



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)

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**Mr. Min Cao**

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

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

**Zhabei, Shanghai 200436**

**The People's Republic of China**

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

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

| Title of Each Class   | Name of Each Exchange On Which Registered |
|---|---|
| American depositary shares, each representing five ordinary share, par value US\$0.0001 per share | The NASDAQ Stock Market LLC               |
| Ordinary shares, par value US\$0.0001 per share*  |   |

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

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

**None**  
(Title of Class)

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

**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: 199,863,607 ordinary shares, par value US\$0.0001 per share, as of December 31, 2012.

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

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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;

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- **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 a 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;
- **JA Yangzhou PV Engineering** refers to Yangzhou JA Solar PV Engineering, our indirectly wholly-owned subsidiary in Jiangsu, China;
- **JA Yangzhou R&D** refers to Yangzhou JA Solar R&D Co., Ltd., our indirectly wholly-owned subsidiary in Jiangsu, China;
- **JA Zhabei** refers to Shanghai JA Solar PV Technology Co., Ltd., our indirectly wholly-owned subsidiary in Shanghai, 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.;
- **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;

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- **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.

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**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, 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;

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- 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 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 abilities 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 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, 2010, 2011 and 2012 and our balance sheet data as of December 31, 2011 and 2012 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 CPAs Limited Company, an independent registered public accounting firm. Our selected consolidated statements of operations data for the years ended December 31, 2008 and 2009 and selected consolidated balance sheet data as of December 31, 2008, 2009 and 2010 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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|  | 2008    | 2009    | Year ended December 31,   |             | 2012    |         |
|--|---------|---------|---|-------------|---------|---------|
|  | RMB     | RMB     | 2010<br>(in millions, except for share and per share data)<br>RMB | 2011<br>RMB | RMB     | US\$    |
| <b>Consolidated Statements of Operations and Comprehensive Income/(Loss) Data:</b> |         |         |   |             |         |         |
| Revenues   |         |         |   |             |         |         |
| Solar modules to third parties   | 426     | 83      | 2,511   | 3,709       | 4,044   | 649     |
| Solar cells and other products to third parties                                    | 4,368   | 3,284   | 8,024   | 6,151       | 2,106   | 338     |
| Solar cells and other products to related parties                                  | 508     | 5       | 160   | 72          | 251     | 40      |
| Engineering, procurement and construction to third parties                         |         |         |   | 147         | 136     | 22      |
| Solar products processing to third parties   | 156     | 407     | 1,066   | 654         | 182     | 29      |
| Total revenues   | 5,458   | 3,779   | 11,761  | 10,733      | 6,719   | 1,078   |
| Cost of revenues   |         |         |   |             |         |         |
| Solar modules  | (379)   | (91)    | (2,222)   | (3,428)     | (4,029) | (647)   |
| Solar cells and other products to third parties                                    | (3,615) | (2,981) | (6,358)   | (6,171)     | (2,215) | (356)   |
| Solar cells and other products to related parties                                  | (420)   | (5)     | (127)   | (72)        | (261)   | (42)    |
| Engineering, procurement and construction  |         |         |   | (108)       | (85)    | (13)    |
| Solar products processing  | (52)    | (22)    | (508)   | (493)       | (183)   | (29)    |
| Total cost of revenues   | (4,466) | (3,297) | (9,214)   | (10,272)    | (6,773) | (1,087) |
| Gross profit (loss)  | 992     | 482     | 2,546   | 461         | (54)    | (9)     |
| Operating expenses   |         |         |   |             |         |         |
| Selling, general and administrative expenses                                       | (272)   | (325)   | (458)   | (510)       | (902)   | (145)   |
| Research and development expenses  | (29)    | (45)    | (64)  | (69)        | (86)    | (14)    |
| Impairment loss on property, plant and equipment                                   |         | (18)    | (47)  | (303)       | (398)   | (64)    |
| Total operating expenses   | (300)   | (388)   | (569)   | (882)       | (1,386) | (223)   |
| Income/(loss) from continuing operations   | 692     | 94      | 1,978   | (421)       | (1,440) | (232)   |
| Impairment on available-for-sale securities  |         |         |   |             |         |         |
| Change in fair value of derivatives  | 564     | (49)    | 75  | 85          | 9       | 2       |
| Convertible notes buy back gain/(loss)   | 161     | (24)    |   | 4           | (8)     | (1)     |
| Interest expense   | (172)   | (232)   | (221)   | (374)       | (489)   | (79)    |
| Interest income  | 43      | 12      | 13  | 26          | 36      | 6       |
| Foreign exchange (loss)/gain   | (132)   | 5       | (74)  | (69)        | (25)    | (4)     |

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|  |             |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|-------------|
| Loss for equity investment in a joint venture                |             |             |             | (2)         | (43)        | (7)         |
| Investment loss  | (29)        | (2)         |             |             |             |             |
| Loss on share lending agreement                              | (469)       |             |             |             |             |             |
| Other income, net  | 4           | 8           | 259         | 236         | 399         | 64          |
| (Loss)/income from continuing operations before income taxes | (25)        | (189)       | 2,028       | (514)       | (1,561)     | (251)       |
| Income tax expense   | (24)        | (8)         | (253)       | (58)        | (101)       | (16)        |
| (Loss)/income from continuing operations                     | (49)        | (197)       | 1,775       | (572)       | (1,662)     | (267)       |
| Income/(loss) from discontinued operations, net of tax       |             | 3           | (20)        | 8           |             |             |
| Net (loss)/income  | (49)        | (194)       | 1,755       | (564)       | (1,662)     | (267)       |
| Net (loss)/income per share from continuing operations:      |             |             |             |             |             |             |
| Basic  | (0.31)      | (1.22)      | 10.90       | (3.42)      | (8.53)      | (1.37)      |
| Diluted  | (5.13)      | (1.22)      | 10.72       | (3.42)      | (8.53)      | (1.37)      |
| 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  | (0.31)      | (1.20)      | 10.78       | (3.38)      | (8.53)      | (1.37)      |
| Diluted  | (5.13)      | (1.20)      | 10.61       | (3.38)      | (8.53)      | (1.37)      |
| Net (loss)/income per ADS                                    |             |             |             |             |             |             |
| Basic  | (1.55)      | (6.00)      | 53.88       | (16.90)     | (42.67)     | (6.85)      |
| Diluted  | (25.65)     | (6.00)      | 53.03       | (16.90)     | (42.67)     | (6.85)      |
| Weighted average number of shares outstanding:               |             |             |             |             |             |             |
| Basic  | 156,380,060 | 161,643,312 | 162,900,657 | 167,101,076 | 194,788,429 | 194,788,429 |
| Diluted  | 167,438,190 | 161,643,312 | 171,116,684 | 167,101,076 | 194,788,429 | 194,788,429 |



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|   | 2008  | 2009  | As of December 31, |        | 2012   |       |
|---|-------|-------|--------------------|--------|--------|-------|
|   |       |       | 2010               | 2011   |        |       |
|   | RMB   | RMB   | (in millions)      |        | RMB    | US\$  |
| <b>Consolidated Balance Sheet Data:</b> |       |       |                    |        |        |       |
| Cash and cash equivalents               | 1,543 | 1,867 | 2,290              | 3,889  | 3,031  | 487   |
| Total current assets                    | 3,830 | 3,661 | 6,418              | 7,709  | 7,150  | 1,148 |
| Total assets                            | 7,279 | 7,462 | 11,619             | 14,736 | 13,132 | 2,108 |
| Total current liabilities               | 871   | 629   | 2,044              | 3,325  | 5,889  | 945   |
| Total liabilities                       | 2,524 | 2,640 | 4,939              | 8,187  | 8,239  | 1,323 |
| Total Shareholders' equity              | 4,755 | 4,823 | 6,680              | 6,549  | 4,893  | 785   |

|   | 2008  | 2009  | Year ended December 31, |         | 2012    |      |
|---|-------|-------|-------------------------|---------|---------|------|
|   |       |       | 2010                    | 2011    |         |      |
|   | RMB   | RMB   | (in millions)           |         | RMB     | US\$ |
| <b>Operating Data:</b>                    |       |       |                         |         |         |      |
| Products sold (in MW)                     | 277.4 | 508.8 | 1,462.6                 | 1,694.7 | 1,702.1 |      |
| Average PV cells selling price per watt   | 22.1  | 9.0   | 8.7                     | 5.7     | 2.8     | 0.5  |
| Average PV modules selling price per watt |       | 13.0  | 11.5                    | 8.9     | 4.5     | 0.7  |

**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 RMB6.2301 to US\$1.00, the noon buying rate in effect as of December 31, 2012. 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 12, 2013, the noon buying rate was RMB6.1914 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                | Period-End | Noon Buying Rate |        |        |
|-----------------------|------------|------------------|--------|--------|
|                       |            | Average (1)      | High   | Low    |
| (RMB per U.S. Dollar) |            |                  |        |        |
| 2008                  | 6.8225     | 6.9193           | 7.2946 | 6.7800 |
| 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 |
| October               | 6.2372     | 6.2627           | 6.2877 | 6.2372 |

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|                                |        |        |        |        |
|--------------------------------|--------|--------|--------|--------|
| November                       | 6.2265 | 6.2338 | 6.2454 | 6.2221 |
| December                       | 6.2301 | 6.2328 | 6.2502 | 6.2251 |
| 2013                           |        |        |        |        |
| January                        | 6.2186 | 6.2215 | 6.2303 | 6.2134 |
| February                       | 6.2213 | 6.2323 | 6.2438 | 6.2213 |
| March                          | 6.2108 | 6.2154 | 6.2246 | 6.2105 |
| April (through April 12, 2013) | 6.1914 | 6.1991 | 6.2078 | 6.1914 |

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.

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**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 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.*

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. There have also been concerns over unrest in North Korea, the Middle East and Africa, which have resulted in volatility in oil and other markets, 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 international barriers to trade may adversely affect our ability to export our products to certain countries and certain customers, or import raw materials from certain countries.*

We generate a significant portion of our revenues from customers outside of China, including the United States and the European Union. Trade barriers, such as tariffs, taxes and other restrictions and expenses, could adversely affect our ability to export our products to certain countries and certain customers by increasing the prices of our products and making us less competitive in some countries.

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In October 2011, in response to an anti-dumping and countervailing duty petition filed by seven U.S. solar power product manufacturers, the U.S. Department of Commerce, or U.S. DOC, and the U.S. International Trade Commission, or the ITC, initiated an investigation against solar power product manufacturers based in China who export solar power products to the U.S. market. The U.S. DOC and the ITC ruled in their final orders that crystalline silicon photovoltaic, or 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 we 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. We currently sell a small portion of our solar power products to the U.S. market, which contributed 3.6% of our total revenues in 2012.

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In September and November 2012, the European Commission launched the anti-dumping and countervailing proceedings concerning imported crystalline silicon PV modules and key components (i.e., cells and wafers) originating from PRC. We submitted an anti-dumping investigation questionnaire to the European Commission in November 2012 and has assisted the European Commission in completing the data verification procedures for such questionnaire before January 2013. If the European Commission determines that solar products originating from PRC would be subject to anti-dumping and countervailing duties, our sales to the European market may be materially and adversely affected. In 2012, the revenues generated from sales to the European market accounted for 33.5% of our total revenues.

Besides the ongoing anti-dumping and countervailing duty proceedings in the European market, we and our customers may be affected by any other claims of unfair trade practices that are brought against the PRC government through the imposition of tariffs, non-tariff barriers to trade or other trade remedies. For example, in November 2012, India also initiated anti-dumping investigations against solar cells imported from China, the United States, Malaysia and Taiwan.

Though our policy is to comply with international trade practices when we export our solar power products, we cannot guarantee that India or other governments or international trade bodies will not institute adverse trade policies or remedies or similar against imports from China in the future. Any significant changes in international trade policies, practices or trade remedies, especially those instituted in our target markets or markets where our major customers are located, could increase the price of our products compared to those of our competitors or decrease our customers' demand for our products, which may adversely affect our business prospects and results of operations.

Furthermore, in July 2012, the PRC Ministry of Commerce launched an anti-dumping and countervailing duty investigation into the imports of solar grade polysilicon originating from the United States, and an anti-dumping investigation into the imports of solar grade polysilicon originating from South Korea. In November 2012, the PRC Ministry of Commerce also announced an anti-dumping and countervailing duty investigation into the imports of solar grade polysilicon originating from the European Union countries. Because we import some polysilicon from suppliers in the United States, South Korea and the European Union countries, the prices of our raw materials may increase if the PRC Ministry of Commerce determines that any of our suppliers are subject to any anti-dumping and countervailing duties or similar. In addition, PRC domestic suppliers may also raise the prices of raw materials if the imported raw materials are short-supplied. As a result, our cost of revenues may increase and our business and operations may be adversely affected. In 2012, we sourced 16.8% of our raw material from suppliers based in United States, South Korea and the European Union countries.

***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 caused a substantial decline in prices of solar power products. In addition, various European countries reduced subsidies, such as feed-in tariff, which is 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 product will continue, which may further intensify the competition in our industry. We expect that cost reduction in the solar power industry will continue and prices of our products will 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 such negative market

and industry trends continue in the future, the prices of our solar power products could decrease and our business and results of operations may be materially and adversely affected.

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***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 Germany, Spain, Italy, Greece, Canada, the United States, China and Japan, among others. In many 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 rises of the German, Spanish and Italian solar power markets in 2010 were 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 has affected the fiscal ability of several governments to offer incentives for the solar power industry. For example, Germany, our largest overseas solar power products market in 2012, 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. Spain was the largest PV market in the world in 2008, but the introduction of various legislation to the PV industry has significantly reduced the market size in Spain. Several other countries, including France, Greece and Belgium have continued to reduce their feed-in tariffs as well as other incentive measures in 2011 and 2012. Any significant reduction in the scope or discontinuation of government incentive programs, especially those in significant markets such as European countries, 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 Sinasure. As of December 31, 2012, 13.1% of our total overseas accounts receivable was insured by Sinasure, respectively. The amount of insurance coverage for each transaction is based on a rating assigned by Sinasure 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 Sinasure 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 (US\$30.5 million) in 2012 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.

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. 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 distributing 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.

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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, 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 potential write-off in connection with 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. For instance, in November 2011, we completed the acquisition of 100% 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% equity in Hebei Ningjin Songgong Semiconductor Co., Ltd., or Ningjin Songgong, as a part of prepayment settlement arrangement with M.SETEK. Past and future acquisitions may expose us to potential risks, including risks related to:

- the integration of new operations and the retention of customers and personnel;
- unforeseen or hidden liabilities;
- the diversion of resources from our existing business and technology;
- failure to achieve synergies with our existing business 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;
- 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.

***We have expanded our business into upstream and downstream markets for a 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 the first quarter of 2012. Our ability to successfully implement our upstream and downstream business integration is subject to various risks and uncertainties, including:

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- 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.

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.

*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 2010, one of our long-term suppliers failed to deliver silicon wafers pursuant to contractual terms and we initiated legal actions to seek remedies and eventually settled these suits. Also in 2011, another one of our long-term suppliers failed to deliver silicon wafers pursuant to contractual terms, and we recorded a provision of prepayment and other payment due totaling RMB42.2 million while the legal proceeding against such supplier is still in process. More importantly, M.SETEK, historically one of our major suppliers, failed to make majority of the 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 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. The share transfer agreement was signed on July 23, 2012 and the share transfer was completed in January 2013. We estimated the fair value of the to-be-received equity interest of Ningjin Songgong as of December 31, 2012 was less than the equity interest transfer price, which was based on the fair value of equity interest in Ningjin Songgong at the time of settlement in March 2012. As a result, an impairment provision of RMB96.5 million (US\$15.5 million) was provided against prepayment made to M.SETEK in 2012.

These efforts incurred legal expenses and distracted our management attention. If legal actions were required to recover our prepayments, our claims for such 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 Industry and Commerce Group Co., Ltd., or Hebei Jinglong, Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd., an affiliate of GCL-Poly Energy Holdings Limited, or GCL, Wacker Chemie AG, or Wacker, OCI Company Ltd., or 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 this regard, we had renegotiated the unit price and volume terms of many of our long-term supply agreements and had entered into amendments for many of them. 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, 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 are 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.

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.





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***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 (US\$23.6 million) related to the retirement of such production lines in 2012, accounting for 2.2% of our total revenues. 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, bank 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. 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. However, the practice is on the decline due to market trends. The balance of prepayments we received from our customers decreased from RMB320.3 million as of December 31, 2011 to RMB76.9 million (US\$12.3 million) as of December 31, 2012, primarily due to a shift in market environment. Therefore, it has increased our need to obtain additional short-term borrowings to finance 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

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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.

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***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.***

We incurred a significant amount of debt and substantial debt service requirements as a result of the offering of the 4.5% senior convertible notes maturing on May 15, 2013, or the 2008 Senior Notes and our bank borrowings. As of December 31, 2012, our total short-term bank borrowings and convertible notes due 2013 were RMB1.7 billion (US\$269.9 million), and our total long-term bank borrowings were RMB3.9 billion (US\$632.2 million), among which RMB1.9 billion (US\$297.0 million) were due in one year. The total face value of outstanding 2008 Senior Notes was RMB726.4 million (US\$116.6 million) as of December 31, 2012.

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. Our research and development efforts are focused on improving conversion efficiencies of our solar power products. For example, we introduced our SECIUM cell line in 2010 and our SECIUM cells have achieved conversion efficiency rate of 19%. In 2012, we introduced the new Cypress series, which have higher conversion efficiency. 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. 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.

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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 are 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.

*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.

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***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.

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***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.***

While we employ quality assurance procedures at key manufacturing stages to identify and resolve quality issues, 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 5 years to 10 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 base on an individual assessment. However, such warranty costs 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 bank 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, 2012, our long-term bank borrowing of RMB130.0 million (US\$20.9 million) with Export-Import Bank of China was secured by our principal executive office building in Zhabei, Shanghai; our long-term bank borrowings of RMB118.0 million (US\$18.9 million) and RMB40.0 million (US\$6.4 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, respectively. 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 bank 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. We cannot assure you the mortgagees will not require us to provide additional collateral in the future or take other remedial actions or otherwise enforce their rights under the mortgage contracts and loan agreements. 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 65 issued patents and 56 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.

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***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 complicates 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 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.***

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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.

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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 the date of this annual report, we have awarded 4,822,000 restricted share units and granted options to purchase 19,639,000 ordinary shares 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 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 administrating 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.

*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

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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.

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***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 insurances 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 operation not insured under our existing insurance policies could have a material adverse effect on our business, financial condition or results of operations.

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 have begun purchasing product liability insurances since 2010, there is no assurance that these 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.

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.

***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.

For each of our solar product manufacturing facilities, it 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 these approvals and permits upon completion of the construction or commencement of commercial production on a timely basis or at all. The relevant governmental authorities may impose fines or deadlines on us to cure any non-compliance, and these authorities may also order us to cease construction or production if we fail to comply with these requirements.



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In addition, we are subject to licensing requirements, regulations and periodic monitoring by local environmental protection authorities, and are required to comply with all PRC national and local environmental protection laws and regulations. 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. So far, we have not been assessed any penalties for any non-compliance with PRC environmental law and regulations. However, 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, 2012, 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 these securities 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.

***We derive a portion of our revenues from Japan-based customers, 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.***

We derive a portion of our revenues from our Japan-based customers in recent years. Our revenues generated from Japan-based customers have grown to RMB436.4 million (US\$70.0 million) in 2012 due to the increasing trade and business ties between Japan and China. 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 Japanese 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. For example, Japan has experienced a nuclear crisis as a result of the earthquake and tsunami in March 2011. 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.

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**Risks Related to Doing Business in China**

***Our auditor, like other independent registered public accounting firms operating in China, is not permitted to be subject to inspection by Public Company Accounting Oversight Board, and as such, investors may be 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 SEC, as an auditor of companies that are traded publicly in the United States and a firm registered with the Public Company Accounting Oversight Board (United States), or PCAOB, is required by the laws of the United States to undergo regular inspections by PCAOB to assess its compliance with the laws of the United States and professional standards. Because our auditor is located in China, a jurisdiction where PCAOB is currently unable to conduct inspections without the approval of the PRC authorities, our auditor, like other independent registered public accounting firms operating in China, is currently not inspected by PCAOB.

Inspections of other firms that PCAOB has conducted outside of 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. The inability of PCAOB to conduct inspections of independent registered public accounting firms operating in China makes it more difficult to evaluate the effectiveness of our auditor's audit procedures or quality control procedures. As a result, investors may be deprived of the benefits of PCAOB inspections.

***We may be adversely affected by the outcome of the administrative proceedings brought by the SEC against five accounting firms in China.***

The SEC has recently brought administrative proceedings against five accounting firms in China, alleging that they refused to produce audit work papers and other documents related to certain China-based companies under investigation by the SEC for potential accounting fraud. We were not and are not subject to any SEC investigations, nor are we involved in the proceedings brought by the SEC against the accounting firms. However, the independent registered public accounting firm that issued the audit reports included in our annual reports filed with the SEC is one of the five accounting firms named in the SEC's proceedings and we may be adversely affected by the outcome of the proceedings, along with other U.S.-listed companies audited by these accounting firms. If the SEC prevails in the proceedings, our independent registered public accounting firm and other four accounting firms in China that were named in the proceedings may be barred from practicing before the SEC and hence unable to continue to be the auditors for China-based companies listed in the U.S. like ourselves. If none of the China-based auditors are able to continue to be auditors for China-based companies listed in the U.S., we will not be able to meet the reporting requirements under the Exchange Act, which may ultimately result in our deregistration by the SEC and delisting from NASDAQ.

***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:

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

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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.***

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 took a milestone step in turning the Renminbi into a global currency by doubling the size of its trading band against the U.S. dollar, pushing through a crucial 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. 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.

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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.

As we increase our sales to customers outside China, a significant portion of our revenues is and may continue to be denominated in foreign currencies. 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.

***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. 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 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 2010, 2011 and 2012 were increases of 4.6%, 4.1% 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 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.



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***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. However, 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 or 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.

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Further, regulations in the PRC currently permit 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.



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***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 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, the PRC Ministry of Commerce, or 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 was 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 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. Such two-year tax exemption and three-year 50% tax reduction period are referred to as the Tax Holiday.

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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 and JA Fengxian were production-oriented enterprises established prior to the effective date of the CIT Law, and therefore, are entitled to their existing preferential income tax treatment provided under the FEIT Law and its related interpretations rules until such treatment expires in accordance with its current terms.

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 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. 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. The local tax bureau informed us that we needed to pay additional tax of RMB82.5 million (US\$13.3 million) with respect to the 2007 Capital Injection, plus interests and surcharges of RMB55.7 million (US\$8.9 million). The local tax bureau eventually waived the interests and surcharges, but mandated us to pay the additional tax. As a result, we recorded an additional income tax expense of RMB82.5 million (US\$13.3 million) at the end of 2012 and made subsequent payment in March 2013.

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.



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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 ANTE Entities will be extended upon expiration. If these tax benefits cannot be extended or otherwise become unavailable, the effective income tax rate of 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 Renewable Energy Law, Medium and Long-Term Development Plan for the Renewable Energy Industry, Golden Sun Demonstration Program, etc. 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. 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 to a PRC resident recipient.

*Dividends and interest 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.*

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Under the CIT Law and its implementation regulations, PRC income tax at the rate of 10% is applicable to PRC sourced income 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 and interest income are viewed as PRC-sourced income if the enterprise that pays dividend or interest is 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 or interest 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 interest or 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.

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***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. Circular 698 may be determined by the tax authorities to be applicable to our private equity financing transactions where non-resident investors were involved, if any of such transactions 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, which may have a material adverse effect on our financial condition and results of operations or such non-resident investors' investments in us.

***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 will become effective on July 1, 2013. Labor Contract Law and its amendment impose greater liabilities on employers and significantly increases 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.

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***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 in the past are required to complete the relevant registration with the local SAFE branch. 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.

A notice issued by SAFE effective on July 1, 2011, which we refer to as Notice 19, further provides detailed provisions and requirements regarding the foreign exchange registration under Circular 75. Under Notice 19, any PRC citizen, resident, or entity which is a direct or indirect shareholder of an offshore entity is required to update any previously filed registration with the local branch of SAFE to reflect any material change in such offshore entity. Moreover, any offshore entity which fails to comply with Circular 75 may remedy by making the registration with the local branch of SAFE after fulfillment of the administrative penalties imposed by the relevant SAFE branch.

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 these circulars, 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.***

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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.



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***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 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 process 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 15, 2013 has ranged from US\$3.21 to US\$6.14 per ADS. This is due to broad market and industry

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factors, such as the anti-dumping and countervailing duty investigation in the U.S., 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:

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- 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, 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.

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***Holders of our ADSs have fewer rights than holders of our ordinary shares and 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 their 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 their 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.



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***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 they 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 U.S. federal income tax consequences to U.S. holders of our ADSs or ordinary shares.***

Based on our financial estimates for the taxable year ended 2012, 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 the taxable year ended 2012. If market conditions in 2013 are comparable to those that existed in 2010 and 2011, we would expect not to be classified as a PFIC for the taxable year ending 2013. 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. U.S. Holders should consult with their advisors regarding the consequences to them if we are a PFIC for the taxable year ending 2013 or any future taxable year. 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.



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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.

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 the first quarter of 2012. We conduct our operations primarily through the following operating subsidiaries in China:

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- JA Hebei, incorporated in May 2005 in Ningjin, Hebei Province. JA Hebei is engaged in the manufacturing of solar cells;
- JA Yangzhou, incorporated in November 2007 in Yangzhou, Jiangsu Province. JA Yangzhou is engaged in the manufacturing of solar cells;
- JA Yangzhou R&D, incorporated in March 2009 in Yangzhou, Jiangsu Province. JA Yangzhou R&D is engaged in research and development of solar cell technology;
- JA Fengxian, incorporated in November 2006 in Fengxian, Shanghai. JA Fengxian is engaged in the manufacturing of solar modules;
- JA Lianyungang, incorporated in October 2008 in Lianyungang, Jiangsu Province. JA Lianyungang is engaged in the manufacturing of silicon wafers;
- JA Yangzhou PV Engineering, incorporated in November 2009 in Yangzhou, Jiangsu Province. JA Yangzhou PV Engineering is engaged in providing EPC services;
- JA Wafer R&D, incorporated in November 2010 in Lianyungang, Jiangsu Province. JA Wafer R&D is engaged in the research and development of silicon wafer technology;
- JA Hefei Renewable Energy, incorporate in March 2011 in Hefei, Anhui Province. JA Hefei Renewable Energy is engaged in general investment and manufacturing of solar power products; and
- JA Hefei Technology, incorporated in July 2011 in Hefei, Anhui Province. JA Hefei Technology is engaged in the manufacturing of solar power products.

In October 2011, we established JA Solar Investment China Co., Ltd. for general corporate and investment purposes.

In November 2011, we completed acquisition of 100% equity interest in Silver Age, which was then 70% owned by Jinglong BVI, our largest shareholder, and 30% owned by an independent third party. Silver Age owns Solar Silicon Valley, a leading producer of mono-crystalline silicon wafer based in Sanhe, Hebei Province, China.

In January 2013, we completed the acquisition of 65% equity in Ningjin Songgong. Ningjing Songgong is primarily engaged in production of solar-grade monocrystalline silicon ingot.

The following diagram illustrates our corporate structure as of the date of this annual report, including our principal subsidiaries.

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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.



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**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 standard and specialty. 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 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, 2012, 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, 2012, the average conversion efficiency rates of our monocrystalline and multicrystalline solar cells were 19.15% and 17.5%, 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, 2012, 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 Holdings Limited, or 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 Electronics Science and Technology Co., Ltd., or 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, 2012, 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, Singapore and Belgium. In 2012, 54.1% 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.

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We have grown rapidly since we began manufacturing solar power products in 2006. In 2010, 2011 and 2012, we sold 1.46 GW, 1.69 GW and 1.70 GW of solar power products, respectively. Our total revenues decreased from RMB11.8 billion in 2010 to RMB10.7 billion in 2011 and RMB6.7 billion (US\$1.1 billion) in 2012 as worldwide solar market condition deteriorated, primarily due to a decline in the average selling price per watt of our solar power products.

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The average selling price per watt of our PV cells decreased from RMB8.7 in 2010 to RMB5.7 in 2011 and RMB2.8 in 2012. We began selling solar modules in the fourth quarter of 2009 and the average selling price per watt of our PV modules decreased from RMB11.5 in 2010 to RMB8.9 in 2011 and RMB4.5 in 2012. We expect the prices of solar power products will continue to decline in the long run 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. 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.

***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 both multicrystalline and monocrystalline solar modules ranging from 245W to 255W and from 260W to 275W, respectively, in power output, using our own high-quality solar cells. In 2012, solar modules constituted nearly 55% 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.

Table of Contents**Engineering, Procurement and Construction Services (EPC Services)**

We provide EPC services to independent power project developers and systems owners such as public utility companies. We also engage in solar power project development through our own project development business unit. Under the EPC arrangement and for our own development projects, 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.

**Manufacturing Capacity and Facilities**

As of December 31, 2012, 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:

| <b>Product</b> | <b>Facilities location</b>  | <b>Rated manufacturing capacity per annum in 2012 (in MW)</b> | <b>Rated manufacturing capacity per annum expected in 2013 (in MW)</b> |
|----------------|-----------------------------|---|--|
| Solar cell     | Ningjin, Hebei              | 900   | 900  |
|                | Yangzhou, Jiangsu           | 1,600   | 1,600  |
|                | <b>Total Rated Capacity</b> | <b>2,500</b>  | <b>2,500</b>   |
| Solar module   | Fengxian, Shanghai          | 1,300   | 1,300  |
|                | Hefei, Anhui                | 500   | 500  |
|                | <b>Total Rated Capacity</b> | <b>1,800</b>  | <b>1,800</b>   |
| Silicon wafer  | Lianyungang, Jiangsu        | 500   | 500  |
|                | Sanhe, Hebei                | 500   | 500  |
|                | <b>Total Rated Capacity</b> | <b>1,000</b>  | <b>1,000</b>   |

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.

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

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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 (US\$63.8 million) in 2012, accounting for 5.9% of our total revenues. 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.

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**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.

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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.

## **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. 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.

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

- Hebei Jinglong, a related party of our company. The supply contract with Hebei Jinglong is for silicon wafers and has a delivery term from July 2006 to December 2010, which automatically extended for another three years until the end of 2013.
- 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.



## 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 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 will establish at our Fengxian facility a world-class testing center, which will be qualified to conduct IEC61215/613730 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 laboratory, which is the sole TMP laboratory of TÜV SÜD worldwide in the PV industry. The TMP qualification will enable us to complete our product certification more quickly and will lead to improved 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. 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.

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

| <b>Date</b>       | <b>Certification and Test Standard</b> | <b>Relevant Product or Process</b>  |
|-------------------|--|---|
| 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 4, 2012       | ISO 9001:2008                          | JA Hefei Technology's quality management system in designing, manufacturing and sale of solar modules       |
| May 4, 2012       | ISO 14001: 2004                        | JA Hefei Technology's environmental management system in designing, manufacturing and sale of solar modules |
| May 4, 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 Kingdoms, 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, 2010, 2011 and 2012, approximately 48.9%, 48.3% and 54.1% of our revenues were generated from customers outside China, respectively. No single customer accounted for more than 5% of our total net revenues for the year ended December 31, 2012.

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

|                   | 2010   | Year Ended December 31,<br>2011<br>(RMB in millions) | 2012  |
|-------------------|--------|--|-------|
| China             | 6,010  | 5,547  | 3,086 |
| Outside China     |        |  |       |
| Germany           | 2,127  | 2,111  | 1,266 |
| Rest of the world | 3,623  | 3,075  | 2,367 |
| Total revenues    | 11,761 | 10,733   | 6,719 |

**Sales and Marketing**

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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:

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- 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 65 issued patents and 56 pending patent applications in China as well as one 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.

In order to protect our reputation and brand, we currently maintain 12 trademark registrations in China, including the Chinese characters of our name and JASolar. We also maintain eight 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 Suntech Power Holdings Co., Ltd., Trina Solar Limited and Yingli Green Energy 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.

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**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.





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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 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.

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, 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

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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.

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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 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, National Energy Administration 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.

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

***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.



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***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.

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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.

Table of Contents**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.

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, which has been mortgaged to secure a long-term bank loan. 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 as of December 31, 2012:

| Location             | Space<br>(in square meters) | Usage of Property      | Owned or<br>Leased | Encumbrance |
|----------------------|-----------------------------|------------------------|--------------------|-------------|
| Ningjin, Hebei       | 106,582                     | Factory                | Leased             | None        |
| Yangzhou, Jiangsu    | 466,200                     | Factory and R&D center | Owned              | None        |
| Fengxian, Shanghai   | 204,262                     | Factory                | Owned              | None        |
| Lianyungang, Jiangsu | 219,909                     | Factory and R&D center | Owned              | None        |

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|              |         |         |        |      |
|--------------|---------|---------|--------|------|
| Hefei, Anhui | 379,616 | Factory | Owned  | None |
| Sanhe, Hebei | 104,740 | Factory | Leased | None |

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



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**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 manufacturers 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.

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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, 2012, our total revenues and net loss were RMB6.7 billion (US\$1.1 billion) and RMB1.7 billion (US\$266.8 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.

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- 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. In September and November 2012, the European Commission launched the anti-dumping and countervailing proceedings concerning imported crystalline silicon PV modules and key components (i.e., cells and wafers) originating from the PRC. We submitted an anti-dumping investigation questionnaire to the European Commission in November 2012 and has assisted the European Commission in completing the data verification procedures for such questionnaire before January 2013. If the European Commission determines that solar products originating from the PRC would be subject to anti-dumping and countervailing duties, our sales to the European market may be materially and adversely affected. 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 we 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, Germany, our largest overseas solar power products market in 2012, 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. Spain was the largest PV market in the world in 2008, but the introduction of various legislations to the PV industry has significantly reduced the market size in Spain. Several other countries, including France, Greece and Belgium, have continued to reduce their feed-in tariffs as well as other incentive measures in 2011 and 2012. 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 Germany, Spain 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, such as Golden Sun Demonstration Program, Notice on Improvements to the Feed-in Tariff Policy for On-grid Solar Power Generation, 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 increased from 300 MW in 2010 to 1.0 GW in 2011 and remained stable at 1.0 GW in 2012. Our solar cell manufacturing capacity increased from 2.1 GW in 2010 to 2.8 GW in 2011, but decreased to 2.5 GW in 2012. Our solar module manufacturing capacity increased from 500 MW in 2010 to 1.2 GW in 2011 and to 1.8 GW in 2012. We intend to maintain our annual manufacturing capacity for silicon wafers, solar cells and solar modules at 1.0 GW, 2.5 GW and 1.8 GW in 2013, respectively. 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 RMB8.7 per watt in 2010 to RMB5.7 per watt in 2011 and to RMB2.8 per watt in 2012, primarily due to an industry-wide oversupply. The average selling price of our solar module products also declined from RMB11.5 per watt in 2010 to RMB8.9 per watt in 2011 and to RMB4.5 in 2012, 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, 2012, the sale of solar modules, including solar modules tooling, has accounted for 55% of our total shipments and 62% 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.

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**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

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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. 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.

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*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, 2010, 2011 and 2012.

*Fair Value of Financial Instruments*

We estimate the fair value of our financial assets and liabilities in accordance with ASC 820, *Fair Value Measurements and Disclosures*. 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 maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the observable inputs be used when available. 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 obtain 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 estimate 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, stockholders' equity (deficit) 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

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balance sheets are stated net of such provision, if any. We had an allowance for doubtful account balance of RMB7.0 million, RMB32.6 million and RMB190.0 million (US\$30.5 million) as of December 31, 2010, 2011 and 2012. If the financial condition of our customers were to deteriorate such that their ability to make payments was impaired, additional allowances could be required.



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**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 RMB87.9 million, RMB94.2 million and RMB158.5 million (US\$25.4 million) for potential losses against supplier advances as of December 31, 2010, 2011 and 2012. 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. In the year ended December 31, 2012, an impairment provision of RMB96.5 million (US\$15.5 million) was provided against prepayment made to M.SETEK, historically one of our major 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 and 2012, the provision balance for inventories was RMB223.3 million and RMB141.3million (US\$22.7 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, 2010, 2011 and 2012.

**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. For the years ended December 31, 2010, 2011 and 2012, inventories were written down by RMB182.7 million, RMB386.6 million and RMB171.2 million (US\$27.5 million), respectively, to reflect the lower of cost or market.

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Additionally, in the year ended December 31, 2012, we recorded long-lived asset impairment of RMB 147.1 million (US\$23.6 million) related to the retirement of outdated production lines of solar cells and solar modules in each of our facilities in Ningjin, Hebei and Fengxian, Shanghai.

**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.

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, 2010, 2011 and 2012 we used the forfeiture rate of 7.70%, 9.79% and 9.82%, 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

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was RMB76.2 million, RMB202.2 million and RMB576.5 million (US\$92.5 million) as of December 31, 2010, 2011 and 2012, 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, 2010, 2011 and 2012, we did not record any interest and penalties associated with uncertain tax positions as there were no uncertain tax positions.

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***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 primarily 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.***

We account for short-term investments in accordance with ASC 320, *Investments-Debt and Equity Securities*. We classify short-term investments in debt and equity securities as trading or available-for-sale, whose classification determines the respective accounting methods stipulated by the accounting standard for financial instruments. Investments that are bought and held principally for the purpose of selling them in the near term are classified as trading securities. Trading securities are reported at fair value with unrealized gains and losses included in investment income. We do not have short-term investments as of December 31, 2011 and 2012.

Investments designated as available-for-sale are reported at fair value, with unrealized gains and losses, net of tax, recorded in accumulated other comprehensive income (loss) in shareholders' equity. Realized gains or losses are charged to the income during the period in which the gain or loss is realized. If we determine a decline in fair value is other-than-temporary, the cost basis of the individual security is written down to fair value as a new cost basis and the amount of the write-down is accounted for as a realized loss. The new cost basis will not be changed for subsequent recoveries in fair value. Determination of whether declines in value are other-than-temporary requires significant judgment. Subsequent increases and decreases in the fair value of available-for-sale securities will be included in comprehensive income through a credit or charge to shareholders' equity except for an other-than-temporary impairment, which will be charged to income.

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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 RMB38.0 million (US\$6.1 million) on our investment in the joint venture for the year ended December 31, 2012.

***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.

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 Solar Silicon Valley.)

In November 2011, we completed the acquisition of Solar Silicon Valley at the consideration of RMB359.0 million, while the estimated fair value of Solar Silicon Valley's net assets acquired was RMB546.4 million. We recorded the excess of the fair value of net assets of Solar Silicon Valley, over the total purchase consideration, amounting to RMB187.4 million as other income for the year ended December 31, 2011.



Table of Contents***Accounting for share lending arrangement and discontinued operation***

On January 1, 2010, we adopted 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 RMB 469.0 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 (US\$61.0 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 (US\$59.3 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 (US\$59.3 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.

In December, 2010, we decided to discontinue the PV power plant business. Consequently, the results of the Korean business for all periods presented were reclassified to income/(loss) from discontinued operations, net of tax in accordance with ASC 205, Presentation of Financial Statements.

**Revenues**

Our revenues for the years ended December 31, 2010, 2011 and 2012 and as a percentage of our total revenues over the same period are as follows:

|   | 2010  |       | Year ended December 31,<br>2011 |       | 2012  |       |
|---|-------|-------|---------------------------------|-------|-------|-------|
|   | RMB   | %     | RMB                             | %     | RMB   | %     |
| Solar modules to third parties                    | 2,511 | 21.3% | 3,709                           | 34.6% | 4,044 | 60.2% |
| Solar cells and other products to third parties   | 8,024 | 68.2% | 6,151                           | 57.3% | 2,106 | 31.3% |
| Solar cells and other products to related parties | 160   | 1.4%  | 72                              | 0.7%  | 251   | 3.8%  |
|   |       |       | 147                             | 1.4%  | 136   | 2.0%  |

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Engineering, procurement and construction

to third parties

|   |        |        |        |        |       |        |
|---|--------|--------|--------|--------|-------|--------|
| Solar product processing to third parties | 1,066  | 9.1%   | 654    | 6.0%   | 182   | 2.7%   |
| Total Revenues                            | 11,761 | 100.0% | 10,733 | 100.0% | 6,719 | 100.0% |

We derive revenues primarily from the sale of solar cell and module products to module manufacturers, system integrators, project developers and distributors. We have increased the number of our overseas customers and expanded our overall customer base since 2007. For the years ended December 31, 2010, 2011 and 2012, approximately 48.9%, 48.3% and 54.1% of our total sales were to customers outside China, respectively. For the years ended December 31, 2010, 2011 and 2012, sales to our largest customer represented approximately 7.5%, 7.3% and 4.8% of our total revenues, respectively; and sales to our three largest customers represented approximately 19.4%, 19.4% and 12.9% of our total revenues, respectively. Our three largest customers were all unrelated third parties. Sales to our top ten customers accounted for approximately 49.8%, 40.4% and 27.7% of total revenues for the years ended December 31, 2010, 2011 and 2012, respectively.



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We sold approximately 715.5 MW of solar cells in 2012, compared to approximately 1.08 GW in 2011. The decrease of sales volume was due to change of our product mix to produce more solar modules. The average selling price of our solar cell products declined from RMB5.7 per watt in 2011 to RMB2.8 per watt in 2012 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, 2012, our revenues from sales of solar modules amounted to approximately RMB4.0 billion (US\$649.0 million), or 60.2% of our total revenues. We sold approximately 890.0 MW of solar modules in 2012, compared to 426.9 MW in 2011. 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 primarily on our own history, industry data and an assessment of our competitors' accrual history.

For the year ended December 31, 2012, our revenues included revenues from engineering, procurement and construction services, which amounted to approximately RMB135.8 million (US\$21.8 million), or 2.0% 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, 2012, our revenues also included revenues from solar product processing services of 96.6MW, which amounted to approximately RMB182.6 million (US\$29.3 million), or 2.7% 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:

|   | 2010  |       | Year ended December 31,<br>2011       |       | 2012  |        |
|---|-------|-------|---------------------------------------|-------|-------|--------|
|   | RMB   | %     | (in millions, except for percentages) |       | RMB   | %      |
|   |       |       | RMB                                   | %     |       |        |
| Cost of Revenues                          |       |       |                                       |       |       |        |
| Solar modules                             | 2,222 | 18.9% | 3,428                                 | 31.9% | 4,029 | 60.0%  |
| Solar cells and other products            | 6,485 | 55.1% | 6,243                                 | 58.2% | 2,476 | 36.9%  |
| Engineering, procurement and construction |       |       | 108                                   | 1.0%  | 85    | 1.3%   |
| Solar products processing                 | 508   | 4.3%  | 493                                   | 4.6%  | 183   | 2.6%   |
| Total cost of revenues                    | 9,214 | 78.3% | 10,272                                | 95.7% | 6,773 | 100.8% |



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**Solar modules.** We expanded to solar module business in the fourth quarter of 2009. For the years ended December 31, 2010, 2011 and 2012, our cost of revenues for solar modules accounted for 18.9%, 31.9% and 60.0% of our total revenues, respectively. The increase in costs of solar modules in absolute amounts and as a percentage of our total revenues from 2010 to 2012 is primarily due to an increase in the production of solar modules.

**Solar cells and other products.** For the years ended December 31, 2010, 2011 and 2012, cost of solar cells and other products accounted for 55.1%, 58.2% and 36.9% 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 2012 is primarily due to an increase in the production of solar modules in our product mix as well as a decrease in the price of silicon wafer as we transitioned from a solar cell manufacturer to an integrated solar power products manufacturer.

**Engineering, procurement and construction.** We started providing EPC services in the third quarter of 2011. For the years ended December 31, 2011 and 2012, the cost of revenues for our EPC services decreased from RMB108 million in 2011 to RMB85 million (US\$13.6 million) in 2012, due to decrease in the scale of the projects commenced and completed in 2012. As a percentage of our total revenues, the cost of revenues for our EPC services accounted for 1.0% and 1.3% for the years ended December 31, 2011 and 2012, respectively.

**Solar products processing.** For the years ended December 31, 2010, 2011 and 2012, cost of revenues for our solar products processing services accounted for 4.3%, 4.6% and 2.6% of our total cost of revenues, respectively. The decrease in the cost of solar products processing in absolute amounts and as a percentage of our total revenues from 2011 to 2012 is primarily due to the decrease of our solar products processing services provided as a result of the shift of our focus to solar modules sale.

**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 operating expenses for the periods indicated:

|   | 2010 |      | Year ended December 31,<br>2011       |      | 2012  |       |
|---|------|------|---------------------------------------|------|-------|-------|
|   | RMB  | %    | (in millions, except for percentages) |      | RMB   | %     |
|   |      |      | RMB                                   | %    |       |       |
| Operation Expenses                                |      |      |                                       |      |       |       |
| Selling, general and administrative expenses      | 458  | 4.0% | 510                                   | 4.8% | 902   | 13.4% |
| Research and development expenses                 | 64   | 0.5% | 69                                    | 0.6% | 86    | 1.3%  |
| Impairment loss for property, plant and equipment | 47   | 0.4% | 303                                   | 2.8% | 398   | 5.9%  |
| Total operating expenses                          | 569  | 4.9% | 882                                   | 8.2% | 1,386 | 20.6% |

**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 4.0%, 4.8% and 13.4% of our total revenues for the years ended December 31, 2010, 2011 and 2012, respectively. We expect that selling expenses will increase in absolute terms as we add more sales and marketing personnel and increase our sales and marketing efforts to accommodate the growth of our business and expansion of our customer base in China and abroad.

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In 2010 and 2012, we granted options to purchase 1,650,000 and 2,207,000 ordinary shares, respectively, to a number of our directors, employees and consultants. No option grants were made in 2011. 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, 2010, 2011 and 2012. We recognized a share-based compensation charge of RMB71.8 million, RMB45.3 million and RMB33.2 million (US\$5.3 million) for the years ended December 31, 2010, 2011 and 2012, respectively. The above charges are net of forfeiture reversal amounts of RMB4.2 million, RMB0.5 million and RMB-1.5 million (US\$-0.2 million) for the years ended December 31, 2010, 2011 and 2012, 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 0.5%, 0.6% and 1.3% of our total revenues for the years ended December 31, 2010, 2011 and 2012, 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.** Our operating expenses in 2012 included the impairment loss for property, plant and equipment related to wafer, solar cell and solar module facilities, which amounted to RMB397.8 million (US\$63.8 million), accounting for 5.9% of our total revenues.

**Interest (Income) Expense, net**

We generated interest income of RMB12.8 million, RMB25.8 million and RMB36.2 million (US\$5.8 million) and incurred interest expense of RMB221.2 million, RMB373.7 million and RMB489.3 million (US\$78.5 million) for the years ended December 31, 2010, 2011 and 2012, respectively. Our net interest expense in 2010, 2011 and 2012 was primarily the interest related to 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 RMB67.9 million, RMB66.0 million and RMB56.9 million (US\$9.1 million) for the years ended December 31, 2010, 2011 and 2012, respectively. The interest expense recognized for accretion to the redemption value of the 2008 Senior Notes was RMB95.5 million, RMB104.2 million and RMB96.5 million (US\$15.5 million) for the years ended December 31, 2010, 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 RMB20.8 million, and RMB27.3 million and RMB29.5 million (US\$4.7 million) for the years ended December 31, 2010, 2011 and 2012, respectively. Other interest expenses were RMB37.0 million, RMB176.2 million and RMB306.4 million (US\$49.2 million) for the years ended December 31, 2010, 2011 and 2012, respectively. The increase in other interest expenses is consistent with the increase in bank borrowings.

**Foreign Exchange Gain (Loss)**

We incurred foreign exchange losses of RMB74.4 million, RMB69.0 million and RMB24.5 million (US\$3.9 million) for the years ended December 31, 2010, 2011 and 2012, 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 and 2012 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.



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**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 2010, 2011 and 2012 were increases of 4.6%, 4.1% 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 May 2011 the FASB issued ASU 2011-04, *Fair Value Measurement: Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs* (ASU 2011-04). Key provisions of the amendments in ASU 2011-04 include: (1) a prohibition on grouping financial instruments for purposes of determining fair value, except in limited cases; (2) an extension of the prohibition against the use of a blockage factor to all fair value measurements; and (3) a requirement that for recurring Level 3 fair value measurements, entities disclose quantitative information about unobservable inputs, a description of the valuation process used and qualitative details about the sensitivity of the measurements. For items not carried at fair value but for which fair value is disclosed, entities will be required to disclose the level within the fair value hierarchy that applies to the fair value measurement disclosed. This ASU is effective for interim and annual periods beginning after December 15, 2011. The new guidance was adopted effective January 1, 2012, the adoption had no significant impact on the Group's financial statements.

In June 2011, the FASB issued ASU 2011-05, *Comprehensive Income (Topic 220) Presentation of Comprehensive Income*. ASU 2011-05 eliminates the current option to report other comprehensive income and its components in the unaudited condensed statement of changes in shareholder's equity. Instead, it requires an entity to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of net income and other comprehensive income or in two separate but consecutive statements. The new guidance was adopted effective January 1, 2012, the adoption had no material impact on the Group's financial statements.

In December 2011, the FASB issued ASU 2011-11, *Balance Sheet (Topic 210), Disclosures about Offsetting Assets and Liabilities* (ASU 2011-11). This newly issued accounting standard requires an entity to disclose both gross and net information about instruments and transactions eligible for offset in the statements of financial position as well as instruments and transactions executed under a master netting or similar arrangement and was issued to enable users of financial statements to understand the effects or potential effects of those arrangements on their financial position. This ASU is required to be applied retrospectively and is effective for fiscal years, and interim periods within those years, beginning on or after January 1, 2013. As this accounting standard only requires enhanced disclosure, the adoption of this standard is not expected to have a material impact on the Group's financial statements.

In July 2012, the FASB issued ASU 2012-02, *Intangibles - Goodwill and Other (Topic 350), Testing Indefinite-Lived Intangible Assets for Impairment*. ASU 2012-02 gives companies an option to first assess qualitative factors to determine whether the existence of events and circumstances indicate it is more-likely-than-not that an indefinite-lived intangible asset is impaired. If based on its qualitative assessment, a company concludes that it is more-likely-than-not that the fair value of an indefinite-lived intangible asset is less than its carrying amount, quantitative impairment testing is required. However, if a company concludes otherwise, quantitative impairment testing is not required. ASU 2012-02 is effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012, with early adoption permitted. The Company does not expect the adoption of this accounting standard in the first quarter of 2013 to have an impact on the Group's financial statements.

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 is not expected to have a material impact on the Company's consolidated financial statements.



Table of Contents**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.

|   | 2010    |         | Year ended December 31,<br>2011 |         | 2012    |          |
|---|---------|---------|---------------------------------|---------|---------|----------|
|   | RMB     | %       | RMB                             | %       | RMB     | %        |
| <b>Income Statement and Comprehensive Income/(Loss) Data:</b> |         |         |                                 |         |         |          |
| Total Revenues  | 11,761  | 100.0%  | 10,733                          | 100.0%  | 6,719   | 100.0%   |
| China   | 6,010   | 51.1%   | 5,547                           | 51.7%   | 3,086   | 45.9%    |
| Outside China   | 5,750   | 48.9%   | 5,186                           | 48.3%   | 3,633   | 54.1%    |
| Cost of revenues  | (9,214) | (78.3)% | (10,272)                        | (95.7)% | (6,773) | (100.8)% |
| Gross profit/(loss)   | 2,546   | 21.7%   | 461                             | 4.3%    | (54)    | (0.8)%   |
| Operating expenses  | (569)   | (4.9)%  | (882)                           | (8.2)%  | (1,386) | (20.6)%  |
| Selling, general and administrative expenses                  | (458)   | (4.0)%  | (510)                           | (4.8)%  | (902)   | (13.4)%  |
| Research and development expenses                             | (64)    | (0.5)%  | (69)                            | (0.6)%  | (86)    | (1.3)%   |
| Impairment loss for property, plant and equipment             | (47)    | (0.4)%  | (303)                           | (2.8)%  | (398)   | (5.9)%   |
| Income/(loss) from continuing operations                      | 1,978   | 16.8%   | (421)                           | (3.9)%  | (1,440) | (21.4)%  |
| Change in fair value of derivatives                           | (75)    | 0.6%    | (85)                            | 0.8%    | 9       | 0.1%     |
| Convertible notes buyback gain/(loss)                         |         |         | 4                               | 0.0%    | (8)     | (0.1)%   |
| Interest expense  | (221)   | (1.9)%  | (374)                           | (3.5)%  | (489)   | (7.3)%   |
| Interest income   | 13      | 0.1%    | 26                              | 0.2%    | 36      | 0.5%     |
| Foreign exchange loss   | (74)    | (0.6)%  | (69)                            | (0.6)%  | (25)    | (0.4)%   |
| Loss for equity investment in a joint venture                 |         |         | (2)                             | (0.0)%  | (43)    | (0.6)%   |
| Other income  | 259     | 2.2%    | 236                             | 2.2%    | 399     | 6.0%     |
| Income/(loss) from continuing operations before income taxes  | 2,028   | 17.2%   | (514)                           | (4.8)%  | (1,561) | (23.2)%  |
| Income tax expenses   | (253)   | (2.1)%  | (58)                            | (0.5)%  | (101)   | (1.5)%   |
| Net income/(loss)   | 1,775   | 15.1%   | (572)                           | (5.3)%  | (1,662) | (24.7)%  |
| Income/(loss) from discontinued operations, net of tax        | (20)    | (0.2)%  | 8                               | 0.1%    |         |          |
| Net income/(loss)   | 1,755   | 14.9%   | (564)                           | (5.2)%  | (1,662) | (24.7)%  |

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*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 (US\$1.1 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 (US\$495.4 million) 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 (US\$583.0 million) 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 (US\$1.1 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 (US\$8.7 million) 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 (US\$222.4 million) 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.

- *Selling, general and administrative expenses.* Our selling, general and administrative expenses increased from RMB509.8 million in 2011 to RMB901.6 million (US\$144.7 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 (US\$19.6 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 (US\$ 25.8 million) as a result of financial difficulties of a few customers, impairment provision against advance payments made to suppliers of RMB58.0 million (US\$ 9.3 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 (US\$ 8.9 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 (US\$13.9 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 (US\$40.2 million); and retirement of outdated production lines in each of our facilities in Ningjin, Hebei and Fengxian, Shanghai, which amounted to RMB147.1 million (US\$23.6 million) in total.

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*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 (US\$1.5 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 (US\$1.4 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 (US\$72.7 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 (US\$9.1 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 (US\$15.5 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 (US\$4.7 million) for the years ended December 31, 2011 and 2012, respectively. Other interest expenses were RMB176.2 million and RMB306.4 million (US\$49.2 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 (US\$5.8 million), respectively.

*Foreign exchange loss.* Our foreign exchange loss decreased from RMB69.0 million in 2011 to RMB 24.5 million (US\$3.9 million) in 2012, primarily due to the continuing depreciation of the U.S. dollar and Euro against Renminbi in 2012.

*Other income.* Our other income, net increased from RMB235.7 million in 2011 to RMB398.9 million (US\$64.0 million) in 2012 primarily due to a one-time gain of RMB369.2 million (US\$59.3 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 (US\$16.2 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 (US\$13.3 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 entitle 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 (US\$13.3 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 (US\$266.8 million) 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.



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*Net Loss.* As a result of the above factors, we generated net loss of RMB1.7 billion (US\$266.8 million) in 2012 compared to a net loss of RMB564.3 million in 2011.

***Year Ended December 31, 2011 compared to Year Ended December 31, 2010***

*Total revenues.* Our total revenues decreased slightly from RMB11.8 billion in 2010 to RMB10.7 billion in 2011. The decrease was due primarily to the decline in average selling price of our solar power products brought by an industry-wide oversupply and severe market conditions through revenues from solar modules sold to third parties increased from RMB2.5 billion in 2010 to RMB3.7 billion in 2011.

Our total revenues from sales in China decreased from RMB6.0 billion in 2010 to RMB5.5 billion in 2011, which was due to intense competition in the China market, the decline in average selling price brought by an industry-wide oversupply. Our total revenues from sales outside China also decreased from RMB5.8 billion to RMB5.2 billion as a result of unfavorable economic conditions and reduction in government subsidies. Our revenues from sales in China, as a percentage of our total revenues, increased slightly from 51.1% in 2010 to 51.7% in 2011, and our revenues from sales outside China, as a percentage of our total revenues, decreased slightly from 48.9% to 48.3%.

*Cost of revenues.* Our cost of revenues increased from RMB9.2 billion in 2010 to RMB10.3 billion in 2011. The increase in our cost of revenues was due primarily to the increased quantity of raw materials used corresponding to our increased production output of solar modules.

*Gross profit.* Our gross profit decreased significantly from RMB2.5 billion in 2010 to RMB461.3 million. Our gross margin decreased from 21.7% in 2010 to 4.3% in 2011 because the average selling price of our solar power products declined due to an industry-wide oversupply and our cost of revenues increased.

*Total operating expenses.* Our total operating expenses increased from RMB568.9 million in 2010 to RMB881.8 million in 2011. The increase in our total operating expenses was due primarily to our impairment loss for property, plant and equipment in relation to our multicrystalline manufacturing facility in Donghai, JA Lianyungang. Total operating expenses as a percentage of our total revenue increased from 4.9% in 2010 to 8.2% in 2011.

- *Selling, general and administrative expenses.* Our selling, general and administrative expenses increased from RMB457.8 million in 2010 to RMB509.8 million in 2011, and as the percentage of our total revenues increased from 4.0% in 2010 to 4.8% in 2011. The increase in our selling, general and administrative expenses was due primarily to increases in our selling expenses and marketing expenses associated with our increased sales volume, an increased amount of salary and benefits paid to our sales, marketing and administrative personnel as a result of increased headcount.

- *Research and development expenses.* Our research and development expenses increased from RMB63.8 million in 2010 to RMB68.9 million in 2011 and as a percentage of our total revenues increased from 0.5% in 2010 to 0.6% in 2011. The increase in our research and development expenses was due primarily to greater research and development activities undertaken by us. Our research and development

has primarily focused on improving and optimizing our solar manufacturing process based on certain proprietary know-how.

- *Impairment loss for property, plant and equipment.* We incurred impairment loss for property, plant and equipment in relation to our multicrystalline manufacturing facility in Donghai, JA Lianyungang, which amounted to RMB303.1 million, accounting for 2.8% of our total revenues.

*Change in fair value of derivatives.* Our changes in fair value of derivatives increased from a gain of RMB74.5 million in 2010 to RMB84.9 million in 2011. The charge reflects fair value changes associated with our derivative assets and liabilities for the years ended December 31, 2010 and 2011, respectively, in particular our embedded derivatives in association with convertible bond offering, the value of which is a combined result of change in stock price, volatility, expected term to maturity, risk-free rate and credit spread, etc.

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*Convertible notes buyback gain.* Our convertible notes buyback gain in 2011 is RMB4.3 million. We did not make any repurchase of the 2008 Senior Notes in the open market in 2010.

*Interest expense.* We incurred net interest expense of RMB208.4 million and RMB347.9 million in 2010 and 2011, respectively. Our net interest expense was primarily related to our interest paid on the 2008 Senior Notes. The interest expense recognized for interest payable to 2008 Senior Notes holders was RMB67.9 million and RMB66.0 million for the years ended December 31, 2010 and 2011, respectively. The interest expense recognized for accretion to the redemption value of the 2008 Senior Notes was RMB95.5 million and RMB104.2 million for the years ended December 31, 2010 and 2011, respectively. The amount of interest cost recognized relating to the amortization of the issuance cost associated with the share-lending arrangement were RMB20.8 million and RMB27.3 million for the years ended December 31, 2010 and 2011, respectively. Other interest expenses were RMB37.0 million and RMB176.2 million for the years ended December 31, 2010 and 2011, respectively. The increase in other interest expenses was mainly due to the increase in bank borrowings in 2011. The interest income incurred in 2010 and 2011 were RMB12.8 million and RMB25.8 million, respectively.

*Foreign exchange loss.* Our foreign exchange loss decreased from RMB74.4 million in 2010 to RMB69.0 million in 2011, primarily due to the continuing depreciation of the U.S. dollar and Euro against Renminbi in 2011.

*Other income.* Our other income decreased from RMB258.7 million in 2010 to RMB235.7 million in 2011. We realized a one-time non-cash bargain purchase gain of RMB187.4 million in the fourth quarter of 2011 in relation to the acquisition of Solar Silicon Valley as a result of the fixed share consideration and the decline of our share price between the date of signing the definitive agreement and the closing date. We also received government grants of RMB41.2 million relating to reimbursement of expense items, and other miscellaneous income amounted to RMB7.1 million.

*Income tax expenses.* We incurred tax expenses of RMB252.7 million and RMB57.8 million in 2010 and 2011, respectively. The decrease in income tax expense was due to the decrease in the taxable income of our operating entities, and affected to a lesser extent, by the slight decrease of the effective income tax rate from 12.50% to 11.42% from 2010 to 2011.

*Income/(loss) from discontinued operations, net of tax.* As a result of our discontinued operations in South Korea in 2010, we incurred an income of RMB7.8 million and a loss of RMB19.8 million from discontinued operations in 2011 and 2010, respectively.

*Net income/(loss).* As a result of the cumulative effect of the above factors, we generated net loss of RMB564.3 million in 2011 compared to net income of RMB1.8 billion in 2010.



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**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 bank borrowings and cash flow from operations. As of December 31, 2010, 2011 and 2012, we had RMB2.4 billion, RMB4.0 billion and RMB3.2 billion (US\$517.8 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 security for issuance of letters of credit, which are not available for our use. As of December 31, 2010, 2011 and 2012, we had RMB1.5 billion, RMB4.9 billion and RMB4.9 billion (US\$788.3 million), respectively, in outstanding bank borrowings. The unused lines of credit were RMB1.2 billion (US\$192.5 million) as of December 31, 2012. These loan facilities do not contain specific renewal terms. We have mortgaged certain of our real properties in Zhabei and Fengxian to secure our long-term bank loans in the total amount of RMB288 million (US\$46.2 million) in favor of Export-Import Bank of China and Agricultural Bank of China. No collateral is created on other properties we own.

As of December 31, 2010, 2011 and 2012, we had nil, RMB1.4 billion and RMB2.8 billion (US\$453.2 million), respectively, in outstanding short-term bank borrowings and current portion of long-term bank borrowings. As of December 31, 2010, 2011 and 2012, we had RMB1.5 billion, RMB3.5 billion and RMB2.1 billion (US\$335.2 million), respectively, outstanding long-term bank borrowings. These loans were borrowed from various financial institutions and generally have terms of 3 to 84 months and expire at various times. Our bank borrowings outstanding as of December 31, 2012 bore average interest rates of 6.49% 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, 2012, we had not utilized any credit facilities from CDB. We incurred a significant amount of debt and substantial debt service requirements as a result of the offering of 2008 Senior Notes in May 2008, and as of December 31, 2012, the total face value of outstanding 2008 Senior Notes was RMB726.4 million (US\$116.6 million).

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 RMB2.3 billion as of December 31, 2010 to RMB1.9 billion as of December 31, 2011, and to RMB1.5 billion (US\$233.1 million) 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 RMB730.6 million as of December 31, 2011 to RMB930.1 million (US\$149.3 million) as of December 31, 2012 as a result of our increase in sales forecast, as well as our continued stringent inventory control.

Our accounts receivable increased from RMB945.6 million as of December 31, 2010 to RMB1.2 billion as of December 31, 2011, and to RMB1.7 billion (US\$276.6 million) as of December 31, 2012. The increase in our accounts receivable as of December 31, 2012 compared to December 31, 2011 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.

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.

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

|  | 2010    | Year ended December 31,<br>2011<br>(in millions) | 2012  |
|--|---------|--|-------|
|  | RMB     | RMB  | RMB   |
| Net cash provided by operating activities                    | 1,280   | 364  | 8     |
| Net cash used in investing activities                        | (1,679) | (2,061)  | (630) |
| Net cash provided by/(used in) financing activities          | 838     | 3,310  | (233) |
| Effect of exchange rate changes on cash and cash equivalents | (17)    | (14)   | (3)   |
| Net increase in cash and cash equivalents                    | 422     | 1,600  | (858) |
| Cash and cash equivalents at the beginning of the year       | 1,867   | 2,290  | 3,889 |
| Cash and cash equivalents at the end of the year             | 2,290   | 3,889  | 3,031 |

***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.

Net cash provided by operating activities for the year ended December 31, 2012 was RMB8.6 million (US\$1.4 million), primarily attributable to net loss of RMB1.7 billion (US\$266.8 million), positively adjusted for certain items such as a depreciation and amortization of RMB657.1 million (US\$105.5 million), allowance for doubtful accounts of RMB187.1 million (US\$30.0 million), an inventory provision of RMB171.2 million (US\$27.5 million), an impairment on property, plant, and equipment of RMB397.8 million (US\$63.8 million), an increase in accounts payable of RMB608.4 million (US\$97.7 million) due to longer credit term being granted by suppliers, a decrease in notes receivables from customers of RMB271.3 million (US\$43.5 million) as we endorsed some notes to suppliers, a decrease in advance to third-party suppliers of RMB428.1 million (US\$68.7 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 (US\$59.5 million) based on the increase in sales forecast, an increase in accounts receivables from third-party customers of RMB660.2 million (US\$106.0 million) due to longer credit terms granted to customers and a decrease in advance from customers of RMB243.4 million (US\$39.1 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.

Net cash provided by operating activities for the year ended December 31, 2010 was RMB1.3 billion, primarily due to stronger earnings generated, increase in account payables of RMB655.6 million, increase in advance from customers of RMB430.6 million and an add-back of depreciation and amortization of RMB297.5 million. These increases were partially offset by increase in inventories of RMB890.9 million, increase in accounts receivable of RMB599.3 million and increase in other current assets of RMB342.3 million.

*Investing Activities.*

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

Net cash used in investing activities for the years ended December 31, 2010, 2011 and 2012 amounted to RMB1.7 billion, RMB2.1 billion and RMB630.0 million (US\$101.1 million), respectively, primarily as a result of purchases of property and equipment, assets acquisition, proceeds from sale of short-term investments and changes in restricted cash balances in each of the periods. The significant increases from 2010 to 2011 are primarily due to the purchases of property and equipment in connection with the rapid expansion of our manufacturing capacities. 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.

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***Financing Activities.***

Net cash used in financing activities for the year ended December 31, 2012 was RMB233.0 million (US\$37.4 million), primarily consisting of repayment of short-term bank borrowings of RMB1.5 billion (US\$246.5 million), repurchase of the 2008 Senior Notes of RMB617.9 million (US\$99.2 million) and repayment of long-term bank borrowings of RMB946.0 million (US\$151.8 million), partially offset by proceeds from short-term bank borrowings of RMB2.0 billion (US\$316.9 million), proceeds from long-term bank borrowings of RMB538.0 million (US\$86.4 million) and proceeds from sales of claim against loaned shares of RMB369.2 million (US\$59.3 million).

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

Net cash provided by financing activities for the year ended December 31, 2010 was RMB838.3 million, primarily consisting of proceeds of bank borrowings (net) of RMB830.0 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 RMB1.8 billion, RMB2.2 billion and RMB526.2 million (US\$84.5 million) in the years ended December 31, 2010, 2011 and 2012, 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 RMB496.4 million (US\$79.7 million) in 2013, which will be used primarily for upgrading 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.

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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.

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 RMB63.8 million, RMB68.9 million and RMB86.4 million (US\$13.9 million) in 2010, 2011 and 2012, 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, 2012 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, 2012, 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.



Table of Contents**F. TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS**

The following table sets forth our contractual obligations and commercial commitments as of December 31, 2012:

|  | Total             | Less than<br>1 year | Payments due by period     |                  |                      |
|--|-------------------|---------------------|----------------------------|------------------|----------------------|
|  |                   |                     | 1-3<br>years               | 3-5<br>years     | More than<br>5 years |
|  |                   |                     | (amounts in RMB thousands) |                  |                      |
| Bank loan obligations (including interest averaging 6.49%)     | 5,235,152         | 3,036,643           | 2,001,631                  | 22,147           | 174,731              |
| Operating lease obligations                                    | 169,463           | 52,514              | 81,678                     | 35,271           |                      |
| Non-cancelable capital expenditures                            | 496,390           | 477,876             | 18,514                     |                  |                      |
| Purchase commitments under take-or-pay agreements              | 10,968,332        | 1,719,219           | 2,958,585                  | 3,173,549        | 3,116,979            |
| Purchase commitments under other agreements(1)                 | 1,318,717         | 221,694             | 669,447                    | 427,576          |                      |
| 2008 Senior Notes (including interest cost)                    | 749,386           | 749,386             |                            |                  |                      |
| Accrued warranty cost reflected on the company's balance sheet | 114,226           |                     |                            |                  | 114,226              |
| <b>Total</b>   | <b>19,051,666</b> | <b>6,257,332</b>    | <b>5,729,855</b>           | <b>3,658,543</b> | <b>3,405,936</b>     |

(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.

***Bank loan obligations***

Our bank loan obligations relate to bank borrowings borrowed from various financial institutions in China with an average interest rate of 6.49% per annum. The borrowings have terms of 3 to 84 months and expire at various times throughout 2013 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, 2012, we had contracted for capital expenditures on machinery and equipment of RMB496.4 million (US\$79.7 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 purchase 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.

*2008 Senior Notes*

The 2008 Senior Notes bear interest at the rate of 4.5% per annum and will be due in May 2013. For the year ended December 31, 2012, we have repurchased 2008 Senior Notes with face value of US\$105.4 million at the cost of US\$99.4 million. For the period from January 1, 2013 to the date of this annual report, we have not repurchased any 2008 Senior Notes.

*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, 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

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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.

Table of Contents**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.

| <b>Name</b>  | <b>Age</b> | <b>Position</b>  |
|--------------|------------|--|
| Baofang Jin  | 61         | Executive Chairman of the Board of Directors and Chief Executive officer |
| Min Cao      | 56         | Chief Financial Officer  |
| Jian Xie     | 35         | Director and Chief Operating Officer                                     |
| Yong Liu     | 46         | Director and Chief Technology Officer                                    |
| Bingyan Ren  | 67         | Director   |
| Erying Jia   | 58         | Director   |
| Peng Fang    | 59         | Director   |
| Hope Ni      | 41         | Independent Director   |
| Jiqing Huang | 76         | Independent Director   |
| Yuwen Zhao   | 74         | Independent Director   |
| Shaohua Jia  | 63         | Independent Director   |

**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.

**Min Cao, Chief Financial Officer.** Mr. Cao has been our chief financial officer since July 2011. Mr. Cao has 6 years of experience in the solar industry and over a decade of experience in the financial services sector. Mr. Cao is currently a director of Shanghai Jinglong, Shanghai Hanming Technology Co., Ltd., Shenzhen Sinexcel Electric Co., Ltd. and Shanghai Grandar Light Art & Technology Co., Ltd. Prior to joining the Company, Mr. Cao served as vice president of Jinglong Group and managing director of JL Capital. Prior to joining JL Capital, Mr. Cao served as vice president of finance with Hanwha SolarOne Co., Ltd., previously known as Solarfun, where he was responsible for its private placement and its successful initial public offering on NASDAQ in 2006. Prior to moving into the solar industry, Mr. Cao held senior management positions with leading Chinese securities firms, including Ping An Securities and Industrial Securities. Mr. Cao received his bachelor's degree in business administration from the Shanghai University of Engineering Science and his MBA from Fudan University.

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***Jian Xie, Director and Chief Operating Officer.*** Mr. Jian Xie has been our director since August 2009 and chief operating officer since January 2010. 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 and secretary of the board of directors. 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 Guanghai School of Management at Beijing University in 2004.

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**Yong Liu, Director and Chief Technology Officer.** Mr. Yong 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.

**Binyan 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.

**Peng Fang, Director.** Dr. Fang Peng has been our director since May 2010. From January 2010 to January 2013, Dr. Fang served as our chief executive officer. Dr. Fang has more than 20 years of executive management experience with leading global technology companies in the solar and semiconductor industries in both the U.S. and China. From June 2008 to January 2010, Dr. Fang was president of Best Solar Co., Ltd., where he turned a start-up company into an internationally known solar module company in just 18 months. From October 2006 to December 2007, Dr. Fang was the chief executive officer of Legend Semiconductor Manufacturing Corporation. From January 2005 to October 2006, the managing director of WI Harper, a San Francisco based venture capital firm. From February 2002 to December 2004, Dr. Fang was the president of Huahong NEC, one of the largest semiconductor foundries in China. Dr. Fang also currently serves on the board of US-China Green Energy Council, a non-profit organization. Dr. Fang received his Ph.D and MSEE degrees from the University of Minnesota. He was also a postdoctoral research fellow at the EECS Department of UC Berkeley. Dr. Fang was chairman of the IEEE Electron Devices Society, Santa Clara Valley Chapter.

**Hope Ni, Independent Director.** Ms. Hope 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

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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).



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***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.

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.

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**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, 2012, we paid an aggregate compensation of RMB10.0 million to our directors and executive officers. In addition, for the year ended December 31, 2012, we granted an aggregate 90,000 restricted share units to our executive officers. Other than restricted share units granted under our 2006 stock incentive plan, as well as 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.

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*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, 2012, we granted 2,207,000 options and 90,000 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 the date of this annual report, we have granted options to purchase 19,639,000 ordinary shares and awarded 4,822,000 restricted share units under our 2006 stock incentive plan, options to purchase 4,357,050 ordinary shares and 2,438,000 restricted share units remained outstanding.

**C. BOARD PRACTICES**

**Board of Directors and Board Committees**

Our board of directors currently consists of nine members, including three 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.

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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:

- 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

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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.

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***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:

- 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.

Table of Contents**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, 2010, 2011 and 2012, we had a total of 10,725, 11,639 and 9,784 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, 2012:

|                               | Number of<br>employees | Percentage<br>of total |
|-------------------------------|------------------------|------------------------|
| Manufacturing and engineering | 7,907                  | 80.8%                  |
| Quality assurance             | 877                    | 9.0%                   |
| General and administration    | 369                    | 3.8%                   |
| Purchasing and logistics      | 305                    | 3.1%                   |
| Research and development      | 110                    | 1.1%                   |
| Marketing and sales           | 176                    | 1.8%                   |
| Others                        | 40                     | 0.4%                   |
| Total                         | 9,784                  | 100.00%                |

Of our total employees as of December 31, 2012, 2,937 were located in Ningjin, 2,585 were located in Yangzhou, 1,849 were located in Shanghai, 959 were located in Lianyungang, 885 were located in Hefei, and 569 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, 2012, 1,262 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%, 4-12%, 1.7-2%, 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 the date of this annual report, 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.

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The calculations in the table below assume there are 199,863,607 ordinary shares outstanding as of the date of this annual report.

|  | Shares Beneficially Owned |        |
|--|---------------------------|--------|
|  | Number(1)                 | %(2)   |
| <b>Directors and Executive Officers:</b> |                           |        |
| Baofang Jin(3)                           | 58,897,366                | 29.47% |
| Min Cao                                  | *                         | *      |
| Jian Xie                                 | *                         | *      |
| Yong Liu                                 | *                         | *      |
| Bingyan Ren                              | *                         | *      |
| Erying Jia                               | *                         | *      |
| Peng Fang                                | *                         | *      |
| Hope Ni                                  | *                         | *      |
| Jiqing Huang                             | *                         | *      |
| Yuwen Zhao                               | *                         | *      |
| Shaohua Jia                              | *                         | *      |
| All Directors and Officers as a Group    | 62,183,166                | 31.11% |
| <b>Principal Shareholders:</b>           |                           |        |
| Jinglong Group Co., Ltd.(4)              | 58,897,366                | 29.47% |

\* 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 199,863,607, being the number of ordinary shares outstanding as of the date of annual report, 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) Represents 58,897,366 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) Represents 58,897,366 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%).

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As of the date of this annual report, none of our existing shareholders has different voting rights from other shareholders.

To our knowledge, as of the date of this annual report, a total of 133,115,520 ordinary shares are held by one record holder in the United States, which is the Bank of New York Mellon, the depository 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.

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**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. 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.

For the years ended 31 December 2010, 2011 and 2012, we purchased RMB1.6 billion, RMB1.5 billion and RMB191.3 million (US\$30.7 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*

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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 2010, 2011 and 2012, we paid outsourcing service fee of RMB2.3 million, nil and RMB17.9 million (US\$2.9 million) for to Hebei Jinglong. For the years ended December 31, 2010 and 11 months ended November 30, 2011 prior to acquisition of Solar Silicon Valley, we paid wafer outsourcing service fee of RMB4.1 million and RMB8.9 million to Solar Silicon Valley, respectively.

### *Guarantee*

For the year ended December 31, 2011, we provided guarantees to Hebei Jinglong for short-term bank borrowing with a principal of RMB366.0 million (US\$58.7 million) while we also received guarantees from Hebei Jinglong for short-term bank borrowing with a principal of RMB170 million (US\$27.3 million). We monitor the financial performance of Hebei Jinglong on a monthly basis, and also evaluates the availability of Hebei Jinglong from alternate sources. No amounts have been accrued as a loss contingency related to this guarantee because payment by us is not probable.

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*Management fees and leasing*

We lease properties from Hebei Jinglong and another related party under operating lease agreements. We incurred rental expenses under operating lease agreements to Hebei Jinglong in the amounts of RMB12.2 million, RMB12.0 million and RMB12.0 million (US\$1.9 million) for the years ended December 31, 2010, 2011 and 2012, respectively.

**Transactions with other Related Parties**

We sold solar cells and modules to several related companies, with the amount of RMB160.2 million, RMB67.8 million and RMB243.2 million (US\$39.0 million) for the years ended December 31, 2010, 2011 and 2012, respectively.

We outsourced module processing service to a related company. The module processing service fee amounted to nil, RMB14.1 million and RMB7.6 million (US\$1.2 million) for the years ended December 31, 2010, 2011 and 2012, respectively.

We purchased RMB875.2 million, RMB1.1 billion and RMB827.7 million (US\$132.9 million) of silicon wafers from several related companies for the years ended December 31, 2010, 2011 and 2012, respectively.

We acquired RMB10,000, RMB460,000 and RMB2.5 million (US\$0.4 million) of certain equipment from several related companies for the years ended December 31, 2010, 2011 and 2012, respectively.

In 2010, we acquired 100% of the shares of Shanghai Jinglong, from Ningjin Jinglong PV Investment Co., Ltd., a subsidiary of Hebei Jinglong, for a cash consideration of RMB198.96 million, representing the fair value of Shanghai Jinglong based on an independent third party valuation. Shanghai Jinglong owns the land, building and facility previously leased by us for our module production operation in Fengxian, Shanghai.

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. We estimated the fair value of the to-be-received equity interest of Ningjin Songgong as of December 31, 2012 exceeds the equity interest transfer price, which was based on the fair value of equity interest in Ningjin Songgong at the time of settlement in March 2012. As a result, an impairment provision of RMB96.5 million (US\$15.5 million) was provided against prepayment made to M.SETEK in 2012.



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.

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**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.

We recorded a RMB686.3 million impairment loss against the Lehman Note investments in the third quarter of 2008. In December 2010, we completed the sale of the Lehman Notes for cash consideration of US\$34.6 million. As a result, we recorded a RMB231.2 million gain in the fourth quarter of 2010. In March 2012, we terminated the capped call 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 (US\$61.0 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 (US\$59.3 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 (US\$59.3 million) was recorded as other income in our consolidated statement of operations.

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**

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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 2010, 2011 and 2012 were RMB186.3 million, RMB22.8 million (US\$3.7 million), respectively. We made a reversal of RMB3.7 million (US\$ 0.6 million) from general reserves to retained earnings in 2012.

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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 Market. Our ADSs trade under the symbol JASO. From the initial listing of our ADSs on the NASDAQ Global 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 Market ranged from US\$0.58 to US\$27 per ADS. The trading price of our ADSs from December 10, 2012 through April 15, 2013 has ranged from US\$3.21 to US\$6.14 per ADS.

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

|  | Trading Price |             |
|--|---------------|-------------|
|  | High<br>US\$  | Low<br>US\$ |
| <b>Annual Highs and Lows</b>   |               |             |
| 2008 (through February 7, 2008)                                      | 76.41         | 42.83       |
| 2008 (from February 8, 2008 to December 31, 2008)                    | 27.00         | 1.55        |
| 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        |
| <b>Quarterly Highs and Lows</b>                                      |               |             |
| <b>2011</b>  |               |             |
| First Quarter of 2011  | 8.57          | 6.26        |
| Second Quarter of 2011   | 7.02          | 4.96        |
| Third Quarter of 2011  | 5.70          | 1.78        |
| Fourth Quarter of 2011   | 2.57          | 1.21        |
| <b>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>  |               |             |

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|  |      |      |
|--|------|------|
| First Quarter of 2013                                      | 6.14 | 3.57 |
| Second Quarter of 2013 (through April 15, 2013)            | 4.69 | 3.37 |
| <b>Monthly Highs and Lows</b>                              |      |      |
| <b>2012</b>  |      |      |
| October 2012   | 0.88 | 0.62 |
| November 2012  | 0.81 | 0.58 |
| December 2012(through December 7, 2012)                    | 0.75 | 0.66 |
| December 2012(from December 10, 2012 to December 31, 2012) | 4.38 | 3.21 |
| <b>2013</b>  |      |      |
| January 2013   | 6.10 | 4.38 |
| February 2013  | 6.14 | 4.22 |
| March 2013   | 4.89 | 3.57 |
| April 2013 (through April 15, 2013)                        | 4.69 | 3.37 |

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**B. PLAN OF DISTRIBUTION**

Not applicable.

**C. MARKETS**

Our ADSs, each representing one of our ordinary shares, par value US\$0.0001 per share, have been listed on the NASDAQ Global 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.



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**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.

As of the date hereof, 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) 199,863,607 shares, and (ii) for the purpose of future option exercise, an additional 183,200 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.



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*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.

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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.

*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 Market, or by any recognized stock exchange on which our securities are listed.

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*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.

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, JA Zhabei, JA Yangzhou R&D, JA Yangzhou PV Engineering, JA Hefei Renewable Energy and JA Hefei Technology are subject to the uniform income rate of 25% under the CIT Law.



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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.



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**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 United States Internal Revenue 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***

Based on our financial estimates for the taxable year ended December 31, 2012, 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 the taxable year ended December 31, 2012. If market conditions in 2013 are comparable to those that existed in 2010 and 2011, we would expect not to be classified as a PFIC for the taxable year ended December 31, 2013. 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 taxable year ended December 31, 2013 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.

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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.

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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:

- 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 Market) or other market as defined in applicable United States Treasury Regulations. We anticipate that our ADSs, but not ordinary shares, should qualify as being regularly traded on the NASDAQ Global 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.



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A U.S. Holder that holds the 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.

Because 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, the ADSs are expected to be readily tradable on the NASDAQ Global 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.

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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***

Certain U.S. Holders are required to report information to the Internal Revenue Service relating to an interest in specified foreign financial assets, including shares issued by a non-United States corporation, for any year in which the aggregate value of all specified foreign financial assets exceeds \$50,000 (or a higher dollar amount prescribed by the Internal Revenue Service), subject to certain exceptions (including an exception for shares held in custodial accounts maintained with a United States financial institution). These rules also impose penalties if a holder is required to submit such information to the Internal Revenue Service and fails to do so.

In addition, U.S. Holders may be subject to information reporting to the Internal Revenue Service 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 U.S. federal income tax liability if the required information is furnished by the U.S. Holder on a timely basis to the Internal Revenue Service.

**European Countries Taxation**

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JA Luxembourg S.a.r.l. is incorporated in Luxemburg 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%.



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**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***

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Our exposure to interest rate risk primarily relates to interest expenses incurred in respect of our bank 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, 2012, we had RMB2.8 billion (US\$453.2 million) short-term bank borrowings and current portion of long term bank borrowings and RMB2.1 billion (US\$335.2 million) long-term bank borrowings, with an average interest rate of 6.49% per annum. A hypothetical one percentage point (100 basis-point) increase in interest rates would have resulted in an increase of approximately RMB56.2 million (US\$9.0 million) in interest expense for the year ended December 31, 2012. 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.

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***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. In addition, we are exposed to the foreign exchange risks in relation to our repayment of the 2008 Senior Notes upon their maturity. 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, 2012, we incurred foreign exchange loss totaling RMB24.5 million (US\$3.9 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 RMB158.5 million (US\$25.4 million) for potential losses against these prepayments as of December 31, 2012. 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 RMB190.0 million (US\$30.5 million) for doubtful accounts as of December 31, 2012. If the financial condition of our customers were to deteriorate such that their ability to make payments was impaired, additional allowances could be required.



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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. For example, in the fall of 2008, the Lehman Entities entered into insolvency proceedings in various countries. As a result, we were unable to collect the amounts due on the Lehman Note even though the Lehman Note matured in October 2008. We recorded a RMB686.3 million impairment loss against the Lehman Note investments in the third quarter of 2008. In December 2010, we completed the sale of the Lehman Note for cash consideration of US\$34.6 million. As a result, we recorded a RMB231.2 million gain in the fourth quarter of 2010.

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 2010, 2011 and 2012 were increases of 4.6%, 4.1% 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.

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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, 2012, we were entitled to US\$1.1 million from the depositary as reimbursement for expenses related to the administration and maintenance of our ADS program in 2012.





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**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, 2012, 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, 2012, 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.

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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, 2012 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, 2012 based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

The report of PricewaterhouseCoopers Zhong Tian CPAs Limited Company, our independent registered public accounting firm, on the effectiveness of our internal control over financial reporting appears on page F-1 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 2012 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 2011 and 2012:

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|                       | For the Year Ended December 31, |      |
|-----------------------|---------------------------------|------|
|                       | 2011                            | 2012 |
|                       | (RMB in million)                |      |
| Audit fees(1)         | 10.5                            | 10.5 |
| Audit-related fees(2) | 1.9                             | 1.1  |
| Tax fees(3)           |                                 | 0.3  |

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(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**

During the year ended December 31, 2012, we repurchased our 2008 Senior Notes with an aggregate principal amount of US\$105.4 million at a total cost of US\$99.4 million. We may from time to time seek to make additional repurchases of our Senior Notes. Such repurchase, if any, will depend on the then prevailing market condition, our liquidity requirements and other factors.

On June 8, 2012, our board of directors approved a share repurchase program, pursuant to which we were authorized to purchase our own ADSs with an aggregate value of up to US\$100 million before September 30, 2012. The share repurchase program permitted us to purchase shares from time to time on the open market at prevailing market prices, in negotiated transactions off the market and in block trades, in accordance with applicable securities laws and subject to restrictions regarding price, volume and timing. During the year ended December 31, 2012, we

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repurchased 2,469,700 shares at a cost of US\$2.4 million. When the shares are repurchased for retirement, the excess of cost over par value is charged entirely to retain earnings.

The following table sets forth a summary of our repurchase of our ADSs made from June 8, 2012 to December 31, 2012.

| <b>Period</b>                    | <b>Total Number<br/>of<br/>ADSs<br/>Purchased (2)</b> | <b>Average<br/>Price<br/>Paid Per<br/>ADS(2)</b> | <b>Total Number<br/>of ADSs<br/>Purchased as<br/>Part of Publicly<br/>Announced<br/>Plans<br/>or Programs(1)</b> | <b>Maximum<br/>Dollar Value of<br/>ADSs that May<br/>Yet Be<br/>Purchased<br/>Under Plans or<br/>Programs<br/>(US\$)</b> |
|----------------------------------|---|--|--|--|
| June 8 through June 30, 2012     | 9,740   | 5.0  | 9,740  | 2,362,069  |
| July 1 through July 31, 2012     | 209,240   | 4.86   | 209,240  | 1,344,369  |
| August 1 through August 31, 2012 | 274,960   | 4.89   | 274,960  |  |
| Total                            | 493,940   | 4.88   | 493,940  |  |

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(1) On June 8, 2012, our board of directors approved a share repurchase program, under which we may repurchase up to US\$100 million worth of our issued and outstanding ADSs.

(2) Each ADS represents five ordinary shares.

**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.

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- 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.



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**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 Silicon Wafer Supply Agreement between JingAo Solar Co., Ltd. and Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd. dated as of April 7, 2008 (incorporated by reference to Exhibit 4.14 from our Form 20-F, initially filed with the Securities and Exchange Commission on May 9, 2008.)
- 4.2 The Polysilicon Supply Contract between JA Solar Technology Yangzhou Co., Ltd. and Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd., dated August 17, 2008 (incorporated by reference to Exhibit 4.14 from our Form 20-F, initially filed with Securities and Exchange Commission on June 25, 2009.)
- 4.3 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)
- 4.4 Supplemental Agreement of Exhibit 4.1 and 4.2 among Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd., JingAo Solar Co., Ltd., JA Solar Technology Yangzhou Co., Ltd., Jiangsu GCL Silicon Technology Development Co., Ltd., Suzhou GCL Photovoltaic Technology Co., Ltd., Nanjing GCL Photovoltaic Power Technology Co., Ltd. and Changzhou GCL Photovoltaic Technology Co., Ltd. dated December 2, 2010. (incorporated by reference to Exhibit 4.4 from our Form 20-F, initially filed with Securities and Exchange Commission on April 26, 2011)

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- 4.5 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)

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|           |   |
|-----------|---|
| 4.6       | Supply Agreement between Wacker Chemie AG and Jing Hai Yang Semiconductor Materials (Dong Hai) Co., Ltd. dated September 30, 2010. (incorporated by reference to Exhibit 4.6 from our Form 20-F, initially filed with the Securities and Exchange Commission on April 26, 2011)   |
| 4.7       | 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)  |
| 4.8       | 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)  |
| 4.9       | 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  |
| 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



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**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/ Min Cao*  
Name: Min Cao  
Title: Chief Financial Officer

Date: April 16, 2013

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| <u>Consolidated Balance Sheets</u>   | <b>F-3-F-4</b>   |
| <u>Consolidated Statements of Operations and Comprehensive Income/(Loss)</u> | <b>F-5-F-6</b>   |
| <u>Consolidated Statements of Changes In Shareholders' Equity</u>            | <b>F-7-F-9</b>   |
| <u>Consolidated Statements of Cash Flows</u>                                 | <b>F-10-F-11</b> |
| <u>Notes to Consolidated Financial Statements</u>                            | <b>F-12-F-61</b> |

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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 income/(loss), 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 as of December 31, 2012 and December 31, 2011, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2012 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 31, 2012, based on criteria established in *Internal Control - Integrated Framework* 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 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.

PricewaterhouseCoopers Zhong Tian CPAs Limited Company

Shanghai, the People's Republic of China

April 16, 2013





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

(In thousands, except share and per share data)

|   | Note             | December 31,<br>2011<br>RMB | December 31,<br>2012<br>RMB |
|---|------------------|-----------------------------|-----------------------------|
| <b>ASSETS</b>   |                  |                             |                             |
| Current assets:                                       |                  |                             |                             |
| Cash and cash equivalents                             | 2(d)             | 3,889,092                   | 3,031,462                   |
| Restricted cash                                       | 2(d)             | 88,632                      | 194,379                     |
| Notes receivable from third party customers           | 5                | 415,503                     | 148,961                     |
| Notes receivable from related party customers         | 5,24(b)          | 4,712                       |                             |
| Accounts receivable from third party customers, net   | 6                | 1,213,880                   | 1,686,940                   |
| Accounts receivable from related party customers, net | 6,24(b)          | 31,024                      | 36,150                      |
| Inventories   | 7                | 730,635                     | 930,137                     |
| Advances to third party suppliers, net                | 8                | 421,478                     | 207,388                     |
| Advances to related party suppliers, net              | 8,24(b)          | 14,179                      | 87,265                      |
| Other current assets                                  | 9,14,21,24(b),26 | 860,136                     | 807,666                     |
| Deferred tax assets                                   | 12               | 39,851                      | 20,031                      |
| <b>Total current assets</b>                           |                  | <b>7,709,122</b>            | <b>7,150,379</b>            |
| Property, plant and equipment, net                    | 10               | 5,099,208                   | 4,447,469                   |
| Intangible asset, net                                 | 11               | 13,750                      | 11,880                      |
| Deferred tax assets                                   | 12               | 52,769                      | 73,939                      |
| Advances to third party suppliers, net                | 8                | 1,414,587                   | 1,136,303                   |
| Advances to related party suppliers, net              | 8, 24(b)         | 38,333                      | 21,252                      |
| Prepaid land use rights                               | 14               | 245,888                     | 240,334                     |
| Investment in a joint venture                         | 4                | 94,411                      | 50,910                      |
| Deferred issuance cost                                | 9,16             | 67,531                      |                             |
| <b>Total assets</b>                                   |                  | <b>14,735,599</b>           | <b>13,132,466</b>           |

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## JA SOLAR HOLDINGS CO., LTD.

## CONSOLIDATED BALANCE SHEETS (Continued)

(In thousands, except share and per share data)

|   | Note  | December 31,<br>2011<br>RMB | December 31,<br>2012<br>RMB |
|---|-------|-----------------------------|-----------------------------|
| <b>LIABILITIES AND SHAREHOLDERS EQUITY</b>  |       |                             |                             |
| Current liabilities:  |       |                             |                             |
| Short-term bank borrowings and current portion of long term bank borrowings   | 15    | 1,414,906                   | 2,823,230                   |
| Accounts payable to third parties   |       | 569,542                     | 1,117,729                   |
| Accounts payable to related parties   | 24(a) | 155,551                     | 195,806                     |
| Tax payables  |       | 24,570                      | 91,847                      |
| Advances from third party customers   |       | 320,015                     | 76,875                      |
| Advances from related party customers   | 24(a) | 262                         |                             |
| Other payables to third parties   | 17    | 527,727                     | 480,115                     |
| Payroll and welfare payables  |       | 145,393                     | 154,136                     |
| Accrued expenses  | 18    | 152,677                     | 226,297                     |
| Interest payable  |       | 7,869                       | 4,123                       |
| Amounts due to related parties  | 24(a) | 6,776                       | 9,833                       |
| Convertible notes   | 16    |                             | 708,548                     |
| <b>Total current liabilities</b>  |       | <b>3,325,288</b>            | <b>5,888,539</b>            |
| Accrued warranty costs  | 19    | 78,751                      | 114,226                     |
| Other long-term liabilities   | 13    | 82,458                      | 148,738                     |
| Long-term bank borrowings   | 15    | 3,461,916                   | 2,088,139                   |
| Convertible notes   | 16    | 1,238,485                   |                             |
| Embedded derivatives  | 16,26 | 32                          |                             |
| <b>Total liabilities</b>  |       | <b>8,186,930</b>            | <b>8,239,642</b>            |
| <b>Commitments and Contingencies</b>  | 25    |                             |                             |
| <b>Shareholders equity :</b>  |       |                             |                             |
| Ordinary shares(US\$0.0001 par value; 493,480,000 shares authorized, 202,238,307 and 199,863,607 shares issued and outstanding as of December 31, 2011 and December 31, 2012, respectively) | 29    | 154                         | 153                         |
| Additional paid-in capital  |       | 5,102,362                   | 5,135,587                   |
| Statutory reserves  | 22(b) | 420,301                     | 416,647                     |
| Retained earnings/(deficit)   |       | 1,017,333                   | (656,545)                   |
| Accumulated other comprehensive income/(loss)   |       | 8,519                       | (3,018)                     |
| <b>Total shareholders equity</b>  |       | <b>6,548,669</b>            | <b>4,892,824</b>            |
| <b>Total liabilities and shareholders equity</b>  |       | <b>14,735,599</b>           | <b>13,132,466</b>           |

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

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

|  | Note  | For the year<br>ended<br>December 31,<br>2010<br>RMB | For the year<br>ended<br>December 31,<br>2011<br>RMB | For the year<br>ended<br>December 31,<br>2012<br>RMB |
|--|-------|--|--|--|
| <b>Revenues</b>  |       |  |  |  |
| Solar modules to third parties                               |       | 2,510,563  | 3,709,335  | 4,043,609  |
| Solar cells and other products to third parties              |       | 8,023,938  | 6,151,136  | 2,105,771  |
| Solar cells and other products to related parties            |       | 160,413  | 71,671   | 251,330  |
| Engineering, procurement and construction to third parties   |       |  | 146,444  | 135,810  |
| Solar products processing to third parties                   |       | 1,065,866  | 654,268  | 182,545  |
| Total revenues   |       | 11,760,780   | 10,732,854   | 6,719,065  |
| <b>Cost of revenues</b>                                      |       |  |  |  |
| Solar modules to third parties                               |       | (2,221,536)  | (3,427,801)  | (4,029,047)  |
| Solar cells and other products to third parties              |       | (6,357,798)  | (6,170,760)  | (2,215,681)  |
| Solar cells and other products to related parties            |       | (127,104)  | (71,900)   | (261,212)  |
| Engineering, procurement and construction to third parties   |       |  | (108,351)  | (84,726)   |
| Solar products processing to third parties                   |       | (507,956)  | (492,709)  | (182,757)  |
| Total cost of revenues                                       |       | (9,214,394)  | (10,271,521)   | (6,773,423)  |
| Gross profit/(loss)  |       | 2,546,386  | 461,333  | (54,358)   |
| Selling, general and administrative expenses                 |       | (457,815)  | (509,832)  | (901,645)  |
| Research and development expense                             |       | (63,816)   | (68,948)   | (86,429)   |
| Impairment loss on property, plant and equipment             |       | (47,286)   | (303,068)  | (397,789)  |
| Total operating expenses                                     |       | (568,917)  | (881,848)  | (1,385,863)  |
| Income/(loss) from continuing operations                     |       | 1,977,469  | (420,515)  | (1,440,221)  |
| Change in fair value of derivatives                          | 16,26 | 74,528   | 84,874   | 9,334  |
| Convertible notes buyback gain/(loss)                        | 16    |  | 4,312  | (8,466)  |
| Interest expense   |       | (221,209)  | (373,710)  | (489,346)  |
| Interest income  |       | 12,810   | 25,868   | 36,226   |
| Foreign exchange gain/(loss)                                 |       | (74,429)   | (69,027)   | (24,519)   |
| Loss for equity investment in a joint venture                | 4     |  | (1,800)  | (43,501)   |
| Other income, net  | 3,13  | 258,719  | 235,723  | 398,861  |
| Income/(loss) from continuing operations before income taxes |       | 2,027,888  | (514,275)  | (1,561,632)  |
| Income tax expense   | 12    | (252,707)  | (57,823)   | (100,625)  |
| Income/(loss) from continuing operations                     |       | 1,775,181  | (572,098)  | (1,662,257)  |
| Loss from discontinued operations, net of tax                |       | (19,830)   |  |  |
| Gain from sales of discontinued operations, net of tax       |       |  | 7,753  |  |
| Net income/(loss)  |       | 1,755,351  | (564,345)  | (1,662,257)  |
| <b>Other comprehensive income/(loss):</b>                    |       |  |  |  |
| Foreign currency translation adjustments, net of tax         |       | 3,596  | 1,181  | 218  |
| Cash flow hedging income/(loss), net of tax                  |       | 2,326  | 9,428  | (11,755)   |
| Other comprehensive income/(loss)                            |       | 5,922  | 10,609   | (11,537)   |
| Comprehensive income/(loss)                                  |       | 1,761,273  | (553,736)  | (1,673,794)  |



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

|   | Note | For the year<br>ended<br>December 31,<br>2010<br>RMB | For the year<br>ended<br>December 31,<br>2011<br>RMB | For the year<br>ended<br>December 31,<br>2012<br>RMB |
|---|------|--|--|--|
| Net (loss)/income per share from continuing operations:   |      |  |  |  |
| Basic   |      | 10.90  | (3.42)   | (8.53)   |
| Diluted   |      | 10.72  | (3.42)   | (8.53)   |
| Net income/(loss) per share from discontinued operations: |      |  |  |  |
| Basic   |      | (0.12)   | 0.04   |  |
| Diluted   |      | (0.12)   | 0.04   |  |
| Net (loss)/income per share:                              |      |  |  |  |
| Basic   |      | 10.78  | (3.38)   | (8.53)   |
| Diluted   |      | 10.61  | (3.38)   | (8.53)   |
| Weighted average number of shares outstanding :           |      |  |  |  |
| Basic   | 23   | 162,900,657  | 167,101,076  | 194,788,429  |
| Diluted   |      | 171,116,684  | 167,101,076  | 194,788,429  |
| Net (loss)/income per ADS from continuing operations:     |      |  |  |  |
| Basic   |      | 54.49  | (17.12)  | (42.67)  |
| Diluted   |      | 53.61  | (17.12)  | (42.67)  |
| Net income/(loss) per ADS from discontinued operations:   |      |  |  |  |
| Basic   |      | (0.61)   | 0.22   |  |
| Diluted   |      | (0.58)   | 0.22   |  |
| Net (loss)/income per ADS:                                |      |  |  |  |
| Basic   |      | 53.88  | (16.90)  | (42.67)  |
| Diluted   |      | 53.03  | (16.90)  | (42.67)  |
| Weighted average number of ADS:                           |      |  |  |  |
| Basic   |      | 32,580,131   | 33,420,215   | 38,957,685   |
| Diluted   |      | 34,223,336   | 33,420,215   | 38,957,685   |

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

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## JA SOLAR HOLDINGS CO., LTD.

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY

(In thousands, except share and per share data)

|  | Ordinary shares | Amount | Additional      | Statutory | Retained  | Accumulated | Total shareholders |
|--|-----------------|--------|-----------------|-----------|-----------|-------------|--------------------|
|  | Shares          | RMB    | paid-in capital | reserves  | earnings  | other       | equity             |
|  |                 |        | RMB             | RMB       | RMB       | loss        | RMB                |
|  |                 |        |                 |           |           | RMB         |                    |
| Balance at December 31, 2009   | 169,018,420     | 134    | 4,583,808       | 211,202   | 35,426    | (8,012)     | 4,822,558          |
| Share based compensation   |                 |        | 88,049          |           |           |             | 88,049             |
| Exercise of stock options  | 957,850         | 0      | 8,276           |           |           |             | 8,276              |
| Statutory reserves   |                 |        |                 | 186,284   | (186,284) |             |                    |
| Net Income   |                 |        |                 |           | 1,755,351 |             | 1,755,351          |
| Other comprehensive loss for<br>foreign currency<br>translation adjustment |                 |        |                 |           |           | 3,596       | 3,596              |
| Other comprehensive income for<br>forward contract (Note 21)               |                 |        |                 |           |           | 2,326       | 2,326              |
| Balance at December 31, 2010   | 169,976,270     | 134    | 4,680,133       | 397,486   | 1,604,493 | (2,090)     | 6,680,156          |

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

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## JA SOLAR HOLDINGS CO., LTD.

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY (Continued)

(In thousands, except share and per share data)

|   | Ordinary shares<br>Shares | Amount<br>RMB | Additional paid-in<br>capital<br>RMB | Statutory<br>reserves<br>RMB | Retained<br>earnings<br>RMB | Accumulated other<br>comprehensive<br>Income/(loss)<br>RMB | Total<br>shareholders<br>equity<br>RMB |
|---|---------------------------|---------------|--------------------------------------|------------------------------|-----------------------------|--|--|
| Balance at December 31,<br>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<br>business combination                                  | 30,901,287                | 19            | 358,968                              |                              |                             |  | 358,987                                |
| Statutory reserves  |                           |               |                                      | 22,815                       | (22,815)                    |  |  |
| Net loss  |                           |               |                                      |                              | (564,345)                   |  | (564,345)                              |
| Other comprehensive<br>income for foreign<br>currency translation<br>adjustment |                           |               |                                      |                              |                             | 1,181  | 1,181                                  |
| Other comprehensive<br>income for forward contract<br>(Note 21)                 |                           |               |                                      |                              |                             | 9,428  | 9,428                                  |
| Balance at December 31,<br>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.

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## JA SOLAR HOLDINGS CO., LTD.

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS EQUITY (Continued)

(In thousands, except share and per share data)

|  | Ordinary shares |        | Additional paid-in | Statutory | Retained           | Accumulated other | Total        |
|--|-----------------|--------|--------------------|-----------|--------------------|-------------------|--------------|
|  | Shares          | Amount | capital            | reserves  | earnings/(deficit) | comprehensive     | shareholders |
|  |                 | RMB    | RMB                | RMB       | RMB                | Income/(loss)     | equity       |
|  |                 |        |                    |           |                    | RMB               | RMB          |
| 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       |
| Exercise 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.



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## JA SOLAR HOLDINGS CO., LTD.

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

|  | For the year<br>ended December<br>31, 2010<br>RMB | For the year<br>ended December<br>31, 2011<br>RMB | For the year<br>ended December<br>31, 2012<br>RMB |
|--|---|---|---|
| <b>Cash flows from operating activities:</b>   |   |   |   |
| Net income/(loss)  | 1,755,351   | (564,345)   | (1,662,257)                                       |
| Adjustments to reconcile net income/(loss) to net cash provided by operating activities: |   |   |   |
| Share based compensation   | 71,785  | 40,187  | 33,225  |
| Depreciation and amortization  | 297,509   | 484,784   | 657,082   |
| Allowance for doubtful accounts  | 1,645   | 26,338  | 187,130   |
| Inventory provision  | 182,735   | 386,623   | 171,165   |
| Allowance for advance to third party suppliers   | 35,909  | 6,285   | 64,298  |
| Amortization of deferred issuance cost and accretion of convertible notes                | 123,915   | 140,894   | 135,725   |
| Change in fair value of derivatives  | (74,528)  | (63,147)  | 11,485  |
| Gain on acquisition of a subsidiary  |   | (187,387)   |   |
| Loss for equity investment in a joint venture  |   | 1,800   | 43,501  |
| Exchange (gain)/loss   | (18,044)  | (57,989)  | 13,004  |
| Loss from disposal of fixed assets   | 1,198   | 3,334   | 1,878   |
| Impairment on property, plant and equipment  | 47,286  | 303,068   | 397,789   |
| Deferred income taxes  | (36,815)  | (5,587)   | (1,350)   |
| (Gain)/loss from convertible notes buyback   |   | (4,312)   | 8,466   |
| Gain on sale of available-for-sale securities  | (231,163)   |   |   |
| Gain on sale of claim against loaned shares  |   |   | (369,153)   |
| Loss on disposal of discontinued operation   | 21,967  |   |   |
| Changes in operating assets and liabilities:   |   |   |   |
| (Increase)/decrease in notes receivables   | (134,598)   | (157,771)   | 271,254   |
| Increase in accounts receivables from third party customers                              | (597,696)   | (295,673)   | (660,190)   |
| (Increase)/decrease in accounts receivables from related party customers                 | (1,597)   | 133,257   | (5,126)   |
| (Increase)/decrease in inventories   | (890,870)   | 261,324   | (370,667)   |
| (Increase)/decrease in advance to third party suppliers                                  | (46,411)  | 288,410   | 428,076   |
| (Increase)/decrease in advance to related party suppliers                                | 11,399  | 109,391   | (56,005)  |
| (Increase)/decrease in other current assets  | (342,296)   | 180,187   | 34,516  |
| Increase in prepaid land use rights  | (57,509)  | (57,312)  |   |
| Increase/(decrease) in accounts payable  | 655,577   | (466,524)   | 608,442   |
| (Decrease)/increase in tax payable   | (85,542)  | (89,614)  | 67,277  |
| Increase/(decrease) in advance from customers  | 430,598   | (165,270)   | (243,402)   |
| (Decrease)/increase in other payables  | (16,558)  | 6,637   | 59,030  |
| Increase/(decrease) in payroll and welfare payables                                      | 56,399  | (41,682)  | 8,743   |
| Increase in accrued expenses   | 40,790  | 90,145  | 73,620  |
| (Decrease)/increase in interest payable  | (1,629)   | (448)   | (3,746)   |
| (Decrease)/increase in amounts due to related parties                                    | (6,034)   | 6,602   | 3,057   |
| Increase/(decrease) in other current liabilities   | 29,802  | (29,808)  |   |
| Increase in accrued warranty costs   | 25,346  | 47,474  | 35,475  |
| Increase in other long-term liabilities  | 31,593  | 34,499  | 66,280  |
| Net cash provided by operating activities  | 1,279,514   | 364,370   | 8,622   |



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## JA SOLAR HOLDINGS CO., LTD.

## CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

(In thousands)

|  | For the year<br>ended December<br>31, 2010<br>RMB | For the year<br>ended December<br>31, 2011<br>RMB | For the year<br>ended December<br>31, 2012<br>RMB |
|--|---|---|---|
| <b>Cash flows from investing activities:</b>                                 |   |   |   |
| Purchase of property, plant and equipment                                    | (1,646,446)                                       | (2,203,723)                                       | (526,236)   |
| Proceeds from disposal of property, plant and equipment                      | 7,427   | 5,041   | 4,711   |
| Purchase of intangible assets  | (6,020)   | (196)   | (2,702)   |
| Proceeds from disposal of a subsidiary                                       |   | 82,268  |   |
| Cash paid for investment in a joint venture                                  |   | (96,211)  |   |
| Cash (paid for)/acquired from acquisition of a subsidiary                    | (196,037)   | 127,720   |   |
| Proceeds from sale of available-for-sale securities                          | 231,163   |   |   |
| (Increase)/decrease in restricted cash                                       | (68,981)  | 23,961  | (105,747)   |
| Net cash used in investing activities  | (1,678,894)                                       | (2,061,140)                                       | (629,974)   |
| <b>Cash flows from financing activities:</b>                                 |   |   |   |
| Proceeds from short-term bank borrowings                                     |   | 1,933,478   | 1,974,577   |
| Proceeds from long-term bank borrowings                                      | 1,600,000   | 3,510,208   | 538,000   |
| Repurchase of convertible notes  |   | (28,469)  | (617,937)   |
| Proceeds from sales of claim against loaned shares                           |   |   | 369,153   |
| Repurchase of ADS  |   |   | (15,276)  |
| Repayment of short-term bank borrowings                                      | (10,000)  | (1,446,403)                                       | (1,535,478)                                       |
| Repayment of long-term bank borrowings                                       | (760,000)   | (681,500)   | (946,000)   |
| Proceeds from exercise of stock options                                      | 8,276   | 23,075  |   |
| Net cash provided by/(used in) financing activities                          | 838,276   | 3,310,389   | (232,961)   |
| Effect of exchange rate changes on cash and cash equivalents                 | (16,662)  | (14,009)  | (3,317)   |
| Net increase/(decrease) in cash and cash equivalents                         | 422,234   | 1,599,610   | (857,630)   |
| Cash and cash equivalents at the beginning of the year                       | 1,867,248   | 2,289,482   | 3,889,092   |
| Cash and cash equivalents at the end of the year                             | 2,289,482   | 3,889,092   | 3,031,462   |
| <b>Supplemental disclosure of cash flow information:</b>                     |   |   |   |
| Cash paid for interest (net of amounts capitalized)                          | 114,819   | 170,467   | 243,332   |
| Cash paid for income tax   | 179,658   | 200,839   | 40,007  |
| <b>Supplemental schedule of non-cash investing and financing activities:</b> |   |   |   |
| Purchases of property, plant and equipment included in other payables        | 151,791   | 474,185   | 357,543   |
| Issuance of ordinary shares relating to acquisition of a subsidiary          |   | 358,987   |   |

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

Table of Contents**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.

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.

As of December 31, 2012, the Company's subsidiaries include the following entities:

|  | <b>Date of Incorporation/Acquisition</b> | <b>Place of Incorporation</b> | <b>Percentage of Ownership</b> |
|--|--|-------------------------------|--------------------------------|
| 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%                           |

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|  |                   |            |      |
|--|-------------------|------------|------|
| 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% |
| JA Solar International Co., Limited ( JA International )                                     | May 28, 2010      | Hong Kong  | 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 ( Siliver 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.<br>( 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% |

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**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. 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.

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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, 2011 and 2012 represents amounts held by banks, which are not available for the Group's use, as collateral for issuance of letters of credit.

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**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 Income/(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



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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, 2010, 2011 and 2012.

In 2012, to better reflect the Group's policy of treating inventory provision as a reduction of the cost basis in the inventory balance, the Group began to present reduction of inventory reserve related to inventory sold during the year as a component of change in inventory in the Consolidated Statement of Cash Flows as oppose to as a reduction of inventory provision. The Group has reclassified the prior period balances of RMB 171,786 and RMB 296,467 in 2010 and 2011, respectively, to conform to the current period presentation in the Consolidated Statement of Cash Flows. These reclassifications had no impact on previous reported net total cash flows from operating activities.

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**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 Income/(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 Income/(Loss) on a straight-line basis over the lease periods.

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**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 Income/(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.

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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.

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**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 (See Note 10).

**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

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Statements of Operations and Comprehensive Income/(Loss). In the years ended December 31, 2010, 2011 and 2012, 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.

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**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)**

- 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. 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, 2010, 2011 and 2012.

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**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) 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. For the stock options granted in the years ended December 31, 2010, 2011 and 2012, the Group used the forfeiture rate of 7.70%, 9.79%, and 9.82%, respectively.

**s) Research and development**

Research and development costs are expensed when incurred.

**t) Advertising expenses**

Advertising expenses are expensed when incurred. Advertising expenses are not significant during any of the periods covered by these consolidated financial statements.

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**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)**

**u) 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 primarily 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. (See Note 19)

**v) 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 Income/(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 Income/(Loss).

w) **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 CODM is the Chief Executive Officer.

x) **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.

y) **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.

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**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)**

**z) 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.

**aa) 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 Income/(Loss).

**ab) 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. (See Note 16).

**ac) Share repurchase**

When the shares are repurchased for retirement, the excess of cost over par value is charged entirely to retain earnings.

**ad) Recent accounting pronouncements**

In May 2011 the FASB issued ASU 2011-04, *Fair Value Measurement: Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs* (ASU 2011-04). Key provisions of the amendments in ASU 2011-04 include: (1) a prohibition on grouping financial instruments for purposes of determining fair value, except in limited cases; (2) an extension of the prohibition against the use of a blockage factor to all fair value measurements; and (3) a requirement that for recurring Level 3 fair value measurements, entities disclose quantitative information about unobservable inputs, a description of the valuation process used and qualitative details about the sensitivity of the measurements. For items not carried at fair value but for which fair value is disclosed, entities will be required to disclose the level within the fair value hierarchy that applies to the fair value measurement disclosed. This ASU is effective for interim and annual periods beginning after December 15, 2011. The new guidance was adopted effective January 1, 2012, the adoption had no significant impact on the Group's financial statements.

In June 2011, the FASB issued ASU 2011-05, *Comprehensive Income (Topic 220) Presentation of Comprehensive Income*. ASU 2011-05 eliminates the current option to report other comprehensive income and its components in the unaudited condensed statement of changes in shareholder's equity. Instead, it requires an entity to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of net income and other comprehensive income or in two separate but consecutive statements. The new guidance was adopted effective January 1, 2012, the adoption had no material impact on the Group's financial statements.

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**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)**

**ad) Recent accounting pronouncements(continued)**

In December 2011, the FASB issued ASU 2011-11, Balance Sheet (Topic 210), *Disclosures about Offsetting Assets and Liabilities* (ASU 2011-11). This newly issued accounting standard requires an entity to disclose both gross and net information about instruments and transactions eligible for offset in the statements of financial position as well as instruments and transactions executed under a master netting or similar arrangement and was issued to enable users of financial statements to understand the effects or potential effects of those arrangements on their financial position. This ASU is required to be applied retrospectively and is effective for fiscal years, and interim periods within those years, beginning on or after January 1, 2013. As this accounting standard only requires enhanced disclosure, the adoption of this standard is not expected to have a material impact on the Group's financial statements.

In July 2012, the FASB issued ASU 2012-02, Intangibles - Goodwill and Other (Topic 350), *Testing Indefinite-Lived Intangible Assets for Impairment*. ASU 2012-02 gives companies an option to first assess qualitative factors to determine whether the existence of events and circumstances indicate it is more-likely-than-not that an indefinite-lived intangible asset is impaired. If based on its qualitative assessment, a company concludes that it is more-likely-than-not that the fair value of an indefinite-lived intangible asset is less than its carrying amount, quantitative impairment testing is required. However, if a company concludes otherwise, quantitative impairment testing is not required. ASU 2012-02 is effective for annual and interim impairment tests performed for fiscal years beginning after September 15, 2012, with early adoption permitted. The Company does not expect the adoption of this accounting standard in the first quarter of 2013 to have an impact on the Group's financial statements.

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 is not expected to have a material impact on the Company's consolidated financial statements.



**3. Acquisition of Solar Silicon Valley**

On July 1, 2011, in order to optimize the Group's cost structure through selective vertical integration, the Group entered into a definitive Share Purchase Agreement with Jinglong Group Co., Ltd and Huang Chin Tien (selling shareholders) to acquire 100% ownership interest in Silver Age Holdings Limited (Silver Age), a British Virgin Island company that owns 100% of Solar Silicon Valley Electronic Science and Technology Co., (Solar Silicon Valley), a producer of solar wafers based in China. Silver Age was 70% owned by Jinglong Group, a company controlled by JA Solar's Chairman, Mr. Baofang Jin, and 30% owned by Huang Chin Tien, an independent third party shareholder. Total purchase price was determined at US\$ 180,000, which was based on the fair value of Solar Silicon Valley at the time of closing. The Group would be required to issue 30,901,287 ordinary shares as consideration at a price of US\$5.825 per share, representing the 45-day volume-weighted average price of JA Solar's ADSs trading on the NASDAQ Global Market and approximately a 5.0% premium to the last closing price of the ADSs immediately prior to July 1, 2011. Each ADS of JA Solar represents one ordinary share. The number of share consideration was fixed with no adjustment clause.

In November 2011, the acquisition was consummated, and the acquisition date was November 30, 2011, the date on which the Group obtained control over Solar Silicon Valley. The fair value of purchase consideration on the acquisition date was RMB 358,987 (US\$56,549), measured at the quoted market price of US\$1.83 (RMB 11.62) as of November 30, 2011. Total acquisition costs were RMB 14,798, which were expensed as incurred in the year ended December 31, 2011. The excess of the fair value of net assets of Solar Silicon Valley, over the total purchase consideration, amounting to RMB 187,387, was recorded as other income in the Consolidated Statements of Operations and Comprehensive Income/(Loss) in the year ended December 31, 2011.

Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)****3. Acquisition of Solar Silicon Valley(continued)***Purchase price allocation*

The total purchase price was allocated to Solar Silicon Valley's tangible assets, identifiable intangible assets, and assumed liabilities based on their estimated fair values as set forth below. The excess of the fair value of net assets of Solar Silicon Valley, over the total purchase consideration, amounting to RMB 187,387, was recorded as a bargain purchase in other income in the Consolidated Statement of Operations. 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 Solar Silicon Valley's business.

|  | <b>As of November<br/>30,<br/>2011<br/>RMB</b> |
|--|--|
| <b>Assets acquired:</b>                  |  |
| Cash and cash equivalents                | 127,720  |
| Notes receivable                         | 8,022  |
| Accounts receivable                      | 163,193  |
| Short term prepayment                    | 25,522   |
| Inventory                                | 29,253   |
| Interest receivable                      | 14,000   |
| Other receivable                         | 263,153  |
| Property, plant and equipment, net (1)   | 189,092  |
| Long term prepayment                     | 8,334  |
| Identifiable intangible assets (2)       | 3,191  |
| Total assets acquired                    | 831,480  |
| <b>Liabilities</b>                       |  |
| Short-term bank borrowings               | 50,000   |
| Accounts payable                         | 155,201  |
| Other payables                           | 6,692  |
| Advance from customers                   | 1,089  |
| Payroll and welfare payable              | 71,468   |
| Accrued expenses                         | 656  |
| Total liabilities assumed                | 285,106  |
| Fair value of net assets acquired (a)    | 546,374  |
| Fair value of purchase consideration (b) | 358,987  |

Bargain purchase gain (b - a) (3)

187,387

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(1) The fair value of Property, plant and equipment was recognized and measured at fair value using depreciated replacement cost method. Accumulated depreciation was not carried forward. Carry value of property, plant and equipment was adjusted down by RMB 28,697 as a result of fair value measurement.

(2) The fair value of identifiable intangible assets customer relationship was determined using the income approach. The amortization period of five years was based on the estimated life of the customers. The customer relationship was valued as RMB 3,191 and RMB 53 was amortized in 2011.

(3) Bargain purchase gain, which was recognized as other income, was due to the fixed share consideration and the decline of the Company's share price between the date of the definitive agreement and the date of deal consummation.

Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)****3. Acquisition of Solar Silicon Valley(continued)**

Solar Silicon Valley contributed net revenues of RMB 22,167 and net income of RMB 6,720 from December 1, 2011 through December 31, 2011. The following table summarizes unaudited pro forma results of operations for the years ended December 31, 2010 and 2011, as if the acquisition of Solar Silicon Valley had occurred on January 1, 2010, and after giving effect to acquisition accounting adjustments.

|  | <b>Year ended<br/>December 31,<br/>2010<br/>RMB<br/>(Unaudited)</b> | <b>Year ended<br/>December 31,<br/>2011<br/>RMB<br/>(Unaudited)</b> |
|--|---|---|
| Pro forma revenue  | 12,688,673  | 11,168,769  |
| Pro forma net income/(loss)                                      | 2,364,583   | (662,187)   |
| Pro forma profit /(loss)attributable to holders of common shares | 2,364,583   | (662,187)   |
| Pro forma earnings/(losses) per share:                           |   |   |
| Basic  | 12.20   | (3.39)  |
| Diluted  | 11.70   | (3.39)  |
| Weighted average number of shares used in computation:           |   |   |
| Basic  | 193,801,944   | 195,293,209   |
| Diluted  | 202,017,971   | 195,293,209   |

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, 2010, and may not be indicative of future operating results. The unaudited pro forma net income includes RMB 638 and RMB 638 for the amortization of identifiable intangible assets and RMB 4,108 and RMB 4,108 for the reduction of depreciation expenses of property, plant and equipment for the years ended December 31, 2010 and 2011, respectively. The unaudited pro forma net income for the year ended December 31, 2010 includes bargain purchase gain of RMB 187,387, and the unaudited pro forma net loss for the year ended December 31, 2011 excludes bargain purchase gain of RMB 187,387.

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

**Notes to Consolidated Financial Statements**

**(In thousands, except share and per share data)**

**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 Income/(Loss). The Group's equity in net loss of JA MEMC amounted to RMB 1,800 and RMB 5,501 for the year ended December 31, 2011 and 2012, 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. 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, 2011 and 2012.

**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:

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|  | As of December<br>31,<br>2010<br>RMB | As of December<br>31,<br>2011<br>RMB | As of December<br>31,<br>2012<br>RMB |
|--|--------------------------------------|--------------------------------------|--------------------------------------|
| Balance at beginning of the year         | 41,121                               | 6,975                                | 32,591                               |
| Allowance made during the year           | 1,645                                | 27,880                               | 200,446                              |
| Recoveries                               |                                      | (1,542)                              | (13,316)                             |
| Amount written off against the allowance | (35,791)                             | (722)                                | (29,750)                             |
| Balance at end of the year               | 6,975                                | 32,591                               | 189,971                              |

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 customer's 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, 2012, 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. Provisions of RMB 1,645 and RMB 26,338 were made against accounts receivable for estimated losses resulting from the inability of the customers to make payments in the year ended December 31, 2010 and 2011. During the year ended December 31, 2012, provisions of RMB 187,130 were made against accounts receivables from a few customers that had financial and operational difficulties.

Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)****7. Inventories**

Inventories consisted of the following:

|                  | <b>As of December<br/>31,<br/>2011<br/>RMB</b> | <b>As of December<br/>31,<br/>2012<br/>RMB</b> |
|------------------|--|--|
| Raw materials    | 216,509  | 280,257  |
| Work-in-progress | 24,948   | 48,357   |
| Finished goods   | 489,178  | 601,523  |
| <b>Total</b>     | <b>730,635</b>                                 | <b>930,137</b>                                 |

For the year ended December 31, 2010, 2011 and 2012, inventories were written down by RMB 182,735, RMB 386,623 and RMB 171,165, respectively, to reflect the lower of cost or market.

**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.

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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, 2011 and 2012, outstanding prepayments, net of any allowance, made to individual suppliers in excess of 10% of total prepayments to suppliers are as follows:

|                           | <b>As of December<br/>31,<br/>2011<br/>RMB</b> | <b>As of December<br/>31,<br/>2012<br/>RMB</b> |
|---------------------------|--|--|
| Supplier A (third party)  | 927,255  | 759,505  |
| Supplier B (third party)* | 445,187  | 224,608  |
| Supplier C (third party)  | 167,542  | 161,925  |



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

**Notes to Consolidated Financial Statements**

**(In thousands, except share and per share data)**

**8. Advances to suppliers(continued)**

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\*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 Ningjing 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 Ningjing Songgong is primarily engaged in production of solar-grade monocrystalline silicon ingot. As of December 31, 2011, no provision was provided against prepayment made to M. SETEK as the balance was considered recoverable taken into consideration the settlement agreement and all available evidence at the time.

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 Ningjing 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. Although cash flow estimates are based on relevant information available at the time the estimates are made, such estimates are, by nature, highly uncertain and judgmental and may vary significantly from actual results.

In January 2013, the share transfer transaction was completed upon obtaining approval by relevant government. (see Subsequent Events)

No other individual supplier has advance payment balances that accounted for more than 10% of the total balance as of December 31, 2012.

The following table presents the movement of the allowance for advances to supplier:

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|                                  | As of December<br>31,<br>2010<br>RMB | As of December<br>31,<br>2011<br>RMB | As of December<br>31,<br>2012<br>RMB |
|----------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Balance at beginning of the year | 51,960                               | 87,869                               | 94,154                               |
| Allowance made during the year   | 65,366                               | 42,194                               | 103,139                              |
| Recoveries                       | (29,457)                             | (35,909)                             | (38,841)                             |
| Balance at end of the year       | 87,869                               | 94,154                               | 158,452                              |

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, 2012, 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.

Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)****9. Other current assets**

Other current assets consisted of the following:

|   | <b>As of December<br/>31,<br/>2011<br/>RMB</b> | <b>As of December<br/>31,<br/>2012<br/>RMB</b> |
|---|--|--|
| Input value-added tax recoverable                                   | 440,856  | 388,473  |
| Income tax recoverable  | 43,781   | 57,741   |
| Value-added tax refund from export sales                            | 238,720  | 191,138  |
| Prepaid input VAT & customs duty for import machinery and materials | 26,803   | 2,096  |
| Prepaid expenses  | 15,284   | 17,502   |
| Prepayment for application of land use right                        | 29,140   | 43,010   |
| Foreign exchange forward contract instruments                       | 23,351   | 79   |
| Deferred issuance cost  |  | 10,873   |
| Accounts receivable recovery from insurance companies               |  | 17,313   |
| Deposit receivable  |  | 18,759   |
| Others  | 42,201   | 60,682   |
|   | 860,136  | 807,666  |

**10. Property, plant and equipment, net**

Property, plant and equipment, net, consisted of the following:

|  | <b>As of December<br/>31,<br/>2011<br/>RMB</b> | <b>As of December<br/>31,<br/>2012<br/>RMB</b> |
|--|--|--|
| Buildings                                | 888,541  | 1,156,762                                      |
| Furniture, fixtures and office equipment | 63,972   | 79,425   |
| Motor vehicles                           | 18,961   | 25,903   |
| Machinery and equipment                  | 3,831,912                                      | 4,065,354                                      |
| Leasehold improvements                   | 89,763   | 132,542  |
| Total *                                  | 4,893,149                                      | 5,459,986                                      |

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|                                    |             |             |
|------------------------------------|-------------|-------------|
| Less: accumulated depreciation     | (1,036,207) | (1,629,798) |
| Subtotal                           | 3,856,942   | 3,830,188   |
| Construction-in-progress           | 1,242,266   | 617,281     |
| Property, plant and equipment, net | 5,099,208   | 4,447,469   |

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\* Includes impairments of long-lived assets of RMB 303,068 and RMB 397,789 for respective years as impairments are treated as permanent reductions in the carrying amounts of the assets.

As of December 31, 2012, the Group pledged its buildings with the net book value of RMB 103,761 and RMB 244,751 to secure two long-term bank borrowings of RMB 130,000 and RMB 118,000 from Export-Import Bank of China and Agricultural Bank of China, respectively.

For the years ended December 31, 2010, 2011 and 2012, total interest capitalized was RMB 28,626, RMB 50,912 and RMB 51,783, respectively.

Depreciation expense was RMB 285,435, RMB 475,278 and RMB 646,955 for the years ended December 31, 2010, 2011 and 2012, respectively, and is recorded in manufacturing overhead, selling, general and administrative expenses, research and development expenses.

Table of Contents**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 Income/(Loss) in 2011 and 2012, respectively. 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.

**11. Intangible assets, net**

Intangible assets, net, consisted of the following:

|                               | <b>Gross<br/>RMB</b> | <b>Accumulated<br/>Amortization<br/>RMB</b> | <b>Net<br/>RMB</b> |
|-------------------------------|----------------------|---|--------------------|
| As of December 31, 2011       |                      |   |                    |
| Technical know-how            | 9,000                | (7,500)                                     | 1,500              |
| Customer relationship         | 3,191                | (53)  | 3,138              |
| Purchased software and others | 15,678               | (6,566)                                     | 9,112              |
|                               | 27,869               | (14,119)                                    | 13,750             |
| As of December 31, 2012       |                      |   |                    |

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|                               |        |          |        |
|-------------------------------|--------|----------|--------|
| 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  |
|                               | 30,571 | (18,691) | 11,880 |

Amortization expense was RMB 3,645, RMB 3,969 and RMB 4,572 for the years ended December 31, 2010, 2011 and 2012, 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 1,987.

**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.

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**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.

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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. JA Hebei has performed a self-assessment and determined it has not maintained the required qualification and concluded it does not qualify for the preferential CIT rate starting from 2013. 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. As JA Lianyungang was not entitled to enjoy any tax holiday before being recognized as and ANTE, JA Lianyungang became entitled to preferential income tax of 15% from 2011 to 2013 with no any other option. JA Fengxian was recognized as an ANTE and is entitled to the preferential income tax of 15% from 2011 to 2013 and the original approval certificate was obtained in May 2012. 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. As JA Wafer R&D was not entitled to enjoy any tax holiday before being recognized as and ANTE, JA Wafer R&D became entitled to preferential income tax of 15% from 2012 to 2014 with no any other option.



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**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, 2011 and 2012 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 3,420,287 and RMB 2,495,613, and the amount of the unrecognized deferred tax liability on the permanently reinvested earnings was RMB 342,029 and RMB 249,561 as of December 31, 2011 and 2012.

**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**

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JA Lux is incorporated in Luxemburg and is subject to a 28.80% corporate tax rate.

JA 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%.

The tax benefit/(expense) comprises:

|              | <b>For the year<br/>ended<br/>December 31,<br/>2010</b> | <b>For the year<br/>ended<br/>December 31,<br/>2011</b> | <b>For the year<br/>ended<br/>December 31,<br/>2012</b> |
|--------------|---|---|---|
| Current tax  | (289,522)   | (63,410)  | (101,975)   |
| Deferred tax | 36,815  | 5,587   | 1,350   |
|              | (252,707)   | (57,823)  | (100,625)   |

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Table of Contents**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:

|  | As of December<br>31,<br>2011<br>RMB | As of December<br>31,<br>2012<br>RMB |
|--|--------------------------------------|--------------------------------------|
| Deferred tax assets:                             |                                      |                                      |
| Temporary differences:                           |                                      |                                      |
| Pre-operating expenses                           | 3,841                                | 303                                  |
| Amortization of intangible assets                | 281                                  | 2,054                                |
| Accrued warranty costs                           | 11,333                               | 19,294                               |
| Accrued expenses                                 | 13,009                               | 23,074                               |
| Net loss carried forward                         | 111,883                              | 293,861                              |
| Depreciation of property, plant and equipment    | 41,896                               | 92,235                               |
| Inventory write-down and idle capacity charges   | 32,821                               | 22,367                               |
| Allowance for doubtful accounts                  | 4,427                                | 59,979                               |
| Allowance for advance to suppliers               | 14,123                               | 31,199                               |
| Impairment loss on property, plant and equipment | 62,304                               | 120,357                              |
| Loss for equity investment in a joint venture    |                                      | 6,795                                |
| Others   | 9,628                                | 24,607                               |
| Deferred tax assets                              | 305,546                              | 696,125                              |
| Deferred tax liabilities:                        |                                      |                                      |
| Temporary differences:                           |                                      |                                      |
| Capitalized interest                             | (10,691)                             | (25,614)                             |
| Deferred tax liabilities                         | (10,691)                             | (25,614)                             |
| Less: valuation allowance                        | (202,235)                            | (576,541)                            |
| Deferred tax assets-net                          | 92,620                               | 93,970                               |

Deferred tax assets are analyzed as:

|             | As of December<br>31,<br>2011<br>RMB | As of December<br>31,<br>2012<br>RMB |
|-------------|--------------------------------------|--------------------------------------|
| Current     | 39,851                               | 20,031                               |
| Non-Current | 63,460                               | 99,553                               |
|             | 103,311                              | 119,584                              |

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Deferred tax liability are analyzed as:

|             |          |          |
|-------------|----------|----------|
| Current     |          |          |
| Non-Current | (10,691) | (25,614) |
|             | (10,691) | (25,614) |
|             | 92,620   | 93,970   |

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The following table presents the movement of the valuation allowance for deferred tax assets:

|                                  | As of December<br>31,<br>2010<br>RMB | As of December<br>31,<br>2011<br>RMB | As of December<br>31,<br>2012<br>RMB |
|----------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Balance at beginning of the year | 48,990                               | 76,174                               | 202,235                              |
| Allowance made during the year   | 27,184                               | 126,061                              | 374,306                              |
| Reversals                        |                                      |                                      |                                      |
| Balance at end of the year       | 76,174                               | 202,235                              | 576,541                              |

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.

Reconciliation between the provision for income tax computed by applying the statutory CIT and the Group's effective tax rate:

|  | For the year<br>ended<br>December 31,<br>2010 | For the year<br>ended<br>December 31,<br>2011 | For the year<br>ended<br>December 31,<br>2012 |
|--|---|---|---|
| PRC enterprise income tax  | 25%   | (25)%   | (25)%   |
| Effect of permanent differences:                                       |   |   |   |
| Share based compensation and other permanent difference                | 1.2%  | 3.68%   | 5.62%   |
| Effect of tax holiday and tax differential of certain subsidiaries (1) | (11.5)%                                       | (6.09)%                                       | (2.10)%                                       |
| Effect of tax rate change (2)  | (0.4)%  | 15.29%  | (2.69)%                                       |
| Additional tax for previously approved tax holiday(3)                  | %   | %   | 5.29%   |
| Withholding tax for dividend distribution                              | %   | %   | 1.35%   |
| Valuation allowance  | (1.8)%  | 23.54%  | 23.97%  |
|  | 12.5%   | 11.42%  | 6.44%   |

(1) Effect of tax holiday and differential tax rates of certain subsidiaries decreased from 6.09% to 2.10%, which was mainly due to that certain subsidiaries that are entitled to tax holiday incurred tax losses in 2012.

(2) Effect of tax rate change increased from (0.4%) in 2010 to 15.29% in 2011, which is mainly due to that JA Yangzhou and Jing Hai Yang Semiconductor Materials are entitled to preferential income tax rate of 15% for 2011, 2012, and 2013. Such enacted rate applicable for future years is used in deferred tax calculation for those two entities. Effect of tax rate change decreased from 15.29% in 2011 to (2.69)% in 2012, which is mainly due to that JA Hebei will not be entitled to ANTE preferential income tax rate of 15% from 2013. Such enacted rate applicable for future years is used in deferred tax calculation for JA Hebei.

(3) In June 2012, JA Hebei received ruling from the local tax bureau of Xingtai City, Hebei Province ( the Local Tax Beureau ), which ruled that JA Hebei should not have enjoyed the previously grandfathered tax holiday related to the portion of the taxable income of JA Hebei attributable to a capital injection made in 2008 (the 2008 Capital Injection ). Consequently, the Company recorded tax payable of RMB 81,180 at the end of the second quarter of 2012 and made subsequent payment in July 2012. However, the Company believed its tax position related to the 2008 Capital Injection had been in compliance with the PRC Corporate Income Tax Law, and therefore appealed in September 2012. In December 2012, the Company received full refund from the local tax bureau and recognized a tax benefit of RMB 81,180 offsetting the initial charge in the fourth quarter. In February 2013, JA Hebei received another notice from the Local Tax Bureau, which ruled that from 2008, JA Hebei should not have enjoyed the previously approved tax holiday related to the portion of the taxable income of JA Hebei attributable to a capital injection made in 2007 (the 2007 Capital Injection ).

Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)****12. Income taxes(continued)**

Consequently, the Company recorded additional income tax expenses of RMB 82,549 at the end of 2012 and made subsequent payment in March 2013. The Company believed its previous tax position related to the 2007 capital injection had been in compliance the tax law and such tax holiday and treatment had been approved by the local and province level tax authorities. The tax payment requested by local tax bureau is a discrete item in 2012, which is a result of local tax authority's new interpretation of the existing tax law.

The Aggregate amount and per share effect of the tax holiday are as follows:

|                             | For the year<br>ended<br>December 31,<br>2010 | For the year<br>ended<br>December 31,<br>2011 | For the year<br>ended<br>December 31,<br>2012 |
|-----------------------------|---|---|---|
| The aggregate dollar effect | 274,886                                       | 6,290   |   |
| Per share effect-basic      | 1.69  | 0.04  |   |
| Per share effect-diluted    | 1.61  | 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 17,110, RMB 41,161 and RMB 18,672 as other income for the years ended December 31, 2010, 2011 and 2012, 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 32,414, RMB 35,500 and RMB 78,020 during the years ended December 31, 2010, 2011 and 2012, respectively. As of December 31, 2011 and 2012, long-term liability balance of RMB 82,458 and RMB

148,738 was related to government grant for the acquisition land use rights, 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<br>31,<br>2011<br>RMB | As of December<br>31,<br>2012<br>RMB |
|---|--------------------------------------|--------------------------------------|
| Cost  | 266,228                              | 266,228                              |
| Less: accumulated amortization  | (14,785)                             | (20,339)                             |
| Net book value  | 251,443                              | 245,889                              |
| Current portion of prepaid land use rights (recorded in other current assets) | 5,555                                | 5,555                                |
| Non-current portion of prepaid land use rights                                | 245,888                              | 240,334                              |
| Total   | 251,443                              | 245,889                              |

As of December 31, 2012, the Group pledged its prepaid land use right with the net book value of RMB 77,656 to secure a long-term bank borrowing of RMB 40,000 from Agricultural Bank of China.



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| <b>Lender</b>                           | <b>Date of Borrowing</b> | <b>Due Date</b> | <b>Principal Amount<br/>(in RMB)</b> | <b>Interest rate</b> | <b>Interest Payment Periods</b> |
|---|--------------------------|-----------------|--------------------------------------|----------------------|---------------------------------|
| As of December 31, 2011                 |                          |                 |                                      |                      |                                 |
| <u>Short-term:</u>                      |                          |                 |                                      |                      |                                 |
| Industrial and Commercial Bank of China | September 2011           | September 2012  | 120,000                              | 7.300%               | Together with principal         |
| Industrial and Commercial Bank of China | November 2011            | February 2012   | 72,460                               | 4.556%               | Together with principal         |
| Shanghai Rural Commercial Bank          | October 2011             | October 2012    | 49,000                               | 6.560%               | Quarterly                       |
| Shanghai Pudong Development Bank        | December 2011            | June 2012       | 89,998                               | 5.504%               | Together with principal         |
| Shanghai Pudong Development Bank        | August 2011              | August 2012     | 50,000                               | 7.872%               | Monthly                         |
| Agriculture Bank of China               | November 2011            | May 2012        | 5,671                                | 2.189%               | Together with principal         |
| Agriculture Bank of China               | November 2011            | May 2012        | 75,611                               | 2.219%               | Together with principal         |
| Agriculture Bank of China               | November 2011            | May 2012        | 16,759                               | 2.162%               | Together with principal         |
| Agriculture Bank of China               | November 2011            | May 2012        | 50,407                               | 2.234%               | Together with principal         |
| Subtotal                                |                          |                 | 529,906                              |                      |                                 |
| <u>Long-term due in one year:</u>       |                          |                 |                                      |                      |                                 |
| China Construction Bank                 | May 2010                 | May 2012        | 150,000                              | 6.208%               | Monthly                         |
| China Construction Bank                 | November 2010            | November 2012   | 40,000                               | 6.318%               | Monthly                         |
| Agriculture Bank of China               | May 2010                 | November 2012   | 100,000                              | 6.318%               | Monthly                         |
| Bank of Communications                  | October 2010             | October 2012    | 200,000                              | 6.626%               | Quarterly                       |
| Bank of China                           | November 2010            | May 2012        | 100,000                              | 5.040%               | Quarterly                       |
| Bank of China                           | April 2011               | October 2012    | 200,000                              | 6.400%               | Quarterly                       |
| Bank of China                           | January 2011             | July 2012       | 20,000                               | 5.558%               | Quarterly                       |
| Bank of China                           | May 2011                 | November 2012   | 30,000                               | 5.760%               | Quarterly                       |
| Bank of China                           | March 2011               | September 2012  | 45,000                               | 6.588%               | Quarterly                       |

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|  |                |                |           |        |                         |
|--|----------------|----------------|-----------|--------|-------------------------|
| Subtotal   |                |                | 885,000   |        |                         |
| <u>Short-term bank borrowings and current portion of long term bank borrowings</u> |                |                | 1,414,906 |        |                         |
| <u>Long term:</u>  |                |                |           |        |                         |
| Bank of China  | July 2010      | July 2013      | 100,000   | 6.318% | Quarterly               |
| Bank of China  |                | September 2013 |           |        |                         |
| Bank of China  | October 2010   | 2013           | 100,000   | 6.318% | Quarterly               |
| Bank of China  | November 2010  | October 2013   | 100,000   | 6.318% | Quarterly               |
| Bank of China  | June 2011      | June 2013      | 100,000   | 2.752% | Half a year             |
| Bank of China  |                | December 2013  |           |        |                         |
| Bank of China  | December 2011  | 2013           | 20,000    | 6.983% | Quarterly               |
| Agriculture Bank of China  | April 2010     | April 2013     | 80,000    | 6.251% | Monthly                 |
| Agriculture Bank of China  | December 2010  | December 2013  | 120,000   | 6.251% | Monthly                 |
| Agriculture Bank of China  | October 2010   | April 2013     | 20,000    | 5.985% | Monthly                 |
| Agriculture Bank of China  | December 2010  | June 2013      | 40,000    | 5.869% | Monthly                 |
| Agriculture Bank of China  | November 2010  | May 2013       | 10,000    | 5.927% | Monthly                 |
| Agriculture Bank of China  | November 2010  | May 2013       | 30,000    | 5.985% | Monthly                 |
| Agriculture Bank of China  | July 2011      | July 2014      | 50,000    | 6.916% | Quarterly               |
| Industrial and Commercial Bank of China  | April 2011     | October 2013   | 160,000   | 7.315% | Monthly                 |
| Industrial and Commercial Bank of China  | February 2011  | November 2014  | 150,000   | 7.648% | Monthly                 |
| Industrial and Commercial Bank of China  | March 2011     | March 2014     | 140,000   | 6.771% | Monthly                 |
| Industrial and Commercial Bank of China  | March 2011     | September 2013 | 70,000    | 6.771% | Monthly                 |
| Industrial and Commercial Bank of China  | April 2011     | September 2013 | 30,000    | 6.771% | Monthly                 |
| Industrial and Commercial Bank of China  | April 2011     | March 2013     | 40,000    | 6.771% | Monthly                 |
| Industrial and Commercial Bank of China  | May 2011       | March 2014     | 20,000    | 6.983% | Monthly                 |
| Industrial and Commercial Bank of China  | June 2011      | March 2014     | 54,255    | 6.221% | Monthly                 |
| Industrial and Commercial Bank of China  | December 2011  | June 2014      | 59,161    | 6.221% | Monthly                 |
| Industrial and Commercial Bank of China  | June 2011      | January 2015   | 190,000   | 6.983% | Together with principal |
| Industrial and Commercial Bank of China  | June 2011      | January 2014   | 750,000   | 6.983% | Together with principal |
| Industrial and Commercial Bank of China  | June 2011      | January 2013   | 500,000   | 6.983% | Together with principal |
|  | September 2011 |                | 130,000   | 4.760% | Quarterly               |

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|                                  |            |                |           |        |           |
|----------------------------------|------------|----------------|-----------|--------|-----------|
| Export-Import Bank of China      |            | September 2013 |           |        |           |
| China Construction Bank          | June 2011  | May 2013       | 50,000    | 6.400% | Monthly   |
| Shanghai Pudong Development Bank | June 2011  | June 2013      | 100,000   | 6.720% | Quarterly |
| China Everbright Bank            | June 2011  | June 2014      | 200,000   | 6.983% | Quarterly |
| China Merchants Bank             | May 2011   | March 2013     | 29,500    | 6.720% | Quarterly |
| China Merchants Bank             | April 2011 | April 2013     | 9,500     | 6.720% | Quarterly |
| China Merchants Bank             | March 2011 | March 2013     | 9,500     | 6.405% | Quarterly |
| Subtotal                         |            |                | 3,461,916 |        |           |
| Total bank borrowings            |            |                | 4,876,822 |        |           |

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Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)****15. Bank borrowings(continued)**

| <b>Lender</b>                     | <b>Date of Borrowing</b> | <b>Due Date</b> | <b>Principal Amount<br/>(in RMB)</b> | <b>Interest rate</b> | <b>Interest Payment Periods</b> |
|-----------------------------------|--------------------------|-----------------|--------------------------------------|----------------------|---------------------------------|
| As of December 31, 2012           |                          |                 |                                      |                      |                                 |
| <u>Short-term:</u>                |                          |                 |                                      |                      |                                 |
| Industrial and Commercial         |                          |                 |                                      |                      |                                 |
| Bank of China                     | February 2012            | January 2013    | 100,000                              | 7.282%               | Monthly                         |
| Bank of China                     | May 2012                 | May 2013        | 30,000                               | 6.780%               | Quarterly                       |
| Bank of China                     | May 2012                 | May 2013        | 30,000                               | 6.780%               | Quarterly                       |
| Bank of China                     | October 2012             | April 2013      | 100,000                              | 6.440%               | Quarterly                       |
| Bank of China                     | October 2012             | April 2013      | 51,455                               | 6.440%               | Quarterly                       |
| Bank of Communications            | October 2012             | April 2013      | 100,000                              | 5.880%               | Quarterly                       |
| China Merchants Bank              | October 2012             | March 2013      | 50,000                               | 6.048%               | Quarterly                       |
| Bank of Communications            | November 2012            | May 2013        | 52,401                               | 5.766%               | Together with principal         |
| Bank of Communications            | November 2012            | May 2013        | 51,569                               | 5.729%               | Together with principal         |
| China Bohai Bank                  | November 2012            | May 2013        | 50,000                               | 5.600%               | Together with principal         |
| Bank of China                     | January 2012             | January 2013    | 94,283                               | 7.200%               | Quarterly                       |
| Bank of China                     | February 2012            | February 2013   | 102,139                              | 7.120%               | Quarterly                       |
| Bank of China                     | September 2012           | March 2013      | 6,381                                | 3.983%               | Together with principal         |
| Bank of China                     | September 2012           | March 2013      | 10,336                               | 3.983%               | Together with principal         |
| Bank of China                     | September 2012           | March 2013      | 65,998                               | 4.187%               | Together with principal         |
| China Guangfa Bank                | November 2012            | May 2013        | 39,284                               | 2.323%               | Together with principal         |
| Agriculture Bank of China         | November 2012            | February 2013   | 4,762                                | 3.311%               | Together with principal         |
| Agriculture Bank of China         | December 2012            | March 2013      | 20,947                               | 3.309%               | Together with principal         |
| Agriculture Bank of China         | December 2012            | March 2013      | 13,175                               | 3.311%               | Together with principal         |
| Subtotal                          |                          |                 | 972,730                              |                      |                                 |
| <u>Long-term due in one year:</u> |                          |                 |                                      |                      |                                 |
| Bank of China                     | July 2010                | July 2013       | 100,000                              | 6.318%               | Quarterly                       |
| Bank of China                     |                          | September 2013  |                                      |                      |                                 |
| Bank of China                     | October 2010             |                 | 100,000                              | 6.318%               | Quarterly                       |
| Bank of China                     | November 2010            | October 2013    | 100,000                              | 6.318%               | Quarterly                       |
| Agriculture Bank of China         | April 2010               | April 2013      | 80,000                               | 6.251%               | Monthly                         |
| Agriculture Bank of China         |                          | December 2013   |                                      |                      |                                 |
| Agriculture Bank of China         | December 2010            |                 | 120,000                              | 6.251%               | Monthly                         |
| Industrial and Commercial         |                          |                 |                                      |                      |                                 |
| Bank of China                     | April 2011               | October 2013    | 160,000                              | 7.315%               | Monthly                         |
| Export-Import Bank of China       |                          | September 2013  |                                      |                      |                                 |
| Export-Import Bank of China       | September 2011           |                 | 130,000                              | 4.760%               | Quarterly                       |
| Agriculture Bank of China         | October 2010             | April 2013      | 20,000                               | 5.985%               | Monthly                         |
| Agriculture Bank of China         | November 2010            | May 2013        | 10,000                               | 5.927%               | Monthly                         |

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|  |               |                |           |        |                         |
|--|---------------|----------------|-----------|--------|-------------------------|
| Agriculture Bank of China  | December 2010 | June 2013      | 40,000    | 5.869% | Monthly                 |
| Agriculture Bank of China  | November 2010 | May 2013       | 30,000    | 5.985% | Monthly                 |
| Industrial and Commercial Bank of China  | March 2011    | September 2013 | 70,000    | 6.771% | Monthly                 |
| Industrial and Commercial Bank of China  | April 2011    | September 2013 | 30,000    | 6.771% | Monthly                 |
| China Construction Bank  | June 2011     | May 2013       | 48,000    | 5.542% | Monthly                 |
| Bank of China  | June 2011     | June 2013      | 100,000   | 2.752% | Half a year             |
| Shanghai Pudong Development Bank   | June 2011     | June 2013      | 98,000    | 6.720% | Quarterly               |
| China Merchants Bank   | May 2011      | March 2013     | 28,500    | 6.983% | Quarterly               |
| China Merchants Bank   | April 2011    | April 2013     | 8,500     | 6.983% | Quarterly               |
| China Merchants Bank   | March 2011    | March 2013     | 8,500     | 6.983% | Quarterly               |
| Shanghai Pudong Development Bank   | March 2012    | September 2013 | 49,000    | 7.315% | Quarterly               |
| Industrial and Commercial Bank of China  | June 2011     | January 2013   | 500,000   | 6.980% | Together with principal |
| Bank of China  | December 2011 | December 2013  | 20,000    | 6.983% | Quarterly               |
| Subtotal   |               |                | 1,850,500 |        |                         |
| <u>Short-term bank borrowings and current portion of long term bank borrowings</u> |               |                | 2,823,230 |        |                         |

Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)****15. Bank borrowings(continued)**

| <b>Lender</b>                           | <b>Date of Borrowing</b> | <b>Due Date</b> | <b>Principal Amount<br/>(in RMB)</b> | <b>Interest rate</b> | <b>Interest Payment Periods</b> |
|---|--------------------------|-----------------|--------------------------------------|----------------------|---------------------------------|
| As of December 31, 2012                 |                          |                 |                                      |                      |                                 |
| <u>Long term</u>                        |                          |                 |                                      |                      |                                 |
| China Construction Bank                 | June 2012                | May 2014        | 38,000                               | 6.400%               | Monthly                         |
| Industrial and Commercial Bank of China | December 2011            | November 2014   | 150,000                              | 7.315%               | Monthly                         |
| China Construction Bank                 | May 2012                 | April 2014      | 159,000                              | 6.650%               | Monthly                         |
| Bank of Xingtai                         | September 2012           | September 2014  | 100,000                              | 6.519%               | Monthly                         |
| Industrial and Commercial Bank of China | March 2011               | March 2014      | 140,000                              | 6.771%               | Monthly                         |
| Industrial and Commercial Bank of China | April 2011               | March 2014      | 40,000                               | 6.771%               | Monthly                         |
| Industrial and Commercial Bank of China | May 2011                 | March 2014      | 20,000                               | 6.983%               | Monthly                         |
| Industrial and Commercial Bank of China | June 2011                | March 2014      | 54,122                               | 6.221%               | Monthly                         |
| China Everbright Bank                   | June 2011                | June 2014       | 200,000                              | 6.458%               | Quarterly                       |
| Industrial and Commercial Bank of China | December 2011            | June 2014       | 59,017                               | 6.221%               | Monthly                         |
| Industrial and Commercial Bank of China | June 2011                | January 2015    | 190,000                              | 6.980%               | Together with principal         |
| Industrial and Commercial Bank of China | June 2011                | January 2014    | 750,000                              | 6.980%               | Together with principal         |
| Bank of China                           | April 2012               | April 2014      | 30,000                               | 7.836%               | Quarterly                       |
| Agriculture Bank of China               | August 2012              | February 2019   | 40,000                               | 7.009%               | Quarterly                       |
| Agriculture Bank of China               | September 2012           | August 2019     | 118,000                              | 7.009%               | Quarterly                       |
| Subtotal                                |                          |                 | 2,088,139                            |                      |                                 |
| Total bank borrowings                   |                          |                 | 4,911,369                            |                      |                                 |

The bank borrowings outstanding as of December 31, 2011 and 2012 bore an average interest rate of 6.40% and 6.49% per annum, respectively. These loans are borrowed from various financial institutions. The borrowings have 3-month to 84-month terms and expire at various times. The unused lines of credit were RMB 1,199,361, which were available as of December 31, 2012. These facilities contain no specific renewal terms and require no collateral.

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Interest incurred for bank borrowings for the years ended December 31, 2010, 2011 and 2012 amounted to RMB 58,045, RMB 212,153 and RMB 348,510, respectively, of which RMB 14,355, RMB 39,320 and RMB 45,059 was capitalized in the cost of property, plant and equipment.

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, 2011 and 2012, 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:

| <b>Year ending December 31,</b> | <b>RMB</b>       |
|---------------------------------|------------------|
| 2013                            | 1,850,500        |
| 2014                            | 1,740,139        |
| 2015                            | 190,000          |
| 2016                            |                  |
| Thereafter                      | 158,000          |
| <b>Total</b>                    | <b>3,938,639</b> |

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**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, 2010, 2011 and 2012 was RMB 7,552, RMB 9,364 and RMB 9,656, 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 67,876, RMB 65,959 and RMB 56,893 for the years ended December 31, 2010, 2011 and 2012 respectively.

Each \$1,000 principal amount of the Senior Notes will initially be convertible into 6.5628 American Depositary 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



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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 70,458, RMB 66,142 and RMB 32 was recorded in Consolidated Statements of Operations and Comprehensive Income/(Loss) for the years ended December 31, 2010, 2011 and 2012, 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 95,547 RMB 104,195 and RMB 96,532 for the years ended December 31, 2010, 2011 and 2012, respectively.

During the years ended December 31, 2010, 2011 and 2012, the Company bought back US\$ nil, US\$ 6,145 and US\$ 105,427 (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 nil, RMB 4,312 and RMB (8,466) respectively, for the years ended December 31, 2010, 2011 and 2012. As of December 31, 2012, the notional outstanding amount of the Senior Notes was RMB 732,896 (US\$ 116,601). The estimated fair value of the Senior Notes as of December 31, 2012 was RMB 696,170 (US\$ 110,758).

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

**Notes to Consolidated Financial Statements**

**(In thousands, except share and per share data)**

**16. Senior Convertible Notes(continued)**

***Capped Call***

Concurrent with the Company's issuance of the Senior Notes on May 12, 2008, it entered into capped call option transactions with two financial institutions (the Counterparties) that are affiliates of two of the underwriters of the Senior Notes. The capped call transactions was designed to reduce the dilution that would otherwise occur as a result of new common stock issuances upon conversion of the Senior Notes, and effectively increase the conversion price of the Senior Notes for the Company to \$37.375 per ADS from the actual conversion price to the Senior Notes holders of \$30.475 per ADS. The total premium paid by the Company for the capped call transactions was RMB 226,087.

The Company's functional currency is different from the denomination of the capped call. Therefore, in accordance with ASC 815, *Derivatives and Hedging*, the Company accounted for the capped call transactions as freestanding derivative assets in the Consolidated Balance Sheet. The derivative is marked to market each reporting period utilizing the Black-Scholes option pricing model.

On September 15, 2008 and October 3, 2008, respectively, one of the counterparties and its affiliate filed for protection under Chapter 11 of the US Federal Bankruptcy Code, an event of default under the agreement. As a result of the default, the Counterparty is not expected to perform its obligations if such obligations were to be triggered. The Company has written down the fair value of the derivative in relation to this counterparty to nil given the counterparty is in bankruptcy and lacks the ability and intent to settle the contract as of period end. The fair value of the derivative asset purchased from the other counterparty was RMB nil as of December 31, 2011 and 2012 respectively. The change in fair value of this derivative recorded in change in fair value of derivatives in the consolidated statement of operation was RMB 5,094, RMB (9,127) and RMB nil for the years ended December 31, 2010, 2011 and 2012 respectively.

On March 7, 2012, the Company entered into a Termination Agreement with Lehman Brothers OTC Derivatives Inc. and Lehman Brothers Holdings Inc. to terminate the transactions governed by an agreement dated May 13, 2008 between Lehman Brothers OTC Derivatives Inc. and the Company, which supplements, forms part of, and is subject to, an agreement in the form of the 1992 ISDA Master Agreement. The termination had minimal financial impact.

***ADS Lending Agreement***

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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.

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

**Notes to Consolidated Financial Statements**

**(In thousands, except share and per share data)**

**16. Senior Convertible Notes(continued)**

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.

On January 1, 2010, the Company adopted 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 20,815, RMB 27,335 and RMB 29,537 for the years ended December 31, 2010, 2011 and 2012, respectively.

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 Income/(Loss).

**17. Other payables to third parties**

Other payables consisted of the following:

|  | As of December<br>31,<br>2011<br>RMB | As of December<br>31,<br>2012<br>RMB |
|--|--------------------------------------|--------------------------------------|
| Purchases of property, plant and equipment | 474,185                              | 367,426                              |
| Miscellaneous tax payables                 | 18,253                               | 25,011                               |
| Deposits                                   | 3,008                                | 6,049                                |
| Labor services payables                    | 12,438                               | 13,883                               |
| Logistic charges                           | 894                                  | 37,528                               |
| Others                                     | 18,949                               | 30,218                               |
| Total other payables                       | 527,727                              | 480,115                              |

Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)****18. Accrued expenses**

Accrued expenses consisted of the following:

|                           | As of December<br>31,<br>2011<br>RMB | As of December<br>31,<br>2012<br>RMB |
|---------------------------|--------------------------------------|--------------------------------------|
| Professional service fees | 32,537                               | 21,970                               |
| Interest                  | 65,168                               | 167,198                              |
| Utilities                 | 9,445                                | 909                                  |
| Logistic charges          | 33,812                               | 9,154                                |
| Others                    | 11,715                               | 27,066                               |
| Total accrued expenses    | 152,677                              | 226,297                              |

**19. Accrued warranty cost**

The movement of Group's accrued warranty costs for solar module is summarized below:

|                      | As of December<br>31,<br>2010<br>RMB | As of December<br>31,<br>2011<br>RMB | As of December<br>31,<br>2012<br>RMB |
|----------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Beginning balance    | 5,931                                | 31,277                               | 78,751                               |
| Warranty provision   | 25,346                               | 47,474                               | 42,167                               |
| Warranty utilization |                                      |                                      | (6,692)                              |
| Ending balance       | 31,277                               | 78,751                               | 114,226                              |

**20. Share-based compensation**

As of December 31, 2012, 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, 2012, the Company granted 2,207,000 ordinary share options to certain of its employees. The exercise price of the options ranges from US\$1.37 to US\$1.83.

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**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 28,559, RMB 12,810 and RMB 12,980 (included in selling, general, and administrative expenses and manufacturing overhead, of which RMB 249, RMB 268 and RMB 1,256 was capitalized in the cost of inventory as of December 31, 2010, 2011 and 2012, respectively), for the years ended December 31, 2010, 2011 and 2012 associated with the expensing of stock options, respectively.

The weighted-average grant-date fair value of options granted during the years ended December 31, 2010 and 2012 were US\$ 4.88 and US\$ 1.4, respectively. No option grants were made in 2011. 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 28,310, RMB 12,542 and RMB 11,724 for the years ended December 31, 2010, 2011 and 2012, respectively. The amounts reversed associated with options forfeited were RMB 1,737, RMB 5,110 and RMB 1,616 for the years ended December 31, 2010, 2011 and 2012, 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 7.70%, 9.79% and 9.82% respectively for the years ended 2010, 2011 and 2012.

As of December 31, 2010, 2011 and 2012, there was RMB 25,316, RMB 5,491 and RMB 3,788 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 14 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, 2010, 2011 and 2012 respectively:

| For the year<br>ended | For the year<br>ended | For the year<br>ended |
|-----------------------|-----------------------|-----------------------|
|-----------------------|-----------------------|-----------------------|



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|                                       | December 31,<br>2010 | December 31,<br>2011 | December 31,<br>2012 |
|---------------------------------------|----------------------|----------------------|----------------------|
| Average risk-free rate                | 2.74%                |                      | 1.09%~1.27%          |
| Weighted average expected option life | 6 years              |                      | 5.75 years           |
| Volatility rate                       | 70%                  |                      | 80.5%                |
| Dividend                              |                      |                      |                      |

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(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.

Table of Contents**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, 2012:

|                                  | Shares    | Weighted<br>Average<br>Exercise<br>Price (US\$) | Weighted<br>Average<br>Remaining<br>Contractual Life<br>(Year) | Intrinsic<br>Value (US\$,<br>in thousands) |
|----------------------------------|-----------|---|--|--|
| Outstanding at December 31, 2010 | 3,835,650 | 6.05  | 8.28   | 3,337                                      |
| Granted                          |           |   |  |  |
| Forfeited                        | (371,750) | 4.41  |  |  |
| Exercised                        | (773,250) | 4.55  |  |  |
| 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   |  |
| Exercisable at December 31, 2012 | 1,662,850 | 7.79  | 5.85   |  |

The total intrinsic value of options exercised during the years ended December 31, 2010, 2011 and 2012 was \$1,166, \$2,077 and \$ 0, 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.

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The following table summarizes information with respect to RSUs outstanding on December 31, 2012:

|                                | Shares    | Weighted Average<br>Fair Value (US\$) |
|--------------------------------|-----------|---------------------------------------|
| Nonvested at December 31, 2010 | 2,428,000 | 4.90                                  |
| Granted                        | 880,000   | 5.87                                  |
| Vested                         | (587,500) | 4.80                                  |
| Forfeited                      | (227,500) | 6.00                                  |
| 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                                  |

For RSUs, the Company recognized a pre-tax charge of RMB 43,226, RMB 27,377 and RMB 20,249 (included in selling, general, and administrative expenses) for the years ended December 31, 2010, 2011 and 2012, respectively. Unrecognized compensation expense related to the RSUs as of December 31, 2010 and 2012 were RMB 31,578 and RMB 11,024, respectively. The cost is expected to be recognized over a remaining weighted average period of 22 months. The fair value of shares vested during the years ended December 31, 2010, 2011 and 2012 was RMB 23,022, RMB 20,738 and RMB 997, respectively.

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**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 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 Income/(Loss). During the year ended December 31, 2011, the Group entered into foreign exchange forward contracts with a notional amount of Euro 295,902 and US Dollar 374,738. 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. As of December 31, 2011, the Group had outstanding foreign currency forward exchange contracts with notional amounts of Euro 23,617 and US Dollar 41,167. As of December 31, 2012, the Group had outstanding foreign currency forward exchange contracts with notional amounts of US Dollar 848.

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 2,326, RMB 9,428 and RMB (11,755) for the years ended December 31, 2010, 2011 and 2012, respectively. The gain 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 nil, RMB 33,323 and RMB 9,303 for the years ended December 31, 2010, 2011 and 2012, respectively.

The following table displays the outstanding notional balances and the estimated fair value of the Group's foreign-currency forward exchange contracts and embedded derivatives as of December 31, 2011 and 2012:

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|  | As of December 31,<br>2011<br>RMB<br>Notional Amount | As of December 31,<br>2011<br>RMB<br>Estimate fair value | As of December 31,<br>2012<br>RMB<br>Notional Amount | As of December 31,<br>2012<br>RMB<br>Estimate fair value |
|--|--|--|--|--|
| Foreign exchange forward contracts under cash flow hedge, recorded in other current assets)                | 158,898  | 11,755   |  |  |
| Foreign exchange forward contracts not designated as hedging instruments, recorded in other current assets | 293,270  | 11,596   | 5,333  | 79   |
| Embedded derivatives underlying convertible notes recorded in embedded derivatives                         |  | (32)   |  |  |

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

**Notes to Consolidated Financial Statements**

**(In thousands, except share and per share data)**

**22. 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 39,069, RMB 72,677 and RMB 95,929 for the years ended December 31, 2010, 2011 and 2012, 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 2010, 2011 and 2012 were RMB 186,284, RMB 22,815 and nil, respectively. During the years ended December 31, 2012, the Group made a reversal of RMB 3,654, 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:

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| <b>Legal Entity</b>  | <b>Paid-in Capital<br/>restricted</b> |
|--|---------------------------------------|
| 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\$ 88,000                           |
| 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                           |
| Dunhuang JA Solar Power Development Co., Ltd                     | RMB 3,000                             |

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## JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements

(In thousands, except share and per share data)

## 23. Earnings (loss) per share

Basic and diluted net (loss)/ earnings per share for the years ended December 31, 2010, 2011 and 2012 are calculated as follows:

|   | Year ended<br>December 31,<br>2010 | Year ended<br>December 31,<br>2011 | Year ended<br>December 31,<br>2012 |
|---|------------------------------------|------------------------------------|------------------------------------|
| <b>Numerator:</b>   |                                    |                                    |                                    |
| Numerator for basic earnings/(loss) per share from continuing operations                | 1,775,181                          | (572,098)                          | (1,662,257)                        |
| Dilutive effect of:   |                                    |                                    |                                    |
| Change in fair value of embedded derivatives underlying convertible notes               | (70,458)                           |                                    |                                    |
| Foreign exchange gain on convertible notes  | (33,021)                           |                                    |                                    |
| Accretion of non-cash interest charge on convertible notes                              | 95,547                             |                                    |                                    |
| Amortization of deferred issuance cost in relation to convertible notes                 | 28,368                             |                                    |                                    |
| Interest expense of convertible notes   | 67,876                             |                                    |                                    |
| Capitalized interest  | (28,626)                           |                                    |                                    |
| Numerator for diluted earnings/(loss) per share from continuing operations              | 1,834,867                          | (572,098)                          | (1,662,257)                        |
| Numerator for basic (loss)/earnings per share from discontinued operations              | (19,830)                           | 7,753                              |                                    |
| Numerator for diluted (loss)/earnings per share from discontinued operations            | (19,830)                           | 7,753                              |                                    |
| <b>Denominator:</b>   |                                    |                                    |                                    |
| Denominator for basic earnings per share - weighted average ordinary shares outstanding | 162,900,657                        | 167,101,076                        | 194,788,429                        |
| Dilutive effect of share options and RSUs*  | 728,804                            |                                    |                                    |
| Dilutive effect of convertible notes*   | 7,487,223                          |                                    |                                    |
| Denominator for diluted earnings per share  | 171,116,684                        | 167,101,076                        | 194,788,429                        |
| Basic earnings/(loss) per share from continuing operations                              | 10.90                              | (3.42)                             | (8.53)                             |
| Diluted earnings/(loss) per share from continuing operations                            | 10.72                              | (3.42)                             | (8.53)                             |
| Basic (loss)/earnings per share from discontinued operations                            | (0.12)                             | 0.04                               |                                    |
| Diluted (loss)/earnings per share from discontinued operations                          | (0.12)                             | 0.04                               |                                    |



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\* These potentially dilutive securities 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.

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a) Amounts due to related parties consisted of the following:

|   | As of December 31,<br>2011<br>RMB | As of December 31,<br>2012<br>RMB |
|---|-----------------------------------|-----------------------------------|
| Payables to Hebei Jinglong Industry and Commerce Group Co., Ltd. ( Hebei Jinglong ) -short term | 73,097                            | 32,101                            |
| Payables to Jing Wei Electronics Co., Ltd.-short term   | 47,754                            | 67,227                            |
| Payables to Heibei Ningjin Songgong Semiconductor Co., Ltd. ( Ningjin Songgong ) -short term    | 4,294                             | 48,081                            |
| Others-short term   | 37,344                            | 58,230                            |
| Total amounts due to related parties-short term   | 162,589                           | 205,639                           |

b) Amounts due from related parties consisted of the following:

|  | As of December 31,<br>2011<br>RMB | As of December 31,<br>2012<br>RMB |
|--|-----------------------------------|-----------------------------------|
| Advances to Hebei Jinglong-short term        | 10,740                            | 86,712                            |
| Advances to Hebei Jinglong-long term         | 38,333                            | 21,252                            |
| Advances to others-short term                | 3,439                             | 553                               |
| Receivables from Ningjin Songgong-short term | 19,077                            | 5,045                             |
| Receivables from others-short term           | 18,215                            | 32,242                            |
| Total amounts due from related parties       | 89,804                            | 145,804                           |

c) *Transactions with Hebei Jinglong***Wafer supply**

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In July 2006, the Group entered into a master long-term supply contract (the **Jinglong Long-term Supply Contract**) with Hebei Jinglong, which owns 29.5% equity interest of the Group as of December 31, 2012, for the supply of silicon wafers. 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 do not contain an embedded derivative nor would the supplier contracts cause the supplier to be a variable interest entity.

For the years ended 31 December 2010, 2011 and 2012, the Group purchased RMB 1,629,433, RMB 1,506,609 and RMB 191,339 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 49,073 and RMB 107,964 at December 31, 2011 and 2012, respectively, and were recorded in advances to related party supplier in the consolidated balance sheet.

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

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**(In thousands, except share and per share data)**

**24. Related party transactions(continued)**

**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 2,275, RMB nil and RMB 17,899 for Hebei Jinglong for the years ended December 31, 2010, 2011 and 2012 respectively, RMB 4,138 and RMB 8,874 for Solar Silicon Valley for the years ended December 31, 2010 and 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 12,180, RMB 12,000 and RMB 12,000 for the years ended December 31, 2010, 2011 and 2012, respectively.

**Guarantee**

As of December 31, 2011, the Group provided guarantees to Hebei Jinglong for short-term bank borrowing with a principal of RMB 366,000 while the Group also received guarantees from Hebei Jinglong for short-term bank borrowing with a principal of RMB 170,000. The Group monitors the financial performance of Hebei Jinglong on a monthly basis, and also evaluates the availability of Hebei Jinglong 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, 2011 was not material. There is no guarantee provided to Hebei Jinglong as of December 31, 2012.

**Acquisition of Solar Silicon Valley**

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On November 30, 2011, the Group completed the acquisition of 100 percent of the shares of Solar Silicon Valley for a share consideration of RMB 358,987 (Note 3).

d) *Transactions with other related parties*

|                                | For the year ended<br>December 31, 2010<br>RMB | For the year ended<br>December 31, 2011,<br>RMB | For the year ended<br>December 31, 2012<br>RMB |
|--------------------------------|--|---|--|
| <b>Sales of products</b>       |  |   |  |
| Subsidiaries of Hebei Jinglong | 19,494   | 8,858   | 172,623  |
| Ningjin Songgong               |  | 13,035  | 67,393   |
| Others                         | 140,670  | 45,897  | 3,204  |
| Total                          | 160,164  | 67,790  | 243,220  |
| <b>Purchase of products</b>    |  |   |  |
| Subsidiaries of Hebei Jinglong | 837,505  | 1,128,937                                       | 464,511  |
| Ningjin Songgong               | 32,205   | 2,932   | 350,685  |
| Others                         | 5,482  |   | 12,515   |
| Total                          | 875,192  | 1,131,869                                       | 827,711  |
| <b>Processing service</b>      |  |   |  |
| Subsidiaries of Hebei Jinglong | 232,163  | 27,369  | 19,086   |
| Others                         |  | 14,147  | 7,618  |
| Total                          | 232,163  | 41,516  | 26,704   |
| <b>Purchase of equipment</b>   |  |   |  |
| Subsidiaries of Hebei Jinglong | 10   | 460   | 2,481  |
| Total                          | 10   | 460   | 2,481  |

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**(In thousands, except share and per share data)**

**24. Related party transactions(continued)**

During the year ended December 31, 2010, the Group acquired 100 percent of the shares of Shanghai Jinglong Solar Technology Co., Ltd. from Ningjin Jinglong PV Investment Co., Ltd., a subsidiary of Hebei Jinglong, for a cash consideration of RMB 198,960, representing the fair value of the company based on an independent third party valuation. Shanghai Jinglong Solar Technology Co., Ltd. owns the land, building and facility previously leased by the Group for its module production operation in Fengxian, Shanghai. Shanghai Jinglong Solar Technology Co., Ltd. is not a business and this transaction was accounted for as an asset acquisition.

On March 8, 2012, the Group entered into a settlement agreement with M.SETEK to settle the outstanding prepayments made to M.SETEK. Pursuant to the settlement agreement, M.SETEK will transfer its 65% equity interests in Hebei Ningjing Songgong to the Group at an appraisal price to repay a portion of the prepayments. Hebei NingJin Songgong 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. (See Note 8)

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

**25. Contingencies and Commitments**

**a) Legal contingencies**

In December 2008, the Company was named as defendant in two putative securities class actions filed in the United States District Court for the Southern District of New York: *Ellenburg v. JA Solar Holdings Co., Ltd., et al.*, Civil Action No. 08 CV 10475 (filed on December 3, 2008) and *Zhang v. JA Solar Holdings Co., Ltd., et al.*, Civil Action No. 08 CV 11366 (filed on December 31, 2008). The complaints in the two actions, which are substantially identical, also name as defendants Mr. Huaijin Yang, our former chief executive officer, and Mr. Daniel Lui, our former chief financial officer and chief strategy officer, and allege that the defendants committed securities fraud in violation of Section 10(b) of the United States Securities and Exchange Act. The Court consolidated the two cases in April 2009. In February 2011, the Company reached an agreement in principle to settle these securities class action lawsuits. Under the terms of the proposed settlement, a sum of US\$ 4,500 (less any award of attorneys' fees and costs to counsel for the class that may be approved by the Court) will be made available to shareholders who may qualify for a distribution under the settlement. As part of the settlement, the plaintiff agreed to dismiss the action and drop all claims against the Company and the individual defendants. The Court granted final approval of the settlement terms in June 2011. The Group paid total settlement

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amount of RMB 29,808 (US\$ 4,500) in the year ended December 31, 2011. There was no outstanding legal contingency as of December 31, 2011 and 2012.

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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 1,315,832, RMB 1,600,725 and RMB 1,098,601 for the years ended December 31, 2010, 2011 and 2012, respectively. The Group's future obligations under multi-year supply agreements, including take or pay supply agreements are as follows:

|   | <b>Take or pay<br/>supply<br/>agreements<br/>(in RMB)</b> | <b>Other<br/>Multi-year<br/>supply<br/>agreements *<br/>(in RMB)</b> | <b>Total<br/>(in RMB)</b> |
|---|---|--|---------------------------|
| <b>Twelve Months Ending December 31</b> |   |  |                           |
| 2013                                    | 1,719,219   | 221,694  | 1,940,913                 |



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|            |            |           |            |
|------------|------------|-----------|------------|
| 2014       | 1,318,069  | 334,490   | 1,652,559  |
| 2015       | 1,640,516  | 334,957   | 1,975,473  |
| 2016       | 1,604,688  | 427,576   | 2,032,264  |
| 2017       | 1,568,861  |           | 1,568,861  |
| Thereafter | 3,116,979  |           | 3,116,979  |
| Total      | 10,968,332 | 1,318,717 | 12,287,049 |

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\* 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 3,000 metric tons and 2,260 million pieces respectively during 2013 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 1,163,350 and RMB 885,102 as of December 31, 2011 and 2012, 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.

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**25. Contingencies and Commitments(continued)**

*c) Operating lease commitments*

As of December 31, 2012, 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:

|              | <b>(in RMB)</b> |
|--------------|-----------------|
| 2013         | 52,514          |
| 2014         | 40,990          |
| 2015         | 40,688          |
| 2016         | 34,697          |
| 2017         | 574             |
| Thereafter   |                 |
| <b>Total</b> | <b>169,463</b>  |

Rent expense under all operating leases was RMB 17,786, RMB 14,992 and RMB 23,357, for the years ended December 31, 2010, 2011 and 2012, respectively.

*d) Capital expenditure*

As of December 31, 2012, the Group had contracted for capital expenditure on machinery and equipment of RMB 496,390.

**26. 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.

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**(In thousands, except share and per share data)**

**26. 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 bank borrowings, and accrued expenses. The cost approximates the fair value because of the short maturity period.

*Long-term bank 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 bank borrowings approximate their fair values as all the long-term bank 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 and foreign currency forward contract instruments. Since its capped call transactions and embedded derivatives underlying convertible notes 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 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, 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.

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## JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements

(In thousands, except share and per share data)

## 26. Fair value measurements(continued)

## Recurring change in fair value

As of December 31, 2011, 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                                       | Balance as of<br>31 December<br>2011 | Fair Value Measurements at Reporting Date Using                         |   |  |
|---|--------------------------------------|---|---|--|
|   |                                      | Quoted Prices in<br>Active Markets<br>for Identical<br>Assets (Level 1) | Significant Other<br>Observable Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |
| <b>Assets:</b>                                    |                                      |   |   |  |
| Foreign exchange forward contract instruments     | 23,351                               |   | 23,351  |  |
| <b>Liabilities:</b>                               |                                      |   |   |  |
| Embedded derivatives underlying convertible notes | (32)                                 |   |   | (32)   |

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                                   | Balance as of<br>31 December<br>2012 | Fair Value Measurements at Reporting Date Using                         |   |  |
|---|--------------------------------------|---|---|--|
|   |                                      | Quoted Prices in<br>Active Markets<br>for Identical<br>Assets (Level 1) | Significant Other<br>Observable Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |
| <b>Assets:</b>                                |                                      |   |   |  |
| Foreign exchange forward contract instruments | 79                                   |   | 79  |  |

Assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3 valuation)

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A summary of changes in Level 3 embedded derivatives underlying convertible notes for the year ended December 31, 2011 was as follows:

|  |          |
|--|----------|
| Balance at December 31, 2010                                     | (66,174) |
| Unrealized gains included in Change in fair value of derivatives | 66,142   |
| Balance at December 31, 2011                                     | (32)     |

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                                     |      |

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| Description       | Fair Value Measurements at Reporting Date Using |   |   |  | Total<br>(losses) |
|-------------------|---|---|---|--|-------------------|
|                   | Balance as of<br>31 December<br>2011            | Quoted Prices in<br>Active Markets<br>for Identical<br>Assets (Level 1) | Significant Other<br>Observable Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |                   |
| Assets:           |   |   |   |  |                   |
| Long-lived assets | 736,486   |   |   | 736,486  | (303,068)         |

The long-lived assets represent certain machines which cannot be used for production due to poor physical condition (Note 10).

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 1,039,554 were written down to their fair value of RMB 736,486, resulting in an impairment charge of RMB 303,068, which was calculated based on Level 3 Inputs and included in earnings for the period.

**As of December 31, 2012**

| Description       | Fair Value Measurements at Reporting Date Using |   |   |  | Total<br>(losses) |
|-------------------|---|---|---|--|-------------------|
|                   | Balance as of<br>31 December<br>2012            | Quoted Prices in<br>Active Markets<br>for Identical<br>Assets (Level 1) | Significant Other<br>Observable Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |                   |
| Assets:           |   |   |   |  |                   |
| Long-lived assets | 515,854   |   |   | 515,854  | (397,789)         |

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|                               |        |        |          |
|-------------------------------|--------|--------|----------|
| 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(Note 10).

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. (Note 4).



Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)****26. Fair value measurements(continued)****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:

|  | <b>For the year ended<br/>December 31, 2010</b> | <b>For the year ended<br/>December 31, 2011</b> | <b>For the year ended<br/>December 31, 2012</b> |
|--|---|---|---|
| Embedded derivatives underlying convertible notes (see Note 16)          | 70,458  | 66,142  | 32  |
| Capped call options (see Note 16)  | 5,094   | (9,127)   |   |
| Embedded foreign currency derivatives                                    | (1,024)   | (5,464)   |   |
| Foreign exchange forward contracts not designated as hedging instruments |   | 33,323  | 9,302   |
|  | 74,528  | 84,874  | 9,334   |

**27. 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:

|                     | <b>2010<br/>RMB</b> | <b>Year Ended December 31,<br/>2011<br/>RMB</b> | <b>2012<br/>RMB</b> |
|---------------------|---------------------|---|---------------------|
| China               | 6,010,415           | 5,546,700                                       | 3,086,589           |
| Outside China:      |                     |   |                     |
| Germany             | 2,126,975           | 2,110,751                                       | 1,265,827           |
| Rest of the world   | 3,623,390           | 3,075,403                                       | 2,366,649           |
| Total outside China | 5,750,365           | 5,186,154                                       | 3,632,476           |
| Total net revenue   | 11,760,780          | 10,732,854                                      | 6,719,065           |

The Group's long-lived fixed assets are all located in China.



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

**Notes to Consolidated Financial Statements**

**(In thousands, except share and per share data)**

**28. 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.

Accounts receivable from the 3 customers with the largest receivable balances represents 40% and 24% of the balance of accounts receivable at December 31, 2011 and 2012, 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 3,463,198 and RMB 2,295,838 as of December 31, 2011 and 2012, respectively.

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

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**29. 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.

**30. ADS ratio change**

The Company received a notice on October 11, 2012 from the NASDAQ Stock Market LLC stating that, based upon the closing bid price of the Company's American Depositary Shares ( ADS ) for 30 consecutive business days, the Company no longer meets the requirement set forth in NASDAQ Marketplace Rule 5450(a) (1), which requires listed securities to maintain a bid price of US\$1.00 per ADS (the Minimum Bid Price Rule ). In accordance with NASDAQ Marketplace Rule 5810(c)(3)(A), the Company was provided with a period of 180 calendar days, or until April 9, 2013, to regain compliance with the Minimum Bid Price Rule.

Effective on December 10, 2012, the Company changed the ratio of its American Depositary Shares ( ADSs ) to ordinary shares from one (1) ADS representing one (1) ordinary share to one (1) ADS representing five (5) ordinary shares. Pursuant to the ratio change, each shareholder of record at the close of business on December 7, 2012 was required to exchange every five ADSs then held for one new ADS. The ratio change brought the Company back into compliance with all NASDAQ listing standards.

**31. Share repurchase**

On June 8, 2012, our board of directors approved US\$100 million share repurchase program, which provided authorization to purchase up to US\$100 million worth of our outstanding ADSs. During the year ended December 31, 2012, the Company repurchased 2,469,700 shares at a cost of US\$2,411 (RMB 15,276). When the shares are repurchased for retirement, the excess of cost over par value is charged entirely to retain earnings.

**32. Subsequent events**

Other than the transactions occurring in 2012 already described above, the following events have taken place in 2013:

**a) *Loan borrowing***

During January 2013 to the report date, the Group borrowed short-term loans of RMB533,961 from various financial institutions in the PRC, among which, two short-term loans of RMB 200,000 and RMB 28,000 were guaranteed by Hebei Jinglong Group. The borrowings have two months to one year terms and will expire at various times. The average interest rate is 6.30% per annum. The Group also repaid loans of RMB 524,277 during the subsequent period.

**b) *Share transfer of Hebei NingJin Songgong***

In January 2013, M.SETEK transferred its 65% equity interests in Hebei Ningjing 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. (see Note 8). Due to the limited time since the acquisition date, the initial purchase allocation for the business combination is incomplete at this time. As a result, we are unable to provide disclosures of the amounts that will be recognized as of the acquisition date for the major classes of assets acquired and liabilities assumed as well as the required pro forma disclosures of revenues and earnings of the combined entity.

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

**Notes to Consolidated Financial Statements**

**(In thousands, except share and per share data)**

**33. 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 5,038,415 or 103.0% of the Company total consolidated net assets as of December 31, 2012. 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.

**34. 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, 2010 to December 31, 2012.

The subsidiaries did not pay dividend to the Company for the period presented.

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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, 2012.

|   | <b>For the year<br/>ended<br/>December 31,<br/>2010<br/>RMB</b> | <b>For the year<br/>ended<br/>December 31,<br/>2011<br/>RMB</b> | <b>For the year<br/>ended<br/>December 31,<br/>2012<br/>RMB</b> |
|---|---|---|---|
| <b>Revenues</b>   |   |   |   |
| Total operating expenses                                | (21,883)  | (32,063)  | (22,576)  |
| Loss from operations                                    | (21,883)  | (32,063)  | (22,576)  |
| Interest expense  | (191,791)   | (206,853)   | (192,618)   |
| Change in fair value of derivatives                     | 75,552  | 57,015  | 32  |
| Share of income/(loss) from subsidiaries                | 1,724,291   | (465,989)   | (1,809,926)   |
| Convertible bond buyback gain/(loss)                    |   | 4,312   | (8,466)   |
| Other income  | 169,182   | 79,233  | 371,297   |
| Income/(loss) before income taxes                       | 1,755,351   | (564,345)   | (1,662,257)   |
| Income tax expense                                      |   |   |   |
| Net income/(loss) attributable to ordinary shareholders | 1,755,351   | (564,345)   | (1,662,257)   |



Table of Contents**JA SOLAR HOLDINGS CO., LTD.****Notes to Consolidated Financial Statements****(In thousands, except share and per share data)**

|  | <b>December 31,<br/>2011<br/>RMB</b> | <b>December 31,<br/>2012<br/>RMB</b> |
|--|--------------------------------------|--------------------------------------|
| <b>ASSETS</b>  |                                      |                                      |
| Current assets:  |                                      |                                      |
| Cash and cash equivalents  | 77,009                               | 17,011                               |
| Other receivable from subsidiaries   | 252,943                              | 252,326                              |
| Other current assets   | 2,055                                | 16,155                               |
| <b>Total current assets</b>  | <b>332,007</b>                       | <b>285,492</b>                       |
| Investments in subsidiaries  | 4,599,487                            | 2,809,195                            |
| Deferred issuance cost   | 67,531                               |                                      |
| Amount due from subsidiaries   | 2,892,214                            | 2,771,785                            |
| <b>Total assets</b>  | <b>7,891,239</b>                     | <b>5,866,472</b>                     |
| <b>LIABILITIES AND SHAREHOLDERS EQUITY</b>   |                                      |                                      |
| Current liabilities:   |                                      |                                      |
| Other payables to subsidiaries and employees   | 6,572                                | 6,572                                |
| Accrued and other liabilities  | 48,317                               | 14,589                               |
| Convertible notes  |                                      | 708,548                              |
| Interest payable   | 7,869                                | 4,123                                |
| <b>Total current liabilities</b>   | <b>62,758</b>                        | <b>733,832</b>                       |
| Long-term amount due to subsidiaries   | 41,295                               | 239,816                              |
| Convertible notes  | 1,238,485                            |                                      |
| Embedded derivatives   | 32                                   |                                      |
| <b>Total liabilities</b>   | <b>1,342,570</b>                     | <b>973,648</b>                       |
| <b>Commitments and Contingencies</b>   |                                      |                                      |
| <b>Shareholders equity :</b>   |                                      |                                      |
| Ordinary shares (US\$0.0001 par value; 493,480,000 shares authorized, 202,238,307 and 199,863,607 shares issued and outstanding as of December 31, 2011 and December 31, 2012) | 154                                  | 153                                  |
| Additional paid-in capital   | 5,102,362                            | 5,135,587                            |
| Retained earnings/(deficit)  | 1,437,634                            | (239,898)                            |
| Accumulated other comprehensive gain/(loss)  | 8,519                                | (3,018)                              |
| <b>Total shareholders equity</b>   | <b>6,548,669</b>                     | <b>4,892,824</b>                     |
| <b>Total liabilities and shareholders equity</b>   | <b>7,891,239</b>                     | <b>5,866,472</b>                     |

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## JA SOLAR HOLDINGS CO., LTD.

## Notes to Consolidated Financial Statements

(In thousands, except share and per share data)

|   | For the year<br>ended December<br>31, 2010<br>RMB | For the year<br>ended December<br>31, 2011<br>RMB | For the year<br>ended December<br>31, 2012<br>RMB |
|---|---|---|---|
| <b>Cash flows from operating activities:</b>  |   |   |   |
| Net (loss)/income   | 1,755,351   | (564,345)   | (1,662,257)                                       |
| Adjustments to reconcile net income (loss) to net cash used in operating activities:  |   |   |   |
| Share based compensation expense  | (602)   | 1,676   | 2,055   |
| Share of (income)/loss from subsidiaries  | (1,724,291)                                       | 465,989   | 1,809,926   |
| Amortization of deferred issuance cost and increase in accretion of convertible notes | 123,915   | 140,894   | 135,725   |
| Change in the fair value of derivatives   | (75,552)  | (57,015)  | (32)  |
| Exchange loss   | 66,309  | 96,122  | 4,422   |
| (Gain)/loss from senior convertible notes buyback                                     |   | (4,312)   | 8,466   |
| Gain from sales of claim against loaned shares  |   |   | (369,153)   |
| Investment income from available-for-sale securities                                  | (231,163)   |   |   |
| Acquisition gain  |   | (187,387)   |   |
| Changes in operating assets and liabilities:  |   |   |   |
| Decrease in receivables from subsidiaries   | 8,231   | 12,890  |   |
| (Increase)/decrease in other current assets   | (25,708)  | 29,425  | (3,227)   |
| (Decrease)/increase in other payables to subsidiaries and employees                   | (1,401)   | 6,572   |   |
| Increase/(decrease) in accrued and other liabilities                                  | 42,634  | (15,167)  | (33,728)  |
| Decrease in interest payable  | (1,629)   | (631)   | (3,746)   |
| Net cash used in operating activities   | (63,906)  | (75,289)  | (111,549)   |
| <b>Cash flows from investing activities:</b>  |   |   |   |
| Loans granted to subsidiaries   | (31,697)  | (3,160)   | (12,349)  |
| Loans repayment by subsidiaries   | 49,769  | 93,116  | 125,710   |
| Proceeds from sale of available-for-sale securities                                   | 231,163   |   |   |
| Net cash provided by investing activities   | 249,235   | 89,956  | 113,361   |
| <b>Cash flows from financing activities:</b>  |   |   |   |
| Proceeds from long-term loan from subsidiaries  |   | 51,314  | 211,193   |
| Repurchase of senior convertible notes  |   | (28,469)  | (617,937)   |
| Proceeds from sales of claim against loaned shares                                    |   |   | 369,153   |
| Repurchase of ADS   |   |   | (15,276)  |
| Repayment of long-term loan from subsidiaries   | (204,846)   | (9,851)   | (12,571)  |
| Proceeds from exercise of stock options   | 8,276   | 23,076  |   |
| Net cash (used in)/provided by financing activities                                   | (196,570)   | 36,070  | (65,438)  |
| Effect of exchange rate changes on cash and cash equivalents                          | (1,647)   | (1,752)   | 3,628   |
| Net (decrease)/increase in cash and cash equivalents                                  | (12,888)  | 48,985  | (59,998)  |
| Cash and cash equivalents at the beginning of the year                                | 40,912  | 28,024  | 77,009  |
| Cash and cash equivalents at the end of the year                                      | 28,024  | 77,009  | 17,011  |

