, 2014, we have granted options to purchase 23,224,000 ordinary shares and awarded 4,912,000 restricted share units under our 2006 stock incentive plan, options to purchase 6,022,050 ordinary shares and 1,066,110 restricted share units remained outstanding.

## **C. BOARD PRACTICES**

### **Board of Directors and Board Committees**

Our board of directors currently consists of nine members, including four independent directors who satisfy the "independence" requirements of the NASDAQ Stock Market Rules and meet the criteria for "independence" under Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. This home country practice of ours was established by our board of directors by reference to similarly situated foreign private issuers and differs from the NASDAQ Stock Market Rules that require the board to be comprised of a majority of independent directors. There are, however, no specific requirements under Cayman Islands law that the board must be comprised of a majority of independent directors.

We do not have regularly scheduled meetings at which only independent directors are present, or executive sessions. This home country practice of ours was established by our board of directors by reference to similarly situated foreign private issuers and differs from the NASDAQ Stock Market Rules that require a company to have regularly scheduled executive sessions at which only independent directors are present. There are, however, no specific requirements under Cayman Islands law on executive sessions.

We have established three committees under our board of directors: an audit committee, a compensation committee and a nominating and corporate governance committee. We have adopted a charter for each of the three committees. Each committee's composition and functions are described below.

***Audit Committee.*** Our audit committee consists of Ms. Hope Ni, Mr. Jiqing Huang, Mr. Yuwen Zhao and Dr. Shaohua Jia, and is chaired by Ms. Hope Ni. All of the members of the audit committee satisfy the "independence" requirements of the NASDAQ Stock Market Rules and meet the criteria for "independence" under Rule 10A-3 under the Exchange Act. The audit committee oversees our accounting and financial reporting processes and the audits of the financial statements of our company. The audit committee is responsible for, among other things:

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- appointment, compensation, retention and oversight of the work of the independent registered public accounting firm;
- approving all auditing and non-auditing services permitted to be performed by the independent registered public accounting firm;
- meeting separately and periodically with management and the independent registered public accounting firm;
- oversight of annual audit and quarterly reviews, including reviewing with independent registered public accounting firm the annual audit plans;
- oversight of financial reporting process and internal controls, including reviewing the adequacy and effectiveness of our internal controls policies and procedures on a regular basis;
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters; and
- reviewing and implementing related person transaction policies and procedures for the committee's review and approval of proposed related person transactions, including all transactions required to be disclosed by Item 404(a) of Regulation S-K under the Securities Act.

**Compensation Committee.** Our compensation committee consists of Ms. Hope Ni, Mr. Yuwen Zhao, Mr. Baofang Jin, Mr. Jiqing Huang and Dr. Shaohua Jia, and is chaired by Mr. Jiqing Huang. Except Mr. Baofang Jin, all other members of the compensation committee satisfy the "independence" requirements of the NASDAQ Stock Market Rules and meet the criteria for "independence" under Rule 10A-3 under the Exchange Act. This home country practice of ours was established by our board of directors and differs from the NASDAQ Stock Market Rules that require the compensation committees of listed companies to be comprised solely of independent directors. There are, however, no specific requirements under Cayman Islands law on the composition of compensation committees. The compensation committee assists the board in reviewing and approving the compensation structure, including all forms of compensation, relating to our directors and executive officers. The compensation committee is responsible for, among other things:

- reviewing at least annually our executive compensation plans;
- evaluating annually the performance of our chief executive officer and other executive officers;
- determining and recommending to the board the compensation package for our chief executive officer and other executive officers;
- evaluating annually the appropriate level of compensation for board and board committee service by non-employee directors;
- reviewing and approving any severance or termination arrangements to be made with any of our executive officers; and
- reviewing at least annually our general compensation plans and other employee benefits plans.

**Nominating and Corporate Governance Committee.** Our nominating and corporate governance committee consists of Ms. Hope Ni, Mr. Jiqing Huang, Mr. Yuwen Zhao, Mr. Baofang Jin and Dr. Shaohua Jia, and is chaired by Mr. Baofang Jin. Except Mr. Baofang Jin, all other members of the nominating and corporate governance committee satisfy the "independence" requirements of the NASDAQ Stock Market Rules and meet the criteria for "independence" under Rule 10A-3 under the Exchange Act. This home country practice of ours was established by our Board of Directors and differs from the NASDAQ Stock Market Rules that require the nominating committees of listed companies to be comprised solely of independent directors. There are, however, no specific requirements under Cayman Islands law on the composition of nominating committees. The nominating and corporate governance committee assists our board of directors in selecting individuals qualified to become our directors and in determining the composition of the board and its committees. The nominating and corporate governance committee is responsible for, among other things:

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- establishing procedures for evaluating the suitability of potential director nominees;
- recommending to the board nominees for election by the stockholders or appointment by the board;
- reviewing annually with the board the current composition of the board with regards to characteristics such as knowledge, skills, experience, expertise and diversity required for the board as a whole;
- reviewing periodically the size of the board and recommending any appropriate changes;
- recommending to the board the size and composition of each standing committee of the board; and
- reviewing periodically and at least annually the corporate governance principles adopted by the board to assure that they are appropriate for us and comply with the requirements under the rules and regulations of the SEC and the Nasdaq Stock Market, Inc. where applicable.

### **Duties of Directors**

Under Cayman Islands law, our directors have a fiduciary duty to act honestly, in good faith and with a view to our best interests. Our directors also have a duty to exercise the skill they actually possess and such care and diligence that a reasonably prudent person would exercise in comparable circumstances. In fulfilling their duty of care to us, our directors must ensure compliance with our memorandum and articles of association, as amended from time to time. A shareholder has the right to seek damages if a duty owed by our directors is breached.

The functions and powers of our board of directors include, among others:

- convening shareholders' annual general meetings and reporting its work to shareholders at such meetings;
- declaring dividends and distributions;
- appointing officers and determining the term of office of officers;
- exercising the borrowing powers of our company and mortgaging the property of our company; and
- approving the transfer of shares of our company, including the registering of such shares in our share register.

### **Term of Office and Benefits**

Our directors serve a term of three years and do not receive any special benefits upon termination.

### **Interested Transactions**

A director may vote in respect of any contract or transaction in which he or she is interested, provided that the nature of the interest of any directors in such contract or transaction is disclosed by him or her at or prior to its consideration and any vote in that matter.

**D. EMPLOYEES**

As of December 31, 2011, 2012 and 2013, we had a total of 11,639, 9,784 and 11,163 employees, respectively. The following table sets forth the number of our employees categorized by our areas of operations and as a percentage of our workforce as of December 31, 2013:

	Number of employees	Percentage of total
Manufacturing and engineering	8,025	71.89%
Quality assurance	1,646	14.75%
General and administration	748	6.70%
Purchasing and logistics	381	3.41%
Research and development	139	1.25%
Marketing and sales	179	1.60%
Others	45	0.40%
Total	11,163	100%

Of our total employees as of December 31, 2013, 3,213 were located in Ningjin, 3,465 were located in Yangzhou, 1,882 were located in Shanghai, 1,127 were located in Lianyungang, 1,045 were located in Hefei, and 431 were located in other cities in China and abroad.

From time to time, we also employ part-time employees and independent contractors to support our research and development, manufacturing and sales and marketing activities.

Our success depends to a significant extent upon our ability to attract, retain and motivate qualified personnel. As of December 31, 2013, 1,193 of our employees held bachelor's or higher degrees. A number of our employees have overseas education and industry experience.

We are required by applicable PRC regulations to contribute amounts equal to 20-22%, 7-12%, 1-2%, 0.5-2% and 0.6-1%, of our employees' aggregate salary to a pension contribution plan, a medical insurance plan, an unemployment insurance plan, a personal injury insurance plan and a maternity insurance plan, respectively, for our employees.

Our employees are not covered by any collective bargaining agreement. We believe that we have a good relationship with our employees.

**E. SHARE OWNERSHIP**

The following table sets forth information with respect to the beneficial ownership of our ordinary shares, as of March 31, 2014, by:

- each of our directors and executive officers; and
- each person known to us to own beneficially more than 5.0% of our ordinary shares.

The calculations in the table below assume there are 240,282,002 ordinary shares outstanding as of March 31, 2014.

	Shares Beneficially Owned	
	Number <sup>(1)</sup>	% <sup>(2)</sup>
<b>Directors and Executive Officers:</b>		
Baofang Jin <sup>(3)</sup>	38,897,366	16.2%
Jian Xie	*	*
Yong Liu	*	*
Bingyan Ren	*	*
Eying Jia	*	*
Hope Ni	*	*
Jiqing Huang	*	*
Yuwen Zhao	*	*
Shaohua Jia	*	*
Hexu Zhao	—	—
Min Cao	*	*
All Directors and Officers as a Group	54,630,032	22.7%
<b>Principal Shareholders:</b>		
Jinglong Group Co., Ltd. <sup>(4)</sup>	38,897,366	16.2%

\* Upon exercise of all options and vesting of all restricted shares granted, would beneficially own less than 1.0% of the company's outstanding ordinary shares.

- (1) Beneficial ownership is determined in accordance with Rule 13d-3 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended, and includes voting or investment power with respect to the securities.
- (2) For each person and group included in this table, percentage ownership is calculated by dividing the number of shares beneficially owned by such person or group by the sum of 240,282,002, being the number of ordinary shares outstanding as of March 31, 2014, and the number of ordinary shares underlying share options held by such person or group that were exercisable within 60 days after the date of this annual report.
- (3) Consists of 253,293 ADSs, representing 1,266,465 ordinary shares, and 37,630,901 ordinary shares held by Jinglong Group Co., Ltd., of which Mr. Baofang Jin is the sole director and has a 32.96% economic interest. Mr. Jin disclaims beneficial ownership of the shares held by Jinglong BVI except to the extent of his pecuniary interest therein.
- (4) Consists of 253,293 ADSs, representing 1,266,465 ordinary shares, and 37,630,901 ordinary shares held by Jinglong Group Co., Ltd., a British Virgin Island Company, which is owned by Mr. Baofang Jin (our executive chairman and chief executive officer, 32.96%), Mr. Huixian Wang (9.58%), Mr. Binguo Liu (9.58%), Mr. Jicun Yan (7.18%), Mr. Rongrui Liu (7.18%), Mr. Huiqiang Liu (7.18%), Mr. Ruiying Cao (7.18%), Mr. Guichun Xing (4.79%), Mr. Ning Wen (4.79%), Mr. Bingyan Ren (our director, 4.79%) and Mr. Ruchang Wen (4.79%).

As of March 31, 2014, none of our existing shareholders has different voting rights from other shareholders.

To our knowledge, as of March 31, 2014, a total of 202,621,100 ordinary shares are held by one record holder in the United States, which is the Bank of New York Mellon, the depositary of our ADS program. The number of beneficial owners of our ADSs in the United States is likely to be much larger than the number of record holders of our ordinary shares in the United States.

## ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

### A. MAJOR SHAREHOLDERS

Please refer to "Item 6. Directors, Senior Management and Employees—Share Ownership."

## **B. RELATED PARTY TRANSACTIONS**

### **Significant Transactions with Hebei Jinglong**

#### ***Wafer supply***

Hebei Jinglong is 100% owned by the shareholders of our largest shareholder, Jinglong BVI, and thus, is a related party of our company. Mr. Baofang Jin, our executive chairman, owns 32.96% equity interests in each of Hebei Jinglong and Jinglong BVI, and Mr. Bingyan Ren, our director, owns 4.79% equity interests in each of Hebei Jinglong and Jinglong BVI. Solar Silicon Valley was a subsidiary of Hebei Jinglong until November 30, 2011 when we completed our acquisition of 100% equity interest in Solar Silicon Valley. We purchase silicon wafers from Jinglong Group, including both Hebei Jinglong and Solar Silicon Valley before we acquired Solar Silicon Valley.

In July 2006, we entered into a master long-term supply contract, or Jinglong Long-term Supply Contract, with Hebei Jinglong for the supply of silicon wafers. Jinglong Long-term Supply Contract had an initial term of four and half years, from July 2006 to December 2010, which has automatically extended for another three years until the end of 2013. We have also entered into various short-term supply contracts with Hebei Jinglong for the supply of silicon wafers (together with Jinglong Long-term Supply Contract, the “Jinglong Supply Contracts”). Under the Jinglong Supply Contracts, Jinglong Group has agreed to supply us with silicon wafers at prevailing market prices with a reasonable discount and under prepayment arrangements. We have entered into various supplemental agreements to the Jinglong Supply Contracts to specify certain performance terms, including amendment of prepayment amounts and their utilization.

For the years ended December 31, 2011, 2012 and 2013, we purchased RMB1.5 billion, RMB191.3 million and RMB205.0 million (US\$33.9 million), respectively, of silicon wafers from Jinglong Group under the Jinglong Supply Contracts and from Solar Silicon Valley before acquisition. We will continue to purchase silicon wafers from Jinglong Group.

#### ***Acquisition of Solar Silicon Valley***

We entered into a definitive share purchase agreement on July 1, 2011 to acquire 100% ownership interest in Silver Age that owns 100% of Solar Silicon Valley. Silver Age was 70% owned by Jinglong BVI, our largest shareholders, and 30% owned by an independent third party. Upon closing on November 30, 2011, we issued 30,901,287 ordinary shares as consideration at a price of US\$1.83 per share to the sellers.

#### ***Outsourcing Services***

In addition to silicon wafer supplies, we also entered into certain other transactions with Jinglong Group, including sale of solar cells and modules, provision of solar product processing services, outsourcing wafer processing services and operating leases. These transactions were conducted in the ordinary course of business on terms comparable to those with third parties.

We also outsourced wafer processing services to Hebei Jinglong and Solar Silicon Valley, which processed polysilicon to silicon wafer. For the years ended December 2011, 2012 and 2013, we paid outsourcing service fee of nil, RMB17.9 million and RMB1.0 million (US\$0.2 million) to Hebei Jinglong. For 11 months ended November 30, 2011 prior to acquisition of Solar Silicon Valley, we paid wafer outsourcing service fee of RMB8.9 million to Solar Silicon Valley.

#### ***Guarantee***

As of December 31, 2013, we received guarantees from Hebei Jinglong for short-term bank borrowing with a principal of RMB228.0 million (US\$37.7 million). No amounts have been accrued as a loss contingency related to this guarantee because payment by us is not probable. The fair value of the guarantee as of December 31, 2013 was not material.



### ***Management fees and leasing***

We lease properties from Hebei Jinglong and another related party under operating lease agreements. We incurred rental expenses to Hebei Jinglong under operating lease agreements in the amounts of RMB12.0 million, RMB12.0 million and RMB42.1 million (US\$7.0 million) for the years ended December 31, 2011, 2012 and 2013, respectively.

### **Transactions with other Related Parties**

We sold solar power products to several related companies, in the amounts of RMB67.8 million, RMB243.2 million and RMB396.5 million (US\$65.5 million) for the years ended December 31, 2011, 2012 and 2013, respectively.

We outsourced processing service to several related companies. The processing service fee amounted to RMB41.5 million, RMB26.7 million and RMB7.1 million (US\$1.2 million) for the years ended December 31, 2011, 2012 and 2013, respectively.

We purchased RMB1.1 billion, RMB827.7 million and RMB645.1 million (US\$106.6 million) of silicon wafers and other raw material, from several related companies for the years ended December 31, 2011, 2012 and 2013, respectively.

We acquired RMB0.5 million, RMB2.5 million, and RMB2.0 million (US\$0.3 million) of certain equipment from several related companies for the years ended December 31, 2011, 2012 and 2013, respectively.

In March 2012, we entered into a framework agreement with M.SETEK regarding repayment of the prepayment owed by M.SETEK, under which (i) M.SETEK will use the dividends distributed by Ningjin Songgong to repay part of prepayments, (ii) M.SETEK will transfer its 65% equity interests in Ningjin Songgong to us at an appraisal price, which will be used to offset part of the remaining unpaid prepayments, and (iii) M.SETEK will continue to deliver polysilicon to fully utilize the remaining unpaid prepayments, if any. Ningjin Songgong is 65% owned by M.SETEK, 32.7% owned by Mr. Baofang Jin, our chairman and 2.3% owned by several third party individuals. The share transfer agreement was signed on July 23, 2012 and completed in January 2013.

As of December 31, 2013, we provided guarantees to Yangzhou JA Property Co., Ltd., or Yangzhou Property, for a short-term bank borrowing with a principal of RMB20 million (US\$3.3 million) while we also received guarantees from Yangzhou Property for a short-term bank borrowing with a principal of RMB50 million (US\$8.3 million). We monitors the financial performance of Yangzhou Property on a monthly basis, and also evaluates the availability of Yangzhou Property from alternate sources. No amounts have been accrued as a loss contingency related to this guarantee because payment by us is not probable. The fair value of the guarantee as of December 31, 2013 was not material. In addition, in 2013, we provided an entrusted loan to Yangzhou Property with a principal of RMB40 million (US\$6.6 million).

We consider that these transactions were carried out at arm's length with prices comparable to other similar transactions with unrelated third parties.

### **C. INTERESTS OF EXPERTS AND COUNSEL**

Not applicable.

## **ITEM 8. FINANCIAL INFORMATION**

### **A. CONSOLIDATED STATEMENTS AND OTHER FINANCIAL INFORMATION**

See F-pages following Item 19.

#### **Legal Proceedings**

##### Class actions.

Legal proceeding against Lehman Entities.

In March 2012, we terminated the capped call confirmation dated May 13, 2008 with Lehman Brothers OTC Derivatives Inc. for a cash consideration of US\$18,500. In June 2012, we entered into a Claims Determination Deed with LBIE, admitting the Claim against LBIE as a general unsecured claim which qualifies for dividends from LBIE for an amount of GBP 38.2 million. On June 29, 2012, we entered into an agreement through private negotiation with a carefully selected group of claims purchasers to sell certain rights pertaining to the Claim and all rights to receive distribution payments from LBIE in exchange for cash consideration of GBP 37.1 million. As required under the claim transfer procedures, the joint administrators of LBIE have acknowledged the sale of the Claim to the purchaser on August 9, 2012. There is no recourse from the purchaser to us if the Claim is not satisfied in full by LBIE. A gain of RMB369.2 million was recorded as other income in our consolidated statement of operations and comprehensive loss as of December 31, 2012.

##### Other legal proceedings.

In addition to the above proceedings, we have, from time to time, been involved in certain legal proceedings arising out of the ordinary course of our business, such as employment disputes and disputes with our suppliers. None of these proceedings, individually or in the aggregate, has had any material adverse effect on our business and financial position.

#### **Dividend Distribution Policy**

We have never declared or paid any dividends on our ordinary shares. We do not anticipate paying any cash dividends in the foreseeable future. We currently intend to retain future earnings, if any, to finance operations and to strengthen our business.

Our board of directors has complete discretion on whether to pay dividends, subject to the approval of our shareholders. Even if our board of directors decides to pay dividends, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial conditions, contractual restrictions and other factors that the board may deem relevant. Cash dividends on our ADSs, if any, will be paid in U.S. dollars.

As we are a holding company incorporated in the Cayman Islands, we primarily rely on dividends paid to us by our subsidiaries in China for our cash requirements, including the funds necessary to pay dividends and other cash distributions to our shareholders, service any debt we may incur and pay our operating expenses. PRC regulations currently permit payment of dividends only out of accumulated profits, if any, as determined in accordance with PRC accounting standards and regulations. Pursuant to laws applicable to entities incorporated in the PRC, our PRC subsidiaries are required to make appropriations from after-tax profit to non-distributable reserve funds. These reserve funds include the following: (i) a general reserve, (ii) an enterprise expansion fund, and (iii) a staff bonus and welfare fund. Our PRC subsidiaries are required to transfer at least 10% of their profit after taxation (as determined under accounting principles generally accepted in the PRC at each year-end) to the general reserve fund until the reserve balance reaches 50% of their respective registered capital. The appropriations to other funds are at the discretion of our PRC subsidiaries. These reserve funds can only be used for specific purposes of enterprises expansion, staff bonus, and welfare and not distributable as cash dividends. The general reserves made by our PRC subsidiaries in 2011, 2012 and 2013 were RMB22.8 million, nil and RMB1.8 million (US\$0.3 million), respectively. We made a net reversal of RMB6.5 million (US\$1.1 million) from general reserves to retained earnings in 2013.

## B. SIGNIFICANT CHANGES

None.

## ITEM 9. THE OFFER AND LISTING

### A. OFFER AND LISTING DETAILS

Our ADSs, each representing five of our ordinary shares, are quoted on the NASDAQ Global Select Market. Our ADSs trade under the symbol “JASO.” From the initial listing of our ADSs on the NASDAQ Global Select Market on February 7, 2007 to February 7, 2008, the trading prices of our ADSs ranged from US\$16.17 to US\$76.50 per ADS. From the day after the date of our 3-for-1 ADS split on February 7, 2008 to December 7, 2012, each of our ADSs represented one ordinary share and the trading price of our ADSs on the NASDAQ Global Select Market ranged from US\$0.58 to US\$27 per ADS. From the day after the date of our 1-for-5 reverse ADS split on December 10, 2012 through April 22, 2014, the trading price of our ADSs has ranged from US\$3.21 to US\$13.14 per ADS.

The following table provides the high and low trading prices for our ADSs on the NASDAQ Global Select Market for the periods indicated.

	Trading Price (US\$)	
	High	Low
<b>Annual Highs and Lows</b>		
2009	6.40	1.77
2010	10.24	4.22
2011	8.57	1.21
2012 (through December 7, 2012)	2.34	0.58
2012 (from December 10, 2012 to December 31, 2012)	4.38	3.21
2013	12.80	3.37
<b>Quarterly Highs and Lows 2012</b>		
First Quarter of 2012	2.34	1.30
Second Quarter of 2012	1.56	0.89
Third Quarter of 2012	1.14	0.76
Fourth Quarter of 2012 (through December 7, 2012)	0.88	0.58
Fourth Quarter of 2012 (from December 10, 2012 to December 31, 2012)	4.38	3.21
<b>2013</b>		
First Quarter of 2013	6.14	3.57
Second Quarter of 2013	11.40	3.37
Third Quarter of 2013	10.64	6.83
Fourth Quarter of 2013	12.80	8.18
<b>Monthly Highs and Lows 2013</b>		
October 2013	11.60	9.20
November 2013	12.80	9.36
December 2013	9.79	8.18
<b>2014</b>		
January 2014	10.66	8.45
February 2014	11.32	8.35
March 2014	13.14	9.50
April 2014 (through April 22, 2014)	11.22	9.20

**B. PLAN OF DISTRIBUTION**

Not applicable.

**C. MARKETS**

Our ADSs, each representing five of our ordinary shares, par value US\$0.0001 per share, have been listed on the NASDAQ Global Select Market under the symbol “JASO,” and commenced trading on February 8, 2007. Prior to that time, there was no public market for our ADSs or ordinary shares.

**D. SELLING SHAREHOLDERS**

Not applicable.

**E. DILUTION**

Not applicable.

**F. EXPENSES OF THE ISSUE**

Not applicable.

**ITEM 10. ADDITIONAL INFORMATION**

**A. SHARE CAPITAL**

Not applicable.

**B. MEMORANDUM AND ARTICLES OF ASSOCIATION**

We are a Cayman Islands company and our corporate affairs are governed by our memorandum and articles of association and by the Companies Law (as amended) and common law of the Cayman Islands.

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As of March 31, 2014, our authorized share capital is US\$50,000 divided into 500,000,000 ordinary shares of a nominal or par value of US\$0.0001 each. The issued share capital is (i) 240,282,002 shares, and (ii) for the purpose of future option exercise, an additional 1,941,560 shares were issued to and held by the depositary.

The following are summaries of material provisions of our second amended and restated memorandum and articles of association and the Companies Law insofar as they relate to the material terms of our common shares.

### **Registered Office and Objects**

The Registered Office of the Company shall be at the offices of Codan Trust Company (Cayman) Limited, Cricket Square, Hutchins Drive, PO Box 2681 GT, George Town, Grand Cayman, British West Indies. The objects for which the Company is established are unrestricted.

### **Board of Directors**

See “Item 6.C. Board Practices—Board of Directors.”

### **Ordinary Shares**

*General.* All of our ordinary shares are fully paid and non-assessable. Certificates representing the ordinary shares are issued in registered form. Our shareholders who are non-residents of the Cayman Islands may freely hold and vote their shares.

*Dividends.* The holders of our ordinary shares are entitled to such dividends as may be declared by our board of directors subject to the Companies Law.

*Voting Rights.* Subject to any rights or restrictions attached to any shares, at any general meeting on a show of hands every shareholder who is present in person (or, in the case of a shareholder being a corporation, by its duly authorized representative) or by proxy shall have one vote and on a poll every shareholder present in person (or, in the case of a shareholder being a corporation, by its duly appointed representative) or by proxy shall have one vote for each share which such shareholder is the holder. Voting at any meeting of the shareholders is by show of hands unless a poll is demanded. A poll may be demanded by the chairman or at least three shareholders present in person or by proxy or a member present in person or by proxy holding at least 10.0% of the total voting rights or of the total sum paid up on all the shares giving a right to attend and vote at the meeting.

Any ordinary resolution to be passed by our shareholders requires the affirmative vote of a simple majority of the votes cast at a meeting of our shareholders, while a special resolution requires the affirmative vote of no less than two-thirds of the votes cast at a meeting of our shareholders. Holders of our ordinary shares may by ordinary resolution, among other things, elect directors, and make alterations of capital. A special resolution is required for matters such as a change of name.

No shareholder shall be entitled to vote or be reckoned in a quorum, in respect of any share, unless such shareholder is registered as our shareholder at the applicable record date for that meeting.

If a recognized clearing house (or its nominee(s)) is our shareholder, it may authorize such person or persons as it thinks fit to act as its representative(s) at any meeting or at any meeting of any class of shareholders provided that, if more than one person is so authorized, the authorization shall specify the number and class of shares in respect of which each such person is so authorized. A person authorized pursuant to this provision is entitled to exercise the same powers on behalf of the recognized clearing house (or its nominee(s)) as if such person was the registered holder of our shares held by that clearing house (or its nominee(s)) including the right to vote individually on a show of hands.

While there is nothing under the laws of the Cayman Islands which specifically prohibits or restricts the creation of cumulative voting rights for the election of our directors, unlike the requirement under Delaware General Corporation Law where cumulative voting for the election of directors is permitted only if expressly authorized in the certificate of incorporation, it is not a concept that is accepted as a common practice in the Cayman Islands, and we have made no provisions in our memorandum and articles of association to allow cumulative voting for such elections.

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*Transfer of Shares.* Subject to any applicable restrictions set forth in our articles of association, any of our shareholders may transfer all or any of his or her shares by an instrument of transfer in the usual or common form or in any other form which our directors may approve.

Our board of directors may, in its absolute discretion, decline to register any transfer of any share (not being a fully paid up share) without assigning any reasons thereof.

If our directors refuse to register a transfer they shall, within two months after the date on which the instrument of transfer was lodged, send to each of the transferor and the transferee notice of such refusal.

The registration of transfers may be suspended and the register closed at such times and for such periods as our board of directors may from time to time determine, provided, however, that the registration of transfers shall not be suspended nor the register closed for more than 30 days in any year.

*Liquidation.* Subject to any special rights, privileges or restrictions as to the distribution of available surplus assets on liquidation for the time being attached to any class or classes of shares, if we shall be wound up the liquidator may, with the sanction of a special resolution and any other sanction required by the Companies Law, divide among our shareholders in kind the whole or any part of our assets (whether they shall consist of property of the same kind or not) and may, for that purpose, value any assets as the liquidator deems fair upon any asset and determine how the division shall be carried out as between our shareholders or different classes of shareholders. The liquidator may, with the like sanction, vest any part of such assets in trustees upon such trusts for the benefit of our shareholders as the liquidator, with the like sanction, shall think fit, but so that no contributory shall be compelled to accept any shares or other property upon which there is a liability. If we shall be wound up, and the assets available for distribution among our shareholders as such shall be insufficient to repay the whole of the paid-up capital, such assets shall be distributed so that, as nearly as may be, the losses shall be borne by our shareholders in proportion to the capital paid up, or which ought to have been paid up, at the commencement of the winding up on the shares held by them respectively. And if winding up the assets available for distribution among our shareholders shall be more than sufficient to repay the whole of the capital paid up at the commencement of the winding up, the excess shall be distributed amongst our shareholders in proportion to the capital paid up at the commencement of the winding up on the shares held by them respectively.

*Calls on Shares and Forfeiture of Shares.* Our board of directors may from time to time make calls upon shareholders in respect of any moneys unpaid on their shares in a notice served to such shareholders at least 14 days prior to the specified time of payment. The shares that have been called upon and remain unpaid on the specified time are subject to forfeiture.

*Redemption of Shares.* We are empowered by the Companies Law and our articles of association to purchase our own shares, subject to certain restrictions. Our directors may only exercise this power on our behalf, subject to the Companies Law, our memorandum and articles of association and to any applicable requirements imposed from time to time by the SEC, the NASDAQ Global Select Market, or by any recognized stock exchange on which our securities are listed.

*Variations of Rights of Shares.* Subject to the Companies Law, all or any of the special rights attached to any class, unless otherwise provided for by the terms of issue of the shares of that class, may be varied, modified or abrogated with the sanction of a special resolution passed at a separate general meeting of the holders of the shares of that class. The provisions of our articles of association relating to general meetings shall apply mutatis mutandis to every such separate general meeting, but so that the quorum for the purposes of any such separate general meeting shall be a person or persons together holding, or represented by proxy, on the date of the relevant meeting not less than one-third in nominal value of the issued shares of that class, every holder of shares of the class shall be entitled on a poll to one vote for every such share held by such holder and that any holder of shares of that class present in person or by proxy may demand a poll.

The special rights conferred upon the holders of any class of shares shall not, unless otherwise expressly provided in the rights attaching to or the terms of issue of such shares, be deemed to be varied by the creation or issue of further shares ranking *pari passu* therewith.

*Inspection of Books and Records.* Holders of our ordinary shares will have no general right under Cayman Islands law to inspect or obtain copies of our list of shareholders or our corporate records. However, we will permit our shareholders to inspect our register of members in accordance with the articles of association and we will provide our shareholders with annual audited financial statements. For additional information, please visit our corporate website [www.jasolar.com](http://www.jasolar.com).

## **C. MATERIAL CONTRACTS**

We have not entered into any material contracts other than in the ordinary course of business and other than those described in Item 4 “Information on the company” or elsewhere in this annual report on Form 20-F.

## **D. EXCHANGE CONTROLS**

See “Item 4. Information on the Company—Business Overview—Regulation—Foreign Currency Exchange.”

## **E. TAXATION**

### **Cayman Islands Taxation**

At the present time, there is no Cayman Islands income tax, corporation tax, capital gains tax or other taxes payable by the Company or its shareholders. The Company is an exempted company under Cayman Islands law and as such has received an undertaking as to tax concessions pursuant to Section 6 of the Tax Concessions Law (1999 Revision). This undertaking provides that, for a period of 20 years from the date of issue of the undertaking, no law thereafter enacted in the Cayman Islands imposing any taxes to be levied on profits, income, gains or appreciation will apply to the Company or its operations. No capital or stamp duties are levied in the Cayman Islands on the issue, transfer or redemption of Shares. An annual registration fee will be payable by the Company to the Cayman Islands government which will be calculated by reference to the nominal amount of its authorised capital.

### **People’s Republic of China Taxation**

Under the FEIT Law of China, FIEs were entitled to be exempted from foreign enterprise income tax of 33% for a 2-year period starting from their first profit-making year followed by a 50% reduction of foreign enterprise income tax payable for the subsequent three years, provided that they fall into the category of production-oriented enterprises with an operational period of more than 10 years in China. Under the CIT Law which became effective on January 1, 2008, a unified income tax rate of 25% applies on all domestic enterprises and FIEs unless they qualify under certain limited exceptions. The CIT Law provides a 5-year transition period to FIEs, during which they are permitted to grandfather their existing preferential tax treatment until such treatment expires in accordance with its current terms. In addition, certain enterprises may still benefit from a preferential tax rate of 15% under the CIT Law if they qualify as an advanced and new technology enterprise, or ANTE, subject to certain general factors described therein. Where the transitional preferential policies and the preferential policies for ANTE as prescribed under the CIT Law and its implementation rules overlap, an enterprise shall choose to carry out the most preferential policy, but shall not enjoy multiple preferential policies.

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JA Hebei, JA Yangzhou and JA Fengxian were production-oriented enterprises established prior to the effective date of the CIT Law and therefore, subject to the FEIT Law.

With respect to income related to JA Hebei's initial capital contribution, JA Hebei received approval from the relevant tax authorities to enjoy the Tax Holiday commencing from 2006. In 2007, JA Hebei effected a capital injection, or 2007 Capital Injection, and was approved by the local tax bureau of Xingtai City, Hebei Province, to enjoy a separate Tax Holiday on taxable income related to the 2007 Capital Injection commencing from 2007. In November 2010, JA Hebei was recognized as an ANTE and was entitled to the preferential income tax of 15% from 2010 to 2012. JA Hebei chose to use the Tax Holiday applicable to 2007 Capital Injection for the overlapping year of 2010. For the years ended December 31, 2011 and 2012, JA Hebei chose to enjoy the preferential income tax of 15% for an ANTE with respect to the taxable income related to the 2007 Capital Injection. However, in February 2013, JA Hebei received a notice from the local tax bureau of Xingtai City, Hebei Province, revoking its original approval that JA Hebei was entitled to enjoy a separate Tax Holiday for taxable income attributable to the 2007 Capital Injection. In July 2013, JA Hebei was again recognized as an ANTE and was entitled to the preferential income tax rate of 15% from 2013 to 2015.

JA Yangzhou and JA Fengxian both had cumulative losses in 2008 and their Tax Holidays were deemed to commence in 2008.

In August 2011, JA Yangzhou was recognized as an ANTE and was entitled to the preferential income tax of 15% from 2011 to 2013. JA Yangzhou chose to use the Tax Holiday for the overlapping years of 2011 and 2012.

In December 2011, JA Fengxian was recognized as an ANTE and was entitled to the preferential income tax of 15% from 2011 to 2013. JA Fengxian chose to enjoy the Tax Holiday for the overlapping years of 2011 and 2012.

In November 2011, JA Lianyungang, was recognized as an ANTE and was entitled to the preferential income tax of 15% from 2011 to 2013.

In August 2012, JA Wafer R&D, was recognized as an ANTE and was entitled to the preferential income tax of 15% from 2012 to 2014.

The ANTE status and preferential tax treatment will be reviewed by the government every three years.

Solar Silicon Valley, which was acquired in 2011, is not entitled to any tax holiday for the year ended December 31, 2011.

Our other operating subsidiaries are subject to the uniform income rate of 25% under the CIT Law.

The CIT Law provides that enterprises established outside of China whose "de facto management bodies" are located in China are considered "resident enterprises" and are generally subject to the uniform 25% enterprise income tax rate as to their worldwide income. Under the implementation regulations for the CIT Law issued by the PRC State Council, "de facto management body" is defined as a body that has material and overall management and control over the manufacturing and business operations, personnel and human resources, finances and treasury, and acquisition and disposition of properties and other assets of an enterprise.

Under the CIT Law and its implementation regulations, PRC income tax at the rate of 10% is applicable to dividends payable to investors that are "non-resident enterprises," which do not have an establishment or place of business in the PRC, or which have such establishment or place of business but the relevant income is not effectively connected with the establishment or place of business, to the extent such dividends have their sources within the PRC. Similarly, any gain realized on the transfer of shares or ADSs by holders of our ordinary shares or ADSs is also subject to 10% PRC income tax if such gain is regarded as income derived from sources within the PRC. If we are considered a PRC "resident enterprise," it is unclear whether dividends we pay with respect to our ordinary shares or ADSs, or the gain holders of our ordinary shares or ADSs may realize from the transfer of our ordinary shares or ADSs, would be treated as income derived from sources within the PRC and be subject to PRC tax. It is also unclear whether, if we are considered a PRC "resident enterprise," holders of our ordinary shares or ADSs might be able to claim the benefit of income tax treaties entered into between China and other countries.



## **Certain United States Federal Income Tax Considerations**

The following is a summary of certain of the United States federal income tax consequences of the ownership and disposition of our ADSs or ordinary shares by U.S. Holders, as defined below, that will acquire our ADSs or ordinary shares and will hold our ADSs or ordinary shares as “capital assets” (generally, property held for investment) under the United States Internal Revenue Code of 1986 as amended (the “Code”). This summary is based upon existing United States federal tax law as in effect on the date of this annual report, which is subject to differing interpretations or change, possibly with retroactive effect. No ruling has been sought from the Internal Revenue Service (the “IRS”) with respect to any United States federal income tax consequences described below, and there can be no assurance that the IRS or a court will not take a contrary position.

This summary does not discuss all aspects of United States federal income taxation that may be important to particular investors in light of their individual investment circumstances, including investors subject to special tax rules (for example, certain financial institutions, insurance companies, regulated investment companies, real estate investment trusts, traders in securities that elect mark-to-market treatment, partnerships and their partners, tax-exempt organizations (including private foundations), investors who are not U.S. Holders, investors who own (directly, indirectly, or constructively) 10% or more of our voting stock, investors that hold their ADSs or ordinary shares as part of a straddle, hedge, conversion, constructive sale or other integrated transaction for United States federal income tax purposes, or investors that have a functional currency other than the United States dollar), all of whom may be subject to tax rules that differ significantly from those summarized below.

In addition, this summary does not discuss any state, local or estate or gift tax considerations and, except for the limited instances where PRC tax law and potential PRC taxes are discussed below, does not discuss any non-United States tax considerations. Each potential investor is urged to consult its tax advisor regarding the United States federal, state, local, and non-United States income and other tax considerations of an investment in our ADSs or ordinary shares.

### ***General***

For purposes of this summary, a “U.S. Holder” is a beneficial owner of our ADSs or ordinary shares that is, for United States federal income tax purposes, (i) an individual who is a citizen or resident of the United States, (ii) a corporation (or other entity treated as a corporation for United States federal income tax purposes) created in, or organized under the law of, the United States or any state thereof or the District of Columbia, (iii) an estate the income of which is includible in gross income for United States federal income tax purposes regardless of its source, or (iv) a trust (A) the administration of which is subject to the primary supervision of a United States court and which has one or more United States persons who have the authority to control all substantial decisions of the trust or (B) that has otherwise elected to be treated as a United States person under the Code.

If a partnership (or other entity treated as a partnership for United States federal income tax purposes) is a beneficial owner of our ADSs or ordinary shares, the tax treatment of a partner in the partnership will generally depend upon the status of the partner and the activities of the partnership. Partnerships and partners of a partnership holding our ADSs or ordinary shares are urged to consult their tax advisors regarding an investment in our ADSs or ordinary shares.

The discussion below assumes that the representations contained in the deposit agreement are true and that the obligations in the deposit agreement and any related agreement have been and will be complied with in accordance with the terms. For United States federal income tax purposes, a U.S. Holder of ADSs will be treated as a beneficial owner of the underlying shares represented by the ADSs. Accordingly, deposits or withdrawals of ordinary shares for ADSs will not be subject to United States federal income tax.

### ***Passive Foreign Investment Company Considerations***

We believe that, as a result of difficult market conditions negatively affecting our gross income, it is very likely that we were a PFIC for our taxable year ended December 31, 2012. As a result of improving market conditions, however, we believe that we were not a PFIC for our taxable year ended December 31, 2013 and, provided these market conditions remain stable or improve, we would not expect to be a PFIC for our current taxable year ending December 31, 2014 or in the foreseeable future. However, we can give no assurances in this regard as the PFIC determination is inherently factual and, in addition, depends upon certain questions of law for which there is inadequate or uncertain authority. Accordingly, we cannot assure you that we will not be a PFIC for our current or any future taxable year.

A non-United States corporation, such as our company, will be a “passive foreign investment company” (or a “PFIC”) for United States federal income tax purposes for any taxable year, if either (i) 75% or more of its gross income for such year consists of certain types of “passive” income or (ii) 50% or more of the value of its assets (determined on the basis of a quarterly average) during such year produce or are held for the production of passive income (“passive assets”). Passive income generally includes dividends, interest, royalties, rents, annuities, net gains from the sale or exchange of property producing such income and net foreign currency gains. For this purpose, cash and assets readily convertible into cash are categorized as passive assets and the company’s unbooked intangibles are taken into account for determining the value of its assets. We will be treated as owning a proportionate share of the assets and earning a proportionate share of the income of any other corporation in which we own, directly or indirectly, more than 25% (by value) of the stock.

We must make a separate determination each year as to whether we are a PFIC. As a result, our PFIC status may change. In particular, because the total value of our assets for purposes of the asset test generally will be calculated using the market price of our ADSs and ordinary shares, our PFIC status will depend in large part on the market price of our ADSs and ordinary shares, which may fluctuate considerably. Accordingly, fluctuations in the market price of the ADSs and ordinary shares may result in our being a PFIC for any year. If we are a PFIC for any year during which a U.S. Holder holds our ADSs or ordinary shares, we generally will continue to be treated as a PFIC for all succeeding years during which such holder holds the ADSs or ordinary shares even if we cease to meet the threshold requirements for PFIC status. However, if we cease to be a PFIC, a U.S. Holder may avoid some of the adverse effects of the PFIC regime by making a deemed sale election with respect to the ADSs or ordinary shares. If we are a PFIC for any taxable year and any of our foreign subsidiaries is also a PFIC, a U.S. Holder would be treated as owning a proportionate amount (by value) of the shares of the lower-tier PFIC for purposes of the application of these rules. U.S. Holders are urged to consult their tax advisors about the application of the PFIC rules to any of our subsidiaries.

If we are a PFIC for any taxable year during which a U.S. Holder holds our ADSs or ordinary shares, unless the U.S. Holder makes a mark-to-market election (as described below), the U.S. Holder will generally be subject to special tax rules that have a penalizing effect, regardless of whether we remain a PFIC, on (i) any excess distribution that we make to the U.S. Holder (which generally means any distribution paid during a taxable year to a U.S. Holder that is greater than 125% of the average annual distributions paid in the three preceding taxable years or, if shorter, the U.S. Holder’s holding period for the ADSs or ordinary shares), and (ii) any gain realized on the sale or other disposition, including, under certain circumstances, a pledge, of ADSs or ordinary shares. Under the PFIC rules:

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- the excess distribution and/or gain will be allocated ratably over the U.S. Holder's holding period for the ADSs or ordinary shares;
- the amount allocated to the current taxable year and any taxable years in the U.S. Holder's holding period prior to the first taxable year in which we are a PFIC, or pre-PFIC year, will be taxable as ordinary income; and
- the amount allocated to each of the other taxable years would be subject to tax at the highest rate of tax in effect for the applicable class of taxpayer for such year and would be increased by an additional tax equal to interest on the resulting tax deemed deferred with respect to each such other taxable year.

If we are a PFIC for any taxable year during which a U.S. Holder holds our ADSs or ordinary shares and any of our non-United States subsidiaries is also a PFIC, such U.S. Holder would be treated as owning a proportionate amount (by value) of the shares of the lower-tier PFIC and would be subject to the rules described above on certain distributions by a lower-tier PFIC and a disposition of shares of a lower-tier PFIC even though such U.S. holder would not receive the proceeds of those distributions or dispositions. U.S. Holders should consult their tax advisors regarding the application of the PFIC rules to any of our subsidiaries.

If a company that is a PFIC provides certain information to U.S. Holders, a U.S. Holder can then avoid certain adverse tax consequences described above by making a "qualified electing fund" election to be taxed currently on its proportionate share of the PFIC's ordinary income and net capital gains. However, because we do not intend to prepare or provide the information that would enable you to make a qualified electing fund election, such election will not be available to you.

Alternatively, a U.S. Holder of "marketable stock" in a PFIC may make a mark-to-market election with respect to such stock. Marketable stock is stock that is traded in other than de minimus quantities on at least 15 days during each calendar quarter ("regularly traded") on a qualified exchange (such as the NASDAQ Global Select Market) or other market as defined in applicable United States Treasury Regulations. We believe that our ADSs, but not ordinary shares, qualify as being regularly traded on the NASDAQ Global Select Market, but no assurances may be given in this regard. If a U.S. Holder makes this election, the holder will generally (i) include as income for each taxable year the excess, if any, of the fair market value of ADSs held at the end of the taxable year over the adjusted tax basis of such ADSs and (ii) deduct as a loss the excess, if any, of the adjusted tax basis of the ADSs over the fair market value of such ADSs held at the end of the taxable year, but only to the extent of the amount previously included in income as a result of the mark-to-market election. The U.S. Holder's adjusted tax basis in the ADSs would be adjusted to reflect any income or loss resulting from the mark-to-market election. If a U.S. Holder makes a mark-to-market election in respect of a corporation classified as a PFIC and such corporation ceases to be classified as a PFIC, the holder will not be required to take into account the gain or loss described above during any period that such corporation is not classified as a PFIC.

A U.S. Holder that holds our ADSs or ordinary shares in any year in which we are classified as a PFIC may make a "deemed sale" election with respect to such ADSs or ordinary shares in a subsequent taxable year in which we are not classified as a PFIC. If you make a valid deemed sale election with respect to your ADSs or ordinary shares, you will be treated as having sold all of your ADSs or ordinary shares for their fair market value on the last day of the last taxable year in which we were a PFIC and such ADSs or ordinary shares will no longer be treated as PFIC stock. You will recognize gain (but not loss), which will be subject to tax as an "excess distribution" received on the last day of the last taxable year in which we were a PFIC. Your basis in the ADSs or ordinary shares would be increased to reflect gain recognized, and your holding period would begin on the day after we ceased to be a PFIC.

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Because, as a technical matter, a mark-to-market election cannot be made for any lower-tier PFICs that we may own, a U.S. Holder may continue to be subject to the PFIC rules with respect to such U.S. Holder's indirect interest in any investments held by us that are treated as an equity interest in a PFIC for United States federal income tax purposes.

The deemed sale election is only relevant to U.S. Holders that hold the ADSs or ordinary shares during a taxable year in which we are a PFIC, regardless of whether we were a PFIC in any prior taxable year. U.S. Holders are urged to consult their tax advisors regarding the advisability of making a deemed sale election and the consequences thereof in light of the U.S. Holder's individual circumstances.

If a U.S. Holder holds ADSs or ordinary shares in any year in which a non-United States corporation is treated as a PFIC with respect to such U.S. Holder, the U.S. Holder may be required to file Internal Revenue Service Form 8621 and such other forms as may be required by the United States Treasury Department. Each U.S. Holder is advised to consult with its tax advisor regarding the application of the PFIC rules if we become classified as a PFIC, including the possibility of making either a deemed sale election or a mark-to-market election.

### ***Dividends***

Subject to the PFIC rules discussed above, any cash distributions (including the amount of any PRC tax withheld) paid on our ADSs or ordinary shares out of our current or accumulated earnings and profits, as determined under United States federal income tax principles, will generally be includible in the gross income of a U.S. Holder as dividend income on the day actually or constructively received by the U.S. Holder, in the case of ordinary shares, or by the depository bank, in the case of ADSs. Because we do not intend to determine our earnings and profits on the basis of United States federal income tax principles, any distribution paid will generally be reported as a "dividend" for United States federal income tax purposes.

A non-corporate recipient will be subject to tax at the lower capital gain tax rate applicable to "qualified dividend income," provided that certain conditions are satisfied, including that (1) the ADSs or ordinary shares, as applicable, are readily tradable on an established securities market in the United States, or, in the event that we are deemed to be a PRC resident enterprise under the PRC tax law, we are eligible for the benefit of the United States-PRC income tax treaty, (2) we are neither a passive foreign investment company nor treated as such with respect to a U.S. Holder (as discussed above) for the taxable year in which the dividend was paid and the preceding taxable year, and (3) certain holding period requirements are met. Although no assurance may be given, we believe that our ADSs are readily tradable on the NASDAQ Global Select Market, which is an established securities market in the United States. There can be no assurance, however, that our ADSs will be considered readily tradable on an established securities market in the United States in later years. Since we do not expect that our ordinary shares will be listed on an established securities market in the United States, it is unclear whether dividends that we pay on our ordinary shares that are not backed by ADSs currently meet the conditions required for the reduced tax rate. If, however, we are deemed to be a PRC "resident enterprise" under PRC tax law, see "Item 10. Additional Information — Taxation — People's Republic of China Taxation," we may be eligible for the benefits of the United States-PRC income tax treaty. If we are eligible for such benefits, dividends we pay on our ordinary shares could be eligible for the reduced rate of taxation, regardless of whether such shares are represented by ADSs.

For United States foreign tax credit purposes, dividends paid on our ADSs or ordinary shares generally will be treated as income from foreign sources and generally will constitute passive category income. A U.S. Holder may be eligible, subject to a number of complex limitations, to claim a foreign tax credit in respect of any foreign withholding taxes imposed on dividends received on our ADSs or ordinary shares. A U.S. Holder who does not elect to claim a foreign tax credit for foreign tax withheld may instead claim a deduction for United States federal income tax purposes in respect of such withholding, but only for a year in which such holder elects to do so for all creditable foreign income taxes. The rules governing the foreign tax credit are complex. U.S. Holders are urged to consult their tax advisors regarding the availability of the foreign tax credit under their particular circumstances.

### ***Sale or Other Disposition of ADSs or Ordinary Shares***

A U.S. Holder will generally recognize capital gain or loss upon the sale or other disposition of ADSs or ordinary shares in an amount equal to the difference between the amount realized upon the disposition and the holder's adjusted tax basis in such ADSs or ordinary shares. Any capital gain or loss will be long-term if the ADSs or ordinary shares have been held for more than one year and will generally be United States source gain or loss for United States foreign tax credit purposes. If any gains were subject to PRC tax and a U.S. Holder is eligible for the benefits of the United States-PRC treaty, such gains might be resourced under the treaty as PRC source income. The deductibility of a capital loss may be subject to limitations. U.S. Holders are urged to consult their tax advisors regarding the tax consequences if a foreign tax is imposed on a disposition of our ADSs or ordinary shares, including the availability of the foreign tax credit under their particular circumstances.

### ***Information Reporting and Backup Withholding***

Individual U.S. Holders and certain entities may be required to submit to the IRS certain information with respect to his or her beneficial ownership of our ADSs or ordinary shares, if such ADSs or ordinary shares are not held on his or her behalf by a financial institution. Penalties are also imposed if an individual U.S. Holder is required to submit such information to the IRS and fails to do so.

In addition, U.S. Holders may be subject to information reporting to the IRS with respect to dividends on and proceeds from the sale or other disposition of our ADSs or ordinary shares. Dividend payments with respect to our ADSs or ordinary shares and proceeds from the sale or other disposition of our ADSs or ordinary shares are not generally subject to United States backup withholding (provided that certain certification requirements are satisfied). U.S. Holders are advised to consult with their tax advisors regarding the application of the United States information reporting and backup rules to their particular circumstances.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules generally will be allowed as a refund or a credit against a U.S. Holder's United States federal income tax liability if the required information is furnished by the U.S. Holder on a timely basis to the IRS.

### **European Countries Taxation**

JA Luxembourg S.a.r.l. is incorporated in Luxembourg and is subject to a 28.80% corporate tax rate.

JA Solar GmbH is incorporated in Germany and is subject to effective income tax rate of 32.98% which consists of 15% corporate income tax plus a solidarity surcharge of 5.5% on corporate income tax and a trade income tax rate of 17.15%.

#### **F. DIVIDENDS AND PAYING AGENTS**

Not applicable.

#### **G. STATEMENT BY EXPERTS**

Not applicable.

## **H. DOCUMENTS ON DISPLAY**

We have filed this annual report, including exhibits, with the SEC. As allowed by the SEC, in Item 19 of this annual report, we incorporate by reference certain information we filed with the SEC. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this annual report.

We are subject to periodic reporting and other informational requirements of the Exchange Act as applicable to foreign private issuers. Accordingly, we will be required to file reports, including annual reports on Form 20-F, and other information with the SEC. As a foreign private issuer, we are exempt from the rules of the Exchange Act prescribing the furnishing and content of proxy statements to shareholders. Our annual reports and other information so filed can be inspected and copied at the public reference facility maintained by the SEC at 100 F. Street, N.E., Washington, D.C. 20549. You can request copies of these documents upon payment of a duplicating fee by writing to the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facility. Our SEC filings will also be available to the public on the SEC's Internet Web site at <http://www.sec.gov>.

## **I. SUBSIDIARY INFORMATION**

Not applicable.

## **ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

### ***Interest Rate Risk***

Our exposure to interest rate risk primarily relates to interest expenses incurred in respect of our borrowings and 2008 Senior Notes, and interest income generated by excess cash invested in demand deposits and liquid investments with original maturities of three months or less. As of December 31, 2013, we had RMB2.1 billion (US\$340.0 million) short-term borrowings and current portion of long term borrowings and RMB1.6 billion (US\$256.7 million) long-term borrowings, with an average interest rate of 6.42% per annum. A hypothetical one percentage point (100 basis-point) increase in interest rates would have resulted in an increase of approximately RMB36.1 million (US\$6.0 million) in interest expense for the year ended December 31, 2013. Interest-earning instruments carry a degree of interest rate risk. Although we have not historically used and do not expect to use in the future, any derivative financial instruments to manage our interest risk exposure, we believe we do not have significant exposure to fluctuations in interest rates.

### ***Foreign Exchange Risk***

Our financial statements are expressed in Renminbi, which is our reporting and functional currency. A significant portion of our revenues and expenses are denominated in Renminbi. The Renminbi prices of some of our equipment that is imported may be affected by fluctuations in the value of Renminbi against foreign currencies. To the extent that we need to convert U.S. dollars into RMB for capital expenditures and working capital and other business purposes, appreciation of the RMB against the U.S. dollar would have an adverse effect on the RMB amount we would receive from the conversion. Conversely, if we decide to convert RMB into U.S. dollars for the purpose of making payments for dividends on our ordinary shares or ADSs, strategic acquisitions or investments or other business purposes, appreciation of the U.S. dollar against the RMB would have a negative effect on the U.S. dollar amount available to us. In this particular regard, for the year ended December 31, 2013, we incurred foreign exchange loss totaling RMB43.8 million (US\$7.2 million). We cannot predict the impact of future exchange rate fluctuations on our results of operations and may incur net foreign currency losses in the future.

Fluctuations in currency exchange rates, particularly between U.S. dollar/Euro and Renminbi, may continue to have a significant effect on our net profit margins and would result in foreign currency exchange gains and losses on our U.S. dollar/Euro denominated assets and liabilities. Any appreciation of Renminbi against U.S. dollar/Euro could result in a change to our statement of operations. On the other hand, any depreciation of Renminbi to U.S. dollar/Euro could reduce the Renminbi equivalent amounts of our financial results, the proceeds from our public offerings and the dividends we may pay in the future, if any, all of which may have a material adverse effect on the prices of our ADSs. Since 2009, we have entered into foreign currency forward contracts with commercial banks to hedge part of our exposure to foreign currency exchange risk for the forecasted sales denominated in foreign currencies. We do not use foreign currency forward contracts to hedge all of our foreign currency denominated transactions. As with all hedging instruments, there are risks associated with the use of foreign currency forward contracts. While the use of such foreign currency forward contracts provides us with protection from certain fluctuations in foreign currency exchange, we potentially forgo the benefits that might result from favorable fluctuations in foreign currency exchange. Any default by the counterparties to these transactions could adversely affect our financial condition and results of operations. Furthermore, these financial hedging transactions may not provide adequate protection against future foreign currency exchange rate fluctuations and, consequently, such fluctuations could adversely affect our financial condition and results of operations.

### ***Credit Risk***

We are generally required to make prepayments to silicon wafer suppliers in advance of shipments. We do not require collateral or other security against our prepayments to our suppliers for raw materials and have recorded a provision balance of RMB72.3 million (US\$11.9 million) for potential losses against these prepayments as of December 31, 2013. In the event of a failure by our suppliers to fulfill their contractual obligations and to the extent that we are not able to recover our prepayments, we would suffer losses. See “Item 3. Key Information—D. Risk Factors—Risks Related to Our Business and Industry—Prepayment arrangements for procurement of silicon wafers and/or polysilicon from our major suppliers expose us to the credit risks of such suppliers and may also significantly increase our costs and expenses, either of which could in turn have a material adverse effect on our financial condition, results of operations and liquidity.”

We extend credit terms to certain customers after assessing a number of factors to determine whether collections from the customers are probable. We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. We make our estimates of the collectability of our accounts receivable by analyzing historical bad debts, specific customer credit worthiness and current economic trends. We recorded RMB281.0 million (US\$46.4 million) for doubtful accounts as of December 31, 2013. If the financial condition of our customers were to deteriorate such that their ability to make payments was impaired, additional allowances could be required.

In addition, as a result of the current global economic crisis, we are increasingly exposed to credit risk in relation to our bank deposits. Since the fourth quarter of 2008, banks and other financial institutions, possibly including ones we engage in business with, have come under strain during the current global liquidity and credit crisis. It is possible that these banks and other financial institutions may be unable to weather the current economic storm, resulting in a loss of our deposits which will have a material adverse effect on our financial condition, results of operations and liquidity.

In line with its effects on banks, the current economic crisis has also affected our customers. The negative impact of the current economy on our clients may affect their ability to pay us for our products and services that we have delivered and/or completed based on our extension of credit to our clients. If our clients fail to pay us for our products and services, our financial condition, results of operations and liquidity may be adversely affected.

## ***Inflation Risk***

In the last three years, inflation in China has not materially impacted our results of operations. According to the National Bureau of Statistics of China, the year-over-year percent changes in the consumer price index for December 2011, 2012 and 2013 were increases of 4.1%, 2.5% and 2.5%, respectively. Although we have not been materially affected by inflation in the past, we cannot assure you that we will not be affected in the future by higher rates of inflation in China.

### **ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES**

#### **A. DEBT SECURITIES**

Not applicable.

#### **B. WARRANTS AND RIGHTS**

Not applicable.

#### **C. OTHER SECURITIES**

Not applicable.

#### **D. AMERICAN DEPOSITARY SHARES**

##### **Fees paid by our ADS holders**

The Bank of New York Mellon, the depositary of our ADS program, collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may collect its annual fee for depositary services by deducting from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them.

The table below sets forth all fees and charges, which may change from time to time, that a holder of our ADSs may have to pay to the depositary bank of our ADS program, either directly or indirectly:

<b>Persons depositing or withdrawing shares must pay:</b>	<b>For:</b>
US\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	<ul style="list-style-type: none"> <li>• Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property</li> <li>• Cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates</li> </ul>
US\$0.02 (or less) per ADS	<ul style="list-style-type: none"> <li>• Any cash distribution to ADS holders</li> </ul>
A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs	<ul style="list-style-type: none"> <li>• Distribution of securities distributed to holders of deposited securities which are distributed by the depositary to ADS holders</li> </ul>
US\$0.02 (or less) per ADSs per calendar year	<ul style="list-style-type: none"> <li>• Depositary services</li> </ul>
Registration or transfer fees	<ul style="list-style-type: none"> <li>• Transfer and registration of shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares</li> </ul>
Expenses of the depositary	<ul style="list-style-type: none"> <li>• Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement)</li> <li>• converting foreign currency to U.S. dollars</li> </ul>
Taxes and other governmental charges the depositary or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes	<ul style="list-style-type: none"> <li>• As necessary</li> </ul>
Any charges incurred by the depositary or its agents for servicing the deposited securities	<ul style="list-style-type: none"> <li>• As necessary</li> </ul>





### **Fees and Payments from the Depositary to Us**

Our depositary has agreed to reimburse us for certain expenses we incur that are related to the administration and maintenance of the ADS program. There are limits on the amount of expenses for which the depositary will reimburse us, but the amount of reimbursement available to us is not related to the amounts of fees the depositary collects from investors. For the year ended December 31, 2013, we were entitled to US\$0.2 million from the depositary as reimbursement for expenses related to the administration and maintenance of our ADS program in 2013.

## **PART II**

### **ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

None.

### **ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS**

On February 7, 2008, our board of directors approved a change in the ratio of 1 ADS to 3 ordinary shares of the company to 1 ADS to 1 ordinary share of the Company. Each shareholder of record at the close of business on February 6, 2008 received two additional ADSs for every ADS held on the record date. There was no change to the rights and preferences of the underlying ordinary shares. No action was required on the part of any ADS holder to effect the ratio change.

Upon the conversion of any of the 2008 Senior Notes into ADSs, there may be a dilutive effect caused by the conversion of the 2008 Senior Notes. Additional information on the potential dilutive effects of the conversion of the 2008 Senior Notes is incorporated into this annual report by reference to the Form F-3ASR initially filed with the SEC on May 12, 2008, the Prospectus Supplement for the 2008 Senior Notes initially filed with the SEC on May 15, 2008, the Prospectus Supplement for the 13,125,520 ADSs previously loaned by us to LBIE and Credit Suisse International in connection with the 2008 Senior Notes initially filed with the SEC on May 15, 2008, and the materials attached to the Form 6-K initially filed with the SEC on May 20, 2008.

We changed the ratio of our ADSs to ordinary shares from one ADS representing one ordinary share to one ADS representing five ordinary shares, effective on December 10, 2012. For our ADS holders, this ratio change had the same effect as a one-for-five reverse ADS split. There was no change to the rights and preferences of the underlying ordinary shares. Our ADSs holders were required to surrender their existing ADSs in exchange for new ADSs.

## **ITEM 15. CONTROLS AND PROCEDURES**

### **Evaluation of Disclosure Controls and Procedures**

As of December 31, 2013, the end of the period covered by this annual report on Form 20-F, management performed, under the supervision and with the participation of our chief executive officer and chief financial officer, an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Disclosure controls and procedures are those controls and procedures designed to provide reasonable assurance that the information required to be disclosed in our Exchange Act filings is (1) recorded, processed, summarized and reported within the time periods specified in SEC's rules and forms, and (2) accumulated and communicated to management, including our chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure. Based on that evaluation, our chief executive officer and chief financial officer concluded that, as of December 31, 2013, our disclosure controls and procedures were effective at a reasonable assurance level.

### **Management's Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act). Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. GAAP. Internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. GAAP, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and or our Board of Directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the interim or annual consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

As required by Section 404 of the Sarbanes-Oxley Act of 2002 and related rules as promulgated by the Securities and Exchange Commission, management assessed the effectiveness of our internal control over financial reporting as of December 31, 2013 using criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on this assessment, management concluded that our internal control over financial reporting was effective as of December 31, 2013 based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (1992).

The report of PricewaterhouseCoopers Zhong Tian LLP, our independent registered public accounting firm, on the effectiveness of our internal control over financial reporting appears on page F-2 in this annual report.

## Changes in Internal Control Over Financial Reporting

We maintain a system of internal control over financial reporting that is designed to provide reasonable assurance that our books and records accurately reflect our transactions and that our established policies and procedures are followed. We consider there are no changes in internal control over financial reporting in year 2013 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

### ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our board of directors has determined that Ms. Hope Ni, an independent director (under the standards set forth in NASDAQ Stock Market Rule 5605(a)(2) and Rule 10A-3 under the Exchange Act, as amended) and a member of our audit committee, is an audit committee financial expert.

### ITEM 16B. CODE OF ETHICS

We have adopted a code of ethics for chief executive officer and senior financial officers, which we filed with the SEC as an exhibit to our annual report on Form 20-F for the year ended December 31, 2006. This home country practice of ours was established by us by reference to similarly situated issuers and differs from the NASDAQ Stock Market Rules that require listed companies to adopt one or more codes of conduct applicable to all directors, officers and employees and make those codes of conduct publicly available. There are, however, no specific requirements under Cayman Islands law requiring the adoption of codes of conduct.

### ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table sets forth the aggregate audit fees, audit-related fees, tax fees of our principal accountants and all other fees billed for services provided by our principal accountants for each of the fiscal years 2012 and 2013:

	For the Year Ended December 31,	
	2012	2013
	(RMB in million)	
Audit fees <sup>(1)</sup>	10.5	9.9
Audit-related fees <sup>(2)</sup>	1.1	0.8
Tax fees <sup>(3)</sup>	0.3	—

(1) “Audit fees” means the aggregate fees billed for professional services rendered by our principal auditors for the audit of our annual financial statements.

(2) “Audit-related fees” represents aggregate fees billed for professional services rendered by our principal auditors for the assurance and related services.

(3) “Tax fees” represents aggregate fees billed for professional services rendered by our principal auditors for tax compliance, tax advice and tax planning.

Before our principal accountants were engaged by our company or our subsidiaries to render audit or non-audit services, the engagement has been approved by our audit committee. Our audit committee will review and approve our independent auditor’s annual engagement letter, including the proposed fees, as well as all audit and permitted non-audit engagements and relationships between the company and such independent auditors prior to the services being provided.

### ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

**ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS**

Not applicable.

**ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT**

Not applicable.

**ITEM 16G. CORPORATE GOVERNANCE**

NASDAQ Stock Market Rules provide that foreign private issuers may follow home country practice in lieu of the corporate governance requirements of The NASDAQ Stock Market LLC, subject to certain exceptions and requirements to the extent that such exemptions would be contrary to U.S. federal securities laws and regulations. The significant differences between our corporate governance practices and those followed by U.S. companies under the NASDAQ Stock Market Rules are summarized as follows:

- We follow home country practice that permits our board of directors to have less than a majority of independent directors.
- We follow home country practice that does not restrict a company's transactions with directors, requiring only that directors exercise a duty of care and owe a fiduciary duty to the companies for which they serve. Under our memorandum and articles of association, subject to any separate requirement for audit committee approval under the applicable rules of the NASDAQ Stock Market Rules or unless disqualified by the chairman of the relevant board meeting, so long as a director discloses the nature of his interest in any contract or arrangement in which he is interested, such a director may vote in respect of any contract or proposed contract or arrangement in which such director is interested and may be counted in the quorum at such meeting.
- We follow home country practice that does not require the nominating and corporate government committee and compensation committee of our board of directors to be comprised solely of independent directors.
- We follow home country practice that does not require us to have regularly scheduled meetings at which only independent directors are present, or executive sessions.
- We follow home country practice that does not specifically require us to have one or more codes of conduct applicable to all directors, officers and employees and make those codes of conduct publicly available. There are no specific requirements under Cayman Islands law requiring the adoption of codes of conduct.

In accordance with NASDAQ Stock Market Rule 5250(d)(1), we will post this annual report on Form 20-F on our company website at <http://investors.jasolar.com>. In addition, we will provide hard copies of our annual report free of charge to shareholders and ADS holders upon request.

**ITEM 16H. MINE SAFETY DISCLOSURE**

Not applicable.

**PART III**

**ITEM 17. FINANCIAL STATEMENTS**

Not applicable.

**ITEM 18. FINANCIAL STATEMENTS**

The consolidated financial statements of JA Solar Holdings Co., Ltd. and its subsidiaries are included at the end of this annual report.

**ITEM 19. EXHIBITS**

- 1.1 Second Amended and Restated Memorandum and Articles of Association of the Registrant (incorporated by reference to Exhibit 3.1 from our registration statement on Form F-1 (File No. 333-140002), as amended, initially filed with the Securities and Exchange Commission on January 16, 2007.)
- 2.1 Form of Indenture (incorporated by reference to Exhibit 4.4 from our registration statement on Form F-3ASR, initially filed with the SEC on May 12, 2008.)
- 2.2 Form of First Supplemental Indenture between The Bank of New York as trustee and JA Solar (incorporated by reference to Exhibit 4.1 on Form 6-K initially filed with the Securities and Exchange Commission on May 20, 2008).
- 4.1 Investment Agreement for Solar Photovoltaic Industrial Center Project between JA Solar Holdings Co., Ltd. and the Management Committee of Hefei High-Tech Industrial Development Zone dated February 26, 2011. (incorporated by reference to Exhibit 4.3 from our Form 20-F/A, initially filed with the Securities and Exchange Commission on June 15, 2011)
- 4.2 Supply Agreement between OCI Company Ltd. and JingAo Solar Co., Ltd. dated March 28, 2011. (incorporated by reference to Exhibit 4.5 from our Form 20-F, initially filed with the Securities and Exchange Commission on April 26, 2011)
- 4.3 Share Purchase Agreement by and among Jinglong Group Co., Ltd., Huang Chin Tien, Silver Age Holdings Limited and JA Solar Holdings Co., Ltd. dated July 1, 2011 (incorporated by reference to Exhibit 99.2 from our Form 6-K, initially filed with the Securities and Exchange Commission on July 1, 2011)
- 4.4 Long-term Supply Agreement between Hemlock Semiconductor Pte. Ltd. and JA Solar Technology Yangzhou Co., Ltd. dated May 4, 2011 (incorporated by reference to Exhibit 4.8 from our Form 20-F/A, initially filed with Securities and Exchange Commission on October 15, 2012)
- 4.5 Framework Agreement Regarding Repayment of Prepayment by and among JingAo Solar Co., Ltd., JA Solar Holdings Co., Ltd., JA Solar Hong Kong Limited, M.SETEK Co., Ltd. and Hebei Ningjin Songgong Semiconductor Co., Ltd. dated March 8, 2012 (incorporated by reference to Exhibit 4.9 from our Form 20-F/A, initially filed with Securities and Exchange Commission on July 2, 2012)
- 8.1\* List of Significant Subsidiaries
- 11.1 Code of Business Conduct and Ethics (incorporated by reference to Exhibit 11.1 from our 2006 annual report on Form 20-F (File No. 001-33290) initially filed with the Securities and Exchange Commission on June 1, 2007.)
- 12.1\* Certification by the Chief Executive Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Act and Section 302 of the Sarbanes-Oxley Act of 2002
- 12.2\* Certification by the Chief Financial Officer Pursuant to Rule 13a-14(a)/15d-14(a) of the Act and Section 302 of the Sarbanes-Oxley Act of 2002

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13.1**	Certification by the Chief Executive Officer Pursuant to Rule 13a-14(b)/15d-14(b) of the Act, Section 1350 of Chapter 63 of the United States Code and Section 906 of the Sarbanes-Oxley Act of 2002
13.2**	Certification by the Chief Financial Officer Pursuant to Rule 13a-14(b)/15d-14(b) of the Act, Section 1350 of Chapter 63 of the United States Code and Section 906 of the Sarbanes-Oxley Act of 2002
15.1*	Consent of Independent Registered Public Accounting Firm
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

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\* Filed herewith

\*\* Furnished herewith

**SIGNATURE**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

JA Solar Holdings Co., Ltd.

By: /s/ Hexu Zhao

Name: Hexu Zhao

Title: Chief Financial Officer

Date: April 23, 2014



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**Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Shareholders of JA Solar Holdings Co., Ltd. :

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations and comprehensive loss, of changes in shareholders' equity, and of cash flows present fairly, in all material respects, the financial position of JA Solar Holdings Co., Ltd. (the "Company") and its subsidiaries at December 31, 2013 and December 31, 2012, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2013 in conformity with accounting principles generally accepted in the United States of America . Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 2013, based on criteria established in *Internal Control - Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting appearing in item 15 of this Form 20-F. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States ). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions .

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers Zhong Tian LLP  
Shanghai, the People's Republic of China  
April 23, 2014

**JA SOLAR HOLDINGS CO., LTD.**  
**CONSOLIDATED BALANCE SHEETS**

(In thousands, except share and per share data)

	Note	December 31, 2012 RMB	December 31, 2013 RMB
<b>ASSETS</b>			
Current assets:			
Cash and cash equivalents	2(d)	3,031,462	2,119,740
Restricted cash	2(d)	194,379	588,413
Notes receivable	5	148,961	207,224
Accounts receivable from third party customers, net	6	1,686,940	748,414
Accounts receivable from related party customers, net	6,25(b)	36,150	295,697
Inventories	7	930,137	1,347,094
Advances to third party suppliers, net	8	207,388	288,472
Advances to related party suppliers, net	8,25(b)	87,265	113,000
Other current assets	9,14,21,25(b),27	807,666	579,570
Deferred tax assets	12	20,031	64,409
<b>Total current assets</b>		<b>7,150,379</b>	<b>6,352,033</b>
Property, plant and equipment, net	10	4,447,469	4,158,108
Project assets, net	2(r)	—	47,746
Intangible asset, net	11	11,880	14,423
Deferred tax assets	12	73,939	58,050
Advances to third party suppliers, net	8	1,136,303	753,310
Advances to related party suppliers, net	8,25(b)	21,252	603
Prepaid land use rights	14	240,334	448,619
Investment in a joint venture	4	50,910	48,802
<b>Total assets</b>		<b>13,132,466</b>	<b>11,881,694</b>

**JA SOLAR HOLDINGS CO., LTD.**  
**CONSOLIDATED BALANCE SHEETS (Continued)**

(In thousands, except share and per share data)

	Note	December 31, 2012 RMB	December 31, 2013 RMB
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>			
Current liabilities:			
Short-term borrowings and current portion of long term borrowings	15	2,823,230	2,058,515
Accounts payable to third parties		1,117,729	1,570,850
Accounts payable to related parties	25(a)	195,806	311,781
Tax payables		91,847	11,028
Advances from third party customers		76,875	191,428
Advances from related party customers	25(a)	—	11,295
Other payables to third parties	17	480,115	482,270
Payroll and welfare payables		154,136	202,743
Accrued expenses	18	226,297	166,054
Interest payable		4,123	—
Amounts due to related parties	25(a)	9,833	3,814
Derivatives liabilities - warrants	22,27	—	31,106
Convertible notes	16	708,548	—
<b>Total current liabilities</b>		<b>5,888,539</b>	<b>5,040,884</b>
Accrued warranty costs	19	114,226	158,897
Other long-term liabilities	13	148,738	269,575
Long-term borrowings	15	2,088,139	1,554,000
Derivatives liabilities - warrants	22,27	—	154,259
<b>Total liabilities</b>		<b>8,239,642</b>	<b>7,177,615</b>
<b>Commitments and Contingencies</b>	26		
<b>Shareholders' equity :</b>			
Ordinary shares(US\$0.0001 par value; 500,000,000 shares authorized, 199,863,607 and 227,499,837 shares issued and outstanding as of December 31, 2012 and December 31, 2013, respectively)			
	30	153	170
Additional paid-in capital		5,135,587	5,327,177
Statutory reserves	23(b)	416,647	410,150
Accumulated deficit		(656,545)	(1,123,724)
Accumulated other comprehensive (loss)/income		(3,018)	6,489
<b>Total shareholders' equity attributable to JA Solar Holdings</b>		<b>4,892,824</b>	<b>4,620,262</b>
<b>Noncontrolling interest</b>		<b>—</b>	<b>83,817</b>
<b>Total shareholders' equity</b>		<b>4,892,824</b>	<b>4,704,079</b>
<b>Total liabilities and shareholders' equity</b>		<b>13,132,466</b>	<b>11,881,694</b>

The accompanying notes are an integral part of these consolidated financial statements.

**JA SOLAR HOLDINGS CO., LTD.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**  
(In thousands, except share and per share data)

	Note	For the year ended December 31, 2011 RMB	For the year ended December 31, 2012 RMB	For the year ended December 31, 2013 RMB
Revenues				
Solar modules		3,709,335	4,043,609	4,388,251
Solar cells and other products		6,222,807	2,357,101	2,385,770
Engineering, procurement and construction		146,444	135,810	27,875
Solar products processing		654,268	182,545	380,893
Total revenues		10,732,854	6,719,065	7,182,789
Cost of revenues				
Solar modules		(3,427,801)	(4,029,047)	(3,861,178)
Solar cells and other products		(6,242,660)	(2,476,893)	(2,254,007)
Engineering, procurement and construction		(108,351)	(84,726)	(16,045)
Solar products processing		(492,709)	(182,757)	(289,270)
Total cost of revenues		(10,271,521)	(6,773,423)	(6,420,500)
Gross profit/(loss)		461,333	(54,358)	762,289
Selling, general and administrative expenses		(509,832)	(901,645)	(765,236)
Research and development expense		(68,948)	(86,429)	(88,306)
Impairment loss on property, plant and equipment		(303,068)	(397,789)	—
Total operating expenses		(881,848)	(1,385,863)	(853,542)
Loss from continuing operations		(420,515)	(1,440,221)	(91,253)
Change in fair value of derivatives	21,22,27	84,874	9,334	(51,867)
Convertible notes buyback gain/(loss)	16	4,312	(8,466)	—
Interest expense		(373,710)	(489,346)	(285,618)
Interest income		25,868	36,226	17,091
Foreign exchange loss		(69,027)	(24,519)	(43,828)
Loss for equity investment in a joint venture	4	(1,800)	(43,501)	(2,108)
Other income, net	13,16	235,723	398,861	16,064
Loss from continuing operations before income taxes		(514,275)	(1,561,632)	(441,519)
Income tax (expense)/benefit	12	(57,823)	(100,625)	15,027
Loss from continuing operations		(572,098)	(1,662,257)	(426,492)
Gain from sales of discontinued operations, net of tax		7,753	—	—
Net loss		(564,345)	(1,662,257)	(426,492)
Less: fair value of warrants in excess of net proceeds of equity offering	22	—	—	44,396
Less: earnings attributable to the noncontrolling interest		—	—	2,788
Net loss attributable to JA Solar Holdings		(564,345)	(1,662,257)	(473,676)
Other comprehensive income/(loss):				
Foreign currency translation adjustments, net of tax		1,181	218	9,507
Cash flow hedging income/(loss), net of tax		9,428	(11,755)	—
Other comprehensive loss		10,609	(11,537)	9,507
Comprehensive loss		(553,736)	(1,673,794)	(416,985)
Less: fair value of warrants in excess of net proceeds of equity offering	22	—	—	44,396
Less: comprehensive income attributable to the noncontrolling interest		—	—	2,788
Comprehensive loss attributable to JA Solar Holdings		(553,736)	(1,673,794)	(464,169)

**JA SOLAR HOLDINGS CO., LTD.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS (continued)**  
(In thousands, except share and per share data)

	Note	For the year ended December 31, 2011 RMB	For the year ended December 31, 2012 RMB	For the year ended December 31, 2013 RMB
Net loss per share from continuing operations:				
Basic		(3.42)	(8.53)	(2.35)
Diluted		(3.42)	(8.53)	(2.35)
Net income per share from discontinued operations:				
Basic		0.04	—	—
Diluted		0.04	—	—
Net loss per share:				
Basic		(3.38)	(8.53)	(2.35)
Diluted		(3.38)	(8.53)	(2.35)
Weighted average number of shares outstanding :	24			
Basic		167,101,076	194,788,429	201,317,884
Diluted		167,101,076	194,788,429	201,317,884
Net loss per ADS from continuing operations:				
Basic		(17.12)	(42.67)	(11.76)
Diluted		(17.12)	(42.67)	(11.76)
Net income per ADS from discontinued operations:				
Basic		0.22	—	—
Diluted		0.22	—	—
Net loss per ADS:				
Basic		(16.90)	(42.67)	(11.76)
Diluted		(16.90)	(42.67)	(11.76)
Weighted average number of ADS:				
Basic		33,420,215	38,957,685	40,263,577
Diluted		33,420,215	38,957,685	40,263,577

The accompanying notes are an integral part of these consolidated financial statements.

**JA SOLAR HOLDINGS CO., LTD.**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (In thousands, except share and per share data)**

	Ordinary shares		Additional paid-in capital	Statutory reserves	Retained earnings	Accumulated other comprehensive Income/(loss)	Total shareholders' equity
	Shares	Amount RMB	RMB	RMB	RMB	RMB	RMB
Balance at December 31, 2010	169,976,270	134	4,680,133	397,486	1,604,493	(2,090)	6,680,156
Share based compensation	—	—	40,187	—	—	—	40,187
Exercise of stock options	1,360,750	1	23,074	—	—	—	23,075
Issuance of shares for business combination	30,901,287	19	358,968	—	—	—	358,987
Statutory reserves	—	—	—	22,815	(22,815)	—	—
Net loss	—	—	—	—	(564,345)	—	(564,345)
Other comprehensive income for foreign currency translation adjustment	—	—	—	—	—	1,181	1,181
Other comprehensive income for forward contract (Note 21)	—	—	—	—	—	9,428	9,428
Balance at December 31, 2011	202,238,307	154	5,102,362	420,301	1,017,333	8,519	6,548,669

The accompanying notes are an integral part of these consolidated financial statements.

**JA SOLAR HOLDINGS CO., LTD.**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (Continued)**  
(In thousands, except share and per share data)

	<u>Ordinary shares</u>						
	<u>Shares</u>	<u>Amount</u>	<u>Additional paid-in</u>	<u>Statutory</u>	<u>Retained</u>	<u>Accumulated other</u>	<u>Total</u>
		<u>RMB</u>	<u>capital</u>	<u>reserves</u>	<u>earnings/(deficit)</u>	<u>comprehensive</u>	<u>shareholders'</u>
			<u>RMB</u>	<u>RMB</u>	<u>RMB</u>	<u>Income/(loss)</u>	<u>equity</u>
						<u>RMB</u>	<u>RMB</u>
Balance at							
December 31, 2011	202,238,307	154	5,102,362	420,301	1,017,333	8,519	6,548,669
Share based							
compensation			33,225				33,225
Vesting of restricted							
share units	95,000	0	—	—		—	
Repurchase and							
retirement of ADS	(2,469,700)	(1)	—	—	(15,275)	—	(15,276)
Reversal of statutory							
reserves	—	—	—	(3,654)	3,654	—	—
Net loss	—	—	—	—	(1,662,257)	—	(1,662,257)
Other comprehensive							
income for foreign							
currency translation							
adjustment	—	—	—	—	—	218	218
Other comprehensive							
income for forward							
contract (Note 21)	—	—	—	—	—	(11,755)	(11,755)
Balance at							
December 31, 2012	199,863,607	153	5,135,587	416,647	(656,545)	(3,018)	4,892,824

The accompanying notes are an integral part of these consolidated financial statements.



**JA SOLAR HOLDINGS CO., LTD.**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (Continued)**

(In thousands, except share and per share data)

	<u>Ordinary shares</u>								
	<u>Shares</u>	<u>Amount</u>	<u>Additional</u>	<u>Statutory</u>	<u>Retained</u>	<u>Accumulated</u>	<u>Total JA</u>	<u>Non-controlling</u>	<u>Total</u>
		<u>RMB</u>	<u>paid-in capital</u>	<u>reserves</u>	<u>earnings/</u>	<u>other</u>	<u>Solar</u>	<u>interest</u>	<u>shareholder</u>
			<u>RMB</u>	<u>RMB</u>	<u>(deficit)</u>	<u>comprehensive</u>	<u>Holdings</u>		<u>s' equity</u>
					<u>RMB</u>	<u>Income/(loss)</u>	<u>shareholders'</u>	<u>RMB</u>	<u>RMB</u>
						<u>RMB</u>	<u>equity</u>		
Balance at									
December 31, 2012	199,863,607	153	5,135,587	416,647	(656,545)	(3,018)	4,892,824	—	4,892,824
Share based									
compensation	—	—	9,401	—	—	—	9,401	—	9,401
Exercise of stock									
options	401,750	0	3,389	—	—	—	3,389	—	3,389
Vesting of restricted									
share units	1,281,890	0	—	—	—	—	—	—	—
Reversal of statutory									
reserves	—	—	—	(6,497)	6,497	—	—	—	—
Acquisition of a									
subsidiary (Note 3)	—	—	—	—	—	—	—	81,029	81,029
Issuance of ordinary									
shares, net of									
warrants issuance									
(Note 22)	15,228,425	9	—	—	—	—	9	—	9
Exercise of warrants									
(Note 22)	10,724,165	8	178,800	—	—	—	178,808	—	178,808
Fair value of warrants									
in excess of net									
proceeds of equity									
offering (Note 22)	—	—	—	—	(44,396)	—	(44,396)	—	(44,396)
Net (loss)/income	—	—	—	—	(429,280)	—	(429,280)	2,788	(426,492)
Other comprehensive									
income for foreign									
currency translation									
adjustment						9,507	9,507		9,507
Balance at									
December 31, 2013	227,499,837	170	5,327,177	410,150	(1,123,724)	6,489	4,620,262	83,817	4,704,079

The accompanying notes are an integral part of these consolidated financial statements.

**JA SOLAR HOLDINGS CO., LTD.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(In thousands)

	For the year ended December 31, 2011 RMB	For the year ended December 31, 2012 RMB	For the year ended December 31, 2013 RMB
<b>Cash flows from operating activities:</b>			
Net loss	(564,345)	(1,662,257)	(426,492)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Share based compensation	40,187	33,225	9,401
Depreciation and amortization	484,784	657,082	595,792
Allowance for doubtful accounts	26,338	187,130	91,016
Inventory provision	386,623	171,165	119,936
Allowance for advance to third party suppliers	6,285	64,298	10,392
Amortization of deferred issuance cost and accretion of convertible notes	140,894	135,725	35,030
Change in fair value of derivatives	(63,147)	11,485	51,867
Gain on acquisition of a subsidiary	(187,387)	—	—
Loss for equity investment in a joint venture	1,800	43,501	2,108
Exchange (gain)/loss	(57,989)	13,004	(261)
Loss from disposal of fixed assets	3,334	1,878	(950)
Impairment on property, plant and equipment	303,068	397,789	—
Deferred income taxes	(5,587)	(1,350)	(28,489)
(Gain)/loss from convertible notes buyback	(4,312)	8,466	—
Gain on sale of claim against loaned shares	—	(369,153)	—
Changes in operating assets and liabilities:			
(Increase)/decrease in notes receivables	(157,771)	271,254	(58,263)
(Increase)/decrease in accounts receivables from third party customers	(295,673)	(660,190)	847,518
Decrease /(increase) in accounts receivables from related party customers	133,257	(5,126)	(196,481)
Decrease /(increase) in inventories	261,324	(370,667)	(500,761)
Decrease in advance to third party suppliers	288,410	428,076	175,581
Decrease /(increase) in advance to related party suppliers	109,391	(56,005)	(2,586)
Decrease in other current assets	180,187	34,516	256,591
Increase in prepaid land use rights	(57,312)	—	(225,410)
Increase/(decrease) in accounts payable	(466,524)	608,442	598,716
(Decrease)/increase in tax payable	(89,614)	67,277	(80,819)
(Decrease)/increase in advance from customers	(165,270)	(243,402)	125,848
Increase in other payables	6,637	59,030	90,385
(Decrease)/increase in payroll and welfare payables	(41,682)	8,743	7,363
Increase/(decrease) in accrued expenses	90,145	73,620	(60,821)
Decrease in interest payable	(448)	(3,746)	(4,123)
Increase/(decrease) in amounts due to related parties	6,602	3,057	(6,019)
Decrease in other current liabilities	(29,808)	—	—
Increase in accrued warranty costs	47,474	35,475	44,671
Increase/(decrease) in other long-term liabilities	34,499	66,280	(6,063)
Net cash provided by operating activities	364,370	8,622	1,464,677

**JA SOLAR HOLDINGS CO., LTD.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)**  
(In thousands)

	For the year ended December 31, 2011 RMB	For the year ended December 31, 2012 RMB	For the year ended December 31, 2013 RMB
<b>Cash flows from investing activities:</b>			
Purchase of property, plant and equipment	(2,203,723)	(526,236)	(381,657)
Proceeds from disposal of property, plant and equipment	5,041	4,711	3,668
Purchase of intangible assets	(196)	(2,702)	(5,561)
Investments in project assets	—	—	(8,405)
Government grants received	—	—	126,900
Proceeds from disposal of a subsidiary	82,268	—	—
Cash paid for investment in a joint venture	(96,211)	—	—
Cash acquired from acquisition of a subsidiary	127,720	—	45,109
Decrease/(increase) in restricted cash	23,961	(105,747)	(394,034)
Net cash used in investing activities	(2,061,140)	(629,974)	(613,980)
<b>Cash flows from financing activities:</b>			
Proceeds from short-term borrowings	1,933,478	1,974,577	1,534,339
Proceeds from long-term borrowings	3,510,208	538,000	—
Repurchase of convertible notes	(28,469)	(617,937)	—
Repayment of convertible notes	—	—	(740,027)
Proceeds from sales of claim against loaned shares	—	369,153	—
Proceeds from issuance of ordinary shares	—	—	128,529
Proceeds from issuance of ordinary shares upon exercise of warrants	—	—	143,107
Repurchase of ADS	—	(15,276)	—
Repayment of short-term borrowings	(1,446,403)	(1,535,478)	(1,411,716)
Repayment of long-term borrowings	(681,500)	(946,000)	(1,429,547)
Proceeds from exercise of stock options	23,075	—	3,389
Net cash provided by/(used in) financing activities	3,310,389	(232,961)	(1,771,926)
Effect of exchange rate changes on cash and cash equivalents	(14,009)	(3,317)	9,507
Net increase/(decrease) in cash and cash equivalents	1,599,610	(857,630)	(911,722)
Cash and cash equivalents at the beginning of the year	2,289,482	3,889,092	3,031,462
Cash and cash equivalents at the end of the year	3,889,092	3,031,462	2,119,740
<b>Supplemental disclosure of cash flow information:</b>			
Cash paid for interest (net of amounts capitalized)	170,467	243,332	300,282
Cash paid for income tax	200,839	40,007	84,377
<b>Supplemental schedule of non-cash investing and financing activities:</b>			
Purchases of property, plant and equipment included in other payables	474,185	357,543	221,232
Issuance of ordinary shares relating to acquisition of a subsidiary	358,987	—	—
Project assets transferred from inventories	—	—	39,341

The accompanying notes are an integral part of these consolidated financial statements.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**1. ORGANIZATION AND PRINCIPAL ACTIVITIES**

The accompanying consolidated financial statements include the financial statements of JA Solar Holdings Co., Ltd. (the “Company”), and its subsidiaries, collectively referred to as the “Group”.

JA Solar Holdings Co., Ltd. was incorporated in the Cayman Islands on July 6, 2006. In February 2007, the Company’s ADS became listed on the NASDAQ Global Market in the United States. The Group is primarily engaged in the development, production and marketing of high-performance photovoltaic (“PV”) solar cells and solar power products, which convert sunlight into electricity, in the PRC.

In November 2011, the Company completed the acquisition of 100% equity interest of Silver Age Holdings Limited (“Silver Age”), of which Full Shine Holdings Limited (“Full Shine”) and Solar Silicon Valley Electronic Science and Technology Co., Ltd. (“Solar Silicon Valley”) are 100% owned subsidiaries. Thereafter, Silver Age, Full Shine and Solar Silicon Valley became wholly owned subsidiaries of the Company.

In January 2013, the Company completed the acquisition of 65% equity interest of Hebei Ningjin Songgong Semiconductor Co., Ltd. (“Ninjin Songgong”).

Majority of the Group’s business is conducted through the operating subsidiaries established in the PRC, JingAo Solar Co., Ltd. (“JA Hebei”), JA Solar Technology Yangzhou Co., Ltd. (“JA Yangzhou”), Shanghai JA Solar Technology Co., Ltd. (“JA Fengxian”), Hefei JA Solar Technology Co., Ltd. (“JA Hefei Technology”), Solar Silicon Valley and Jing Hai Yang Semiconductor Materials (Donghai) Co., Ltd. (“JA Lianyungang”), in which the Company indirectly holds a 100% interest.

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 1. ORGANIZATION AND PRINCIPAL ACTIVITIES(continued)

As of December 31, 2013, the Company's subsidiaries include the following entities:

	Date of Incorporation/Acquisition	Place of Incorporation	Percentage of Ownership
JingAo Solar Co., Ltd. ("JA Hebei")	May 18, 2005	PRC	100%
JA Development Co., Ltd. ("JA BVI")	July 6, 2006	BVI	100%
Shanghai JA Solar Technology Co., Ltd. ("JA Fengxian")	November 16, 2006	PRC	100%
JA Solar USA Inc. ("JA USA")	April 13, 2007	USA	100%
Shanghai JA Solar PV Technology Co., Ltd. ("JA Zhabei")	June 22, 2007	PRC	100%
JA Solar Technology Yangzhou Co., Ltd. ("JA Yangzhou")	November 19, 2007	PRC	100%
JA Solar Hong Kong Limited ("JA Hong Kong")	December 10, 2007	Hong Kong	100%
Jing Hai Yang Semiconductor Materials (Donghai) Co., Ltd. ("JA Lianyungang")	October 11, 2008	PRC	100%
JA Solar Yangzhou R&D Co., Ltd. ("JA Yangzhou R&D")	March 12, 2009	PRC	100%
JA Luxembourg S.a.r.l. ("JA Lux")	June 26, 2009	Luxembourg	100%
JA Yangzhou PV Technology Co., Ltd. ("JA Yangzhou PV")	November 23, 2009	PRC	100%
JA Solar GmbH ("JA GmbH")	February 17, 2010	Germany	100%
Shanghai Jinglong Solar Technology Co., Ltd. ("JA Jinglong")	July 5, 2010	PRC	100%
Donghai JA Solar Technology Co., Ltd. ("JA Wafer R&D")	November 4, 2010	PRC	100%
JA (Hefei) Renewable Energy Co., Ltd. ("JA Hefei Renewable Energy")	March 30, 2011	PRC	100%
Hefei JA Solar Technology Co., Ltd. ("JA Hefei Technology")	July 8, 2011	PRC	100%
JA Solar Investment China Co., Ltd ("JA Investment")	October 31, 2011	PRC	100%
Silver Age Holdings Limited ("Silver Age")	November 30, 2011	BVI	100%
Full Shine Holdings Limited ("Full Shine")	November 30, 2011	Hong Kong	100%
Solar Silicon Valley Electronic Science and Technology Co., Ltd. ("Solar Silicon Valley")	November 30, 2011	PRC	100%
JA Solar Japan Limited ("JA Japan")	July 12, 2012	Japan	100%
Dunhuang JA Solar Power Development Co., Ltd ("JA Dunhuang")	July 23, 2012	PRC	100%
Hebei Ningjin Songgong Semiconductor Co., Ltd. ("Ninjin Songgong")	January 29, 2013	PRC	65%
JA Solar Investment (Hong Kong) Limited	May 16, 2013	Hong Kong	100%
JA Solar Australia PTY Limited	June 12, 2013	Australia	100%
Lincheng JA PV Power Generation Co., Ltd	August 8, 2013	PRC	100%

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**2. Summary of significant accounting policies**

**a) Basis of presentation and consolidation**

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP"). The consolidated financial statements include the financial statements of the Company and its subsidiaries. For consolidated subsidiaries where the Company's ownership in the subsidiary is less than 100%, the equity interest not held by the Company is presented as noncontrolling interest. All inter-company transactions and balances among the Company and its subsidiaries have been eliminated upon consolidation.

**b) Use of estimates**

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the dates of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates. The Company bases its estimates on historical experience and various other factors believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Significant accounting estimates reflected in the Company's consolidated financial statements include allowance for doubtful accounts and advances to suppliers, valuation of inventories, derivative and other financial instruments, useful lives of long-lived assets, assumptions used to measure impairment of long-lived assets and equity method investment, determination of fair value of identifiable assets and liabilities acquired through business combination, accrual for warranty and other liabilities, provision for uncertain tax positions and deferred tax valuation allowances and assumptions used in the computation of share-based compensation, including the associated forfeiture rates.

**c) Fair value of financial instruments**

The Company estimated the fair value of its financial assets and liabilities in accordance with ASC 820, *Fair Value Measurements and Disclosure*. ASC 820 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (also referred to as an exit price). ASC 820 establishes a hierarchy for inputs used in measuring fair value that gives the highest priority to observable inputs and the lowest priority to unobservable inputs. Valuation techniques used to measure fair value shall maximize the use of observable inputs.

When available, the Company measures the fair value of financial instruments based on quoted market prices in active markets, valuation techniques that use observable market-based inputs or unobservable inputs that are corroborated by market data. Pricing information the Company obtains from third parties is internally validated for reasonableness prior to use in the consolidated financial statements. When observable market prices are not readily available, the Company generally estimates the fair value using valuation techniques that rely on alternate market data or inputs that are generally less readily observable from objective sources and are estimated based on pertinent information available at the time of the applicable reporting periods. In certain cases, fair values are not subject to precise quantification or verification and may fluctuate as economic and market factors vary and the Company's evaluation of those factors changes. Although the Company uses its best judgment in estimating the fair value of these financial instruments, there are inherent limitations in any estimation technique. In these cases, a minor change in an assumption could result in a significant change in its estimate of fair value, thereby increasing or decreasing the amounts of the Company's consolidated assets, liabilities, shareholders' equity and net income or loss.

**d) Cash, cash equivalents and restricted cash**

The Group considers all cash on hand and demand deposits as cash and considers all highly liquid investments with an original maturity of three months or less as cash equivalents. Restricted cash as of December 31, 2012 and 2013 represents amounts held by banks, which are not available for the Group's use, as collateral for issuance of letters of credit, letters of guarantee, bank acceptance notes as well as certain borrowings.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**2. Summary of significant accounting policies(continued)**

**e) Investments**

Investments in entities where the Group does not have a controlling financial interest, but have the ability to exercise significant influence over the operating and financial policies of the investee, are accounted for using the equity method of accounting. Investment in a joint venture is accounted for by the equity method of accounting as the Group has the ability to exercise significant influence but does not own a majority equity interest. Under the equity method of accounting, the Group's share of the investee's results of operations is included in equity gain/(loss) for the investee in the Group's Consolidated Statements of Operations and Comprehensive Loss. Unrealized gains on transactions between the Company and the joint venture are eliminated to the extent of the Group's interest in the joint venture, if any; unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. When the Group's share of losses in the joint venture equals or exceeds its interest in the joint venture, the Group does not recognize further losses, unless the Group has incurred obligations or made payments on behalf of the joint venture.

**f) Allowance for doubtful accounts**

Provisions are made against accounts receivable for estimated losses resulting from the inability of the Group's customers to make payments. The Group periodically assesses accounts receivable balances to determine whether an allowance for doubtful accounts should be made based upon historical bad debts, specific customer creditworthiness and current economic trends. Accounts receivables in the balance sheets are stated net of such provision.

**g) Inventories**

Inventories are stated at the lower of cost or market value. Cost of inventories is determined by the weighted-average method. Cost of work-in-progress and finished goods are comprised of direct materials, direct labor and related manufacturing overhead based on normal operating capacity. Adjustments are recorded to write down the carrying amount of any obsolete and excess inventory to its estimated net realizable value. Certain factors could impact the realizable value of inventory, so the Group continually evaluates the recoverability based on assumptions about customer demand and market conditions. The evaluation may take into consideration historical usage, expected demand, anticipated sales price, new product development schedules, the effect new products might have on the sale of existing products, product obsolescence, customer concentrations, and other factors. The write-down is equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. If actual market conditions are less favorable than those projected by management, additional inventory write-downs may be required that could negatively impact the Group's gross margin and operating results. If actual market conditions are more favorable, the Group may have higher gross margin when products that have been previously written down are eventually sold.

In addition, the Group analyzes its purchase commitments, which primarily consist of long-term fixed price polysilicon purchase agreements, at each period end. Provision, if any, is made in the current period if the anticipated inventories cost from future execution of such purchase agreements is in excess of market value. There was no loss provision recorded related to these long-term contracts in the years ended December 31, 2011, 2012 and 2013.

**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements  
(In thousands, except share and per share data)****2. Summary of significant accounting policies(continued)****h) Short-term and long-term advances to suppliers**

The Group provides short-term and long-term advances to secure its raw material needs, which are then offset against future purchases. The Group does not require collateral or other security against its advances to related or third party suppliers. The Group continually assesses the credit quality of its suppliers and the factors that affect the credit risk. If there is deterioration in the creditworthiness of its suppliers, the Group will seek to recover its advances from the suppliers and provide for losses on advances which are akin to receivables in selling, general and administrative expenses because of their inability to return its advances. Recoveries of the allowance for advances to supplier are recognized when they are received. The Group classified short-term and long-term advances to suppliers based on management's best estimate of the expected purchase in the next twelve-months as of the balance sheet date and the Group's ability to make requisite purchases under existing supply contracts. The balances expected to be utilized outside of the twelve months are recorded in long-term advances to suppliers.

**i) Prepaid land use rights**

Land use rights are carried at cost less accumulated amortization and impairment losses, if any. Amortization is provided on a straight-line basis over the lease period of 40 or 50 years.

**j) Property, plant and equipment, net**

Property, plant and equipment are stated at cost less accumulated depreciation. Depreciation is provided on a straight-line basis over the following estimated useful lives:

Buildings	20 years
Leasehold improvements	Shorter of the lease term or their estimated useful lives
Machinery and equipment	5-15 years
Furniture and fixtures	5 years
Motor vehicles	5 years

Construction in progress primarily represents the construction of new production lines. Costs incurred in the construction are capitalized and transferred to property, plant and equipment when an asset is ready for its intended use, at which time depreciation commences. Interest expense incurred for qualifying assets are capitalized in accordance with ASC 835-20, *Capitalization of Interest*.

Expenditures for repairs and maintenance are expensed as incurred. The gain or loss on disposal of property, plant and equipment, if any, is the difference between the net sales proceeds and the carrying amount of the disposed assets, and is recognized in the Consolidated Statements of Operations and Comprehensive Loss upon disposal.

**k) Operating leases**

Leases where substantially all the rewards and risks of ownership of assets remain with the leasing company are accounted for as operating leases. Payments made under operating leases are charged to the Consolidated Statements of Operations and Comprehensive Loss on a straight-line basis over the lease periods.



**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**2. Summary of significant accounting policies(continued)**

**l) Business combination**

Business combinations are accounted for under the acquisition method in accordance with ASC 805, Business Combinations. The consideration transferred is measured as the aggregate of the fair values at the date of exchange of the assets given, liabilities incurred, and equity instruments issued. The costs directly attributable to the acquisition are expensed as incurred. Identifiable assets, liabilities and contingent liabilities acquired or assumed are measured separately at their fair value as of the acquisition date, irrespective of the extent of any non-controlling interests. The excess of the (i) the fair value of consideration transferred, fair value of the non controlling interests and acquisition date fair value of any previously held equity interest in the acquiree over (ii) the fair value of the identifiable net assets of the acquiree is recorded as goodwill. If the fair value of consideration transferred, fair value of the non-controlling interests and acquisition date fair value of any previously held equity interest in the acquiree is less than the fair value of the net assets of the entity acquired, the difference, a bargain purchase, is recognized as a gain directly in the Statements of Operations and Comprehensive Loss upon obtaining control. In a business combination achieved in stages, the acquirer shall remeasure its previously held equity interest in the acquiree at its acquisition-date fair value and recognize the resulting gain or loss, if any, in earnings.

The determination and allocation of fair values to the identifiable assets acquired and liabilities assumed, including non-controlling interests if applicable, is based on various assumptions and valuation methodologies requiring considerable management judgment. The most significant variables in these valuations are discount rates, terminal values, the number of years on which to base the cash flow projections, as well as the assumptions and estimates used to determine the cash inflows and outflows. Management determines discount rates to be used based on the risk inherent in the related activity's current business model and industry comparisons. Terminal values are based on the expected life of assets and forecasted life cycle and forecasted cash flows over that period. Although management believes that the assumptions applied in the determination are reasonable based on information available at the date of acquisition, actual results may differ from the forecasted amounts and the difference could be material.

**m) Intangible asset, net**

Intangible assets primarily represent technical know-how, purchased accounting and operational software, and customer relationships acquired through business combinations.

Technical know-how, contributed by one of the Group's shareholders upon formation of JA Hebei, is carried at cost, less accumulated amortization. The technical know-how consists of one component relating to the commercial production process of photovoltaic solar cells. Amortization is calculated on a straight-line basis over the estimated useful life of eight years.

Intangible assets acquired through business combinations are recognized as assets separate from goodwill if they satisfy either the "contractual-legal" or "separability" criterion. Customer relationship is recorded at fair value at the acquisition date less accumulated amortization. Amortization is calculated on a straight-line basis over the estimated useful life of five years.

Purchased software and others with a finite useful life is being amortized on a straight line basis over its estimated useful life of three to ten years.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**2. Summary of significant accounting policies(continued)**

**n) Impairment of long-lived assets**

The Group evaluates its long-lived assets and finite-lived intangible asset for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Factors considered important that could result in an impairment review include significant underperformance relative to expected historical or projected future operating results, significant changes in the manner of use of acquired assets and significant negative industry or economic trends. Impairments are recognized based on the difference between the fair value of the asset and its carrying value in the event that the carrying amount exceeds the estimated future undiscounted cash flow attributed to such assets. Fair value is generally measured based on either quoted market prices, if available, or discounted cash flow analyses. Additionally, determining fair values requires probability weighting the cash flows to reflect expectations about possible variations in their amounts or timing and the selection of an appropriate discount rate. Although cash flow estimates are based on relevant information available at the time the estimates are made, estimates of future cash flows are, by nature, highly uncertain and may vary significantly from actual results. Any write-downs would be treated as permanent reductions in the carrying amounts of the assets and an operating loss would be recognized.

**o) Income taxes**

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statements carrying amounts of existing assets and liabilities and their respective tax assets bases and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is provided to reduce the carrying amount of deferred tax assets if it is considered more likely than not that some portion, or all, of the deferred tax assets will not be realized.

Uncertain tax position is accounted for in accordance with ASC 740-10-25, which clarifies the accounting for uncertain tax positions and requires that the Company recognizes in the consolidated financial statements the impact of an uncertain tax position, if that position is more likely than not of being sustained upon examination, based on the technical merits of the position. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The Company's accounting policy is to accrue interest and penalties related to uncertain tax positions, if and when required, as interest expense and a component of general and administrative expenses, respectively, in the Consolidated Statements of Operations and Comprehensive Loss. In the years ended December 31, 2011, 2012 and 2013, the Group did not record any interest and penalties associated with uncertain tax positions as there were no uncertain tax positions.

**p) Revenue recognition**

**(i) Revenue recognition for solar modules, solar cells and other products (hereafter "solar products")**

The Group recognizes revenue from the sale of solar products when the goods are delivered and title and risk of loss transfer is passed to the customers. The Group sells its solar products at agreed upon prices to its customers, which reflect prevailing market prices.

The Group's considerations for recognizing revenue are based on the following:

- Persuasive evidence that an arrangement (sales contract) exists between a willing customer and the Group that outlines the terms of the sale (including customer information, product specification, quantity of goods, purchase price and payment terms). Customers do not have a right of return. The Group does provide a warranty on its solar module products.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**2. Summary of significant accounting policies(continued)**

**p) Revenue recognition(continued)**

(i) Revenue recognition for solar modules, solar cells and other products (hereafter “solar products”)(continued)

- For EX Works (“EXW”) terms, which mean that a seller has the goods ready for collection at its premises (works, factory, warehouse, plant), the contract specifies that the risks are assumed by the customer when the customer picks up the goods from the Company’s warehouse, at which time revenue is recognized. For FOB shipping point terms, the contract specifies that the customer takes title to the goods and is responsible for all risks and rewards of ownership once products are over shipping rail at the named loading port from the Company’s premises, at which time revenue is recognized. For CIF terms, the Company pays the costs of insurance and freight necessary to bring the goods to the named port of destination, but the title to and risk/rewards of ownership of the goods is passed to the buyer according to each of the contract term, which is defined in each contract. For Delivered Duty Paid (“DDP”) terms, the Company pays the costs of insurance and freight necessary to bring the goods to the named port of destination as well as the import duty, and the title to and risk/rewards of ownership of the goods is passed to the buyer once the goods are delivered and the import duty is paid. The point of delivery could be at the port of shipping, or it could also be when the goods arrive at the named port of destination. When title to the goods transfers at the port of shipping, the beneficiary of the insurance is the buyer and the Company has no obligations to the buyer if goods are damaged during shipping. Revenue is therefore, recognized when the title to and risk/rewards of ownership of the goods is passed to the buyer which is at port of shipping or port of destination, depending on the terms of the contract.
- The Group’s price to the customer is fixed and determinable as specifically outlined in the sales contract.
- For customers to whom credit terms are extended, the Group assesses a number of factors to determine whether collection from the customers is reasonably assured, including past transaction history with these customers and their credit-worthiness. All credit extended to customers is pre-approved by management. If the Group determines that collection is not reasonably assured, including cases where the customers retain a portion of the full contract price as retainage after a specific period, it defers the recognition of revenue until such criterion is met, which is generally upon receipt of payment.

(ii) Revenue recognition for solar products processing

The Group provides solar products processing services to customers with their own wafer/polysilicon supplies. Under certain of these solar products processing service arrangements, the Group purchases raw materials from a customer and agrees to sell a specified quantity of solar products produced from such materials back to the same customer. The Group records revenue from these processing transactions on a net basis, recording revenue based on the amount received for solar products sold less the amount paid for the raw materials purchased from the customer.

(iii) Revenue recognition for engineering, procurement and construction services

The Group recognizes revenue using the percentage of completion method for systems integration projects for which the Group provides engineering, procurement and construction (“EPC”) services under the EPC contracts. The Group estimates its revenues by using the cost-to-cost method, whereby it derives a ratio by comparing the costs incurred to date to the total costs expected to be incurred on the project. The Group applies the ratio computed in the cost-to-cost analysis to the contract price to determine the estimated revenues earned in each period. The Group uses this method because management considers costs incurred to be the best available measure of progress on these contracts and management believes it has the ability to reasonably estimate and track costs. When the Group determines that total estimated costs will exceed total revenues under a contract, it records a loss accordingly. No contract losses were recorded in the years ended December 31, 2011, 2012 and 2013.

**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements  
(In thousands, except share and per share data)****2. Summary of significant accounting policies(continued)****q) Cost of revenue***Cost of revenue — solar products*

Cost of revenue for solar products includes production related direct labor, direct material cost, depreciation and amortization, indirect costs, shipping (freight in) and handling costs for products sold, inventory obsolescence and lower of cost or market charge, capacity underutilization charges and warranty cost. On October 17, 2012, the U.S. Department of Commerce (DOC) has issued a final ruling on its anti-dumping and countervailing duty (CVD) investigations regarding solar photovoltaic (PV) cells manufactured in China and modules assembled from those cells. As a result, effective on December 7 2012, the Company is required to pay countervailing and antidumping duty of 15.24% and 13.94%, respectively, for solar cells manufactured in China and module assembled from those cells that are imported to U.S.

*Cost of revenue - solar products processing*

Cost of revenue for solar products processing includes direct labor, depreciation and amortization, indirect costs, and shipping and handling costs.

*Cost of revenue - engineering, procurement and construction services*

Costs of revenue for engineering, procurement and construction services include all direct material, labor, subcontractor cost, and those indirect costs related to contract performance, such as indirect labor, supplies and tools. The Group recognizes job material costs as incurred costs when the job materials have been installed. The Group considers job materials to be installed materials when they are permanently attached or fitted to the solar power systems as required by the engineering design.

**r) Project assets**

Project assets consist primarily of direct costs relating to solar power projects in various stages of development that are capitalized prior to the sale of the solar power projects. A project asset is initially recorded at the actual cost. For a self-developed project asset that is initially obtained by application of feed-in-tariff ("FIT") contract and other required permits and consents, the actual cost capitalized is the amount of the expenditure incurred for the application of those contracts, permits, consents and other similar direct costs. For a project asset acquired from external parties, the initial cost is the acquisition cost which includes the consideration transferred and certain direct acquisition cost. Modules, construction expenditure and other development costs incurred in the project development process will build up the cost of project assets.

Projects assets consisted of the following at December 31, 2013:

	<b>As of December 31, 2013</b>
	<b>RMB</b>
Project assets — Modules cost	39,341
Project assets — Development cost	7,245
Project assets — Others	1,160
Total Project assets	47,746

The Company reviews project assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. In determining whether or not the project assets are recoverable, the Company considers a number of factors, including changes in environmental, ecological, permitting, marketing price or regulatory conditions that affect the project. Such changes may cause the cost of the project to increase or the selling price of the project to decrease. No impairment of the project assets was recorded in the years ended December 31, 2013. The Company intends to sell the project assets once they are completed and the plants will not be operated prior to the sales. However, in case the plants are operated by the Company, the project assets will be reclassified to property, plant and equipment.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**2. Summary of significant accounting policies(continued)**

**s) Share based compensation**

In accordance with ASC 718, *Compensation-Stock Compensation*, the Group measures the cost of employee services received in exchange for share-based compensation at the grant date fair value of the award.

The Group recognizes the share-based compensation costs, net of a forfeiture rate, on a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award was, in-substance, multiple awards.

ASC 718 requires forfeitures to be estimated at the time of grant and revised in subsequent periods if actual forfeitures differ from those estimates.

**t) Research and development**

Research and development costs are expensed when incurred.

**u) Advertising expenses**

Advertising expenses are expensed when incurred. Advertising expenses are not significant during any of the periods covered by these consolidated financial statements.

**v) Warranty cost**

Solar modules produced by the Group are typically sold with a 10-year guarantee for defects in materials and workmanship and a 10-year and 25-year warranty against declines of more than 10.0% and 20.0%, respectively, of the initial minimum power generation capacity at the time of delivery. The Group therefore maintains warranty reserves (recorded as accrued warranty costs) to cover potential liabilities that could arise from these guarantees and warranties. The potential liability is generally in the form of product replacement or repair. The Group accrues 1.0% of its net revenues attributable to module sales as warranty costs at the time revenues are recognized and include that amount in its cost of revenues. Due to limited warranty claim history, the Group accrues the estimated costs of warranties based on its own history, industry data and an assessment of its competitors' accrual history. Through the Group's relationships with, and its management's experience working at, other solar power companies and on the basis of publicly available information regarding other solar power companies' accrued warranty costs, the Group believes that accruing 1.0% of its net revenues attributable to module sales as warranty costs is within the range of industry practice and is consistent with industry-standard accelerated testing, which assists the Group in estimating the long-term reliability of solar modules, estimates of failure rates from its quality review and other assumptions that it believes to be reasonable under the circumstances. However, although the Group conducts quality testing and inspection of its solar module products, these products have not been and cannot be tested in an environment simulating the up to 25-year warranty periods. Actual warranty costs are accumulated and charged against the accrued warranty liability. To the extent that the actual warranty costs differ from the estimates, the Group will prospectively revise its accrual rate.

**w) Foreign currencies translation**

The functional and reporting currency of the Company and the majority of its subsidiaries is Renminbi ("RMB"). Transactions denominated in other currencies are translated into RMB at the exchange rates quoted by the People's Bank of China (the "PBOC") prevailing when the transactions occur. Monetary assets and liabilities denominated in other currencies are translated into RMB at rates of exchange in effect at the balance sheet dates. All exchange gains and losses are included in the Consolidated Statements of Operations and Comprehensive Loss as a separate line item after income from operations.

For the Company's subsidiaries whose functional currency is not RMB, the asset and liability accounts are translated into RMB, its reporting currency, using exchange rates in effect at the balance sheet dates, equity accounts are translated at historical exchange rates, and income and expense items are translated using average exchange rates. Translation adjustments are reported as cumulative translation adjustments and are shown as a separate component of accumulative other comprehensive income, net of tax, in the Consolidated Statements of Operations and Comprehensive Loss.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**2. Summary of significant accounting policies(continued)**

**x) Segment reporting**

The Group has adopted ASC 280, Segment Reporting, for its segment reporting. The Group operates and manages its business as a single segment. The Group's chief decision-maker ("CODM"), which is identified as the Chief Executive Officer, reviews operating results to make decision about allocating resources and assessing performance for the entire company.

**y) Commitments and Contingencies**

Liabilities for loss contingencies arising from claims, assessments, litigation, fines and penalties and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated.

**z) Earnings/(loss) per share**

In accordance with ASC 260, *Earnings Per Share*, basic earnings per share is computed by dividing net income attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the year. Diluted earnings per share is calculated by dividing net income (loss) attributable to ordinary shareholders, as adjusted for the change in income or loss resulting from the assumed conversion of those participating securities, if any, by the weighted average number of ordinary shares and dilutive ordinary share equivalents outstanding during the year. Ordinary share equivalents consist of the ordinary shares issuable upon the conversion of the senior convertible notes (using the if-converted method) and ordinary shares issuable upon the exercise of outstanding share options and RSUs (using the treasury stock method). Potential dilutive securities are not included in the calculation of dilutive earnings per share if the effect is anti-dilutive.

**aa) Other Comprehensive income/(loss)**

The Group has adopted ASC 220, *Comprehensive Income*. ASC 220 defines other comprehensive income/(loss) to include all changes in equity, including adjustments to minimum pension liabilities, accumulated foreign currency translation, unrealized gains or losses on available-for-sale marketable securities, and unrealized hedging gain/(loss) to the extent effective, except those resulting from investments by owners and distributions to owners.

**ab) Derivative Financial Instruments-Embedded Foreign Currency Derivatives**

Certain of the Group's purchase and sales contracts are denominated in a currency which is not the functional currency of either of the contracting parties. Accordingly, the contracts contain embedded foreign currency forward contracts, which were required to be bifurcated and accounted for at fair value in accordance with ASC 815, *derivatives and hedging*. Embedded foreign currency derivatives are presented as derivative assets or liabilities with the changes in fair value recorded in the Consolidated Statements of Operations and Comprehensive Loss.

**ac) Accounting for share lending arrangement**

The Company accounts for share lending arrangement in accordance with ASU 2009-15, *Accounting for Own-Share Lending Arrangements in Contemplation of Convertible Debt Issuance or Other Financing*, which requires an entity that enters into an equity-classified share lending agreement, utilizing its own shares, in contemplation of a convertible debt issuance or other financing to initially measure the share lending arrangement at fair value and treat it as a cost of the financing. In addition, if it becomes probable that the counterparty to the arrangement will default, the issuer shall recognize an expense for the fair value of the unreturned shares, net of probable recoveries.

**ad) Share repurchase**

When the shares are repurchased for retirement, the excess of cost over par value is charged entirely to retain earnings.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**2. Summary of significant accounting policies(continued)**

**ae) Recent accounting pronouncements**

In February 2013, the FASB issued ASU 2013-02, “Comprehensive Income: Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income”. This update does not change the current requirements for reporting net income or other comprehensive income in financial statements. However, this update requires an entity to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, an entity is required to present, either on the face of the statement where net income is presented or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income but only if the amount reclassified is required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period. For other amounts that are not required under U.S. GAAP to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures required under U.S. GAAP that provide additional detail about those amounts. This update is effective prospectively for reporting periods beginning after December 15, 2012 for public entities. The adoption of this Update beginning on January 1, 2013 does not have a material impact on the Company’s consolidated financial statements.

In July 2013, the FASB issued ASU 2013-11, “*Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*”, which is an update to provide guidance on the financial statement presentation of an unrecognized tax benefit when a net operating loss carryforward exists. The guidance requires an entity to present an unrecognized tax benefit in the financial statements as a reduction to a deferred tax asset for a net operating loss carryforward, except for when a net operating loss carryforward is not available as of the reporting date to settle taxes that would result from the disallowance of the tax position or when the entity does not intend to use the deferred tax asset for purposes of reducing the net operating loss carry forward. The guidance is effective for fiscal years beginning after December 15, 2013 and for interim periods within that fiscal year. The Company does not expect the adoption of this pronouncement to have a significant impact on its consolidated financial statements.

**3. Acquisition of Hebei Ningjin Songgong**

M.SETEK Co., Ltd (“M.SETEK”), one of the largest suppliers located in Japan, failed to make majority of scheduled delivery since March 2011 after a magnitude-9 earthquake struck Japan and triggered a tsunami affecting vast areas in Japan. Although the production capacity of M.SETEK has returned to normal since November 2011, the Group elected to claim the outstanding prepayment from M.SETEK pursuant to the contract. In order to settle the prepayments, the Group reached a settlement agreement with M.SETEK on March 8, 2012 that M.SETEK used its dividend distribution from Hebei Ningjing Songgong, its 65%-owned subsidiary located in PRC, to repay part of the prepayments amounting to RMB 69,500, and also transfer its 65% equity interests in Hebei Ningjin Songgong at fair value amount of RMB 247,000 (“equity interest transfer price”) to the Group. For the remaining portion of the prepayment of RMB 128,687, M.SETEK will deliver polysilicon at market price to the Group until the prepayment is fully utilized. Hebei Ningjin Songgong is a private company which is 65% owned by M. SETEK and 32.7% owned Mr. Baofang Jin, the Group’s Chairman, and 2.3% owned by a few third party individuals. Hebei Ningjin Songgong is primarily engaged in production of solar-grade monocrystalline silicon ingot.

The share transfer agreement was formally signed on July 23, 2012 and the transaction was subject to approval by relevant government. Considering a continued decrease in selling price of solar products and recession of solar industry, the Group determined an impairment analysis is required in the year ended December 31, 2012. The Group estimated the fair value of the to be received equity interest of Hebei Ningjing Songgong as of December 31, 2012, based on discounted cash flow analysis using market participants’ assumptions, such as forecasts of future operating results, discount rates commensurate with the risk involved, and expected future growth rates. As a result, in the year ended December 31, 2012, an impairment provision of RMB 96,517 was provided against prepayment made to M. SETEK, as the fair value of the equity interest in Hebei Ningjin Songgong based on discounted future cash flows analysis exceeds the equity interest transfer price, which was based on the fair value of equity interest in Hebei Ningjing Songgong at the time of settlement in March 2012.

On January 29, 2013, M.SETEK transferred its 65% equity interest in Hebei Ningjin Songgong to the Group upon obtaining relevant government approval for a total consideration of RMB 150,483. The group started consolidating Hebei Ningjing Songgong effective February 1, 2013 and recognized the non-controlling interest related to the transaction.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
(In thousands, except share and per share data)

**3. Acquisition of Hebei Ningjin Songgong (continued)**

*Purchase price allocation*

The total purchase price was allocated to Hebei Ningjin Songgong's tangible assets, identifiable intangible assets, and assumed liabilities based on their estimated fair values as set forth below. The Group makes estimates and judgments in determining the fair value of the acquired assets and assumed liabilities, based on its experience with similar assets and liabilities in similar industries. In performing the purchase price allocation, the Group considered the analyses of historical financial performance and estimates of future performance of Hebei Ningjin Songgong's business.

	<u>As of January 31, 2013(1)</u>
	<u>RMB</u>
Assets acquired:	
Cash and cash equivalents	45,109
Accounts receivable	138,516
Short term prepayment	18,221
Inventory	75,473
Other current assets	34,702
Long term prepayment	18,826
Property, plant and equipment, net (2)	69,785
Total assets acquired	<u>400,632</u>
Liabilities	
Short-term borrowings	24,100
Accounts payable	45,822
Other payables	57,376
Payroll and welfare payable	41,244
Accrued expenses	578
Total liabilities assumed	<u>169,120</u>
Total fair value of net assets	<u>231,512</u>
Less: Non-controlling interest	81,029
Fair value of purchase consideration	<u>150,483</u>

(1) The acquisition was completed on January 29, 2013. Considering the nominal financial impact of the two days from January 30 to January 31, 2013, we used January 31, 2013 as the acquisition date and the fair value assessment was made based on the financial information as of January 31, 2013.

(2) The fair value of property, plant and equipment was recognized and measured at fair value using discounted future cash flow method. Accumulated depreciation was not carried forward.



**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements  
(In thousands, except share and per share data)****3. Acquisition of Hebei Ningjin Songgong (continued)**

Hebei Ningjin Songgong contributed net revenues of RMB 158,179 and net loss of RMB 5,178 from February 1, through December 31, 2013. The following table summarizes unaudited pro forma results of operations for the years ended December 31, 2012 and 2013, as if the acquisition of Hebei Ningjin Songgong had occurred on January 1, 2012, and after giving effect to acquisition accounting adjustments.

	Year ended December 31, 2012	Year ended December 31, 2013
	RMB	RMB
	(Unaudited)	(Unaudited)
Pro forma revenue	6,845,610	7,197,985
Pro forma net loss	(1,727,001)	(425,155)
Pro forma loss attributable to holders of common shares	(1,687,720)	(428,005)
Pro forma loss per share:		
Basic	(8.66)	(2.13)
Diluted	(8.66)	(2.13)
Weighted average number of shares used in computation:		
Basic	194,788,429	201,317,884
Diluted	194,788,429	201,317,884

The unaudited pro forma consolidated results of operations is for illustrative purpose only and do not purport to be indicative of the results that would have been achieved if the above acquisition had actually taken place on January 1, 2012, and may not be indicative of future operating results. The unaudited pro forma net loss includes RMB 17,236 and RMB 17,236 for the reduction of depreciation expenses of property, plant and equipment the years ended December 31, 2012 and 2013, respectively.

**4. Investments in a joint venture**

In March 2011, the Group entered into a joint venture agreement with MEMC Singapore to form a jointly-owned company named JA MEMC (Yangzhou) Solar Technology Company Ltd., (“JA MEMC”), to build and operate a solar cell production facility in China. Pursuant to the joint venture agreement, JA Yangzhou and MEMC each contributed a capital investment of RMB 96,211 in cash, which represents 50% of the share capital of JA MEMC. The Group accounts for its investment in the joint venture using the equity method and the Group’s share of JA MEMC’s results of operations is included in equity gain/(loss) for a joint venture in the Group’s Consolidated Statements of Operations and Comprehensive Loss. The Group’s equity in net loss of JA MEMC amounted to RMB 1,800, RMB 5,501 and RMB 2,108 for the year ended December 31, 2011, 2012 and 2013, respectively.

The Group reviews its investment in JA MEMC to determine whether a decline in fair value below the carrying value, if any, is other- than-temporary. The assets held by JA MEMC consist primarily of long-lived assets and as of December 31, 2012 JA MEMC was still in the process of pre-operation. Based on all available information, such as industry-specific condition and investee-specific reasons, the Group determined that an other-than-temporary loss in the carrying value of the investment occurred and an impairment charge of RMB 38,000 should be recorded against the investment in JA MEMC in the year ended December 31, 2012. No impairment loss occurred in 2013. Although assumptions used in estimates of fair value of the investment in JA MEMC are management best estimates, such assumptions are, by nature, highly judgmental and may vary significantly from actual results.

**5. Notes Receivable**

Notes receivable represents bank drafts that are non-interest bearing and due within six months. Such bank drafts have been arranged with third-party financial institutions by certain customers to settle their purchases from the Group. The carrying amount of notes receivable approximate its fair values. There is no allowance against notes receivable as of December 31, 2012 and 2013.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
(In thousands, except share and per share data)

**6. Accounts Receivable, net**

Accounts receivable, net, consists of accounts receivables less allowance for doubtful accounts. The following table presents the movement of the allowance for doubtful accounts:

	As of December 31, 2011	As of December 31, 2012	As of December 31, 2013
	RMB	RMB	RMB
Balance at beginning of the year	6,975	32,591	189,971
Allowance made during the year	27,880	200,446	125,691
Recoveries	(1,542)	(13,316)	(34,675)
Amount written off against the allowance	(722)	(29,750)	—
Balance at end of the year	32,591	189,971	280,987

The Group assesses creditworthiness of customers before granting any credit terms. This assessment is primarily based on reviewing of customer's financial statements and historical collection records, discussion with customers' senior management, and reviewing of information provided by third parties, such as Dun & Bradstreet and the insurance company that ultimately insures the Group against customer credit default. During the year ended December 31, 2013, for sales of solar cells, the Group provided credit terms of up to 90 days to customers with good credit-worthiness as determined by the Group's credit assessment. For sales of solar modules, which generally require a longer credit terms according to industry practice, credit terms of up to 180 days were granted to customers with good credit-worthiness. For the year ended December 31, 2011, 2012 and 2013, provisions, net of recoveries, of RMB 26,338, RMB 187,130 and RMB 91,016, respectively, were made against accounts receivable for estimated losses resulting from the inability of the customers to make payments as well as a few customers that had financial and operational difficulties.

**7. Inventories**

Inventories consisted of the following:

	As of December 31, 2012	As of December 31, 2013
	RMB	RMB
Raw materials	280,257	522,302
Work-in-progress	48,357	71,676
Finished goods	601,523	753,116
<b>Total</b>	930,137	1,347,094

For the year ended December 31, 2011, 2012 and 2013, inventories were written down by RMB 386,623, RMB 171,165 and RMB 119,936, respectively, to reflect the lower of cost or market.

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 8. Advances to suppliers

In order to better manage the Group's unit costs and to secure adequate and timely supply of polysilicon and silicon wafers during the periods of shortages of polysilicon and silicon wafer supplies, the Group entered into a number of multi-year supply agreements in amounts that were expected to meet the Group's anticipated production needs. As a condition to the Group receiving the raw materials under those agreements, and in line with industry practice, the Group was required to, and had made advances for all, or a portion, of the total contract price to the Group's suppliers, which are then offset against future purchases. Typically, the supply agreements are subject to price negotiations with the suppliers based on market prices. The Group has made advances to suppliers where the Group has committed to purchase minimum quantities under some of the supply agreements.

Advances to suppliers to be offset against future purchases of which the Group expects to take delivery of the inventory after the next twelve months are classified as non-current assets in the Group's Consolidated Balance Sheet as at year end dates.

The Group does not require collateral or other security against its advances to related or third party suppliers. As a result, the Group's claims for such prepayments would rank only as an unsecured claim, which exposes the Group to the credit risks of the suppliers. Also, the Group may not be able to recover all unutilized advances to suppliers if the Group does not purchase the minimum quantities or is unable to negotiate or renegotiate acceptable prepayment, quantities, prices and delivery terms with these suppliers, or unforeseen events impair the ability of suppliers to deliver raw materials, for example the recent earthquake in Japan.

As of December 31, 2012 and 2013, outstanding prepayments, net of any allowance, made to individual suppliers in excess of 10% of total prepayments to suppliers are as follows:

	As of December 31, 2012 RMB	As of December 31, 2013 RMB
Supplier A (third party)	759,505	602,109
Supplier B (third party)	224,608	47,938
Supplier C (third party)	161,925	174,278

No other individual supplier has advance payment balances that accounted for more than 10% of the total balance as of December 31, 2013.

The following table presents the movement of the allowance for advances to supplier:

	As of December 31, 2011 RMB	As of December 31, 2012 RMB	As of December 31, 2013 RMB
Balance at beginning of the year	87,869	94,154	158,452
Allowance made during the year	42,194	103,139	10,392
Recoveries	(35,909)	(38,841)	—
Written off	—	—	(96,517)
Balance at end of the year	94,154	158,452	72,327

The Group continually assesses the credit quality of its suppliers and the factors that affect the credit risk. Given all circumstance and available evidence as of December 31, 2013, management assesses the risk that the Company is not able to fully utilize the remaining advance payment balance is remote and therefore no further provision was made against remaining advance payment balance as the balance was considered recoverable. Recoveries represent cash received or product delivered subsequently.

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## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 9. Other current assets

Other current assets consisted of the following:

	As of December 31, 2012	As of December 31, 2013
	RMB	RMB
Input value-added tax recoverable	388,473	330,482
Income tax recoverable	57,741	47,819
Value-added tax refund from export sales	191,138	31,670
Prepaid input VAT & customs duty for import machinery and materials	2,096	14,226
Prepaid expenses	17,502	12,311
Prepayment for application of land use right	43,010	—
Foreign exchange forward contract instruments	79	237
Deferred issuance cost	10,873	—
Accounts receivable recovery from insurance companies	17,313	15,059
Entrusted loan to a related party	—	40,080
Deposit receivable	18,759	51,798
Current portion of land use rights	5,555	10,063
Amount due from related parties	1,137	3,356
Others	53,990	22,469
	<u>807,666</u>	<u>579,570</u>

### 10. Property, plant and equipment, net

Property, plant and equipment, net, consisted of the following:

	As of December 31, 2012	As of December 31, 2013
	RMB	RMB
Buildings	1,156,762	1,255,743
Furniture, fixtures and office equipment	79,425	83,745
Motor vehicles	25,903	26,318
Machinery and equipment	4,065,354	4,220,860
Leasehold improvements	132,542	141,289
Total	5,459,986	5,727,955
Less: accumulated depreciation	(1,629,798)	(2,209,955)
Subtotal	3,830,188	3,518,000
Construction-in-progress	617,281	640,108
Property, plant and equipment, net	<u>4,447,469</u>	<u>4,158,108</u>

As of December 31, 2013, the Group pledged its buildings with the net book value of RMB 231,677 to secure a long-term bank borrowing of RMB 101,700 from Agricultural Bank of China.

For the years ended December 31, 2011, 2012 and 2013, total interest capitalized was RMB 50,912, RMB 51,783 and RMB 39,902, respectively.

Depreciation expense was RMB 475,278, RMB 646,955 and RMB 580,157 for the years ended December 31, 2011, 2012 and 2013, respectively, and is recorded in manufacturing overhead, selling, general and administrative expenses, research and development expenses.

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 10. Property, plant and equipment, net(continued)

The Group evaluates long-lived assets for impairment if events or changes in circumstances indicated that the carrying value of such assets may not be recoverable. Considering a rapid and continued decrease in selling price of multi-crystalline wafers and inadequate utilization of machines, the Group determined a two step impairment analysis is required in the year ended December 31, 2011 and 2012. In step one impairment analysis, the estimated future undiscounted net cash flows expected to be generated by the assets over their remaining estimated useful lives were based on certain assumptions, such as forecasts of future operating results, gross margin and expected future growth rates. The estimated undiscounted future cash flows generated by the equipment used to produce multi-crystalline wafers were less than their carrying value, which required the step two impairment test. In the step two impairment analysis, the Group estimated the fair value based on discounted cash flow analysis using market participants' assumptions, such as forecasts of future operating results, discount rates commensurate with the risk involved, and expected future growth rates. The carrying value of the equipment was reduced to fair value based on the discounted cash flow analysis. This resulted in a pre-tax charge of RMB 303,068 and RMB 250,697 recorded in the impairment loss on property, plant and equipment in the Consolidated Statements of Operations and Comprehensive Loss in 2011 and 2012, respectively. No impairment loss occurred in the year ended December 31, 2013. Although assumptions used in estimates of future cash flows are management best estimates, such assumptions are, by nature, highly judgmental and may vary significantly from actual results.

Additionally, in the year ended December 31, 2012, the Group recorded long-lived asset impairment of RMB 147,092 related to the retirement of each 300MW outdated solar cells and solar modules facilities at JA Hebei and JA Fengxian facilities, respectively. No impairment loss related to retirement of long-lived assets occurred in the years ended December 31, 2011 and 2013.

### 11. Intangible assets, net

Intangible assets, net, consisted of the following:

	Gross RMB	Accumulated Amortization RMB	Net RMB
As of December 31, 2012			
Technical know-how	9,000	(8,625)	375
Customer relationship	3,191	(691)	2,500
Purchased software and others	18,380	(9,375)	9,005
	<u>30,571</u>	<u>(18,691)</u>	<u>11,880</u>
As of December 31, 2013			
Technical know-how	9,000	(9,000)	—
Customer relationship	3,191	(1,329)	1,862
Purchased software and others	23,941	(11,380)	12,561
	<u>36,132</u>	<u>(21,709)</u>	<u>14,423</u>

Amortization expense was RMB 3,969, RMB 4,572 and RMB 3,018 for the years ended December 31, 2011, 2012 and 2013, respectively, and is recorded in manufacturing overhead, selling, general and administrative expenses, research and development expenses.

Amortization expense of the existing technical know-how, customer relationship and purchased software for each of the next five years will be approximately RMB 2,547.

### 12. Income taxes

#### *Cayman Islands and British virgin Islands*

The Company is a tax exempt company incorporated in the Cayman Islands. Under the laws of Cayman Islands, the Company is not subject to tax on income or capital gain. The Company's subsidiary established in the British Virgin Islands is tax exempt under the laws of British Virgin Islands, and accordingly, is not subject to tax on income or capital gain.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**12. Income taxes(continued)**

*People's Republic of China*

Pursuant to PRC Foreign Enterprise Income Tax ("FEIT") Law, foreign-invested enterprise ("FIEs") are subject to FEIT at a state tax rate of 30% plus a local tax rate of 3% on PRC taxable income. FIEs are also entitled to be exempted from FEIT for a 2-year period starting from their first profit-making year followed by a 50% reduction of FEIT payable for the subsequent three years ("2+3 holiday"), if they fall into the category of production-oriented enterprises with an operational period of more than 10 years in China.

On March 16, 2007, the National People's Congress of China enacted a new Corporate Income Tax ("CIT") Law, under which FIEs and domestic companies would be subject to CIT at a uniform rate of 25%. The new CIT Law has become effective on January 1, 2008. The grandfathering treatments for unutilized tax holiday are provided for certain qualified FIEs. For those FIEs which have already commenced their qualified tax holidays before 2008, they can continue to enjoy the remaining unutilized tax holidays until expiry. For those qualified old FIEs which have not commenced their tax holidays before 2008 due to cumulative losses, their tax holidays will be deemed to commence in 2008 and can be utilized until expiry.

JA Hebei, JA Fengxian, JA Zhabei and JA Yangzhou were established before the effective date of the new CIT Law and subject to FEIT Law before January 1, 2008.

Pursuant to the FEIT, JA Hebei received approval to enjoy a 2-year corporate income tax exemption for 2006 and 2007, as well as a 50% corporate income tax reduction from 2008 to 2010. After the new Corporate Income Tax law became effective on January 1, 2008, JA Hebei was entitled to enjoy grandfathering treatments for the unutilized tax holiday until expiration. The Company believes that the income generated by assets newly acquired by JA Hebei through a capital injection made in 2008 were also subject to the above mentioned grandfathered tax holiday and has been in compliance with the tax filing requirements.

JA Fengxian and JA Yangzhou all had cumulative losses as of December 31, 2008 and their tax holidays were deemed to commence in 2008 and can be utilized until expiry pursuant to the new CIT Law.

JA Zhabei, which is not a production-oriented enterprise, not entitled to the tax holiday.

JA Lianyungang, which was established in 2008, JA Yangzhou R&D and JA Yangzhou PV, which were established in 2009, JA Wafer R&D and JA Jinglong, which were established/acquired in 2010, JA Hefei Renewable Energy, JA Hefei Technology and JA Investment, which were established in 2011, Solar Silicon Valley, which was acquired in 2011, are not entitled to the tax holiday.

In accordance with the new CIT Law, a company is entitled to a preferential income tax of 15% if qualifying as an Advanced and New Technology Enterprise ("ANTE"). The preferential tax rate, once being approved by the relevant government authorities, is subject to renewal every three years. However, a company that enjoys the preferential income tax rate should perform self-assessment to ensure it maintains the required qualification during those three years. In November 2010, JA Hebei was recognized as an ANTE under the CIT Law and is entitled to the preferential income tax of 15% from 2010 to 2012. As the original approval certificate was obtained in 2011, JA Hebei used the above-mentioned 2+3 holiday for the year ended December 31, 2010. Under the new CIT Law, where the transitional preferential CIT policies and the preferential policies prescribed under the new CIT Law and its implementation rules overlap, an enterprise shall choose to carry out the most preferential policy, but shall not enjoy multiple preferential policies. JA Hebei chose to enjoy the preferential income tax for an ANTE from January 1, 2011. In March 2014, JA Hebei was again recognized as an ANTE under the new CIT Law and is entitled to the preferential income tax of 15% from 2013 to 2015. In August 2011, JA Yangzhou was recognized by the Chinese government as an ANTE and is entitled to the preferential income tax of 15% from 2011 to 2013. JA Yangzhou has chosen to complete the above mentioned 2+3 holiday for the overlapping period of 2011 and 2012. In November 2011, JA Lianyungang was recognized by the Chinese government as an ANTE and is entitled to the preferential income tax of 15% from 2011 to 2013. JA Fengxian was recognized as an ANTE and is entitled to the preferential income tax of 15% from 2011 to 2013. JA Fengxian has chosen to complete the above mentioned 2+3 holiday for the overlapping period of 2011 and 2012. JA Wafer R&D was recognized by the Chinese government as an ANTE and is entitled to the preferential income tax of 15% from 2012 to 2014.

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 12. Income taxes(continued)

On February 22, 2008, the Ministry of Finance (“MOF”) and the State Administration of Taxation (“SAT”) jointly issued Cai Shui [2008] Circular 1 (“Circular 1”). According to Article 4 of Circular 1, distributions of accumulated profits earned by a FIE prior to January 1, 2008 to foreign investor(s) in 2008 or after will be exempt from withholding tax (“WHT”) while distribution of the profit earned by an FIE after January 1, 2008 to its foreign investor(s) shall be subject to WHT at a rate up to 10% (lower rate is available under the protection of tax treaties). As a result, if any dividends are declared out of the cumulative retained earnings as of December 31, 2007, they should be exempt from WHT. In 2012, JA Hebei declared dividends of RMB 107,804 out of the cumulative retained earnings as of December 31, 2007 to JA BVI, which is exempt for WHT. JA Yangzhou, as requested by the local tax bureau, declared dividends of RMB 210,637 out of the earnings after January 1, 2008 to JA BVI in order to meet the capital injection requirement for JA Yangzhou. Pursuit to Circular 1, the appropriation of dividend for reinvestment purpose is subject to 10% WHT, amounting to RMB 21,064, which was paid and recorded as income tax expenses for the year ended December 31, 2012. Excluding JA Yangzhou’s dividend appropriation requested by the local tax bureau, the Group intends to indefinitely reinvest its earnings to further expand its businesses in mainland China, its foreign invested enterprises do not intend to declare dividends to their immediate foreign holding companies in the foreseeable future. Undistributed earnings as of December 31, 2012 and 2013 are considered to be indefinitely reinvested, and therefore, no deferred tax liability was recognized. Cumulative undistributed earnings of the Company’s PRC subsidiaries intended to be permanently reinvested totaled RMB 2,495,613 and RMB 2,478,536 and the amount of the unrecognized deferred tax liability on the permanently reinvested earnings was RMB 249,561 and RMB 247,854 as of December 31, 2012 and 2013.

#### *Hong Kong SAR*

No income tax provision has been made for JA Hong Kong and JA International in any period, as the entities did not have assessable profits subject to Hong Kong Profit Tax at the rate of 16.5% for the years presented.

#### *United States*

JA USA is subject to US federal statutory tax rate of 35% and also subject to the state of California income tax rate of 8.84%. The state income tax paid is deductible for US federal income tax.

#### *European Countries*

JA Lux is incorporated in Luxemburg and is subject to a 29.22% corporate tax rate.

JA GmbH is incorporated in Germany and is subject to effective income tax rate of 29.55% which consists of 15% corporate income tax plus a solidarity surcharge of 5.5% on corporate income tax and a trade income tax rate of 13.72%.

The tax benefit/(expense) comprises:

	For the year ended December 31, 2011	For the year ended December 31, 2012	For the year ended December 31, 2013
Current tax	(63,410)	(101,975)	(13,462)
Deferred tax	5,587	1,350	28,489
	(57,823)	(100,625)	15,027

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**12. Income taxes(continued)**

Components of deferred tax assets consisted of the following:

	<b>As of December 31, 2012</b>	<b>As of December 31, 2013</b>
	<b>RMB</b>	<b>RMB</b>
Deferred tax assets:		
Temporary differences:		
Pre-operating expenses	303	92
Amortization of intangible assets	2,054	1,232
Accrued warranty costs	19,294	28,510
Accrued expenses	23,074	23,746
Net loss carried forward	293,861	395,477
Depreciation of property, plant and equipment	92,235	86,997
Inventory write-down and idle capacity charges	22,367	13,322
Allowance for doubtful accounts	59,979	69,199
Allowance for advance to suppliers	31,199	10,397
Impairment loss on property, plant and equipment	120,357	156,483
Loss for equity investment in a joint venture	6,795	4,967
Others	24,607	47,361
Deferred tax assets	<u>696,125</u>	<u>837,783</u>
Deferred tax liabilities:		
Temporary differences:		
Capitalized interest	(25,614)	(31,983)
Deferred tax liabilities	<u>(25,614)</u>	<u>(31,983)</u>
Less: valuation allowance	(576,541)	(683,341)
Deferred tax assets-net	<u>93,970</u>	<u>122,459</u>

Deferred tax assets are analyzed as:

	<b>As of December 31, 2012</b>	<b>As of December 31, 2013</b>
	<b>RMB</b>	<b>RMB</b>
Current	20,031	64,409
Non-Current	99,553	90,033
	<u>119,584</u>	<u>154,442</u>
Deferred tax liability are analyzed as:		
Current	—	—
Non-Current	(25,614)	(31,983)
	<u>(25,614)</u>	<u>(31,983)</u>
	<u>93,970</u>	<u>122,459</u>



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## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 12. Income taxes(continued)

The following table presents the movement of the valuation allowance for deferred tax assets:

	As of December 31, 2011 RMB	As of December 31, 2012 RMB	As of December 31, 2013 RMB
Balance at beginning of the year	76,174	202,235	576,541
Business combination	—	—	63,873
Allowance made during the year	126,061	374,306	158,904
Reversals	—	—	(115,977)
Balance at end of the year	202,235	576,541	683,341

The Group has made some portion of valuation allowance against its net deferred tax assets. The Group evaluates a variety of factors in determining the amount of the valuation allowance, including its earnings history, the tax holiday period, the existence of taxable temporary differences, and near-term earnings expectations. Future reversal of the valuation allowance will be recognized upon the earlier of when the benefit is realized or when it has been determined that it is more likely than not that the benefit will be realized through future earnings. Certain valuation allowance was reversed in 2013 when certain subsidiaries generated sufficient taxable income to utilize the deferred tax assets.

Reconciliation between the provision for income tax computed by applying the statutory CIT and the Group's effective tax rate:

	For the year ended December 31, 2011	For the year ended December 31, 2012	For the year ended December 31, 2013
PRC enterprise income tax	(25)%	(25)%	(25)%
Effect of permanent differences:			
Share based compensation and other permanent difference	3.68%	5.62%	4.03%
Effect of tax holiday	(1.22)%	—	—
Effect of tax differential of certain subsidiaries (1)	(4.87)%	(2.10)%	8.17%
Effect of tax rate change	15.29%	(2.69)%	(0.32)%
Additional tax for previously approved tax holiday	—%	5.29%	—%
Withholding tax for dividend distribution	—%	1.35%	—%
Valuation allowance	23.54%	23.97%	9.72%
	11.42%	6.44%	(3.40)%

- (1) Effect of tax differential of certain subsidiaries increased from (2.10)% to 8.17%, mainly due to the loss suffered in 2013 by JA Cayman and JA BVI, which are not subject to tax on income or capital gain.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
(In thousands, except share and per share data)

**12. Income taxes(continued)**

The Aggregate amount and per share effect of the tax holiday are as follows:

	For the year ended December 31, 2011	For the year ended December 31, 2012	For the year ended December 31, 2013
The aggregate dollar effect	6,290	—	—
Per share effect-basic	0.04	—	—
Per share effect-diluted	0.04	—	—

**13. Government grant**

Government grants are recognized where there is reasonable assurance that the grant will be received and all attached conditions will be complied with.

Grants relating to reimbursement of expense item are recognized as other income over the period necessary to match the grants on a systematic basis to the costs that it is intended to compensate. The Group recorded RMB 41,161, RMB 18,672 and RMB 14,471 as other income for the years ended December 31, 2011, 2012 and 2013, respectively.

Grants for the acquisition of the rights to use land are recorded as long-term liabilities and recorded to other income over the amortization period. The Group received government grant related to land use rights of RMB 35,500, RMB 78,020 and RMB nil during the years ended December 31, 2011, 2012 and 2013, respectively. As of December 31, 2012 and 2013, long-term liability balance of RMB 148,738 and RMB 262,348 was related to government grant for the acquisition land use rights and property, plant and equipment, respectively.

**14. Prepaid land use rights**

The prepaid land use rights of the Group represented prepaid operating lease payments in obtaining land use rights in the PRC for a period of 40 or 50 years.

	As of December 31, 2012 RMB	As of December 31, 2013 RMB
Cost	266,228	491,638
Less: accumulated amortization	(20,339)	(32,956)
Net book value	245,889	458,682
Current portion of prepaid land use rights (recorded in other current assets)	5,555	10,063
Non-current portion of prepaid land use rights	240,334	448,619
Total	245,889	458,682

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 15. Borrowings

Lender	Date of Borrowing	Due Date	Principal Amount (in RMB)	Interest Payment Periods
As of December 31, 2012				
<u>Short-term loan:</u>				
Industrial and Commercial Bank of China	February 2012	January 2013	100,000	Monthly
Bank of China	May 2012	May 2013	30,000	Quarterly
Bank of China	May 2012	May 2013	30,000	Quarterly
Bank of China	October 2012	April 2013	100,000	Quarterly
Bank of China	October 2012	April 2013	51,455	Quarterly
Bank of Communications	October 2012	April 2013	100,000	Quarterly
China Merchants Bank	October 2012	March 2013	50,000	Quarterly
Bank of Communications	November 2012	May 2013	52,401	Together with principal
Bank of Communications	November 2012	May 2013	51,569	Together with principal
China Bohai Bank	November 2012	May 2013	50,000	Together with principal
Bank of China	January 2012	January 2013	94,283	Quarterly
Bank of China	February 2012	February 2013	102,139	Quarterly
Bank of China	September 2012	March 2013	6,381	Together with principal
Bank of China	September 2012	March 2013	10,336	Together with principal
Bank of China	September 2012	March 2013	65,998	Together with principal
China Guangfa Bank	November 2012	May 2013	39,284	Together with principal
Agriculture Bank of China	November 2012	February 2013	4,762	Together with principal
Agriculture Bank of China	December 2012	March 2013	20,947	Together with principal
Agriculture Bank of China	December 2012	March 2013	13,175	Together with principal
Subtotal			972,730	
<u>Long-term loan due in one year:</u>				
Bank of China	July 2010	July 2013	100,000	Quarterly
Bank of China	October 2010	September 2013	100,000	Quarterly
Bank of China	November 2010	October 2013	100,000	Quarterly
Agriculture Bank of China	April 2010	April 2013	80,000	Monthly
Agriculture Bank of China	December 2010	December 2013	120,000	Monthly
Industrial and Commercial Bank of China	April 2011	October 2013	160,000	Monthly
Export-Import Bank of China	September 2011	September 2013	130,000	Quarterly
Agriculture Bank of China	October 2010	April 2013	20,000	Monthly
Agriculture Bank of China	November 2010	May 2013	10,000	Monthly
Agriculture Bank of China	December 2010	June 2013	40,000	Monthly
Agriculture Bank of China	November 2010	May 2013	30,000	Monthly
Industrial and Commercial Bank of China	March 2011	September 2013	70,000	Monthly
Industrial and Commercial Bank of China	April 2011	September 2013	30,000	Monthly
China Construction Bank	June 2011	May 2013	48,000	Monthly
Bank of China	June 2011	June 2013	100,000	Half a year
Shanghai Pudong Development Bank	June 2011	June 2013	98,000	Quarterly
China Merchants Bank	May 2011	March 2013	28,500	Quarterly
China Merchants Bank	April 2011	April 2013	8,500	Quarterly
China Merchants Bank	March 2011	March 2013	8,500	Quarterly
Shanghai Pudong Development Bank	March 2012	September 2013	49,000	Quarterly
Industrial and Commercial Bank of China	June 2011	January 2013	500,000	Together with principal
Bank of China	December 2011	December 2013	20,000	Quarterly
Subtotal			1,850,500	
<u>Short-term borrowings and current portion of long term borrowings</u>			2,823,230	

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 15. Borrowings(continued)

Lender	Date of Borrowing	Due Date	Principal Amount (in RMB)	Interest Payment Periods
As of December 31, 2012				
<u>Long term loan</u>				
China Construction Bank	June 2012	May 2014	38,000	Monthly
Industrial and Commercial Bank of China	December 2011	November 2014	150,000	Monthly
China Construction Bank	May 2012	April 2014	159,000	Monthly
Bank of Xingtai	September 2012	September 2014	100,000	Monthly
Industrial and Commercial Bank of China	March 2011	March 2014	140,000	Monthly
Industrial and Commercial Bank of China	April 2011	March 2014	40,000	Monthly
Industrial and Commercial Bank of China	May 2011	March 2014	20,000	Monthly
Industrial and Commercial Bank of China	June 2011	March 2014	54,122	Monthly
China Everbright Bank	June 2011	June 2014	200,000	Quarterly
Industrial and Commercial Bank of China	December 2011	June 2014	59,017	Monthly
Industrial and Commercial Bank of China	June 2011	January 2015	190,000	Together with principal
Industrial and Commercial Bank of China	June 2011	January 2014	750,000	Together with principal
Bank of China	April 2012	April 2014	30,000	Quarterly
Agriculture Bank of China	August 2012	February 2019	40,000	Quarterly
Agriculture Bank of China	September 2012	August 2019	118,000	Quarterly
Subtotal			2,088,139	
Total borrowings			4,911,369	
As of December 31, 2013				
<u>Short-term loan</u>				
Bank of China	September 2013	September 2014	200,000	Quarterly
Agriculture Bank of China	September 2013	September 2014	80,000	Monthly
Agriculture Bank of China	September 2013	January 2014	34,379	Together with principal
Agriculture Bank of China	September 2013	February 2014	79,248	Together with principal
Agriculture Bank of China	November 2013	April 2014	539	Together with principal
Agriculture Bank of China	December 2013	May 2014	3,073	Together with principal
Agriculture Bank of China	December 2013	April 2014	95,721	Monthly
Agriculture Bank of China	December 2013	May 2014	2,038	Together with principal
Agriculture Bank of China	December 2013	May 2014	1,996	Together with principal
China Merchant Bank	September 2013	March 2014	10,000	Together with principal
China Merchant Bank	September 2013	March 2014	10,000	Together with principal
China Merchant Bank	September 2013	March 2014	10,000	Together with principal
China Merchant Bank	September 2013	March 2014	10,000	Together with principal
China Merchant Bank	September 2013	March 2014	10,000	Together with principal
China Merchant Bank	December 2013	June 2014	30,000	Together with principal
Huaxia Bank	May 2013	February 2014	40,000	Together with principal
Huaxia Bank	February 2013	February 2014	10,000	Together with principal
Bank of Communication	August 2013	February 2014	42,000	Monthly
Hefei S & T Rural Commercial Bank	March 2013	March 2014	150,000	Quarterly
Hefei S & T Rural Commercial Bank	April 2013	March 2014	50,000	Quarterly
Rural Credit Cooperative of Hebei	March 2013	March 2014	28,000	Monthly
Bank of Xingtai	June 2013	June 2014	20,000	Monthly
Bank of Xingtai	July 2013	June 2014	40,000	Monthly
OCBC Bank	March 2013	April 2014	30,485	Monthly
OCBC Bank	May 2013	May 2014	54,873	Monthly
Other loan *	April 2013	March 2014	30,000	Quarterly
Other loan*	November 2013	November 2014	50,000	Quarterly
Subtotal			1,122,352	

\*Local government provided short-term loan to one subsidiary located in Jiangsu Province with market interest rate bearing.

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**JA SOLAR HOLDINGS CO., LTD.**
**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**
**15. Borrowings(continued)**

<b>Lender</b>	<b>Date of Borrowing</b>	<b>Due Date</b>	<b>Principal Amount (in RMB)</b>	<b>Interest Payment Periods</b>
<b><u>Long-term loan due in one year</u></b>				
China Construction Bank	May 2012	April 2014	157,000	Monthly
China Construction Bank	June 2012	May 2014	34,000	Monthly
Industrial and Commercial Bank of China	December 2011	November 2014	150,000	Monthly
Bank of Xingtai	September 2012	September 2014	100,000	Monthly
Industrial and Commercial Bank of China	March 2011	March 2014	140,000	Monthly
Industrial and Commercial Bank of China	April 2011	March 2014	40,000	Monthly
Industrial and Commercial Bank of China	May 2011	March 2014	20,000	Monthly
Industrial and Commercial Bank of China	June 2011	June 2014	15,917	Monthly
Industrial and Commercial Bank of China	December 2011	June 2014	57,246	Monthly
China Everbright Bank	June 2011	June 2014	200,000	Quarterly
Agriculture Bank of China	August 2012	February 2014	2,850	Quarterly
Agriculture Bank of China	September 2012	February 2014	8,150	Quarterly
Agriculture Bank of China	August 2012	August 2014	2,850	Quarterly
Agriculture Bank of China	September 2012	August 2014	8,150	Quarterly
Subtotal			936,163	
<b><u>Short-term borrowings and current portion of long term borrowings</u></b>			2,058,515	
<b><u>Long-term loan</u></b>				
Industrial and Commercial Bank of China	June 2011	January 2019	720,000	Annually
Industrial and Commercial Bank of China	June 2011	January 2018	432,000	Annually
Industrial and Commercial Bank of China	June 2011	January 2017	288,000	Annually
Agriculture Bank of China	September 2012	February 2015	8,150	Quarterly
Agriculture Bank of China	August 2012	August 2015	2,850	Quarterly
Agriculture Bank of China	September 2012	August 2015	8,150	Quarterly
Agriculture Bank of China	August 2012	February 2016	2,850	Quarterly
Agriculture Bank of China	September 2012	February 2016	8,150	Quarterly
Agriculture Bank of China	August 2012	August 2016	2,850	Quarterly
Agriculture Bank of China	September 2012	August 2016	8,150	Quarterly
Agriculture Bank of China	August 2012	February 2015	2,850	Quarterly
Agriculture Bank of China	August 2012	February 2017	2,850	Quarterly
Agriculture Bank of China	September 2012	February 2017	8,150	Quarterly
Agriculture Bank of China	August 2012	August 2017	2,850	Quarterly
Agriculture Bank of China	September 2012	August 2017	8,150	Quarterly
Agriculture Bank of China	August 2012	February 2018	2,850	Quarterly
Agriculture Bank of China	September 2012	February 2018	8,150	Quarterly
Agriculture Bank of China	August 2012	August 2018	2,850	Quarterly
Agriculture Bank of China	September 2012	August 2018	8,150	Quarterly
Agriculture Bank of China	September 2012	February 2019	10,100	Quarterly
Agriculture Bank of China	August 2012	February 2019	2,900	Quarterly
Agriculture Bank of China	August 2012	August 2019	2,900	Quarterly
Agriculture Bank of China	September 2012	August 2019	10,100	Quarterly
Subtotal			1,554,000	
Total borrowings			3,612,515	

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 15. Borrowings(continued)

	As of December 31, 2012 RMB	As of December 31, 2013 RMB
Short-term	972,730	1,122,352
Long-term, current portion	1,850,500	936,163
Subtotal	2,823,230	2,058,515
Long-term	2,088,139	1,554,000
Total	4,911,369	3,612,515

These loans are borrowed from various financial and non-financial institutions and all of them are for working capital purpose. The borrowings outstanding as of December 31, 2012 and 2013 bore a weighted average interest rate of 6.49% and 6.42% per annum, respectively. The interest rates of unsecured short-term bank borrowings with principal amounts of 972,730 and 956,994 as of December 31, 2012 and 2013, respectively, ranged from 2.32% to 7.28% with a weighted average interest rate of 6.01% for 2012 and from 2.67% to 7.80% with a weighted average interest rate of 6.04% for 2013. The interest rate of short-term bank borrowings secured by restricted cash with principal amounts of RMB 85,358 as of December 31 2013 ranged from 1.66% to 1.67% with a weighted average interest rate of 1.67% for 2013. There was no borrowing secured by restricted cash in 2012. The interest rate of short-term borrowing from one non-financial institution with principal amount of RMB 80,000 as of December 31, 2013 was 9.0%. There was no borrowing from non-financial institution in 2012. The interest rate of unsecured long-term bank borrowings with principal amounts of 3,650,639 and 914,163 as of December 31, 2012 and 2013, respectively, ranged from 2.75% to 7.84% with a weighted average interest rate of 6.65% for 2012 and from 6.15% to 7.07% with a weighted average interest rate of 6.48% for 2013. The interest rate of long-term bank borrowings secured by buildings, machineries and equipment and construction in progress with principal amount of RMB 288,000 and 1,576,000 as of December 31, 2012 and 2013, respectively, ranged from 4.76% to 7.01% with a weighted average interest rate of 5.99% for 2012 and from 6.72% to 7.01% with a weighted average interest rate of 6.74% for 2013. The borrowings have 4-month to 91-month terms and expire at various times. The unused lines of credit were RMB 1,099,331, which were available as of December 31, 2013. These facilities contain no specific renewal terms and require no collateral.

Interest incurred for borrowings for the years ended December 31, 2011, 2012 and 2013 amounted to RMB 212,153, RMB 348,510 and RMB 278,190, respectively, of which RMB 39,320, RMB 45,059 and RMB 37,495 was capitalized in the cost of property, plant and equipment and project assets.

As of December 31, 2013, the short-term borrowings of RMB 85,358 with OCBC Bank was secured by the restricted cash balance with amount of RMB 91,737 in JA Hefei Technology. The long-term borrowings of RMB101,700 and RMB34,300 with Agricultural Bank of China were secured by the buildings with the net book value of RMB 231,677 and land use right with the net book value of RMB 75,933 in Shanghai Jinglong Solar Technology Co., Ltd., respectively.

In January 2014, the Group renewed a long-term entrustment loan of RMB1,440,000 with Hefei High-Tech Industrial Development Zone Management Co., Ltd., which is secured by buildings, machineries and equipment and construction in progress with the net book value of RMB 833,787 and land use rights with net book value of RMB 218,348 owned by JA Hefei Technology and all of the equity interests in JA Hefei Renewable Energy and JA Hefei Technology.

JA Solar and China Development Bank Shanghai Branch (“CDB”) entered into a financial partnership agreement in September 2010, pursuant to the agreement, CDB agrees to provide up to RMB 30 billion of credit facilities to JA Solar from 2010 to 2015 to support JA Solar’s capital needs under its long-term growth and corporate development plans. As a result of the Financial Partnership Agreement, the Company is qualified to have an expedited approval process for individual credit agreements. Detailed terms including interest rate and covenants of each such credit facility will be determined by CDB in accordance with its risk management and operational guidelines, and set forth in individual credit agreements between CDB and the Company. As of December 31, 2012 and 2013, the Group had drawn down RMB nil and RMB nil of the credit facility, respectively.

Future principal repayments on the long-term borrowings are as follows:

Year ending December 31,	RMB
2014	936,163
2015	22,000
2016	22,000
2017	310,000
Thereafter	1,200,000
Total	2,490,163

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**16. Senior Convertible Notes**

On May 13, 2008, the Company entered into an underwriting agreement for the sale by the Company to the public of \$350,000 aggregate principal amount of 4.5% Senior Convertible Notes due 2013 (the “Senior Notes”). The Company granted to the underwriters a 30-day option to purchase up to an additional \$50,000 aggregate principal amount of Senior Notes. On May 19, 2008, the Company completed its public offering of \$400,000 aggregate principal amount of its Senior Notes which includes the underwriter’s exercise of their option. Net proceeds to the Company from the offering were approximately RMB 2,709,538. The Company’s financing costs of RMB 80,010 associated with the Senior Notes are amortized through interest expense over the life of the Senior Notes from May 2008 to the first put date, or May 2013 using the effective interest rate method. The amount amortized to interest expense for the year ended December 31, 2011, 2012 and 2013 was RMB 9,364, RMB 9,656 and RMB 2,606, respectively. This change in the balance of deferred issuance cost includes the pro-rata reduction of deferred issuance cost that is a component of the extinguished gain from the Senior Notes bought back by the Group.

The Senior Notes bear interest at the rate of 4.5% per annum, payable semi-annually in arrears on May 15 and November 15 of each year, beginning on November 15, 2008. The Senior Notes will mature on May 15, 2013 unless previously repurchased by the Company or converted in accordance with their terms prior to such date. On or after May 15, 2011, the Company has the option to redeem for cash all or part of the Senior Notes at principal if the closing sale price of the Company’s ADS exceeds 130% of the then effective conversion price for at least 20 trading days during the period of the 30 consecutive trading days ending on the last trading day on which notice of redemption is provided. If certain fundamental changes occur at any time prior to maturity, holders of the Senior Notes may require the Company to repurchase their Senior Notes in whole or in part for cash equal to 100% of the principal amount of the Senior Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the date of repurchase. The interest expense recognized for interest payable to the Senior Notes holders was RMB 65,959, RMB 56,893 and RMB 12,300 for the years ended December 31, 2011, 2012 and 2013 respectively.

Each \$1,000 principal amount of the Senior Notes will initially be convertible into 6.5628 American Depository Shares, or ADSs, par value \$.0001 per share at a conversion price of \$152.375, subject to adjustment. The Senior Notes are convertible at maturity and upon certain other events, including when the trading price of the Company’s ADS exceeds 130% of the then effective conversion price for at least 20 trading days during the period of the 30 consecutive trading days ending on the last trading day of the previous fiscal quarter.

The Company used the proceeds from the issuance of the Senior Notes for the purchase and construction of manufacturing equipment and facilities, the purchase and prepayment of raw materials, working capital and other general corporate purposes.

The Company’s functional currency is different from the denomination of the Senior Notes and the Company’s early redemption option is contingent upon its ADS price. Therefore, in accordance with ASC 815, *Derivatives and Hedging*, the Company accounted for the conversion feature, early redemption option and conversion rate adjustment feature (together, “Embedded Derivatives”) as a freestanding instrument separately in the balance sheet. The Senior Notes were recorded with a discount equal to the value of the Embedded Derivatives at the transaction date and will be accreted to the redemption value of the Senior Notes over the life of the Senior Notes. The change in fair value of the Embedded Derivatives of RMB 66,142, RMB 32 and RMB nil was recorded in Consolidated Statements of Operations and Comprehensive Loss for the years ended December 31, 2011, 2012 and 2013, respectively. This change in fair value excludes the pro-rata reduction of the Embedded Derivatives that are a component of the extinguishment gain from the Senior Notes bought back by the Group. The interest expense recognized for accretion to the redemption value of the Senior Notes was RMB 104,195, RMB 96,532 and RMB 24,216 for the years ended December 31, 2011, 2012 and 2013, respectively.

During the years ended December 31, 2011, 2012 and 2013, the Company bought back US\$ 6,145, US\$ 105,427 and US\$ nil (par value) of the Senior Notes, respectively, at prices ranging from 72.48% to 95.35% of face value. The gain/(loss) from the Senior Notes buyback was RMB 4,312, RMB (8,466) and RMB nil respectively, for the years ended December 31, 2011, 2012 and 2013. In May 2013, the Company repaid the remaining principal amount of RMB 723,742 and accrued interest of the Senior Notes.



**JA SOLAR HOLDINGS CO., LTD.**

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**16. Senior Convertible Notes(continued)**

***ADS Lending Agreement***

Concurrent with the offering and sale of the Senior Notes on May 12, 2008, the Company entered into a share lending agreement (the “ADS Lending Agreement”) with certain financial institutions (the “ADS Borrower (s)”), pursuant to which the Company loaned 2,625,104 ADSs (the “Loaned ADSs”) to the ADS Borrowers. The ADS Borrowers will receive all of the proceeds from the sale of the borrowed ADSs. The Company will not receive any proceeds from the sale of the borrowed ADSs pursuant to the ADS Lending Agreement, but the Company will receive from the ADS Borrowers a nominal lending fee of \$0.0005 per ADS for each ADS that the Company loaned pursuant to the ADS Lending Agreements. The nominal lending fee is reported as increases to additional paid in capital. These Loaned ADSs must be returned to the Company no later than May 15, 2013, or sooner if certain conditions are met. In the event of default, the ADS Borrower is required to return the loaned shares to the Company. If unable to do so, at the Company’s request, the ADS Borrower shall pay cash equal to the market value of unreturned shares. The purpose of the share lending arrangement was to facilitate the investors of the Senior Convertible Notes to hedge the conversion option in such Notes.

These shares were considered issued and outstanding for corporate law purposes at the time they were loaned; however, at the time of the loan they were not considered outstanding for the purpose of computing and reporting earnings per share because these shares were to be returned to the Company no later than May 15, 2013, the maturity date of the Senior Notes. On September 15, 2008, one of the ADS borrowers, who the Company had loaned 1,312,552 ADSs, filed for protection under Chapter 11 of the federal Bankruptcy Code and was placed into administration proceeding in the United Kingdom.

As a result of the bankruptcy filing and the administration proceeding, the ADS Lending Agreement automatically terminated and the ADS Borrower was contractually required to return the Loaned ADSs to the Company. The Company has since demanded the immediate return of all outstanding borrowed shares, however, the shares have not yet been returned. Also under the agreement, the ADS borrower was supposed to transfer collateral to an affiliate equal to the fair value of the shares loaned after it received a credit downgrade on September 15, 2008. Such collateral was to be held in a collateral account for the Company. No collateral transfer was made and the Company is not aware of any collateral account existing. While the Company believes it is exercising all of its legal remedies, it has included these shares in its per share calculation on a weighted average basis due to the uncertainty regarding the recovery of the borrowed shares.

The Company accounts for the share lending arrangement in accordance with ASU 2009-15 , *Accounting for Own-Share Lending Arrangements in Contemplation of Convertible Debt Issuance or Other Financing*, which requires an entity that enters into an equity-classified share lending agreement, utilizing its own shares, in contemplation of a convertible debt issuance or other financing to initially measure the share lending arrangement at fair value and treat it as a cost of the financing. The Company estimated that the fair value of the share lending arrangement at issuance was RMB 230,729, which was recognized as an issuance cost of the Senior Convertible Notes, with an offset to additional paid-in capital. Issuance costs were deferred on the balance sheet and amortized over the life of the Senior Convertible Notes. In the year ended December 31, 2008, due to the bankruptcy of one of the ADS borrowers, the Company assessed it became probable that the borrower would default. As result, the Company recognized an expense of RMB 469,042, which equaled to the then fair value of the 1,312,552 ADSs lent to the borrower, net of the fair value of probable recoveries, with an offset to additional paid-in capital. Probable recoveries were estimated as nil at the time in 2008. The fair value of the outstanding loaned shares was RMB 55,411 (US\$ 8,794) and RMB 35,230 (US\$ 5,605) as of December 31, 2011 and 2012, respectively. The unamortized amount of the issuance costs associated with the share-lending arrangement included in the deferred issuance cost in the balance sheet were RMB 51,028 and RMB 8,253 as of December 31, 2011 and 2012, respectively. The amount of interest cost recognized relating to the amortization of the issuance cost associated with the share-lending arrangement were RMB 27,335, RMB 29,537 and RMB 8,208 for the years ended December 31, 2011, 2012 and 2013, respectively.

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 16. Senior Convertible Notes(continued)

In June 2012, a Claims Determination Deed was entered into between the Company and One ADS Borrower (the “Claims Determination Deed”), admitting the Claim (the “Claim”) against the Borrower as a general unsecured claim which qualifies for dividends from the Borrower for an amount of GBP 38.2 million (RMB 380,075). On June 29, 2012, the Company entered into an agreement through private negotiation with a carefully selected group of claims purchasers to sell certain rights pertaining to the claim against the Borrower and all rights to receive distribution payments from the Borrower in exchange for cash consideration of GBP 37.1 million (RMB 369,153). As required under the claim transfer procedures, the joint administrators of the Borrower have acknowledged the sale of the Claim to the purchaser on August 9, 2012. There is no recourse from the purchaser to the Company if the claim is not satisfied in full by the Borrower. A gain of RMB 369,153 was recorded as other income in the Consolidated Statements of Operations and Comprehensive Loss.

After the Company repaid the principal amount and accrued interest of the Senior Notes, the other ADS Borrower returned the Loaned ADS to the Company in full in May 2013.

### 17. Other payables to third parties

Other payables consisted of the following:

	As of December 31, 2012 RMB	As of December 31, 2013 RMB
Purchases of property, plant and equipment	367,426	221,232
Payable for land use rights	—	35,000
Miscellaneous tax payables	25,011	18,253
Deposits	6,049	5,433
Labor services payables	13,883	11,959
Logistic charges	37,528	28,422
Payable to staff *	—	52,732
Interest	15,938	88,060
Others	14,280	21,179
Total other payables	480,115	482,270

\*Amount due to employees related to short term borrowings from employees at an average interest rate of 9%.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
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**18. Accrued expenses**

Accrued expenses consisted of the following:

	<b>As of December 31, 2012</b>	<b>As of December 31, 2013</b>
	<b>RMB</b>	<b>RMB</b>
Professional service fees	21,970	10,659
Interest	167,198	107,611
Utilities	909	2,685
Logistic charges	9,154	11,153
Others	27,066	33,946
Total accrued expenses	<u>226,297</u>	<u>166,054</u>

**19. Accrued warranty cost**

The movement of Group's accrued warranty costs for solar module is summarized below:

	<b>As of December 31, 2011</b>	<b>As of December 31, 2012</b>	<b>As of December 31, 2013</b>
	<b>RMB</b>	<b>RMB</b>	<b>RMB</b>
Beginning balance	31,277	78,751	114,226
Warranty provision	47,474	42,167	44,671
Warranty utilization	—	(6,692)	—
Ending balance	<u>78,751</u>	<u>114,226</u>	<u>158,897</u>

**20. Share-based compensation**

As of December 31, 2013, the Company had one share-based compensation plan, which is described below.

On August 18, 2006, the shareholders of the Company approved the 2006 Stock Incentive Plan (the "Plan"), which permits the grant of share options and shares to its eligible recipients for up to 8,656,000 ordinary shares plus a number of ordinary shares equal to 10% of any additional share capital of the Company issued following the effective date of the Plan. The Group believes that such awards better align the interests of its employees with those of its shareholders.

**a) Options**

During the year ended December 31, 2013, the Company did not grant any ordinary share options to certain of its employees.

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 20. Share-based compensation(continued)

The Group recognized a pre-tax charge of RMB 12,810, RMB 12,980 and RMB 3,558 (included in selling, general, and administrative expenses and manufacturing overhead, of which RMB 268, RMB 1,256 and RMB 372 was capitalized in the cost of inventory as of December 31, 2011, 2012 and 2013, respectively), for the years ended December 31, 2011, 2012 and 2013 associated with the expensing of stock options, respectively.

The weighted-average grant-date fair value of options granted during the years ended December 31, 2012 were US\$ 1.4. No option grants were made in 2011 and 2013. The compensation that has been charged for the option, net of the amounts reversed for options forfeited in excess of amounts estimated at the grant date, was RMB 12,542, RMB 11,724 and RMB 3,186 for the years ended December 31, 2011, 2012 and 2013, respectively. The amounts reversed associated with options forfeited were RMB 5,110, RMB 1,616 and RMB 577 for the years ended December 31, 2011, 2012 and 2013, respectively. The total income tax benefit recognized in the income statement for share-based compensation arrangements was nil for the periods.

The Group used the forfeiture rate of 9.79%, 9.82% and 10.92% respectively for the years ended 2011, 2012 and 2013.

As of December 31, 2011, 2012 and 2013, there was RMB 5,491, RMB 3,788 and RMB 92 of total unrecognized compensation cost related to non-vested share-based employees arrangements granted under the Plan, respectively. The cost is expected to be recognized over a remaining weighted-average period of 16 months.

The Company expects to issue new shares to satisfy share option exercises.

These options will become fully vested upon a change in control or on any date at the discretion of the plan administrator. The fair value of option grant is estimated on the date of grant using the Black-Scholes-Merton model with the following assumptions for options granted to employees during the years ended December 31, 2011, 2012 and 2013 respectively:

	For the year ended December 31, 2011	For the year ended December 31, 2012	For the year ended December 31, 2013
Average risk-free rate	—	1.09%~1.27%	—
Weighted average expected option life	—	5.75 years	—
Volatility rate	—	80.5%	—
Dividend	—	—	—

- (1) The risk-free interest rate is based on the U.S. Treasury yield for a term consistent with the expected life of the awards in effect at the time of grant.
- (2) The average expected option life is based on the contractual term of the option and expected employee exercise and post-vesting employment termination behavior. Currently, it is based on the simplified approach.
- (3) The Company has no history or expectation of paying dividends on its ordinary shares.
- (4) The Company chose to use the historical volatility and implied volatility of a basket of comparable publicly-traded companies for a period equal to the expected term preceding the grant date.

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 20. Share-based compensation(continued)

The following table summarizes information with respect to share options outstanding on December 31, 2013:

	Shares	Weighted Average Exercise Price (US\$)	Weighted Average Remaining Contractual Life (Year)	Intrinsic Value (US\$, in thousands)
Outstanding at December 31, 2011	2,690,650	6.71	7.17	—
Granted	2,207,000	1.40		—
Forfeited	(540,600)	4.60		—
Exercised	—	—		—
Outstanding at December 31, 2012	4,357,050	4.28	7.62	—
Granted	—			
Forfeited	(1,373,750)	1.37		
Exercised	(401,750)	1.37		
Outstanding at December 31, 2013	2,581,550	4.79	6.40	612
Exercisable at December 31, 2013	1,701,050	6.54	5.50	233

The total intrinsic value of options exercised during the years ended December 31, 2011, 2012 and 2013 was \$2,077, \$0 and \$ 134, respectively.

#### b) *Restricted share units (“RSU”)*

RSUs are commitments made to issue ordinary shares at the time that each underlying RSU vests. The RSUs are not legally issued ordinary shares nor do they comprise outstanding ordinary shares and therefore, do not give their holders voting or dividend rights.

Upon vesting, the shares will be issued by the Company.

The following table summarizes information with respect to RSUs outstanding on December 31, 2013:

	Shares	Weighted Average Fair Value (US\$)
Nonvested at December 31, 2011	2,493,000	5.17
Granted	90,000	0.79
Vested	(95,000)	5.92
Forfeited	(50,000)	5.85
Nonvested at December 31, 2012	2,438,000	4.97
Granted	—	—
Vested	(1,281,890)	5.04
Forfeited	(140,000)	4.28
Nonvested at December 31, 2013	1,016,110	4.95

For RSUs, the Company recognized a pre-tax charge of RMB 27,377, RMB 20,249 and RMB 5,843 (included in selling, general, and administrative expenses) for the years ended December 31, 2011, 2012 and 2013, respectively. Unrecognized compensation expense related to the RSUs as of December 31, 2012 and 2013 were RMB 11,024 and RMB 2,437, respectively. The cost is expected to be recognized over a remaining weighted average period of 16 months. The fair value of shares vested during the years ended December 31, 2011, 2012 and 2013 was RMB 20,738, RMB 997 and RMB 2,182, respectively.

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 21. Foreign currency forward contracts

The Group, as a result of its global operating and financing activities, is exposed to changes in foreign currency exchange rates which may adversely affect its results of operations and financial position. The Group uses foreign currency forward exchange contracts to hedge the exposure to foreign currency risk, primarily the Euro, GBP and US dollar. The purpose of the Group's foreign currency derivative activities is to protect the Group from the risk that the Renminbi net cash flows resulting from forecasted foreign currency-denominated transactions will be negatively affected by changes in exchange rates. The Group uses foreign currency forward exchange contracts to offset changes in the amount of future cash flows associated with certain third-party sales expected to occur within the next 12 months.

The Group accounts for derivative instruments pursuant to ASC 815, *Derivatives and Hedging*, as amended and interpreted, and recognizes all derivative instruments as either assets or liabilities at fair value in other assets or other liabilities in the Consolidated Balance Sheets. The recognition of gains or losses resulting from changes in the values of those derivative instruments is based on the use of each derivative instrument. The Group has evaluated various factors and determined whether there is effectiveness with respect to certain foreign-currency forward contracts and whether these foreign currency forward exchange contracts qualified for foreign currency cash flow hedge accounting. When hedging relationships are highly effective, the effective portion of the gain or loss on the derivative cash flow hedges is recorded in accumulated other comprehensive income, net of tax, until the underlying hedged transaction is recognized in the consolidated income statements. The ineffective portion of cash flow hedges, if any, is recognized in income immediately. The effectiveness of designated hedging relationships is tested and documented on quarterly basis. Gains or losses on those foreign currency forward exchange contracts which do not qualify for hedge accounting are recognized in change in fair value of derivatives in the Consolidated Statements of Operations and Comprehensive Loss. During the year ended December 31, 2012, the Group entered into foreign exchange forward contracts with a notional amount of Euro 158,463, GBP 4,153 and US Dollar 87,119. During the year ended December 31, 2013, the Group entered into foreign exchange forward contracts with a notional amount of Euro 64,254, GBP 11,453, US Dollar 20,683 and JPY 94,500. As of December 31, 2012, the Group had outstanding foreign currency forward exchange contracts with notional amounts of US Dollar 848. As of December 31, 2013, the Group had outstanding foreign currency forward exchange contracts with notional amounts of Euro 11,082.

The gain/(loss) from the change in the fair value on the effective portion of derivative cash flow hedges, which is recorded in accumulated other comprehensive income, net of tax, was RMB 9,428, RMB (11,755) and RMB nil for the years ended December 31, 2011, 2012 and 2013, respectively. The gain/(loss) from the change in the fair value on those foreign currency forward exchange contracts not qualifying for hedge accounting, which is recorded in change in fair value of derivatives, was RMB 33,323, RMB 9,303 and RMB(793) for the years ended December 31, 2011, 2012 and 2013, respectively.

The following table displays the outstanding notional balances and the estimated fair value of the Group's foreign-currency forward exchange contracts as of December 31, 2012 and 2013:

	As of December 31, 2012 RMB Notional Amount	As of December 31, 2012 RMB Estimate fair value	As of December 31, 2013 RMB Notional Amount	As of December 31, 2013 RMB Estimate fair value
Foreign exchange forward contracts not designated as hedging instruments, recorded in other current assets	5,333	79	93,295	237

### 22. Issuance of ordinary shares and warrants

On August 14, 2013, the Company entered into a Securities Purchase Agreement (the "Purchase Agreement") with a single institutional investor, Capital Ventures International (the "Investor"), to issue in a registered direct offering an aggregate of US\$ 24 million (RMB equivalent 147,998) for 15,228,425 ordinary shares, US\$0.0001 par value per share, of the Company ("Ordinary Shares"), represented by 3,045,685 American Depositary Shares (each, an "ADS") at a price of US\$7.88 per ADS. The offering price is 94% of the volume-weighted average price of the Company's ADSs on August 13, 2013 (i.e. US\$ 8.383 per ADS per Bloomberg on August 13, 2013). The offering resulted in net proceeds of RMB128,529, after deducting the placement fees and offering expenses.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**22 Issuance of ordinary shares and warrants(continued)**

**Series A and B Warrants**

In conjunction with the ordinary share offering, the Company also issued to the Investor Series A-1 Warrant, Series A-2 Warrant, Series A-3 Warrant, and Series B Warrant (“Warrants”) to acquire up to 12,724,164 ordinary shares (or 2,544,833 ADSs), 12,724,164 ordinary shares (or 2,544,833 ADSs), 12,724,164 ordinary shares (or 2,544,833 ADSs), and 50,896,656 ordinary shares (or 10,179,332 ADSs), respectively.

The Series A-1 warrant to purchase ordinary shares can be exercised on or prior to the date that is three months after the date it is issued at an initial exercise price of US\$1.886 per ordinary share (equivalent to an exercise price of US\$9.43 per ADS), subject to anti-dilution adjustments with respect to issuances of ordinary shares, options or convertible securities, or the modification of issued options or convertible securities. The Series A-2 warrant to purchase ordinary shares can be exercised on or prior to the date that is six months after the date it is issued at an initial exercise price of US\$1.886 per ordinary share (equivalent to an exercise price of US\$9.43 per ADS), subject to anti-dilution adjustments with respect to issuances of ordinary shares, options or convertible securities, or the modification of issued options or convertible securities. The Series A-3 warrant to purchase ordinary shares can be exercised on or prior to the date that is nine months after the date it is issued at an initial exercise price of US\$1.886 per ordinary share (equivalent to an exercise price of US\$9.43 per ADS), subject to anti-dilution adjustments with respect to issuances of ordinary shares, options or convertible securities, or the modification of issued options or convertible securities.

The Series B warrant to purchase up ordinary shares represented by ADSs at an initial exercise price of US\$2.18 per ordinary share (equivalent to an exercise price of US\$10.90 per ADS), subject to anti-dilution adjustments with respect to issuances of ordinary shares, options or convertible securities, or the modification of issued options or convertible securities, and subject to reset on the date that is nine months after the date it is issued. The Series B Warrant being offered is exercisable on the date that is one day after the one-year anniversary of the date on which it is issued and expires on the date that is two years after the date on which the Series B Warrant is first exercisable.

At any time after the issuance of warrants, the holders of the warrants shall be entitled to participate in such distribution to the same extent that the Holder would have participated therein if the Holder had held the number of Ordinary Shares and/or ADSs, as applicable, acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation). The holders of the warrants are entitled to receive any dividends paid or distributions made, except with respect to share dividends covered by the anti-dilution adjustment provision of the warrant, to the holders of our ordinary shares to the extent the holders of each warrant would have participated if such holders held a number of shares, acquirable upon exercise of such warrant.

In November 2013 and February 2014, Series A-1 Warrant and Series A-2 Warrant were exercised in full at the price of US\$ 9.43 per ADS.

Accordance with ASC subtopic 815-10, the warrants are deemed legally detachable and separately exercisable from the ordinary shares and thus accounted for as a freestanding instrument. As the warrants are denominated in US Dollar, yet the Company’s functional currency is RMB, warrants are not considered indexed to the Company’s own stock. Accordingly, the warrants are liability derivatives which need to be fair valued on day one and mark to market subsequently at each reporting period end, with the fair value gain or loss arising from the re-measurement recognized in the Consolidated Statements of Operations and Comprehensive Loss.

On the transaction date, the sales proceeds are first allocated to the warrant based on the warrants’ full fair value of RMB 172,916 and the residual amount of the sales proceeds is allocated to the ordinary shares. The fair value of the warrants in excess of net proceeds of the equity offering of RMB 44,396, was charged to retained earnings as a deemed dividend due to this portion is a benefit transferred from existing shareholders to the new investor. Such amount charged as deemed dividend on the transaction date and is an adjustment to net loss available to attributable to JA Solar Holdings for basic and diluted EPS calculation, as an effective dividend from existing ordinary shareholders. For the year ended December 31, 2013, RMB 51,074 of loss was recognized based on a subsequent change in fair value of the warrants in the Company’s Consolidated statements of Operations and Comprehensive loss.

The series A-1, A-2, A-3 and B warrants are participating securities because they had contractual rights to share in the profits but not losses of the Company. For the years ended December 31, 2013, the computation of basic loss per share using the two-class method was not applicable as the Company was in a net loss position.

# JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 23. Mainland China contribution plan and profit appropriation

#### a) *China contribution plan*

Full-time employees of the Group in the PRC participate in a government-mandated multi-employer defined contribution plan pursuant to which certain pension benefits, medical care, unemployment insurance, employee housing fund and other welfare benefits are provided to employees. PRC labor regulations require the Group to accrue for these benefits based on certain percentage of the employees' salaries. However, the Group is not responsible for meeting any obligations under the plan. The total contribution for such employee benefits was RMB 72,677, RMB 95,929 and RMB 96,062 for the years ended December 31, 2011, 2012 and 2013, respectively.

#### b) *Statutory reserves*

Pursuant to laws applicable to entities incorporated in the PRC, the subsidiaries in the PRC should make appropriations from after-tax profit to non-distributable reserve funds. These reserve funds include the following: (i) a general reserve, (ii) an enterprise expansion fund and (iii) a staff bonus and welfare fund. The subsidiaries in the PRC are required to transfer at least 10% of their profit after taxation (as determined under accounting principles generally accepted in the PRC ("PRC GAAP")) at each year-end to the general reserve fund until the reserve balance reaches 50% of their respective registered capital. The appropriations to other funds are at the PRC subsidiaries' discretion. These reserve funds can only be used for specific purposes of enterprises expansion, staff bonus, and welfare and not distributable as cash dividends.

The general reserves made by the Group's PRC subsidiaries in 2011, 2012 and 2013 were RMB 22,815, RMB nil and 1,760, respectively. During the years ended December 31, 2013, the Group made a reversal of RMB 8,257, from the common statutory reserve fund to retained earnings due to an adjustment related to income tax filing difference was made in its local PRC GAAP accounts.

#### c) *Restricted capital*

The following paid-in-capital amounts are unavailable for distribution as nominal dividends to the Company:

Legal Entity	Paid-in Capital restricted	
JingAo Solar Co., Ltd.	RMB	1,000,000
Shanghai JA Solar Technology Co., Ltd.	US\$	80,000
Shanghai JA Solar PV Technology Co., Ltd.	US\$	20,000
JA Solar Technology Yangzhou Co., Ltd.	US\$	260,000
Jing Hai Yang Semiconductor Materials (Donghai) Co., Ltd.	US\$	93,000
JA Solar Yangzhou R&D Co., Ltd.	RMB	50,000
JA Yangzhou PV Technology Co., Ltd.	US\$	10,000
Shanghai Jinglong Solar Technology Co., Ltd.	RMB	180,000
Donghai JA Solar Technology Co., Ltd.	RMB	50,000
JA (Hefei) Renewable Energy Co., Ltd.	US\$	15,000
Hefei JA Solar Technology Co., Ltd.	RMB	1,440,000
Solar Silicon Valley Electronic Science and Technology Co., Ltd.	US\$	36,986
JA Solar Investment (China) Co., Ltd.	US\$	40,000
Dunhuang JA Solar Power Development Co., Ltd	RMB	30,000
Lincheng JA PV Power Generation Co., Ltd	RMB	3,000
Hebei Ningjin Songgong Semiconductor Co., Ltd.	RMB	275,000



**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
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**24. Earnings (loss) per share**

Basic and diluted net (loss)/ earnings per share for the years ended December 31, 2011, 2012 and 2013 are calculated as follows:

	Year ended December 31, 2011	Year ended December 31, 2012	Year ended December 31, 2013
<b>Numerator:</b>			
Numerator for basic loss per share from continuing operations	(572,098)	(1,662,257)	(473,676)
Numerator for diluted loss per share from continuing operations	(572,098)	(1,662,257)	(473,676)
Numerator for basic earnings per share from discontinued operations	7,753	—	—
Numerator for diluted earnings per share from discontinued operations	7,753	—	—
<b>Denominator:</b>			
Denominator for basic loss per share - weighted average ordinary shares outstanding	167,101,076	194,788,429	201,317,884
Dilutive effect of share options and RSUs*	—	—	—
Dilutive effect of convertible notes and warrants*	—	—	—
Denominator for diluted loss per share	167,101,076	194,788,429	201,317,884
Basic loss per share from continuing operations	(3.42)	(8.53)	(2.35)
Diluted loss per share from continuing operations	(3.42)	(8.53)	(2.35)
Basic earnings per share from discontinued operations	0.04	—	—
Diluted earnings per share from discontinued operations	0.04	—	—

\* These potentially dilutive share options, RSUs and convertible notes totaling 7,875,966, and 5,628,371 in 2011 and 2012, respectively, were not included in the calculation of dilutive earnings per share in 2011 and 2012 because of their anti-dilutive effect. These potentially dilutive share options, RSUs, and warrants totaling 776,111 in 2013 were not included in the calculation of dilutive earnings per share in 2013 because of their anti-dilutive effect.

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**25 Related party transactions**

a) Amounts due to related parties consisted of the following:

	As of December 31, 2012	As of December 31, 2013
	RMB	RMB
Payables to Hebei Jinglong Industry and Commerce Group Co., Ltd. ("Hebei Jinglong") -short term	32,101	13,462
Payables to Jing Wei Electronics Co., Ltd. ("Jin Wei")-short term	67,227	97,648
Payables to Xingtai Jinglong Electronics and Materials Co., Ltd. ("Xingtai Jinglong")-short term	20,871	60,807
Payables to Hebei Ningjin Songgong Electronics Co., Ltd. ("Songgong Electronics")-short term	5,130	37,456
Payables to Yangguang Guifeng Electronics Co., Ltd. ("Yangguang Guifeng")-short term	—	55,965
Payables to Hebei Ningjin Songgong Semiconductor Co., Ltd. ("Ningjin Songgong") -short term	48,081	—
Others-short term	32,229	61,552
Total amounts due to related parties-short term	<u>205,639</u>	<u>326,890</u>

b) Amounts due from related parties consisted of the following:

	As of December 31, 2012	As of December 31, 2013
	RMB	RMB
Advances to Hebei Jinglong-short term	86,712	113,000
Advances to Hebei Jinglong-long term	21,252	603
Advances to others-short term	553	—
Receivables from Hebei Jinglong-short term	1,016	65,567
Receivables from Jin Wei-short term	978	72,510
Receivables from Xingtai Jinglong-short term	11,110	58,750
Receivables from Songgong Electronics-short term	5,814	38,598
Receivables from Yangguang Guifeng-short term	—	44,266
Receivables from Ningjin Songgong-short term	5,045	—
Receivables from Yangzhou JA Property Co., Ltd. ("Yangzhou Property")-short term	—	40,080
Receivables from others-short term	13,324	19,362
Total amounts due from related parties	<u>145,804</u>	<u>452,736</u>

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
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**25. Related party transactions(continued)**

c) *Transactions with Hebei Jinglong*

***Wafer supply***

In July 2006, the Group entered into a master long-term supply contract (the “**Jinglong Long-term Supply Contract**”) with Hebei Jinglong for the supply of silicon wafers. Hebei Jinglong is owned by the shareholders of the largest shareholder of the Company, Jinglong Group Co., Ltd. (“Jinglong BVI”), and thus, is a related party of the Company. Mr. Baofang Jin, our executive chairman, owns 32.96% equity interests in each of Hebei Jinglong and Jinglong BVI. The Jinglong Long-term Supply Contract had an initial term of four and half years, from July 2006 to December 2010, which automatically extended for another three years until the end of 2013. The Group has also entered into various short-term supply contracts with Hebei Jinglong for the supply of silicon wafers (together with the Jinglong Long-term Supply Contract the “**Jinglong Supply Contracts**”). Under the Jinglong Supply Contracts, Jinglong Group has agreed to supply the Group with silicon wafers at prevailing market prices with a reasonable discount and under prepayment arrangements. The Group has entered into various supplemental agreements to the Jinglong Supply Contracts to specify certain performance terms, including amendment of prepayment amounts and their utilization. The prepayment and delivery terms under the existing Jinglong Long-term Supply Contract had been revised subsequently in August 2007, September 2008, and February 2009.

The Group reviewed the contracts under ASC 815, *Derivatives and Hedging*, and ASC 810, *Consolidation*, and determined that they don’t contain an embedded derivative nor would the supplier contracts cause the supplier to be a variable interest entity.

For the years ended 31 December 2011, 2012 and 2013, the Group purchased RMB 1,506,609, RMB 191,339 and RMB 205,047 respectively, of silicon wafers from Jinglong Group under the Jinglong Supply Contracts and from Solar Silicon Valley before it was acquired by the Group in November 2011. The Group will continue to purchase silicon wafers from Jinglong Group.

Unused prepayments were RMB 107,964 and RMB 113,603 at December 31, 2012 and 2013, respectively, and were recorded in advances to related party supplier in the consolidated balance sheet.

**Outsourcing service**

The Group outsourced wafer processing services to Hebei Jinglong and Silicon Valley, where they helped the Group turn polysilicon into wafers. The outsourcing service fee was RMB nil, RMB 17,899 and RMB 1,024 for Hebei Jinglong for the years ended December 31, 2011, 2012 and 2013 respectively, RMB 8,874 for Solar Silicon Valley for the years ended December 31, 2011 before acquisition of Silicon Valley, respectively.

**Management fees and leasing**

The Group leases properties from Hebei Jinglong and another related party under operating lease agreements. The Group incurred rental expenses under operating lease agreements to Hebei Jinglong in the amounts of RMB 12,000, RMB 12,000 and RMB 42,089 for the years ended December 31, 2011, 2012 and 2013, respectively.

**Guarantee**

As of December 31, 2013, the Group received guarantees from Hebei Jinglong for short-term borrowings with a principal of RMB 228,000. No amounts have been accrued as a loss contingency related to this guarantee because payment by the Group is not probable. The fair value of the guarantee as of December 31, 2013 was not material.

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**25. Related party transactions(continued)**

*d) Transactions with other related parties*

	<u>For the year ended</u> <u>December 31, 2011</u>	<u>For the year ended</u> <u>December 31, 2012</u>	<u>For the year ended</u> <u>December 31, 2013</u>
	<u>RMB</u>	<u>RMB</u>	<u>RMB</u>
<b>Sales of products</b>			
Subsidiaries of Hebei Jinglong	8,858	172,623	394,974
Ningjin Songgong	13,035	67,393	1,531
Others	45,897	3,204	—
<b>Total</b>	<u>67,790</u>	<u>243,220</u>	<u>396,505</u>
<b>Purchase of products</b>			
Subsidiaries of Hebei Jinglong	1,128,937	464,511	609,635
Ningjin Songgong	2,932	350,685	35,504
Others	—	12,515	—
<b>Total</b>	<u>1,131,869</u>	<u>827,711</u>	<u>645,139</u>
<b>Processing service</b>			
Subsidiaries of Hebei Jinglong	27,369	19,086	7,124
Others	14,147	7,618	—
<b>Total</b>	<u>41,516</u>	<u>26,704</u>	<u>7,124</u>
<b>Purchase of equipment</b>			
Subsidiaries of Hebei Jinglong	460	2,481	1,967
<b>Total</b>	<u>460</u>	<u>2,481</u>	<u>1,967</u>
<b>Sales of equipment</b>			
Subsidiaries of Hebei Jinglong	—	—	5,000
<b>Total</b>	<u>—</u>	<u>—</u>	<u>5,000</u>

As of December 31, 2013, the Group provided guarantees to Yangzhou Property for a short-term borrowing with a principal of RMB 20,000 while the Group also received guarantees from Yangzhou Property for a short-term borrowing with a principal of RMB 50,000. The Group monitors the financial performance of Yangzhou Property on a monthly basis, and also evaluates the availability of Yangzhou Property from alternate sources. No amounts have been accrued as a loss contingency related to this guarantee because payment by the Group is not probable. The fair value of the guarantee as of December 31, 2013 was not material. In addition, in 2013, the Company provided an entrustment loan to Yangzhou Property with a principal of RMB 40,000.

The Group considers that these transactions were carried out at arm's length with prices comparable to other similar transactions with unrelated third parties.

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## Notes to Consolidated Financial Statements (In thousands, except share and per share data)

### 26. Contingencies and Commitments

#### a) *Supplier contract*

In order to better manage the Group's unit costs and to secure adequate and timely supply of polysilicon and silicon wafers during the periods of shortages of polysilicon and silicon wafer supplies, the Group entered into a number of multi-year supply agreements in amounts that were expected to meet the Group's anticipated production needs. As a condition to its receiving the raw materials under those agreements, and in line with industry practice, the Group was required to, and has made prepayments for all, or a portion, of the total contract price to the suppliers, which are then offset against future purchases. The Group has completed re-negotiating certain of its supplier arrangements and is currently in the process of re-negotiating the remaining prepayment obligations with its suppliers.

Set out below are the Group's fixed obligations under these multi-year contracts including "take or pay" arrangements.

Obligations under Multi-year Supply Agreements, including "Take or Pay" Supply Agreements

The Group's multi-year supply agreements with some suppliers are structured as fixed price and quantity "take or pay" arrangements which allow the supplier to invoice the Group for the full stated purchase price of polysilicon or silicon wafers the Group is obligated to purchase each year, whether or not the Group actually purchases the contractual volume. In addition to the "take or pay" supply agreements, the Group has also entered into other multi-year supply agreements to purchase fixed volumes of polysilicon or silicon wafers from certain suppliers. Under these agreements, the purchase price is to be periodically adjusted based on prevailing market price or relevant energy price index. Purchases made under "take or pay" agreements amounted to RMB 1,600,725, RMB 1,098,601 and RMB 957,358 for the years ended December 31, 2011, 2012 and 2013, respectively. The Group's future obligations under multi-year supply agreements, including "take or pay" supply agreements are as follows:

Twelve Months Ending December 31	"Take or pay" supply agreements (in RMB)	Other Multi-year supply agreements * (in RMB)	Total (in RMB)
2014	2,548,873	337,763	2,886,636
2015	1,665,368	339,090	2,004,458
2016	1,628,970	432,905	2,061,875
2017	1,592,571	—	1,592,571
2018	1,556,173	—	1,556,173
Thereafter	1,536,419	—	1,536,419
Total	10,528,374	1,109,758	11,638,132

\* includes only purchase commitments with fixed or minimum price provisions.

In addition, the Group has also entered into other supply agreements with variable price provisions, under which the purchase price is based on market prices with price adjustment terms. The Group has committed to purchase polysilicon and silicon wafers with the quantity of 2,000 metric tons and 1,820 million pieces respectively during 2014 to 2016, which are with variable price provisions and not included in the above table.

Outstanding supplier advances made to suppliers with whom the Group has entered into "take or pay" arrangements amounted to RMB 885,102 and RMB 732,394 as of December 31, 2012 and 2013, respectively.

If the Group fails to meet the obligations, including purchase quantity commitments, under the amended agreements and are unable to further renegotiate the terms of these multi-year supply agreements, the Group may be forced to forfeit certain prepayment amounts and be subject to claims or other disputes which could materially and adversely affect the Group's results of operations, and financial position.

**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements  
(In thousands, except share and per share data)****26. Contingencies and Commitments(continued)****b) Operating lease commitments**

As of December 31, 2013, the Group has several operating lease agreements to lease certain assets, including offices, dormitory and land. These non-cancelable operating leases expire from July 2010 to May 2017, with rental fees that approximates market rents.

Future minimum obligations for operating leases are as follows:

	(in RMB)
2014	51,763
2015	40,509
2016	40,523
2017	557
Thereafter	—
Total	133,352

Rent expense under all operating leases was RMB 14,992, RMB 23,357 and RMB 53,422, for the years ended December 31, 2011, 2012 and 2013, respectively.

**c) Capital expenditure**

As of December 31, 2013, the Group had contracted for capital expenditure on machinery and equipment of RMB 758,171.

**27. Fair value measurements**

ASC 820 establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the Group. Unobservable inputs are inputs that reflect the Group's assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. As such, fair value is a market-based measure considered from the perspective of a market participant who holds the asset or owes the liability rather than an entity-specific measure. The hierarchy is broken down into three levels based on the reliability of inputs as follows:

- Level 1—Valuations based on quoted prices in active markets for identical assets or liabilities that the Group has the ability to access.
- Level 2—Valuations based on quoted prices in markets that are not active or for which all significant inputs are observable, directly or indirectly.
- Level 3—Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

When available, the Group uses quoted market prices to determine the fair value of an asset or liability. If quoted market prices are not available, the Group will measure fair value using valuation techniques that use, when possible, current market-based or independently sourced market parameters, such as interest rates and currency rates. Following is a description of the valuation techniques that the Group uses to measure the fair value of assets and liabilities that the Group measures and reports on its balance sheet at fair value on a recurring basis.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**27. Fair value measurements(continued)**

*Short-term financial instruments:* The Group's short-term financial instruments consist of cash and cash equivalents, restricted cash, accounts receivable and payable, notes receivable, short-term borrowings, and accrued expenses. The cost approximates the fair value because of the short maturity period.

*Long-term borrowings:* The fair value is based on the amount of future cash flows associated with each debt instrument discounted at the Group's current borrowing rate for similar debt instruments of comparable terms. The carrying values of the long-term borrowings approximate their fair values as all the long-term borrowings carries variable interest rates which approximate rates currently offered by the Group's bankers for similar debt instruments of comparable maturities.

*Derivative assets and liabilities.* The Group's derivative assets and liabilities consist of embedded foreign currency derivatives in the Group's sales and purchase contracts denominated in currencies other than Renminbi or the functional currency of the counterparty, the capped call transactions denominated in USD, embedded derivatives underlying convertible notes, foreign currency forward contract instruments and warrants derivatives. Since its capped call transactions, embedded derivatives underlying convertible notes and warrants derivatives are not traded on an exchange, they are valued using valuation models. Management is responsible for determining these fair values and considered a number of factors including valuations. The capped call transactions are valued using the Black Scholes Option Pricing Model. The embedded derivatives underlying convertible notes and warrants derivatives are bifurcated using the "with or without" approach. As there are interrelationships among the embedded derivatives, they are valued using a Monte Carlo simulation. Interest rate yield curves, foreign exchange rates, stock price, volatility, expected term, risk-free rate and fundamental change event probabilities are the significant inputs into these valuation models. The inputs used in the valuation of the capped call transactions are observable in active markets over the terms of the instruments the Group holds, and accordingly, the Group classifies these valuation techniques as Level 2 in the hierarchy. In regards to the embedded derivatives underlying convertible notes and warrants derivatives, fair value was determined using a "with and without" approach which was based on both Level 2 and Level 3 inputs. The Group determined that the Level 3 input, that is the fundamental change event probabilities, is significant to the overall fair value measurement. The Group considered the effect of its own credit standing and that of its counterparties in its valuations of its derivative financial instruments. The Group entered into foreign currency forward contracts that are designated as cash flow hedges of exchange rate risk related to forecasted foreign currency denominated sales. The Group's financial instrument counterparties are high-quality commercial banks with significant experience with such instruments. Fair values of the Group's forward contracts are determined using significant other observable inputs (Level 2 fair value measurements), and are based on the present value of expected future cash flows considering the risks involved and using discount rates appropriate for the duration of the contracts.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
(In thousands, except share and per share data)

**27. Fair value measurements(continued)**

**Recurring change in fair value**

As of December 31, 2012, information about inputs into the fair value measurements of the Group's assets and liabilities that are measured at fair value on a recurring basis in periods subsequent to their initial recognition is as follows:

Description	Fair Value Measurements at Reporting Date Using			
	Balance as of 31 December 2012	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Foreign exchange forward contract instruments	79	—	79	—

As of December 31, 2013, information about inputs into the fair value measurements of the Group's assets and liabilities that are measured at fair value on a recurring basis in periods subsequent to their initial recognition is as follows:

Description	Fair Value Measurements at Reporting Date Using			
	Balance as of 31 December 2013	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Foreign exchange forward contract instruments	237	—	237	—
Liabilities:				
Derivatives liabilities - warrants	(185,365)			(185,365)

**Assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3 valuation)**

A summary of changes in Level 3 embedded derivatives underlying convertible notes for the year ended December 31, 2012 was as follows:

Balance at December 31, 2011	(32)
Unrealized gains included in Change in fair value of derivatives	32
Balance at December 31, 2012	—

A summary of changes in Level 3 warrant derivatives for the year ended December 31, 2013 was as follows:

Balance at December 31, 2012	—
Fair value balance as of Aug. 13, 2013	(172,916)
Unrealized gain included in change in fair value of warrant derivatives	(51,074)
Exercise of warrants	35,701
Exchange gain	2,924
Balance at December 31, 2013	(185,365)



**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
(In thousands, except share and per share data)

**27. Fair value measurements(continued)**

**Assets valued at Fair Value on a Non-recurring basis**

**As of December 31, 2012**

Description	Fair Value Measurements at Reporting Date Using				Total (losses)
	Balance as of 31 December 2012	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	
<b>Assets:</b>					
Long-lived assets	515,854	—	—	515,854	(397,789)
Investment in a joint venture	50,910	—	—	50,910	(38,000)

The long-lived assets represent property, plant and equipment for production of multi-crystalline wafers and certain machines which cannot be used for production due to poor physical condition or outdated facilities.

In accordance with the provisions of the Impairment or Disposal of Long-Lived Assets Subsections of FASB Codification Subtopic 360—10, long-lived assets held and used with a carrying amount of RMB 913,643 were written down to their fair value of RMB 515,854, resulting in an impairment charge of RMB 397,789, which was calculated based on Level 3 Inputs and included in earnings for the period.

Investment in a joint venture represents investment in JA MEMC with a carrying amount of RMB 50,910. An other-than-temporary impairment charge of RMB 38,000 was recorded against the investment in JA MEMC in the year ended December 31, 2012.

**Change in fair value of derivatives**

The Change in fair value of derivatives recognized in earnings, excluding embedded derivatives underlying convertible notes repurchased which are recognized in buyback gain, was as follows:

	For the year ended December 31, 2011	For the year ended December 31, 2012	For the year ended December 31, 2013
Embedded derivatives underlying convertible notes	66,142	32	—
Capped call options	(9,127)	—	—
Embedded foreign currency derivatives	(5,464)	—	—
Derivatives liabilities - warrants	—	—	(51,074)
Foreign exchange forward contracts not designated as hedging instruments	33,323	9,302	(793)
	<u>84,874</u>	<u>9,334</u>	<u>(51,867)</u>

**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)****28. Segment information**

The Group operates in a single business segment that includes the design, development, and manufacture of PV products. The following table summarizes the Group's net revenues generated from different geographic locations:

	Year Ended December 31,		
	2011	2012	2013
	RMB	RMB	RMB
China	5,546,700	3,086,589	3,001,498
Outside China:			
Germany	2,110,751	1,265,827	660,589
Japan	24,735	436,443	1,596,703
Rest of the world	3,050,668	1,930,206	1,923,999
Total outside China	5,186,154	3,632,476	4,181,291
Total net revenue	10,732,854	6,719,065	7,182,789

The Group's long-lived fixed assets are all located in China.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**29. Certain risks and uncertainties**

***a) Major customers***

There is no individual customer accounting for 10% or more of total revenues for the years ended December 31, 2011 and 2012. For the year ended December 31, 2013, there is one customer located in Japan accounting for 18.6% of total revenue.

Accounts receivable from the 3 customers with the largest receivable balances represents 24% and 17% of the balance of accounts receivable at December 31, 2012 and 2013, respectively. The Group performs ongoing credit evaluations of its customers' financial condition whenever deemed necessary and generally does not require collateral. The Group maintains an allowance for doubtful accounts based upon the expected collectability of all accounts receivable, which takes into consideration an analysis of historical bad debts, specific customer creditworthiness and current economic trends.

***b) Concentrations of credit risk***

Financial instruments that potentially subject the Group to significant concentrations of credit risk consist principally of cash and cash equivalent, accounts receivables and advances to suppliers.

The Group places its cash and cash equivalents with high quality financial institutions in the PRC, US, Hong Kong and Singapore and limits the amount of credit risk from any single institution. China does not have an official deposit insurance program, nor does it have an agency similar to The Federal Deposit Insurance Corporation (FDIC) in the United States. However, the Group believes that the risk of failure of any of these PRC banks is remote. Bank failure is extremely uncommon in China and the Group believes that those Chinese banks that hold the Company's cash, cash equivalents and long term time deposit are financially sound based on public available information.

The Group is also exposed to the credit and financial risks of its suppliers to which the Group made advances. The Group's financial condition and results of operations may be materially affected if the suppliers fail to meet their obligations of supplying silicon materials according to the contractually agreed schedules.

***c) Foreign currency risk***

The RMB is not a freely convertible currency. The PRC State Administration for Foreign Exchange, under the authority of the People's Bank of China, controls the conversion of RMB into foreign currencies. The value of the RMB is subject to changes in central government policies and to international economic and political developments affecting supply and demand in the PRC foreign exchange trading system market. The Group's aggregate amount of cash and cash equivalents denominated in RMB amounted to RMB 2,295,838 and RMB 1,180,356 as of December 31, 2012 and 2013, respectively.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**30 Ordinary shares**

The holders of ordinary shares in the Company are entitled to one vote per share and to receive ratably such dividends, if any, as may be declared by the board of directors of the Company. In the event of liquidation, the holders of ordinary shares are entitled to share ratably in all assets remaining after payment of liabilities. The ordinary shares have no preemptive, conversion, or other subscription rights.

**31. Subsequent events**

Other than the transactions occurring in 2013 already described above, the following events have taken place in 2014:

**a) *Loan borrowing***

During January to March 2014, the Group borrowed short-term loans of RMB 635,719 from various financial institutions in the PRC. The borrowings have 4 months to 1 year terms and will expire at various times. The weighted average interest rate is 6.44% per annum. The Group also repaid loans of RMB 837,510 during the subsequent period.

**b) *Options***

During January to March 2014, the Company granted 717,000 ADS options and 18,000 ADS restricted share units at fair value to its employees. The exercise price of the options is US\$ 9.13 to US\$ 9.43.

**c) *Share transfer of JA MEMC***

In the first quarter of 2014, the Company entered into an equity transfer agreement with SunEdison Products Singapore Pte. Ltd (“Seller”) to acquire 50% of JA MEMC’s total equity interests held by the Seller at a consideration of US\$ 7,700. This transaction is pending for the approval from the local authority.

**d) *Establishment of new joint venture***

In January 2014, the Company entered into a joint venture agreement with Powerway PV SA Pty., Ltd., or PWSA, to establish a solar module manufacturing facility in Port Elizabeth, South Africa, in which the Company holds 65% of the equity interests and PWSA hold 35% of the equity interests.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

**32. Restricted net assets**

Relevant PRC laws and regulations permit PRC companies to pay dividends only out of their retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. Additionally, the Company's subsidiaries can only distribute dividends upon approval of the shareholders after they have met the PRC requirements for appropriation to statutory reserve. The statutory general reserve fund requires annual appropriations of 10% of net after-tax income should be set aside prior to payment of any dividends. As a result of these and other restrictions under PRC laws and regulations, the PRC subsidiaries and affiliates are restricted in their ability to transfer a portion of their net assets to the Company either in the form of dividends, loans or advances, which restricted portion amounted to approximately RMB 5,471,880 or 118.4% of the Company total consolidated net assets as of December 31, 2013. Even though the Company currently does not require any such dividends, loans or advances from the PRC subsidiaries and affiliates for working capital and other funding purposes, the Company may in the future require additional cash resources from its PRC subsidiaries and affiliates due to changes in business conditions, to fund future acquisitions and developments, or merely declare and pay dividends to or distributions to the Company's shareholders, and if applicable, to the noncontrolling interest.

**33. Additional information — condensed financial statements of the Company**

The separate condensed financial statements of JA Solar Holdings Co., Ltd. as presented below have been prepared in accordance with Securities and Exchange Commission Regulation S-X Rule 5-04 and Rule 12-04 and present the Company's investments in its subsidiaries under the equity method of accounting as prescribed in ASC 323. Such investment is presented on the separate condensed balance sheets of the Company as "Investments in subsidiaries." The condensed financial information of JA Solar Holdings Co., Ltd. has been presented for the period from January 1, 2011 to December 31, 2013.

The subsidiaries did not pay dividend to the Company for the period presented.

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

Except as disclosed in the consolidated financial statements as presented above, the Company did not have any significant contingency, commitment, long term obligation, or guarantee as of December 31, 2013.

	<b>For the year ended December 31, 2011 RMB</b>	<b>For the year ended December 31, 2012 RMB</b>	<b>For the year ended December 31, 2013 RMB</b>
Revenues	—	—	—
Total operating expenses	(32,063)	(22,576)	(24,368)
Loss from operations	(32,063)	(22,576)	(24,368)
Interest expense	(206,853)	(192,618)	(47,330)
Change in fair value of derivatives	57,015	32	(51,074)
Share of loss from subsidiaries	(465,989)	(1,809,926)	(246,909)
Convertible bond buyback gain/(loss)	4,312	(8,466)	—
Other income/(loss)	79,233	371,297	(59,599)
Loss before income taxes	(564,345)	(1,662,257)	(429,280)
Income tax expense	—	—	—
Net loss	(564,345)	(1,662,257)	(429,280)
Less: fair value of warrants in excess of net proceeds of equity offering	—	—	44,396
Net loss attributable to JA Solar Holdings	(564,345)	(1,662,257)	(473,676)

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
**(In thousands, except share and per share data)**

	<b>December 31, 2012</b>	<b>December 31, 2013</b>
	<b>RMB</b>	<b>RMB</b>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	17,011	34,293
Other receivable from subsidiaries	252,326	244,772
Other current assets	16,155	3,631
<b>Total current assets</b>	<b>285,492</b>	<b>282,696</b>
Investments in subsidiaries	2,809,195	2,579,236
Amount due from subsidiaries	2,771,785	2,557,138
<b>Total assets</b>	<b>5,866,472</b>	<b>5,419,070</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Other payables to subsidiaries and employees	6,572	7,788
Accrued and other liabilities	14,589	3,611
Convertible notes	708,548	—
Derivatives liabilities - warrants	—	31,106
Interest payable	4,123	—
<b>Total current liabilities</b>	<b>733,832</b>	<b>42,505</b>
Long-term amount due to subsidiaries	239,816	602,044
Derivatives liabilities - warrants	—	154,259
<b>Total liabilities</b>	<b>973,648</b>	<b>798,808</b>
<b>Commitments and Contingencies</b>		
<b>Shareholders' equity :</b>		
Ordinary shares (US\$0.0001 par value; 500,000,000 shares authorized, 199,863,607 and 227,499,837 shares issued and outstanding as of December 31, 2012 and December 31, 2013)	153	170
Additional paid-in capital	5,135,587	5,327,177
Accumulated deficit	(239,898)	(713,574)
Accumulated other comprehensive (loss)/gain	(3,018)	6,489
<b>Total shareholders' equity</b>	<b>4,892,824</b>	<b>4,620,262</b>
<b>Total liabilities and shareholders' equity</b>	<b>5,866,472</b>	<b>5,419,070</b>

**JA SOLAR HOLDINGS CO., LTD.**

**Notes to Consolidated Financial Statements**  
(In thousands, except share and per share data)

	For the year ended December 31, 2011 RMB	For the year ended December 31, 2012 RMB	For the year ended December 31, 2013 RMB
<b>Cash flows from operating activities:</b>			
Net loss	(564,345)	(1,662,257)	(429,280)
Adjustments to reconcile net loss to net cash used in operating activities:			
Share-based compensation expense	1,676	2,055	1,960
Share of loss from subsidiaries	465,989	1,809,926	246,909
Amortization of deferred issuance cost and increase in accretion of convertible notes	140,894	135,725	35,030
Change in the fair value of derivatives	(57,015)	(32)	51,074
Exchange loss	96,122	4,422	85,032
(Gain)/loss from senior convertible notes buyback	(4,312)	8,466	—
Gain from sales of claim against loaned shares	—	(369,153)	—
Acquisition gain	(187,387)	—	—
Changes in operating assets and liabilities:			
Decrease in receivables from subsidiaries	12,890	—	—
Decrease/(increase) in other current assets	29,425	(3,227)	1,651
Increase in other payables to subsidiaries and employees	6,572	—	1,216
Decrease in accrued and other liabilities	(15,167)	(33,728)	(10,978)
Decrease in interest payable	(631)	(3,746)	(4,123)
Net cash used in operating activities	(75,289)	(111,549)	(21,509)
<b>Cash flows from investing activities:</b>			
Loans granted to subsidiaries	(3,160)	(12,349)	—
Loans repayment by subsidiaries	93,116	125,710	133,458
Net cash provided by investing activities	89,956	113,361	133,458
<b>Cash flows from financing activities:</b>			
Proceeds from long-term loan from subsidiaries	51,314	211,193	623,759
Repurchase of senior convertible notes	(28,469)	(617,937)	(740,027)
Proceeds from sales of claim against loaned shares	—	369,153	—
Proceeds from issuance of ordinary shares	—	—	128,529
Proceeds from issuance of ordinary shares upon exercise of warrants	—	—	143,107
Repurchase of ADS	—	(15,276)	—
Repayment of long-term loan from subsidiaries	(9,851)	(12,571)	(253,629)
Proceeds from exercise of stock options	23,076	—	3,389
Net cash provided by/(used in) financing activities	36,070	(65,438)	(94,872)
Effect of exchange rate changes on cash and cash equivalents	(1,752)	3,628	205
Net increase/(decrease) in cash and cash equivalents	48,985	(59,998)	17,282
Cash and cash equivalents at the beginning of the year	28,024	77,009	17,011
Cash and cash equivalents at the end of the year	77,009	17,011	34,293



**Significant Subsidiaries of Registrant\***

1. JA Development Co., Ltd. (British Virgin Islands)
2. JA Solar Hong Kong Limited (Hong Kong)
3. JingAo Solar Co., Ltd. (Ningjin, China)
4. Shanghai JA Solar Technology Co., Ltd. (Shanghai, China)
5. Shanghai JA Solar PV Technology Co., Ltd. (Shanghai, China)
6. JA Solar Technology Yangzhou Co., Ltd. (Yangzhou, China)
7. Yangzhou JA Solar PV Engineering Co., Ltd. (Yangzhou, China)
8. Jing Hai Yang Semiconductor Material (Donghai) Co., Ltd. (Donghai, China)
9. JA (Hefei) Renewable Energy Co., Ltd. (Hefei, China)
10. Hefei JA Solar Technology Co., Ltd. (Hefei, China)
11. Solar Silicon Valley Electronic Science and Technology Co., Ltd. (Yanjiao, China)
12. Hebei Ningjin Songgong Semiconductor Co., Ltd. (Ningjin, China)
13. JA Solar GmbH (Germany)

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\* Other subsidiaries of JA Solar Holding Co., Ltd. have been omitted from this list since, considered in the aggregate as a single entity, they would not constitute a significant subsidiary (as that term is defined in Rule 1-02 of Regulation S-X under the Exchange Act).

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**Certification by the Principal Executive Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Baofang Jin, certify that:

1. I have reviewed this annual report on Form 20-F of JA Solar Holdings Co., Ltd.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by this annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent function):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 23, 2014

By: /s/ Baofang Jin  
Name: Baofang Jin  
Title: Chief Executive Officer

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**Certification by the Principal Financial Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Hexu Zhao, certify that:

1. I have reviewed this annual report on Form 20-F of JA Solar Holdings Co., Ltd.:
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by this annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent function):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: April 23, 2014

By: /s/ Hexu Zhao  
Name: Hexu Zhao  
Title: Chief Financial Officer

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By: /s/ Baofang Jin  
Name: Baofang Jin  
Title: Chief Executive Officer

**Certification by the Principal Financial Officer  
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of JA Solar Holdings Co., Ltd. (the “Company”) on Form 20-F for the year ended December 31, 2013 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Hexu Zhao, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 23, 2014

By: /s/ He Xu Zhao  
Name: Hexu Zhao  
Title: Chief Financial Officer

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (No. 333-144170) of JA Solar Holdings Co., Ltd. of our report dated April 23, 2014 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 20-F.

Shanghai, People's Republic of China

/s/ PricewaterhouseCoopers Zhong Tian LLP

April 23, 2014

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