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

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**Form 20-F**

(Mark One)

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

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2016

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
Date of event requiring this shell company report \_\_\_\_\_

Commission file number: 001-33107

**CANADIAN SOLAR INC.**

*(Exact name of Registrant as specified in its charter)*

N/A

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*(Translation of Registrant's name into English)*

Canada

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*(Jurisdiction of incorporation or organization)*

545 Speedvale Avenue West  
Guelph, Ontario, Canada N1K 1E6

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*(Address of principal executive offices)*

Huifeng Chang, Chief Financial Officer  
545 Speedvale Avenue West  
Guelph, Ontario, Canada N1K 1E6  
Tel: (1-519) 837-1881  
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*(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)*

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

**Title of Each Class**  
Common shares with no par value

**Name of Each Exchange on Which Registered**  
The NASDAQ Stock Market LLC  
(The NASDAQ Global Select Market)

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

None

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(Title of Class)

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

None

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(Title of Class)

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.

57,830,149 common shares issued and outstanding which were not subject to restrictions on voting, dividend rights and transferability, as of December 31, 2016.

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 corporate 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 for 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, a non-accelerated filer or an emerging growth company. See definition of "accelerated filer," "large accelerated filer" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing: U.S. 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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† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

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## INTRODUCTION

Unless otherwise indicated, references in this annual report on Form 20-F to:

- "CSI," "we," "us," "our company" and "our" are to Canadian Solar Inc., a Canadian company, its predecessor entities and its consolidated subsidiaries;
- "\$," "US\$" and "U.S. dollars" are to the legal currency of the United States of America, or U.S.;
- "RMB" and "Renminbi" are to the legal currency of China;
- "C\$" and "Canadian dollars" are to the legal currency of Canada;
- "€" and "Euro" are to the legal currency of the Economic and Monetary Union of the European Union;
- "£" and "British pounds" are to the legal currency of the United Kingdom;
- "¥," "JPY" and "Japanese yen" are to the legal currency of Japan;
- "THB" is to legal currency of Thailand;
- "W," "kW," "MW" and "GW" are to watts, kilowatts, megawatts and gigawatts, respectively;
- "AC" and "DC" are to alternating current and direct current, respectively;
- "PV" is to photovoltaic. The photovoltaic effect is a process by which sunlight is converted into electricity;
- "EPC" is to engineering, procurement and construction;
- "O&M services" is to operation and maintenance services;
- "shares" and "common shares" are to common shares, with no par value, of Canadian Solar Inc.;
- "China" and the "PRC" are to the People's Republic of China, excluding, for the purposes of this annual report on Form 20-F, Taiwan and the special administrative regions of Hong Kong and Macau; and
- "EU" refers to the European Union.

This annual report on Form 20-F includes our audited consolidated financial statements for the years ended December 31, 2014, 2015 and 2016 and as of December 31, 2015 and 2016.

We use the noon buying rate in The City of New York for cable transfers in Renminbi, Euros, British pounds, Japanese yen, Canadian dollars and Thai Baht per U.S. dollar as certified for customs purposes by the Federal Reserve Bank of New York to translate Renminbi, Euros, British pounds, Japanese yen, Canadian dollars and Thai Baht to U.S. dollars not otherwise recorded in our consolidated financial statements and included elsewhere in this annual report. Unless otherwise stated, the translation of Renminbi, Euros, British pounds, Japanese yen, Canadian dollars and Thai Baht into U.S. dollars was made by the noon buying rate in effect on December 30, 2016, which was RMB6.9430 to \$1.00, €1.0552 to \$1.00, £1.2337 to \$1.00, ¥116.78 to \$1.00, C\$1.3426 to \$1.00 and THB35.8100 to \$1.00. We make no representation that the Renminbi, Euro, British pounds, Japanese yen, Canadian dollar, Thai Baht or U.S. dollar amounts referred to in this annual report on Form 20-F could have been or could be converted into U.S. dollars, Euros, British pounds, Japanese yen, Canadian dollars, Thai Baht or Renminbi, as the case may be, at any particular rate or at all. See "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Fluctuations in exchange rates could adversely affect our business, including our financial condition and results of operations."

## FORWARD-LOOKING INFORMATION

This annual report on Form 20-F contains forward-looking statements that relate to future events, including our future operating results, our prospects and our future financial performance and condition, results of operations, business strategy and financial needs, all of which are largely based on our current expectations and projections. These forward-looking statements are made under the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995. You can identify these statements by terminology such as "may," "will," "expect," "anticipate," "future," "intend," "plan," "believe," "estimate," "is/are likely to" or similar expressions. Forward-looking statements involve inherent risks and uncertainties. These forward-looking statements include, among other things, statements relating to:

- our expectations regarding the worldwide demand for electricity and the market for solar power;
- our beliefs regarding the importance of environmentally friendly power generation;
- our beliefs regarding the value of and ability to monetize our portfolio of solar power projects;
- our expectations regarding governmental support for solar power;
- our beliefs regarding the rate at which solar power technologies will be adopted and the continued growth of the solar power industry;
- our beliefs regarding the competitiveness of our solar power products and services;
- our expectations with respect to increased revenue growth and improved profitability;
- our expectations regarding the benefits to be derived from our supply chain management and vertical integration manufacturing strategy;
- our ability to continue developing our in-house solar components production capabilities and our expectations regarding the timing and production capacity of our internal manufacturing programs;
- our ability to secure adequate volumes of silicon, solar wafers and cells at competitive cost to support our solar module production;
- our beliefs regarding the effects of environmental regulation;
- our future business development, results of operations and financial condition;
- competition from other manufacturers of solar power products and conventional energy suppliers;
- our ability to successfully expand our products and services and to successfully execute plans for our energy segment;
- our ability to develop, build and sell solar power projects in Canada, the U.S., Japan, China, Brazil, India, Mexico, the United Kingdom, Australia and elsewhere; and
- our beliefs with respect to the outcome of the investigations and litigation to which we are a party.

Known and unknown risks, uncertainties and other factors may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by forward-looking statements. See "Item 3. Key Information—D. Risk Factors" for a discussion of some of the risk factors that may affect our business and results of operations. These risks are not exhaustive. Other sections of this annual report may include additional factors that could adversely influence our business and financial performance. Moreover, because we operate in an emerging and evolving industry, new risk factors may emerge from time to time. We cannot predict all risk factors, nor can we assess the impact of all or any of these factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those expressed or implied in any forward-looking statement. We do not undertake any obligation to update or revise the forward-looking statements except as required under applicable law.

**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****Selected Consolidated Financial and Operating Data**

The following selected statement of operations data for the years ended December 31, 2014, 2015 and 2016 and balance sheet data as of December 31, 2015 and 2016 have been derived from our consolidated financial statements, which are included elsewhere in this annual report on Form 20-F. You should read the selected consolidated financial and operating data in conjunction with those financial statements and the related notes and "Item 5. Operating and Financial Review and Prospects" included elsewhere in this annual report on Form 20-F.

Our selected consolidated statement of operations data for the years ended December 31, 2012 and 2013 and our consolidated balance sheet data as of December 31, 2012, 2013 and 2014 were derived from our consolidated financial statements that are not included in this annual report.

All of our financial statements are prepared and presented in accordance with U.S. generally accepted accounting principles, or U.S. GAAP. Our historical results are not necessarily indicative of results for any future periods.

	For the years ended, or as of, December 31,				
	2012	2013	2014	2015	2016
	(In thousands of \$, except share and per share data, and operating data and percentages)				
<b>Statement of operations data:</b>					
Net revenues	1,294,829	1,654,356	2,960,627	3,467,626	2,853,078
Income (loss) from operations	(142,516)	130,816	366,314	247,371	93,164
Net income (loss)	(195,155)	45,565	243,887	173,316	65,275
Net income (loss) attributable to Canadian Solar Inc.	(195,469)	31,659	239,502	171,861	65,249
Earnings (loss) per share, basic	(4.53)	0.68	4.40	3.08	1.13
Shares used in computation, basic	43,190,778	46,306,739	54,408,037	55,728,903	57,524,349
Earnings (loss) per share, diluted	(4.53)	0.63	4.11	2.93	1.12
Shares used in computation, diluted	43,190,778	50,388,284	59,354,615	60,426,056	58,059,063
<b>Other financial data:</b>					
Gross margin	7.0%	16.7%	19.6%	16.6%	14.6%
Operating margin	(11.0)%	7.9%	12.4%	7.1%	3.3%
Net margin	(15.1)%	2.8%	8.2%	5.0%	2.3%

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	For the years ended, or as of, December 31,				
	2012	2013	2014	2015	2016
	(In thousands of \$, except share and per share data, and operating data and percentages)				
<b>Selected operating data:</b>					
Solar power products sold (in MW)					
—Module segment <sup>(1)</sup>	1,528.9	1,809.0	2,436.4	4,085.0	5,138.1
—Energy segment <sup>(2)</sup>	14.2	85.0	376.2	298.8	65.7
<b>Total</b>	<b>1,543.1</b>	<b>1,894.0</b>	<b>2,812.6</b>	<b>4,383.8</b>	<b>5,203.8</b>
Average selling price (in \$ per watt)					
—Solar module	0.77	0.67	0.67	0.58	0.51
<b>Balance Sheet Data:</b>					
Net current assets (liabilities)	(98,046)	(59,003)	366,621	(392,231)	69,697
Total assets	2,259,313	2,453,735	3,068,115	4,413,928	5,406,606
Net assets	301,583	401,498	729,574	832,510	899,390
Long-term borrowings	214,563	151,392	134,300	606,577	493,455
Convertible notes	—	—	145,691	146,674	125,569
Common shares	502,562	561,242	675,236	677,103	701,283
Number of shares outstanding	43,242,426	51,034,343	55,161,856	55,965,443	57,830,149

(1) Numbers are calculated after inter-segmentation elimination and represent solar power products sold to third parties.

(2) Numbers are calculated after inter-segmentation elimination.

**B. Capitalization and Indebtedness**

Not applicable.

**C. Reasons for the Offer and Use of Proceeds**

Not applicable.

**D. Risk Factors**

**Risks Related to Our Company and Our Industry**

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

Our business is affected by conditions in the solar power market and industry. In 2010, as the effects of the global financial crisis subsided, demand for solar power products increased and many manufacturers increased their production capacity accordingly. In 2011, a decrease in payments to solar power producers in the form of feed-in tariffs, or FITs, and other reimbursements, a reduction in available financing and an excess supply of solar modules worldwide put severe downward pressure on solar module prices in European and other markets. In December 2016, the National Development and Reform Commission, or the NDRC, announced the reduction in FITs for utility-scale solar plants. The administration of U.S. President Donald Trump is also expected to have less favorable policies for clean energy industries. As a result, many solar power project developers, solar system installers and solar power product distributors that purchase solar power products, including solar modules from manufacturers like us, were adversely affected and their financial condition weakened. Although our shipments of solar modules increased year-over-year in 2014, 2015 and 2016, average selling prices for our solar modules declined. Over the past several quarters, oversupply conditions across the value

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chain, difficult economic conditions in Europe and foreign trade disputes in the U.S., Europe, India and China have affected industry-wide demand and put pressure on average selling prices, resulting in lower revenue for many industry participants. If the supply of solar modules grows faster than demand, and if governments continue to reduce financial support for the solar industry and impose trade barriers, demand for our products, as well as our average selling price, could be materially and adversely affected.

The solar power market is still at a relatively early stage of development and future demand for solar power products and services is uncertain. Market data for the solar power industry is not as readily available as for more established industries, where trends are more reliably assessed from data gathered over a longer period of time. In addition, demand for solar power products and services in our targeted markets, including Europe, the U.S., Japan, China, Canada, Brazil and India may not develop or may develop to a lesser extent than we anticipate. Many factors may affect the viability of solar power technology and the demand for solar power products, including:

- the cost-effectiveness, performance and reliability of solar power products and services, including our solar power projects, compared to conventional and other renewable energy sources and products and services;
- the availability of government subsidies and incentives to support the development of the solar power industry;
- the availability and cost of capital, including long-term debt and tax equity, for solar power projects;
- the success of other alternative energy technologies, such as wind power, hydroelectric power, geothermal power and biomass fuel;
- fluctuations in economic and market conditions that affect the viability of conventional and other renewable energy sources, such as increases or decreases in the prices of oil, gas and other fossil fuels;
- capital expenditures by end users of solar power products and services, which tend to decrease when the economy slows; and
- the availability of favorable regulation for solar power within the electric power industry and the broader energy industry.

If solar power technology is not suitable for widespread adoption or if sufficient demand for solar power products and services does not develop or takes longer to develop than we anticipate, our revenues may suffer and we may be unable to sustain our profitability. Demand in Europe generally remains weak as a result of reductions in FITs in Germany and the elimination of FITs in Italy, the two largest European markets over the past several years. Although demand in other regions, including China, Japan, the U.S. and India, as well as many other emerging markets in Asia, the Middle East and Africa, has offset the decline in European demand, we cannot assure you that this demand will be sustainable or that any recent positive trends in supply or demand balance will persist.

***The operating results of our energy segment and the mix of revenues from our module and energy segments may be subject to significant fluctuation due to a number of factors, including our inability to find third party buyers for our solar power projects in a timely manner, on favorable terms and conditions, or at all.***

Our energy segment develops, constructs, maintains, sells and/or operates solar power projects primarily in Canada, Japan, the U.S., China, Brazil, India, Mexico, the United Kingdom and Australia. Our solar project development activities have grown over the past several years through a combination of organic growth and acquisitions. After completing the development of solar power projects, we either sell them to third party buyers, or operate them under power purchase agreements, or PPAs, or



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other contractual arrangements with utility companies or grid operators. Revenues from our energy segment increased by \$922.8 million, or 16.4 times, from \$56.4 million for the year ended December 31, 2012 to \$979.2 million for the year ended December 31, 2015, but then decreased by \$868.7 million, or 88.7%, to \$110.6 million for the year ended December 31, 2016. We intend to monetize the majority of our current portfolio of solar power projects in operation that have an estimated resale value of approximately \$1.6 billion as of February 28, 2017. However, there is no assurance whether and when we can find suitable buyers for these projects, receive full payment for them in a timely manner or otherwise realize their estimated resale value.

The operating results of our energy segment may be subject to significant period-over-period fluctuations for a variety of reasons, including but not limited to changes in market conditions after we have committed to projects, availability of project financing and changes in government regulations and policies, all of which may result in the cancellation of or delays in the development of projects, inability to monetize or delays in monetizing projects, or changes in amounts realized on monetization of projects. If a project is canceled, abandoned or deemed unlikely to occur, we will charge all prior capital costs as an operating expense in the quarter in which such determination is made, which could materially adversely affect operating results.

Further, the mix of revenues from our module and energy segments can fluctuate dramatically from quarter to quarter, which may adversely affect our margins and financial results in any given period.

Any of the foregoing may cause us to miss our financial guidance for a given period, which could adversely impact the market price for our common stock and our liquidity.

***The execution of our growth strategy depends upon the continued availability of third-party financing arrangements for our customers, which is affected by general economic conditions. Tight credit markets could depress demand or prices for solar power products and services, hamper our expansion and materially affect our results of operations.***

Most solar power projects, including our own, require financing for development and construction with a mixture of equity and third party funding. The cost of capital affects both the demand and price of solar power systems. A high cost of capital may materially reduce the internal rate of return for solar power projects and therefore put downward pressure on the prices of both solar systems and solar modules, which typically comprise a major part of the cost of solar power projects.

Furthermore, solar power projects compete for capital with other forms of fixed income investments such as government and corporate bonds. Some classes of investors compare the returns of solar power projects with bond yields and expect a similar or higher internal rate of return, adjusted for risk and liquidity. On December 14, 2016, the Federal Reserve raised interest rates by a quarter of a percentage point to between 0.5% and 0.7%, marking the first time the Federal Reserve has raised rates since December 2015. On March 15, 2017, the Federal Reserve further raised interest rates by 25 basis points to a range of 0.75% to 1.00%. Higher interest rates could increase the cost of existing funding and present an obstacle for potential funding that would otherwise spur the growth of the solar power industry. In addition, higher bond yields could result in increased yield expectations for solar power projects, which would result in lower system prices. In the event that suitable funding is unavailable, our customers may be unable to pay for products they have agreed to purchase. It may also be difficult to collect payments from customers facing liquidity challenges due to either customer defaults or financial institution defaults on project loans. Constricted credit markets may impede our expansion and materially and adversely affect our results of operations. Concerns about government deficits and debt in the EU have increased bond spreads in certain solar markets, such as Greece, Spain, Italy and Portugal. The cash flow of a solar power project is often derived from government-funded or government-backed FITs. Consequently, the availability and cost of funding solar power

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projects is determined in part based on the perceived sovereign credit risk of the country where a particular project is located. Therefore, credit agency downgrades of nations in the EU or elsewhere could decrease the credit available for solar power projects, increase the expected rate of return compared to bond yields, and increase the cost of debt financing for solar power projects in countries with a higher perceived sovereign credit risk.

In light of the uncertainty in the global credit and lending environment, we cannot make assurances that financial institutions will continue to offer funding to solar power project developers at reasonable costs. An increase in interest rates or a decrease in funding of capital projects within the global financial market could make it difficult to fund solar power systems and potentially reduce the demand for solar modules and/or reduce the average selling prices for solar modules, which may materially and adversely affect our business, results of operations, financial condition and prospects.

***Our future success depends partly on our ability to expand the pipeline of our energy segment in several key markets, which exposes us to a number of risks and uncertainties.***

Historically, our module segment has accounted for the majority of our net revenues, including 59.0%, 71.8% and 96.1% in 2014, 2015 and 2016, respectively. However, we have, in recent years, increased our investment in and management attention on our energy segment, which primarily consists of solar power project development and sale, EPC and development services, O&M services and operating solar power projects and sales of electricity.

Even though we intend to monetize our current portfolio of solar power projects in operation, in the future, we still intend to grow our energy segment by developing and selling or operating more solar projects, including both those that we develop and those we acquire from third-parties. As we do, we will be increasingly exposed to the risks associated with these businesses. Further, our future success largely depends on our ability to expand our solar power project pipeline. The risks and uncertainties associated with our energy segment, and our ability to expand our solar power project pipeline include:

- the uncertainty of being able to sell the projects, receive full payment for them upon completion, or receive payment in a timely manner;
- the need to raise significant additional funds to develop greenfield or purchase late-stage solar power projects, which we may be unable to obtain on commercially reasonable terms or at all;
- delays and cost overruns as a result of a number of factors, many of which are beyond our control, including delays in regulatory approvals, construction, grid-connection and customer acceptance testing;
- delays or denial of required regulatory approvals by relevant government authorities;
- diversion of significant management attention and other resources; and
- failure to execute our project pipeline expansion plan effectively.

If we are unable to successfully expand our energy segment, and, in particular, our solar power project pipeline, we may be unable to expand our business, maintain our competitive position, improve our profitability and generate cash flows.

***Governments may revise, reduce or eliminate subsidies and economic incentives for solar energy, which could cause demand for our products to decline.***

The market for on-grid applications, where solar power supplements the electricity a customer purchases from the utility network or sells to a utility under a FIT, depends largely on the availability and size of government subsidy programs and economic incentives. At present, the cost of solar power exceeds retail electricity rates in many locations. Government incentives vary by geographic market.

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Governments in many countries, most notably China, Germany, Italy, the Czech Republic, the U.S., Japan, Canada (Ontario), South Korea, India, France, Australia and the United Kingdom, have provided incentives in the form of FITs, rebates, tax credits, renewable portfolio standards and other incentives. These governments have implemented mandates to end-users, distributors, system integrators and manufacturers of solar power products to promote the use of solar energy in on-grid applications and to reduce dependency on other forms of energy. Some of these government mandates and economic incentives have been or are scheduled to be reduced or eliminated altogether. For example, the NDRC announced reductions in FITs for utility-scale solar projects in December 2016. It is likely that this trend will continue, possibly until subsidies for solar energy are phased out completely.

While solar power projects may continue to offer attractive internal rates of return, it is unlikely internal rates of return will be as high as they were in the past. If internal rates of return fall below an acceptable rate for project investors, and governments continue to reduce or eliminate subsidies, this may cause a decrease in demand and considerable downward pressure on solar systems and therefore negatively impact both solar module prices and the value of our solar power projects. The reduction, modification or elimination of government mandates and economic incentives in one or more of our markets could therefore materially and adversely affect the growth of such markets or result in increased price competition, either of which could cause our revenues to decline and harm our financial results.

***General global economic conditions may have an adverse impact on our operating performance and results of operations.***

The demand for solar power products and services is influenced by macroeconomic factors, such as global economic conditions, demand for electricity, 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, the solar and other alternative energy industries and the environment. As a result of global economic conditions, some governments may implement measures that reduce the FITs and other subsidies designed to benefit the solar industry. During 2014, 2015 and 2016, a decrease in solar power tariffs in many markets placed downward pressure on the price of solar systems in most regions. In addition, reductions in oil and coal prices may reduce the demand for and the prices of solar power products and services. For instance, in recent months, oil prices globally have experienced high volatility. We cannot assure you that such volatility will not have a material adverse effect on the demand for and prices of our products. Our growth and profitability depend on the demand for and the prices of solar power products and services. If these negative market and industry trends continue and demand for solar power projects and solar power products and services weakens as a result, our business and results of operations may be adversely affected.

***Imposition of anti-dumping and countervailing duty orders or safeguard measures in one or more markets may result in additional costs to our customers, which could materially or adversely affect our business, results of operations, financial conditions and future prospects.***

We have been in the past, and may be in the future, subject to the imposition of anti-dumping and countervailing duty orders in one or more of the markets in which we sell our products. In particular, we have been subject to the imposition of anti-dumping and countervailing duty orders in the U.S., the EU and Canada and have, as a result, been party to lengthy proceedings related thereto. See "Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—Legal and Administrative Proceedings." The U.S., EU and Canada are important markets for us. Ongoing proceedings relating to, and the imposition of any new, anti-dumping and countervailing duty orders or safeguard measures in these markets may result in additional costs to us and/or our customers, which may materially and adversely affect our business, results of operations, financial conditions and future prospects.

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***Our project development and construction activities may not be successful, projects under development may not receive required permits, property rights, PPAs, interconnection and transmission arrangements, and financing or construction of projects may not commence or continue as scheduled, all of which could increase our costs, delay or cancel a project, and have a material adverse effect on our revenue and profitability.***

The development and construction of solar power projects involve known and unknown risks. We may be required to invest significant amounts of money for land and interconnection rights, preliminary engineering, permitting, legal and other expenses before we can determine whether a project is feasible. Success in developing a particular project is contingent upon, among other things:

- securing land rights and related permits, including satisfactory environmental assessments;
- receipt of required land use and construction permits and approvals;
- receipt of rights to interconnect to the electric grid;
- availability of transmission capacity, potential upgrade costs to the transmission grid and other system constraints;
- payment of interconnection and other deposits (some of which are non-refundable);
- negotiation of satisfactory EPC agreements; and
- obtaining construction financing, including debt, equity and tax credits.

In addition, successful completion of a particular project may be adversely affected by numerous factors, including:

- delays in obtaining and maintaining required governmental permits and approvals;
- potential challenges from local residents, environmental organizations, and others who may not support the project;
- unforeseen engineering problems; subsurface land conditions; construction delays; cost over-runs; labor, equipment and materials supply shortages or disruptions (including labor strikes);
- additional complexities when conducting project development or construction activities in foreign jurisdictions, including compliance with the U.S. Foreign Corrupt Practices Act and other applicable local laws and customs; and
- force majeure events, including adverse weather conditions and other events beyond our control.

If we are unable to complete the development of a solar power project or we fail to meet any agreed upon system-level capacity or energy output guarantees or warranties (including 25 year power output performance guarantees) or other contract terms, or our projects cause grid interference or other damage, the EPC or other agreements related to the project may be terminated and/or we may be subject to significant damages, penalties and other obligations relating to the project, including obligations to repair, replace or supplement materials for the project.

We may enter into fixed-price EPC agreements in which we act as the general contractor for our customers in connection with the installation of their solar power systems. All essential costs are estimated at the time of entering into the EPC agreement for a particular project, and these costs are reflected in the overall fixed price that we charge our customers for the project. These cost estimates are preliminary and may or may not be covered by contracts between us and the subcontractors, suppliers and other parties involved in the project. In addition, we require qualified, licensed subcontractors to install most of our solar power systems. Shortages of skilled labor could significantly delay a project or otherwise increase our costs. Should miscalculations in planning a project occur, including those due to unexpected increases in commodity prices or labor costs, or delays in execution

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occur and we are unable to increase the EPC sales price commensurately, we may not achieve our expected margins or our results of operations may be adversely affected.

***Developing and operating solar power projects exposes us to different risks than producing solar modules.***

In recent years, we have placed a greater focus on our energy segment, which includes the development of solar power projects. These projects can take many months or years to complete and may be delayed for reasons beyond our control. They often require us to make significant up-front payments for, among other things, land rights and permitting in advance of commencing construction, and revenue from these projects may not be recognized for several additional months following contract signing. Any inability or significant delays in entering into sales contracts with customers after making such up-front payments could adversely affect our business and results of operations. Furthermore, we may become constrained in our ability to simultaneously fund our other business operations and the investment in these projects.

In contrast to developing solar modules, developing solar power projects requires more management attention to negotiate the terms of our engagement and monitor the progress of the projects which may divert management's attention from other matters. Our revenue and liquidity may be adversely affected to the extent the market for solar power projects weakens or we are not able to successfully complete the customer acceptance testing due to technical difficulties, equipment failure, or adverse weather, and we are unable to sell our solar power projects at prices and on terms and timing that are acceptable to us.

Our energy segment also includes operating solar power projects and selling electricity to the local or national grid or other power purchasers. As a result, we are subject to a variety of risks associated with intense market competition, changing regulations and policies, insufficient demand for solar power, technological advancements and the failure of our power generation facilities.

***We face a number of risks involving PPAs and project-level financing arrangements, including failure or delay in entering into PPAs, defaults by counterparties and contingent contractual terms such as price adjustment, termination, buy-out, acceleration or other clauses, all of which could materially and adversely affect our energy segment, financial condition, results of operations and cash flows.***

We may not be able to enter into PPAs for our solar power projects due to intense competition, increased supply of electricity from other sources, reduction in retail electricity price, changes in government policies or other factors. There is a limited pool of potential buyers for electricity generated by our solar power plants since the transmission and distribution of electricity is either monopolized or highly concentrated in most jurisdictions. The willingness of buyers to purchase electricity from an independent power producer may be based on a number of factors and not solely on pricing and surety of supply. If we cannot enter into PPAs on terms favorable to us, or at all, it would negatively impact our revenue and our decisions regarding the development of additional power plants. We may experience delays in entering into PPAs for some of our solar power projects or may not be able to replace an expiring PPA with a contract on equivalent terms and conditions, or otherwise at prices that permit operation of the related facility on a profitable basis. Any delay in entering into PPAs may adversely affect our ability to enjoy the cash flows generated by such projects. If we are unable to replace an expiring PPA with an acceptable new PPA, the affected site may temporarily or permanently cease operations, which could materially and adversely affect our financial condition, results of operations and cash flows.

Substantially all of the electric power generated by our solar power projects will be sold under long-term PPAs with public utilities, licensed suppliers or commercial, industrial or government end users and we expect our future projects will also have long-term PPAs or similar offtake arrangements such as tariff programs. If, for any reason, any of the purchasers of power under these contracts are

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unable or unwilling to fulfill their related contractual obligations or if they refuse to accept delivery of power delivered thereunder or if they otherwise terminate such agreements prior to the expiration thereof, our assets, liabilities, business, financial condition, results of operations and cash flows could be materially and adversely affected. Further, to the extent any of our power purchasers are, or are controlled by, governmental entities, our facilities may be subject to legislative or other political action that may impair their contractual performance or contain contractual remedies that do not provide adequate compensation in the event a counterparty defaults.

Some of our PPAs are subject to price adjustments over time. If the price under any of our PPAs is reduced below a level that makes a project economically viable, our financial conditions, cash flow and results of operations could be materially and adversely affected. Further, some of our long-term PPAs do not include inflation-based price increases. Certain of the PPAs for our projects and those for projects that we have acquired and may acquire in the future contain or may contain provisions that allow the offtake purchaser to terminate or buy out the project or require us to pay liquidated damages upon the occurrence of certain events. If these provisions are exercised, our financial condition, results of operations and cash flows could be materially and adversely affected. Additionally, certain of the project-level financing arrangements for projects allow, and certain of the projects that we may acquire in the future may allow, the lenders or investors to accelerate the repayment of the financing arrangement in the event that a PPA is terminated or if certain operating thresholds or performance measures are not achieved within specified time periods. Certain of our PPAs and project-level financing arrangements include, and in the future may include, provisions that would permit the counterparty to terminate the contract or accelerate maturity in the event we own, directly or indirectly, less than 50% of the combined voting power or, in some cases, if we cease to be the majority owner, directly or indirectly, of the applicable project subsidiary. The termination of any of our PPAs or the acceleration of the maturity of any of our financing arrangements as a result of a change-in-control event could have a material adverse effect on our financial condition, results of operations and cash flows.

***If the supply of solar wafers and cells increases in line with increases in the supply of polysilicon, then the corresponding oversupply of solar wafers, cells and modules may cause substantial downward pressure on the prices of our products and reduce our revenues and earnings.***

Silicon production capacity has expanded rapidly in recent years. As a result of this expansion, coupled with the global economic downturn, the solar industry has experienced an oversupply of high-purity silicon since the beginning of 2009. This has contributed to an oversupply of solar wafers, cells and modules and resulted in substantial downward pressure on prices throughout the value chain. Demand for solar power products remained soft through 2012 but began to pick up in the second half of 2013, and continued to grow in 2014, 2015 and 2016. The average selling price of our solar modules decreased from \$0.67 per watt in 2013 and 2014 to \$0.58 per watt in 2015 and \$0.51 per watt in 2016, in large part because the increase in the supply of solar cells and modules was greater than the increase in the demand, thereby putting pressure on solar power products across all stages of the value chain. While we believe that there is a relative balance between capacity and demand at low prices due to industry consolidation, increases in solar module production in excess of market demand may result in further downward pressure on the price of solar wafers, cells and modules, including our products. Increasing competition could also result in us losing sales or market share. Moreover, due to fluctuations in the supply and price of solar power products throughout the value chain, we cannot assure you that we will be able, on an ongoing basis, to procure silicon, wafers and cells at reasonable costs if any of the above risks materializes. If we are unable, on an ongoing basis, to procure silicon, solar wafers and solar cells at reasonable prices or mark up the price of our solar modules to cover our manufacturing and operating costs, our revenues and margins will be adversely impacted, either due to higher costs compared to our competitors or due to further write-downs of inventory, or both. In

addition, our market share could decline if our competitors are able to price their products more competitively.

***Long-term supply agreements may make it difficult for us to adjust our raw material costs should prices decrease. Also, if we terminate any of these agreements, we may not be able to recover all or any part of the advance payments we have made to these suppliers and we may be subject to litigation.***

We have entered into a number of long-term supply agreements with several silicon and wafer suppliers in order to secure a stable supply of raw materials to meet our production requirements. These suppliers included GCL-Poly Energy Holdings Limited, or GCL, Neo Solar Power Corp., or Neo Solar, Deutsche Solar AG, or Deutsche Solar, Jiangxi LDK Solar Hi-Tech Co., Ltd., or LDK, and a UMG-Si supplier.

In 2009 and thereafter, we amended our agreements with certain of these suppliers to adjust the purchase price to prevailing market prices at the time we place a purchase order and to reduce the quantity of products that we were required to purchase. Under our supply agreements with certain suppliers, and consistent with historical industry practice, we make advance payments prior to scheduled delivery dates. These advance payments are made without collateral and are credited against the purchase prices payable by us. As of December 31, 2016, the balance of the advance payments that we have made to GCL, Deutsche Solar and LDK totaled \$22.1 million.

Under our 12-year wafer supply agreement with Deutsche Solar, we purchased the contracted volume for 2009 but did not purchase the contracted volumes for 2010 and 2011. The agreement contains a provision stating that, if we do not order the contracted volume in a given year, Deutsche Solar can invoice us for the difference at the full contract price. We believe that the take-or-pay provisions of the agreement are void under German law. In December 2011, Deutsche Solar gave notice to us to terminate the agreement with immediate effect. Deutsche Solar stated that the reason for the termination was an alleged breach of the agreement by us. In the notice, Deutsche Solar reserved its right to claim damages of €148.6 million in court. As a result of the termination, we reclassified the accrued loss on firm purchase commitments reserve of \$27.9 million as of December 31, 2011 to loss contingency accruals. In addition, we made a full bad debt allowance of \$17.4 million against the balance of advance payments to Deutsche Solar. The accrued amount of \$27.9 million represents our best estimate for our loss contingency. Deutsche Solar did not specify the basis for its claimed damages of €148.6 million in the notice.

In 2007, we entered into a three-year agreement, or the 2007 Supply Contract, with LDK under which we purchased specified quantities of silicon wafers and LDK converted our reclaimed silicon feedstock into wafers. In June 2008, we entered into two 10-year wafer supply agreements, or the 2008 Supply Contracts, with LDK, under which we agreed to purchase specified volumes of wafers at pre-determined prices each year, commencing January 1, 2009. In April 2010, we gave LDK a termination notice for the 2007 Supply Contract and 2008 Supply Contracts on the grounds that they refused to deduct from the selling price the deposits paid by us previously. We also initiated arbitration proceedings against LDK under the supply contracts, seeking a refund of the initial deposits that we paid to them. On October 19, 2015, we reached a settlement agreement with LDK, or the 2015 Settlement Agreement. We have already paid the required amounts and fulfilled our obligations under the 2015 Settlement Agreement. See "Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—Legal and Administrative Proceedings." We recorded a charge of \$20.8 million related to the 2015 Settlement Agreement in general and administrative expense in the third quarter of 2015. On May 19, 2016, we received a copy of a bill of complaint from Xinyu Intermediate Court, in which LDK's receiver applied to the court for an order to revoke the 2015 Settlement Agreement pursuant to PRC bankruptcy law, and requested us to pay an amount that LDK's receiver alleged to have been waived by LDK under the 2015 Settlement Agreement. On December 1, 2016, Xinyu Intermediate Court heard this case, and a decision is now pending.

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We have in the past entered into long-term supply agreements for silicon wafers or solar cells with fixed price and quantity terms. If, during the term of these agreements, the price of materials decreases significantly and we are unable to renegotiate favorable terms with our suppliers, we may be placed at a competitive disadvantage compared to our competitors, and our earnings could decline. In addition, if demand for our solar power products decreases, yet our supply agreements require us to purchase more silicon wafers and solar cells than required to meet customer demand, we may incur costs associated with carrying excess inventory. To the extent that we are not able to pass these increased costs on to our customers, our business, cash flows, financial condition and results of operations may be materially and adversely affected. If our suppliers file lawsuits against us for early termination of these contracts, such events could be costly, may divert management's attention and other resources away from our business, and could have a material and adverse effect on our reputation, business, financial condition, results of operations and prospects.

***We are subject to numerous laws and regulations at the national, regional and local levels of government in the areas where we do business. Any changes to these regulations and policies may present technical, regulatory and economic barriers to the purchase and use of solar power products, solar projects and solar electricity, which may significantly reduce demand for our products and services or otherwise adversely affect our financial performance.***

We are expanding our international operations and are subject to a variety of laws and regulations, some of which may conflict with each other and all of which are subject to change, including energy regulations, export and import restrictions, tax laws and regulations, environmental regulations, labor laws and other government requirements, approvals, permits and licenses. We also face trade barriers and trade remedies 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. See "—Imposition of anti-dumping and countervailing duty orders or safeguard measures in one or more markets may result in additional costs to our customers, which could materially or adversely affect our business, results of operations, financial conditions and future prospects."

In the countries where we do business, the market for solar power products, solar projects and solar electricity is heavily influenced by national, state and local government regulations and policies concerning the electric utility industry, as well as policies disseminated by electric utilities. These regulations and policies often relate to electricity pricing and technical interconnection of customer-owned electricity generation, and could deter further investment in the research and development of alternative energy sources as well as customer purchases of solar power technology, which could result in a significant reduction in the potential demand for our solar power products, solar projects and solar electricity.

In our module segment, we expect that our solar power products and their installation will continue to be subject to national, state and local regulations and policies relating to safety, utility interconnection and metering, construction, environmental protection, and other related matters. Any new regulations or policies pertaining to our solar power products may result in significant additional expenses to us, our resellers and customers, which could cause a significant reduction in demand for our solar power products.

In our energy segment, we are subject to numerous national, regional and local laws and regulations. Changes in applicable energy laws or regulations, or in the interpretations of these laws and regulations, could result in increased compliance costs or the need for additional capital expenditures. If we fail to comply with these requirements, we could also be subject to civil or criminal liability and the imposition of fines. Further, national, regional or local regulations and policies could be changed to provide for new rate programs that undermine the economic returns for both new and existing projects by charging additional, non-negotiable fixed or demand charges or other fees or reductions in the number of projects allowed under net metering policies. National, regional or local



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government energy policies, law and regulation supporting the creation of wholesale energy markets is currently, and may continue to be, subject to challenges, modifications and restructuring proposals, which may result in limitations on the commercial strategies available to us for the sale of our power.

Regulatory changes in a jurisdiction where we are developing a project may make the continued development of the project infeasible or economically disadvantageous and any expenditure we have made to date on such project may be wholly or partially written off. Any of these changes could significantly increase the regulatory related compliance and other expenses incurred by the projects and could significantly reduce or entirely eliminate any potential revenues that can be generated by one or more of the projects or result in significant additional expenses to us, our offtakers and customers, which could materially and adversely affect our business, financial condition, results of operations and cash flows.

We also face regulatory risks imposed by various transmission providers and operators, including regional transmission operators and independent system operators, and their corresponding market rules. These regulations may contain provisions that limit access to the transmission grid or allocate scarce transmission capacity in a particular manner, which could materially and adversely affect our business, financial condition, results of operations and cash flows.

We are also subject to the Foreign Corrupt Practices Act of 1977, or the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, and other anti-bribery and anti-money laundering laws in countries in which we conduct activities. We face significant liabilities if we fail to comply with the FCPA and other anticorruption laws that prohibit companies and their employees and third-party intermediaries from authorizing, offering, or providing, directly or indirectly, improper payments or benefits to foreign government officials, political parties, and private-sector recipients for the purpose of obtaining or retaining business. We may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities. For example, in China, we may contract with and sell electricity to the national grid, a state-owned enterprise. In other countries where we develop, acquire or sell solar projects, we need to obtain various approvals, permits and licenses from the local or national governments. We can be held liable for the illegal activities of our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities. Any violation of the FCPA, other applicable anticorruption laws, and anti-money laundering laws could result in whistleblower complaints, adverse media coverage, investigations, loss of export privileges, severe criminal or civil sanctions, which could have a material adverse effect on our business, financial condition, cash flows and reputation. In addition, responding to any enforcement action may result in the diversion of management's attention and resources, significant defense costs and other professional fees.

***Because the markets in which we compete are highly competitive and quickly evolving, because many of our competitors have greater resources than we do or are more adaptive, and because we have a limited track record in our energy segment, we may not be able to compete successfully and we may not be able to maintain or increase our market share.***

We face intense competition in our module and energy segments. We have a large number of competitors in our solar modules business, including non-China-based competitors such as First Solar, Inc., or First Solar, and SunPower Corporation, or SunPower, and China-based competitors such as Trina Solar Limited, or Trina, JinkoSolar Holding Co., Limited, or Jinko, JA Solar Co., Limited, or JA Solar, and Hanwha Q Cells Co., Ltd., or Hanwha Q Cells. Some of our competitors are developing or are currently producing products based on new solar power technologies that may ultimately have costs similar to or lower than our projected costs. These include products based on thin film PV technology, which requires either no silicon or significantly less silicon to produce than crystalline silicon solar modules, such as the ones that we produce, and is less susceptible to increases in silicon costs. Some of our competitors have longer operating histories, greater name and brand recognition,

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access to larger customer bases, greater resources and significantly greater economies of scale than we do. In addition, some of our competitors may have stronger relationships or may enter into exclusive relationships with some of the key distributors or system integrators to whom we sell our products. As a result, they may be able to respond more quickly to changing customer demands or devote greater resources to the development, promotion and sales of their products. Some of our competitors have more diversified product offerings, which may better position them to withstand a decline in demand for solar power products. Some of our competitors are more vertically integrated than we are, from upstream silicon wafer manufacturing to solar power system integration. This may allow them to capture higher margins or have lower costs. In addition, new competitors or alliances among existing competitors could emerge and rapidly acquire significant market share. If we fail to compete successfully, our business will suffer and we may not be able to maintain or increase our market share.

For our energy segment, we compete in a more diversified and complicated landscape since the commercial and regulatory environments for solar power project development and operation vary significantly from region to region and country to country. Our primary competitors are local and international developers and operators of solar power projects. Some of our competitors may have advantages over us in terms of greater experience or resources in the operation, financing, technical support and management of solar power projects, in any particular markets or in general. We only started developing solar power projects and growing our energy segment in recent years.

Our energy segment has a global footprint and develops solar power projects primarily in Canada, Japan, the U.S., China, Brazil, India, Mexico, the United Kingdom and Australia. There is no guarantee that we can compete successfully in the markets we currently operate or the ones we plan to enter in the future. For example, in certain of our target markets, such as China, state-owned and private companies have emerged to take advantage of the significant market opportunity created by attractive financial incentives and favorable regulatory environment provided by the governments. State-owned companies may have stronger relationships with local governments in certain regions and private companies may be more focused and experienced in developing solar power projects in the markets where we compete. Accordingly, we need to continue to be able to compete against both state-owned and private companies in these markets. Our energy segment also provides EPC and/or O&M services in China, Canada, Australia and other countries. We face intense competition from other service providers in those markets.

Since our energy segment includes electricity generation and sale, we believe that our primary competitors in the electricity generation markets in which we operate are the incumbent utilities that supply energy to our potential customers under highly regulated rate and tariff structures. We compete with these conventional utilities primarily based on price, predictability of price, reliability of delivery and the ease with which customers can switch to electricity generated by our solar energy projects.

As the solar power and renewable energy industry grows and evolves, we will also face new competitors who are not currently in the market. Our failure to adapt to changing market conditions and to compete successfully with existing or new competitors will limit our growth and will have a material adverse effect on our business and prospects.

### ***We face risks associated with the marketing, distribution and sale of our solar power products and services internationally.***

The international marketing, distribution and sale of our products expose us to a number of risks, including:

- fluctuating sources of revenues;
- difficulties in staffing and managing overseas operations;
- fluctuations in foreign currency exchange rates;

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- differing regulatory and tax regimes across different markets;
- the increased cost of understanding local markets and trends and developing and maintaining an effective marketing and distribution presence in various countries;
- the difficulty of providing customer service and support in various countries;
- the difficulty of managing our sales channels effectively as we expand beyond distributors to include direct sales to systems integrators, end users and installers;
- the difficulty of managing the development, construction and sale of our solar power projects on a timely and profitable basis as a result of technical difficulties, commercial disputes with our customers and changes in regulations, among other factors;
- the difficulties and costs of complying with the different commercial, legal and regulatory requirements in the overseas markets in which we operate;
- any failure to develop appropriate risk management and internal control structures tailored to overseas operations;
- any inability to obtain, maintain or enforce intellectual property rights;
- any unanticipated changes in prevailing economic conditions and regulatory requirements; and
- any 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.

If we are unable to effectively manage these risks, our ability to expand our business abroad could suffer.

Our revenue sources have fluctuated significantly over recent years. For example, in 2008, 89.5% of our revenues were attributable to Europe, while only 4.6% and 5.9% were attributable to the Americas and Asia and others, respectively. However, in 2015, the Americas contributed 50.5% and Asia contributed 39.9% of our revenues, while Europe and other regions contributed 9.6%; and in 2016, the Americas contributed 38.7% and Asia contributed 46.9% of our revenues, while Europe and other regions contributed 14.4%. As we shift the focus of our operations between different regions of the world, we have limited time to prepare for and address the risks identified above. Furthermore, some of these risks, such as currency fluctuations, will increase as our revenue contribution from certain global regions becomes more prominent. This may adversely influence our financial performance.

***Our future business depends in part on our ability to make strategic acquisitions, investments and divestitures and to establish and maintain strategic relationships, and our failure to do so could have a material and adverse effect on our market penetration and revenue growth.***

We frequently look for and evaluate opportunities to acquire other businesses, make strategic investments or establish strategic relationships with third parties to improve our market position or expand our products and services. When market conditions permit and opportunities arise, we may also consider divesting part of our current business to focus management attention and improve our operating efficiency. Investments, strategic acquisitions and relationships with third parties could subject us to a number of risks, including risks associated with integrating their personnel, operations, services, internal controls and financial reporting into our operations as well as the loss of control of operations that are material to our business. If we divest any material part of our business, particularly our upstream manufacturing business or downstream energy business, we may not be able to benefit from our investment and experience associated with that part of the business and may be subject to intensified concentration risks with less flexibility to respond to market fluctuations. Moreover, it could be expensive to make strategic acquisitions, investments, divestitures and establish and maintain relationships, and we may be subject to the risk of non-performance by a counterparty, which may in

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turn lead to monetary losses that materially and adversely affect our business. We cannot assure you that we will be able to successfully make strategic acquisitions and investments and successfully integrate them into our operations, or make strategic divestitures or establish strategic relationships with third parties that will prove to be effective for our business. Our inability to do so could materially and adversely affect our market penetration, our revenue growth and our profitability.

### ***Our significant international operations expose us to a number of risks, including unfavorable political, regulatory, labor and tax conditions in the countries where we operate.***

We intend to continue to extend our global reach and capture market share in various global markets. In doing so, we will be exposed to various risks, including political, regulatory, labor and tax risks. However, many perceive globalization to be in retreat and protectionism on the rise, as evidenced by the decision of Great Britain to leave the European Union and the election of Donald Trump as the president of U.S., who has threatened to impose punitive tariffs on goods imported from China. If trade tensions increase among the U.S., China and other countries, it may have a material adverse effect on our international operations. Furthermore, we may need to make substantial investments in our overseas operations, both initially and on an ongoing basis, in order to attain longer-term sustainable returns. These investments could negatively impact our financial performance before sustainable profitability is recognized.

### ***We face risks related to private securities litigation.***

Our company and certain of our directors and executive officers were named as defendants in class action lawsuits in the U.S. and Canada alleging that our financial disclosures during 2009 and early 2010 were false or misleading and in violation of U.S. federal securities laws and Ontario securities laws, respectively. The lawsuits in the U.S. were consolidated into one class action, which was dismissed with prejudice by the district court in March 2013, and subsequently affirmed by the circuit court in December 2013. The lawsuit in Canada continues. As a preliminary matter, we challenged the Ontario Court's jurisdiction to hear the plaintiff's claim, but this motion was unsuccessful. In September 2014, the plaintiff obtained an order granting him leave to assert the statutory cause of action under the Ontario Securities Act for certain of his misrepresentation claims. In January 2015, the plaintiff obtained an order for class certification in respect of the claims for which he obtained leave to assert the statutory cause of action under the Ontario Securities Act, for certain negligent misrepresentation claims and for oppression remedy claims advanced under the Canada Business Corporations Act, or CBCA. The Court dismissed CSI's application for leave to appeal. The class action has moved to the merits stage. See "Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—Legal and Administrative Proceedings." There is no guarantee that we will not become party to additional lawsuits. If the case goes to trial, the Canadian action could require significant management time and attention and result in significant legal expenses. In addition, we are generally obligated, to the extent permitted by law, to indemnify our directors and officers who are named defendants in these lawsuits. If we were to lose a class action lawsuit, we may be required to pay judgments or settlements and incur expenses in aggregate amounts that could have a material and adverse effect on our financial condition or results of operations.

### ***Our quarterly operating results may fluctuate from period to period.***

Our quarterly operating results may fluctuate from period to period based on a number of factors, including:

- the average selling prices of our solar power products and services;
- the timing of completion of construction of our solar power projects;
- the timing and pricing of project sales;

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- changes in payments from power purchasers of solar power plants already in operation;
- the rate and cost at which we are able to expand our internal production capacity;
- the availability and cost of solar cells and wafers from our suppliers and toll manufacturers;
- the availability and cost of raw materials, particularly high-purity silicon;
- changes in government incentive programs and regulations, particularly in our key and target markets;
- the unpredictable volume and timing of customer orders;
- the loss of one or more key customers or the significant reduction or postponement of orders;
- the availability and cost of external financing for on-grid and off-grid solar power applications;
- acquisition and investment costs;
- the timing of successful completion of customer acceptance testing of our solar power projects;
- geopolitical turmoil and natural disasters within any of the countries in which we operate;
- foreign currency fluctuations, particularly in Euro, RMB, Canadian dollar and Japanese yen;
- our ability to establish and expand customer relationships;
- changes in our manufacturing costs;
- the timing of new products or technology introduced or announced by our competitors;
- fluctuations in electricity rates due to changes in fossil fuel prices or other factors;
- allowances for doubtful accounts and advances to suppliers;
- inventory write-downs;
- long-lived asset impairment;
- depreciation charges relating to under-utilized assets;
- loss on firm purchase commitments under long-term supply agreements;
- construction progress of solar power projects and related revenue recognition; and
- anti-dumping and countervailing duty costs and/or anti-dumping and countervailing duty true-up charges.

We base our planned operating expenses in part on our expectations of future revenues. A significant portion of our expenses will be fixed in the short-term. If our revenues for a particular quarter are lower than we expect, we may not be able to reduce our operating expenses proportionately, which would harm our operating results for the quarter. As a result, our results of operations may fluctuate from quarter to quarter and our interim and annual financial results may differ from our historical performance.

### ***Fluctuations in exchange rates could adversely affect our business, including our financial condition and results of operations.***

The majority of our sales in 2014, 2015 and 2016 were denominated in U.S. dollars, Canadian dollars and Japanese yen, with the remainder in other currencies such as Renminbi, Euros and Australian dollars. Our Renminbi costs and expenses are primarily related to the sourcing of solar cells, silicon wafers and silicon, other raw materials, toll manufacturing fees, labor costs and local overhead expenses within the PRC. From time to time, we enter into loan arrangements with Chinese

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commercial banks that are denominated primarily in Renminbi or U.S. dollars. Most of our cash and cash equivalents and restricted cash are denominated in Renminbi. Fluctuations in exchange rates, particularly between the U.S. dollar, Euro, British pound, Renminbi, Canadian dollar and Japanese yen, may result in foreign exchange gains or losses. We recorded net foreign exchange losses of \$32.2 million in 2014, and net foreign exchange gain of \$22.9 million and \$25.4 million in 2015 and 2016, respectively.

The value of the Renminbi against the U.S. dollar, Euro and other currencies is affected by, among other things, changes in China's political and economic conditions and China's foreign exchange policies. In late 2005, China amended its policy of tracking the value of the Renminbi to the U.S. dollar to instead fluctuate against a basket of foreign currencies, which caused the Renminbi to appreciate significantly against the U.S. dollar over the following three years. In June 2010, the PRC government announced that it would allow greater flexibility for the Renminbi to fluctuate against the U.S. dollar, which resulted in further appreciation of the Renminbi, although in 2014, the value of the Renminbi depreciated against the U.S. dollar. In 2015, the PRC government changed the way it calculates the mid-point price of Renminbi against the U.S. dollar, requiring the market-makers who submit for the People's Bank of China's reference rates to consider the previous day's closing spot rate and foreign-exchange demand and supply, as well as changes in major currency rates. This change resulted in further depreciation of the Renminbi against the U.S. dollar. In 2016, the Renminbi continued to depreciate against the U.S. dollar, in response to which the Chinese government imposed restrictions on capital outflows. In October 2016, the International Monetary Fund added the Renminbi into the Special Drawing Rights currency basket. However, the status of the Renminbi as an international currency is still being tested by the market. We cannot provide any assurances that the policy of the PRC government will not affect or the manner in which it may affect the exchange rate between the Renminbi and the U.S. dollar or other foreign currencies in the future.

Since 2008, we have hedged part of our foreign currency exposures against the U.S. dollar using foreign currency forward or option contracts. In addition to collateral requirements to enter into hedging contracts, there are notional limits on the size of the hedging transactions that we may enter into with any particular counterparty at any given time. The effectiveness of our hedging program may be limited due to cost effectiveness, cash management, exchange rate visibility and downside protection. We recorded gains on change in foreign currency derivatives of \$19.7 million in 2014, losses on change in foreign currency derivatives of \$3.7 million in 2015, and gains on change in foreign currency derivatives of \$4.8 million in 2016. The gains or losses on change in foreign currency derivatives are related to our hedging program.

Volatility in foreign exchange rates will hamper, to some extent, our ability to plan our pricing strategy. To the extent that we are unable to pass along increased costs resulting from exchange rate fluctuations to our customers, our profitability may be adversely impacted. As a result, fluctuations in foreign currency exchange rates could have a material and adverse effect on our financial condition and results of operations.

### ***A change in our effective tax rate can have a significant adverse impact on our business.***

A number of factors may adversely impact our future effective tax rates, such as the jurisdictions in which our profits are determined to be earned and taxed; changes in the valuation of our deferred tax assets and liabilities; adjustments to provisional taxes upon finalization of various tax returns; adjustments to the interpretation of transfer pricing standards; changes in available tax credits; changes in stock-based compensation expenses; changes in tax laws or the interpretation of such tax laws (for example, proposals for fundamental U.S. international tax reform); changes in U.S. GAAP; expiration or the inability to renew tax rulings or tax holiday incentives; and the repatriation of non-U.S. earnings for which we have not previously provided for U.S. taxes. A change in our effective tax rate due to any of these factors may adversely influence our future results of operations.

***Seasonal variations in demand linked to construction cycles and weather conditions may influence our results of operations.***

Our business is subject to seasonal variations in demand linked to construction cycles and weather conditions. Purchases of solar power products and services tend to decrease during the winter months in our key markets, such as Canada, due to adverse weather conditions that can complicate the installation of solar power systems and negatively impact the construction schedules of our solar power projects. Demand from other countries, such as the U.S. and China, may also be subject to significant seasonality. Seasonal variations could adversely affect our results of operations and make them more volatile and unpredictable.

***Our future success depends partly on our ability to maintain and expand our solar components manufacturing capacity, which exposes us to a number of risks and uncertainties.***

Our future success depends partly on our ability to maintain and expand our solar components manufacturing capacity. If we are unable to do so, we may be unable to expand our business, maintain our competitive position, and improve our profitability. Our ability to expand our solar components production capacity is subject to risks and uncertainties, including:

- the need to raise significant additional funds to purchase raw materials and to build additional manufacturing facilities, which we may be unable to obtain on commercially reasonable terms or at all;
- delays and cost overruns as a result of a number of factors, many of which are beyond our control, including delays in equipment delivery by vendors;
- delays or denial of required regulatory approvals by relevant government authorities;
- diversion of significant management attention and other resources; and
- failure to execute our expansion plan effectively.

If we are unable to maintain and expand our internal production capacity, we may be unable to expand our business as planned. Moreover, even if we do maintain and expand our production capacity, we might still not be able to generate sufficient customer demand for our solar power products to support the increased production levels.

***We may be unable to generate sufficient cash flows or have access to external financing necessary to fund planned operations and make adequate capital investments.***

We anticipate that our operating and capital expenditures requirements may increase. To develop new products, support future growth, achieve operating efficiencies and maintain product quality, we may need to make significant capital investments in manufacturing technology, facilities and capital equipment, research and development, and product and process technology. We also anticipate that our operating costs may increase as we expand our manufacturing operations, hire additional personnel, increase our sales and marketing efforts, invest in joint ventures and acquisitions, and continue our research and development efforts with respect to our products and manufacturing technologies.

Our operations are capital intensive. We rely on working capital financing substantially from Chinese banks for our manufacturing operations. We cannot guarantee that we will continue to be able to obtain new working capital financing on commercially reasonable terms or at all. See "—Our dependence on Chinese banks to extend our existing loans and provide additional loans exposes us to funding risks, which may materially and adversely affect our operations." Also, even though we are a publicly-traded company, we may not be able to raise capital via public equity and debt issuances due

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to market conditions and other factors, many of which are beyond our control. Our ability to obtain external financing is subject to a variety of uncertainties, including:

- our future financial condition, results of operations and cash flows;
- general market conditions for financing activities by manufacturers of solar power products; and
- economic, political and other conditions in the PRC and elsewhere.

If we are unable to obtain funding in a timely manner and on commercially acceptable terms, our growth prospects and future profitability may be adversely affected.

Construction of our solar power projects may require us to obtain project financing. If we are unable to obtain project financing, or if it is only available on terms which are not acceptable to us, we may be unable to fully execute our business plan. In addition, we generally expect to sell our projects to tax-oriented, strategic industry and other investors. Such investors may not be available or may only have limited resources, in which case our ability to sell our projects may be hindered or delayed and our business, financial condition, and results of operations may be adversely affected. There can be no assurance that we will be able to generate sufficient cash flows, find other sources of capital to fund our operations and solar power projects, make adequate capital investments to remain competitive in terms of technology development and cost efficiency required by our projects. If adequate funds and alternative resources are not available on acceptable terms, our ability to fund our operations, develop and construct solar power projects, develop and expand our manufacturing operations and distribution network, maintain our research and development efforts or otherwise respond to competitive pressures would be significantly impaired. Our inability to do the foregoing could have a material and adverse effect on our business and results of operations.

***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 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. Our substantial indebtedness could have important consequences to us and our shareholders. For example, it could:

- limit our ability to satisfy our debt obligations;
- 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 for 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 with 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.



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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. We cannot assure you that we will be able to generate sufficient cash flow from operations to support the repayment of our current indebtedness. 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. In addition, certain of our financing arrangements impose operating and financial restrictions on our business, which may negatively affect our ability to react to changes in market conditions, take advantage of business opportunities we believe to be desirable, obtain future financing, fund required capital expenditures, or withstand a continuing or future downturn in our business. Any of these factors could materially and adversely affect our ability to satisfy our debt obligations.

***We must comply with certain financial and other covenants under the terms of our debt instruments and the failure to do so may put us in default under those instruments.***

Many of our loan agreements include financial covenants and broad default provisions. The financial covenants primarily include current ratios, quick ratios, debt to asset ratios, contingent liability ratios and minimum equity requirements, which, in general, govern our existing long-term debt and debt we may incur in the future. These covenants could limit our ability to plan for or react to market conditions or to meet our capital needs in a timely manner and complying with these covenants may require us to curtail some of our operations and growth plans. In addition, any global or regional economic deterioration may cause us to incur significant net losses or force us to assume considerable liabilities, which would adversely impact our ability to comply with the financial and other covenants of our outstanding loans. If our creditors refuse to grant waivers for any non-compliance with these covenants, such non-compliance will constitute an event of default which may accelerate the amounts due under the applicable loan agreements. Some of our loan agreements also contain cross-default clauses, which could enable creditors under our debt instruments to declare an event of default should there be an event of default on our other loan agreements. We cannot assure you that we will be able to remain in compliance with these covenants in the future. We may not be able to cure future violations or obtain waivers of non-compliance on a timely basis. An event of default under any agreement governing our existing or future debt, if not cured by us or waived by our creditors, could have a material adverse effect on our liquidity, financial condition and results of operations.

***Our dependence on Chinese banks to extend our existing loans and provide additional loans exposes us to funding risks, which may materially and adversely affect our operations.***

We require significant cash flow and funding to support our operations. As a result, we rely on short-term borrowings to provide working capital for our daily operations. Since the majority of our short-term borrowings come from Chinese banks, we are exposed to lending policy changes by the Chinese banks. In 2014, 2015 and 2016, we successfully extended our short-term borrowings and, as of December 31, 2016, we had outstanding short-term borrowings of \$611.7 million with Chinese banks. Between January 1, 2017 and March 31, 2017, we obtained new borrowings of approximately \$364.9 million from Chinese banks, including \$48.1 million with due dates beyond December 31, 2017. Also, between January 1, 2017 and March 31, 2017, we renewed existing bank facilities of approximately \$325.3 million from Chinese banks with due dates beyond December 31, 2017.

If the Chinese government changes its macroeconomic policies and forces Chinese banks to tighten their lending practices, or if Chinese banks are no longer willing to provide financing to solar power companies, including us, we may not be able to extend our short-term borrowings or make additional

borrowings in the future. As a result, we may not be able to fund our operations to the same extent as in previous years, which may have a material and adverse effect on our operations.

***Cancellations of customer orders may make us unable to recoup any prepayments made to suppliers.***

In the past, we were required to make prepayments to certain suppliers, primarily suppliers of machinery, silicon raw materials, solar ingots, wafers and cells. Although we require certain customers to make partial prepayments, there is generally a lag between the due date for the prepayment of purchased machinery, silicon raw materials, solar ingots, wafers and cells and the time that our customers make prepayments. In the event that our customers cancel their orders, we may not be able to recoup prepayments made to suppliers, which could adversely influence our financial condition and results of operations.

***Credit terms offered to some of our customers expose us to the credit risks of such customers and may increase our costs and expenses, which could in turn materially and adversely affect our revenues, liquidity and results of operations.***

We offer unsecured short-term or medium-term credit to some of our customers based on their creditworthiness and market conditions. As a result, our claims for payments and sales credits rank as unsecured claims, which expose us to credit risk if our customers become insolvent or bankrupt.

From time to time, we sell our products to high credit risk customers in order to gain early access to emerging or promising markets, increase our market share in existing key markets or because of the prospects of future sales with a rapidly growing customer. There are high credit risks in doing business with these customers because they are often small, young and high-growth companies with significant unfunded working capital, inadequate balance sheets and credit metrics and limited operating histories. If these customers are not able to obtain satisfactory working capital, maintain adequate cash flow, or obtain construction financing for the projects where our solar products are used, they may be unable to pay for the products for which they have ordered or of which they have taken delivery. Our legal recourse under such circumstances may be limited if the customer's financial resources are already constrained or if we wish to continue to do business with that customer. Revenue recognition for this type of customer is deferred until cash is received. If more customers to whom we extend credit are unable to pay for our products, our revenues, liquidity and results of operations could be materially and adversely affected.

***Our dependence on a limited number of suppliers of silicon wafers, cells and silicon, and the limited number of suppliers for certain other components, such as silver metallization paste, solar module back-sheet, and ethylene vinyl acetate encapsulant, could prevent us from delivering our products to our customers in the required quantities or in a timely manner, which could result in order cancellations and decreased revenues.***

We purchase silicon raw materials, silicon wafers and solar cells, from a limited number of third-party suppliers. Purchases from GCL, our largest supplier of raw materials by dollar amount of purchases, accounted for approximately 19.6%, 23.4% and 18.9% of our total raw materials purchases in 2014, 2015 and 2016, respectively.

In 2016, we purchased the majority of the silicon wafers used in our solar modules from third parties. Our major silicon wafer suppliers were GCL (which accounted for 58.2% of our silicon wafer purchases) and Yichang CSG Polysilicon Co., Ltd., or Yichang. Our major suppliers of solar cells in 2016 included Inventec Corporation, or Inventec, and Motech Industries, Inc., or Motech. These suppliers may not always be able to meet our quantity requirements, or keep pace with the price reductions or quality improvements, necessary for us to price our products competitively. Supply may also be interrupted by accidents, disasters or other unforeseen events beyond our control. The failure of a supplier, for whatever reason, to supply silicon wafers, solar cells, silicon raw materials or other

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essential components that meet our quality, quantity and cost requirements in a timely manner could impair our ability to manufacture our products or increase our costs. The impact could be more severe if we are unable to access alternative sources on a timely basis or on commercially reasonable terms, and could prevent us from delivering our products to our customers in the required quantities and at prices that are profitable. Problems of this kind could cause order cancellations, reduce our market share, harm our reputation and cause legal disputes with our customers.

***We are developing and commercializing higher conversion efficiency cells, but we may not be able to mass-produce these cells in a cost effective way, if at all.***

Higher efficiency cell structures are becoming an increasingly important factor in cost competitiveness and brand recognition in the solar power industry. Such cells may yield higher power outputs at the same cost to produce as lower efficiency cells, thereby lowering the manufactured cost per watt. The ability to manufacture and sell solar modules made from such cells may be an important competitive advantage because solar system owners can obtain a higher yield of electricity from the modules that have a similar infrastructure, footprint and system cost compared to systems with modules using lower efficiency cells. Higher conversion efficiency solar cells and the resulting higher output solar modules are one of the considerations in maintaining a price premium over thin-film products. However, while we are making the necessary investments to develop higher conversion efficiency solar power products, there is no assurance that we will be able to commercialize some or any of these products in a cost effective way, or at all. In the near term, such products may command a modest premium. In the longer term, if our competitors are able to manufacture such products and we cannot do the same at all or in a cost efficient manner, we will be at a competitive disadvantage, which will likely influence our product pricing and our financial performance.

***We may be subject to unexpected warranty expense that may not be adequately covered by our insurance policies.***

Our warranty against defects in materials and workmanship is for ten years and, effective June 2015, we warrant that, for a period of 25 years, our polycrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97.5% of the labeled power output;
- from the second year to the 24th year, the actual annual power output decline will be no more than 0.7%; and
- by the end of the 25th year, the actual power output of the module will be no less than 80.7% of the labeled power output.

Effective June 2015, we warrant that, for a period of 25 years, our monocrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97% of the labeled power output;
- from the second year to the 24th year, the actual annual power output decline will be no more than 0.7%; and
- by the end of the 25th year, the actual power output of the module will be no less than 80.2% of the labeled power output.

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In addition, effective August 2016, we lengthened the warranty against decline in our Dymond modules to 30 years. We warrant that, for a period of 30 years, our Dymond polycrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97.5% of the labeled power output;
- from the second year to the 29th year, the actual annual power output decline will be no more than 0.5%; and
- by the end of the 30th year, the actual power output of the module will be no less than 83% of the labeled power output.

Effective August 2016, we warrant that, for a period of 30 years, our Dymond monocrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97% of the labeled power output;
- from the second year to the sixth year, the actual annual power output decline will be no more than 0.7%; from the seventh year to the 29th year, the actual annual power output decline will be no more than 0.5%; and
- by the end of the 30th year, the actual power output of the module will be no less than 81.5% of the labeled power output.

We believe our warranty periods are consistent with industry practice. Due to the long warranty period, we bear the risk of extensive warranty claims long after we have shipped our products and recognized revenue. We began selling specialty solar products in 2002 and began selling standard solar modules in 2004. Any increase in the defect rate of our products would require us to increase our warranty reserves and would have a corresponding negative impact on our results of operations. 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. In particular, unknown issues may surface after extended use. These issues could potentially affect our market reputation and adversely affect our revenues, giving rise to potential warranty claims by our customers. As a result, we may be subject to unexpected warranty costs and associated harm to our financial results as long as 25 years after the sale of our products. In addition, for solar power projects built by us, we provide a limited workmanship or balance of system warranty against defects in engineering, design, installation and construction under normal use, operation and service conditions for a period of up to five years following the energizing of the solar power plant. In resolving claims under the workmanship or balance of system warranty, we have the option of remedying through repair, refurbishment or replacement of equipment. We have also entered into similar workmanship warranties with our suppliers to back up our warranties. See "Item 5. Operating and Financial Review and Prospects—A. Operating Results—Critical Accounting Policies—Warranty Costs."

As part of our energy business, before commissioning solar power projects, we conduct performance testing to confirm that the projects meet the operational and capacity expectations set forth in the agreements. In limited cases, we also provide for an energy generation performance test designed to demonstrate that the actual energy generation for up to the first three years meets or exceeds the modeled energy expectation. In the event that the energy generation performance test performs below expectations, the appropriate party (EPC contractor or equipment provider) may incur liquidated damages capped at a percentage of the contract price.

We have entered into agreements with a group of insurance companies with high credit ratings to back up our warranties. Under the terms of the insurance policies, which are designed to match the terms of our solar module product warranty policy, the insurance companies are obliged to reimburse

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us, subject to certain maximum claim limits and certain deductibles, for the actual product warranty costs that we incur under the terms of our solar module product warranty policy. We record the insurance premiums initially as prepaid expenses and amortize them over the respective policy period of one year. Each prepaid policy provides insurance against warranty costs for panels sold within that policy year. However, potential warranty claims may exceed the scope or amount of coverage under this insurance and, if they do, they could materially and adversely affect our business.

### ***We may not continue to be successful in developing and maintaining a cost-effective solar cell, wafer and ingot manufacturing capability.***

We plan to continue expanding our in-house solar cell, wafer and ingot manufacturing capabilities to support our solar module manufacturing business. Our annual solar cell production capacity was at 2.44 GW as of December 31, 2016. Our annual solar wafer and ingot production capacity was 1.0 GW and 0.4 GW, respectively, as of December 31, 2016. To remain competitive going forward, we intend to expand our annual solar cell, wafer and ingot production capacity to meet expected growth in demand for our solar modules. However, we only have limited and recent operating experience in this area and may face significant product development challenges. Manufacturing solar cells, wafers and ingots is a complex process and we may not be able to produce a sufficient quality of these items to meet our solar module manufacturing standards. Minor deviations in the manufacturing process can cause substantial decreases in yield and in some cases cause no yield output or production to be suspended. We will need to make capital expenditures to purchase manufacturing equipment for solar cell, wafer and ingot production and will also need to make significant investments in research and development to keep pace with technological advances in solar power technology. Any failure to successfully develop and maintain cost-effective manufacturing capability may have a material and adverse effect on our business and prospects. For example, we have in the past purchased a large percentage of solar cells from third parties. This negatively affected our margins compared with those of our competitors since it is less expensive to produce cells internally than to purchase them from third parties. Because third party solar cell purchases are usually made in a period of high demand, prices tend to be higher and availability reduced.

Although we intend to continue direct purchasing of solar cells, wafers and ingots and toll manufacturing arrangements through a limited number of strategic partners, our relationships with our suppliers may be disrupted if we engage in the large-scale production of solar cells, wafers and ingots ourselves. If our suppliers discontinue or reduce the supply of solar cells, wafers and ingots to us, through direct sales or through toll manufacturing arrangements, and we are not able to compensate for the loss or reduction by manufacturing our own solar cells, wafers and ingots, our business and results of operations may be adversely affected.

### ***We may not achieve acceptable yields and product performance as a result of manufacturing problems.***

We need to continuously enhance and modify our solar module, cell, wafer and ingot production capabilities in order to improve yields and product performance. Microscopic impurities such as dust and other contaminants, difficulties in the manufacturing process, disruptions in the supply of utilities or defects in the key materials and tools used to manufacture solar module, cell, ingot and wafers can cause a percentage of the solar module, cell, ingot and wafers to be rejected, which would negatively affect our yields. We may experience manufacturing difficulties that cause production delays and lower than expected yields.

Problems in our facilities, including but not limited to production failures, human errors, weather conditions, equipment malfunction or process contamination, may limit our ability to manufacture products, which could seriously harm our operations. We are also susceptible to floods, droughts, power losses and similar events beyond our control that would affect our facilities. A disruption in any step of

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the manufacturing process will require us to repeat each step and recycle the silicon debris, which would adversely affect our yields and manufacturing cost.

***If we are unable to attract, train and retain technical personnel, our business may be materially and adversely affected.***

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

***Our dependence on a limited number of customers and our lack of long-term customer contracts in our solar modules business may cause significant fluctuations or declines in our revenues.***

We sell a substantial portion of our solar module products to a limited number of customers, including distributors, system integrators, project developers and installers/EPC companies. Our top five customers by revenues collectively accounted for approximately 33.6%, 26.8% and 16.9% of our net revenues in 2014, 2015 and 2016, respectively. We anticipate that our dependence on a limited number of customers will continue for the foreseeable future. Consequently, any of the following events may cause material fluctuations or declines in our revenues:

- reduced, delayed or cancelled orders from one or more of our significant customers;
- the loss of one or more of our significant customers;
- a significant customer's failure to pay for our products on time; and
- a significant customer's financial difficulties or insolvency.

As we continue to expand our business and operations, our top customers continue to change. We cannot assure that we will be able to develop a consistent customer base.

***There are a limited number of purchasers of utility-scale quantities of electricity, which exposes us and our utility-scale solar power projects to additional risk.***

Since the transmission and distribution of electricity is either monopolized or highly concentrated in most jurisdictions, there are a limited number of possible purchasers for utility-scale quantities of electricity in a given geographic location, including transmission grid operators, state and investor-owned power companies, public utility districts and cooperatives. As a result, there is a concentrated pool of potential buyers for electricity generated by our solar power plants and projects, which may restrict our ability to negotiate favorable terms under new PPAs and could impact our ability to find new customers for the electricity generated by our generation facilities should this become necessary. Furthermore, if the financial condition of these utilities and/or power purchasers deteriorates or government policies or regulations to which they are currently subject that compel them to source renewable energy supplies change, demand for electricity produced by our plants could be negatively impacted. In addition, provisions in our PPAs or applicable laws may provide for the curtailment of delivery of electricity for various reasons, including preventing damage to transmission systems, system emergencies, force majeure or economic reasons. Such curtailment would reduce revenues to us from PPAs. If we cannot enter into PPAs on terms favorable to us, or at all, or if the purchaser under our PPAs were to exercise its curtailment or other rights to reduce purchases or payments under such arrangements, our revenues and our decisions regarding development of additional projects in the energy segment may be adversely affected.

***Product liability claims against us could result in adverse publicity and potentially significant monetary damages.***

We, along with other solar power product manufacturers, are exposed to risks associated with product liability claims if the use of our solar power products results in injury. Since our products generate electricity, it is possible that users could be injured or killed by our products due to product malfunctions, defects, improper installation or other causes. Although we carry limited product liability insurance, we may not have adequate resources to satisfy a judgment if a successful claim is brought against us. The successful assertion of product liability claims against us could result in potentially significant monetary damages and require us to make significant payments. Even if the product liability claims against us are determined in our favor, we may suffer significant damage to our reputation.

***Our founder, Dr. Shawn Qu, has substantial influence over our company and his interests may not be aligned with the interests of our other shareholders.***

As of March 31, 2017, Dr. Shawn Qu, our founder, Chairman, President and Chief Executive Officer, beneficially owned 13,649,339 common shares, or 23.5% of our outstanding shares. As a result, Dr. Qu has substantial influence over our business, including decisions regarding mergers and acquisition, consolidations and the sale of all or substantially all of our assets, the election of directors and other significant corporate actions. This concentration of ownership may discourage, delay or prevent a change in control of our company, which could deprive our other shareholders of an opportunity to receive a premium for their shares as part of a sale of our company and might reduce the price of our common shares.

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

Our success depends on our ability to develop and use our technology and know-how and sell our solar power products and services without infringing the intellectual property or other rights of third parties. The validity and scope of claims relating to solar power technology patents involve complex scientific, legal and factual questions and analyses and are therefore highly uncertain. We may be subject to litigation involving claims of patent infringement or the violation of intellectual property rights of third parties. Defending 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. Additionally, we use both imported and China-made equipment in our production lines, sometimes without sufficient supplier guarantees that our use of such equipment does not infringe third-party intellectual property rights. This creates a potential source of litigation or infringement claims. 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 or require us to seek licenses from third parties, pay ongoing royalties, 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 defer customers or potential customers or limit their purchase or use of our products until such litigation is resolved.

***Compliance with environmental laws and regulations can be expensive, and noncompliance with these regulations may result in adverse publicity and potentially significant monetary damages, fines and the suspension or even termination of our business operations.***

We are required to comply with all national and local environmental regulations. Our business generates noise, wastewater, gaseous wastes and other industrial waste in our operations and the risk of incidents with a potential environmental impact has increased as our business has expanded. We believe that we substantially comply with all relevant environmental laws and regulations and have all necessary and material environmental permits to conduct our business as it is presently conducted. However, if

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more stringent regulations are adopted in the future, the costs of complying with these new regulations could be substantial. If we fail to comply with present or future environmental regulations, we may be required to pay substantial fines, suspend production or cease operations.

Our solar power products must comply with the environmental regulations of the jurisdictions in which they are installed, and we may incur expenses to design and manufacture our products to comply with such regulations. If compliance is unduly expensive or unduly difficult, we may lose market share and our financial results may be adversely affected. Any failure by us to control our use or to restrict adequately the discharge, of hazardous substances could subject us to potentially significant monetary damages, fines or suspensions of our business operations.

***We may not be successful in establishing our brand name in important markets and the products we sell under our brand name may compete with the products we manufacture on an original equipment manufacturer, or OEM, basis for our customers.***

We sell our products primarily under our own brand name but also on an OEM basis. In certain markets, our brand may not be as prominent as other more established solar power product vendors, and there can be no assurance that the brand names "Canadian Solar," or "CSI" or any of our possible future brand names will gain acceptance among customers. Moreover, because the range of products that we sell under our own brands and those we manufacture for our OEM customers may be substantially similar, we may end up directly or indirectly competing with our OEM customers, which could negatively affect our relationship with them.

***Failure to protect our intellectual property rights in connection with new solar power products may undermine our competitive position.***

As we develop and bring to market new solar power products, we may need to increase our expenditures to protect our intellectual property. Our failure to protect our intellectual property rights may undermine our competitive position. As of March 31, 2017, we had 642 patents and 288 patent applications pending in the PRC for products that contribute a relatively small percentage of our net revenues. We have seven U.S. patents. We also have three patents in Europe. We have registered the "Canadian Solar" trademark in the U.S., Australia, Canada, Europe, South Korea, Japan, the United Arab Emirates, Hong Kong and Peru and we have applied for registration of the "Canadian Solar" trademark in a number of other countries. As of March 31, 2017, we had 63 registered trademarks and one trademark application pending in the PRC, and 50 registered trademarks and 17 trademark applications pending outside of China. These intellectual property rights afford only limited protection and the actions we take to protect our rights as we develop new solar power products may not be adequate. Policing the unauthorized use of proprietary technology can be difficult and expensive. In addition, litigation, which can be costly and divert management attention, may be necessary to enforce our intellectual property rights, protect our trade secrets or determine the validity and scope of the proprietary rights of others.

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

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 interruption. Although we currently carry third-party liability insurance against property damages, the policies for this insurance are limited in scope and may not cover all claims relating to personal injury, property or environmental damage arising from incidents on our properties or relating to our operations. See "Item 4. Information on the Company—B. Business Overview—Insurance." Any



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occurrence of these or other incidents which are 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 our solar power products results in injury. See "—Product liability claims against us could result in adverse publicity and potentially significant monetary damages." Although we carry limited product liability insurance, we may not have adequate resources to satisfy a judgment if a successful claim is brought against us.

In addition, the normal operation of our manufacturing facilities may be interrupted by accidents caused by operating hazards, power supply disruptions, equipment failure, as well as natural disasters. While our manufacturing plants in China and elsewhere are covered by business interruption insurance, any significant damage or interruption to these plants could still have a material and adverse effect on our results of operations.

***If our internal control over financial reporting or disclosure controls and procedures are not effective, investors may lose confidence in our reported financial information, which could lead to a decline in our share price.***

We are subject to the reporting obligations under U.S. securities laws. The SEC, as required by Section 404 of the Sarbanes-Oxley Act of 2002, has adopted rules requiring every public company to include a management report on its internal control over financial reporting in its annual report, which contains management's assessment of the effectiveness of its internal control over financial reporting. In addition, an independent registered public accounting firm must report on the effectiveness of our internal controls over financial reporting. As of December 31, 2016, our management concluded that our internal control over financial reporting was effective. However, we cannot assure you that material weaknesses in our internal controls over financial reporting will not be identified in the future. Any material weaknesses in our internal controls could cause us not to meet our periodic reporting obligations in a timely manner or result in material misstatements in our financial statements. Material weaknesses in our internal controls over financial reporting could also cause investors to lose confidence in our reported financial information, leading to a decline in the market price of our common shares.

***The audit report included in our annual report on Form 20-F was prepared by auditors who are not inspected by the Public Company Accounting Oversight Board and, as a result, you are deprived of the benefits of such inspection.***

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

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

The inability of the PCAOB to conduct inspections of auditors in China makes it more difficult to evaluate the effectiveness of our auditor's audit procedures or quality control procedures as compared to auditors outside of China that are subject to PCAOB inspections. As a result, investors may lose

confidence in our reported financial information and procedures and the quality of our financial statements.

***If additional remedial measures are imposed on the big four PRC-based accounting firms, including our independent registered public accounting firm, in administrative proceedings brought by the SEC alleging the firms' failure to meet specific criteria set by the SEC, with respect to requests for the production of documents, we could be unable to timely file future financial statements in compliance with the requirements of the Exchange Act.***

Beginning in 2011, the Chinese affiliates of the "big four" accounting firms (including our independent registered public accounting firm) were affected by a conflict between the U.S. and Chinese law. Specifically, for certain U.S. listed companies operating and audited in the PRC, the SEC and the PCAOB sought to obtain access to the audit work papers and related documents of the Chinese affiliates of the "big four" accounting firms. The accounting firms were, however, advised and directed that, under Chinese law, they could not respond directly to the requests of the SEC and the PCAOB and that such requests, and similar requests by foreign regulators for access to such papers in China, had to be channeled through the China Securities Regulatory Commission, or CSRC.

In late 2012, this impasse led the SEC to commence administrative proceedings under Rule 102(e) of its Rules of Practice and also under the Sarbanes-Oxley Act of 2002 against the "big four" accounting firms (including our independent registered public accounting firm). A first instance trial of these proceedings in July 2013 in the SEC's internal administrative court resulted in an adverse judgment against the firms. The administrative law judge proposed penalties on the firms, including a temporary suspension of their right to practice before the SEC. Implementation of the latter penalty was postponed pending review by the SEC Commissioners. On February 6, 2015, before a review by the Commissioner had taken place, the firms reached a settlement with the SEC. Under the settlement, the SEC accepts that future requests by the SEC for the production of documents will normally be made to the CSRC. The firms will receive matching Section 106 requests, and are required to abide by a detailed set of procedures with respect to such requests, which in substance require them to facilitate production via the CSRC. If the firms fail to follow these procedures and meet certain other specified criteria, the SEC retains the authority to impose a variety of additional remedial measures, including, as appropriate, an automatic six-month bar on a firm's ability to perform certain audit work, commencement of new proceedings against a firm or, in extreme cases, the resumption of the current administrative proceeding against all four firms.

In the event that the SEC restarts administrative proceedings, depending upon the final outcome, listed companies in the U.S. with major PRC operations may find it difficult or impossible to retain auditors in respect of their operations in the PRC, which could result in their financial statements being determined to not be in compliance with the requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, including possible delisting. Moreover, any negative news about any such future proceedings against the firms may cause investor uncertainty regarding China-based, U.S.-listed companies and the market price of their shares may be adversely affected.

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

**Risks Related to Doing Business in China**

***The enforcement of the labor contract law and increases in labor costs in the PRC may adversely affect our business and our profitability.***

The Labor Contract Law came into effect on January 1, 2008, and was later revised on December 28, 2012; the Implementation Rules and the amendment thereunder became effective on September 18, 2008 and July 1, 2013, respectively. The Labor Contract Law and the Implementation Rules imposed stringent requirements on employers with regard to executing written employment contracts, hiring temporary employees, dismissing employees, consultation with the labor union and employee assembly, compensation upon termination and overtime work, collective bargaining and labor dispatch business. In addition, under the Regulations on Paid Annual Leave for Employees, which came into effect on January 1, 2008, and their Implementation Measures, which were promulgated and became effective on September 18, 2008, employees who have served for more than one year with an employer are entitled to a paid vacation ranging from five to 15 days, depending on their length of service. Employees who waive such vacation time at the request of the employer must be compensated for each vacation day waived at a rate equal to three times their normal daily salary. According to the Interim Provisions on Labor Dispatching, which came into effect on March 1, 2014, the number of dispatched workers used by an employer shall not exceed 10% of its total number of workers. Our labor costs are expected to continue to increase due to these new laws and regulations. Higher labor costs and labor disputes with our employees stemming from these new rules and regulations could adversely affect our business, financial condition, and results of operations.

***In recent years, our subsidiaries have lost certain tax benefits and we expect to pay additional PRC taxes as a result, which could have a material and adverse impact on our financial condition and results of operations.***

The Enterprise Income Tax Law, or the EIT Law, came into effect in China on January 1, 2008 and was amended on February 24, 2017. Under the EIT Law, both foreign-invested enterprises and domestic enterprises are subject to a uniform enterprise income tax rate of 25%. The EIT Law provides for preferential tax treatment for certain categories of industries and projects that are strongly supported and encouraged by the state. For example, enterprises qualified as a "High and New Technology Enterprise," or HNTE, are entitled to a 15% enterprise income tax rate provided that such HNTE satisfies other applicable statutory requirements.

Certain of our PRC subsidiaries, such as CSI New Energy Holding Co., Ltd. (formerly, CSI Solar Manufacture Inc.), or CSI New Energy Holding, CSI Cells Co., Ltd., or CSI Cells, Canadian Solar Manufacturing (Luoyang) Inc., or CSI Luoyang Manufacturing, Canadian Solar Manufacturing (Changshu) Inc., or CSI Changshu Manufacturing, once enjoyed preferential tax benefits, such as a reduced enterprise income tax rate of 12.5%, however, these benefits were expired. In 2016, only our partially owned subsidiary, Suzhou Sanysolar Materials Technology Co., Ltd., or Suzhou Sanysolar, which was qualified as an HNTE and satisfied applicable statutory requirements, enjoyed a reduced enterprise income tax rate of 15%. In 2017, Suzhou Sanysolar, CSI Cells and CSI Changshu Manufacturing are qualified as HNTE and are expected to enjoy a reduced enterprise income tax rate of 15%, subject to applicable statutory requirements. Our wholly-owned subsidiary, Canadian Solar Sunenergy (Baotou) Co., Ltd. is now applying for preferential tax benefits. As most of the preferential tax benefits enjoyed by our PRC subsidiaries expired, their effective tax rates increased significantly.

***There are significant uncertainties regarding our tax liabilities with respect to our income under the EIT Law.***

We are a Canadian company with a significant portion of our manufacturing operations in China. Under the EIT Law and its implementation regulations, both of which became effective on January 1, 2008, enterprises established outside China whose "de facto management body" is located in China are considered PRC tax residents and will generally be subject to the uniform 25% enterprise income tax

rate on their global income. Under the implementation regulations, the term "de facto management body" is defined as substantial and overall management and control over aspects such as the production and business, personnel, accounts and properties of an enterprise. The Circular on Identification of China-controlled Overseas-registered Enterprises as Resident Enterprises on the Basis of Actual Management Organization, or Circular 82, further provides certain specific criteria for determining whether the "de facto management body" of a PRC-controlled offshore incorporated enterprise is located in the PRC. The criteria include whether (a) the premises where the senior management and the senior management bodies responsible for the routine production and business management of the enterprise perform their functions are mainly located within the PRC, (b) decisions relating to the enterprise's financial and human resource matters are made or subject to approval by organizations or personnel in the PRC, (c) the enterprise's primary assets, accounting books and records, company seals, and board and shareholders' meeting minutes are located or maintained in the PRC and (d) 50% or more of voting board members or senior executives of the enterprise habitually reside in the PRC. Although Circular 82 only applies to offshore enterprises controlled by enterprises or enterprise groups located within the PRC, the determining criteria set forth in the Circular 82 may reflect the tax authorities' general position on how the "de facto management body" test may be applied in determining the tax resident status of offshore enterprises. As the tax resident status of an enterprise is subject to the determination by the PRC tax authorities, uncertainties remain with respect to the interpretation of the term "de facto management body" as applicable to our offshore entities. As a substantial number of the members of our management team are located in China, we may be considered as a PRC tax resident under the EIT Law and, therefore, subject to the uniform 25% enterprise income tax rate on our global income, but dividends received by us from our PRC subsidiaries may be exempt from the income tax. If our global income is subject to PRC enterprise income tax at the rate of 25%, our financial condition and results of operation may be materially and adversely affected.

***Dividends paid by us to our non-PRC shareholders and gains on the sale of our common shares by our non-PRC shareholders may be subject to PRC enterprise income tax liabilities or individual income tax liabilities.***

Under the EIT Law and its implementation regulations, dividends paid to a non-PRC investor are generally subject to a 10% PRC withholding tax, if such dividends are derived from sources within China and the non-PRC investor is considered to be a non-resident enterprise without any establishment or place within China or if the dividends paid have no connection with the non-PRC investor's establishment or place within China, unless such tax is eliminated or reduced under an applicable tax treaty. Similarly, any gain realized on the transfer of shares by such investor is also subject to a 10% PRC withholding tax if such gain is regarded as income derived from sources within China, unless such tax is eliminated or reduced under an applicable tax treaty.

The implementation regulations of the EIT Law provide that (a) if the enterprise that distributes dividends is domiciled in the PRC, or (b) if gains are realized from transferring equity interests of enterprises domiciled in the PRC, then such dividends or capital gains shall be treated as China-sourced income.

Currently there are no detailed rules applicable to us that govern the procedures and specific criteria for determining the meaning of being "domiciled" in the PRC. As a result, it is not clear how the concept of domicile will be interpreted under the EIT Law. Domicile may be interpreted as the jurisdiction where the enterprise is incorporated or where the enterprise is a tax resident. As a result, if we are considered a PRC "resident enterprise" for tax purposes, it is possible that the dividends we pay with respect to our common shares to non-PRC enterprises, or the gain non-PRC enterprises may realize from the transfer of our common shares or our convertible notes, would be treated as income

derived from sources within China and be subject to the PRC withholding tax at a rate of 10% or a lower applicable treaty rate for enterprises.

Under the Law of the People's Republic of China on Individual Income Tax, or the IIT Law, individual income tax is payable on PRC-source dividend income. The implementation regulations of the IIT Law provide that income from dividends derived from companies, enterprises and other economic organizations in China as well as income realized from transfer of properties in China is considered derived from sources inside China, regardless of whether the place of payment was inside China. Therefore, if we are treated as a company in China for tax purposes, any dividends we pay to our non-PRC individual shareholders as well as any gains realized by our non-PRC individual shareholders or our non-PRC individual note holders from the transfer of our common shares or our convertible notes may be regarded as China-sourced income and, consequently, be subject to PRC withholding tax at a rate of up to 20% or a lower applicable treaty rate for individuals. The investment returns of our non-PRC investors may be materially and adversely affected if any dividends we pay, or any gains realized on a transfer of our common shares, are subject to PRC tax.

***We face uncertainty from the PRC State Administration of Taxation's Announcement on Several Issues Concerning the Enterprise Income Tax on Indirect Property Transfer by Non-Resident Enterprises.***

The PRC State Administration of Taxation, or the SAT, issued the Circular on Strengthening the Management of Enterprise Income Tax Collection of Income Derived by Non-resident Enterprises from Equity Transfers, or Circular 698, on December 10, 2009. Under Circular 698, an overseas investor (actual controlling party) who "indirectly transfers" the equity of a PRC resident enterprise, is required to report such transfer to the PRC tax authority if certain statutory requirements are satisfied. In March 2015, the SAT issued the Announcement on Several Issues Concerning the Enterprise Income Tax on Indirect Property Transfer by Non-Resident Enterprises, or Announcement 7, which further regulated and strengthened the administration of enterprise income tax on indirect transfer of properties such as equity in a Chinese resident enterprise, and the above stipulations of Circular 698 were repealed simultaneously.

Under Announcement 7, where a non-resident enterprise indirectly transfers properties, such as equity of Chinese resident enterprises, without any reasonable commercial purposes with the aim of avoiding payment of enterprise income tax, such indirect transfer shall be reclassified as a direct transfer of equity of a Chinese resident enterprise. Properties such as equity in Chinese resident enterprises mentioned in Announcement 7 mean the properties, or Chinese taxable properties, which are directly held by non-resident enterprises and subject the transfer income to enterprise income tax in China according to the provisions of Chinese tax law. Indirect transfers of Chinese taxable properties are transactions which transfer the equity and other similar interests (hereinafter referred to as "equity") of enterprises abroad that directly or indirectly hold Chinese taxable properties (not including Chinese resident enterprises registered abroad). To estimate reasonable commercial purposes, all arrangements related to the indirect transfer of Chinese taxable properties must be considered comprehensively and certain factors, such as whether the main value of the equity of enterprises abroad is directly or indirectly from the Chinese taxable properties, must be comprehensively analyzed. Except for the circumstances stipulated therein, the overall arrangements related to the indirect transfer of Chinese taxable properties that fall in any of the following circumstances simultaneously are deemed as having no reasonable commercial purposes: (a) more than 75% of the equity of enterprises abroad is directly or indirectly from Chinese taxable properties; (b) more than 90% of the total assets (not including cash) of enterprises abroad are directly or indirectly composed of investment in the territory of China at any time in the year before the indirect transfer of Chinese taxable properties, or more than 90% of the income of enterprises abroad is directly or indirectly from the territory of China in the year before the indirect transfer of Chinese taxable properties; (c) although the enterprises abroad and their subordinate enterprises directly or indirectly hold Chinese taxable properties have

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registered in the host country (region) in order to satisfy the organization form required by law, the functions actually performed and the risks undertaken are limited and are not sufficient to prove the economic essence; or (d) the burden of income tax of indirect transfer of Chinese taxable properties payable abroad is lower than the possible burden of taxation in China as for the direct transfer of Chinese taxable properties. However, a non-resident enterprise's income obtained from indirect transfer of Chinese taxable properties by purchasing and selling equity of the same listed enterprise abroad in the open market will not be taxed under Announcement 7.

There is uncertainty as to the application of Announcement 7 and it is understood that the relevant PRC tax authorities have jurisdiction regarding reasonable commercial purposes. As a result, we may become at risk of being taxed under Announcement 7 and we may be required to expend valuable resources to comply with Announcement 7 or to establish that we should not be taxed under Announcement 7, which may materially adversely affect our financial condition and results of operations.

We do not believe that the transfer of our common shares or the convertible notes by our non-PRC shareholders would be treated as an indirect transfer of equity in our PRC subsidiaries subject to Announcement 7. However, there is uncertainty as to the interpretation and application of Announcement 7 by the PRC tax authorities in practice. If you are required to pay PRC tax on the transfer of our common shares or convertible notes, your investment in us may be materially and adversely affected. In addition, we cannot predict how Announcement 7 will affect our financial condition or results of operations.

### ***Restrictions on currency exchange may limit our ability to receive and use our revenues effectively.***

Certain of our revenues and expenses are denominated in Renminbi. If our revenues denominated in Renminbi increase or our 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. Under China's existing foreign exchange regulations, our PRC subsidiaries are able to pay dividends in foreign currencies without prior approval from the State Administration of Foreign Exchange, or 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 most capital accounts continue to be subject to significant foreign exchange controls and require the approval of or registration with PRC governmental authorities. In particular, if we finance our PRC subsidiaries by means of additional capital contributions, certain government authorities, including the Ministry of Commerce or its local counterparts, must approve these capital contributions. These limitations could affect the ability of our PRC subsidiaries to obtain foreign exchange through equity financing.

### ***Uncertainties with respect to the Chinese legal system could materially and adversely affect us.***

We conduct a significant portion of our manufacturing operations through our subsidiaries in China. These subsidiaries are generally subject to laws and regulations applicable to foreign investment in China and, in particular, laws applicable to wholly foreign-owned enterprises and joint venture companies. The PRC legal system is based on written statutes. 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 is still developing, the implementation and enforcement of many laws, regulations and rules may be inconsistent, which may limit legal protections available to us. In addition, any litigation in China may

be protracted and may result in substantial costs and divert our resources and the attention of our management.

### **Risks Related to Our Common Shares**

*We may issue additional common shares, other equity or equity-linked or debt securities, which may materially and adversely affect the price of our common shares. Hedging activities may depress the trading price of our common shares.*

We may issue additional equity, equity-linked or debt securities for a number of reasons, including to finance our operations and business strategy (including in connection with acquisitions, strategic collaborations or other transactions), to satisfy our obligations for the repayment of existing indebtedness, to adjust our ratio of debt to equity, to satisfy our obligations upon the exercise of outstanding warrants or options or for other reasons. Any future issuances of equity securities or equity-linked securities could substantially dilute the interests of our existing shareholders and may materially and adversely affect the price of our common shares. We cannot predict the timing or size of any future issuances or sales of equity, equity-linked or debt securities, or the effect, if any, that such issuances or sales, may have on the market price of our common shares. Market conditions could require us to accept less favorable terms for the issuance of our securities in the future.

#### ***The market price for our common shares may be volatile.***

The market price for our common shares has been highly volatile and subject to wide fluctuations. During the period from November 9, 2006, the first day on which our common shares were listed on Nasdaq, until December 31, 2016, the market price of our common shares ranged from \$1.95 to \$51.8 per share. From January 1, 2016 to December 31, 2016, the market price of our common shares ranged from \$10.25 to \$28.8 per share. The closing market price of our common shares on December 30, 2016 was \$12.18 per share. The market price of our common shares may continue to be volatile and subject to wide fluctuations in response to a wide variety of factors, including the following:

- announcements of technological or competitive developments;
- regulatory developments in our target markets affecting us, our customers or our competitors;
- actual or anticipated fluctuations in our quarterly operating results;
- changes in financial estimates by securities research analysts;
- changes in the economic performance or market valuations of other solar power companies;
- the departure of executive officers and key research personnel;
- patent litigation and other intellectual property disputes;
- litigation and other disputes with our long-term suppliers;
- fluctuations in the exchange rates between the U.S. dollar, Euro, Japanese yen, British pound, Canadian dollar and Renminbi;
- the release or expiration of lock-up or other transfer restrictions on our outstanding common shares; and
- sales or anticipated sales of additional common shares.

In addition, the securities market has from time to time experienced significant price and volume fluctuations that are not related to the operating performance of particular companies. These market fluctuations may also have a material and adverse effect on the price of our common shares.

***Substantial future sales of our common shares in the public market, or the perception that such sales could occur, could cause the price of our common shares to decline.***

Sales of our common shares in the public market, or the perception that such sales could occur, could cause the market price of our common shares to decline. As of December 31, 2016, we had 57,830,149 common shares outstanding. The number of common shares outstanding and available for sale will increase when our employees and former employees who are holders of restricted share units and options to acquire our common shares become entitled to the underlying shares under the terms of their units or options. In addition, in connection with a \$180 million senior loan facility, we issued warrants to purchase up to 1,348,040 of our common shares at an exercise price of \$24.48 per share in October 2015, and we issued additional warrants to purchase up to 940,171 of our common shares at an exercise price of \$28.08 per share in December 2015. The warrant holders are entitled to request to participate in any public offering of our common shares for which we undertake any marketing efforts. To the extent these shares are sold into the market, the market price of our common shares could decline.

***Your right to participate in any future rights offerings may be limited, which may cause dilution to your holdings.***

We may from time to time distribute rights to our shareholders, including rights to acquire our securities. However, we cannot make these rights available in the U.S. 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. We are under no obligation to file a registration statement with respect to any such rights or securities or to endeavor to cause a registration statement to be declared effective. Moreover, we may not be able to establish an exemption from registration under the Securities Act. Accordingly, you may be unable to participate in our rights offerings and may experience dilution in your holdings.

***Our articles of continuance contain anti-takeover provisions that could adversely affect the rights of holders of our common shares.***

The following provisions in our amended articles of continuance may deprive our shareholders of the opportunity to sell their shares at a premium over the prevailing market price by delaying or preventing a change of control of our company:

- Our board of directors has the authority, without approval from the shareholders, to issue an unlimited number of preferred shares in one or more series. Our board of directors may establish the number of shares to be included in each such series and may fix the designations, preferences, powers and other rights of the shares of a series of preferred shares.
- Our board of directors is entitled to fix and may change the number of directors within the minimum and maximum number of directors provided for in our articles. Our board of directors may appoint one or more additional directors to hold office for a term expiring no later than the close of the next annual meeting of shareholders, subject to the limitation that the total number of directors so appointed may not exceed one-third of the number of directors elected at the previous annual meeting of shareholders.

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

We are a corporation organized under the laws of Canada and a substantial portion of our assets are located outside of the U.S. A substantial portion of our current business operations is conducted in the PRC. In addition, a majority of our directors and officers are nationals and residents of countries other than the U.S. and a substantial portion of the assets of these persons are located outside the U.S. As a result, it may be difficult for you to effect service of process within the U.S. upon these persons.



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It may also be difficult for you to enforce 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, many of whom are not residents of the U.S. and whose assets are located in significant part outside of the U.S. In addition, there is uncertainty as to whether the courts of Canada 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 U.S. or any state. In addition, it is uncertain whether such Canadian or PRC courts would be competent to hear original actions brought in Canada or the PRC against us or such persons predicated upon the securities laws of the U.S. or any state.

***We may be classified as a passive foreign investment company, which could result in adverse United States federal income tax consequences to United States Holders of our common shares.***

Based on the current value of our assets and the composition of our income and assets, we do not believe we were a passive foreign investment company, or PFIC, for United States federal income tax purposes for our taxable year ended December 31, 2016. However, because our PFIC status for 2017 or any future taxable year may depend, in part, on the manner in which we operate our renewable energy generation assets, we cannot assure you that we will not be a PFIC for our current taxable year ending December 31, 2017 or any future taxable year. A non-United States corporation such as ourselves will be treated as a PFIC for United States federal income tax purposes for any taxable year if, applying applicable look-through rules, either (a) at least 75% of its gross income for such year is passive income or (b) at least 50% of the value of its assets (determined based on a quarterly average) during such year is attributable to assets that produce or are held for the production of passive income. The determination of PFIC status is based on an annual determination that cannot be made until the close of a taxable year, involves extensive factual investigation, including ascertaining the fair market value of all of our assets on a quarterly basis and the character of each item of income that we earn, and is subject to uncertainty in several respects. In particular, the application of the PFIC rules to certain of our business lines is complex and unclear, and we cannot guarantee that the United States Internal Revenue Service, or IRS, will agree with any positions that we ultimately take. Accordingly, we cannot assure you that we will not be treated as a PFIC for any taxable year or that the IRS will not take a contrary position.

The determination of whether we will be a PFIC for any taxable year may depend in part upon the value of our goodwill and other unbooked intangibles not reflected on our balance sheet (which may depend upon the market value of the common shares from time to time, which may be volatile) and also may be affected by how, and how quickly, we spend our liquid assets. Further, while we believe our classification methodology and valuation approach is reasonable, it is possible that the IRS may challenge our classification or valuation of our goodwill and other unbooked intangibles.

If we are a PFIC for any taxable year during which a United States Holder (as defined in "Item 10. Additional Information—E. Taxation—United States Federal Income Taxation") holds a common share, certain adverse United States federal income tax consequences could apply to such United States Holder. See "Item 10. Additional Information—E. Taxation—United States Federal Income Taxation—Passive Foreign Investment Company."

**ITEM 4. INFORMATION ON THE COMPANY**

**A. History and Development of the Company**

Our legal and commercial name is Canadian Solar Inc. We were incorporated under the laws of the Province of Ontario, Canada in October 2001. We changed our jurisdiction by continuing under the Canadian federal corporate statute, the Canada Business Corporations Act, or CBCA, effective June 1, 2006. As a result, we are governed by the CBCA. See "—C. Organizational Structure" for additional information on our corporate structure, including a list of our major subsidiaries.

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Our principal executive office and principal place of business is located at 545 Speedvale Avenue West, Guelph, Ontario, Canada N1K 1E6. Our telephone number at this address is (1-519) 837-1881 and our fax number is (1-519) 837-2550. Our agent for service of process in the United States is CT Corporation System, located at 111 Eighth Avenue, New York, New York 10011.

All inquiries to us should be directed at the address and telephone number of our principal executive office set forth above. Our website is [www.canadiansolar.com](http://www.canadiansolar.com). The information contained on or accessible through our website does not form part of this annual report.

We made capital expenditures of \$65.1 million, \$642.8 million and \$1,111.5 million in 2014, 2015 and 2016, respectively. Our capital expenditures were primarily to maintain and increase our ingot, wafer, cell and module manufacturing capacity and to develop and construct solar power systems. For more details, see "Item 5. Operating and Financial Review and Prospects—B. Liquidity and Capital Resources—Capital Expenditures."

### **B. Business Overview**

#### ***Overview***

We are one of the world's largest and leading solar power companies. We are a leading vertically integrated provider of solar power products, services and system solutions with operations in North America, South America, Europe, Africa, the Middle East, Australia and Asia.

We design, develop and manufacture solar ingots, wafers, cells, modules and other solar power products. Our solar power products include standard solar modules and specialty solar products. We are incorporated in Canada and conduct most of our manufacturing operations in China. Our products include a range of solar modules built to general specifications for use in a wide range of residential, commercial and industrial solar power generation systems. Specialty solar products consist of customized solar modules that our customers incorporate into their own products and complete specialty products, such as portable solar home systems. We sell our products primarily under our "Canadian Solar" brand name.

In recent years, we have increased our investment in, and management attention on, our energy segment. Our energy segment primarily comprises solar power project development and sale, EPC and development services, O&M services and operating solar power projects and sales of electricity. Our energy segment contributed just 3.9% of our net revenues in 2016, compared to 28.2% in 2015 and 41.0% in 2014. Even though we intend to monetize our current portfolio of solar power projects in operation, in the future, we still intend to grow our energy segment by growing our project pipeline and the number of customers of our EPC services and O&M services. In March 2015, we significantly increased our solar project pipeline when we acquired Recurrent Energy, LLC, or Recurrent, a leading solar energy developer with solar power projects located principally in California and Texas. As of February 28, 2017, our late-stage solar project pipeline, which refers to projects that have energy off-take agreements and are expected to be built within the next two to four years, totaled approximately 2.1 gigawatt peak, or GWp, with 538.5 megawatt peak, or MWp, in Japan, 401 MWp in the U.S., 400 MWp in China, 399 MWp in Brazil, 132 MWp in India, 118 MWp in Australia, 68 MWp in Mexico, 26 MWp in the United Kingdom and 6 MWp in Africa. In addition to our late-stage solar project pipeline, as of February 28, 2017, we had a portfolio of solar power projects in operation totaling 1,195.5 MWp with an estimated resale value of approximately \$1.6 billion as of February 28, 2017. For those projects that are subject to U.S. tax equity deals, only the value of the class B shares held by us was included in the aforementioned estimate of resale value. See "—Sales, Marketing and Customers—Energy Segment—Solar Project Development and Sale" and "—Sales, Marketing and Customers—Energy Segment—Operating Solar Power Projects and Sales of Electricity" for a description of the status of our solar power projects in operation. We plan to increase our sales of the solar power projects.

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We believe that we offer one of the broadest crystalline silicon solar power product lines in the industry. Our product lines range from modules of medium power to high efficiency, high-power output mono-crystalline modules, as well as a range of specialty products. We currently sell our products to a diverse customer base in various markets worldwide, including China, Japan, the U.S., Germany, Spain, Netherlands, France, Australia, Canada, India and the United Kingdom. Our customers primarily include distributors, system integrators, project developers and installers/EPC companies

We employ a flexible vertically integrated business model that combines internal manufacturing capacity with direct material purchases of both cells and wafers. We believe this approach has benefited us by lowering the cost of materials of our solar module products. We also believe that this approach provides us with greater flexibility to respond to short-term demand increases.

As of December 31, 2016, we had:

- 6.17 GW of total annual solar module manufacturing capacity, approximately 30 MW of which is located in Ontario, Canada, 1,080 MW in South East Asia, 360 MW in Brazil and the rest in China;
- 2.44 GW of total annual solar cell manufacturing capacity located in China; and
- 1.4 GW of total annual ingot and wafer manufacturing capacity located in China

We plan to expand our module, cell, wafer and ingot manufacturing capacities to 6.97 GW, 4.49 GW, 4.0 GW and 1.7 GW, respectively, by December 31, 2017.

We intend to use substantially all of the silicon wafers that we manufacture to supply our own solar cell plants and to use substantially all of the solar cells that we manufacture to produce our own solar module products. We also intend to use some of the solar modules we produce in our energy segment. Our total manufacturing costs in China, including purchased polysilicon, wafers and cells, decreased from \$0.48 per watt in December 2014 to \$0.40 per watt in December 2015 and to \$0.33 per watt in December 2016. We expect to continue to decrease the manufacturing costs for our production of wafers, cells and modules.

We continue to focus on reducing our manufacturing costs by improving solar cell conversion efficiency, enhancing manufacturing yields and reducing raw material costs. In January 2009, we established a new solar cell efficiency research center to develop more efficient cell structures, and we have been making ongoing improvements in solar cell conversion efficiency and product cost control. We began shipping new products, such as higher efficiency modules, in late 2011. We have successfully developed and launched additional new high efficiency cells and modules in the past few years and expect to increase the sales volumes of these products in the future.

### ***Our Products and Services***

Our business consists of the following two business segments: module segment and energy segment. Our module segment primarily involves the design, development, manufacturing and sale of a wide range of solar power products, including standard solar modules and specialty solar products, and solar system kits. Our energy segment primarily consists of solar power project development and sale, EPC and development services, O&M services and operating solar power projects and sales of electricity.

#### *Products Offered in Our Module Segment*

##### *Standard Solar Modules*

Our standard solar modules are arrays of interconnected solar cells in weatherproof encapsulation. We produce a wide variety of standard solar modules, ranging from 3 W to over 345 W in power and

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using multi-crystalline or mono-crystalline cells in several different design patterns. Our mainstream solar modules include standard CS6V (50 cells), CS6P/CS6K (60 cells), CS6X/CS6U/CS6XA (72 cells), Dymond CS6K-P-FG (60 cells, double-glass) and Dymond CS6X-P-FG (72 cells, double-glass) modules, all using 6-inch solar wafers with the majority being multi-crystalline. The mainstream modules are designed for residential, commercial and utility applications. Small modules are for specialty applications.

We launched our Quartech modules in March 2013. Quartech modules use 4-busbar solar cell technology which improves module reliability and efficiency. We produced and shipped Quartech modules in large volume in 2014. CS6P (6 × 10 cell layout) Quartech modules have power output between 255 W and 270 W, which enables us to offer customers modules with high power. We launched and started shipping Dymond modules in October 2014. Dymond modules are designed with double-glass encapsulation, which is more reliable for harsh environments and ready for 1500V solar systems.

We launched and started shipping SmartDC modules in September 2015. SmartDC modules feature an innovative integration of our module technology and power optimization for grid-tied PV applications. By replacing the traditional junction-box, SmartDC modules eliminate module power mismatch, mitigate shading losses and optimize power output at module-level. SmartDC modules also provide module-level data to minimize operational costs and to permit effective system management.

In March 2016, we launched our new Quintech SuperPower mono-crystalline modules. Quintech SuperPower mono-crystalline modules are made of cells with PERC technology and significantly improve module efficiency and reliability. CS6K (6 × 10 cell layout aligned with mainstream dimensions) Quintech SuperPower mono modules have a power output between 285 W and 300 W and are high efficiency and high reliability. We started commercial production of Quintech CS6K and CS6U modules in the second quarter of 2016. These modules have features such as 5 busbar cells, standardized module dimensions and cell and module improvements, resulting in higher wattage production and better performance. These modules are intended for broad base introduction, which covers mono-crystalline cells, multi-crystalline cells and mono-crystalline PERC cells.

In July 2016, we launched the new 1500V System Voltage crystalline solar module portfolio. The 1500V System Voltage crystalline module provides a robust and cost-efficient system solution by adding more modules in a string, which decreases the number of combiner boxes, direct current homeruns and trenching. This unique product design improves the overall system performance and efficiency and reduces labor cost and installation time.

At the beginning of 2015, we started commercial production of Onyx cells with our in-house developed black silicon technology, Onyx technology. Onyx technology employs a nano-texturing process to make the multi-crystalline cell almost fully black, increasing cell efficiency and module wattage at the same time. We started increasing the production volume of Onyx cells in 2016, which have been incorporated into our Quartech and Quintech module families.

We design our standard solar modules to be durable under harsh weather conditions and easy to transport and install. We sell our standard solar modules primarily under our brand name. Since we began selling our solar module products in March 2002, we have increased our annual module production capacity to 6.17 GW as of December 31, 2016.

### *Specialty Solar Products*

Our specialty solar products are mainly Andes Solar Home System, or Andes SHS, and Maple Solar System, or Maple SS.

Andes SHS is an off-grid solar system, designed to provide an economical source of electricity to homes and communities without access to grid electricity or where electricity supply is scarce. The Andes SHS is portable, light-weight, and easy to set-up, making it ideal for situations where emergency power is required.

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Maple SS is an economical, safe and clean energy solution for families who burn kerosene for lighting when darkness falls. It is a very convenient mobile power source for outdoor activities, such as camping, boating and hiking. Maple SS includes a solar panel, energy-efficient LED lights, Li-ion batteries and multiple cell phone charger plugs.

### *Solar System Kits*

A solar system kit is a ready-to-install package consisting of solar modules produced by us and components, such as inverters, racking system and other accessories, supplied by third parties. We began selling solar system kits in 2010 and in 2016 sold them primarily to customers in Japan, Europe and the U.S.

### *Products and Services Offered in Our Energy Segment*

#### *Solar Project Development and Sale*

We develop, build and sell solar power projects. Our solar project development activities have grown over the past several years through a combination of organic growth and acquisitions. Our global solar power project business develops projects primarily in Canada, Japan, the U.S., China, Brazil, India, Mexico, the United Kingdom and Australia. Our team of experts specializes in project development, evaluations, system designs, engineering, managing, project coordination and organizing financing. Our sales team actively identifies and pursues suitable buyers for our solar power projects. See "—Sales, Marketing and Customers—Energy Segment—Solar Project Development and Sale" for a description of the status of our solar power projects.

#### *EPC and Development Services*

Our EPC services include engineering, procurement and construction work for solar power projects owned either by us or by third-parties. In late 2010, we began providing EPC services primarily in Canada and China. We began providing development services in the U.S. after we acquired Recurrent in 2015. In 2016, we provided EPC services for 5.2 MW of solar projects in Canada and Australia. The EPC services in China were provided through our affiliated company, Suzhou Gaochuangte New Energy Sources Development Co., Ltd., or Gaochuangte, in which we own a 40% equity interest.

#### *O&M Services*

Our O&M services include inspections, repair and replacement of plant equipment, site management and administrative support services. In the second half of 2012, we started to provide O&M services for solar power projects in commercial operation. In 2016, we provided O&M services primarily to the North American market.

#### *Operating Solar Power Projects and Sales of Electricity*

In the fourth quarter of 2014, we began to operate certain of our solar projects in China and generate income from the sale of electricity. Although some of these solar projects are developed for sale, we may operate them prior to selling. As of February 28, 2017, we had a fleet of solar power plants in operation with an aggregate capacity of approximately 1,195.5 MWp.

### ***Supply Chain Management***

#### *Module Segment*

Our module segment depends on our ability to obtain a stable and cost-effective supply of polysilicon, solar ingots, wafers and cells. Our silicon wafer agreements set forth price and quantity information, delivery terms and technical specifications. These agreements usually set forth specific

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price terms. However, most agreements also include mechanisms to adjust the prices, either upwards or downwards, based on market conditions. We have entered into a number of long-term supply agreements with several silicon and wafer suppliers in order to secure a stable supply of raw materials to meet our production requirements. These suppliers included GCL, Neo Solar, Deutsche Solar, LDK and a UMG-Si supplier. In 2009 and thereafter, we amended our agreements with certain of these suppliers to adjust the purchase price to prevailing market prices at the time we place a purchase order and to reduce the quantity of products that we are required to purchase. Under our supply agreements with certain suppliers, and consistent with historical industry practice, we make advance payments prior to scheduled delivery dates. These advance payments are made without collateral and are credited against the purchase prices payable by us. In 2016, we purchased the majority of the silicon wafers used in our solar modules from third parties. Our major silicon wafers suppliers were GCL and Yichang. Since 2011, the supply of polysilicon and silicon wafers has generally exceeded demand, particularly polysilicon. Polysilicon prices significantly decreased from approximately \$20.6 per kilogram at December 31, 2014 to \$13.7 per kilogram at December 31, 2015 due to oversupply but then started to increase in the third quarter of 2016 reaching approximately \$19.0 per kilogram by December 31, 2016. We plan to increase our in-house solar wafer manufacturing capacity and expect to diversify our external wafer and polysilicon suppliers.

We purchase solar cells from a number of international and local suppliers, in addition to manufacturing our own solar cells and having toll manufacturing arrangements with our solar cell suppliers. Our solar cell agreements set forth price and quantity information, delivery terms and technical specifications. These agreements generally provide for a period of time during which we can inspect the product and request the seller to make replacements for damaged goods. We generally require the seller to bear the costs and risks of transporting solar cells until they have been delivered to the location specified in the agreement. We currently do not have any long-term supply agreements for solar cells with fixed price or quantity terms. In 2016, our major suppliers of solar cells included Inventec and Motech. As we expand our business, we expect to increase our solar cell manufacturing capacity and diversify our solar cell supply channel to ensure we have the flexibility to adapt to future changes in the supply of, and demand for, solar cells.

For risks relating to the long-term agreements with our raw material suppliers, see "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Long-term supply agreements may make it difficult for us to adjust our raw material costs should prices decrease. Also, if we terminate any of these agreements, we may not be able to recover all or any part of the advance payments we have made to these suppliers and we may be subject to litigation."

### *Energy Segment*

Our module segment supplies part of the solar modules used in our energy segment. For the solar power projects that we develop, we have the option of either using our engineering and operation teams or hiring third party contractors to build and operate the projects prior to sale.

## ***Manufacturing, Construction and Operation***

### *Module Segment*

We assemble our solar modules by interconnecting multiple solar cells by tabbing and stringing them into a desired electrical configuration. We lay the interconnected cells, laminate them in a vacuum, cure them by heating and package them in a protective lightweight anodized aluminum frame. We seal and weatherproof our solar modules to withstand high levels of ultraviolet radiation, moisture and extreme temperatures.

We selectively use automation to enhance the quality and consistency of our finished products and to improve the efficiency of our manufacturing processes. Key equipment in our manufacturing process

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includes automatic laminators, simulators and solar cell testers. The design of our assembly lines provides flexibility to adjust the ratio of automated equipment to skilled labor in order to maximize quality and efficiency.

### *Energy Segment*

We develop, construct, maintain, sell and/or operate solar power projects primarily in Canada, Japan, the U.S., China, Brazil, India, Mexico, the United Kingdom and Australia. We engage in all aspects of the development and operation of solar power projects, including project selection, design, permitting, engineering, procurement, construction, installation, monitoring, operation and maintenance. We also provide EPC and O&M services to third-parties.

Our solar power projects development process primarily consists of the following stages:

- *Market due diligence and project selection.* We search for project opportunities globally with the goal of maintaining a robust and geographically diversified project portfolio. Our business team closely monitors the global solar power projects market and gathers market intelligence to identify project development opportunities. Our development team prepares market analysis reports, financial models and feasibility studies to guide us in evaluating and selecting solar power projects. As we consider undertaking new solar power projects, we weigh a number of factors including location, local policies and regulatory environment, financing costs and potential internal rate of returns.
- *Project financing.* We typically include project financing plans in our financial models and feasibility studies. We finance our projects through our working capital and debt financing from local banks or international financing sources that require us to pledge project assets.
- *Permitting and approval.* We either obtain the permits and approvals necessary for solar projects ourselves or we acquire projects that have already received the necessary permits and approvals. The permitting and approval process for solar power projects varies from country to country and often among local jurisdictions within a country.
- *Project design, engineering, procurement and construction.* Our engineering team generally designs solar power projects to optimize performance while minimizing construction and operational costs and risks. The engineering design process includes the site layout and electrical design as well choosing the appropriate technology, in particular module and inverter types. We use solar modules produced by us and by third party manufacturers, and procure inverters and other equipment from third party suppliers. We generally construct solar projects in China through Gaochuangte, our affiliate in which we own a 40% equity interest and engage third-party contractors in some other countries.

Currently, we operate and maintain solar power projects in the United Kingdom, the U. S., China, Japan and Spain. We sign grid-connection agreements and/or PPAs with the local grid companies. After a project is connected to the grid, we regularly inspect, monitor and manage the project site with the intention to maximize the utilization rate, rate of power generation and system life of the project.

We operate a monitoring center in Guelph, Ontario, Canada, which adopts the global monitoring platform (CSEye) to manage system alarms and reports. Our proprietary algorithms analyze the performance of the third party power plants that we operate and maintain on a daily basis and identify potential problems. For example, they raise alarms when inverters or strings are under-performing.

### ***Quality Control and Certifications***

We have registered our quality control system according to the requirements of ISO 9001:2008 and ISO/TS 16949 standards. TUV Rheinland Group, a leading international service company that

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documents the safety and quality of products, systems and services, audits our quality systems. We inspect and test incoming raw materials to ensure their quality. We monitor our manufacturing processes to ensure quality control and we inspect finished products by conducting reliability and other tests.

We have obtained IEC 61215 and IEC 61730 (previously TUV Class II safety) European standards for sales in Europe. We have also obtained certifications of CAN ORD-UL 1703 and UL 1703, which allow us to sell products in North America. In 2009, we obtained the necessary certifications to sell our modules in Japan, South Korea and Great Britain and to several of the Chinese solar programs, including Golden Sun. In 2011, we completed IEC 61215, IEC 61730 and UL1703 certification for modules designed to be assembled from metal wrap-through cells. We also completed DLG ammonia resistance testing and obtained the salt mist certification for our leading module CS6P-P in 2011. In 2012, we achieved the highest ratings possible in the two most significant standard tests for ammonia resistance of solar modules, which were the IEC 62716 draft C ammonia corrosion test and the DLG standard test. In 2013, we extended the salt mist certification under IEC 61701 ed.2 Severity 1 to all of our standard modules at VDE (Verband Deutscher Elektrotechniker). In addition, we were able to register more key module types at JET for Japan; enhanced the maximum system voltage up to 1000V for our CSA (Canadian Standards Association) certification (North America), allowing significant cost reduction for our EPC partners; and again raised the ranking of CEC PTC ratings. In 2013, we extended our IEC and UL certifications to cover higher-power modules, up to 275 W for 60 cell models and 330 W for 72 cell models, through key technology improvements such as introduction of 4 busbar cell design. We also again improved our CEC PTC ratings for the spearhead CS6P-P model, and have demonstrated suitability of our product portfolio for reliable long-term operation under various climates, through SGS IEC 60068-2-68 sand blowing certification and extensive Potential Induced Degradation, or PID, resistance testing at respected laboratories, such as Fraunhofer ISE, VDE and TUV SUD (Technischer Überwachungs-Verein Südteil Deutschland).

In 2012, the new half-cell module designed by our R&D team was fully certified by CSA and VDE, two worldwide recognized certification bodies. We also started providing our customers with third-party-approved PAN files (testing per IEC 61853-1) for all our key module series, allowing more accurate energy yield simulation and better return-on-investment analysis for their projects. In 2013, we obtained certifications for double glasses and DC-to-AC module designs. With the emergence of new markets that we are expanding into, we have made efforts to comply with new certification schemes that apply to us, such as INMETRO for Brazil and the UNI9177 fire test for Italy that we have now complied with.

In 2014, we received JET certification for our new high efficiency module series CS6V targeting the residential market, and also extended the highest power range of our mainstream CS6P-P model to 275 W in JET. We also completed full certification for our new Quartech (4 busbar cells), covering VDE/CSA/MCS-BBA/JET, which allows us to launch these products worldwide. Several state-of-the-art demonstration trials were implemented, such as a 5 kW system located in the desert-like environment of Australian Alice Springs DKASC center.

In 2015, we received several product certifications that support our new product launches. Our 60 and 72 cell double glass module series were certified by VDE, CSA and MCS-BBA, which allows us to launch these products worldwide. We also completed VDE and TUV-Rheinland certification (IEC61215/61730) of our new PERC mono 5 busbar premium module series. The PV connector T4 designed by us was certified by TUV-Rheinland and CSA to satisfy the latest and most stringent standards, namely IEC61852 and UL6703. We have updated our mainstream modules Life Cycle Analysis evaluation and have been granted verification certificate from TUV SUD to meet the PAS2050 and ISO14067 standards.



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To support our energy segment, we started implementing a state-of-the-art OPCT (On-going Performance Characterization Testing) program in cooperation with PVEL-DNVGL laboratory in 2015, which delivered extensive module performance characterization per IEC61853 series standards.

In 2016, we received JET certification for our new PERC mono 5 busbar premium module series. We also extended our VDE and CSA certifications to cover 1500V maximum system voltage on all of our major module products, providing significant system cost reduction opportunities for our customers. We implemented full salt mist, ammoniac and PID certification schemes as standard offer for all of our module series, striving for the highest reliability objectives. Our standard and Dymond module series were granted SGS sand blowing qualification for installation in desert environment. Our in-house designed junction boxes B20S and B12S were successfully certified by TUV-Rheinland and CSA to satisfy the latest and most stringent international standards, IEC62790 and UL3730. For all of our new module product series targeted for launch in or after 2017, we have started implementing certification to meet the latest IEC61215 and IEC61730 standards (2016 version) and expect to complete certification for our Generation 3 polycrystalline CS6U-P modules in the first quarter of 2017.

Our PV test laboratory is registered with the ISO 17025 quality improvement program, and has been accepted for the Mutual Data Acceptance Program by the CSA in Canada, VDE in Germany, Intertek in the U.S. and CGC in China (China General Certification Center). The PV test laboratory allows us to conduct some product certification testing in-house, which should decrease time-to-market and certification costs.

### *Sales, Marketing and Customers*

The following table sets forth, for the periods indicated, certain information relating to our total net revenues derived from our customers categorized by their geographic locations for the periods indicated:

Region	Years Ended December 31,					
	2014		2015		2016	
	Total Net Revenues	%	Total Net Revenues	%	Total Net Revenues	%
	(In thousands of \$, except for percentages)					
Asia	905,092	30.6	1,384,243	39.9	1,338,404	46.9
Americas	1,795,490	60.6	1,750,000	50.5	1,103,509	38.7
Europe and others	260,045	8.8	333,383	9.6	411,165	14.4
<b>Total</b>	<b>2,960,627</b>	<b>100.0</b>	<b>3,467,626</b>	<b>100.0</b>	<b>2,853,078</b>	<b>100.0</b>

### *Module Segment*

Our primary customers are distributors, system integrators, project developers and installers/EPC companies. A small number of customers have historically accounted for a major portion of our net revenues. In 2014, 2015 and 2016, our top five customers by net revenues collectively accounted for approximately 33.6%, 26.8% and 16.9%, respectively, of our total net revenues. Sales to our largest customer in those years accounted for 7.4%, 7.4% and 5.0%, respectively, of our total net revenues.

We market and sell solar modules worldwide for residential, commercial and utility-scale solar energy projects and solutions. We primarily sell our products to distributors and large-scale installers through our own, home-grown sales teams, who operate throughout Europe, the Americas, the Middle East and the Asia-Pacific regions.

Our marketing activities include brand sponsorship, social media discussions and digital marketing. Our teams also develop channel marketing programs to support our customers' marketing of our business and products, while also providing various services such as product training, new product

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briefing, and sales training. Additionally, our marketing team focuses heavily on public relations and crisis management to safeguard our public image. By working closely with our sales teams and other leading solar research companies, our marketing team provides up-to-date market information on a constant basis, supporting the efforts of our sales team. Our marketing staff is located throughout the Americas, Europe, India, Japan, Australia, South Africa and South Korea.

We sell our standard solar module products primarily under three types of arrangements: (a) sales contracts to distributors; (b) sales to systems integrators, installers/EPC companies and project developers; and (c) OEM/tolling manufacturing arrangements.

We target our sales and marketing efforts for our specialty solar products at companies in selected industry sectors, including the automotive, telecommunications and light-emitting diode, or LED, lighting sectors. As standard solar modules increasingly become commoditized and technology advancements allow solar power to be used in more off-grid applications, we intend to expand our sales and marketing focus on our specialty solar products and capabilities. Our sales and marketing team works with our specialty solar products development team to take into account changing customer preferences and demands to ensure that our sales and marketing team is able to effectively communicate to customers our product development changes and innovations. We intend to establish additional relationships in other market sectors as the specialty solar products market expands.

As we expand our manufacturing capacity and enhance our brand name, we continue to develop new customer relationships in a wider range of geographic markets to decrease our market concentration. In 2013, we significantly increased our total number of customers and achieved a leading market share in Canada, Japan, Thailand and the Central America, which we maintained in 2014. In 2015, we both maintained our leading market share in those markets and expanded our customer base in several emerging solar markets, such as Southeast Asia. In 2016, we achieved a leading market share in Brazil and maintained our leading market share in Canada, Japan, Thailand and India. While we expect to expand into new markets in Africa, we expect that our near term major markets will be North America and the Asia Pacific region.

In 2010, we commenced the sale of solar system kits. A solar system kit is a ready-to-install package consisting of solar modules produced by us and components, such as inverters, racking system and other accessories, supplied by third parties. In 2016, we sold approximately 79.8 MW of system kits primarily in Japan, Europe and the U.S.

### *Energy Segment*

We develop, construct, maintain, sell and/or operate solar projects primarily in Canada, Japan, the U.S., China, Brazil, India, Mexico, the United Kingdom and Australia. We provide EPC and development services primarily in Canada, China, Australia and the U.S., and O&M services primarily in Canada. We sell our projects to large utility companies and other power producers. Customers of our EPC and development services as well as O&M services are solar project developers and owners.

In order to continue to grow our energy segment, we conduct market due diligence, routinely meet with industry players and interested investors and attend industry conferences and events to identify project development opportunities. Our energy segment team has extensive industry expertise and significant experience in working with government authorities and developing new projects for our target markets.

### *Solar Project Development and Sale*

We divide our solar power project pipeline into early- to mid-stage pipeline and late-stage pipeline. Early- to mid-stage pipeline includes projects that (a) are under assessment for co-development and acquisition, or are being developed by us, (b) have identified or secured the land for development, and

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(c) have signed energy off-take agreements or have a reasonable probability to sign such agreements. Late-stage pipeline includes nearly all projects that (a) have energy off-take agreements and are (b) expected to be built within the next two to four years. However, some of the late-stage projects may not be completed due to failure to secure permits or grid connection, among other risks. In March 2015, we acquired Recurrent, a leading solar energy developer with solar power projects located principally in California and Texas for approximately \$261 million. As of February 28, 2017, our late-stage solar project pipeline totaled approximately 2.1 GWp, with 538.5 MWp in Japan, 401 MWp in the U.S., 400 MWp in China, 399 MWp in Brazil, 132 MWp in India, 118 MWp in Australia, 68 MWp in Mexico, 26 MWp in the United Kingdom and 6 MWp in Africa.

#### In Canada

During 2016, we sold the 10 MW AC BeamLight and 10 MW AC Alfred solar power plants to Concord Green Energy Inc. for C\$152.5 million (\$113.6 million). In February 2017, we completed the sale of three utility-scale solar farm holding companies, SSM 1 Solar ULC, SSM 2 Solar ULC and SSM 3 Solar ULC, totaling 59.8 MW AC, to Fengate Real Asset Investments for over C\$257 million (\$191.4 million).

#### In Japan

During 2016, we completed the construction and grid connection of eight solar power plants, with a total capacity of approximately 42 MWp. We sold three solar power plants to third parties. As of February 28, 2017, our pipeline of late-stage utility-scale solar power projects totaled approximately 538.5 MWp, including 211.8 MWp in construction and 14.8 MWp at the ready-to-build stage. The expected schedule of commercial operation date, or COD, of our late-stage, utility scale solar power projects in Japan as of February 28, 2017 is as follows:

<b>Expected COD Schedule (MWp)</b>					
<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021 and Thereafter</b>	<b>Total</b>
105.5	118	112	126	77	538.5

As of February 28, 2017, we had signed interconnection agreements for projects totaling 375 MWp that are in construction or under development. After February 28, 2017, we signed interconnection agreements for projects totaling an additional 28 MWp, which may be able to secure the current FIT contract if the COD deadline is met. Projects with a total capacity of 71.4 MWp are expected to participate in a bid for a utility upgrades and keep their current FIT while the bid process is underway.

#### In the U.S.

Our late-stage, utility-scale solar project pipeline in the U.S. as of February 28, 2017 is as follows:

<b>Project</b>	<b>MWp</b>	<b>Location</b>	<b>Status</b>	<b>Expected COD</b>
IS 42	92	Fayetteville, NC	Construction	2017
Gaskell West 1	28	Kern county, CA	Development	2018
Tranquillity 8	281	Fresno county, CA	Development	2018
<b>Total</b>	<b>401</b>			

In 2016, seven projects (Tranquillity, Mustang, Barren Ridge, Astoria 1, Astoria 2, Garland and Roserock) totaling 1,185.1 MWp commenced commercial operation. In addition, the new late-stage 92 MWp IS 42 project acquired during the fourth quarter of 2016 is under construction and expected to reach commercial operation by the end of 2017. Two other projects (Tranquillity 8 and Gaskell

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West 1) are currently under development and expected to reach commercial operation before the end of December 2018.

In January 2017, 60 MWac of solar power plant Tranquillity 8 Verde signed a 20-year PPA with the Sacramento Municipal Utility District, or SMUD. This project is located in Fresno County, California and is expected to begin construction in mid-2017 and begin delivering power to SMUD by early 2018. Tranquillity 8 Verde is part of the 281 MWdc Tranquillity 8 project. The remaining volume will be purchased by Marin Clean Energy, Pacific Gas & Electric and Southern California Edison, or SCE, under long-term PPAs.

In the fourth quarter of 2016, 28 MWdc of solar power plant Gaskell West 1 signed a 20-year PPA for with SCE. This project is expected to begin construction in late 2017 and begin delivering power to SCE by mid-2018. Gaskell West 1 is part of the 175 MWdc Gaskell West project located in Kern County, California.

### In China

During 2016, in China, we connected two solar power plants totaling 21 MWp to the grid and completed the sale of two solar power projects in Jiangsu Province to Shenzhen Energy Nanjing Holding Co., Ltd., or Shenzhen Energy, a subsidiary of Shenzhen Energy Group Co., Ltd., for approximately RMB223.5 million (\$32.2 million). As of February 28, 2017, our late-stage solar project pipeline in China totaled approximately 400 MWp with expected COD by the end of 2017. In March 2017, we completed the sale of two solar power plants in China, totaling approximately 69.5 MWp, to Shenzhen Energy, for approximately RMB687.1 million (\$99.0 million).

### In Brazil

Our solar project pipeline in Brazil reached 399 MWp as of February 28, 2017, all of which were late-stage projects including the 192 MWp Pirapora I, 115 MWp Pirapora II and 92 MWp Pirapora III (formerly Vazante). Pirapora I project is under construction and expected to commence commercial operation in the third quarter of 2017. Pirapora II and Pirapora III are in the advanced development stage and are expected to commence commercial operation in the fourth quarter of 2017 and 2018, respectively.

In October 2016, we sold 80% interest in Pirapora I project to EDF EN do Brasil, a subsidiary of EDF Energies Nouvelles, or EDF. We supply Canadian Solar modules manufactured under OEM contract in Brazil to these three projects. In the first year of commercial operations, these three projects are expected to generate over 800,000 MWh of electricity and sell their entire outputs under separate 20-year PPAs.

### In India

As of February 28, 2017, we secured PPAs of 25 years for an aggregate 96 MWp of solar power projects with Solar Energy Corporation of India, an offtaker affiliated with the government of India, in the state of Maharashtra. These projects are expected to commence operations by late 2017. Two other projects, each with a capacity of 18 MWp, are expected to commence operations in the first half of 2017.

### In Australia

As of February 28, 2017, our late-stage solar project pipeline in Australia reached 118 MWp, of which two solar power projects located in Longreach and Oakey, Queensland and totaling approximately 47 MWp were in ready-to-build stage and are expected to commence operation by the second quarter of 2018.

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### In Mexico

In August 2016, we signed a PPA for the 63 MWp solar power plant in Aguascalientes, Mexico with the Federal Electricity Commission of Mexico, or CFE. This project is in development stage and expected to be connected to grid by September 2018. CFE, as the off-taker under the PPA, has committed to purchase approximately 141,000 MWh of electricity each year for a 15-year period and an equivalent amount of Clean Energy Certificates (CEL) for a 20-year period. All electricity and CELs generated in excess of this amount will be available for merchant sales.

### In the United Kingdom

During 2016, we completed the construction of 11 solar power projects totaling approximately 62 MWp. Our pipeline of solar power projects totaled 26 MWp as of February 28, 2017, all of which are expected to be connected to the grid in 2017.

### EPC and Development Services

Beginning in late 2010, we started entering into EPC contracting arrangements in Canada and China. Under these arrangements, the solar power project developer owns the projects and we are contracted to perform the EPC work. We complete the EPC contracts in China through our affiliated company, Gaochuangte, in which we own a 40% equity interest. Since 2014, we have been providing EPC services in Australia.

In 2014, we completed approximately 180.5 MWp and 3.1 MW(DC) of solar system EPC contracts in Ontario, Canada and Australia, respectively. In 2015, we completed approximately 152.1 MW(DC) and 1.4 MW(DC) of solar system EPC contracts in Ontario, Canada and Australia, respectively. In 2016, we completed approximately 2.1 MW(DC) and 3.1 MW(DC) of solar system EPC contracts in Ontario, Canada and Australia, respectively.

We began providing development services in the U.S. after we acquired Recurrent in 2015.

### O&M Services

Since 2012, we have started to provide O&M services for solar power projects in commercial operation. Our O&M services include inspections, repair and replacement of plant equipment, site management and administrative support services.

### Operating Solar Power Projects and Sales of Electricity

In addition to our late stage, utility-scale solar project pipeline, we had a portfolio of solar power projects in operation totaling 1,195.5 MWp as of February 28, 2017. The electricity revenue was \$68.8 million in 2016. The resale value of these projects was estimated at approximately \$1.6 billion as of February 28, 2017. For those projects that are subject to U.S. tax equity deals, only the value of the class B shares held by us was included in the aforementioned estimate of resale value. We are actively trying to monetize the majority of our solar power projects in operation and we expect a decrease in electricity revenue in 2017.

Our total portfolio of solar power projects in operation as of February 28, 2017 was as follows:

Projects in Operation (MWp)					
U.S.	Japan	U.K.	China	Other	Total
808	59.5	125	198	5	1,195.5

In March 2017, we completed the sale of two solar power plants in China, totaling approximately 69.5 MWp, to Shenzhen Energy, for approximately RMB687.1 million (\$99.0 million).

### ***Customer Support and Service***

We typically sell our standard solar modules with a ten-year warranty against defects in materials and workmanship and a linear power performance warranty that guarantees the actual power output of our modules.

For solar power projects built by us, we provide a limited workmanship or balance of system warranty against defects in engineering, design, installation and construction under normal use, operation and service conditions for a period of up to five years following the energizing of the solar power project. In resolving claims under the workmanship or balance of system warranty, we have the option of remedying through repair, refurbishment or replacement of equipment. We have also entered into similar workmanship warranties with our suppliers to back up our warranties.

As part of our energy business, before commissioning solar power projects, we conduct performance testing to confirm that the projects meet the operational and capacity expectations set forth in the agreements. In limited cases, we also provide for an energy generation performance test designed to demonstrate that the actual energy generation for up to the first three years meets or exceeds the modeled energy expectation. In the event that the energy generation performance test performs below expectations, the appropriate party (EPC contractor or equipment provider) may incur liquidated damages capped at a percentage of the contract price. In certain instances, a bonus payment may be received if the energy generation performance test performs above expectations.

Our customer support and service handles technical inquiries and warranty-related issues. In 2016, we expanded our capacity in these areas to better enable us to handle our customer's questions and concerns in a timely and professional manner.

In 2016, we renewed our product warranty insurance coverage to provide additional security to our customers. See "—Insurance" below. The customer support and service function will continue to expand and to improve services to our customers.

### ***Competition***

#### *Module Segment*

The market for solar power products is competitive and evolving. We compete with American companies, such as First Solar and SunPower, and China-based companies such as Trina, Jinko, JA Solar and Hanwha Q Cells. Some of our competitors are developing or producing products based on alternative solar technologies, such as thin film PV materials, that may ultimately have costs similar to, or lower than, our projected costs. Solar modules produced using thin film materials, such as cadmium telluride and copper indium gallium selenide technology, generally have lower conversion efficiency but do not use silicon for production, compared to our crystalline silicon solar module products, and as such are less susceptible to increases in the costs of silicon. Some of our competitors have also become vertically integrated, from upstream polysilicon manufacturing to solar system integration. In addition, the solar power market in general competes with other sources of renewable and alternative energy as well as conventional power generation.

We believe that the key competitive factors in the market for solar power products include:

- price;
- the ability to deliver products to customers on time and in the required volumes;
- product quality and associated service issues;
- nameplate power and other performance parameters of the module, such as power tolerances;
- value-added services such as system design and installation;

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- value-added features such as those that make a module easier or cheaper to install;
- additional system components such as mounting systems, delivered as a package or bundle;
- brand equity and any good reputation resulting from the above items, including the willingness of banks to finance projects using modules produced by a particular supplier;
- customer relationships and distribution channels; and
- the aesthetic appearance of solar power products.

In the immediate future, we believe that our ability to compete depends on delivering a cost-effective product in a timely manner and developing and maintaining a strong brand name based on high quality products and strong relationships with downstream customers. Our competitiveness also depends on our ability to effectively manage our cash flow and balance sheet and to maintain our relationships with the financial institutions that fund solar power projects. Consolidation of the solar industry is already occurring and is expected to continue in the near future. We believe that such consolidation will benefit our company in the long-term. We believe that the key to competing successfully in the long-term is to produce innovative, high quality products at competitive prices and develop an integrated sales approach that includes services, ancillary products, such as mounting systems and inverters, and value-added product features. We believe that a good marketing program and the strong relationships that we are building with customers and suppliers will support us in this competitive environment.

### *Energy Segment*

Our energy segment is a capital intensive business with numerous industry participants. We face competition from a large and diverse group of local and international project developers, financial investors and certain utility companies. These competitors range in terms of size, geographic focus, financial resources and operating capabilities and are active in Canada, Japan, the U.S., China, Brazil, India, Mexico, the United Kingdom, Australia and other markets where we operate or intend to enter. We compete in a diversified and complicated landscape since the commercial and regulatory environments for solar power project development, sale and operation vary significantly from region to region and country to country. Our primary competitors are local and international developers and operators of solar power projects. We believe the key competitive factors in the global solar power project development industry include:

- vertical integration with upstream manufacturing;
- permit and project development experience and expertise;
- reputation and track record;
- relationship with government authorities and knowledge of local policies;
- strong internal working capital and good relationship with banks and international organizations that enhance access to external financing;
- experienced technicians and executives who are familiar with the industry and the implementation of our business plans; and
- expertise and experience in providing EPC and O&M services.

However, we cannot guarantee that some of our competitors do not or will not have advantages over us in terms of greater operational, financial, technical, management or other resources in particular markets or in general.

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Currently, we operate and maintain solar power projects in the United Kingdom, the U.S., China, Japan and Spain. We compete to supply energy to our potential customers with a limited number of utilities and providers of distributed generation in these markets. If we wish to enter into new PPAs for our solar power projects upon termination of previous PPAs, we compete with conventional utilities primarily based on cost of capital, generation located at customer sites, operations and management expertise, price (including predictability of price), green attributes of power, the ease by which customers can switch to electricity generated by our energy systems and our open architecture approach to working within the industry, which facilitates collaboration and project acquisitions.

For further discussion of the competitive risks that we face, see "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Because the markets in which we compete are highly competitive and quickly evolving, because many of our competitors have greater resources than we do or are more adaptive, and because we have a limited track record in our energy segment, we may not be able to compete successfully and we may not be able to maintain or increase our market share."

### ***Insurance***

We maintain property risk insurance policies with reputable insurance companies to cover our equipment, facilities, buildings and inventories. The coverage of these insurance policies includes losses due to natural hazards and losses arising from unforeseen accidents. Our manufacturing plants in China and elsewhere are covered by business interruption insurance. However, significant damage or interruption to any of our manufacturing plants, whether as a result of fire or other causes, could still have a material and adverse effect on our results of operations. We also maintain commercial general liability (including product liability) coverage. We obtained credit insurance from China Export & Credit Insurance Corporation, or Sinasure. Credit insurance is designed to offset the collection risk of our account receivables for certain customers within the credit limits approved by Sinasure. Risks related to marine, air and inland transit for the export of our products and domestic transportation of materials and products are covered under cargo transportation insurance. We also maintain director and officer liability insurance.

In April 2010, we began entering into agreements with a group of insurance companies to reduce some of the risks associated with our warranties. Under the terms of the insurance policies, the insurance companies are obliged to reimburse us, subject to certain maximum claim limits and certain deductibles, for the actual product warranty costs that we incur under the terms of our warranty against defects in workmanship and material and our warranty relating to power output. The warranty insurance is renewable annually. We believe that our warranty improves the marketability of our products and our customers are willing to pay more for products with warranties backed by insurance.

### ***Environmental Matters***

Except as disclosed in the "Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China," we believe we have obtained the environmental permits necessary to conduct the business currently carried on by us at our existing manufacturing facilities. We have also conducted environmental studies in conjunction with our solar power projects to assess and reduce the environmental impact of such projects.

Our products must comply with the environmental regulations of the jurisdictions in which they are installed. We make efforts to ensure that our products comply with the EU's Restriction of Hazardous Substances Directive, which took effect in July 2006, by reducing the amount of lead and other restricted substances used in our solar module products.



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Our operations are subject to regulation and periodic monitoring by local environmental protection authorities. If we fail to comply with present or future environmental laws and regulations, we could be subject to fines, suspension of production or cessation of operations.

### **Government Regulations**

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

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

In February 2005, China enacted its Renewable Energy Law, which became effective on January 1, 2006 and was revised in December 2009. The revised Renewable Energy Law, which became effective on April 1, 2010, sets forth policies to encourage the development and use of solar energy and other non-fossil energy and their on-grid generation. It also authorizes the relevant pricing authorities to set favorable prices for the purchase of electricity generated by solar and other renewable power generation systems.

The law also sets forth the 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 solar energy utilization systems. It also provides financial incentives, such as national funding, preferential loans and tax preferences for the development of renewable energy projects subject to certain regulations of the relevant authorities.

In November 2005, the NDRC promulgated the Renewable Energy Industry Development Guidance Catalogue, in which solar power figured prominently. In January 2006, the NDRC promulgated two implementation directives with respect to the Renewable Energy Law. In January 2007, the NDRC promulgated another related implementation directive. These directives set forth specific measures for setting the price of electricity generated by solar and other renewable power generation systems, for sharing additional expenses, and for allocating administrative and supervisory authority among different government agencies at the national and provincial levels. They also stipulate the responsibilities of electricity grid companies and power generation companies with respect to the implementation of the Renewable Energy Law.

In August 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. The Outline of the Thirteenth Five-Year Plan for National Economic and Social Development of the PRC, which was approved by the National People's Congress in March 2016, the Thirteenth Five-Year Plan for Renewable Energy Development, which was promulgated by the NDRC in December 2016, and the Thirteenth Five-Year Plan for Solar Power Generation, which was promulgated by the National Energy Administration in December 2016 also demonstrates a commitment to promote the development of renewable energy to enhance the competitiveness of the renewable energy industry, including the solar energy industry.

China's Ministry of Housing and Urban-Rural Development (formerly, the Ministry of Construction) also issued a directive in June 2005 which seeks to expand the use of solar energy in residential and commercial buildings and encourages the increased application of solar energy in different townships. Similarly, China's State Council promulgated a directive in July 2005, which sets forth specific measures to conserve energy resources. In November 2005, China's Ministry of Housing and Urban-Rural Development promulgated the Administrative Provisions on Energy Conservation for Civil Constructions which encourages the development of solar energy. In August 2006, the State Council issued the Decision on Strengthening the Work of Energy Conservation which encourages the great development of the solar energy and other renewable energy. In addition, on April 1, 2008, the

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PRC Energy Conservation Law came into effect. Among other objectives, this law encourages the installation of solar power facilities in buildings to improve energy efficiency. In July 2009, China's Ministry of Finance and Ministry of Housing and Urban-Rural Development jointly promulgated "the Urban Demonstration Implementation Program of the Renewable Energy Building Construction" and "the Implementation Program of Acceleration in Rural Application of the Renewable Energy Building Construction" to support the development of the new energy industry and the new energy-saving industry.

On March 8, 2011, China's Ministry of Finance and Ministry of Housing and Urban-Rural Development jointly promulgated the Notice on Further Application of Renewable Energy in Building Construction, which aims to raise the percentage of renewable energy used in buildings.

In September 2009, the PRC State Council approved and circulated the Opinions of the National Development and Reform Commission and other Nine Governmental Authorities on Restraining the Production Capacity Surplus and Duplicate Construction in Certain Industries and Guiding the Industries for Healthy Development. These opinions concluded that polysilicon production capacity in China has exceeded the demand and adopted the policy of imposing more stringent requirements on the construction of new polysilicon manufacturing projects 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 extend 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 or our silicon wafer, solar cell and solar module capacity expansion plans.

On August 21, 2012, China's Ministry of Finance and Ministry of Housing and Urban-Rural Development jointly promulgated the Notice on Improving Policies for Application of Renewal Energy in Building and Adjusting Fund Allocation and Management Method, which aims to promote the use of solar energy and other new energy products in public facilities and residences, further amplifying the effect of the policies for application of renewable energy in buildings.

In June 2014, the General Office of the State Council issued its Notice on Printing and Distributing the Action Plan for the Solar project Strategy (2014-2020), which requested accelerating the development of solar power generation, including promoting the construction of photovoltaic base construction, among others.

In April 2015, China's Ministry of Finance promulgated the Interim Measures for Administration of the Special Fund for the Development of Renewable Energy Sources, which stipulated the division of regulation of special fund for the development of renewable energy sources and the main scopes to be supported.

In December 2015, the NDRC issued the Circular on Improving the On-Grid Benchmark Price Policy for Onshore Wind Power and Photovoltaic Power, which aims to promote sound and healthy development of the onshore wind power and PV power industry by regulating the price of wind power and PV power.

In April 2016, the NDRC and National Energy Administration issued the Notice on Printing and Distributing the Action Plan for Energy Technology Revolution and Innovation (2016-2030), which sets forth the focus, the main direction, the timetable and the route of energy technology innovation.

### *Environmental Regulations*

As we have expanded our ingot, silicon wafer and solar cell manufacturing capacities, we have begun to generate material levels of noise, wastewater, gaseous wastes and other industrial waste. Additionally, as we expand our internal solar components production capacity, our risk of facility

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incidents that would negatively affect the environment also increases. We are subject to a variety of governmental regulations related to the storage, use and disposal of hazardous materials. The major environmental laws and regulations applicable to us include the PRC Environmental Protection Law, which became effective in 1989, as amended and promulgated in 2014, the PRC Law on the Prevention and Control of Noise Pollution, which became effective in 1997, the PRC Law on the Prevention and Control of Air Pollution, which became effective in 1988, as amended and promulgated in 1995, 2000 and 2015, the PRC Law on the Prevention and Control of Water Pollution, which became effective in 1984, as amended and promulgated in 1996 and 2008, the PRC Law on the Prevention and Control of Solid Waste Pollution, which became effective in 1996, as amended and promulgated in 2004, 2013, 2015 and 2016, the PRC Law on Evaluation of Environmental Affects, which became effective in 2003, as amended and promulgated in 2016, the PRC Law on Promotion of Clean Production, which became effective in 2003, as amended and promulgated in 2012, and the Regulations on the Administration of Construction Project Environmental Protection, which became effective in 1998.

Some of our PRC subsidiaries are located in Suzhou, China, which is adjacent to Taihu Lake, a nationally renowned and protected body of water. As a result, production at these subsidiaries is subject to the Regulations on the Administration of Taihu Basin, which became effective on 2011, the Regulation of Jiangsu Province on Preventing Water Pollution in Taihu Lake, which became effective in 1996 and was further revised and promulgated in 2007, 2010 and 2012, and the Implementation Plan of Jiangsu Province on Comprehensive Treatment of Water Environment in Taihu Lake Basin, which was promulgated in February 2009. Because of these regulations, the environmental protection requirements imposed on nearby manufacturing projects, especially new projects, have increased noticeably, and Jiangsu Province has stopped approving construction of new manufacturing projects that increase the amount of nitrogen and phosphorus released into Taihu Lake.

### *Admission of Foreign Investment*

The principal regulation governing foreign ownership of solar power businesses in the PRC is the Foreign Investment Industrial Guidance Catalogue. Under the current catalogue, which was amended in March 2015 and became effective on April 10, 2015, the solar power related business is classified as an "encouraged foreign investment industry." Companies that operate in encouraged foreign investment industries and satisfy applicable statutory requirements are eligible for preferential treatment, including exemption from customs of certain self-used equipment and priority consideration in obtaining land use rights provided by certain local governments.

While the 2004 catalogue only applied to the construction and operation of solar power stations, the 2007 catalogue expanded its application also applies to the production of solar cell manufacturing machines, the production of solar powered air conditioning, heating and drying systems and the manufacture of solar cells, and the 2011 catalogue and the current 2015 catalogue also covers the manufacture of solar light collector glass and etc.

### *Administration of Foreign Invested Companies*

The establishment, approval, registered capital requirement and day-to-day operational matters of wholly foreign-owned enterprises, are regulated by the Wholly Foreign-Owned Enterprise Law of the PRC, effective in 1986 and amended in 2000 and 2016, and the Implementation Rules of the Wholly Foreign-owned Enterprise Law of the PRC, effective in 1990 and amended in 2001 and 2014. The establishment, operation and management of corporate entities in China are governed by the Company Law of the PRC, or the Company Law, effective in 1994 and amended in 1999, 2004, 2005 and 2013. The Company Law is applicable to our PRC subsidiaries unless PRC laws on foreign investment stipulate otherwise.

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### *Income Tax and VAT*

PRC enterprise income tax is calculated based on taxable income determined under PRC accounting principles. Our major operating subsidiaries, CSI Solartronics (Changshu) Co., Ltd., or CSI Solartronics, CSI New Energy Holding, CSI Cells, CSI Solar Technologies Inc., or CSI Technologies, CSI Changshu Manufacturing and CSI Luoyang Manufacturing, are governed by the EIT Law, which became effective on January 1, 2008 and amended on February 24, 2017.

Under the EIT Law, both foreign-invested enterprises and domestic enterprises are subject to a uniform enterprise income tax rate of 25%. The EIT Law provides for preferential tax treatment for certain categories of industries and projects that are strongly supported and encouraged by the state. For example, enterprises qualified as HNTEs are entitled to a 15% enterprise income tax rate, provided that such HNTEs satisfy other applicable statutory requirements.

Certain of our subsidiaries, such as CSI New Energy Holding, CSI Cells, CSI Luoyang Manufacturing and CSI Changshu Manufacturing, once enjoyed preferential tax benefits, such as a reduced enterprise income tax rate of 12.5%, however, these benefits were expired. In 2016, only our partially owned subsidiary, Suzhou Sanysolar, which was qualified as an HNTE and satisfied applicable statutory requirements, enjoyed a reduced enterprise income tax rate of 15%. In 2017, Suzhou Sanysolar, CSI Cells and CSI Changshu Manufacturing are qualified as HNTE and are expected to enjoy a reduced enterprise income tax rate of 15%, subject to applicable statutory requirements. In addition, our wholly-owned subsidiary, Canadian Solar Sunenergy (Baotou) Co., Ltd. is now applying for preferential tax benefits. As most of the preferential tax benefits enjoyed by our PRC subsidiaries expired, their effective tax rates increased significantly.

The EIT Law also provides that enterprises established outside China whose "de facto management body" is located in China are considered PRC tax residents and will generally be subject to the uniform 25% enterprise income tax rate on their global income. Under the implementation regulations, the term "de facto management body" is defined as substantial and overall management and control over aspects such as the production and business, personnel, accounts and properties of an enterprise. Circular 82 further provides certain specific criteria for determining whether the "de facto management body" of a PRC-controlled offshore incorporated enterprise is located in the PRC. The criteria include whether (a) the premises where the senior management and the senior management bodies responsible for the routine production and business management of the enterprise perform their functions are mainly located within the PRC, (b) decisions relating to the enterprise's financial and human resource matters are made or subject to approval by organizations or personnel in the PRC, (c) the enterprise's primary assets, accounting books and records, company seals, and board and shareholders' meeting minutes are located or maintained in the PRC and (d) 50% or more of voting board members or senior executives of the enterprise habitually reside in the PRC. Although Circular 82 only applies to offshore enterprises controlled by enterprises or enterprise groups located within the PRC, the determining criteria set forth in the Circular 82 may reflect the tax authorities' general position on how the "de facto management body" test may be applied in determining the tax resident status of offshore enterprises. As the tax resident status of an enterprise is subject to the determination by the PRC tax authorities, uncertainties remain with respect to the interpretation of the term "de facto management body" as applicable to our offshore entities. As a substantial number of the members of our management team are located in China, we may be considered as a PRC tax resident under the EIT Law and, therefore, subject to the uniform 25% enterprise income tax rate on our global income.

Under the EIT Law and implementing regulations issued by the State Council, the PRC withholding tax rate of 10% is generally applicable to interest and dividends payable to investors from companies that are not "resident enterprises" in the PRC, to the extent such interest or dividends have their sources within the PRC. If our Canadian parent entity is deemed a PRC tax resident under the

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EIT Law based on the location of our "de facto management body," dividends distributed from our PRC subsidiaries to our Canadian parent entity could be exempt from Chinese dividend withholding tax. However, in that case, dividends from us to our shareholders may be regarded as China-sourced income and, consequently, be subject to Chinese withholding tax at the rate of 10%, or at a lower treaty rate if applicable. Similarly, if we are considered a PRC tax resident, any gain realized by our shareholders from the transfer of our common shares is also subject to Chinese withholding tax at the rate of 10% if such gain is regarded as income derived from sources within the PRC. It is unclear whether any dividends that we pay on our common shares or any gains that our shareholders may realize from the transfer of our common shares would be treated as income derived from sources within the PRC and subject to PRC tax.

In addition, under Announcement 7, where a non-resident enterprise indirectly transfers properties, such as equity in Chinese resident enterprises, without any reasonable commercial purposes with the aim of avoiding payment of enterprise income tax, such indirect transfer shall be reclassified as a direct transfer of equity in a Chinese resident enterprise. Properties such as equity in Chinese resident enterprises mentioned in Announcement 7 mean the properties, or Chinese taxable properties, which are directly held by non-resident enterprises and subject the transfer income to enterprise income tax in China according to the provisions of Chinese tax law. Indirect transfers of Chinese taxable properties are transactions which transfer the equity of enterprises abroad that directly or indirectly hold Chinese taxable properties (not including Chinese resident enterprises registered abroad). To estimate reasonable commercial purposes, all arrangements related to the indirect transfer of Chinese taxable properties must be considered comprehensively and certain factors, such as whether the main value of the equity of enterprises abroad is directly or indirectly from the Chinese taxable properties, must be comprehensively analyzed. Except for the circumstances stipulated therein, the overall arrangements related to the indirect transfer of Chinese taxable properties that fall in any of the following circumstances simultaneously are deemed as having no reasonable commercial purposes: (a) more than 75% of the equity of enterprises abroad is directly or indirectly from Chinese taxable properties; (b) more than 90% of the total assets (not including cash) of enterprises abroad is directly or indirectly composed of investment in the territory of China at any time in the year before the indirect transfer of Chinese taxable properties, or more than 90% of the income of enterprises abroad is directly or indirectly from the territory of China in the year before the indirect transfer of Chinese taxable properties; (c) although the enterprises abroad and their subordinate enterprises directly or indirectly hold Chinese taxable properties have registered in the host country (region) in order to satisfy the organization form required by law, the functions actually performed and the risks undertaken are limited and are not sufficient to prove the economic essence; or (d) the burden of income tax of indirect transfer of Chinese taxable properties payable abroad is lower than the possible burden of taxation in China as for the direct transfer of Chinese taxable properties. However, a non-resident enterprise's income obtained from indirect transfer of Chinese taxable properties by purchasing and selling equity of the same listed enterprise abroad in the open market will not be taxed under Announcement 7.

There is uncertainty as to the application of Announcement 7 and it is understood that the relevant PRC tax authorities have jurisdiction regarding reasonable commercial purposes. As a result, we may become at risk of being taxed under Announcement 7 and we may be required to expend valuable resources to comply with Announcement 7 or to establish that we should not be taxed under Announcement 7, which may materially adversely affect our financial condition and results of operations.

Pursuant to a November 2008 amendment to the Provisional Regulation of the PRC on Value Added Tax issued by the PRC State Council, all entities and individuals that are engaged in the sale of goods, the provision of repairs and replacement services and the importation of goods in China are required to pay VAT. Gross proceeds from sales and importation of goods and provision of services are

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generally subject to VAT at a rate of 17%, with exceptions for certain categories of goods that are taxed at a rate of 13%. When exporting certain goods, the exporter is entitled to a refund of a portion or all of the VAT that it has already paid or borne.

Under the Provisional Regulation of the PRC on Value Added Tax amended in 2008 and 2016 and its implementation rules, which became effective in 2009 and were amended in 2011, and relevant regulations, fixed assets (mainly including equipment and manufacturing facilities) are now eligible for credit for input VAT. Previously, input VAT on fixed assets purchases was not deductible from the current period's output VAT derived from the sales of goods, but had to be included in the cost of the assets. The new rule permits this deduction except in the case of equipment purchased for non-taxable projects or tax-exempted projects where the deduction of input VAT is not allowed. However, the qualified fixed assets could also be eligible for input VAT if the fixed assets are used for both taxable projects and non-taxable projects or tax-exempted projects. Presently, no further detailed rules clarify under what circumstance the fixed assets are considered as being used for both taxable and non-taxable or tax exempt projects. Because of the new VAT rules, our PRC subsidiaries may benefit from future input VAT credit on our capital expenditures.

Under the former rules, equipment imported for qualified projects was entitled to an import VAT exemption and domestic equipment purchased for qualified projects were entitled to a VAT refund. However, such exemption and refund were both eliminated as of January 1, 2009.

### *Foreign Currency Exchange*

Foreign currency exchange regulation in China is primarily governed by the Foreign Currency Administration Rules, which became effective in 1996 and were amended in 1997 and 2008, and the Settlement, Sale and Payment of Foreign Exchange Administration Rules (1996), or the Settlement Rules.

Currently, the Renminbi is convertible for current account items, including the distribution of dividends, interest payments, trade and service-related foreign exchange transactions. Conversion of the Renminbi for most capital account items, such as security investment and repatriation of investment, however, is still subject to limitation and requires the approval by or registration with SAFE.

However, SAFE began to reform the foreign exchange administration system and issued the Notice on Reforming the Administrative Approach Regarding the Settlement of the Foreign Exchange Capitals of Foreign-invested Enterprises on March 30, 2015, which allows foreign invested enterprises to settle their foreign exchange capital on a discretionary basis according to the actual needs of their business operation and allows a foreign-invested enterprise with a business scope including "investment" to use the RMB capital converted from foreign currency registered capital for equity investments within the PRC.

On February 13, 2015, SAFE promulgated the Circular on Further Simplifying and Improving the Policies Concerning Foreign Exchange Control on Direct Investment, or SAFE Circular No. 13, which delegates the authority to enforce the foreign exchange registration in connection with the inbound and outbound direct investment under relevant SAFE rules to certain banks and therefore further simplifies the foreign exchange registration procedures for inbound and outbound direct investment.

### *Dividend Distribution*

The principal regulations governing distribution of dividends paid by wholly foreign owned enterprises include the Wholly Foreign-Owned Enterprise Law of the PRC, effective in 1986 and amended in 2000 and 2016, the Implementation Rules of the Wholly Foreign-Owned Enterprise Law of the PRC, effective in 1990 and amended in 2001 and 2014, the Company Law effective in 1994 and

amended in 1999, 2004, 2005 and 2013 and the EIT Law and its implementation rules, both effective in 2008.

Under these laws, foreign-invested enterprises in China may pay dividends only out of their accumulated profits, if any, determined in accordance with 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 profits determined in accordance with PRC accounting standards each year to its general reserves until the accumulative amount of such reserves reach 50% of its registered capital. These reserves are not distributable as cash dividends. The board of directors of a foreign-invested enterprise has the discretion to allocate a portion of its after-tax profits to staff welfare and bonus funds, which may not be distributed to equity owners except in the event of liquidation.

#### *Employment*

The major laws and regulations governing the employment relationship, including wage and hour requirements, working and safety conditions, social insurance, housing funds and other welfare. The PRC Labor Law which became effective on January 1, 1995 and amended on August 27, 2009, the Labor Contract Law of the People's Republic of China, which became effective on January 1, 2008, and was later revised on December 28, 2012, its Implementing Regulation and the amendment thereunder, which became effective on September 18, 2008 and July 1, 2013, respectively, permit workers in both state-owned and private enterprises in the PRC to bargain collectively. The PRC Labor Law and the PRC Labor Contract Law provide for collective contracts to be developed through collaboration between the labor unions (or worker representatives in the absence of a union) and management that specify such matters as working conditions, wage scales, and hours of work. The PRC Labor Contract Law and its Implementing Regulation impose certain requirements with respect to human resources management, including, among other things, signing labor contracts with employees, terminating labor contracts, paying remuneration and compensation and making social insurance contributions. In addition, the PRC Labor Contract Law requires employers to provide remuneration packages that meet the relevant local minimum standards. The PRC Labor Contract Law has enhanced rights for the nation's workers, including permitting open-ended labor contracts and severance payments. It requires employers to provide written contracts to their workers, restricts the use of temporary labor and makes it harder for employers to lay off employees. It also requires that employees with fixed-term contracts be entitled to an indefinite-term contract after a fixed-term contract is renewed twice or the employee has worked for the employer for a consecutive ten-year period. According to the Interim Provisions on Labor Dispatching, which came into effect on January 3, 2014, the number of dispatched workers used by an employer shall not exceed 10% of its total number of workers.

Under applicable PRC laws, rules and regulations, including the Social Insurance Law promulgated by the Standing Committee of the National People's Congress and effective as of July 1, 2011, the Rules on Implementing the Social Insurance Law issued by Ministry of Human Resource and Social Security and effective as of July 1, 2011, the Interim Regulations on the Collection and Payment of Social Security Funds promulgated by the State Council and effective as of January 22, 1999, the Interim Measures Concerning Maternity Insurance promulgated by the Ministry of Labor and effective as of January 1, 1995, the Regulations on Occupational Injury Insurance promulgated by the State Council and effective as of January 1, 2004 and amended on December 20, 2010, and the Regulations on the Administration of Housing Accumulation Funds promulgated by the State Council and effective as of April 3, 1999 and amended on March 24, 2002, employers are required to contribute, on behalf of their employees, to a number of social security funds, including funds for basic pension insurance, unemployment insurance, basic medical insurance, occupational injury insurance, maternity leave insurance, and to housing accumulation funds. These payments are made to local administrative authorities and any employer who fails to contribute may be fined and ordered to remediate on payments within a stipulated time period.

**C. Organizational Structure**

The following table sets out our major subsidiaries, including their place of incorporation and our ownership interest, as of March 31, 2017.

<u>Name of entity</u>	<u>Place of incorporation</u>	<u>Ownership interest</u>
CSI Solartronics (Changshu) Co., Ltd.	PRC	100%
CSI Solar Technologies Inc.	PRC	100%
CSI New Energy Holding Co., Ltd.	PRC	100%
Canadian Solar Manufacturing (Luoyang) Inc.	PRC	100%
Canadian Solar Manufacturing (Changshu) Inc.	PRC	100%
CSI Cells Co., Ltd.	PRC	100%
Canadian Solar (USA) Inc.	USA	100%
Canadian Solar Japan K.K.	Japan	100%
Canadian Solar Solutions Inc.	Canada	100%
CSI Solar Power Group Co., Ltd. (formerly, CSI Solar Power (China) Inc.)	PRC	100%
Canadian Solar EMEA GmbH	Germany	100%
Canadian Solar (Australia) Pty Limited	Australia	100%
Canadian Solar International Limited	Hong Kong	100%
Canadian Solar O and M (Ontario) Inc.	Canada	100%
Suzhou SanySolar Materials Technology Co., Ltd.	PRC	75.324%
Canadian Solar South East Asia Pte. Ltd.	Singapore	100%
Canadian Solar South Africa Pty., Ltd.	South Africa	100%
Canadian Solar Brazil Commerce, Import and Export of Solar Panels Ltd.	Brazil	100%
Canadian Solar Middle East Limited	United Arab Emirates	100%
Canadian Solar Construction (USA), LLC	USA	100%
Canadian Solar Project K.K.	Japan	100%
CSI-GCL Solar Manufacturing (Yancheng) Co., Ltd	PRC	80%
Canadian Solar UK Ltd.	United Kingdom	100%
Canadian Solar UK Projects Ltd.	United Kingdom	100%
Changshu Tegu New Material Technology Co., Ltd.	PRC	75%
Changshu Tlian Co., Ltd.	PRC	100%
Canadian Solar Trading (Changshu) Inc.	PRC	100%
Recurrent Energy, LLC	USA	100%
PT. Canadian Solar Indonesia	Indonesia	67%
Canadian Solar Manufacturing Vietnam Co., Ltd.	Vietnam	100%
Canadian Solar Energy Private Limited	India	100%
Canadian Solar Australia 1 Pty Ltd.	Australia	100%
Canadian Solar Manufacturing (Thailand) Co., Ltd.	Thailand	99.99992%
Canadian Solar Sunenergy (Suzhou) Co., Ltd.	PRC	100%
Canadian Solar Energy Holding Singapore 1 Pte. Ltd.	Singapore	100%
Canadian Solar Sunenergy (Baotou) Co., Ltd.	PRC	100%



**D. Property, Plant and Equipment**

The following is a summary of our material properties, including information on our manufacturing facilities and office buildings as of the date of this annual report:

- CSI Changshu Manufacturing holds a land use rights certificate for approximately 40,000 square meters of land in Changshu, on which we have built manufacturing facilities of approximately 23,559 square meters. Production in these facilities began in April 2008. We also constructed a canteen, a dormitory for employees and a liquefied gas station in September 2010 with a total floor area of 11,316 square meters. The property ownership certificates were granted in 2011.
- CSI Changshu Manufacturing also holds a real property rights certificate (a new certificate that covers both the land use rights and the property ownership) for approximately 180,000 square meters of land in Changshu, on which we have built two module manufacturing facilities, two warehouses and other buildings with a total floor area of approximately 60,576 square meters. Construction of the central warehouses was completed in April 2010. We completed the construction of a module manufacturing facility with an additional warehouse and three other buildings, which have approximately 46,539 square meters of floor area, in the first half of 2011. In November 2015, we completed the construction of another warehouse with total floor area of approximately 22,826 square meters. We have obtained property ownership certificates for all of CSI Changshu Manufacturing's facilities.
- CSI Luoyang Manufacturing holds a land use rights certificate for approximately 35,345 square meters of land in Luoyang (Phase I), on which we have constructed manufacturing facilities. The floor area of Phase I is approximately 6,761 square meters. The property ownership certificates were granted in June 2008. In 2008, CSI Luoyang Manufacturing obtained the land use rights for approximately 79,685 square meters of adjacent land (Phase II), on which we have constructed manufacturing facilities. The floor area of Phase II is approximately 29,811 square meters. The property ownership certificates were granted in September 2013. In 2016, CSI Luoyang Manufacturing obtained the land use rights for 159,961 square meters of land (Phase III), on which we have constructed manufacturing facilities with the floor area of approximately 39,150 square meters. We are in the process of obtaining the property ownership certificates for Phase III.
- CSI Cells holds a land use rights certificate for approximately 65,661 square meters of land in Suzhou. We completed the construction of our first solar cell manufacturing facilities on this site in the first quarter of 2007. The Phase I manufacturing facilities have 14,077 square meters, for which we obtained the property ownership certificate. The Phase II cell manufacturing facilities, with 30,102 square meters of workshop space, were completed in 2009. The Phase III cell manufacturing facilities, with a total floor area of approximately 21,448 square meters of manufacturing and office space, were completed in August 2011. We have passed the required inspection and are in the process of obtaining property ownership certificate from the competent government authority. CSI Cells merged with CSI Solar New Energy (Suzhou) Co., Ltd. in 2012. CSI Solar New Energy (Suzhou) Co., Ltd. had a land use rights certificate for approximately 10,000 square meters of land in Suzhou and a property ownership certificate for approximately 4,833 square meters of floor area. The process of recertification of the land use rights certificate and property ownership certificate have been completed and both are now registered under the name of CSI Cells.
- The construction of cell manufacturing facilities (Phase I) of CSI-GCL Solar Manufacturing (Yancheng) Co., Ltd., or CSI-GCL Solar Manufacturing, was completed in Yancheng in 2015. The floor area of Phase I is approximately 26,921 square meters. CSI-GCL Solar Manufacturing currently leases the manufacturing facilities for Phase I but has the right and expects to purchase those facilities and obtain the land use rights between 2018 and 2020. CSI-GCL Solar

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Manufacturing commenced commercial production in the first quarter of 2016. In 2016, CSI-GCL Solar Manufacturing obtained the land use rights for approximately 133,333 square meters of land (Phase II). The construction of Phase II cell manufacturing facilities with floor area of approximately 23,020 square meters was completed in 2016 and we are in the process of obtaining the property ownership certificates for Phase II. CSI-GCL Solar Manufacturing was established under a strategic partnership agreement with GCL-Poly Solar System Integration (China) Co., Ltd. and is 80% owned by us.

- In Baotou of Inner Mongolia, we lease module manufacturing facilities with a floor space area of 10,190 square meters for a term of two years commencing in November 2016. This module manufacturing facility commenced operation in the first quarter of 2017.
- In Suzhou, Canadian Solar Sunenergy (Suzhou) Co., Ltd. acquired a module manufacturing facility with a floor area of 28,355 square meters on a land area of approximately 60,000 square meters, which commenced production in the first quarter of 2017.
- In Ontario, we lease approximately 14,851 square meters of manufacturing facilities in Guelph, Ontario, Canada for a term of 10 years commencing September 1, 2010 and approximately 8,685 square meters of manufacturing facilities in London, Ontario, Canada for a term of five years commencing October 1, 2013. We also lease a warehouse of 7,912 square meters and an office building of 1,146 square meters on the same premises as the Guelph, Ontario, Canada manufacturing facilities for the same term.
- In Vietnam, we lease approximately 15,784 square meters of manufacturing facilities in Haiphong City, Vietnam for a term of three years commencing August 1, 2015. The renovation of the facility was completed and production began in the first quarter of 2016.
- In Thailand, Canadian Solar Manufacturing (Thailand) Co., Ltd. purchased 287,788 square meters of land. We have obtained an ownership certificate for 223,552 square meters of the land and are in the process of obtaining ownership certificate for the remaining area. The construction of a cell manufacturing facility with a floor area of 19,139 square meters and a module manufacturing facility with a floor area of 29,723 square meters has been completed. Production of modules began in the third quarter of 2016 and production of cells is expected to begin in the second quarter of 2017.
- In Indonesia, we lease a total floor area of approximately 8,000 square meters for our module production facilities, through our 67% owned subsidiary, PT. Canadian Solar Indonesia, which was established under a strategic partnership agreement with PT Comtel Energi. Production commenced in the first quarter of 2016.

Except as disclosed in the "Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China," we believe we have obtained the environmental permits necessary to conduct the business currently carried on by us at our existing manufacturing facilities. For more details, see "B. Business Overview—Environmental Matters."

#### **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 should be read in conjunction with our consolidated financial statements and the related notes thereto included elsewhere in this annual report on Form 20-F. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results may differ

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materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under "Item 3. Key Information—D. Risk Factors" or in other parts of this annual report on Form 20-F.

**A. Operating Results**

***Factors Affecting Our Results of Operations***

The most significant factors that affect our financial performance and results of operations are:

- solar power products pricing;
- costs of silicon raw material and solar ingot, wafer and cell relative to the selling prices of modules;
- government subsidies and the availability of financing for solar projects;
- industry and seasonal demand;
- impact of certain of our long-term purchase commitments;
- solar power project development and sale and EPC and development services;
- anti-dumping and countervailing duty costs and true-up charges; and
- foreign exchange.

*Solar Power Products Pricing*

Before 2004, all of our net revenues were generated from sales of specialty solar modules and products. In 2004, we began selling standard solar modules. In 2014, we generated 59.0% of our net revenues from our module segment, which primarily comprises the design, development, manufacture and sale of solar power products and solar system kits, and 41.0% from our energy segment, which primarily comprises solar power project development and sale, EPC and development services, O&M services and operating solar power projects and sales of electricity. In 2015, we generated 71.8% of our net revenues from our module segment and 28.2% from our energy segment. In 2016, we generated 96.1% of our net revenues from our module segment and 3.9% from our energy segment.

Our standard solar modules are priced based on either the actual flash test result or the nameplate capacity of our modules, expressed in watts-peak. The actual price per watt is affected by overall demand in the solar power industry and increasingly by the total power of the module. Higher-powered modules usually command slightly higher prices per watt.

We price our standard solar modules based on the prevailing market price at the time we enter into sales contracts with our customers, taking into account the size of the contract, the strength and history of our relationship with the customer and the costs of silicon raw material and solar ingot, wafer and cell. During the first few years of our operations, the average selling prices for standard solar modules rose year-over-year across the industry, primarily because of high demand. During the period from 2004 to 2008, the average selling price of our standard solar modules ranged from \$3.62 to \$4.23. Following a price peak in the third quarter of 2008, the industry-wide average selling price of standard solar modules declined sharply, as market demand declined and competition increased due to the worldwide credit crisis, reduction in government subsidies in certain solar markets and increased manufacturing output. In 2009, the average selling price of our standard solar modules continued to fall, with an average selling price of \$1.93 per watt in the fourth quarter of 2009. Since 2009, the average selling price of our standard solar modules has generally continued to fall largely due to an oversupply of solar modules. In 2014 and 2015, the average selling price of our standard solar modules was approximately \$0.67 per watt and \$0.58 per watt, respectively, and, in 2016, it was approximately

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\$0.51 per watt. We expect the averaging selling price of standard solar modules to continue to drop, albeit at a moderate rate.

*Costs of Silicon Raw Material and Solar Ingot, Wafer and Cell Relative to the Selling Prices of Modules*

We produce solar modules, which are an array of interconnected solar cells encased in a weatherproof frame, and products that use solar modules. Solar cells are the most important component of solar modules. Our solar cells are currently made from mono-crystalline and multi-crystalline solar wafers through multiple manufacturing steps. Solar wafers are the most important material for making solar cells. Solar ingots are the most important material for making solar wafers. If we are unable to procure silicon raw material and solar ingots, wafers and cells at reduced prices in line with the decreasing selling prices of our solar module, our revenues and margins could be adversely impacted, either due to higher manufacturing costs than our competitors or write-downs of inventory, or both. Our market share could decline if our competitors are able to offer better pricing than we are.

*Government Subsidies and the Availability of Financing for Solar Projects*

We believe that the near-term growth of the market for on-grid applications depends in large part on the availability and size of government subsidies and economic incentives, and the availability and cost of financing for solar projects.

For a detailed discussion of the impact of government subsidies and incentives, possible changes in government policy and associated risks to our business, see "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Governments may revise, reduce or eliminate subsidies and economic incentives for solar energy, which could cause demand for our products to decline." and "Item 4. Information on the Company—B. Business Overview—Sales, Marketing and Customers."

For a detailed discussion of the impact of the continuing weak global economy and uncertain global economic outlook and associated risks to the availability and cost of debt or equity for solar power projects and our customers' ability to finance the purchase of our products or to construct solar power projects, see "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—The execution of our growth strategy depends upon the continued availability of third-party financing arrangements for our customers, which is affected by general economic conditions. Tight credit markets could depress demand or prices for solar power products and services, hamper our expansion and materially affect our results of operations."

*Industry and Seasonal Demand*

Our business and revenues depend on the demand for solar power. Although solar power technology has been used for several decades, the solar power market has only started to grow significantly in the past few years. See "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—We may be adversely affected by volatile solar power market and industry conditions; in particular, the demand for our solar power products and services may decline, which may reduce our revenues and earnings." Industry demand is affected by seasonality. Demand tends to be lower in winter, particularly in Europe, where adverse weather conditions can complicate the installation of solar power systems, thereby decreasing demand for solar modules. Seasonal changes can also significantly impact the construction schedules of our solar power projects in countries such as Canada, the U.S. and China thereby also decreasing demand. See "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Seasonal variations in demand linked to construction cycles and weather conditions may influence our results of operations."

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### *Impact of Certain of Our Long-term Purchase Commitments*

Currently, we acquire a large portion of our requirements of solar wafers and cells through purchasing arrangements. See "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Long-term supply agreements may make it difficult for us to adjust our raw material costs should prices decrease. Also, if we terminate any of these agreements, we may not be able to recover all or any part of the advance payments we have made to these suppliers and we may be subject to litigation."

### *Solar Power Project Development and Sale and EPC and Development Services*

Revenues generated from our energy segment accounted for 41.0%, 28.2% and 3.9% of our net revenues in 2014, 2015 and 2016, respectively. The majority of these revenues came from the sale of solar power projects and the provision of EPC and development services. We intend to monetize the majority of our current portfolio of solar power projects in operation that have an estimated resale value of approximately \$1.6 billion as of February 28, 2017. Our revenues from the energy segment are affected by the timing of the completion and sale of solar power projects. See "Item 4. Information on the Company—B. Business Overview—Sales, Marketing and Customers—Energy Segment—Solar Project Development and Sale" for a description of the status of our solar power projects.

Solar power project development and sale and EPC and development services involve numerous risks and uncertainties. For a detailed discussion of these risks and uncertainties, see "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Our future success depends partly on our ability to expand the pipeline of our energy segment in several key markets, which exposes us to a number of risks and uncertainties" and "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Our project development and construction activities may not be successful, projects under development may not receive required permits, property rights, PPAs, interconnection and transmission arrangements, and financing or construction of projects may not commence or continue as scheduled, all of which could increase our costs, delay or cancel a project, and have a material adverse effect on our revenue and profitability."

### *Anti-dumping and Countervailing Duty Costs and True-up Charges*

In 2016, we made approximately \$144.3 million of cash deposits pursuant to anti-dumping and countervailing duty rulings in the U.S., of which \$132.2 million were charged to our cost of revenues. In addition, we booked a true-up provision of \$44.1 million primarily associated with prior years' module sales from China to the U.S. following the announcement of the preliminary results of the third administrative review carried out by the U.S. Department of Commerce of the import into the U.S. of Chinese origin solar products using Chinese origin solar cells.

We have been in the past, and may be in the future, subject to anti-dumping and countervailing duty rulings and orders. In particular, we have been subject to anti-dumping and countervailing duty rulings in the U.S., the EU and Canada and have, as a result, been party to lengthy proceedings related thereto. See "Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—Legal and Administrative Proceedings." The U.S., EU and Canada are important markets for us. Ongoing proceedings relating to, and the imposition of any new, anti-dumping and countervailing duty rulings and orders or safeguard measures in these markets may result in additional costs to us and/or our customers.

### *Foreign Exchange*

The majority of our sales in 2016 were denominated in U.S. dollars, Renminbi and Japanese yen, with the remainder in other currencies such as Euros, Canadian dollars, British pounds and Australian dollars. The majority of our costs and expenses in 2016 were denominated in Renminbi and primarily

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related to purchases of solar cells and wafers and silicon and other raw materials, toll manufacturing fees, labor costs and local overhead expenses within the PRC. From time to time, we enter into loan arrangements with Chinese commercial banks that are denominated primarily in Renminbi or U.S. dollars. The majority of our cash and cash equivalents and restricted cash is denominated in Renminbi. See "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Fluctuations in exchange rates could adversely affect our business, including our financial condition and results of operations."

### ***Segment Reporting***

We use the management approach to determine operating segments. The management approach considers the internal organization and reporting used by our chief operating decision maker for making decisions, allocating resources and assessing performance. We have identified our chief executive officer as our chief operating decision maker, as he reviews consolidated and segment results when making decisions about allocating resources and assessing performance for us.

Following our decision to expand our business in both building and selling or building and operating solar power projects, we operated our business in three principal reportable business segments in 2015: module segment, energy development segment and electricity generation segment. Following our decision to terminate the Yieldco launch and monetize the majority of our solar power projects in operation, we operated our business in two principal reportable business segments in 2016:

- *Module Segment*, which primarily comprises the design, development, manufacture and sale of solar power products and solar system kits;
- *Energy Segment*, which primarily comprises solar power project development and sale, EPC and development services, O&M services and operating solar power projects and sales of electricity.

### ***Overview of Financial Results***

We evaluate our business using a variety of key financial measures.

#### *Net Revenues*

##### *Module Segment*

Revenues generated from our module segment accounted for 59.0%, 71.8% and 96.1% of our net revenues in 2014, 2015 and 2016, respectively. Our revenues from our module segment are affected primarily by average selling prices per watt and unit volumes shipped, both of which depend on product supply and demand.

##### *Energy Segment*

Revenues generated from our energy segment accounted for 41.0%, 28.2% and 3.9% of our net revenues in 2014, 2015 and 2016, respectively. Our revenues from our energy segment are affected primarily by the timing of the completion and sale of solar power projects. See "Item 4. Information on the Company—B. Business Overview—Sales, Marketing and Customers—Energy Segment—Solar Project Development and Sale" for a description of the status of our solar power projects.

Revenue recognition for our energy segment, especially our solar power projects, are, in many cases, not linear in nature due to the timing of when all relevant revenue recognition criteria have been met. During 2016, we recognized \$22.2 million of revenue from the sale of solar power projects using the full accrual method and \$0.4 million of revenue from the percentage-of-completion method. Our revenue recognition policies for the solar power project development are described in "—Critical Accounting Policies—Revenue Recognition."

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Our revenues from sales to customers are recorded net of estimated returns.

### *Cost of Revenues*

#### Module Segment

The cost of revenues of our module segment consists primarily of the costs of:

- solar cells;
- silicon wafers;
- high purity and solar grade silicon materials;
- materials used in solar cell production, such as metallic pastes;
- other materials for the production of solar modules such as glass, aluminum frames, EVA (ethylene vinyl acetate, an encapsulant used to seal the module), junction boxes and polymer back sheets;
- production labor, including salaries and benefits for manufacturing personnel;
- warranty costs;
- overhead, including utilities, production equipment maintenance, share-based compensation expenses for options granted to employees in our manufacturing department and other support expenses associated with the manufacture of our solar power products;
- depreciation and amortization of manufacturing equipment and facilities, which are increasing as we expand our manufacturing capabilities;
- inventory write-downs;
- depreciation charges relating to under-utilized assets; and
- anti-dumping and countervailing duty costs and true-up charges.

Our cost of revenues increased in 2014 and 2015 and decreased in 2016, in each instance in line with the change in net revenues for the year.

Before June 2009, we typically sold our standard solar modules with a two-year guarantee for defects in materials and workmanship and a 10-year and 25-year warranty against declines of more than 10% and 20%, respectively, from the initial minimum power generation capacity at the time of delivery. In June 2009, we increased our guarantee for defects in materials and workmanship to six years. In August 2011, we increased our guarantee for defects in materials and workmanship to ten years and we warrant that, for a period of 25 years, our standard solar modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97% of the labeled power output;
- from the second year to the 24th year, the actual annual power output decline of the module will be no more than 0.7%; and
- by the end of the 25th year, the actual power output of the module will be no less than 80% of the labeled power output.

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Effective June 2015, we warrant that, for a period of 25 years, our polycrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97.5% of the labeled power output;
- from the second year to the 24th year, the actual annual power output decline will be no more than 0.7%; and
- by the end of the 25th year, the actual power output of the module will be no less than 80.7% of the labeled power output.

Effective June 2015, we warrant that, for a period of 25 years, our monocrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97% of the labeled power output;
- from the second year to the 24th year, the actual annual power output decline will be no more than 0.7%; and
- by the end of the 25th year, the actual power output of the module will be no less than 80.2% of the labeled power output.

Effective August 2016, we lengthened the warranty against decline in our Dymond modules to 30 years. We warrant that, for a period of 30 years, our Dymond polycrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97.5% of the labeled power output;
- from the second year to the 29th year, the actual annual power output decline will be no more than 0.5%; and
- by the end of the 30th year, the actual power output of the module will be no less than 83% of the labeled power output.

Effective August 2016, we warrant that, for a period of 30 years, our Dymond monocrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97% of the labeled power output;
- from the second year to the sixth year, the actual annual power output decline will be no more than 0.7%;
- from the seventh year to the 29th year, the actual annual power output decline will be no more than 0.5%; and
- by the end of the 30th year, the actual power output of the module will be no less than 81.5% of the labeled power output.

In resolving claims under the workmanship guarantee, we have the option of remedying the defect through repair, refurbishment or replacement of equipment. In resolving claims under the performance warranty, we have the right to repair or replace solar modules at our option.

We maintain warranty reserves to cover potential liabilities that could arise under these guarantees and warranties. We currently take a 1% warranty provision against our revenue for sales of solar power products.



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In April 2010, we began entering into agreements with a group of insurance companies with high credit ratings to back up our warranties. Under the terms of the insurance policies, which are designed to match the terms of our solar module product warranty policy, the insurance companies are obliged to reimburse us, subject to certain maximum claim limits and certain deductibles, for the actual product warranty costs that we incur under the terms of our solar module product warranty policy. We record the insurance premiums initially as prepaid expenses and amortize them over the respective policy period of one year. Each prepaid policy provides insurance against warranty costs for modules sold within that policy year. The warranty insurance is renewable annually. See "—Critical Accounting Policies—Warranty Costs."

Total write-downs of inventory included in our cost of revenue were \$17.0 million, \$23.0 million and \$19.5 million in 2014, 2015 and 2016, respectively.

On occasion, we enter into firm purchase commitments to acquire materials from our suppliers. A firm purchase commitment represents an agreement that specifies all significant terms, including the price and timing of the transactions, and includes a disincentive for non-performance that is sufficiently large to make performance probable. This disincentive is generally in the form of a take-or-pay provision, which requires us to pay for committed volumes regardless of whether we actually acquire the materials. We evaluate these agreements and record a loss, if any, on firm purchase commitments using the same way as that used to value inventory losses. We did not record a loss on firm purchase commitments for the years ended December 31, 2014, 2015 and 2016. See "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—Long-term supply agreements may make it difficult for us to adjust our raw material costs should prices decrease. Also, if we terminate any of these agreements, we may not be able to recover all or any part of the advance payments we have made to these suppliers and we may be subject to litigation."

In 2016, we made approximately \$144.3 million of cash deposits pursuant to anti-dumping and countervailing duty rulings in the U.S., of which \$132.2 million were charged to our cost of revenues. In addition, we booked a true-up provision of \$44.1 million primarily associated with prior years' module sales from China to the U.S. following the announcement of the preliminary results of the third administrative review carried out by the U.S. Department of Commerce of the import into the U.S. of Chinese origin solar products using Chinese origin solar cells from China.

### Energy Segment

The cost of revenues of our energy segment consists primarily of the costs of:

- acquiring solar power projects;
- acquiring and developing solar project sites, including interconnection fees and permitting costs;
- solar project EPC and development services
- interest capitalized for solar power projects during construction period;
- operating and maintaining solar project assets, including depreciation and amortization of solar project assets; and
- labor, including salaries and benefits for operating and maintenance personnel.

For solar power projects built by us, we provide a limited workmanship or balance of system warranty against defects in engineering design, installation and construction under normal use, operation and service conditions for a period of up to five years following the energizing of the solar power project. In resolving claims under the workmanship or balance of system warranty, we have the option of remedying through repair, refurbishment or replacement of equipment. We have entered into

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similar workmanship warranties with our suppliers to back up our warranties. We maintain warranty reserves to cover potential liabilities that could arise under these guarantees and warranties.

### *Gross Profit/Gross Margin*

Our gross profit is affected by a number of factors, including the success of and contribution from both of our operating segments, the average selling price of our solar power products, our product mix, loss on firm purchase commitments under long-term supply agreements, our ability to cost-effectively manage our supply chain, the timing of completion of construction of our solar power projects, the timing and pricing of project sales and project financing.

### *Operating Expenses*

Our operating expenses include selling expenses, general and administrative expenses, research development expenses and other operating income, net. Our operating expenses increased in 2014, 2015 and decreased in 2016. We expect our operating expenses to increase as our net revenues grow in the future.

### *Selling Expenses*

Selling expenses consist primarily of salaries and benefits, transportation and customs expenses for delivery of our products, sales commissions for our sales personnel and sales agents, advertising, promotional and trade show expenses, and other sales and marketing expenses. Our selling expenses increased in 2014, 2015 and decreased in 2016. We expect as we increase our sales volumes in the future, our selling expenses will increase as we hire additional sales personnel, target more markets and initiate additional marketing programs to reach our goal of continuing to be a leading global brand.

### *General and Administrative Expenses*

General and administrative expenses consist primarily of salaries and benefits for our administrative and finance personnel, consulting and professional service fees, government and administration fees and insurance fees. Our general and administrative expenses increased in 2014, 2015 and 2016.

### *Research and Development Expenses*

Research and development expenses consist primarily of costs of raw materials used in our research and development activities, salaries and benefits for research and development personnel and prototype and equipment costs related to the design, development, testing and enhancement of our products and our silicon reclamation program. In 2014, 2015 and 2016, our research and development expenses accounted for 0.4%, 0.5% and 0.6% of our total net revenues. We expect that our research and development expenses will increase as we devote more efforts to research and development in the future.

### *Other Operating Income, Net*

Other operating income, net, primarily consists of gains or losses on disposal of solar power systems and property, plant and equipment, and government grants received. In prior years, the net gain or loss on disposal of property, plant and equipment and government grants were immaterial and included in general and administrative expenses. In 2016, given that we have begun to separately present the results of monetization of our solar power systems, we reclassified the prior year immaterial amounts to conform to the current year's presentation.

[Table of Contents](#)*Share-based Compensation Expenses*

Under our share incentive plan, as of December 31, 2016, we had outstanding:

- 466,286 stock options;
- 349,500 restricted shares; and
- 1,402,859 restricted share units.

For a description of the stock options, restricted share units and restricted shares granted, including the exercise prices and vesting periods, see "Item 6. Directors, Senior Management and Employees—B. Compensation of Directors and Executive Officers—Share-based Compensation—Share Incentive Plan." We recognize share-based compensation to employees as expenses in our statement of operations based on the fair value of the equity awarded on the date of the grant. The compensation expense is recognized over the period in which the recipient is required to provide services in exchange for the equity award.

We have made an estimate of expected forfeitures and recognize compensation costs only for those equity awards that we expect to vest. We estimate our forfeitures based on past employee retention rates and our expectations of future retention rates. We prospectively revise our forfeiture rates based on actual history. Our share-based compensation expenses may change based on changes in actual forfeitures.

For the year ended December 31, 2016, we recorded share-based compensation expenses of approximately \$7.8 million, compared to approximately \$6.0 million for the year ended December 31, 2015. We have categorized these share-based compensation expenses in our cost of revenues, selling expenses, general and administrative expenses and research and development expenses, depending on the job functions of the individuals to whom we granted the options, restricted shares and restricted share units.

The following table sets forth, for the periods indicated, the allocation of our share-based compensation expenses both in absolute amounts and as a percentage of total share-based compensation expenses.

	Years Ended December 31,					
	2014		2015		2016	
	(In thousands of \$, except for percentages)					
Share-based compensation expenses included in:						
Cost of revenues	807	15.9%	697	11.7%	815	10.5%
Selling expenses	975	19.1	1,088	18.2	1,216	15.7
General and administrative expenses	3,008	59.1	3,889	65.2	5,254	67.7
Research and development expenses	298	5.9	292	4.9	472	6.1
Total share-based compensation expenses	<u>5,088</u>	<u>100.0%</u>	<u>5,966</u>	<u>100.0%</u>	<u>7,757</u>	<u>100.0%</u>

We expect to incur additional share-based compensation expenses as we expand our operations.

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### *Interest Expense*

Interest expense consists primarily of interest incurred with respect to our short and long-term borrowings from Chinese commercial banks and international banks, short-term commercial papers, and the convertible senior notes issued by us in February 2014.

### *Gain (Loss) on Change in Fair Value of Derivatives*

We have entered into foreign currency derivatives to hedge part of the risks of our expected cash flows, mainly in Japanese yen, Euros, Canadian dollars and Renminbi. In 2014, we had a gain on the change in fair value of derivatives of \$19.7 million, which was related to change in fair value of foreign currency derivatives. In 2015, we had a loss on the change in fair value of derivatives of \$12.2 million, which included a \$3.7 million loss on change in fair value of foreign currency derivatives, a \$8.9 million loss on change in fair value of warrants and a \$0.4 million gain on change in fair value of interest rate swap/swaption contracts. The warrants were issued in conjunction with the \$180 million in financing arranged by Credit Suisse AG, Singapore Branch, or Credit Suisse, in the fourth quarter of 2015. These warrants can be settled in cash at the discretion of the holder and as a result they are derivative liabilities that were recorded at fair value at issuance and are subsequently marked to market at the end of each reporting period. In 2016, we had a gain on the change in fair value of derivatives of \$27.3 million, which included a \$4.8 million gain on change in fair value of foreign currency derivatives, a \$24.5 million gain on change in fair value of warrants and a \$2.0 million loss in change in fair value of interest rate swap/swaption contracts.

### *Income Tax Expense*

We recognize deferred tax assets and liabilities for temporary differences between the financial statement and income tax bases of assets and liabilities. Valuation allowances are provided against deferred tax assets when management cannot conclude that it is more likely than not that some portion or all deferred tax assets will be realized.

We are governed by the CBCA, a federal statute of Canada and are registered to carry on business in Ontario. This subjects us to both Canadian federal and Ontario provincial corporate income taxes. Our combined tax rates were all 26.5% for the years ended 2014, 2015 and 2016.

PRC enterprise income tax is calculated based on taxable income determined under PRC accounting principles with a uniform enterprise income tax rate of 25%. Our major operating subsidiaries, CSI Solartronics, CSI New Energy Holding, CSI Cells, CSI Luoyang Manufacturing, CSI Technologies and CSI Changshu Manufacturing, are subject to taxation in China. Certain of these subsidiaries once enjoyed preferential tax benefits, such as a reduced enterprise income tax rate of 12.5%. However, these benefits have now expired. In 2016, only our partially owned subsidiary, Suzhou Sanysolar, which was recognized as an HNTE and satisfied applicable statutory requirements, enjoyed a reduced enterprise income tax rate of 15%. In 2017, Suzhou Sanysolar, CSI Cells and CSI Changshu Manufacturing are qualified as HNTE and are expected to enjoy a reduced enterprise income tax rate of 15% subject to applicable statutory requirements. In addition, our wholly-owned subsidiary, Canadian Solar Sunenergy (Baotou) Co., Ltd. is now applying for preferential tax benefits. As most of the preferential tax benefits enjoyed by our PRC subsidiaries expired, their effective tax rates increased significantly.

The EIT Law provides that enterprises established outside China whose "de facto management body" is located in China are considered PRC tax residents and will generally be subject to the uniform 25% enterprise income tax rate on their global income. Under the implementation regulations, the term "de facto management body" is defined as substantial and overall management and control over such aspects as the production and business, personnel, accounts and properties of an enterprise. Circular 82 further provides certain specific criteria for determining whether the "de facto management

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body" of a PRC-controlled offshore incorporated enterprise is located in the PRC. The criteria include whether (a) the premises where the senior management and the senior management bodies responsible for the routine production and business management of the enterprise perform their functions are mainly located within the PRC, (b) decisions relating to the enterprise's financial and human resource matters are made or subject to approval by organizations or personnel in the PRC, (c) the enterprise's primary assets, accounting books and records, company seals, and board and shareholders' meeting minutes are located or maintained in the PRC and (d) 50% or more of voting board members or senior executives of the enterprise habitually reside in the PRC. Although Circular 82 only applies to offshore enterprises controlled by enterprises or enterprise groups located within the PRC, the determining criteria set forth in the Circular 82 may reflect the tax authorities' general position on how the "de facto management body" test may be applied in determining the tax resident status of offshore enterprises. As the tax resident status of an enterprise is subject to the determination by the PRC tax authorities, uncertainties remain with respect to the interpretation of the term "de facto management body" as applicable to our offshore entities. As a substantial number of the members of our management team are located in China, we may be considered as a PRC tax resident under the EIT Law and, therefore, subject to the uniform 25% enterprise income tax rate on our global income.

Under the EIT Law and implementing regulations issued by the State Council, the PRC withholding tax rate of 10% is generally applicable to interest and dividends payable to investors that are not "resident enterprises" in the PRC, to the extent such interest or dividends have their sources within the PRC. We consider the undistributed earnings of our PRC subsidiaries (approximately \$284.3 million as of December 31, 2016) to be indefinitely reinvested in China, and, consequently, we have made no provision for withholding taxes for those amounts.

### ***Critical Accounting Policies***

We prepare financial statements in accordance with U.S. GAAP, which requires us to make judgments, estimates and assumptions that affect:

- the reported amounts of our assets and liabilities,
- the disclosure of our contingent assets and liabilities at the end of each fiscal period, and
- the reported amounts of revenues and expenses during each fiscal period.

We regularly evaluate these judgments, estimates and assumptions based on our own historical experience, knowledge and assessment of current business and other conditions, our expectations regarding the future based on available information and reasonable assumptions, which together form our basis for making judgments about matters that are not readily apparent from other sources. Since the use of estimates is an integral component of the financial reporting process, our actual results could differ from those estimates. Some of our accounting policies require a higher degree of judgment than others in their application.

When reviewing our financial statements, the following should be considered:

- our selection of critical accounting policies,
- the judgment and other uncertainties affecting the application of such policies, and
- the sensitivity of reported results to changes in conditions and assumptions.

We believe the following accounting policies involve the most significant judgments and estimates used in the preparation of our financial statements.

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### *Revenue Recognition*

#### Module Segment

We recognize revenues for solar product sales when persuasive evidence of an arrangement exists, delivery of the product has occurred and title and risk of loss has passed to the customers, the sales price is fixed or determinable and the collectability of the resulting receivable is reasonably assured. If collectability is not reasonably assured, we recognize revenue only upon collection of cash. Revenues also include reimbursements received from customers for shipping and handling costs. Sales agreements typically contain customary product warranties but do not contain any post-shipment obligations nor any return or credit provisions.

A majority of our contracts provide that products are shipped under the terms of free on board, or FOB, ex-works, or cost, insurance and freight, or CIF, and delivered duty paid, or DDP. Under FOB, we fulfill our obligation to deliver when the goods have passed over the ship's rail at the named port of shipment. The customer has to bear all costs and risks of loss or damage to the goods from that point. Under ex-works, we fulfill our obligation to deliver when we have made the goods available at our premises to the customer. The customer bears all costs and risks involved in taking the goods from our premises to the desired destination. Under CIF, we must pay the costs, marine insurance and freight necessary to bring the goods to the named port of destination but the risk of loss of or damage to the goods as well as any additional costs due to events occurring after the time the goods have been delivered on board the vessel, is transferred to the customer when the goods pass the ship's rail in the port of shipment. Under DDP, we are responsible for making a safe delivery of goods to a named destination, paying all transportation expenses and the duty. We bear the risks and costs associated with supplying the goods to the delivery location.

As of December 31, 2014, 2015 and 2016, we had inventories of \$7.5 million, \$7.3 million and \$5.9 million, respectively, relating to sales to customers where revenues were not recognized because the collection of payment was not reasonably assured. The delivered products remain as inventories on our consolidated balance sheets, regardless of whether title has been transferred. In such cases, we recognize revenues, adjust inventories and recognize cost of revenues when payment is collected from customers.

Our revenues from sales to customers are recorded net of estimated returns. We periodically accrue an estimate for sales returns at the time of sale using our judgment based on historical results and anticipated returns as a result of current period sales. As of December 31, 2014, 2015 and 2016, we had a sales return reserve of \$0.1 million, nil and nil, respectively. To the extent actual returns differ from these estimates, revisions may be required.

We enter into toll manufacturing arrangements in which we receive cells and return finished modules. In such cases, the title of the cells received and risk of loss remains with the seller. As a result, we do not recognize inventory on the consolidated balance sheets. We recognize a service fee as revenue when the processed modules are delivered. During the years ended December 31, 2014, 2015 and 2016, we recognized revenue of \$16.6 million, \$6.8 million and nil, respectively, under the toll manufacturing arrangements.

#### Energy Segment

We use the percentage-of-completion method to recognize revenues for projects for which we provide EPC and development services, unless we cannot make reasonably dependable estimates of the costs to complete the contract, in which case we would use the completed contract method. The

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percentage-of-completion method is considered appropriate in circumstances in which reasonably dependable estimates can be made and in which all the following conditions exist:

- contracts executed by the parties normally include provisions that clearly specify the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement;
- the buyer can be expected to satisfy all obligations under the contract; and
- the contractor can be expected to perform all contractual obligations.

We use the cost-to-cost method to measure the percentage of completion and recognize revenue based on the estimated progress to completion. We periodically revise our profit estimates based on changes in facts, and immediately recognize any losses that are identified on contracts. Incurred costs include all direct material, labor, subcontractor cost, and other associated costs. We recognize job material costs as incurred costs when the job materials have been permanently attached or fitted to the solar power projects as required by the engineering design. The construction periods normally extend beyond six months and less than one year.

The percentage-of-completion method of revenue recognition requires us to make estimates of net contract revenues and costs to complete contracts. In making such estimates, management judgments are required to evaluate significant assumptions including the amount of net contract revenues, the cost of materials and labor, expected labor productivity, the impact of potential variances in schedule completion, and the impact of any penalties, claims, change orders, or performance incentives.

If estimated total costs on any contract are greater than the net contract revenues, we recognize the entire estimated loss in the period the loss becomes known. The cumulative effect of the revisions to estimates related to net contract revenues and costs to complete contracts, including penalties, claims, change orders, performance incentives, anticipated losses, and others are recorded in the period in which revisions to the estimates are identified and the amounts can be reasonably estimated. The effect of the changes on future periods are recognized as if the revised estimates had been used since revenue was initially recognized under the contract. Such revisions could occur in any reporting period, and the effects may be material depending on the size of the contracts or the changes in estimates.

We recognize revenue from the sale of project assets owned by us in accordance with Accounting Standards Codification, or ASC, 360-20, Real Estate Sales. For these transactions, we have determined that the project assets, which represent the costs of constructing solar power projects, represent "integral" equipment and as such, the entire transaction is in substance the sale of real estate and subject to the revenue recognition guidance under ASC 360-20 Real Estate Sales. We record the sale as revenue using one of the following revenue recognition methods, based upon evaluation of the substance and form of the terms and conditions of such real estate sales arrangements:

- Full accrual method. We record revenue for certain sales arrangements after construction of discrete portions of the project or after the entire project is substantially complete. We recognize revenue and profit using the full accrual method when all of the following requirements are met: (a) the sales are consummated; (b) the buyer's initial and continuing investments are adequate to demonstrate its commitment to pay; (c) the receivable is not subject to any future subordination; and (d) we have transferred the usual risk and rewards of ownership to the buyer. Specifically, we consider the following factors in determining whether the sales have been consummated: (a) the parties are bound by the terms of a contract; (b) all consideration has been exchanged; (c) permanent financing for which the seller is responsible has been arranged; and (d) all conditions precedent to closing have been performed, and we do not have any substantial continuing involvement with the project.

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- Percentage-of-completion method. We apply the percentage-of-completion method, as further described below, to certain real estate sales arrangements where we convey control of land or land rights, (a) when a sale has been consummated; (b) we have transferred the usual risks and rewards of ownership to the buyer; (c) the initial and continuing investment criteria have been met; (d) we have the ability to estimate its costs and progress toward completion, and (e) all other revenue recognition criteria have been met. The initial and continuing investment requirements, which demonstrate a buyer's commitment to honor their obligations for the sales arrangement, can typically be met through the receipt of cash or an irrevocable letter of credit from a highly creditworthy lending institution. When evaluating whether the usual risks and rewards of ownership have transferred to the buyer, we consider whether we have or may be contingently required to have any prohibited forms of continuing involvement with the project. Prohibited forms of continuing involvement in a real estate sales arrangement may include us retaining risks or rewards associated with the project that are not customary with the range of risks or rewards that an EPC contractor may assume.
- Installment method. Depending on whether the initial and continuing investment requirements have been met, and whether collectability from the buyer is reasonably assured, we may align our revenue recognition and release of project assets or deferred project costs to cost of sales with the receipt of payment from the buyer if the sale has been consummated and we have transferred the usual risks and rewards of ownership to the buyer.

On occasion, we sell an interest in the project assets to a third party with an option to repurchase those assets in the future. We consider that there are continuing involvements in the projects and thus no profit or revenue is recognized. The transactions are accounted for as financing arrangement or profit-sharing arrangement.

- Financing method. If we determine that it is likely the repurchase option will be exercised, the transactions are accounted for as financing arrangement. All the project assets remain on our consolidated balance sheets. The buyer's shares of earnings in the projects, during each period are reflected as interest expenses with a corresponding increase to the respective financing liabilities. Further distributions from the projects are reflected as a decrease to the financing liabilities. As of December 31, 2015 and 2016, we recorded financing liabilities of \$3.2 million and \$459.3 million, in other non-current liabilities and financing liabilities on the consolidated balance sheet, respectively. The balances had been net of distributions of nil and \$1.4 million as of December 31, 2015 and 2016, respectively.
- Profit-sharing arrangement. If we determine that it is unlikely the repurchase option will be exercised, the transactions are accounted for as profit-sharing arrangement. We reclassify the property and any related existing debt assumed by the buyer to an investment account on its balance sheet and any cash received from the buyer is credited to the investment account. The amount will be recorded in investments in affiliates or other liabilities on the balance sheet depending on whether the amount is a debit or credit. As of December 31, 2015 and 2016, we recorded nil and \$4.8 million, respectively, in other liabilities on the consolidated balance sheet.

During 2016, we recognized \$22.2 million and \$0.4 million of revenue from the sale of solar power projects using the full accrual method and percentage-of-completion method, respectively.

We allocate revenue for transactions involving multiple-element arrangements to each unit of accounting on a relative fair value basis. We estimate fair value on each unit of accounting on the following basis (a) vendor-specific objective evidence of selling price, if it exists, otherwise, (b) third-party evidence of selling price. If neither (a) nor (b) exists, management's best estimate of the selling price for that unit of accounting is used. We recognize revenue for each unit of accounting when the revenue recognition criteria have been met.



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Electricity revenue is generated primarily from various non-affiliated parties under long-term PPAs and performance based energy incentives. We recognize electricity revenue when persuasive evidence of an arrangement exists, electricity has been generated and transmitted to the grid, the price of electricity is fixed or determinable and the collectability of the resulting receivable is reasonably assured.

Performance-based energy incentives are awarded under certain state programs for the delivery of renewable electricity. We recognize performance-based energy incentives of electricity revenue generated from solar power systems when the condition attached to it has been met and there is reasonable assurance that the grant will be received. During the year ended December 31, 2016, we recognized government subsidy of \$22.8 million related to electricity generated from solar power systems and assets held-for-sale in revenue.

Certain PPAs are accounted for as operating leases in accordance with ASC 840-20, Operating Leases. Minimum lease payments are recognized over the term of the lease and contingent rents are recorded when the achievement of the contingency becomes probable in accordance with the U.S. GAAP. None of our operating leases have minimum lease payments, so revenue from these contracts is recognized as energy and any related renewable energy attributes are delivered. During the year ended December 31, 2016, the total lease income recognized was \$6.2 million related to PPAs.

*Warranty Costs*

Before June 2009, we typically sold our standard solar modules with a two-year guarantee for defects in materials and workmanship and a 10-year and 25-year warranty against declines of more than 10% and 20%, respectively, from the initial minimum power generation capacity at the time of delivery. In June 2009, we increased our guarantee for defects in materials and workmanship to six years. In August 2011, we increased our guarantee for defects in materials and workmanship to ten years and we warrant that, for a period of 25 years, our standard solar modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97% of the labeled power output;
- from the second year to the 24th year, the actual annual power output decline of the module will be no more than 0.7%; and
- by the end of the 25th year, the actual power output of the module will be no less than 80% of the labeled power output.

Effective June 2015, we warrant that, for a period of 25 years, our polycrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97.5% of the labeled power output;
- from the second year to the 24th year, the actual annual power output decline will be no more than 0.7%; and
- by the end of the 25th year, the actual power output of the module will be no less than 80.7% of the labeled power output.

Effective June 2015, we warrant that, for a period of 25 years, our monocrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97% of the labeled power output;

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- from the second year to the 24th year, the actual annual power output decline will be no more than 0.7%; and
- by the end of the 25th year, the actual power output of the module will be no less than 80.2% of the labeled power output.

Effective August 2016, we lengthened the warranty against decline in our Dymond modules to 30 years. We warrant that, for a period of 30 years, our Dymond polycrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97.5% of the labeled power output;
- from the second year to the 29th year, the actual annual power output decline will be no more than 0.5%; and
- by the end of the 30th year, the actual power output of the module will be no less than 83% of the labeled power output.

Effective August 2016, we warrant that, for a period of 30 years, our Dymond monocrystalline modules will maintain the following performance levels:

- during the first year, the actual power output of the module will be no less than 97% of the labeled power output;
- from the second year to the sixth year, the actual annual power output decline will be no more than 0.7%;
- from the seventh year to the 29th year, the actual annual power output decline will be no more than 0.5%; and
- by the end of the 30th year, the actual power output of the module will be no less than 81.5% of the labeled power output.

In resolving claims under the workmanship guarantee, we have the option of remedying the defect through repair, refurbishment or replacement of equipment. In resolving claims under the performance warranty, we have the right to repair or replace solar modules, at our option.

For solar power projects built by us, we provide a limited workmanship or balance of system warranty against defects in engineering design, installation and construction under normal use, operation and service conditions for a period of up to five years following the energizing of the solar power project. In resolving claims under the workmanship or balance of system warranty, we have the option of remedying through repair, refurbishment or replacement of equipment. We have entered into similar workmanship warranties with our suppliers to back up our warranties.

We maintain warranty reserves to cover potential liabilities that could arise under these guarantees and warranties. Due to limited warranty claims to date, we accrue the estimated costs of warranties based on an assessment of our competitors' and our own actual claim history, industry-standard accelerated testing, estimates of failure rates from our quality review, and other assumptions that we believe to be reasonable under the circumstances. Actual warranty costs are accumulated and charged against the accrued warranty liability. To the extent that accrual for warranty costs differs from the estimates, we will prospectively revise our accrual rate. We currently record a 1% warranty provision against our revenue for sales of solar power products.

In April 2010, we began entering into agreements with a group of insurance companies with high credit ratings to back up our warranties. Under the terms of the insurance policies, which are designed to match the terms of our solar module product warranty policy, the insurance companies are obliged to reimburse us, subject to certain maximum claim limits and certain deductibles, for the actual product

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warranty costs that we incur under the terms of our solar module product warranty policy. We record the insurance premiums initially as prepaid expenses and amortize them over the respective policy period of one year. Each prepaid policy provides insurance against warranty costs for modules sold within that policy year.

The warranty obligations that we record relate to defects that existed when a product was sold to the customer. The event that we are insured against under our insurance policies is the sale of a defective product. Accordingly, we view the insured loss attributable to the shipment of defective products covered under our warranty as analogous to potential claims, or claims that have been incurred as of the product shipment date, but not yet reported. We expect to recover all or part of the cost of our obligations with respect to the defective products through insurance claims. Therefore, our accounting policy is to record an asset for the amount determined to be probable of recovery from the insurance claims (not to exceed the amount of the total losses incurred), consistent with the guidance set forth at ASC 410-30.

We consider the following factors in determining whether an insurance receivable that is probable and recoverability can be reasonably estimated:

- reputation and credit rating of the insurance company; and
- comparison of the solar module product warranty policy against the terms of the insurance policies (to ensure valid warranty claims submitted by customers will be covered by the policy and therefore reimbursed by the insurance companies).

With respect to specific claims submitted, written communications with the insurance company are monitored to ensure the claim has been promptly submitted to and accepted by the insurance company, and reimbursements have been subsequently collected. The successfully processed claims provide further evidence that the insurance policies are functioning as anticipated.

To the extent uncertainties regarding the solvency of insurance carriers or the legal sufficiency of insurance claims (including if they became subject to litigation) were to arise, we would establish a provision for uncollectible amounts based on the specific facts and circumstances. To date, no provision has been determined to be necessary. If an accrual for warranty costs differs from the estimates and we prospectively change our accrual rate, this may result in a change to the amount expected to be recovered from insurance.

As the warranty obligation and related recovery asset do not meet the criteria for offsetting, the gross amounts are reported in our consolidated balance sheets. The asset is expected to be realized over the life of the warranty obligation, which is 25 years and is treated as a non-current asset consistent with the underlying warranty obligation. When a specific claim is submitted, and the corresponding insurance proceeds will be collected within twelve months of the balance sheet date, we will reclassify that portion of the receivable as being current. The insurance receivable amounts were \$43.4 million, \$56.6 million and \$61.9 million at the end of 2014, 2015 and 2016, respectively, and were included as a component of other non-current assets.

We made downward adjustments to our accrued warranty costs of \$16.9 million and other non-current assets of \$15.2 million, for the year ended December 31, 2016, to reflect the general declining trend of the average selling price of solar modules, which is a primary input into the estimated warranty costs. Accrued warranty costs (net effect of adjustments) of \$18.6 million, \$15.9 million and \$9.8 million are included in cost of revenues for the years ended December 31, 2014, 2015 and 2016, respectively.

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### *Impairment of Long-lived Assets*

We assess the recoverability of the carrying value of long-lived assets when an indicator of impairment has been identified. We review the long-lived assets each reporting period to assess whether impairment indicators are present. For purposes of recognition and measurement of an impairment loss, a long-lived asset or assets is grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. For long-lived assets, when impairment indicators are present, we compare undiscounted future cash flows, including the eventual disposition of the asset group at market value, to the asset group's carrying value to determine if the asset group is recoverable. Assessments also consider changes in asset group utilization, including the temporary idling of capacity and the expected timing of placing this capacity back into production. If the sum of the expected undiscounted cash flows is less than the carrying amount of the assets, we will recognize an impairment loss based on the fair value of the assets. We recorded impairment charges of \$1.6 million, \$7.0 million and \$22.8 million related to the write-down of wafer sorting machine and other fixed assets in China in 2014, certain idle assets in China and Canada in 2015, and welding machine and three module production lines in China and Canada in 2016, respectively.

### *Allowance for Doubtful Accounts*

We conduct credit evaluations of our customers and generally do not require collateral or other security from them. We establish allowances for doubtful accounts primarily based upon the age of our receivables and factors surrounding the credit risk of specific customers. As of December 31, 2014, 2015 and 2016, an allowance for doubtful accounts receivable of \$31.8 million, \$28.2 million and \$26.1 million, respectively, was established for certain customers for whom management sees a credit risk on the collection of accounts receivable balances. The allowance for doubtful accounts receivable as of December 31, 2014, 2015 and 2016 included \$14.8 million, \$14.0 million and \$13.0 million, respectively, relating to one customer in China with severe liquidity issues. We have been purchasing insurance from Sinasure since 2009 for certain of its accounts receivable trade in order to reduce its exposure to bad debt loss. We establish allowances for all doubtful accounts according to our allowance policy regardless of whether such accounts are covered by Sinasure insurance. For the amounts recoverable from Sinasure, we recorded \$0.6 million, \$0.4 million and \$0.4 million in prepaid expenses and other current assets as of December 31, 2014, 2015 and 2016, respectively.

With respect to advances to suppliers, primarily suppliers of machinery, silicon raw materials, solar ingots, wafers and cells, we perform ongoing credit evaluations of their financial condition. We generally do not require collateral or security against advances to suppliers, as they tend to be recurring supply partners. However, we maintained a reserve for potential credit losses for advances to suppliers as of December 31, 2014, 2015 and 2016 of \$37.7 million, \$28.6 million and \$19.5 million, respectively. The reserves as of December 31, 2016 include allowances on advances to Deutsche Solar of \$14.2 million.

### *Inventories*

Before 2016, inventories were stated at the lower of cost or market. In 2016, we adopted Accounting Standards Update, or ASU, 2015-11 prospectively, and inventories are stated at the lower of cost or net realizable value as of December 31, 2016. Cost is determined by the weighted-average method. Cost of inventories consists of direct materials and, where applicable, direct labor costs, tolling costs and those overhead costs that have been incurred in bringing the inventories to their present location and condition.

Adjustments are recorded to write down the cost of obsolete and excess inventories to the estimated net realizable value based on historical and forecast demand. The write-down of inventories

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for the years ended December 31, 2014, 2015 and 2016 were \$17.0 million, \$23.0 million and \$19.5 million, respectively.

We outsource portions of our manufacturing process. These outsourcing arrangements may or may not include transfer of title of the raw materials inventory to third-party manufacturers. Such raw materials are recorded as raw materials inventory when purchased from suppliers. For those outsourcing arrangements in which the title is not transferred, we maintain such inventory on our consolidated balance sheets as raw materials inventory while it is in physical possession of the third-party manufacturer. Upon receipt, processed inventory is reclassified to work-in-process inventory and a processing fee is paid to the third-party manufacturer.

For those outsourcing arrangements, characterized as sales, in which title (including risk of loss) is transferred to the third-party manufacturer, we are constructively obligated, through raw materials sales agreements and processed inventory purchase agreements, which have been entered into with the third-party manufacturer simultaneously, to repurchase the inventory once processed. In this case, the raw materials remain classified as raw material inventory while in physical possession of the third-party manufacturer and cash is received, which is classified as "advances from customers" on the consolidated balance sheets and not as revenue or deferred revenue. Cash payments for outsourcing arrangements, which require prepayments for repurchase of the processed inventory, are classified as "advances to suppliers" on the consolidated balance sheets. There is no right of offset for these arrangements and accordingly, "advances from customers" and "advances to suppliers" remain on the consolidated balance sheets until the processed inventory is repurchased.

On occasion, we enter into firm purchase commitments to acquire materials from its suppliers. A firm purchase commitment represents an agreement that specifies all significant terms, including the price and timing of the transactions, and includes a disincentive for non-performance that is sufficiently large to make performance probable. This disincentive is generally in the form of a take-or-pay provision, which requires us to pay for committed volumes regardless of whether we actually acquire the materials. We evaluate these agreements and record a loss, if any, on firm purchase commitments using the same way as that used to value inventory losses.

### *Project Assets*

Project assets consist primarily of capitalized costs relating to solar power projects in various stages of development prior to the intended sale of the solar power projects to a third party. These costs include certain acquisition costs, land costs and costs for developing and constructing a solar power system. Development costs can include legal, consulting, permitting, and other similar costs. Construction costs can include execution of field construction, installation of solar equipment, solar modules and related equipment. Interest costs incurred on debt during the construction phase and all deferred financing costs amortized during the construction phase are also capitalized within project assets.

Solar power projects are preliminarily classified as project assets unless we have intention not to sell them to third parties. In that case, they will be classified as solar power systems on the balance sheet. During the development phase, solar power projects are accounted for in accordance with the recognition, initial measurement and subsequent measurement subtopics of ASC 970-360, as they are considered in substance real estates. The costs to construct solar power projects are presented as operating activities or investing activities in the consolidated statement of cash flows, if they are related to project assets or solar power systems, respectively. While the solar power projects are in the development phase, they are generally classified as non-current assets, unless it is anticipated that construction will be completed and the sale will occur within one year.

Once the development of the solar power projects is substantially complete and the projects reach COD, appropriateness of the classification of the solar power projects is re-assessed based on the

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circumstances at that time. Solar power projects that we intend to sell, which meet the criteria of ASC 360-10-45-9 on COD, are classified as project assets—current. Solar power projects that we intend to hold and operate to generate electricity are still classified as solar power systems.

We review project assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. We consider a project commercially viable or recoverable if it is anticipated to be sold for a profit once it is either fully developed or fully constructed. We consider a partially developed or partially constructed project commercially viable or recoverable if the anticipated selling price is higher than the carrying value of the related project assets. We examine a number of factors to determine if the project will be recoverable, the most notable of which include whether there are any changes in environmental, ecological, permitting, market pricing or regulatory conditions that impact the project. Such changes could cause the costs of the project to increase or the selling price of the project to decrease. If a project is not considered recoverable, we impair the respective project assets and adjust the carrying value to the estimated recoverable amount, with the resulting impairment recorded within operations. We recorded impairment charges for project assets of \$2.3 million, nil and \$3.0 million for the years ended December 31, 2014, 2015 and 2016, respectively.

Project assets are often held in separate legal entities which are formed for the special purpose of constructing the project assets. We refer to these entities as "project companies". We consolidated project companies as described in Note 2 "Summary of Principal Accounting Policies—(b) Basis of consolidation" to our consolidated financial statements for the year ended December 31, 2016 included in this annual report on Form 20-F. The cash paid to the non-controlling interest in connection with disposal of the consolidated project companies was recorded as a financing activity in the consolidated statement of cash flows.

We do not depreciate the project assets. Any revenue generated from a solar power system connected to the grid will be considered incidental revenue and accounted for as a reduction of the capitalized project costs for development. If circumstances change, and we begin to operate the project assets for the purpose of generating income from the sale of electricity, the project assets will be reclassified to solar power systems.

### *Income Taxes*

Deferred income taxes are recognized for temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements, net tax loss carry-forwards and credits using the enacted tax rates expected to apply to taxable income in the periods in which the deferred tax liability or asset is expected to be settled or realized. Deferred tax assets are reduced by a valuation allowance when it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible for tax purposes. We have recognized a valuation allowance of \$53.0 million, \$56.0 million and \$71.5 million as of December 31, 2014, 2015 and 2016, respectively.

Current income taxes are provided for in accordance with the laws of the relevant taxing authority. Before 2016, the components of the deferred tax assets and liabilities were individually classified as current and non-current based on the characteristics of the underlying assets and liabilities, or the expected timing of their use when they do not relate to a specific asset or liability. In 2016, we adopted ASU2015-17 prospectively and did not revise prior periods, and as of December 31, 2016, the components of the deferred tax assets and liabilities are all classified as non-current on the consolidated balance sheet.

Income tax expense includes (a) deferred tax expense, which generally represents the net change in the deferred tax asset or liability balance during the year plus any change in valuation allowances; (b) current tax expense, which represents the amount of tax currently payable to or receivable from a

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taxing authority; and (c) non-current tax expense, which represents the increases and decreases in amounts related to uncertain tax positions from prior periods and not settled with cash or other tax attributes. We only recognize tax benefits related to uncertain tax positions when such positions are more likely than not of being sustained upon examination. For such positions, the amount of tax benefit that we recognize is the largest amount of tax benefit that is more than fifty percent likely of being sustained upon the ultimate settlement of such uncertain tax position. We record penalties and interests associated with the uncertain tax positions as a component of income tax expense.

We use the flow-through method to account for investment tax credits earned on qualifying projects placed into service. Under this method the investment tax credits are recognized as a reduction to income tax expense in the year the credit arises. The use of the flow-through method also results in a basis difference from the recognition of a deferred tax liability and an immediate income tax expense for reduced future tax depreciation of the related assets. Such basis differences are accounted for pursuant to the income statement method.

### ***Recently Issued Accounting Pronouncements***

In May 2014, the Financial Accounting Standards Board, or FASB, issued ASU 2014-09, Revenue from Contracts with Customers (Topic 606), to clarify the principles of recognizing revenue and create common revenue recognition guidance between U.S. GAAP and International Financial Reporting Standards. An entity has the option to apply the provisions of ASU 2014-09 either retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying this standard recognized at the date of initial application. ASU 2014-09 is effective for fiscal years and interim periods within those years beginning after December 15, 2016, and early adoption is not permitted. In August 2015, the FASB updated this standard to ASU 2015-14. The amendments in this Update defer the effective date of ASU 2014-09 and provide that ASU 2014-09 should be applied to annual reporting periods beginning after December 15, 2017 and earlier application is permitted only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period.

We currently plan to adopt ASU 2014-09 in the period beginning from January 1, 2018 using the full retrospective approach, however, a final decision regarding the adoption method has not been made at this time. Our final determination will depend on a number of factors including the process of finalizing the impact to our financial results and in particular on the timing and extent of revenue recognition for the sales of project assets.

In February 2015, the FASB issued ASU 2015-02, Consolidation (Topic 810)—Amendments to the Consolidation Analysis. ASU 2015-02 modifies existing consolidation guidance related to (i) limited partnerships and similar legal entities, (ii) the evaluation of variable interests for fees paid to decision makers or service providers, (iii) the effect of fee arrangements and related parties on the primary beneficiary determination, and (iv) certain investment funds. These changes are expected to limit the number of consolidation models and place more emphasis on risk of loss when determining a controlling financial interest. ASU 2015-02 is effective for fiscal years and interim periods within those years beginning after December 15, 2015. The adoption of ASU 2015-02 effective January 1, 2016 did not have a significant impact on the consolidated financial statements and associated disclosures.

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In January 2016, the FASB issued ASU 2016-01, Financial Instruments — Overall (Subtopic 825-10)—Recognition and Measurement of Financial Assets and Financial Liabilities. ASU 2016-01 changes how entities measure certain equity investments and present changes in the fair value of financial liabilities measured under the fair value option that are attributable to their own credit. The guidance also changes certain disclosure requirements and other aspects of current U.S. GAAP. ASU 2016-01 is effective for fiscal years and interim periods within those years beginning after December 15, 2017, and certain provisions of the guidance may be early adopted. We are still evaluating the impact ASU 2016-01 will have on the financial statements and associated disclosures.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). This update requires an entity to recognize lease assets and lease liabilities on the balance sheet and to disclose key information about the entity's leasing arrangements. ASU 2016-02 is effective for annual reporting periods, and interim periods therein, beginning after December 15, 2018, with early application permitted. A modified retrospective approach is required. We are currently evaluating the impact of the adoption this standard on the financial statements.

In March 2016, the FASB issued ASU 2016-09, Compensation — Stock Compensation (Topic 718) Improvements to Employee Share-Based Payment Accounting. This guidance is intended to simplify the employee share-based payment accounting regarding several aspects, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. For public business entities, the amendments in this ASU are effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted for any entity in any interim or annual period. If an entity early adopts the amendments in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. An entity that elects early adoption must adopt all of the amendments in the same period. We are in the process of evaluating the impact of the standard on the financial statements.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230)—Classification of Certain Cash Receipts and Cash Payments. The ASU reduces the existing diversity in practice on how certain cash flows should be presented and classified in the statement of cash flows and is effective no later than the first quarter of fiscal 2018. Early adoption is permitted. The ASU should be applied using a retrospective transition method to each period presented. We are currently evaluating the impact of the adoption of this AUS on its consolidated financial statements.

In October 2016, the FASB issued ASU 2016-16, Income Taxes (Topic 230)—Intra-Entity Transfers of Assets Other Than Inventory, which removes the prohibition in ASC 740 against the immediate recognition of the current and deferred income tax effects of intra-entity transfers of assets other than inventory. The ASU, which is part of the Board's simplification initiative, is intended to reduce the complexity of U.S. GAAP and diversity in practice related to the tax consequences of certain types of intra-entity asset transfers, particularly those involving intellectual property. For public business entities, the ASU is effective for annual periods beginning after December 15, 2017, and interim periods within those annual periods. Early adoption is permitted for all entities as of the beginning of a fiscal year for which neither the annual or interim (if applicable) financial statements have been issued or made available for issuance. We are currently evaluating the impact of the adopting this standard on the financial statements.

In November 2016, the FASB issued ASU 2016-18, which amends ASC 230 to add or clarify guidance on the classification and presentation of restricted cash in the statement of cash flows. An entity should include in its cash and cash-equivalent balances in the statement of cash flows those amounts that are deemed to be restricted cash and restricted cash equivalents. The ASU does not define the terms "restricted cash" and "restricted cash equivalents" but states that an entity should continue to provide appropriate disclosures about its accounting policies pertaining to restricted cash in



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accordance with other GAAP. The ASU also states that any change in accounting policy will need to be assessed under ASC 250. For public business entities, the guidance is effective for fiscal years beginning after December 15, 2017, including interim periods therein. Early adoption is permitted for all entities. We are in the process of evaluating the impact of adopting this standard on the financial statements.

In January 2017, the FASB issued ASU 2017-04, which removes the requirement to compare the implied fair value of goodwill with its carrying amount as part of step 2 of the goodwill impairment test. As a result, under the ASU, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. An entity should consider income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss, if applicable. For public business entities that are SEC filers, the guidance is effective for fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. We do not expect the adoption of this standard to have a significant impact to the financial statements.

**Results of Operations**

The following table sets forth a summary, for the periods indicated, of our consolidated results of operations and each item expressed as a percentage of our total net revenues. Our historical results presented below are not necessarily indicative of the results that may be expected for any future period.

	For the years ended December 31,					
	2014		2015		2016	
	(in thousands of \$, except percentages)					
Net revenues	\$ 2,960,627	100.0%	\$ 3,467,626	100.0%	\$ 2,853,078	100.0%
Module segment	2,034,626	68.7%	2,672,689	77.1%	2,821,142	98.9%
Energy segment	1,212,899	41.0%	979,247	28.2%	110,560	3.9%
Elimination	(286,898)	(9.7)%	(184,310)	(5.3)%	(78,624)	(2.8)%
Cost of revenues	2,379,633	80.4%	2,890,856	83.4%	2,435,890	85.4%
Module segment	1,721,474	58.1%	2,277,904	65.7%	2,426,618	85.1%
Energy segment	931,761	31.5%	778,951	22.5%	69,544	2.4%
Elimination	(273,602)	(9.2)%	(165,999)	(4.8)%	(60,272)	(2.1)%
Gross profit	580,994	19.6%	576,770	16.6%	417,188	14.6%
Module segment	313,152	10.6%	394,785	11.4%	394,524	13.8%
Energy segment	281,138	9.5%	200,296	5.8%	41,016	1.4%
Elimination	(13,296)	(0.4)%	(18,311)	(0.5)%	(18,352)	(0.6)%
Operating expenses:						
Selling expenses	125,797	4.2%	149,710	4.3%	145,367	5.1%
General and administrative expenses	81,149	2.7%	168,025	4.8%	203,789	7.1%
Research and development expenses	12,057	0.4%	17,056	0.5%	17,407	0.6%
Other operating income, net	(4,323)	(0.1)%	(5,392)	(0.1)%	(42,539)	(1.5)%
Total operating expenses	214,680	7.3%	329,399	9.5%	324,024	11.4%
Income from operations	366,314	12.4%	247,371	7.1%	93,164	3.3%
Other income (expenses)						
Interest expense	(48,906)	(1.7)%	(54,148)	(1.6)%	(69,723)	(2.4)%
Interest income	14,363	0.5%	16,831	0.5%	10,236	0.4%
Gain (loss) on change in fair value of derivatives	19,656	0.7%	(12,196)	(0.4)%	27,322	1.0%
Investment income	—	—	2,342	0.1%	(1,532)	(0.1)%
Foreign exchange gain (loss)	(32,219)	(1.1)%	22,882	0.7%	25,406	0.9%
Gain on repurchase of convertible notes	—	—	—	—	2,782	0.1%
Others	1,623	0.1%	389	0.0%	—	—
Income before income taxes and equity in earnings (loss) of unconsolidated investees	320,831	10.9%	223,471	6.4%	87,655	3.1%
Income tax expense	(77,431)	(2.6)%	(49,512)	(1.4)%	(17,976)	(0.6)%
Equity in earnings (loss) of unconsolidated investees	487	0.0%	(643)	0.0%	(4,404)	(0.2)%
Net income	243,887	8.2%	173,316	5.0%	65,275	2.3%
Less: Net income attributable to non-controlling interests	4,385	0.1%	1,455	0.0%	26	0.0%
Net income attributable to Canadian Solar Inc.	239,502	8.1%	171,861	5.0%	65,249	2.3%

**Year Ended December 31, 2016 Compared to Year Ended December 31, 2015**

*Net Revenues.* Our total net revenues decreased by \$614.5 million, or 17.7%, from \$3,467.6 million for the year ended December 31, 2015 to \$2,853.1 million for the year ended December 31, 2016. The decrease was primarily due to a decrease in the average selling price of our solar modules and a decrease in revenue contribution from the sale of solar power projects, partially offset by an increase in shipments from our module segment from 4,085 MW for the year ended December 31, 2015 to 5,138 MW for the year ended December 31, 2016. For the year ended December 31, 2016, Europe and others accounted for 14.4% of our net revenues, while the Americas contributed 38.7% and Asia contributed 46.9%. Our top five customers by revenues collectively accounted for 16.9% of our net revenues for the year ended December 31, 2016.

- *Module Segment.* Revenues generated by our module segment increased by \$148.5 million, or 5.6%, from \$2,672.7 million for the year ended December 31, 2015 to \$2,821.1 million for the year ended December 31, 2016. The increase was primarily due to an increase of \$632.6 million attributable to a 27.5% increase in shipments of our solar modules, partially offset by a decrease of \$362.2 million attributable to a 12.3% decline in the average selling price of our solar modules.

Our total solar module shipments recognized in revenue for the year ended December 31, 2016 were 5,204 MW, an increase of 18.7% from 4,384 MW for the year ended December 31, 2015. Shipments to non-European markets increased by 653.1 MW from 3,844.9 MW for the year ended December 31, 2015 to 4,498.0 MW for the year ended December 31, 2016, primarily to customers in the U.S., India and China. Shipments to European markets increased by 166.8 MW from 538.9 MW for the year ended December 31, 2015 to 705.7 MW for the year ended December 31, 2016.

The average selling price of our solar modules declined from \$0.58 for the year ended December 31, 2015 to \$0.51 for the year ended December 31, 2016. The decline was primarily due to the supply of solar products exceeding demand and change in the geographic mix of revenues.

- *Energy Segment.* Revenues generated from our energy segment decreased by \$868.7 million, or 88.7%, from \$979.2 million for the year ended December 31, 2015 to \$110.6 million for the year ended December 31, 2016. This decrease was primarily due to a decrease of \$535.3 million in sales of solar power projects and a decrease of \$373.9 million in EPC and development service fees. The decrease was partially offset by an increase in electricity revenue of \$36.7 million generated from solar power plants in operation.

*Cost of Revenues.* Our total cost of revenues decreased by \$455.0 million, or 15.7%, from \$2,890.9 million for the year ended December 31, 2015 to \$2,435.9 million for the year ended December 31, 2016. The decrease was primarily due to a decrease in sales of solar power projects and lower solar module manufacturing costs, partially offset by an increase in shipments of our solar modules. Total cost of revenues as a percentage of total net revenues increased slightly from 83.4% for the year ended December 31, 2015 to 85.4% for the year ended December 31, 2016.

- *Module Segment.* Cost of revenues incurred by our module segment increased by \$148.7 million, or 6.5%, from \$2,277.9 million for the year ended December 31, 2015 to \$2,426.6 million for the year ended December 31, 2016. The increase was primarily due to an increase in solar module shipments, partially offset by lower solar module manufacturing costs. Our total manufacturing costs in China, including purchased polysilicon, wafers and cells was \$0.33 per watt in December 2016.

For the year ended December 31, 2016, we made approximately \$144.3 million of cash deposits relating to anti-dumping and countervailing duty rulings in the U.S., of which \$132.2 million

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were charged to our cost of revenues. In addition, we booked a true-up provision of \$44.1 million primarily associated with prior years' module sales from China to the U.S following the announcement of the preliminary results of the third administrative review carried out by the U.S. Department of Commerce of the import into the U.S. of Chinese origin solar products using Chinese origin solar cells.

- **Energy Segment.** Cost of revenues incurred by our energy segment decreased by \$709.4 million, or 91.1%, from \$779.0 million for the year ended December 31, 2015 to \$69.5 million for the year ended December 31, 2016. The decrease was primarily due to a decrease in sales of solar power projects and a decrease in costs of EPC and development services.

**Gross Profit.** As a result of the foregoing, our total gross profit decreased by \$159.6 million, or 27.7%, from \$576.8 million for the year ended December 31, 2015 to \$417.2 million for the year ended December 31, 2016. Our total gross margin decreased from 16.6% for the year ended December 31, 2015 to 14.6% for the year ended December 31, 2016.

- **Module Segment.** Gross profit for our module segment decreased by \$0.3 million, or 0.1%, from \$394.8 million for the year ended December 31, 2015 to \$394.5 million for the year ended December 31, 2016, primarily due to a decrease in the average selling price of our solar modules as well as higher charges relating to U.S. anti-dumping and countervailing duty rulings, partially offset by an increase in shipments of our solar modules and a decrease in our solar module manufacturing costs. Gross margin decreased from 14.8% for the year ended December 31, 2015 to 14.0% for the year ended December 31, 2016, primarily due to a decrease in the average selling price of our solar modules and higher charges relating to U.S. anti-dumping and countervailing duty rulings, partially offset by a decrease in our solar module manufacturing costs.
- **Energy Segment.** Gross profit for our energy segment decreased by \$159.3 million, or 97.5%, from \$200.3 million for the year ended December 31, 2015 to \$41.0 million for the year ended December 31, 2016, primarily due to a decrease in sales of solar power projects, partially offset by an increase in electricity sale revenue. Gross margin increased from 20.5% for the year ended December 31, 2015 to 37.1% for the year ended December 31, 2016, primarily due to higher margin from the sale of solar power projects in 2016 and from electricity sale by solar power plants in operation.

**Operating Expenses.** Our operating expenses decreased by \$5.4 million, or 1.6%, from \$329.4 million for the year ended December 31, 2015 to \$324.0 million for the year ended December 31, 2016. Operating expenses as a percentage of our total net revenues increased from 9.5% for the year ended December 31, 2015 to 11.4% for the year ended December 31, 2016.

**Selling Expenses.** Our selling expenses decreased by \$4.3 million, or 2.9%, from \$149.7 million for the year ended December 31, 2015 to \$145.4 million for the year ended December 31, 2016. The decrease was primarily due to decreases of \$4.6 million in shipping, handling and storage charges and \$5.9 million in external sales commissions, partially offset by an increase of \$5.0 million in labor cost of sales and marketing staff. Selling expenses as a percentage of our net total revenues increased from 4.3% for the year ended December 31, 2015 to 5.1% for the year ended December 31, 2016.

**General and Administrative Expenses.** Our general and administrative expenses increased by \$35.8 million, or 21.3%, from \$168.0 million for the year ended December 31, 2015 to \$203.8 million for the year ended December 31, 2016. The increase was primarily due to an increase of \$20.6 million in professional service fees, and an increase of \$18.3 million in fixed assets impairment. General and administrative expenses as a percentage of our total net revenues increased from 4.8% for the year ended December 31, 2015 to 7.1% for the year ended December 31, 2016.

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*Research and Development Expenses.* Our research and development expenses increased by \$0.4 million, or 2.1%, from \$17.1 million for the year ended December 31, 2015 to \$17.4 million for the year ended December 31, 2016. Research and development expenses as a percentage of our total net revenues were 0.5% for the year ended December 31, 2015 and 0.6% for the year ended December 31, 2016.

*Income from operations.* As a result of the foregoing, income from operations decreased by \$154.2 million, or 62.3%, from \$247.4 million for the year ended December 31, 2015 to \$93.2 million for the year ended December 31, 2016.

*Other Operating Income, Net.* Our other operating income, net, increased by \$37.1 million, or 6.9 times, from \$5.4 million for the year ended December 31, 2015 to \$42.5 million for the year ended December 31, 2016. The increase was primarily due to gains from the sales of our solar power projects in operation in Canada and China during 2016.

*Interest Expense, Net.* Our interest expense, net, increased by \$22.2 million, or 59.4%, from \$37.3 million for the year ended December 31, 2015 to \$59.5 million for the year ended December 31, 2016. Interest expense increased by \$15.6 million, or 28.8%, from \$54.1 million for the year ended December 31, 2015 to \$69.7 million for the year ended December 31, 2016. Interest income decreased by \$6.6 million, or 39.2%, from \$16.8 million for the year ended December 31, 2015 to \$10.2 million for the year ended December 31, 2016.

*Gain/(Loss) on Change in Fair value of Derivatives.* We recorded a gain of \$27.3 million on change in fair value of derivatives for the year ended December 31, 2016, compared to a loss of \$12.2 million for the year ended December 31, 2015. The gain on change in fair value of derivatives for the year ended December 31, 2016 was primarily due to a gain of \$24.5 million on change in fair value of warrants and a gain of \$4.8 million on change in fair value of foreign currency derivatives. The gain on change in fair value of foreign currency derivatives for the year ended December 31, 2016 was attributable to a gain on foreign currency forward contracts that we purchased to hedge the fluctuation of exchange rates of foreign currencies, such as Japanese Yen, Britain Pounds, Renminbi and Euros.

*Foreign Exchange Gain/(Loss).* We recorded a foreign exchange gain of \$25.4 million for the year ended December 31, 2016, compared to a gain of \$22.9 million for the year ended December 31, 2015. The gain for the year ended December 31, 2016 was primarily due to the depreciation of Japanese Yen, British Pounds and Renminbi against the U.S. dollar.

*Income Tax Expense.* We recorded an income tax expense of \$18.0 million for the year ended December 31, 2016, compared to \$49.5 million for the year ended December 31, 2015. The decrease in income tax provision in 2016 was primarily due to our lower profit before income tax.

*Equity in Earnings/(Loss) of Unconsolidated Investees.* Our share of the earnings (loss) of unconsolidated investees was net loss of \$4.4 million for the year ended December 31, 2016, compared to net loss of \$0.6 million for the year ended December 31, 2015.

*Net Income Attributable to Non-Controlling Interest.* The net income attributable to non-controlling interest is the share of net income attributable to the interests of non-controlling shareholders in certain of our subsidiaries in China, Indonesia, Japan and Australia. No net income was generated in connection with the sale of project assets which was attributable to non-controlling interests for the year ended December 31, 2016.

*Net Income Attributable to Canadian Solar Inc.* As a result of the foregoing, we recorded net income of \$65.2 million for the year ended December 31, 2016, which was a decrease of \$106.6 million, or 62.0%, compared to our net income of \$171.9 million for the year ended December 31, 2015.

**Year Ended December 31, 2015 Compared to Year Ended December 31, 2014**

*Net Revenues.* Our total net revenues increased by \$507.0 million, or 17.1%, from \$2,960.6 million for the year ended December 31, 2014 to \$3,467.6 million for the year ended December 31, 2015. The increase was primarily due to higher shipments from our module segment from 2,436 MW for the year ended December 31, 2014 to 4,085 MW for the year ended December 31, 2015, partially offset by a decrease in the average selling price of our solar modules and a decrease in revenue contribution from sales of solar power projects. In the year ended December 31, 2015, Europe and others accounted for 9.6% of our net revenues, while the Americas contributed 50.5% and Asia contributed 39.9%. Our top five customers by revenues collectively accounted for 26.8% of our net revenues in the year ended December 31, 2015.

- *Module Segment.* Revenues generated by our module segment increased by \$638.1 million, or 31.4%, from \$2,034.6 million for the year ended December 31, 2014 to \$2,672.7 million for year ended December 31, 2015. The increase was primarily due to an increase of \$1,111.4 million attributable to the 72.5% increase in shipments of our solar modules, partially offset by a decrease of \$341.9 million attributable to the 12.9% decline in average selling price of our solar modules.

Our total solar module shipments were 4,384 MW for the year ended December 31, 2015, an increase of 55.9% from 2,813 MW for the year ended December 31, 2014. Shipments to non-European markets increased by 1,391.0 MW from 2,453.9 MW for the year ended December 31, 2014 to 3,844.9 MW for the year ended December 31, 2015, primarily to customers in India and China. Shipments to European markets increased by 180.2 MW from 358.7 MW for the year ended December 31, 2014 to 538.9 MW for the year ended December 31, 2015.

The average selling price of our solar modules declined from \$0.67 for the year ended December 31, 2014 to \$0.58 for the year ended December 31, 2015. The decline was primarily due to the supply of solar products exceeding demand, change in the geographic mix of revenues and the depreciation of the Canadian dollar, Euro, Japanese yen and Renminbi against the US dollar.

- *Energy Segment.* Revenues generated by our energy segment decreased by \$233.7 million, or 19.3%, from \$1,212.9 million for the year ended December 31, 2014 to \$979.2 million for the year ended December 31, 2015. The decrease was primarily due to a decrease in sales of solar power projects of \$333.9 million, partially offset by an increase in revenue from project development services of \$69.7 million, and an increase of \$29.2 million in electricity revenue generated from solar power plants in operation.

*Cost of Revenues.* Our total cost of revenues increased by \$511.2 million, or 21.5%, from \$2,379.6 million for the year ended December 31, 2014 to \$2,890.9 million for the year ended December 31, 2015. The increase was primarily due to increased shipments from our module segment, growth of our electricity generation segment, partially offset by lower manufacturing costs of solar modules and a decrease in sales of solar power projects. Total cost of revenues as a percentage of total net revenues slightly increased from 80.4% for the year ended December 31, 2014 to 83.4% for the year ended December 31, 2015.

- *Module Segment.* Cost of revenues incurred by our module segment increased by \$556.4 million, or 32.3%, from \$1,721.5 million for the year ended December 31, 2014 to \$2,277.9 million for the year ended December 31, 2015. This increase was primarily due to increased shipments from our module segment, partially offset by lower solar module manufacturing costs.

For the year ended December 31, 2015, we made approximately \$128.9 million of cash deposits relating to countervailing and anti-dumping rulings in the U.S., of which \$111.9 million were

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charged to our cost of revenues. Our total manufacturing costs in China, including purchased polysilicon, wafers and cells was \$0.40 per watt in December 2015.

- *Energy Segment.* Cost of revenues incurred by our energy segment decreased by \$152.8 million, or 16.4%, from \$931.8 million for the year ended December 31, 2014 to \$779.0 million for the year ended December 31, 2015. This decrease was primarily due to fewer projects sold, partially offset by an increase in revenue from EPC and development services and from the sale of electricity generated by solar power plants in operation.

*Gross Profit.* As a result of the foregoing, our total gross profit decreased by \$4.2 million, or 0.7%, from \$581.0 million for the year ended December 31, 2014 to \$576.8 million for the year ended December 31, 2015. Our total gross margin decreased from 19.6% for the year ended December 31, 2014 to 16.6% for the year ended December 31, 2015.

- *Module Segment.* Gross profit for our module segment increased by \$81.6 million, or 26.1%, from \$313.2 million for the year ended December 31, 2014 to \$394.8 million for the year ended December 31, 2015, primarily due to increased solar module shipments and continued decrease in our solar module manufacturing costs, partially offset by a decrease in the average selling price of our solar modules as well as charges relating to U.S. countervailing and anti-dumping rulings. Gross margin decreased from 15.4% for the year ended December 31, 2014 to 14.8% for the year ended December 31, 2015, primarily due to a decrease in the average selling price of our solar modules, partially offset by a decrease in our solar module manufacturing costs.
- *Energy Segment.* Gross profit for our energy segment decreased by \$80.8 million, or 28.8%, from \$281.1 million for the year ended December 31, 2014 to \$200.3 million for the year ended December 31, 2015, primarily due to a decrease in sales of solar power projects, partially offset by an increase in the sale of electricity generated by our solar power plants in operation. Gross margin decreased from 23.2% for the year ended December 31, 2014 to 20.5% for the year ended December 31, 2015, primarily attributable to lower margins from the sales of solar power projects, partially offset by higher margins from the sale of electricity generated by our solar power plants in operation.

*Operating Expenses.* Our operating expenses increased by \$114.7 million, or 53.4%, from \$214.7 million for the year ended December 31, 2014 to \$329.4 million for the year ended December 31, 2015. Operating expenses as a percentage of our total net revenues increased from 7.3% for the year ended December 31, 2014 to 9.5% for the year ended December 31, 2015.

*Selling Expenses.* Our selling expenses increased by \$23.9 million, or 19.0%, from \$125.8 million for the year ended December 31, 2014 to \$149.7 million for the year ended December 31, 2015. The increase was primarily due to a \$17.3 million increase in shipping and handling expenses and a \$8.7 million increase in external sales commissions. Selling expenses as a percentage of our net total revenues slightly increased from 4.2% for the year ended December 31, 2014 to 4.3% for the year ended December 31, 2015.

*General and Administrative Expenses.* Our general and administrative expenses increased by \$86.9 million, or 107.1%, from \$81.1 million for the year ended December 31, 2014 to \$168.0 million for the year ended December 31, 2015. The increase was primarily due to (a) the consolidation of Recurrent's general and administrative expenses of \$29.5 million, (b) \$20.8 million charge related to the LDK arbitration case, (c) \$5.4 million increase in impairment for property, plant and equipment and (d) \$12.2 million increase in bad debt expenses. General and administrative expenses as a percentage of our total net revenues increased from 2.7% for the year ended December 31, 2014 to 4.8% for the year ended December 31, 2015.

*Research and Development Expenses.* Our research and development expenses increased by \$5.0 million, or 41.5%, from \$12.1 million for the year ended December 31, 2014 to \$17.1 million for

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the year ended December 31, 2015. Research and development expenses as a percentage of our total net revenues were 0.4% for the year ended December 31, 2014 and 0.5% for the year ended December 31, 2015.

*Income from operations.* As a result of the foregoing, income from operations decreased by \$118.9 million, or 32.5%, from \$366.3 million for the year ended December 31, 2014 to \$247.4 million for the year ended December 31, 2015.

*Other Operating Income, Net.* Our other operating income, net, increased by \$1.1 million, or 24.7%, from \$4.3 million for the year ended December 31, 2014 to \$5.4 million for the year ended December 31, 2015. The increase was primarily due to \$1.4 million increase in government grants recognized for the year ended December 31, 2015.

*Interest Expense, Net.* Our interest expense, net, increased by \$2.8 million, or 8.0%, from \$34.5 million for the year ended December 31, 2014 to \$37.3 million for the year ended December 31, 2015. Interest expense increased by \$5.2 million, or 10.7%, from \$48.9 million for the year ended December 31, 2014 to \$54.1 million for the year ended December 31, 2015. Interest income increased by \$2.5 million, or 17.2%, from \$14.4 million for the year ended December 31, 2014 to \$16.8 million for the year ended December 31, 2015.

*Gain/(Loss) On Change in Fair value of Derivatives.* We recorded a loss of \$12.2 million on change in fair value of derivatives for the year ended December 31, 2015, compared to a gain of \$19.7 million for the year ended December 31, 2014. The loss on change in fair value of derivatives for the year ended December 31, 2015 was primarily due to a \$8.9 million loss on change in fair value of warrants and a \$3.7 million loss on change in fair value of foreign currency derivatives. The warrants were issued in conjunction with the \$180 million financing arranged by Credit Suisse in the fourth quarter of 2015. These warrants can be settled in cash at the discretion of the holder and as a result they are liability derivatives that were recorded at fair value at issuance and subsequently marked to market at the end of each reporting period. The loss on change in fair value of foreign currency derivatives for the year ended December 31, 2015 was attributable to loss on foreign currency forward contracts that we purchased to hedge part of the impact of changes in exchange rates of foreign currencies, mainly the Canadian dollar, Renminbi and Japanese yen.

*Foreign Exchange Gain/(Loss).* We recorded a foreign exchange gain of \$22.9 million for the year ended December 31, 2015, compared to a loss of \$32.2 million for the year ended December 31, 2014. The gain for the year ended December 31, 2015 was primarily due to the depreciation of the Renminbi and Canadian dollar against the U.S. dollar.

*Income Tax Expense.* We recorded an income tax expense of \$49.5 million for the year ended December 31, 2015, compared to \$77.4 million for the year ended December 31, 2014. The decrease in income tax provision in 2015 was primarily due to our lower profit before income tax.

*Equity in Earnings/(Loss) of Unconsolidated Investees.* Our share of the earnings of unconsolidated investees was net loss of \$0.6 million for the year ended December 31, 2015, compared to net earnings of \$0.5 million for the year ended December 31, 2014.

*Net Income Attributable to Non-Controlling Interest.* The net income attributable to non-controlling interest is the share of net income attributable to the interests of non-controlling shareholders in certain of our subsidiaries in Canada, China, Germany, Japan and the U.S. In many cases, we acquire or establish project companies in which third parties hold minority equity interests, which are reported as non-controlling interests in our consolidated financial statements. When the projects are sold to third parties, we allocate the percentage attributable to non-controlling interests accordingly. No net income was generated in connection with the sale of project assets which was attributable to non-controlling interests for the year ended December 31, 2015.



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*Net Income Attributable to Canadian Solar Inc.* As a result of the foregoing, we recorded net income of \$171.9 million for the year ended December 31, 2015, which was a decrease of \$67.6 million, or 28.2%, compared to our net income of \$239.5 million for the year ended December 31, 2014.

**B. Liquidity and Capital Resources**

***Cash Flows and Working Capital***

We are required to make prepayments to some suppliers, primarily suppliers of machinery, silicon raw materials, solar ingots, wafers and cells. Even though we require some customers to make partial prepayments, there is typically a lag between the time we make our prepayments for silicon raw materials and the time our customers make their prepayments.

Our energy segment required increased funding and use of working capital in 2016 and is expected to continue to require significant funding and use of working capital in the future. The time cycles of our solar power project development and operation can vary substantially and take many years. As a result, we may need to make significant up-front investments of resources before the collection of any cash from the sale or operation of these projects. These investments include payment of interconnection and other deposits, posting of letters of credit, and incurring engineering, permitting, legal and other expenses. In addition, we may have to use our existing bank facilities to finance the construction of these solar power projects. Depending on the size and number of solar power projects that we are developing and self-financing, our liquidity requirements could be significant. Delays in constructing or completing the sale of any of our solar power projects which we are self-financing could also impact our liquidity.

In 2016, we financed our operations primarily through short-term and long-term borrowings and proceeds from offerings of common shares and short-term commercial papers. As of December 31, 2016, we had \$511.0 million in cash and cash equivalents and \$496.7 million in restricted cash. Our cash and cash equivalents consist primarily of cash on hand, bank balances and demand deposits, which are unrestricted as to withdrawal and use, and have original maturities of three months or less. Our restricted cash was mainly used as collateral to secure bank acceptances and borrowings.

As of March 31, 2017, we had contractual credit lines with an aggregate limit of approximately \$3,434.2 million, of which \$1,715.3 million had been drawn down with due dates beyond December 31, 2017 and \$730.0 million had been drawn down with due dates before December 31, 2017. In addition, we had non-binding credit lines of approximately \$466.5 million, of which \$278.8 million had been drawn down with due dates before December 31, 2017, \$69.8 million had been drawn down with due dates beyond December 31, 2017 and \$8.2 million was subject to the lenders' discretion upon request for additional draw downs. Non-binding credit lines represent non-legally binding facility limits granted by lenders, which can be changed unilaterally by the lenders.

As of March 31, 2017, we had approximately (i) \$462.1 million of long-term borrowings (non-current portion), of which \$382.3 million was secured by equity, current assets, project assets and property, plant and equipment, and (ii) \$968.4 million of long-term borrowings (current portion), of which \$932.3 million was secured by equity, property, plant and equipment and project assets. As of March 31, 2017, we had approximately \$850.6 million of short-term borrowings, of which \$349.4 million was secured by restricted cash, inventory, land use rights, equity, project assets and property, plant and equipment. The long-term borrowings (non-current portion) will mature during the period from the second quarter of 2018 to the first quarter of 2032 and bear interests ranging from nil to 6.00% per annum. The long-term borrowings (current portion) include (i) \$77.9 million with maturity dates in 2017 and (ii) \$890.5 million with maturity dates ranging from 2018 to the first quarter of 2036, which are reclassified as current liabilities because these borrowings are associated with certain solar power projects that are expected to be sold in 2017. These long-term borrowings (current portion) bear interests ranging from nil to 6.15% per annum. The short-term borrowings will mature during 2017

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through the first quarter of 2018 and bear interests ranging from 0.7% to 6.31% per annum. Our bank lines contain no specific extension terms but, historically, we have been able to obtain new short-term borrowings with similar terms shortly before they mature.

In February 2014, we completed an offering of 3,194,700 common shares and \$150 million of 4.25% convertible senior notes. In 2016, we repurchased \$22.5 million of the convertible senior notes at weighted average price of \$85.43 per \$100 par value.

In May 2015, we closed a £35.0 million (\$51.7 million) project financing facility with Investec Bank plc for a portfolio of four operating solar power plants with installed capacities totaling 40.2 MW in the United Kingdom. In May 2016, we refinanced a portfolio with BayernLB for a non-recourse facility of £36.4 million (\$44.9 million) with a term of 17 years.

In December 2015, we signed a financing agreement pursuant to which Deutsche Bank AG, Tokyo Branch, agreed to provide a JPY12.0 billion (\$99.8 million) senior non-recourse project finance credit facility for the construction of our 48 MWp Kumamoto Mashiki solar power plant in Japan. In December 2016, the facility agreement was amended and restated with a term of three years. The project is expected to commence commercial operation in the second quarter of 2017.

In January 2016, we closed on a tax equity investment commitment with GE Energy Financial Services, for the 75 MW Astoria 2 solar power project in California, U.S. Santander Bank was the coordinating lead arranger of a five-member bank club, including NORDBANK, Rabobank, Key Bank and CIT Bank, which provided project-level construction debt, a letter of credit facility and a back-leveraged term loan facility, totaling approximately \$180.0 million. The Astoria 2 project has commenced commercial operation. The project-level construction debt was fully repaid and the back-leveraged loan of \$64.8 million has an eight-year term.

In January 2016, we signed a \$60.0 million loan facility agreement with International Finance Corporation, a member of World Bank Group, or IFC, to fund the construction of our solar cell and module production facilities in Vietnam and other countries approved by IFC. The loan facility will expire in June 2020. On the same day, we signed a subscription agreement with IFC pursuant to which IFC agreed to subscribe for 529,661 of our common shares at \$18.88 per share. The subscription was completed in February 2016 and the proceeds of approximately \$10.0 million has been used for the construction, operation and general corporate purpose of our solar cell and module production facilities in countries approved by IFC.

In February 2016, we secured a credit facility with Ping An Bank, pursuant to which Ping An Bank agreed to provide up to \$300 million to Recurrent for its solar power project development, construction and operation activities. The credit facility has a three-year maturity.

In February 2016, we entered into a financing agreement, pursuant to which Goldman Sachs Japan Co., Ltd. agreed to arrange a JPY3.0 billion (\$25.7 million) nonrecourse project finance bond with a maturity of 20 years and a fixed coupon rate of 1.4% per annum for the construction of the 10.2 MWp Aomori-Misawa solar power project in Japan. In December 2016, the project reached its COD.

In July 2016, we entered into a private placement agreement with Prudential Capital Group, pursuant to which, Prudential Capital Group agreed to purchase non-recourse notes with an aggregate principal amount of approximately JPY6.2 billion (\$53.1 million). The proceeds from the private placement will be used to finance a portfolio of solar power plants with a total design capacity of 21.2 MWp in Japan.

In September 2016, we completed two issues of commercial paper with total principal amount of RMB900 million (\$129.6 million). The commercial paper bears a fixed interest rate ranging from 5.3% to 5.5% per annum, with a tenor of nine months and one year, respectively. We have used the proceeds to repay debt and increase our working capital.

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In September 2016, we signed a financing agreement with the Export Development Canada, pursuant to which Export Development Canada agreed to provide guarantees or letters of credit of up to \$100 million to us to support our global project development. Royal Bank of Canada and Toronto Branch of China Construction Bank Corporation served as fronting banks on the facility.

In October 2016, we obtained a syndicated three-year loan facility for JPY9.6 billion (\$82.2 million). Sumitomo Mitsui Banking Corporation acted as the lead arranger and 13 other financial institutions participated. The loan proceeds have been used to finance solar project development in Japan and for general corporate working capital requirements.

In December 2016, we secured senior and subordinate non-recourse term loan facilities of JPY14.9 billion (\$127.6 million) to finance the construction and operation of a 55 MWp solar power plant in the Yamaguchi prefecture, Japan. The facilities were arranged by Hanwha Asset Management and have a maturity of 17 years.

In December 2016, we secured non-recourse term loan facilities of £49.3 million (\$60.8 million) to refinance a portfolio of ten solar power plants, with total designed capacity of 50 MW in the United Kingdom. National Westminster Bank, a subsidiary of RBS Group, is providing the 18.7-year term facility. Part of the proceeds will be used to repay a construction loan of £28.1 million (\$34.7 million) for those solar power plants.

In January 2017, we obtained a five-year syndicated credit facility of \$210 million. The Siam Commercial Bank Public Company Limited, or SCB, acted as the lead arranger and China Minsheng Banking Corporation Ltd. is one of the lenders. The proceeds will be used to finance the construction of our solar cell and module manufacturing facilities in Thailand. Under the same facility agreement, we obtained a total of uncommitted facility of THB4.04 billion (\$112.8 million) from SCB to support the operations of our manufacturing company in Thailand.

In March 2017, we entered into a three-year credit agreement of JPY4.0 billion (\$34.3 million) with Sumitomo Mitsui Finance and Leasing Company, Limited, a member of Sumitomo Mitsui Financial Group. The facility received commitments from five finance leasing institutions. We intend to use proceeds from the facility to expand the development of solar power projects in Japan.

In April 2017, we completed our second nonrecourse project bond placement of JPY5.4 billion (\$46.2 million) with Goldman Sachs Japan Co., Ltd. to finance the construction of the 19.05 MWp Gunma Aramaki solar power project in Japan. The project bond has a dual-tenor maturity of 1.5 years and 20.3 years, representing the initial and extended tenor respectively, within a single-tranche of bond. The bond pays a fixed coupon of 1.2875% per annum during the initial tenor and, if extended at our option, 1.3588% per annum thereafter.

In April 2017, we secured a debt facility of \$97 million with Prudential Capital Group and a tax equity investment commitment with U.S. Bancorp Community Development Corporation, to finance our 92 MWp IS 42 solar power project near Fayetteville, North Carolina. This solar power project is expected to be completed by the end of 2017.

Although no assurance can be given, we believe that we will be able to fully execute our business plans and to renew substantially all our existing bank borrowings as they become due, if needed. We believe that adequate sources of liquidity will exist to fund our working capital and capital expenditures requirements and to meet our short-term debt obligations and other liabilities and commitments as they become due. As of the date of this annual report, we were in compliance with all material terms of our borrowing agreements.

Due to market competition, in many cases, we offer credit terms to our customers ranging from 30 days up to 90 days with small advance payments ranging from 5% to 20% of the sale prices. The prepayments are recorded as current liabilities under advances from customers, and amounted to

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\$112.0 million, \$76.2 million and \$90.1 million as of December 31, 2014, 2015 and 2016, respectively. As the market demand for our products has changed and as we have diversified our geographical markets, we have increased and may continue to increase our credit term sales to certain creditworthy customers after careful review of their credit standings and acceptance of export credit insurance by Sinosure, or other risk mitigation channels such as local credit insurance or factoring.

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

	As of December 31,		
	2014	2015	2016
	(in thousands of \$)		
Net cash provided by (used in) operating activities	265,106	413,658	(278,073)
Net cash used in investing activities	(116,049)	(999,104)	(1,042,557)
Net cash provided by financing activities	191,947	619,483	1,299,823
Net increase (decrease) in cash and cash equivalents	321,293	3,536	(33,119)
Less: Cash and cash equivalents of assets classified as held for sale at end of period	—	—	8,921
Cash and cash equivalents at the beginning of the year	228,250	549,543	553,079
Cash and cash equivalents at the end of the year	549,543	553,079	511,039

### ***Operating Activities***

Net cash used in operating activities was \$278.1 million in 2016, compared to net cash provided by operating activities of \$413.7 million in 2015. The change was primarily due to \$511.1 million increase in working capital investment and \$108.0 million decrease of net income in 2016.

Net cash provided by operating activities was \$413.7 million in 2015, compared to \$265.1 million in 2014. The change was primarily due to improved working capital management, partially offset by a decrease in net income from \$243.9 million to \$173.3 million.

### ***Investing Activities***

Net cash used in investing activities was \$1,042.6 million in 2016, compared to \$999.1 million in 2015. The change was primarily due to \$468.7 million increase in payments for construction of our solar power systems and manufacturing plants, partially offset by a reduced payment of \$196.8 million for the acquisition of subsidiaries, \$151.5 million decrease in restricted cash and \$90.1 million net proceeds from the disposal of solar power systems.

Net cash used in investing activities was \$999.1 million in 2015, compared to \$116.0 million in 2014. The change was primarily due to an increase in payments of \$551.9 million for construction of our solar power systems, net payments of \$196.8 million to acquire subsidiaries, as well as an increase in restricted cash mainly used as collateral to secure our bank acceptances and borrowings.

### ***Financing Activities***

Net cash provided by financing activities was \$1,299.8 million in 2016, compared to \$619.5 million in 2015. The change was primarily due to \$415.5 million additional contribution payments from tax equity partners of our U.S. projects and net proceeds of \$134.3 million from the issuance of short-term commercial paper in China during 2016.

Net cash provided by financing activities was \$619.5 million in 2015, compared to \$191.9 million in 2014. The change was primarily due to a net increase in bank borrowings during 2015.

As of December 31, 2016, we had total outstanding credit facilities of \$3,381.9 million, of which \$760.2 million was undrawn and available. We believe that our current cash and cash equivalents,

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anticipated cash flow from operations and existing banking facilities will be sufficient to meet our anticipated cash needs, including our cash needs for working capital and capital expenditures, for the 12 months ending December 31, 2017. We may, however, require additional cash due to changing business conditions or other future developments, including any investments or acquisitions we may decide to pursue.

As of December 31, 2016, we had outstanding short-term borrowings of \$611.7 million with Chinese banks. Between January 1, 2017 and March 31, 2017, we obtained new borrowings of \$364.9 million from Chinese banks, including \$48.1 million with due dates beyond December 31, 2017. Also, between January 1, 2017 and March 31, 2017, we renewed existing bank facilities of \$325.3 million from Chinese banks with due dates beyond December 31, 2017. The availability of commercial loans from Chinese commercial banks may be affected by administrative policies of the PRC government, which in turn may affect our plans for business expansion. If our existing cash or the availability of commercial bank borrowings is insufficient to meet our requirements, we may seek to sell additional equity securities or debt securities or borrow from other sources. We cannot assure that financing will be available in the amounts we need or on terms acceptable to us, if at all. The issuance of additional equity securities, including convertible debt securities, would dilute the holdings of our shareholders. The incurrence of debt would 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 we are unable to obtain additional equity or debt financing as required, our business operations and prospects may suffer.

### ***Capital Expenditures***

We made capital expenditures of \$65.1 million, \$642.8 million and \$1,111.5 million in 2014, 2015 and 2016, respectively. Our capital expenditures were primarily to maintain and increase our ingot, wafer, cell and module manufacturing capacity and to develop solar power systems. As of December 31, 2016, our commitments for the purchase of property, plant and equipment were \$203.2 million.

### ***Restricted Net Assets***

Our PRC subsidiaries are required under PRC laws and regulations to make appropriations from net income as determined under accounting principles generally accepted in the PRC, or PRC GAAP, to non-distributable reserves, which include a general reserve, staff welfare and bonus reserve. The general reserve is required to be made at not less than 10% of the profit after tax as determined under PRC GAAP. The board of directors of our PRC subsidiaries determines the staff welfare and bonus reserve. The general reserve is used to offset future extraordinary losses. Our PRC subsidiaries may, upon a resolution of their board of directors, convert the general reserve into capital. The staff welfare and bonus reserve is used for the collective welfare of the employees of the PRC subsidiaries. These reserves represent appropriations of the retained earnings determined under PRC law. In addition to the general reserve, our PRC subsidiaries are required to obtain approval from the local government authorities prior to decreasing and distributing any registered share capital to their shareholders. Accordingly, both the appropriations to general reserve and the registered share capital of our PRC subsidiaries are considered as restricted net assets. These restricted net assets amounted to \$393.5 million, \$396.3 million and \$411.9 million as of December 31, 2014, 2015 and 2016, respectively.

Our operations in China are subject to certain restrictions on the transfer and use of cash within our company. Transfers of cash between our PRC subsidiaries and the Canadian parent company are restricted to normal trade business payments and any further capital contribution from the Canadian parent company may only be made under China's existing foreign currency regulations. Foreign exchange transactions by our PRC subsidiaries under most capital accounts continue to be subject to significant foreign exchange controls and require the approval of or registration with PRC

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governmental authorities. In particular, if we finance our PRC subsidiaries by means of additional capital contributions, certain government authorities, including the Ministry of Commerce or its local counterparts, must approve these capital contributions. These limitations could affect the ability of our Chinese subsidiaries to obtain foreign exchange through equity financing.

As of December 31, 2016, \$284.3 million of undistributed earnings in our PRC subsidiaries are considered to be indefinitely reinvested so that no provision of withholding taxes has been provided in our consolidated financial statements. Our PRC subsidiaries are required to make appropriations of at least 10% of net income, as determined under PRC GAAP, to a non-distributable general reserve. After making this appropriation, the balance of the undistributed earnings is distributable. Should our PRC subsidiaries subsequently distribute their distributable earnings, they are subject to applicable withholding taxes to the PRC State Administration of Tax.

### **C. Research and Development**

We have two research and development centers with state-of-the-art equipment—the Center for Solar Cell Research and the Center for Photovoltaic Testing and Reliability Analysis. The Center for Solar Cell Research is focused on developing new high efficiency solar cells and advanced solar cell processing technologies. The Center for Photovoltaic Testing and Reliability Analysis has been accredited and running according to ISO/IEC 17025 standard since 2009 and is focused on solar module and module components reliability testing and qualification, and solar module performance analysis. The Center for Photovoltaic Testing and Reliability Analysis actively participates in and contributes to IEC standard development on solar modules, such as IEC 62804 test method on PID and has been qualified by VDE, CSA, Intertek and TUV Rheinland in their Test Data Acceptance Programs.

As of December 31, 2016, we had approximately 234 employees in research, product development and engineering.

Our research and development activities are generally focused on the following areas:

- continuously improving solar cell conversion efficiency and developing new structures and technologies for higher efficiencies;
- developing modules with improved design and assembly methods to have higher power output;
- improving manufacturing yield and reliability of solar modules and reducing manufacturing costs;
- developing smart modules integrated with optimizer or micro-inverters;
- testing, data tracing and analysis for module performance and reliability;
- designing and developing customized solar modules and products to meet customer requirements; and
- developing new methods and equipment for analysis and quality control of incoming materials (such as polysilicon, wafers, cells and other module components).

Going forward, we will focus on the following research and development initiatives which we believe will enhance our competitiveness:

- *High efficiency cells.* We have begun commercializing our in-house developed black silicon technology, Onyx technology, on multi wafers. This self-developed wet chemical texturing is a unique, IP-protected and cost effective technology and will significantly increase solar cell efficiency due to advanced light absorption and surface passivation. We also have developed PERC (passivated emitter and rear cell) technology in order to further increase cell efficiency. Mass production of PERC commenced in our Yancheng facility in March 2016. We also have very focused research and development initiatives on N-type bifacial cell, heterojunction cell,

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IBC cell and other high efficiency cell designs. With these advanced technologies, we can significantly lower the LCOE (levelized cost of energy) on the system level and improve our products' market competitiveness.

- *Solar module manufacturing technologies.* Since the opening of our Center for Photovoltaic Testing and Reliability Analysis, we have focused on developing state-of-the-art testing and diagnostic techniques that improve solar module production yield, efficiency and reliability. We are among the first to begin mass production of four bus-bars cells and modules. We will extend our product competitiveness by introducing to volume production of our 5 bus-bar cell and modules (Quintech Modules) with higher module wattage in the second quarter of 2016. We have developed new technology for PID-resistant modules, which have received certification by the TUV SUD and the VDE testing and certification institutes. Our black silicon and Quintech module technology has improved the output power. We also started mass production of double-glass modules that are market-leading in yield, cell-to-module power loss and cost.
- *Power system integration and solar application products.* We began to explore power system integration products and expanded our research and development efforts in solar application products and commercial sales of such products started in 2015.
- *Solar power system development, energy storage system, off-grid power system, micro grid system and smart grid system.* As we continue to move into the downstream energy segment, we have strengthened the capabilities of our engineering staff and increased investment in these areas.

### **D. Trend Information**

Other than as disclosed elsewhere in this annual report on Form 20-F, we are not aware of any trends, uncertainties, demands, commitments or events 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**

We have not entered into any derivative contracts that are indexed to our shares and classified as shareholder's equity, or that are not reflected in our consolidated financial statements. Furthermore, we do not have any retained or contingent interest in assets transferred to an unconsolidated entity that serves as credit, liquidity or market risk support to such entity. We do not have any variable interest in any unconsolidated entity that provides financing, liquidity, market risk or credit support to us or that engages in leasing, hedging or research and development services with us.

**F. Tabular Disclosure of Contractual Obligations**

**Contractual Obligations and Commercial Commitments**

The following table sets forth our contractual obligations and commercial commitments as of December 31, 2016:

	Payment Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
	(In thousands of \$)				
Short-term debt obligations <sup>(1)</sup>	1,836,799	1,836,799	—	—	—
Interest related to short-term debt obligations <sup>(2)</sup>	30,482	30,482	—	—	—
Short-term commercial paper	129,739	129,739	—	—	—
Interest related to short-term commercial paper	4,346	4,346	—	—	—
Operating lease obligations	105,719	10,502	16,078	13,264	65,875
Capital lease obligations	43,759	15,497	25,878	2,384	—
Purchase obligations <sup>(3)</sup>	1,212,453	722,583	489,870	—	—
Long-term debt obligations	493,455	—	458,550	22,940	11,965
Interest related to long-term debt obligations <sup>(4)</sup>	42,559	19,827	18,320	2,658	1,754
Convertible notes <sup>(5)</sup>	127,500	—	127,500	—	—
Interest related to convertible notes <sup>(6)</sup>	11,711	5,494	6,217	—	—
<b>Total</b>	<b>4,038,522</b>	<b>2,775,269</b>	<b>1,142,413</b>	<b>41,246</b>	<b>79,594</b>

- (1) Includes \$236.8 million of short-term and long-term borrowings that have been reclassified to liabilities held-for-sale as a result of the reclassification of solar power systems to assets held-for-sale during the current year.
- (2) Interest rates range from 0% to 6.31% per annum for short-term debt obligations. For the interest related to the short-term and long-term borrowings that have been reclassified to liabilities held-for-sale, the maturity dates of these borrowings are based on current estimates.
- (3) Includes commitments to purchase property, plant and equipment of \$203.2 million and raw materials of \$1,009.2 million.
- (4) Interest rates range from 0% to 5.65% per annum for long-term debt obligations.
- (5) Assumes no redemption of convertible notes and none of the convertible notes will be converted into ordinary shares.
- (6) Interest rate is 4.25% per annum on the principal outstanding.

The above table excludes accrued warranty costs of \$61.1 million, liability for uncertain tax positions of \$8.4 million, deferred tax liabilities—non-current of \$23.3 million and loss contingency accruals of \$22.7 million as we are unable to reasonably estimate the timing of future payments of these liabilities. Other long-term liabilities of \$26.8 million was also excluded in the above table. For additional information, see the notes to our consolidated financial statements, included herein.

**G. Safe Harbor**

This annual report on Form 20-F contains forward-looking statements that relate to future events, including our future operating results, our prospects and our future financial performance and condition, results of operations, business strategy and financial needs, all of which are largely based on our current expectations and projections. These statements are made under the "safe harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995. You can identify these forward-



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looking statements by terminology such as "may," "will," "expect," "anticipate," "future," "intend," "plan," "believe," "estimate," "is/are likely to" or similar expressions. Forward-looking statements involve inherent risks and uncertainties. These forward-looking statements include, among other things, statements relating to:

- our expectations regarding the worldwide supply and demand for solar power products and the market demand for our products;
- our beliefs regarding the importance of environmentally friendly power generation;
- our beliefs regarding the value of and ability to monetize our portfolio of solar power projects;
- our expectations regarding governmental support for solar power;
- our beliefs regarding the fluctuation in availability of silicon, solar wafers and solar cells;
- our beliefs regarding our ability to resolve our disputes with suppliers with respect to our long-term supply agreements;
- our beliefs regarding the continued growth of the solar power industry;
- our beliefs regarding the competitiveness of our solar module products;
- our expectations with respect to increased revenue growth and improved profitability;
- our expectations regarding the benefits to be derived from our supply chain management and vertical integration manufacturing strategy;
- our ability to continue developing our in-house solar components production capabilities and our expectations regarding the timing and production capacity of our internal manufacturing programs;
- our ability to secure adequate silicon and solar cells to support our solar module production;
- our beliefs regarding the effects of environmental regulation;
- our beliefs regarding the changing competitive landscape in the solar power industry;
- our future business development, results of operations and financial condition;
- competition from other manufacturers of solar power products and conventional energy suppliers;
- our ability to expand our products and services and to successfully execute plans for our energy segment;
- our ability to develop, build and sell solar power projects in Canada, the U.S., Japan, China, Brazil, Mexico, the United Kingdom, Australia and elsewhere; and
- our beliefs with respect to the outcome of the investigations and litigation to which we are a party.

Known and unknown risks, uncertainties and other factors may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by forward-looking statements. See "Item 3. Key Information—D. Risk Factors" for a discussion of some risk factors that may affect our business and results of operations. These risks are not exhaustive. Other sections of this annual report may include additional factors that could adversely influence our business and financial performance. Moreover, because we operate in an emerging and evolving industry, new risk factors may emerge from time to time. We cannot predict all risk factors, nor can we assess the impact of these factors on our business or the extent to which any factor, or combination of factors, may cause actual result to differ materially from

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those expressed or implied in any forward-looking statement. We do not undertake any obligation to update or revise the forward-looking statements except as required under applicable law.

**ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES**

**A. Directors and Senior Management**

The following table sets forth information regarding our directors and executive officers as of the date of this annual report on Form 20-F.

<u>Name</u>	<u>Age</u>	<u>Position/Title</u>
Shawn (Xiaohua) Qu	53	Chairman of the Board, President and Chief Executive Officer
Robert McDermott	75	Lead Independent Director
Lars-Eric Johansson	70	Independent Director
Harry E. Ruda	58	Independent Director
Andrew (Luen Cheung) Wong	59	Independent Director
Huifeng Chang	51	Senior Vice President and Chief Financial Officer
Guangchun Zhang	59	Senior Vice President and Chief Operations Officer
Yan Zhuang	53	Senior Vice President, Chief Commercial Officer and President of Modules and Systems Solutions Business
Arthur (Jian) Chien	56	Senior Vice President, Chief Strategy Officer and President of Energy Business
Jianyi Zhang	59	Senior Vice President, General Counsel and Chief Compliance Officer
Guoqiang Xing	53	Senior Vice President and Chief Technology Officer

**Directors**

*Dr. Shawn (Xiaohua) Qu* has served as our chairman, president and chief executive officer since founding our company in October 2001. Through his leadership, we became a public listed company on the Nasdaq in 2006 and have since firmly established ourselves among the top ranked manufacturers of solar PV products globally. Prior to founding Canadian Solar, Dr. Shawn Qu held various positions in product engineering, business development and strategic planning at ATS Automation Tooling Systems, Inc., or ATS, and its solar subsidiary Photowatt International S.A. Prior to ATS, Dr. Shawn Qu was a research scientist at Ontario Power Generation where he worked as a process leader in its solar product commercialization team. In 2011, Dr. Shawn Qu became a visiting professor at Tsinghua University, one of the most prestigious universities in China. Dr. Shawn Qu has published research articles in academic journals including IEEE Quantum Electronics, Applied Physics Letter and Physical Review. He received a Ph.D. in material sciences in 1995 from the University of Toronto, focusing on semiconductor super lattice and optical effects. He also holds a Master of Science in physics from University of Manitoba and a Bachelor of Science in applied physics from Tsinghua University in Beijing.

*Mr. Robert McDermott* has served as lead independent director of our company since August 2006. Mr. McDermott is a corporate director and consultant. Before July 2011, he was a partner with McMillan LLP, a business law firm based in Canada, where he practiced business law, with an emphasis on mergers and acquisitions, securities and corporate finance, and advised boards and special committees of public companies on corporate governance matters. He is now a counsel to the firm. Mr. McDermott was admitted to the Ontario Bar in Canada in 1968. He has a Juris Doctor degree from the University of Toronto in 1966 and a Bachelor of Arts degree from the University of Western Ontario in 1963.

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*Mr. Lars-Eric Johansson* has served as an independent director of our company since August 2006. Mr. Johansson has worked in finance and controls positions for more than thirty years in Sweden and Canada. He has been the president and chief executive officer of Ivanhoe Mines Ltd. (formerly Ivanplats Inc. and Ivanhoe Nickel & Platinum Ltd.), a Canadian public mining company since May 1, 2007. From 2003 to 2008, Mr. Johansson was a director and chairperson of the audit committee of Harry Winston Diamond Corporation, a specialist diamond company with assets in the mining and retail segments of the diamond industry. From May 2004 to April 2006, he was an executive vice president and the chief financial officer of Kinross Gold Corporation, a gold mining company dually listed on the Toronto Stock Exchange and the New York Stock Exchange. Between June 2002 and November 2003, Mr. Johansson was an executive vice president and chief financial officer of Noranda Inc., a Canadian mining company dually listed on the Toronto Stock Exchange and the New York Stock Exchange. Until May 2004, Mr. Johansson served as a special advisor at Noranda Inc. From 1989 to May 2002, he was the chief financial officer and senior vice president of Falconbridge Limited, a mining and metals company in Canada listed on the Toronto Stock Exchange. He has chaired the audit committee of Golden Star Resources Ltd., a gold mining company dually listed on the Toronto Stock Exchange and American Stock Exchange, from 2006 to 2010. From 2002 to 2003, he was also a director of Novicor Inc., a company formerly listed on the Toronto Stock Exchange. Mr. Johansson holds an MBA, with a major in finance and accounting, from Gothenburg School of Economics in Sweden.

*Dr. Harry E. Ruda* has served as an independent director of our company since July 2011. He is the Director of the Centre for Advanced Nanotechnology, the Stanley Meek Chair in Nanotechnology and Professor of Applied Science and Engineering at the University of Toronto, Canada. From 1982 to 1984, he developed one of the first theories for electron transport in selectively doped two dimensional electron gas heterostructures, while working as an IBM post-doctoral fellow. From 1984 to 1989, he was a senior scientist at 3M Corporation, developing some of the first models for electronic transport and optical properties of wide bandgap II-VI semiconductors. Dr. Ruda joined the faculty of the University of Toronto in 1989 in the Materials Science and Engineering and Electrical and Computer Engineering Departments. His research interests focus on the fabrication and modeling of semiconductor nanostructures with applications in the fields of optoelectronics, energy and sensing. Dr. Ruda was one of the founders of a Canadian National Centre of Excellence in Photonics. He has served on the National Science and Engineering Council of Canada and on other government panels, including those of the Department of Energy, Environmental Protection Agency, National Science Foundation in the U.S. and the Royal Academy of Engineering and Engineering Physical Sciences Research Council in the United Kingdom. Dr. Ruda is a Fellow of the Royal Society of Canada, a Fellow of the Institute of Physics and a Fellow of the Institute of Nanotechnology. He obtained his Ph.D. in semiconductor physics from the Massachusetts Institute of Technology in 1982.

*Mr. Andrew (Luen Cheung) Wong* has served as an independent director of our company since August 2014. Mr. Wong currently serves as a director and a member of the audit committee, nomination and remuneration committee of China CITIC Bank Corporation Limited, a company listed on The Stock Exchange of Hong Kong, since 2013. He has also served as a director of Chubb Life Insurance Company Ltd. since 2008, and is an independent director and the vice-chairman of Huazhong In-vehicle Holdings Company Limited, which is listed in Hong Kong Stock Exchange. Previously, Mr. Wong was the director of Intime Retail (Group) Co. Ltd., a company listed on The Stock Exchange of Hong Kong, between 2013 and 2014, and was the director and a member of audit committee, risk management committee, nomination and remuneration committee of China Minseng Bank, a company listed on The Stock Exchange of Hong Kong, from 2006 to 2012. From 1982 to 2006, Mr. Wong held senior positions at the Royal Bank of Canada, the Union Bank of Switzerland, Citicorp International Limited, a merchant banking arm of Citibank, Hang Seng Bank Limited and DBS Bank Limited, Hong Kong. Mr. Wong was awarded the National Excellent Independent Director by the Shanghai Stock Exchange in 2010 and received the Medal of Honour (Hong Kong SAR) from the

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Hong Kong SAR Government in 2011. Mr. Wong obtained his Bachelor of Social Sciences (Honours) degree from the University of Hong Kong in 1980 and a Master of Philosophy degree from Hong Kong Buddhist College in 1982.

### **Executive Officers**

*Dr. Huifeng Chang* has served as our senior vice president and chief financial officer in May 2016. He has 17 years of experience in capital markets, financial investment and risk management. Before joining us, Dr. Chang was the co-head of Sales & Trading at the U.S. subsidiary of China International Capital Corp (CICC) from 2010 to 2015. Prior to that, he was the CEO of CSOP Asset Management based in Hong Kong from early 2008 to 2010, investing funds from China in the international markets. From 2000 to 2008, Dr. Chang was vice president and an equity proprietary trader at Citigroup Equity Proprietary Investments in New York. Before going to New York, Dr. Chang worked at Kamakura Corp in Hawaii as a risk consultant to banks in Asia. He received a Ph.D. in soil physics and MBA from University of Hawaii in the early 1990s, M.S. degree from Academia Sinica in 1987 and B.S. degree from Nanjing Agricultural University in 1984.

*Mr. Guangchun Zhang* has served as our chief operations officer since December 2012 and has over 18 years of experience in the PV industry. Prior to joining us, Mr. Zhang worked for Suntech Power Holdings Co., Ltd, as senior vice president for research and development and industrialization of manufacturing technology since December 2005. Prior to joining Suntech, Mr. Zhang previously worked at the Centre for Photovoltaic Engineering at the University of New South Wales in Australia and Pacific Solar Pty. Limited from June 1994 to November 2005. Mr. Zhang was an associate professor in Shandong Technology University in China from February 1982 to May 1994. Mr. Zhang received his bachelor degree in 1982 from the School of Electronic Engineering at Shandong Industrial Institute.

*Mr. Yan Zhuang* has served as our chief commercial officer since May 2012. He also served as our senior vice president of global sales and marketing since July 2011, and prior to that as our vice president of global sales and marketing since June 2009. He was an independent director of our company from September 2007 to June 2009. Mr. Zhuang has worked in corporate branding, sales and marketing positions with, or provided consulting services to, a variety of multinational companies for over 15 years. In 2008, he founded and became a director of INS Research and Consulting. Mr. Zhuang was the head of Asia for Hands-on Mobile, Inc., a global media and entertainment company with operations in China, South Korea and India, from 2006 to 2007. He previously served as our senior vice president of business operations and marketing in Asia. Before joining Hands-on Mobile, Inc., he held various marketing and business operation positions with Motorola Inc., including as its Asia Pacific regional director of marketing planning and consumer insight. Prior to that, he was a marketing consultant in Canada and China. Mr. Zhuang holds a bachelor's degree in electrical engineering from Northern Jiaotong University, China, a Master of Science degree in applied statistics from the University of Alberta, Canada and a Master of Science degree in marketing management from the University of Guelph, Canada.

*Mr. Arthur (Jian) Chien* joined us as senior vice president and chief strategy officer, and president of our energy business in the summer of 2015. He has more than two decades of experience in investment management, capital markets, large scale manufacturing management, and renewable energy project development. From 2007 to 2010, he served as our chief financial officer and held other positions throughout the Company. Between these two periods of service with Canadian Solar, Mr. Chien was the chief executive officer and managing director of Talesun Solar, a Chinese based solar project developer and EPC contractor. Earlier in his career, he held various management positions with companies in Canada, Europe and China, including chief financial officer of the Greater China regional office of the Bekeart Group of Belgium, chief financial officer of China Grand Enterprise Ltd., and managing director of Beijing Encon Investment. He has also served as a board director with two Chinese listed companies. Mr. Chien graduated with a Science degree from the

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University of Science and Technology of China in 1982. He received a Master's degree in Economics and was a Ph.D. candidate from the University of Western Ontario, Canada.

*Mr. Jianyi Zhang* joined us at the end of February 2016 as senior vice president and chief legal officer, and was appointed as chief compliance officer in April 2016. After graduation from Washington University School of Law, Mr. Zhang worked at Troutman Sanders LLP as an associate from June 1993 to September 1994. Thereafter, he formed a law firm Su & Zhang in Los Angeles, California. He rejoined Troutman Sanders LLP as an associate in April 1995, became a partner in September of 1999 and worked in that position until December 2001. From January 2002 to June 2005, Mr. Zhang worked at Walmart Stores, Inc. first as a senior corporate counsel II and then as senior assistant general counsel. From July 2005 to February 2016, he served, consecutively, as senior advisor to Chinese law firms of Jingtian & Gongcheng Law Firm, Runbo Law Firm, East Associates Law Firm and East & Concord Partners in Beijing. Mr. Jianyi Zhang received his B.A. degree and M.A. degree from the University of Helsinki, Finland in 1982 and 1983, respectively. After graduation from the University of Helsinki in 1983, Mr. Zhang worked at the Chinese Foreign Ministry until September 1989. Thereafter, he went to study at Washington University School of Law in St. Louis, Missouri and received his J.D. degree in 1992.

*Dr. Guoqiang Xing* serves as senior vice president and chief technology officer. He joined us in November 2014 as corporate vice president of technology. He has over 22 years of research and development experience in photovoltaic and semiconductor industries. From September 2009 to October 2014, he was the chief technology officer of Hareon Solar, a company listed on the Shanghai Stock Exchange. He was also employed by JA Solar, a company listed on the NASDAQ Stock Market, as the R&D director from January 2008 to August 2009. His experience in the semiconductor industry includes serving as (a) a R&D advanced process director at HHNEC, a company based in Shanghai, from 2005 to 2008, (b) a R&D advanced process director at Semiconductor Manufacturing International, a company listed on the Hong Kong Stock Exchange, from 2002 to 2005, and (c) a member of technical staff at Kilby Center, Texas Instruments, a company listed on the New York Stock Exchange, in Dallas, Texas from 1995 to 2002. He received his Bachelor of Science degree in Physics from Peking University in 1984 and his Ph.D. in Physical Chemistry from Rice University, Houston, Texas in 1993. He was a postdoctoral research scientist in the Chemistry Department at Columbia University from 1993 to 1995.

### ***Duties of Directors***

Under our governing statute, our directors have a duty of loyalty to act honestly and in good faith with a view to our best interests. They also have a duty to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. 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:

- convening shareholder meetings and reporting to shareholders at such meetings;
- declaring dividends and authorizing other distributions to shareholders;
- 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 issuance of shares.

**B. Compensation of Directors and Executive Officers**

***Cash Compensation***

We paid our directors and executive officers aggregate cash remuneration, including salaries, bonuses and benefits in kind, of approximately \$3.5 million for 2016. Of this amount, we paid approximately \$0.3 million to our four independent directors and approximately \$3.2 million to our executive officers. The total amount set aside or accrued by us and our subsidiaries to provide pension, retirement or similar benefits for our directors and executive officers was approximately \$0.01 million in 2016.

***Share-based Compensation***

*Share Incentive Plan*

In March 2006, we adopted a share incentive plan, or the Plan.

The purpose of the Plan is to promote the success and enhance the value of our company by linking the personal interests of the directors, employees and consultants to those of the shareholders and providing the directors, employees and consultants with an incentive for outstanding performance to generate superior returns to the shareholders. The Plan is also intended to motivate, attract and retain the services of the directors, employees and consultants upon whose judgment, interest and effort the successful conduct of our operations is largely dependent.

In September 2010, the shareholders approved an amendment to the Plan to increase the maximum number of common shares which may be issued pursuant to all awards of restricted shares, options and restricted share units under the Plan to the sum of (i) 2,330,000 plus (ii) the sum of (a) 1% of the number of our outstanding common shares on the first day of each of 2007, 2008 and 2009 plus (b) 2.5% of our outstanding common shares on the first day of each calendar year after 2009. As of March 31, 2017, the maximum number of common shares which may be issued pursuant to all awards of restricted shares, options and restricted share units under the Plan was 13,028,000 common shares, of which 566,190 restricted shares, 3,354,543 options, and 4,016,605 restricted share units (in each case net of forfeitures) have been awarded, leaving 5,090,662 common shares available to be issued.

The following describes the principal terms of the Plan.

*Types of Awards.* We may make the following types of awards under the Plan:

- restricted shares, which are common shares that are subject to certain restrictions and may be subject to risk of forfeiture or repurchase;
- options, which entitle the holder to purchase our common shares; and
- restricted share units, which entitle the holder to receive our common shares

*Plan Administration.* The Compensation Committee of our board of directors administers the Plan, except with respect to awards made to our non-employee directors, where the entire board of directors administers the Plan. The Compensation Committee or the full board of directors, as appropriate, determines the provisions, terms, and conditions of each award.

*Award Agreement.* Awards are evidenced by an award agreement that sets forth the terms, conditions and limitations for each award.

*Eligibility.* We may grant awards to employees, directors and consultants of our company or any of our related entities, which include our subsidiaries and any entities in which we hold a substantial

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ownership interest. We may, however, grant options that are intended to qualify as incentive share options only to our employees.

*Acceleration of Awards upon Corporate Transactions.* Outstanding awards will accelerate upon a change-of-control where the successor entity does not assume our outstanding awards. In such event, each outstanding award will become fully vested and immediately exercisable, the transfer restrictions on the awards will be released and the repurchase or forfeiture rights will terminate immediately before the date of the change-of-control transaction.

*Exercise Price and Term of Options.* In general, the Compensation Committee determines the exercise price of an option and sets out the price in the award agreement. The exercise price may be a fixed or variable price related to the fair market value of our common shares. If we grant an incentive share 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 common shares on the date of that grant and the share option is exercisable for no more than five years from the date of that grant.

The term of an award may not exceed ten years from the date of the grant.

*Vesting Schedule.* In general, the Compensation Committee determines the vesting schedule.

### **Restricted Shares**

The following table summarizes, as of March 31, 2017, the restricted shares granted under the Plan to our executive officers and to other individuals, individually and each as a group. We have not granted any restricted shares to our directors. The restricted shares granted in May 2006 vested over a two-year period beginning in March 2006. The vesting periods for all other restricted shares are indicated in the notes below.

<u>Name</u>	<u>Restricted Shares Granted</u>	<u>Restricted Shares Vested</u>	<u>Restricted Shares Forfeited</u>	<u>Date of Grant</u>	<u>Expiration</u>
<b>Employees</b>					
Twelve individuals as a group	330,860	233,000	—	May 30, 2006	May 29, 2016
Hanbing Zhang <sup>(3)</sup>	116,500 <sup>(4)</sup>	116,500	—	July 28, 2006	July 27, 2016
<b>Employees as a group</b>	<b>447,360</b>	<b>349,500</b>	—		
<b>Other Individuals</b>					
One individual	2,330 <sup>(1)</sup>	—	—	May 30, 2006	May 29, 2016
One individual	116,500 <sup>(2)</sup>	—	—	June 30, 2006	June 29, 2016
<b>Other Individuals as a group</b>	<b>118,830</b>	—	—		
<b>Total Restricted Shares</b>	<b>566,190</b>	<b>349,500</b>	—		

(1) Vest on accelerated termination.

(2) Vest over a two-year period from the date of grant.

(3) The wife of Dr. Shawn Qu, our founder, Chairman, President and Chief Executive Officer.

(4) Vest over a four-year period from the date of grant.

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**Options**

The following table summarizes, as of March 31, 2017, the options granted under the Plan to our directors and executive officers and to other individuals, individually and as a group. The options granted in May 2006 vest over a four-year period beginning in March 2006. The options granted to our independent directors vest immediately. Unless otherwise noted, all other options granted vest over a four-year period (one-quarter on each anniversary date) from the date of grant, and exercise prices are equal to the average of the trading prices of the common shares for the five trading days preceding the date of grant.

Name	Common Shares Underlying Options Granted	Common Shares Underlying Options Exercised	Common Shares Underlying Options Forfeited	Common Shares Underlying Options Outstanding	Exercise Price (\$ per Share)	Date of Grant	Date of Expiration
<b>Directors:</b>							
Shawn (Xiaohua) Qu	20,000	—	—	20,000	3.18	March 12, 2009	March 11, 2019
	25,000	—	—	25,000	11.33	August 27, 2010	August 26, 2020
	18,779	—	—	18,779	9.33	May 20, 2011	May 19, 2021
Robert McDermott	46,600 <sup>(1)</sup>	46,600	—	—	15.00 <sup>(3)</sup>	August 8, 2006	August 7, 2016
	23,300 <sup>(2)</sup>	23,300	—	—	9.88	July 1, 2007	June 30, 2017
	23,300 <sup>(2)</sup>	—	—	23,300	41.75 <sup>(4)</sup>	June 26, 2008	June 25, 2018
	23,300 <sup>(2)</sup>	—	—	23,300	13.75 <sup>(4)</sup>	June 29, 2009	June 28, 2019
	23,300 <sup>(2)</sup>	—	—	23,300	12.09 <sup>(4)</sup>	September 20, 2010	September 19, 2020
	23,300 <sup>(2)</sup>	23,300	—	—	9.81 <sup>(4)</sup>	June 27, 2011	June 26, 2021
	23,300 <sup>(2)</sup>	23,300	—	—	3.03 <sup>(4)</sup>	June 11, 2012	June 10, 2022
	23,300 <sup>(2)</sup>	23,300	—	—	8.29 <sup>(4)</sup>	June 7, 2013	June 6, 2023
Lars-Eric Johansson	46,600 <sup>(2)</sup>	46,600	—	—	15.00 <sup>(3)</sup>	August 8, 2006	August 7, 2016
	23,300 <sup>(2)</sup>	23,300	—	—	9.88 <sup>(4)</sup>	July 1, 2007	June 30, 2017
	23,300 <sup>(2)</sup>	—	—	23,300	41.75 <sup>(4)</sup>	June 26, 2008	June 25, 2018
	23,300 <sup>(2)</sup>	23,300	—	—	13.75 <sup>(4)</sup>	June 29, 2009	June 28, 2019
	23,300 <sup>(2)</sup>	23,300	—	—	12.09 <sup>(4)</sup>	September 20, 2010	September 19, 2020
	23,300 <sup>(2)</sup>	23,300	—	—	9.81 <sup>(4)</sup>	June 27, 2011	June 26, 2021
	23,300 <sup>(2)</sup>	23,300	—	—	3.03 <sup>(4)</sup>	June 11, 2012	June 10, 2022
	23,300 <sup>(2)</sup>	—	—	23,300	8.29 <sup>(4)</sup>	June 7, 2013	June 6, 2023
Harry E. Ruda	23,300 <sup>(2)</sup>	23,300	—	—	8.31 <sup>(4)</sup>	August 14, 2011	August 13, 2021
	23,300 <sup>(2)</sup>	23,300	—	—	3.03 <sup>(4)</sup>	June 11, 2012	June 10, 2022
	23,300 <sup>(2)</sup>	—	—	23,300	8.29 <sup>(4)</sup>	June 7, 2013	June 6, 2023
<b>Directors as a Group</b>	<b>553,079</b>	<b>349,500</b>	<b>—</b>	<b>203,579</b>			
<b>Executive Officers:</b>							
Yan Zhuang	23,300 <sup>(2)</sup>	23,300	—	—	7.36	September 24, 2007	September 23, 2017
	23,300 <sup>(2)</sup>	—	—	23,300	41.75	June 26, 2008	June 25, 2018
	80,000	80,000	—	—	9.37	May 23, 2009	May 22, 2019
	15,000	15,000	—	—	11.33	August 27, 2010	August 26, 2020
	11,268	11,268	—	—	9.33	May 20, 2011	May 19, 2021
Arthur (Jian) Chien	46,600 <sup>(1)</sup>	46,600	—	—	4.29	August 8, 2006	August 7, 2016
	23,300 <sup>(2)</sup>	23,300	—	—	9.88	July 1, 2007	June 30, 2017
	46,600	34,950	11,650	—	7.36 <sup>(4)</sup>	September 24, 2007	September 23, 2017
	20,000	5,000	15,000	—	3.18	March 12, 2009	March 11, 2019
	15,000	—	15,000	—	11.33	August 27, 2010	August 26, 2020
<b>Executive Officers as a Group</b>	<b>304,368</b>	<b>239,418</b>	<b>41,650</b>	<b>23,300</b>			



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Name	Common Shares Underlying Options Granted	Common Shares Underlying Options Exercised	Common Shares Underlying Options Forfeited	Common Shares Underlying Options Outstanding	Exercise Price (\$ per Share)	Date of Grant	Date of Expiration
<b>Employees:</b>							
Ten employees as a group	791,035	669,875	121,160	—	2.12	May 30, 2006	May 29, 2016
Twenty-eight employees as a group	126,170	92,968	33,202	—	4.29	May 30, 2006	May 29, 2016
One employee	2,330 <sup>(6)</sup>	2,330	—	—	4.29	May 30, 2006	May 29, 2016
Two employees as a group	51,260	51,260	—	—	4.29	June 30, 2006	June 29, 2016
One employee	64,075	64,075	—	—	4.29	July 17, 2006	July 16, 2016
Hanbing Zhang <sup>(7)</sup>	46,600	46,600	—	—	4.29	July 28, 2006	July 27, 2016
One employee	58,250	14,563	—	43,687	12.00 <sup>(8)</sup>	August 8, 2006	August 7, 2016
Three employees as a group	11,650	9,903	1,747	—	12.00 <sup>(8)</sup>	August 31, 2006	August 30, 2016
Three employees as a group	79,900	58,250	21,650	—	12.10	March 1, 2007	February 28, 2017
One employee	6,990	1,748	5,242	—	12.10	March 1, 2007	February 28, 2017
Five employees as a group	52,280	5,413	46,867	—	8.21	August 17, 2007	August 16, 2017
Eight employees as a group	39,208 <sup>(5)</sup>	34,376	4,832	—	7.36	September 24, 2007	September 23, 2017
Thirteen employees as a group	193,445	140,113	53,332	—	7.36	September 24, 2007	September 23, 2017
Six employees as a group	36,136	25,000	11,136	—	19.55	February 28, 2008	February 27, 2018
One employee	10,000	—	10,000	—	19.40	March 3, 2008	March 2, 2018
Two employees as a group	18,000	—	18,000	—	20.67	March 31, 2008	March 30, 2018
Two employees as a group	53,300	—	53,300	—	46.28	June 26, 2008	June 25, 2018
Four employees as a group	30,000	5,000	25,000	—	27.88	August 7, 2008	August 6, 2018
Seventy-eight employees as a group	400,200	232,890	132,110	35,200	3.18	March 12, 2009	March 11, 2019
Hanbing Zhang <sup>(7)</sup>	6,000	—	—	6,000	3.18	March 12, 2009	March 11, 2019
One employee	20,000	20,000	—	—	5.26	March 30, 2009	March 29, 2019
Eighteen employees as a group	59,400	40,600	18,800	—	9.37	May 23, 2009	May 22, 2019
One employee	10,000	—	10,000	—	11.58	May 31, 2009	May 30, 2019
One employee	23,300	23,300	—	—	13.75	June 29, 2009	June 28, 2019
Seven employees as a group	30,800	13,200	17,600	—	15.18	August 6, 2009	August 5, 2019
Fourteen employees as a group	82,600	60,600	22,000	—	16.10	November 8, 2009	November 7, 2019
One hundred and thirty-one employees as a group	483,600	226,050	239,675	17,875	11.33	August 27, 2010	August 26, 2020
Hanbing Zhang <sup>(7)</sup>	12,000	—	—	12,000	11.33	August 27, 2010	August 26, 2020
One employee	23,300	—	—	23,300	12.09	September 20, 2010	September 19, 2020
One employee	100,000	—	100,000	—	15.19	October 8, 2010	October 7, 2020
One hundred and fifty-three employees as a group	236,000	119,650	95,750	20,600	15.24	November 14, 2010	November 13, 2020
Five employees as a group	32,900	24,650	4,200	4,050	13.99	March 5, 2011	March 4, 2021
Seventy-three employees as a group	353,064	169,959	137,094	46,011	9.33	May 20, 2011	May 19, 2021
Hanbing Zhang <sup>(7)</sup>	7,512	—	—	7,512	9.33	May 20, 2011	May 19, 2021
Five employees as a group	150,000	40,000	105,000	5,000	8.94	June 1, 2011	May 31, 2021
One employee	23,300	23,300	—	—	9.81	June 27, 2011	June 26, 2021
One employee	60,688	45,516	—	15,172	9.52	October 8, 2010	October 7, 2020
Twenty employees as a group	74,000	26,500	44,500	3,000	3.03	November 14, 2011	November 13, 2021
<b>Employees as a group</b>	<b>3,859,293</b>	<b>2,287,689</b>	<b>1,332,197</b>	<b>239,407</b>			
Two individuals as a group	11,650	11,650	—	—	15.00 <sup>(3)</sup>	April 13, 2007	April 12, 2017
<b>Individuals as a group</b>	<b>11,650</b>	<b>11,650</b>	<b>—</b>	<b>—</b>			
<b>Total Options</b>	<b>4,728,390</b>	<b>2,888,257</b>	<b>1,373,847</b>	<b>466,286</b>			

- (1) Vest in two equal installments, the first upon the date of grant and the second upon the first year anniversary of the date of grant as long as the director remains in service.
- (2) Vest immediately upon the date of grant.
- (3) The initial public offering price of the common shares.
- (4) Exercise price equal to the average of the trading prices of the common shares for the 20 trading days preceding the date of grant.
- (5) Vest one year after the date of grant.
- (6) Vesting accelerated on termination.
- (7) The wife of Dr. Shawn Qu, our founder, Chairman, President and Chief Executive Officer.
- (8) 80% of the initial public offering price of the common shares.

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Before 2014, we agreed to grant each of our independent directors, Robert McDermott, Lars-Eric Johansson and Harry E. Ruda, options to purchase 23,300 of our common shares immediately after each annual shareholder meeting at an exercise price equal to the average of the trading price of our common shares for the 20 trading days ending on such date. These options vested immediately.

**Restricted Share Units**

The following table summarizes, as of March 31, 2017, the restricted share units granted under the Plan to our directors and executive officers and to other individuals, individually and as a group. The restricted share units granted on May 8, 2011 vested on the anniversary of the date of grant. The restricted share units granted to our independent directors vest on the earlier of the date that the director ceases to be a member of our board of directors for any reason and three years after the date of the grant. The other restricted share units granted vest over a four-year period (one-quarter on each anniversary date) from the date of grant.

Name	Restricted Share Units Granted	Restricted Share Units Vested	Restricted Share Units Forfeited	Date of Grant	Expiration
<b>Directors:</b>					
Shawn (Xiaohua) Qu	6,154(1)	6,154	—	May 8, 2011	May 7, 2021
	13,706(2)	13,706	—	May 20, 2011	May 19, 2021
	75,075(2)	75,075	—	March 16, 2012	March 15, 2022
	67,024(2)	50,268	—	March 9, 2013	March 8, 2023
	11,983(2)	5,991	—	May 4, 2014	May 3, 2024
	8,274(2)	2,068	—	May 3, 2015	May 2, 2025
	20,216(2)	—	—	July 8, 2016	July 7, 2026
	121,951(6)	—	—	November 6, 2016	November 5, 2026
	1,020(5)	—	—	July 1, 2014	June 20, 2024
	800(5)	—	—	October 1, 2014	September 30, 2024
Robert McDermott	1,274(5)	—	—	January 1, 2015	December 31, 2024
	880(5)	—	—	April 1, 2015	March 31, 2025
	993(5)	—	—	July 1, 2015	June 30, 2025
	1,820(5)	—	—	October 1, 2015	September 30, 2025
	1,033(5)	—	—	January 1, 2016	December 31, 2025
	1,572(5)	—	—	April 1, 2016	March 31, 2026
	2,051(5)	—	—	July 1, 2016	June 30, 2026
	2,228(5)	—	—	October 1, 2016	September 30, 2026
	2,411(5)	—	—	January 1, 2017	December 31, 2026
	1,020(5)	—	—	July 1, 2014	June 20, 2024
Lars-Eric Johansson	800(5)	—	—	October 1, 2014	September 30, 2024
	1,274(5)	—	—	January 1, 2015	December 31, 2024
	880(5)	—	—	April 1, 2015	March 31, 2025
	993(5)	—	—	July 1, 2015	June 30, 2025
	1,820(5)	—	—	October 1, 2015	September 30, 2025
	1,033(5)	—	—	January 1, 2016	December 31, 2025
	1,572(5)	—	—	April 1, 2016	March 31, 2026
	2,051(5)	—	—	July 1, 2016	June 30, 2026
	2,228(5)	—	—	October 1, 2016	September 30, 2026
	2,411(5)	—	—	January 1, 2017	December 31, 2026
Harry E. Ruda	1,020(5)	—	—	July 1, 2014	June 20, 2024
	800(5)	—	—	October 1, 2014	September 30, 2024
	1,274(5)	—	—	January 1, 2015	December 31, 2024
	880(5)	—	—	April 1, 2015	March 31, 2025
	993(5)	—	—	July 1, 2015	June 30, 2025
	1,820(5)	—	—	October 1, 2015	September 30, 2025
	1,033(5)	—	—	January 1, 2016	December 31, 2025
	1,572(5)	—	—	April 1, 2016	March 31, 2026
	2,051(5)	—	—	July 1, 2016	June 30, 2026
	2,228(5)	—	—	October 1, 2016	September 30, 2026
2,411(5)	—	—	January 1, 2017	December 31, 2026	

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Name	Restricted Share Units Granted	Restricted Share Units Vested	Restricted Share Units Forfeited	Date of Grant	Expiration
Andrew (Luen Cheung) Wong	610(1)	610	—	August 7, 2014	August 6, 2024
	800(1)	800	—	October 1, 2014	September 20, 2024
	1,274(1)	1,274	—	January 1, 2015	December 31, 2024
	880(1)	880	—	April 1, 2015	March 31, 2025
	993(1)	993	—	July 1, 2015	June 30, 2025
	1,820(1)	1,820	—	October 1, 2015	September 30, 2025
	1,033(5)	—	—	January 1, 2016	December 31, 2025
	1,572(5)	—	—	April 1, 2016	March 31, 2026
	2,051(5)	—	—	July 1, 2016	June 30, 2026
	2,228(5)	—	—	October 1, 2016	September 30, 2026
	2,411(5)	—	—	January 1, 2017	December 31, 2026
<b>Directors as a group</b>	<b>388,301</b>	<b>159,639</b>	<b>—</b>		
<b>Executive Officers</b>					
Huifeng Chang	23,340(2)	—	—	May 8, 2016	May 7, 2026
	13,477(2)	—	—	July 8, 2016	July 7, 2026
Guangchun Zhang	80,000(2)	60,000	—	March 9, 2013	March 8, 2023
	7,262(2)	3,631	—	May 4, 2014	May 3, 2024
	5,516(2)	1,379	—	May 3, 2015	May 2, 2025
	13,477(2)	—	—	July 8, 2016	July 7, 2026
Yan Zhuang	2,564(1)	2,564	—	May 8, 2011	May 7, 2021
	8,224(2)	8,224	—	May 20, 2011	May 19, 2021
	45,045(2)	45,045	—	March 16, 2012	March 15, 2022
	40,214(2)	30,160	—	March 9, 2013	March 8, 2023
	7,988(2)	3,994	—	May 4, 2014	May 3, 2024
	5,516(2)	1,379	—	May 3, 2015	May 2, 2025
	13,477(2)	—	—	July 8, 2016	July 7, 2026
Arthur (Jian) Chien	13,445(2)	3,361	—	June 26, 2015	June 25, 2025
	13,477(2)	—	—	July 8, 2016	July 7, 2026
Jianyi Zhang	25,934(2)	—	—	May 8, 2016	May 7, 2026
	13,477(2)	—	—	July 8, 2016	July 7, 2026
Guoqiang Xing	5,717(2)	2,858	—	December 26, 2014	December 25, 2024
	2,758(2)	689	—	May 3, 2015	May 2, 2025
	6,739(2)	—	—	July 8, 2016	July 7, 2026
<b>Executive Officers as a group</b>	<b>347,647</b>	<b>163,284</b>	<b>—</b>		
<b>Employees</b>					
Nine employees as a group	13,844(1)	10,768	3,076	May 8, 2011	May 7, 2021
One hundred and seventy-four employees as a group	423,801(2)	291,519	132,282	May 20, 2011	May 19, 2021
One employee	42,868(2)	42,868	—	July 20, 2011	July 19, 2021
One hundred and forty-eight employees as a group	1,170,089(2)	814,764	355,325	March 16, 2012	March 15, 2022
Four employees as a group	43,000(2)	10,500	32,500	May 6, 2012	May 5, 2022
Three employees as a group	30,000(2)	30,000	—	August 16, 2012	August 15, 2022
Two employees as a group	16,006(2)	16,006	—	August 17, 2012	August 16, 2022
One hundred and thirty-nine employees as a group	956,437(2)	575,216	254,726	March 9, 2013	March 8, 2023
One employee	20,000(2)	15,000	—	June 16, 2013	June 15, 2023
One employee	2,861(2)	2,146	—	July 16, 2013	July 15, 2023
One employee	1,952(2)	488	1,464	July 18, 2013	July 17, 2023
Thirteen employees as a group	19,655(2)	15,308	2,268	August 10, 2013	August 9, 2023
Seven hundred and forty-eight employees as a group	126,036(4)	126,036	—	August 11, 2013	August 10, 2023
One employee	10,000(2)	5,000	5,000	August 17, 2013	August 16, 2023
One employee	20,000(2)	5,000	15,000	September 3, 2013	September 2, 2023
One employee	1,739(2)	1,304	—	October 31, 2013	October 30, 2023
Four employees as a group	5,933(2)	3,489	1,571	November 8, 2013	November 7, 2023
One employee	1,040(2)	780	—	November 25, 2013	November 24, 2023

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Name	Restricted Share Units Granted	Restricted Share Units Vested	Restricted Share Units Forfeited	Date of Grant	Expiration
Hanbing Zhang <sup>(3)</sup>	1,538 <sup>(1)</sup>	1,538	—	May 8, 2011	May 7, 2021
	5,482 <sup>(2)</sup>	5,482	—	May 20, 2011	May 19, 2021
	21,021 <sup>(2)</sup>	21,021	—	March 16, 2012	March 15, 2022
	18,767 <sup>(2)</sup>	14,075	—	March 9, 2013	March 8, 2023
	2,796 <sup>(2)</sup>	1,398	—	May 4, 2014	May 3, 2024
	2,344 <sup>(2)</sup>	586	—	May 3, 2015	May 2, 2025
	4,717 <sup>(2)</sup>	—	—	July 8, 2016	July 7, 2026
One hundred and eighty-six employees as a group	207,923 <sup>(2)</sup>	95,173	49,494	May 4, 2014	May 3, 2024
Three employees as a group	8,574 <sup>(2)</sup>	1,656	5,554	August 7, 2014	August 6, 2024
Four employees as a group	17,472 <sup>(2)</sup>	8,744	3,228	August 8, 2014	August 7, 2024
One employee	847 <sup>(2)</sup>	—	847	September 1, 2014	August 31, 2024
Three employees as a group	2,112 <sup>(2)</sup>	1,518	594	September 26, 2014	September 25, 2024
Six employees as a group	33,956 <sup>(2)</sup>	16,870	320	December 26, 2014	December 25, 2024
Ten employees as a group	109,036 <sup>(2)</sup>	38,669	34,021	January 29, 2015	January 28, 2025
Six employees as a group	68,660 <sup>(2)</sup>	9,809	51,005	January 30, 2015	January 29, 2025
Two hundred and seven employees as a group	145,901 <sup>(2)</sup>	37,266	27,816	May 3, 2015	May 2, 2025
Eighty-four employees as a group	81,838 <sup>(2)</sup>	17,894	22,242	June 15, 2015	June 14, 2025
Three employees as a group	15,535 <sup>(2)</sup>	3,884	—	June 26, 2015	June 25, 2025
Thirteen employees as a group	56,124 <sup>(2)</sup>	14,227	9,615	September 25, 2015	September 24, 2025
Nine employees as a group	26,169 <sup>(2)</sup>	6,476	3,250	December 24, 2015	December 23, 2025
One employee	10,549 <sup>(2)</sup>	2,637	2,637	April 21, 2016	April 20, 2026
Five employees as a group	16,149 <sup>(2)</sup>	—	—	July 1, 2016	June 30, 2026
Two hundred and thirty-eight employees as a group	443,454 <sup>(2)</sup>	—	23,589	July 8, 2016	July 7, 2026
Twenty-three employees as a group	50,243 <sup>(2)</sup>	2,315	6,944	August 8, 2016	August 7, 2026
Five employees as a group	23,654 <sup>(2)</sup>	—	—	November 6, 2016	November 5, 2026
Twelve employees as a group	44,903 <sup>(2)</sup>	—	—	March 6, 2017	March 5, 2027
<b>Employees as a group</b>	<b>4,325,025</b>	<b>2,267,430</b>	<b>1,044,368</b>		
<b>Total Restricted Share Units</b>	<b>5,060,973</b>	<b>2,590,353</b>	<b>1,044,368</b>		

- (1) Vest over a one-year period from the date of grant.
- (2) Vest over a four-year period from the date of grant.
- (3) The wife of Dr. Shawn Qu, our founder, Chairman, President and Chief Executive Officer.
- (4) Vest immediately upon the date of grant.
- (5) Vest after three years from the date of grant
- (6) Vest over an eight-quarter period from date of grant

Effective June 23, 2014, we have agreed to grant each of our independent directors, Robert McDermott, Lars-Eric Johansson, Harry E. Ruda and Andrew (Luen Cheung) Wong, restricted share units quarterly in advance on the first day of July, October, January and April in each year of service. The number of restricted share units granted quarterly is determined by dividing \$30,000 by the average of the closing price of our common shares on each of the five trading days preceding the date of the grant. Each restricted share unit will entitle those directors to receive one of our common shares upon vesting. These restricted share units vest on the earlier of the date that the director ceases to be a member of our board of directors for any reason and three years after the grant date. We agree to issue common shares to those directors as soon as practicable, and in any event within 60 days, after the granted restricted share units are vested.

**C. Board Practices**

In 2016, our board of directors held seven meetings and passed 43 resolutions by unanimous written consent.

***Terms of Directors and Executive Officers***

Our officers are appointed by and serve at the discretion of our board of directors. Our current directors have not been elected to serve for a specific term and, unless re-elected, hold office until the close of our next annual meeting of shareholders or until such time as their successors are elected or appointed.

***Committees of the Board of Directors***

Our board of directors has established an audit committee, a compensation committee, a nominating and corporate governance committee and a technology committee.

*Audit Committee*

Our audit committee comprises Messrs. Lars-Eric Johansson, Robert McDermott, Harry E. Ruda and Andrew (Luen Cheung) Wong and is chaired by Mr. Johansson. Mr. Johansson qualifies as an "audit committee financial expert" as required by the SEC. Each of Messrs. Johansson, McDermott, Ruda and Wong satisfies the "independence" requirements of the Nasdaq corporate governance rules and is "financially literate" as required by the Nasdaq rules. 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:

- selecting our independent auditors and pre-approving all auditing and non-auditing services permitted to be performed by our independent auditors;
- reviewing with our independent auditors any audit problems or difficulties and management's responses;
- reviewing and approving all proposed related-party transactions, as defined in Item 404 of Regulation S-K under the Securities Act;
- discussing the annual audited financial statements with management and our independent auditors;
- reviewing major issues as to the adequacy of our internal controls and any special audit steps adopted in light of material control deficiencies;
- annually reviewing and reassessing the adequacy of our audit committee charter;
- such other matters that are specifically delegated to our audit committee by our board of directors from time to time;
- meeting separately and periodically with management and our internal and independent auditors; and
- reporting regularly to the full board of directors.

In 2016, our audit committee held 13 meetings, and passed one resolution by unanimous written consent.

*Compensation Committee*

Our compensation committee consists of Messrs. Lars-Eric Johansson, Robert McDermott, Harry E. Ruda and Andrew (Luen Cheung) Wong and is chaired by Mr. Wong. Each of Messrs. Johansson, McDermott, Ruda and Wong satisfies the "independence" requirements of the Nasdaq corporate governance rules. The compensation committee assists the board in reviewing and approving the compensation structure for our directors and executive officers, including all forms of

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compensation to be provided to our directors and executive officers. Members of the compensation committee are not prohibited from direct involvement in determining their own compensation. Our chief executive officer may not be present at any committee meeting during which his compensation is deliberated. The compensation committee is responsible for, among other things:

- reviewing and approving corporate goals and objectives relevant to the compensation of our chief executive officer, evaluating the performance of our chief executive officer in light of those goals and objectives, and setting the compensation level of our chief executive officer based on this evaluation;
- reviewing and approving the compensation arrangements for our other executive officers and our directors; and
- overseeing and periodically reviewing the operation of our employee benefits plans, including bonus, incentive compensation, stock option, pension and welfare plans.

In 2016, our compensation committee held six meetings and passed one resolution by unanimous written consent.

### *Nominating and Corporate Governance Committee*

Our nominating and corporate governance committee consists of Messrs. Lars-Eric Johansson, Robert McDermott, Harry E. Ruda and Andrew (Luen Cheung) Wong and is chaired by Mr. McDermott. Each of Messrs. Johansson, McDermott, Ruda and Wong satisfies the "independence" requirements of the Nasdaq corporate governance rules. The nominating and corporate governance committee assists the board of directors in identifying 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:

- identifying and recommending to the board nominees for election or re-election to the board, or for appointment to fill any vacancy;
- reviewing annually with the board the current composition of the board in light of the characteristics of independence, age, skills, experience and availability of service to us;
- identifying and recommending to the board the directors to serve as members of the board's committees;
- advising the board periodically with respect to significant developments in the law and practice of corporate governance as well as our compliance with applicable laws and regulations, and making recommendations to the board on all matters of corporate governance and on any corrective action to be taken; and
- monitoring compliance with our code of business conduct and ethics, including reviewing the adequacy and effectiveness of our procedures to ensure proper compliance.

In 2016, our nominating and corporate governance committee held four meetings and did not pass any resolution by unanimous written consent.

### *Research and Development Committee*

Our research and development committee consists of Dr. Harry E. Ruda and Dr. Shawn Qu and is chaired by Dr. Ruda. Our chief technical officer is an advisory member of the committee. The research and development committee advises and assists the board of directors and management on matters

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relating to technology and technological innovation and development as it relates to our solar power business. The research and development committee is responsible for, among other things:

- reviewing, evaluating and advising the board of directors and management regarding the quality, scope, direction and effectiveness of our research and development programs and activities;
- reviewing, evaluating and advising the board of directors and management regarding our progress in achieving our research and development goals and objectives;
- reviewing, evaluating and making recommendations to the board of directors and management on our internal and external investments in science and technology;
- monitoring, identifying, evaluating and advising the board of directors and management regarding competing solar power technologies and new and emerging developments in solar power science and technology;
- reviewing, evaluating and advising the board of directors and our chief executive officer regarding the composition and quality of the research and development team; and
- providing general oversight of matters relating to the protection of our intellectual property.

Our research and development committee was formed in November 2014. In 2016, it held three meetings and did not pass any resolution by unanimous written consent.

### ***Interested Transactions***

Under the CBCA, a director or officer of a corporation who is a party to a material contract or transaction or proposed material contract or transaction with the corporation, or is a director or officer (or an individual acting in a similar capacity) of, or has a material interest in, any person who is party to such a contract or transaction, is required to disclose to the corporation in writing or request to have entered into the minutes of meetings of directors the nature and extent of his or her interest in accordance with the requirements of the CBCA. A director may vote on any resolution in respect of such contract or transaction only if the contract or transaction is: (a) one relating primarily to remuneration as a director, officer, employee or agent of the corporation or an affiliate; (b) one for indemnity or insurance in favor of directors and officers in compliance with the CBCA; or (c) one with an affiliate.

In 2016, we did not enter into any interested transactions other than those described in this "Item 6. Directors, Senior Management and Employees" and "Item 7. Major Shareholders and Related Party Transactions—B. Related Party Transactions."

### ***Remuneration and Borrowing***

Our directors may determine the remuneration to be paid to them. The compensation committee will assist the directors in reviewing and approving the compensation structure for our directors. Our directors may, without authorization of the shareholders (a) borrow money on our credit, (b) issue, reissue, sell, pledge or hypothecate debt obligations of ours, (c) give a guarantee on our behalf to secure performance of an obligation of any person, and (d) mortgage, hypothecate, pledge or otherwise create a security interest in all or any property of ours, owned or subsequently acquired, to secure any obligation of ours.

### ***Qualification***

Each of our independent directors is asked to hold common shares and/or restricted share units having a value which is at least five times the director's annual cash retainer. This requirement should be satisfied before the later of July 1, 2017 and three years after he or she becomes a director.

***Employment Agreements***

We have entered into employment agreements with each of our executive officers.

All of the employment agreements with our executive officers are for an indefinite term. Under the employment agreements, we may terminate an executive officer's employment at any time for cause without notice and for any other reason by giving written notice of termination to the executive officer. An executive officer may terminate his employment at any time by giving 30 or 60 days' notice of termination to us. If we terminate an executive officer's employment for any reason other than cause, or the executive officer terminates his employment for good reason, the executive officer is entitled to continue to receive his salary for a period of six or twelve months following the termination of his employment provided that he continues to comply with his confidentiality, inventions and non-competition obligations described below.

Each executive officer has agreed not to disclose or use, directly or indirectly, any of our confidential information, including trade secrets and information concerning our finances, employees, technology, processes, facilities, products, suppliers, customers and markets, except in the performance of his duties and responsibilities or as required pursuant to applicable law. Each executive officer has also agreed to disclose in confidence to us all inventions, designs and trade secrets which he may conceive, develop or reduce to practice during his employment and to assign all right, title and interest in them to us. Finally, each executive officer has agreed that he will not, directly or indirectly, during and within one year after the termination of his employment:

- communicate or have any dealings with our customers or suppliers that would be likely to harm the our business relationship with them;
- provide services, whether as a director, officer, employee, independent contractor or otherwise, to a competitor or acquire or hold any interest in, whether as a shareholder, partner or otherwise, in a competitor provided that the executive officer may hold up to 5% of the outstanding shares or other securities of a competitor that is listed on a securities exchange or recognized securities market; and
- approach solicit, whether by offer of employment or otherwise, the services of any of our employees.

Our compensation committee is required to approve all employment agreements entered into by us with any employee whose base salary is equal to or greater than \$150,000.

***Director Agreements***

We have entered into director agreements with our independent directors, pursuant to which we make payments in the form of an annual cash retainer, payable quarterly, and quarterly grants of restricted share units to our independent directors for their services. See "—B. Compensation of Directors and Executive Officers."

***Indemnification of Directors and Officers***

Under the CBCA and pursuant to our by-laws, we may indemnify any present or former director or officer or an individual who acts or has acted at our request as a director or officer, or an individual acting in a similar capacity, of another corporation or entity, against all costs, charges and expenses, including an amount paid to settle an action or satisfy a judgment, reasonably incurred by such individual in respect of any civil, criminal, administrative, investigative or other proceeding in which the individual is involved because of that association with us or other entity, provided that the director or officer acted honestly and in good faith with a view to our best interests, or, as the case may be, to the best interests of the other entity for which he or she acted as a director or officer or in a similar



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capacity at our request, and, in the case of a criminal or administrative action or proceeding that is enforced by a monetary penalty, had reasonable grounds for believing that his or her conduct was lawful. Such indemnification may be made in connection with a derivative action only with court approval. A director or officer is entitled to indemnification from us as a matter of right if the court or other competent authority has judged that he or she has not committed any fault or omitted to do anything that the individual ought to have done and fulfilled the conditions set forth above.

We have entered into indemnity agreements with each of our directors agreeing to indemnify them, to the fullest extent permitted by law, against all liability, loss, harm damage cost or expense, reasonably incurred by the director in respect of any threatened, pending, ongoing or completed claim or civil, criminal, administrative, investigative or other action or proceeding made or commenced against him or in which he is or was involved by reason of the fact that he is or was a director of our company.

Our directors and officers are covered by directors' and officers' insurance policies.

### **D. Employees**

As of December 31, 2014, 2015 and 2016, we had 8,673, 8,969 and 9,724 full-time 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, 2016.

	As of December 31, 2016	
	Number of Employees	Percentage of Total
Manufacturing	7,583	78.0%
General and administrative	1,081	11.1%
Research and development	234	2.4%
Sales and marketing	826	8.5%
Total	9,724	100%

As of December 31, 2016, we had 2,453 employees at our facilities in Suzhou, 2,443 employees at our facilities in Changshu, 1,748 employees at our facilities in Luoyang, 729 employees at our facilities in Yancheng, and 2,351 employees based in our facilities and offices in Canada, Japan, Australia, Singapore, South Korea, Hong Kong, India, Indonesia, Vietnam, Brazil, United Arab Emirates, South Africa, the Americas and the EU (which includes Germany, Italy and Spain). Our employees are not covered by any collective bargaining agreement. We consider our relations with our employees to be good. From time to time, we also employ or engage part-time employees or independent contractors to support our manufacturing, research and development and sales and marketing activities. We plan to hire additional employees as we expand.

### **E. Share Ownership**

The following table sets forth information with respect to the beneficial ownership of our common shares as of March 31, 2017, the latest practicable date, by:

- each of our directors and executive officers; and
- each person known to us to own beneficially more than 5% of our common shares.

The calculations in the table below are based on the 57,832,673 common shares outstanding, as of March 31, 2017.

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Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, we have included shares that the person has the right to acquire within 60 days from March 31, 2017, including through the exercise of any option, warrant or other right or the conversion of any other security. These shares, however, are not included in the computation of the percentage ownership of any other person.

	Shares Beneficially Owned <sup>(1)</sup>	
	Number	%
<b>Directors and Executive Officers:<sup>(2)</sup></b>		
Shawn (Xiaohua) Qu <sup>(3)</sup>	13,649,339	23.5%
Robert McDermott <sup>(4)</sup>	74,900	*
Lars-Eric Johansson <sup>(5)</sup>	51,600	*
Harry E. Ruda <sup>(6)</sup>	23,300	*
Guangchun Zhang <sup>(7)</sup>	15,814	*
Yan Zhuang <sup>(8)</sup>	51,354	*
Arthur (Jian) Chien <sup>(9)</sup>	6,727	*
Huifeng Chang <sup>(10)</sup>	9,204	*
Jianyi Zhang <sup>(11)</sup>	9,852	*
Guoqiang Xing <sup>(12)</sup>	5,345	*
All Directors and Executive Officers as a Group	13,897,435	23.9%
<b>Principal Shareholders</b>		
DNB Asset Management AS <sup>(13)</sup>	4,837,742	8.4%

\* The person beneficially owns less than 1% of our outstanding shares.

- (1) Beneficial ownership is determined in accordance with Rule 13d-3 of the General Rules and Regulations under the Exchange Act, and includes voting or investment power with respect to the securities.
- (2) The business address of our directors and executive officers is 545 Speedvale Avenue West, Guelph, Ontario, Canada N1K 1E6.
- (3) Includes 13,522,032 common shares directly held by Dr. Shawn Qu and Hanbing Zhang, the wife of Dr. Shawn Qu, 89,291 common shares issuable upon the exercise of options held by Dr. Shawn Qu and Ms. Zhang within 60 days from March 31, 2017, 38,016 shares issuable upon vesting of restricted share units held by Dr. Shawn Qu and Ms. Zhang within 60 days from March 31, 2017.
- (4) Includes 5,000 common shares directly held by Mr. McDermott and 69,900 common shares issuable upon exercise of options held by Mr. McDermott within 60 days from March 31, 2017.
- (5) Includes 5,000 common shares directly held by Mr. Johansson and 46,600 common shares issuable upon exercise of options held by Mr. Johansson within 60 days from March 31, 2017.
- (6) Includes 23,300 common shares issuable upon exercise of options held by Mr. Ruda within 60 days from March 31, 2017.
- (7) Includes 9,250 common shares directly held by Mr. Zhang and 6,564 common shares issuable upon vesting of restricted shares units held by Mr. Zhang within 60 days from March 31, 2017.
- (8) Includes 24,678 common shares directly held by Mr. Zhuang, 23,300 common shares issuable upon exercise of options held by Mr. Zhuang within 60 days from March 31, 2017, and 3,376 common shares issuable upon vesting of restricted share units held by Mr. Zhuang within 60 days from March 31, 2017.

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- (9) Includes 3,358 common shares directly held by Mr. Chien and 3,369 common shares issuable upon vesting of restricted shares units held by Mr. Chien within 60 days from March 31, 2017.
- (10) Includes 9,204 shares issuable upon vesting of restricted share units held by Mr. Chang within 60 days from March 31, 2017.
- (11) Includes 9,852 shares issuable upon vesting of restricted share units held by Mr. Zhang within 60 days from March 31, 2017.
- (12) Includes 4,656 shares directly held by Mr. Xing and 689 shares issuable upon vesting of restricted share units held by Mr. Xing within 60 days from March 31, 2017.
- (13) Represents 4,837,742 common shares of our Company held by DNB Asset Management AS, as reported on Schedule 13G filed by DNB Asset Management AS on February 10, 2017. The percentage of beneficial ownership was calculated based on the total number of our common shares as of March 31, 2017. The principal business address of DNB Asset Management AS is Dronning Aufemias Gate 30, Bygg M-12N 0191 Oslo, Norway.

None of our shareholders have different voting rights from other shareholders as of the date of this annual report on Form 20-F. We are currently not aware of any arrangement that may, at a subsequent date, result in a change of control of our company.

**ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS**

**A. Major Shareholders**

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

**B. Related Party Transactions**

***Guarantees and Loans***

In each of the three years ended December 31, 2016, Dr. Shawn Qu, our Chairman, President and Chief Executive Officer, fully guaranteed one-year loan facilities of RMB896 million (\$129.1 million) from Chinese commercial banks. Amounts drawn down from the facilities as of December 31, 2014, 2015 and 2016 were \$145.1 million, \$78.2 million and \$79.6 million, respectively.

Dr. Shawn Qu fully guaranteed a two-year RMB450 million (\$64.8 million) loan facility from Chinese commercial banks in 2015. Amounts drawn down from the facilities were \$63.1 million and \$55.5 million as of December 31, 2015 and 2016, respectively.

Dr. Shawn Qu fully guaranteed a three-year \$150 million loan facility from Chinese commercial banks in 2015. Amounts drawn down as of December 31, 2015 were nil. The facility was fully drawn down as of December 31, 2016.

Recurrent entered into buyer payment guaranties with a third party supplier in connection with certain solar module supply agreements of Tranquillity and Garland, our 49% owned affiliates, pursuant to which Recurrent unconditionally guarantees to the third party supplier the timely payment in full when due and other payment obligations of Tranquillity and Garland required under the solar module supply agreements. As of December 31, 2016, the payable balances due by Tranquillity and Garland was nil and \$11.1 million, respectively.

***Sales and purchase contracts with affiliates***

In 2016, we sold solar power products to Roserock and Garland in the amount of \$247.7 million, provided development services to Tranquillity, Garland, and Roserock in the amount of \$48.7 million.

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In 2016, we incurred costs of RMB54.9 million (\$7.9 million) to Gaochuangte for EPC services related to our solar power projects.

**Employment Agreements**

See "Item 6. Directors, Senior Management and Employees—C. Board Practices—Employment Agreements."

**Share Incentive Plan**

See "Item 6. Directors, Senior Management and Employees—B. Compensation of Directors and Executive Officers—Share-based Compensation—Share Incentive Plan."

**C. Interests of Experts and Counsel**

Not applicable.

**ITEM 8. FINANCIAL INFORMATION**

**A. Consolidated Statements and Other Financial Information**

We have appended audited consolidated financial statements filed as part of this annual report.

**Legal and Administrative Proceedings**

*Class Action Lawsuits*

In January 2015, the plaintiff in a class action lawsuit filed against us and certain of our executive officers in the Ontario Superior Court of Justice obtained an order for class certification in respect of certain claims for which he had obtained leave in September 2014 to assert the statutory cause of action for misrepresentation under the Ontario Securities Act, for certain negligent misrepresentation claims and for oppression remedy claims advanced under the CBCA. The Court dismissed our application for leave to appeal and the class action has moved to the merits stage. We believe the Ontario action is without merit and we are defending it vigorously.

*LDK*

In July 2010, CSI Cells, one of our wholly-owned subsidiaries, filed a request for arbitration against LDK with Shanghai International Economy and Trade Arbitration Commission, formerly known as CIETAC Shanghai Branch, in relation to wafer supply contracts we entered into with LDK in October 2007, or the 2007 Supply Contract, and in June 2008, or the 2008 Supply Contracts. In December 2012, CIETAC Shanghai Branch awarded RMB248.9 million in compensation plus RMB2.32 million in arbitration expenses to LDK for the damages LDK claimed to have suffered from the alleged breaches by us of the 2007 Supply Contract and 2008 Supply Contracts between July 2009 and September 2010, or the 2012 Arbitral Award.

In February 2013, LDK filed for enforcement of the 2012 Arbitral Award with Jiangsu Suzhou Intermediate People's Court, or the Suzhou Intermediate Court. In 2013, LDK initiated two separate proceedings against us in Jiangxi Xinyu Intermediate People's Court, or the Xinyu Intermediate Court, claiming that we had forfeited our rights to the initial deposits under the 2007 Supply Contract and 2008 Supply Contracts because of the alleged breaches under these contracts. On October 18, 2013, the Xinyu Intermediate Court stayed these proceedings pending the decision by the Suzhou Intermediate Court as to the 2012 Arbitral Award. On September 9, 2015, the Suzhou Intermediate Court ruled in favor of LDK. On October 19, 2015, we reached a settlement agreement with LDK, or the 2015 Settlement Agreement. Under the 2015 Settlement Agreement, we agreed to pay RMB132.7 million to

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LDK and to purchase 64.3 million pieces of silicon wafers from LDK at market price over a three year period starting in or around December 2015, in exchange for which LDK (a) would release us from the 2012 Arbitration Award and waive its rights and claims thereunder and (b) would withdraw its complaints from the Xinyu Intermediate Court and terminate such proceedings. The Suzhou Intermediate Court reviewed the 2015 Settlement Agreement and terminated the enforcement proceeding relating to the 2012 Arbitral Award. We have already paid the required amounts and fulfilled our obligations under the 2015 Settlement Agreement.

On May 19, 2016, we received a copy of a bill of complaint from Xinyu Intermediate Court, in which LDK's receiver applied to the court for an order to revoke the 2015 Settlement Agreement pursuant to PRC bankruptcy law, and requested us to pay an amount that LDK's receiver alleged to have been waived by LDK under the 2015 Settlement Agreement. On December 1, 2016, Xinyu Intermediate Court heard this case, and now it is pending for the court's further notice.

In March 2014, LDK filed an application for arbitration with CIETAC seeking compensation and enforcement expenses for damages LDK claimed to have suffered from the alleged breaches under the 2008 Supply Contracts between October 2010 and December 2013. We filed counterclaims against LDK in July 2014. On December 22, 2015, CIETAC ruled to reject both LDK's claims and our counterclaims.

### *U.S. Anti-dumping and Countervailing Duty Proceedings*

#### *Solar 1*

On October 9, 2012, the USDOC issued final affirmative determinations with respect to its anti-dumping and countervailing duty investigations on crystalline silicon photovoltaic, or CSPV, cells, whether or not incorporated into modules, from China. On November 7, 2012, the U.S. International Trade Commission, or USITC, ruled that imports of CSPV cells had caused material injury to the U.S. CSPV industry. As a result of these rulings, we were required to pay cash deposits on Chinese-origin CSPV cells imported into the U.S., whether alone or incorporated into modules. The announced cash deposit rates applicable to us were 13.94% (anti-dumping duty) and 15.24% (countervailing duty). We paid all the cash deposits due under these determinations. A number of parties challenged the determinations of the USDOC and the USITC in appeals to the U.S. Court of International Trade. On August 7, 2015, the U.S. Court of International Trade sustained the USITC's final determination and on December 11, 2015, the U.S. Court of International Trade sustained the USDOC's final determination. Certain of these decisions have also been appealed to the U.S. Court of Appeals for the Federal Circuit. Decisions on those appeals are expected in 2017 or 2018.

The rates at which duties will be assessed and payable are subject to ongoing administrative reviews.

The first of these reviews was concluded on July 14, 2015, when the USDOC published its final results of the 2012-2013 administrative reviews of the anti-dumping and countervailing duty orders on CSPV cells. As a result of these decisions, the duty rates applicable to us were revised to 9.67% (anti-dumping duty) and 20.94% (countervailing duty). The rates at which duties will be assessed and payable for the 2012-2013 period are subject to ongoing litigation at the U.S. Court of International Trade. Decisions on these appeals are not expected until mid to late 2017.

The second of these reviews was concluded in June 2016 (anti-dumping duty order) and July 2016 (countervailing duty order) when the USDOC published the final results of the 2013-2014 administrative reviews of the anti-dumping and countervailing duty orders on CSPV cells. As result of these decisions, the anti-dumping duty rate applicable to us was changed to 8.52% (from 9.67%). Because we were not subject to the second administrative review of the countervailing duty order, our countervailing duty rate remained at 20.94%. The rates at which duties will be assessed and payable for

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the 2013-2014 period are subject to ongoing litigation at the U.S. Court of International Trade. Decisions on these appeals are not expected until late 2017 or 2018.

The third and fourth of these reviews for the 2014-2015 period and 2015-2016 period, respectively, are ongoing and are expected to conclude in mid-2017 and mid-2018, respectively. These reviews may result in duty rates that differ from the previous duty rates and cash deposit rates applicable to us. These duty rates could materially and adversely affect our U.S. import operations and increase our cost of selling into the U.S.

The preliminary results of the third administrative review changed the antidumping duty rate applicable to us to 30.42% (from 8.52%) and the countervailing duty rate applicable to us to 20.98% (from 20.94%). We are vigorously contesting the preliminary results in the final phase of this administrative review.

*Solar 2*

On December 31, 2013, the U.S. unit of SolarWorld AG filed a new trade action with the USDOC and the USITC accusing Chinese producers of certain CSPV cells and modules of dumping their products into the U.S. and of receiving countervailable subsidies from the Chinese authorities. This trade action also accused Taiwanese producers of certain CSPV cells and modules of dumping their products into the U.S. Excluded from these new actions were those Chinese-origin solar products covered by the Solar 1 rulings described above. We were identified as one of a number of Chinese producers exporting the subject goods to the U.S. market.

On December 15, 2014, the USDOC issued final affirmative determinations with respect to its anti-dumping and countervailing duty investigation on these CSPV products. On January 21, 2015, the USITC ruled that imports of these CSPV products had caused material injury to the U.S. CSPV industry. As a result of these rulings, we are required to pay cash deposits on these CSPV products. The announced cash deposit rates applicable to our Chinese CSPV products subject to Solar 2 orders were 30.06% (anti-dumping duty) and 38.43% (countervailing duty). The cash deposit rate applicable to our Taiwanese CSPV products subject to Solar 2 orders varied by solar cell producer. We paid all the cash deposits due under these determinations.

"Chinese CSPV products subject to Solar 2 orders" refer to CSPV products manufactured in mainland China using non-Chinese (e.g., Taiwanese) CSPV cells and imported into the USA during the investigation or review periods of Solar 2. "Taiwanese CSPV products subject to Solar 2 orders" refer to CSPV products manufactured outside of mainland China using Taiwanese CSPV cells and imported into the USA during the investigation or review periods of Solar 2.

The rates at which duties will be assessed and payable are subject to two ongoing administrative reviews that began in 2016: the first for the 2014-2015 period and the second for the 2015-2016 period.

Because we are not subject to the first administrative reviews of the Chinese orders of Solar 2, our duty rates will remain at 30.06% (anti-dumping duty) and 38.43% (countervailing duty) for our Chinese CSPV products subject to Solar 2 orders during the period of the first administrative review. For our Taiwanese CSPV products subject to the Solar 2 orders, DOC calculated preliminary antidumping margins ranging from 3.50% to 4.20%. Final margins are yet to be determined in the first administrative review, for which the final results are currently scheduled to be issued on July 5, 2017. The final results will set the new cash deposit rate. The second administrative reviews for both the Chinese and Taiwanese orders of Solar 2 are expected to conclude in mid-2018. These reviews may result in duty rates that differ from the cash deposit rates applicable to us. These duties could materially and adversely affect our U.S. import operations and increase our cost of selling into the U.S.

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### *European Anti-dumping and Anti-Subsidy Investigations*

On September 6, 2012, following a complaint lodged by EU ProSun, an ad-hoc industry association of EU CSPV module, cell and wafer manufacturers, the European Commission initiated an anti-dumping investigation concerning EU imports of CSPV modules and key components (i.e., cells and wafers) originating in China. On November 8, 2012, following a complaint lodged by the same parties, the European Commission initiated an anti-subsidy investigation on these same products. On December 6, 2013, the EU imposed definitive anti-dumping and countervailing measures on imports of CSPV modules and key components (i.e., cells) originating in or consigned from China.

On February 28, 2014, we filed separate actions with the General Court of the EU for annulment of the regulation imposing the definitive anti-dumping measures and of the regulation imposing the definitive countervailing measures (case T-162/14 and joined cases T-158/14, T-161/14, and T-163/14). The General Court rejected these actions for annulment. We are assessing whether to appeal the judgment before the Court of Justice of the EU.

On June 20, 2014, we filed a request for leave to intervene in two separate actions brought by SolarWorld AG and others before the General Court of the EU for annulment of the undertaking agreement between the European Commission and Chinese exporting producers (cases T-141/14 and T-142/14).

On November 23, 2015, we submitted to the General Court of the European Union requests for the withdrawal of our intervention in cases T-141/14 and T-142/14. On February 1, 2016, the General Court of the EU declared both actions brought by SolarWorld AG and others to be inadmissible and accepted our request for the withdrawal of our intervention. SolarWorld AG and others have appealed before the Court of Justice of the EU (cases C-204/16 P and C-205/16 P). We have not intervened in the appeal proceedings.

On December 5, 2015, the European Commission initiated expiry (sunset) reviews of the anti-dumping and countervailing measures on imports of CSPV modules and key components (i.e., cells) originating in or consigned from China. On March 3, 2017, the European Commission extended the anti-dumping and countervailing measures for 18 months on imports of CSPV modules and key components (i.e., cells) originating in or consigned from China. On the same day, the European Commission initiated a partial interim review limited to the form of the extended measures.

### *Canadian Anti-dumping and Countervailing Duties Investigation*

On June 3, 2015, the Canada Border Services Agency released final determinations of dumping and subsidization which found dumping calculated by way of a Ministerial Specification based on a Non Market Economy finding applicable to all cooperative exporters and ascertained a Canadian Solar-specific subsidies rate of RMB0.014 per Watt. On July 3, 2015 the Canadian International Trade Tribunal determined that a Canadian industry was not negatively affected as a result of imported modules but was threatened with negative impact. As a result of these findings, definitive duties have been imposed on imports of Chinese solar modules into Canada starting on July 3, 2015. We do not believe the imposition of these duties will have a material negative effect upon our results of operations because we have significant module manufacturing capacity in Ontario and do not rely on Chinese solar modules to serve our Canadian business.

**Dividend Policy**

We have never declared or paid any dividends on our common shares, nor do we have any present plan to declare or pay any dividends on our common shares in the foreseeable future. We currently intend to retain our available funds and any future earnings to operate and expand our business.

Our board of directors has complete discretion on whether to pay dividends, subject only to the requirements of the CBCA. Even if our board of directors decides to pay dividends, the form, frequency and amount will depend upon our future operations, earnings, capital requirements, surplus, general financial condition, contractual restrictions, and other factors that our board of directors may deem relevant.

**B. Significant Changes**

Between January 1, 2017 and March 31, 2017, an additional 54,547 restricted share units granted under the Plan vested.

Except as described above, we have not experienced any significant changes since the date of our audited consolidated financial statements included in this annual report.

**ITEM 9. THE OFFER AND LISTING****A. Offering and Listing Details**

Our common shares have been listed on the Nasdaq under the symbol "CSIQ" since November 9, 2006. The following table sets forth the high and low trading prices for our common shares on the Nasdaq for the periods indicated.

	Trading Price	
	High	Low
	\$	\$
<b>Annual Highs and Lows</b>		
2012	4.74	1.95
2013	33.25	3.12
2014	44.50	20.64
2015	40.08	14.16
2016	28.80	10.25
<b>Quarterly Highs and Lows</b>		
First Quarter 2015	36.40	18.68
Second Quarter 2015	40.08	27.60
Third Quarter 2015	29.30	14.16
Fourth Quarter 2015	29.83	16.05
First Quarter 2016	28.80	15.62
Second Quarter 2016	19.65	13.56
Third Quarter 2016	16.16	11.72
Fourth Quarter 2016	15.95	10.25
First Quarter 2017	15.85	10.86
<b>Monthly Highs and Lows</b>		
<b>2016</b>		
October	15.95	13.66
November	14.84	10.25
December	13.37	11.02
<b>2017</b>		
January	13.17	11.21
February	15.85	11.65
March	14.98	10.86
April (through April 24)	13.92	12.11



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**B. Plan of Distribution**

Not applicable.

**C. Markets**

Our common shares have been listed on the Nasdaq since November 9, 2006 under the symbol "CSIQ."

**D. Selling Shareholders**

Not applicable.

**E. Dilution**

Not applicable.

**F. Expenses of the Issue**

Not applicable.

**ITEM 10. *ADDITIONAL INFORMATION***

**A. Share Capital**

Not applicable.

**B. Memorandum and Articles of Association**

We incorporate by reference into this annual report the description of our Amended Articles of Continuance, as amended, contained in our F-1 registration statement (File No. 333-138144), as amended, initially filed with the SEC on October 23, 2006.

**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—B. Business Overview—Government Regulations—Foreign Currency Exchange" and "Item 4. Information on the Company—B. Business Overview—Government Regulations—Dividend Distribution."

**E. Taxation**

***Principal Canadian Federal Tax Considerations***

*General*

The following is a summary of the principal Canadian federal income tax implications generally applicable to a U.S. Holder (defined below), who holds or acquires our common shares, or the Common Shares, and who, at all relevant times, for purposes of the Income Tax Act (Canada), or the Canadian Tax Act, (i) is the beneficial owner of such Common Shares; (ii) has not been, is not and will not be resident (or deemed to be resident) in Canada at any time while such U.S. Holder has held or holds the Common Shares; (iii) holds the Common Shares as capital property; (iv) deals at arm's

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length with and is not affiliated with us; (v) does not use or hold, and is not deemed to use or hold, the Common Shares in the course of carrying on a business in Canada, (vi) is not part of a transaction or event or series of transactions or events that includes the acquisition or holding of Common Shares so as to cause the foreign affiliate dumping rules in section 212.3 of the Canadian Tax Act to apply; (vii) is not a "specified shareholder" of us as defined subsection 18(5) of the Canadian Tax Act; (viii) is not a financial institution, specified financial institution, partnership or trust as defined in the Canadian Tax Act; (ix) is a resident of the United States for purposes of the Canada—United States Income Tax Convention (1980), or the Convention, and is fully entitled to the benefits of the Convention; and (x) has not, does not and will not have a fixed base or permanent establishment in Canada within the meaning of the Convention at any time when such U.S. Holder has held or holds the Common Shares, or a U.S. Holder. Special rules that are not addressed in this summary may apply to a U.S. Holder that is an insurer that carries on, or is deemed to carry on, an insurance business in Canada and elsewhere or that is an authorized foreign bank as defined in the Canadian Tax Act and such U.S. Holders should consult their own tax advisers.

This summary assumes that we are a resident of Canada for the purposes of the Canadian Tax Act. Should it be determined that we are not a resident of Canada for the purposes of the Canadian Tax Act by virtue of being resident in another country (such as the PRC) by virtue of the application of an income tax convention between Canada and that other country, the Canadian income tax consequences to a U.S. Holder will differ from those described herein and U.S. Holders should consult their own tax advisers.

This summary is based on the current provisions of the Canadian Tax Act, and the regulations thereunder, the Convention, and our counsel's understanding of the published administrative practices and policies of the Canada Revenue Agency, all in effect as of the date of this annual report on Form 20-F. This summary takes into account all specific proposals to amend the Canadian Tax Act or the regulations thereunder publicly announced by or on behalf of the Minister of Finance (Canada) prior to the date of this annual report on Form 20-F. No assurances can be given that such proposed amendments will be enacted in the form proposed, or at all. This is not an exhaustive summary of all potential Canadian federal income tax consequences to a U.S. Holder and this summary does not take into account or anticipate any other changes in law or administrative practices, whether by judicial, governmental or legislative action or decision, nor does it take into account provincial, territorial or foreign tax legislation or considerations, which may differ from the Canadian federal income tax considerations described herein.

The Canadian federal income tax consequences of purchasing, owning and disposing of Common Shares will depend on each U.S. Holder's particular situation. This summary is not intended to be a complete analysis of or description of all potential Canadian federal income tax consequences, and should not be construed to be, legal, business or tax advice directed at any particular U.S. Holder or prospective purchaser of Common Shares. Accordingly, U.S. Holders or prospective purchasers of Common Shares should consult their own tax advisers for advice with respect to the Canadian federal income tax consequences of an investment in Common Shares based on their own particular circumstances.

### *Dividends*

Amounts paid or credited, or deemed under the Canadian Tax Act to be paid or credited, on account or in lieu of payment of, or in satisfaction of, dividends to a U.S. Holder that has provided the requisite documentation regarding its entitlement to benefits under the Convention will be subject to Canadian non-resident withholding tax at the reduced rate of 15% under the Convention. This rate is further reduced to 5% in the case of a U.S. Holder that is a company for purposes of the Convention that owns at least 10% of our voting shares at the time the dividend is paid or deemed to be paid.

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### *Disposition of Our Common Shares*

A U.S. Holder will not be subject to income tax under the Canadian Tax Act in respect of any capital gain realized on a disposition or deemed disposition of its Common Shares unless, at the time of disposition, the Common Shares constitute "taxable Canadian property" of the U.S. Holder for the purposes of the Canadian Tax Act and the U.S. Holder is not otherwise entitled to an exemption under the Convention.

Generally, a Common Share owned by a U.S. Holder will not be taxable Canadian property of the U.S. Holder at a particular time provided that, at that time, the common shares of our company are listed on a designated stock exchange (which currently includes the Nasdaq), unless at any time in the previous 60 month period:

- the U.S. Holder and persons with whom the U.S. Holder does not deal at arm's length alone or in any combination has owned 25% or more of the shares of any class or series of shares in the capital of our company, and
- more than 50% of the fair market value of the Common Shares is derived directly or indirectly from one or any combination of real or immovable property situated in Canada, Canadian resource properties, timber resource properties, and options in respect of, or interest in or rights in any such properties, whether or not such property exists; or
- the Common Shares are otherwise deemed under the Canadian Tax Act to be taxable Canadian property.

U.S. Holders for whom the Common Shares are, or may be, taxable Canadian property should consult their own tax advisors.

### *Canada—United States Income Tax Convention*

The Convention includes a complex limitation on benefits provision. U.S. Holders are urged to consult their own tax advisors to determine their entitlement to benefits under the Convention.

### *United States Federal Income Taxation*

The following discussion describes the material United States federal income tax consequences to a United States Holder (as defined below), under current law, of an investment in our common shares. This discussion is based on the federal income tax laws of the United States as of the date of this annual report on Form 20-F, including the United States Internal Revenue Code of 1986, as amended, or the Code, existing and proposed Treasury Regulations promulgated thereunder, judicial authority, published administrative positions of the United States Internal Revenue Service, or IRS, and other applicable authorities, all as of the date of this annual report on Form 20-F. All of the foregoing authorities are subject to change, which change could apply retroactively and could significantly affect the tax consequences described below. We have not sought any ruling from the IRS with respect to the statements made and the conclusions reached in the following discussion and there can be no assurance that the IRS or a court will agree with our statements and conclusions.

This discussion applies only to a United States Holder (as defined below) that holds common shares as capital assets for United States federal income tax purposes (generally, property held for investment). The discussion neither addresses the tax consequences to any particular investor nor describes all of the tax consequences applicable to persons in special tax situations such as:

- banks;
- certain other financial institutions;
- insurance companies;

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- regulated investment companies;
- real estate investment trusts;
- brokers or dealers in stocks and securities, or currencies;
- persons who use or are required to use a mark-to-market method of accounting;
- certain former citizens or residents of the United States subject to Section 877 of the Code;
- entities subject to the United States anti-inversion rules;
- tax-exempt organizations and entities;
- persons subject to the alternative minimum tax provisions of the Code;
- persons whose functional currency is other than the United States dollar;
- persons holding common shares as part of a straddle, hedging, conversion or integrated transaction;
- persons that actually or constructively own 10% or more of the total combined voting power of all classes of our voting stock;
- persons who acquired common shares pursuant to the exercise of an employee stock option or otherwise as compensation; or
- partnerships or other pass-through entities, or persons holding common shares through such entities.

If a partnership (including an entity or arrangement treated as a partnership for United States federal income tax purposes) holds the common shares, the tax treatment of a partner in the partnership generally will depend upon the status of the partner and the activities of the partnership. A partnership or partner in a partnership holding common shares should consult its own tax advisors regarding the tax consequences of investing in and holding the common shares.

In addition, the discussion below does not describe any tax consequences arising in respect of the "Foreign Account Tax Compliance Act," or FATCA, regime.

**THE FOLLOWING DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT A SUBSTITUTE FOR CAREFUL TAX PLANNING AND ADVICE. HOLDERS SHOULD CONSULT THEIR OWN TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE UNITED STATES FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER THE FEDERAL ESTATE OR GIFT TAX LAWS OR THE LAWS OF ANY STATE, LOCAL OR NON-UNITED STATES TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY.**

For purposes of the discussion below, a "United States Holder" is a beneficial owner of the common shares that is, for United States federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is subject to United States federal income taxation regardless of its source; or
- a trust, if (i) a court within the United States is able to exercise primary jurisdiction over its administration and one or more United States persons have the authority to control all of its

substantial decisions or (ii) in the case of a trust that was treated as a domestic trust under the law in effect before 1997, a valid election is in place under applicable Treasury Regulations to treat such trust as a domestic trust.

*Dividends and Other Distributions on the Common Shares*

Subject to the passive foreign investment company rules discussed below, the gross amount of any distribution that we make to you with respect to the common shares (including any amounts withheld to reflect Canadian or PRC withholding taxes) will be taxable as a dividend, to the extent paid out of our current or accumulated earnings and profits, as determined under United States federal income tax principles. Such income (including any withheld taxes) will be includable in your gross income on the day actually or constructively received by you. Because we do not intend to determine our earnings and profits on the basis of United States federal income tax principles, any distribution paid generally will be reported as a "dividend" for United States federal income tax purposes. Such dividends will not be eligible for the dividends-received deduction allowed to qualifying corporations under the Code.

Dividends received by a non-corporate United States Holder may qualify for the lower rates of tax applicable to "qualified dividend income," if the dividends are paid by a "qualified foreign corporation" and other conditions discussed below are met. A non-United States corporation is treated as a qualified foreign corporation (a) with respect to dividends paid by that corporation on shares that are readily tradable on an established securities market in the United States or (b) if such non-United States corporation is eligible for the benefits of a qualifying income tax treaty with the United States that includes an exchange of information program. Under a published IRS Notice, common shares are considered to be readily tradable on an established securities market in the United States if they are listed on the Nasdaq, as our common shares are. In addition, we may be eligible for the benefits of the income tax treaty between the United States and Canada, or, if we are treated as a PRC resident enterprise under the PRC tax law (see "—People's Republic of China Taxation") then we may be eligible for the benefits of the income tax treaty between the United States and the PRC, and if we are eligible for the benefits of such tax treaty, then dividends that we pay on our common shares would, subject to applicable limitations, be eligible for the reduced rates of taxation. However, we will not be treated as a qualified foreign corporation if we are a passive foreign investment company in the taxable year in which the dividend is paid or the preceding taxable year.

Even if dividends would be treated as paid by a qualified foreign corporation, a non-corporate United States Holder will not be eligible for reduced rates of taxation if it does not hold our common shares for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date or if the United States Holder elects to treat the dividend income as "investment income" pursuant to Section 163(d)(4) of the Code. In addition, the rate reduction will not apply to dividends of a qualified foreign corporation if the non-corporate United States Holder receiving the dividend is obligated to make related payments with respect to positions in substantially similar or related property.

You should consult your own tax advisors regarding the availability of the lower tax rates applicable to qualified dividend income for any dividends that we pay with respect to the common shares, as well as the effect of any change in applicable law after the date of this annual report on Form 20-F.

Any Canadian or PRC withholding taxes imposed on dividends paid to you with respect to the common shares generally will be treated as foreign taxes eligible for credit against your United States federal income tax liability, subject to the various limitations and disallowance rules that apply to foreign tax credits generally. For purposes of calculating the foreign tax credit, dividends paid to you with respect to the common shares will be treated as income from sources outside the United States and generally will constitute passive category income. The rules relating to the determination of the

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foreign tax credit are complex, and you should consult your tax advisors regarding the availability of a foreign tax credit in your particular circumstances.

The amount of any dividend paid in currency other than the United States dollar will be the dividend's United States dollar value calculated by reference to the exchange rate in effect on the date of receipt, regardless of whether the payment is in fact converted into United States dollars. A United States Holder may have foreign currency gain or loss, which will be ordinary gain or loss, if any dividend is converted into United States dollars after the date of receipt.

*Disposition of the Common Shares*

You will recognize gain or loss on a sale or exchange of the common shares in an amount equal to the difference between the amount realized on the sale or exchange and your tax basis in the common shares. Subject to the discussion under "—Passive Foreign Investment Company" below, such gain or loss generally will be capital gain or loss. Capital gains of a non-corporate United States Holder, including an individual that has held the common share for more than one year, currently are eligible for reduced tax rates. The deductibility of capital losses is subject to limitations.

Any gain or loss that you recognize on a disposition of the common shares generally will be treated as United States-source income or loss for foreign tax credit limitation purposes. However, if we are treated as a PRC resident enterprise for PRC tax purposes and PRC tax is imposed on gain from the disposition of the common shares (see "—People's Republic of China Taxation") then a United States Holder that is eligible for the benefits of the income tax treaty between the United States and the PRC may elect to treat the gain as PRC-source income for foreign tax credit purposes. If such an election is made, the gain so treated will be treated as a separate class or "basket" of income for foreign tax credit purposes. You should consult your tax advisors regarding the proper treatment of gain or loss, as well as the availability of a foreign tax credit, in your particular circumstances.

A United States Holder that receives currency other than the United States dollar upon the sale or other disposition of common shares will realize an amount equal to the United States dollar value of the foreign currency on the date of such sale or other disposition or, if the common shares are traded on an established securities market, in the case of cash basis and electing accrual basis taxpayers, the settlement date. If a United States Holder is not able to treat the settlement date as the realization date, the United States Holder will recognize currency gain or loss if the United States dollar value of the currency received on the settlement date differs from the amount realized. A United States Holder will have a tax basis in the currency received equal to the United States dollar amount at the spot rate on the settlement date. Generally, any gain or loss realized by a United States Holder on a subsequent conversion or disposition of such currency will be United States source ordinary income or loss.

*Passive Foreign Investment Company*

Based on the current value of our assets and the composition of our income and assets, we do not believe we were a passive foreign investment company, or PFIC, for United States federal income purposes for our taxable year ended December 31, 2016. However, because our PFIC status for 2017 or any future taxable year may depend, in part, on the manner in which we operate our renewable energy generation assets, we cannot assure you that we will not be a PFIC for our current taxable year ending December 31, 2017 or any future taxable year. The determination of PFIC status is based on an annual determination that cannot be made until the close of a taxable year, involves extensive factual investigation, including ascertaining the fair market value of all of our assets on a quarterly basis and the character of each item of income that we earn, and is subject to uncertainty in several respects. In particular, the application of the PFIC rules to certain of our business lines is complex and unclear, and we cannot guarantee that the United States Internal Revenue Service, or IRS, will agree with any

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positions that we ultimately take. Accordingly, we cannot assure you that we will not be treated as a PFIC for any taxable year or that the IRS will not take a contrary position.

A non-United States corporation such as ourselves will be treated as a PFIC for United States federal income tax purposes for any taxable year if, applying applicable look-through rules, either:

- at least 75% of its gross income for such year is passive income; or
- at least 50% of the value of its assets (determined based on a quarterly average) during such year is attributable to assets that produce or are held for the production of passive income.

For this purpose, passive income generally includes dividends, interest, royalties, rents (other than certain royalties and rents derived in the active conduct of a trade or business and not derived from a related person) and net gains from transactions involving commodities (other than certain hedging transactions and certain active business gains). 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. If the percentage of our assets treated as producing passive income increases, we may become a PFIC for the current or one or more future taxable years.

The determination of whether we will be a PFIC for any taxable year also may depend in part upon the value of our goodwill and other unbooked intangibles not reflected on our balance sheet (which may be determined based upon the market value of the common shares from time to time, which may be volatile). Among other matters, if our market capitalization is less than anticipated or subsequently declines, we may become a PFIC for the current or future taxable years if our liquid assets and cash (which are for this purpose considered assets that produce passive income) then represent a greater percentage of our overall assets. Further, while we believe our classification methodology and valuation approach (including, if relevant, any approach taken with respect to our market capitalization) is reasonable, it is possible that the IRS may challenge our classification or valuation of our goodwill and other unbooked intangibles.

If we are a PFIC for any taxable year (which we are currently unable to determine) during which you hold common shares, we will continue to be treated as a PFIC with respect to you for all succeeding years during which you hold common shares, unless we were to cease to be a PFIC and you make a "deemed sale" election with respect to the common shares. If such election is made, you will be deemed to have sold the common shares you hold at their fair market value and any gain from such deemed sale would be subject to the rules described in the following two paragraphs. After the deemed sale election, so long as we do not become a PFIC in a subsequent taxable year, your common shares with respect to which such election was made will not be treated as shares in a PFIC and, as a result, you will not be subject to the rules described below with respect to any "excess distribution" you receive from us or any gain from an actual sale or other disposition of the common shares. You are strongly urged to consult your tax advisors as to the possibility and consequences of making a deemed sale election if we are and then cease to be a PFIC and such an election becomes available to you.

If we are a PFIC for any taxable year (which we are currently unable to determine) during which you hold common shares, then, unless you make a "mark-to-market" election (as discussed below), you generally will be subject to special and adverse tax rules with respect to any "excess distribution" that you receive from us and any gain that you recognize from a sale or other disposition, including a pledge, of the common shares. For this purpose, distributions that you receive in a taxable year that are greater than 125% of the average annual distributions that you received during the shorter of the three preceding taxable years or your holding period for the common shares will be treated as an excess distribution. Under these rules:

- the excess distribution or recognized gain will be allocated ratably over your holding period for the common shares;

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- the amount of the excess distribution or recognized gain allocated to the taxable year of distribution or gain, and to any taxable years in your holding period prior to the first taxable year in which we were treated as a PFIC, will be treated as ordinary income; and
- the amount of the excess distribution or recognized gain allocated to each other taxable year will be subject to the highest tax rate in effect for individuals or corporations, as applicable, for each such year and the resulting tax will be subject to the interest charge generally applicable to underpayments of tax.

If we are a PFIC for any taxable year (which we are currently unable to determine) during which you hold common shares and any of our non-United States subsidiaries or other corporate entities in which we directly or indirectly own equity interests is also a PFIC, you would be treated as owning a proportionate amount (by value) of the shares of each such non-United States entity classified as a PFIC (each such entity, a lower-tier PFIC) for purposes of the application of these rules. You should consult your own tax advisor regarding the application of the PFIC rules to any of our lower tier PFICs.

If we are a PFIC for any taxable year (which we are currently unable to determine) during which you hold common shares, then in lieu of being subject to the tax and interest-charge rules discussed above, you may make an election to include gain on the common shares as ordinary income under a mark-to-market method, provided that the common shares constitute "marketable stock." Marketable stock is stock that is regularly traded on a qualified exchange or other market, as defined in applicable Treasury regulations. Our common shares are listed on the Nasdaq, which is a qualified exchange or other market for these purposes. Consequently, as long as the common shares are regularly traded, and you are a holder of common shares, we expect that the mark-to-market election would be available to you, but no assurances are given in this regard.

Because a mark-to-market election cannot be made for any lower-tier PFICs that we may own, if we were a PFIC for any taxable year, a United States Holder that makes the mark-to-market election may continue to be subject to the tax and interest charges under the general PFIC rules with respect to such United States 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.

In certain circumstances, a shareholder in a PFIC may avoid the adverse tax and interest-charge regime described above by making a "qualified electing fund" election to include in income its share of the corporation's income on a current basis. However, you may make a qualified electing fund election with respect to your common shares only if we agree to furnish you annually with a PFIC annual information statement as specified in the applicable Treasury regulations. We currently do not intend to prepare or provide the information that would enable you to make a qualified electing fund election.

A United States Holder that holds the common shares in any year in which we are classified as a PFIC will be required to file an annual report containing such information as the United States Treasury Department may require. You should consult your own tax advisor regarding the application of the PFIC rules to your ownership and disposition of the common shares and the availability, application and consequences of the elections discussed above.

### *Information Reporting and Backup Withholding*

Information reporting to the IRS and backup withholding generally will apply to dividends in respect of our common shares, and the proceeds from the sale or exchange of our common shares, that are paid to you within the United States (and in certain cases, outside the United States), unless you furnish a correct taxpayer identification number and make any other required certification, generally on IRS Form W-9 or you otherwise establish an exemption from information reporting and backup withholding. Backup withholding is not an additional tax. Amounts withheld as backup withholding



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generally are allowed as a credit against your United States federal income tax liability, and you may be entitled to obtain a refund of any excess amounts withheld under the backup withholding rules if you file an appropriate claim for refund with the IRS and furnish any required information in a timely manner.

United States Holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules.

### *Information with Respect to Foreign Financial Assets*

United States Holders who are individuals generally will be required to report our name, address and such information relating to an interest in the common shares as is necessary to identify the class or issue of which your common shares are a part. These requirements are subject to exceptions, including an exception for common shares held in accounts maintained by certain financial institutions and an exception applicable if the aggregate value of all "specified foreign financial assets" (as defined in the Code) does not exceed \$50,000.

United States Holders should consult their tax advisors regarding the application of these information reporting rules.

### *Medicare Tax*

Certain United States Holders that are individuals, estates or trusts are required to pay an additional 3.8% tax on, among other things, dividends and gains from the sale or other disposition of capital assets for taxable years beginning after December 31, 2012. United States Holders that are individuals, estates or trusts should consult their tax advisors regarding the effect, if any, of this tax provision on their ownership and disposition of common shares.

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

Under the EIT Law, which took effect as of January 1, 2008 and amended on February 24, 2017, enterprises established under the laws of non-PRC jurisdictions but whose "de facto management body" is located in China are considered "resident enterprises" for PRC tax purposes. Under the implementation regulations issued by the State Council relating to the EIT Law, "de facto management bodies" are defined as the bodies that have material and overall management and control over the business, personnel, accounts and properties of an enterprise. The Circular on Identification of China-controlled Overseas-registered Enterprises as Resident Enterprises on the Basis of Actual Management Organization, or Circular 82, further provides certain specific criteria for determining whether the "de facto management body" of a PRC-controlled offshore incorporated enterprise is located in the PRC. The criteria include whether (a) the premises where the senior management and the senior management bodies responsible for the routine production and business management of the enterprise perform their functions are mainly located within the PRC, (b) decisions relating to the enterprise's financial and human resource matters are made or subject to approval by organizations or personnel in the PRC, (c) the enterprise's primary assets, accounting books and records, company seals, and board and shareholders' meeting minutes are located or maintained in the PRC and (d) 50% or more of voting board members or senior executives of the enterprise habitually reside in the PRC. Although the Circular 82 only applies to offshore enterprises controlled by enterprises or enterprise group located within the PRC, the determining criteria set forth in the Circular 82 may reflect the tax authorities' general position on how the "de facto management body" test may be applied in determining the tax resident status of offshore enterprises. As the tax resident status of an enterprise is subject to the determination by the PRC tax authorities, uncertainties remain with respect to the interpretation of the term "de facto management body" as applicable to us. Most of our management are currently based in China, and may remain in China in the future. If we are treated as a "resident enterprise" for PRC tax

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purposes, we will be subject to PRC income tax on our worldwide income at a uniform tax rate of 25%, but dividends received by us from our PRC subsidiaries may be exempt from the income tax.

Under the EIT Law and its implementation regulations, dividends paid to a non-PRC investor are generally subject to a 10% PRC withholding tax, if such dividends are derived from sources within China and the non-PRC investor is considered to be a non-resident enterprise without any establishment or place within China or if the dividends paid have no connection with the non-PRC investor's establishment or place within China, unless such tax is eliminated or reduced under an applicable tax treaty. Similarly, any gain realized on the transfer of shares or convertible notes by such investor is also subject to a 10% PRC withholding tax if such gain is regarded as income derived from sources within China, unless such tax is eliminated or reduced under an applicable tax treaty.

The implementation regulations of the EIT Law provide that (a) if the enterprise that distributes dividends is domiciled in the PRC, or (b) if gains are realized from transferring equity interests of enterprises domiciled in the PRC, then such dividends or capital gains shall be treated as China-sourced income. Currently there are no detailed rules applicable to us that govern the procedures and specific criteria for determining the meaning of being "domiciled" in the PRC. As such, it is not clear how the concept of domicile will be interpreted under the EIT Law. Domicile may be interpreted as the jurisdiction where the enterprise is incorporated or where the enterprise is a tax resident.

As a result, if we are considered a PRC "resident enterprise" for tax purpose, it is possible that the dividends we pay with respect to our common shares to non-PRC enterprises, or the gain non-PRC enterprises may realize from the transfer of our common shares or our convertible notes, would be treated as income derived from sources within China and be subject to the PRC withholding tax at a rate of 10% or a lower applicable treaty rate for enterprises.

Under the IIT Law, individual income tax is payable on PRC-source dividend income. The implementation regulations of the IIT Law provide that income from dividends derived from companies, enterprises and other economic organizations in China as well as income realized from transfer of properties in China is considered derived from sources inside China, regardless of whether the place of payment was inside China. Therefore, if we are treated as a company in China for tax purposes, any dividends we pay to our non-PRC individual shareholders as well as any gains realized by our non-PRC individual shareholders or our non-PRC individual note holders from the transfer of our common shares or our convertible notes may be regarded as China-sourced income and, consequently, be subject to PRC withholding tax at a rate of up to 20% or a lower applicable treaty rate for individuals.

**F. Dividends and Paying Agents**

Not applicable.

**G. Statement by Experts**

Not applicable.

**H. Documents on Display**

We previously filed with the SEC our registration statements on Form F-1 (File Number 333-138144), initially filed on October 23, 2006, and registration statements on Form F-3 (File Number 333-208828), initially filed on January 4, 2016.

We are subject to the periodic reporting and other informational requirements of the Exchange Act. Under the Exchange Act, we are required to file reports and other information with the SEC. Specifically, we are required to file annually a Form 20-F within four months after the end of each fiscal year for fiscal years ending on or after December 15, 2011. Copies of reports and other

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information, when so filed, may be inspected without charge and may be obtained at prescribed rates at the public reference facilities maintained by the Securities and Exchange Commission at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. The public may obtain information regarding the Washington, D.C. Public Reference Room by calling the Commission at 1-800-SEC-0330. The SEC also maintains a web site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding registrants that make electronic filings with the SEC using its EDGAR system. As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

Our financial statements have been prepared in accordance with U.S. GAAP.

We will furnish our shareholders with annual reports, which will include a review of operations and annual audited consolidated financial statements prepared in conformity with U.S. GAAP.

**I. Subsidiary Information**

For a listing of our major subsidiaries, see "Item 4. Information on the Company—C. Organizational Structure."

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

***Foreign Exchange Risk***

The majority of our sales in 2016 are denominated in U.S. dollars, Renminbi and Japanese yen, with the remainder in other currencies such as Euros, Canadian dollars and Australian dollars, while a substantial portion of our costs and expenses is denominated in Renminbi and U.S. dollars. From time to time, we enter into loan arrangements with Chinese commercial banks that are denominated primarily in Renminbi or U.S. dollars. Most of our cash and cash equivalents and restricted cash are denominated in Renminbi. Therefore, fluctuations in currency exchange rates could have a significant impact on our financial stability. Fluctuations in exchange rates, particularly between the U.S. dollar, Euro, Renminbi, Canadian dollar, British pounds and Japanese yen, may result in fluctuations in foreign exchange gains or losses. As of December 31, 2016, we held \$400.3 million in accounts receivable, of which \$49.7 million were denominated in Japanese yen. Had we converted all Japanese yen denominated accounts receivable into Japanese yen at ¥116.78 for \$1.00, the noon buying rate as of December 30, 2016, our Japanese yen denominated accounts receivable would have been Japanese yen 5,804.0 million as of December 31, 2016. Assuming the Japanese yen depreciates by a rate of 10.0% to an exchange rate of Japanese yen 128.458 for \$1.00, we would record a loss in fair value of accounts receivable of \$4.5 million.

Since 2008, we have hedged part of our foreign currency exposures against the U.S. dollar using foreign currency forward or option contracts in order to limit our exposure to fluctuations in foreign exchange rates. We incurred a gain on change in foreign currency derivatives of \$19.7 million in 2014, a loss on change in foreign currency derivatives of \$3.7 million in 2015 and a gain on change in foreign currency derivatives of \$4.8 million in 2016. The gains or losses on change in foreign currency derivatives are related to our hedging program. We incurred a foreign exchange loss of \$32.2 million in 2014, and we recorded a foreign exchange gain of \$22.9 million and \$25.4 million in 2015 and 2016, respectively. 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.

As of December 31, 2016, we had forward contracts of the U.S. dollar against the Renminbi with notional amount of \$61.0 million outstanding. Assuming a 10.0% appreciation of the U.S. dollar against

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the Renminbi, the mark-to-market gain of our outstanding forward contracts of the U.S. dollar against the Renminbi would have decreased by approximately \$6.1 million.

Our financial statements are expressed in U.S. dollars, while some of our subsidiaries use different functional currencies, such as the Renminbi, Euro, Canadian dollar, British pounds and Japanese yen. The value of your investment in our common shares will be affected by the foreign exchange rate between the U.S. dollar and other currencies used by our subsidiaries. To the extent we hold assets denominated in currencies other than U.S. dollars, any appreciation of such currencies against the U.S. dollars will likely result in an exchange gain while any depreciation will likely result in an exchange loss when we convert the value of these assets into U.S. dollar equivalent amounts. On the other hand, to the extent we have liabilities denominated in currencies other than U.S. dollars, any appreciation of such currencies against the U.S. dollar will likely result in an exchange loss while any depreciation will likely result in an exchange gain when we convert the value of these liabilities into U.S. dollar equivalent amounts. These and other effects on our financial conditions resulting from the unfavorable changes in foreign currency exchange rates could have a material adverse effect on the market price of our common shares, the dividends we may pay in the future, and your investment.

***Interest Rate Risk***

Our exposure to interest rate risk primarily relates to interest expense under our short-term and long-term bank borrowings, as well as interest income generated by excess cash invested in demand deposits and liquid investments with original maturities of three months or less. Such interest-earning instruments carry a degree of interest rate risk. We used derivative financial instruments to manage some of our interest risk exposure. We have not been exposed nor do we anticipate being exposed to material risks due to changes in interest rates. However, our future interest expense may increase due to changes in market interest rates.

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

Not applicable.

**PART II**

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

None of these events occurred in any of the years ended December 31, 2014, 2015 and 2016.

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

**A-D. Material Modifications to the Rights of Security Holders**

See "Item 10. Additional Information—B. Memorandum and Articles of Association" for a description of the rights of shareholders, which remain unchanged.

**E. Use of Proceeds**

The following "use of proceeds" information relates to the registration statement on Form F-3 (File number: 333-208828) for our registration of common shares, preferred shares and warrants for a maximum aggregate offering price of \$100 million. This registration statement was effective immediately on January 4, 2016. Between January 4, 2016 and January 6, 2016, we sold 500,000 of our common shares at an average price of \$27.73 per share through an at-the-market offering, raising approximately \$13.9 million in gross proceeds. We suspended the at-the-market offering on January 20, 2016 and as of the date of this filing the at-the-market offering remains suspended. The common shares were offered through Credit Suisse as sales agent. We received net proceeds of approximately \$13.6 million from the offering after deducting the sales agent's commissions and offering expenses.

As of March 31, 2017, all of the net offering proceeds from the sale of our common shares had been applied for the uses outlined in the registration statement and prospectuses.

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

***Disclosure Controls and Procedures***

Our management, with the participation of our chief executive officer and chief financial officer, has performed an evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of the end of the period covered by this report, as required by Rule 13a-15(b) under the Exchange Act. Based upon that evaluation, our management has concluded that, as of the end of the period covered by this annual report, our disclosure controls and procedures were effective in ensuring that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act was recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our chief executive officer and chief financial officer, to allow timely decisions regarding required disclosures.

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

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such item is defined in Rules 13a-15(f) under the Exchange Act, for our company. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements in accordance with generally accepted accounting principles and includes those policies and procedures that (a) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of a company's assets; (b) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements

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in accordance with generally accepted accounting principles, and that a company's receipts and expenditures are being made only in accordance with authorizations of a company's management and directors; and (c) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of a company's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the 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, our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2016 using criteria established in Internal Control—Integrated Framework (2013) 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, 2016.

Deloitte Touche Tohmatsu Certified Public Accountants LLP, an independent registered public accounting firm, who audited our consolidated financial statements for the year ended December 31, 2016, has also audited the effectiveness of internal control over financial reporting as of December 31, 2016.

***Report of the Independent Registered Public Accounting Firm***

To the Board of Directors and Shareholders of Canadian Solar Inc.

We have audited the internal control over financial reporting of Canadian Solar Inc. and subsidiaries (the "Company") as of December 31, 2016, based on the criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel 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 (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 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

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(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 financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2016 of the Company and our report dated April 27, 2017 expressed an unqualified opinion on those financial statements and financial statement schedule.

/s/ Deloitte Touche Tohmatsu Certified Public Accountants LLP  
Shanghai, China  
April 27, 2017

***Changes in Internal Controls***

Management has evaluated, with the participation of our chief executive officer and chief financial officer, whether any changes in our internal control over financial reporting that occurred during our last fiscal year have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on the evaluation we conducted, management has concluded that no such changes occurred during the period covered by this annual report on Form 20-F.

**ITEM 16A. *AUDIT COMMITTEE FINANCIAL EXPERT***

Our board of directors has determined that Lars-Eric Johansson qualifies as an "audit committee financial expert" as defined in Item 16A of Form 20-F. Each of the members of the audit committee is an "independent director" as defined in the Nasdaq Marketplace Rules.

**ITEM 16B. *CODE OF ETHICS***

Our board of directors has adopted a code of ethics that applies to our directors, officers, employees and agents, including certain provisions that specifically apply to our chief executive officer, chief financial officer, chief operations officer, chief technology officer, vice presidents and any other persons who perform similar functions for us. We have posted our code of business conduct on our website [www.canadiansolar.com](http://www.canadiansolar.com). We hereby undertake to provide to any person without charge, a copy of our code of business conduct and ethics within ten working days after we receive such person's written request.

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

The following table sets forth the aggregate fees by categories specified below in connection with certain professional services rendered by Deloitte Touche Tohmatsu Certified Public Accountants LLP,

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our principal external auditors, for the periods indicated. We did not pay any other fees to our auditors during the periods indicated below.

	For the Years Ended	
	December 31,	
	2015	2016
Audit fees <sup>(1)</sup>	\$ 2,173,180	\$ 1,934,196
Audit related fees <sup>(2)</sup>	\$ 4,759,497	\$ 1,070,261
Tax fees <sup>(3)</sup>	\$ 132,556	\$ 183,939

- (1) "Audit fees" means the aggregate fees billed for professional services rendered by our principal auditors for the annual audit of our consolidated financial statements.
- (2) "Audit related fees" represents the aggregate fees billed for assurance and related services by our principal auditors that are reasonably related to the performance of the audit or review of our consolidated financial statements and are not reported as audit fees. These include professional services rendered in connection with bond and equity offerings, statutory audits of our subsidiary companies, quarterly reviews and other related services. In 2015, "Audit related fees" included the audit fee for the Yieldco IPO in the U.S. with an amount of approximately \$4.1 million and \$0.5 million for audit related services provided for our equity and bond offerings. In 2016, "Audit related fees" included approximately \$0.7 million for the statutory audits of our subsidiary companies.
- (3) "Tax fees" of 2015 and 2016 were for services rendered by our principal accountants for tax compliance, tax advice, and tax planning.

The policy of our audit committee is to pre-approve all audit and non-audit services provided by Deloitte Touche Tohmatsu Certified Public Accountants LLP, including audit services, audit-related services, tax services and other services as described above, other than those for *de minimis* services which are approved by the Audit Committee prior to the completion of the audit. We have a written policy on the engagement of an external auditor.

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

Not applicable.

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

None.

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

Not applicable.

**ITEM 16G. CORPORATE GOVERNANCE**

None.

**ITEM 16H. MINE SAFETY DISCLOSURE**

Not applicable.



**PART III**

**ITEM 17. FINANCIAL STATEMENTS**

We have elected to provide financial statements pursuant to Item 18.

**ITEM 18. FINANCIAL STATEMENTS**

The consolidated financial statements of Canadian Solar Inc. are included at the end of this annual report.

**ITEM 19. EXHIBITS**

<u>Exhibit Number</u>	<u>Description of Document</u>
1.1	Amended Articles of Continuance (incorporated by reference to Exhibit 3.2 of our registration statement on Form F-1 (File No. 333-138144), as amended, initially filed with the SEC on October 23, 2006)
2.1	Registrant's Specimen Certificate for Common Shares (incorporated by reference to Exhibit 4.11 from our F-1 registration statement (File No. 333-138144), as amended, initially filed with the Commission on October 23, 2006)
4.1*	Amended and Restated Share Incentive Plan of the Registrant, effective on May 8, 2011
4.2	Form of Director Indemnity Agreement (incorporated by reference to Exhibit 4.1 of our annual report on Form 20-F for the year ended December 31, 2008 (File No. 001-33107), as amended, initially filed with the SEC on June 8, 2009)
4.3	Employment Agreement between the Registrant and Dr. Shawn Qu (incorporated by reference to Exhibit 10.2 of our registration statement on Form F-1 (File No. 333-138144), as amended, initially filed with the SEC on October 23, 2006)
4.4	Form of Employment Agreement between the Registrant and its executive officers (incorporated by reference to Exhibit 4.7 of our annual report on Form 20-F for the year ended December 31, 2010 (File No. 001-33107), as amended, initially filed with the SEC on May 17, 2011)
4.5	Indenture, dated as of February 18, 2014, between the Registrant and The Bank of New York Mellon, as the trustee (incorporated by reference to Exhibit 4.5 of our annual report on Form 20-F for the year ended December 31, 2013 (File No. 001-33107), as amended, initially filed with the SEC on April 28, 2014)
4.6	Purchase and Sale Agreement by and among Sharp Corporation, Sharp US Holding Inc., Canadian Solar Energy Acquisition Co. and Canadian Solar Inc., dated as of February 3, 2015 (incorporated by reference to Exhibit 4.6 of our annual report on Form 20-F for the year ended December 31, 2014 (File No. 001-33107), as amended, initially filed with the SEC on April 23, 2015)
4.7†	Silicon Wafer Purchase Contract between CSI Cells Co., Ltd., CSI-GCL Solar Manufacturing (Yancheng) Co., Ltd. and Canadian Solar Manufacturing (Luoyang) Inc., and GCL-Poly (Suzhou) Energy Limited, dated January 29, 2016 (incorporated by reference to Exhibit 4.7 of our annual report on Form 20-F for the year ended December 31, 2015 (File No. 001-33107), as amended, initially filed with the SEC on April 20, 2016)
8.1*	List of Major Subsidiaries
12.1*	CEO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

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<u>Exhibit Number</u>	<u>Description of Document</u>
12.2*	CFO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
13.1**	CEO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
13.2**	CFO Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
15.1*	Consent of Deloitte Touche Tohmatsu Certified Public Accountants LLP
101*	Financial information from registrant for the year ended December 31, 2016 formatted in eXtensible Business Reporting Language (XBRL):  (i) Consolidated Balance Sheets as of December 31, 2015 and 2016; (ii) Consolidated Statements of Operations for the Years Ended December 31, 2014, 2015 and 2016; (iii) Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2014, 2015 and 2016; (iv) Consolidated Statements of Changes in Equity for the Years Ended December 31, 2014, 2015 and 2016; (v) Consolidated Statements of Cash Flows for the Years Ended December 31, 2014, 2015 and 2016; (vi) Notes to Consolidated Financial Statements; and (vii) Additional Information—Financial Statements Schedule I
*	Filed herewith.
**	Furnished herewith.
†	Confidential treatment is being requested with respect to portions of this exhibit and such confidential treatment portions have been deleted and replaced with "****" and filed separately with the Securities and Exchange Commission pursuant to Rule 24b-2 under the Securities Exchange Act of 1934.

**SIGNATURES**

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.

CANADIAN SOLAR INC.

By: /s/ Shawn (Xiaohua) Qu

Name: Shawn (Xiaohua) Qu  
Title: Chairman, President and  
Chief Executive Officer

By: /s/ Huifeng Chang

Name: Huifeng Chang  
Title: Senior Vice President and  
Chief Financial Officer

Date: April 27, 2017

**CANADIAN SOLAR INC.  
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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Shareholders of Canadian Solar Inc.

We have audited the accompanying consolidated balance sheets of Canadian Solar Inc. and subsidiaries (the "Company") as of December 31, 2015 and 2016, and the related consolidated statements of operations, comprehensive income, changes in equity, and cash flows for each of the three years in the period ended December 31, 2016. Our audits also included the financial statement schedule included in Schedule I. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Canadian Solar Inc. and subsidiaries as of December 31, 2015 and 2016 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly in all material respects, the information set forth therein.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2016, based on the criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated April 27, 2017 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ Deloitte Touche Tohmatsu Certified Public Accountants LLP

Shanghai China  
April 27, 2017

**CANADIAN SOLAR INC.**  
**CONSOLIDATED BALANCE SHEETS**

	December 31, 2015	December 31, 2016
	(In Thousands of U.S. Dollars, except share data)	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents, including consolidated variable interest entities of \$4,066 as of December 31, 2016	553,079	511,039
Restricted cash—current, including consolidated variable interest entities of \$25,958 as of December 31, 2016	534,707	487,516
Accounts receivable trade, net of allowance of \$28,156 and \$26,119 as of December 31, 2015 and 2016, respectively	426,803	400,251
Accounts receivable, unbilled	8,206	3,425
Amounts due from related parties	104,579	19,082
Inventories	334,489	295,371
Value added tax recoverable	44,615	55,680
Advances to suppliers—current, net of allowance of \$6,498 and \$6,482 as of December 31, 2015 and 2016, respectively	31,886	29,312
Derivative assets—current	6,259	12,270
Project assets—current, including consolidated variable interest entities of \$114,440 as of December 31, 2016	111,317	1,317,902
Assets held-for-sale	—	392,089
Deferred tax assets—current	30,013	—
Prepaid expenses and other current assets, including consolidated variable interest entities of \$2,249 as of December 31, 2016	78,140	266,826
Total current assets	2,264,093	3,790,763
Restricted cash—non-current	46,897	9,145
Property, plant and equipment, net	331,052	462,345
Solar power systems, net	1,200,441	112,062
Deferred tax assets—non-current	97,134	229,980
Advances to suppliers—non-current, net of allowance of \$22,131 and \$13,045 as of December 31, 2015 and 2016, respectively	27,745	54,080
Prepaid land use rights, including consolidated variable interest entities of \$689 as of December 31, 2016	29,092	48,651
Investments in affiliates	187,131	368,459
Intangible assets, net	78,938	8,422
Goodwill	7,609	7,617
Derivative assets—non-current	2,072	15,446
Project assets—non-current	2,814	182,391
Other non-current assets, including consolidated variable interest entities of \$5,834 as of December 31, 2016	138,910	117,245
<b>TOTAL ASSETS</b>	<b>4,413,928</b>	<b>5,406,606</b>
<b>LIABILITIES, REDEEMABLE NON-CONTROLLING INTERESTS AND EQUITY</b>		
Current liabilities:		
Short-term borrowings, including consolidated variable interest entities of \$69,811 as of December 31, 2016	1,156,576	1,600,033
Accounts payable, including consolidated variable interest entities of \$29,813 as of December 31, 2016	512,510	440,116
Short-term notes payable	473,247	296,663
Amounts due to related parties	90,002	19,912
Other payables, including consolidated variable interest entities of \$22 as of December 31, 2016	159,886	223,584
Short-term commercial paper	—	131,432
Advances from customers	76,207	90,101
Derivative liabilities—current	35,228	9,625
Deferred tax liabilities—current	1,426	—
Liabilities held-for-sale	—	279,272
Financing liabilities	—	459,258
Other current liabilities	151,242	171,070
Total current liabilities	2,656,324	3,721,066
Accrued warranty costs	65,193	61,139
Convertible notes	146,674	125,569
Long-term borrowings	606,577	493,455
Derivative liabilities—non-current	17,358	—
Liability for uncertain tax positions	14,468	8,431
Deferred tax liabilities—non-current	19,030	23,348
Loss contingency accruals	23,500	22,654
Other non-current liabilities	32,294	51,554
<b>TOTAL LIABILITIES</b>	<b>3,581,418</b>	<b>4,507,216</b>
Commitments and contingencies (Note 23)		
Equity:		
Common shares—no par value: unlimited authorized shares, 55,965,443 and 57,830,149 shares issued and outstanding at December 31, 2015 and 2016, respectively	677,103	701,283
Additional paid-in capital	(17,139)	(8,897)
Retained earnings	218,860	284,109
Accumulated other comprehensive loss	(59,856)	(91,814)
Total Canadian Solar Inc. shareholders' equity	818,968	884,681
Non-controlling interests in subsidiaries	13,542	14,709
<b>TOTAL EQUITY</b>	<b>832,510</b>	<b>899,390</b>
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>4,413,928</b>	<b>5,406,606</b>

See notes to consolidated financial statements.

**CANADIAN SOLAR INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Years Ended December 31,		
	2014	2015	2016
	(In Thousands of U.S. Dollars, except share and per share data)		
Net revenues:			
—Non-related parties	2,958,058	3,363,274	2,605,335
—Related parties	2,569	104,352	247,743
Total net revenues	<u>2,960,627</u>	<u>3,467,626</u>	<u>2,853,078</u>
Cost of revenues:			
—Non-related parties	2,375,025	2,821,972	2,216,146
—Related parties	4,608	68,884	219,744
Total cost of revenues	<u>2,379,633</u>	<u>2,890,856</u>	<u>2,435,890</u>
Gross profit	<u>580,994</u>	<u>576,770</u>	<u>417,188</u>
Operating expenses:			
Selling expenses	125,797	149,710	145,367
General and administrative expenses	81,149	168,025	203,789
Research and development expenses	12,057	17,056	17,407
Other operating income, net	(4,323)	(5,392)	(42,539)
Total operating expenses, net	<u>214,680</u>	<u>329,399</u>	<u>324,024</u>
Income from operations	<u>366,314</u>	<u>247,371</u>	<u>93,164</u>
Other income (expenses):			
Interest expense	(48,906)	(54,148)	(69,723)
Interest income	14,363	16,831	10,236
Gain (loss) on change in fair value of derivatives	19,656	(12,196)	27,322
Foreign exchange gain (loss)	(32,219)	22,882	25,406
Investment income (loss)	—	2,342	(1,532)
Gain on repurchase of convertible notes	—	—	2,782
Others	1,623	389	—
Other expenses, net	<u>(45,483)</u>	<u>(23,900)</u>	<u>(5,509)</u>
Income before income taxes and equity in earnings (loss) of unconsolidated investees	320,831	223,471	87,655
Income tax expense	(77,431)	(49,512)	(17,976)
Equity in earnings (loss) of unconsolidated investees	487	(643)	(4,404)
Net income	<u>243,887</u>	<u>173,316</u>	<u>65,275</u>
Less: net income attributable to non-controlling interests	4,385	1,455	26
Net income attributable to Canadian Solar Inc.	<u>239,502</u>	<u>171,861</u>	<u>65,249</u>
Earnings per share—basic	\$ 4.40	\$ 3.08	\$ 1.13
Shares used in computation—basic	54,408,037	55,728,903	57,524,349
Earnings per share—diluted	\$ 4.11	\$ 2.93	\$ 1.12
Shares used in computation—diluted	59,354,615	60,426,056	58,059,063

See notes to consolidated financial statements.

**CANADIAN SOLAR INC.**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

	Years Ended December 31,		
	2014	2015	2016
	(In Thousands of U.S. Dollars)		
Net income	243,887	173,316	65,275
Other comprehensive income (net of tax of nil):			
Foreign currency translation adjustment	(32,440)	(75,687)	(41,786)
Gain on commodity hedge	—	2,078	2,083
Gain on interest rate swap	—	—	10,375
Comprehensive income	211,447	99,707	35,947
Less: comprehensive income attributable to non-controlling interests	5,798	7,759	2,656
Comprehensive income attributable to Canadian Solar Inc.	<u>205,649</u>	<u>91,948</u>	<u>33,291</u>

See notes to consolidated financial statements.



CANADIAN SOLAR INC.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Common Shares		Additional Paid-in Capital	Retained Earnings (Accumulated Deficit)	Accumulated Other Comprehensive Income (loss)	Earnings Attributable to Canadian Solar Inc.	Non-Controlling Interest	Total Equity
	Number	\$						
	(In Thousands of U.S. Dollars, except share data)							
Balance at January 1, 2014	51,034,343	561,242	(32,121)	(192,503)	53,911	390,529	10,969	401,498
Net income	—	—	—	239,502	—	239,502	4,385	243,887
Foreign currency translation adjustment	—	—	—	—	(33,853)	(33,853)	1,413	(32,440)
Profit distribution to a non-controlling interest	—	—	—	—	—	—	(649)	(649)
Issuance of ordinary shares, net of issuance costs	3,194,700	108,919	—	—	—	108,919	—	108,919
Deferred tax on issuance costs of ordinary shares	—	1,732	—	—	—	1,732	—	1,732
Share-based compensation	—	—	5,088	—	—	5,088	—	5,088
Tax benefit of share-based compensation	—	—	1,351	—	—	1,351	—	1,351
Exercise of share options	932,813	3,343	—	—	—	3,343	—	3,343
Disposal of project companies	—	—	—	—	—	—	(3,155)	(3,155)
Balance at December 31, 2014	55,161,856	675,236	(25,682)	46,999	20,058	716,611	12,963	729,574
Net income	—	—	—	171,861	—	171,861	1,455	173,316
Foreign currency translation adjustment	—	—	—	—	(81,992)	(81,992)	6,305	(75,687)
Profit distribution to non-controlling interests	—	—	—	—	—	—	(305)	(305)
Share-based compensation	—	—	5,966	—	—	5,966	—	5,966
Tax benefit of share-based compensation	—	—	853	—	—	853	—	853
Exercise of share options	803,587	1,867	—	—	—	1,867	—	1,867
Acquisition of non-controlling interests	—	—	1,724	—	—	1,724	(2,651)	(927)
Gain on commodity hedge	—	—	—	—	2,078	2,078	—	2,078
Disposal of a subsidiary	—	—	—	—	—	—	(4,225)	(4,225)
Balance at December 31, 2015	55,965,443	677,103	(17,139)	218,860	(59,856)	818,968	13,542	832,510
Net income	—	—	—	65,249	—	65,249	26	65,275
Foreign currency translation adjustment	—	—	—	—	(44,416)	(44,416)	2,630	(41,786)
Capital injection from non-controlling interests	—	—	—	—	—	—	1,648	1,648
Issuance of ordinary shares, net of issuance costs	1,029,661	23,408	—	—	—	23,408	—	23,408
Deferred tax on issuance costs of ordinary shares	—	65	—	—	—	65	—	65
Share-based compensation	—	—	7,757	—	—	7,757	—	7,757
Tax benefit of share-based compensation	—	—	485	—	—	485	—	485
Exercise of share options	835,045	707	—	—	—	707	—	707
Fair value change on derivatives	—	—	—	—	12,458	12,458	—	12,458
Disposal of a subsidiary	—	—	—	—	—	—	(3,137)	(3,137)
Balance at December 31, 2016	57,830,149	701,283	(8,897)	284,109	(91,814)	884,681	14,709	899,390

See notes to consolidated financial statements.

**CANADIAN SOLAR INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Years Ended December 31,		
	2014	2015	2016
	(In Thousands of U.S. Dollars)		
<b>Operating activities:</b>			
Net income	243,887	173,316	65,275
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	82,627	94,217	95,849
Loss on disposal of property, plant and equipment	1,478	1,801	8,094
Gain on disposal of solar power systems and other investments	—	—	(46,367)
Impairment loss of property, plant and equipment	1,573	6,992	22,757
Impairment loss of project assets	2,311	—	2,952
(Gain) loss on change in fair value of derivatives	(19,656)	12,196	(27,322)
Equity in loss (earnings) of unconsolidated investees	(487)	643	4,404
Allowance for doubtful accounts	(8,528)	3,673	(280)
Write-down of inventories	16,951	23,013	19,467
Gain on repurchase of convertible notes	—	—	(2,782)
Share-based compensation	5,088	5,966	7,757
Unrealized gain from sales to unconsolidated investees	—	15,637	9,469
Changes in operating assets and liabilities:			
Accounts receivable trade	(73,777)	(63,352)	(33,060)
Accounts receivable, unbilled	(17,308)	15,642	4,688
Amounts due from related parties	480	(99,893)	(4,230)
Inventories	(252,716)	50,821	(50,557)
Value added tax recoverable	(4,150)	(22,725)	(11,466)
Advances to suppliers	(3,622)	7,967	(30,609)
Project assets	89,536	70,943	(6,792)
Prepaid expenses and other current assets	(38,523)	36,745	(135,426)
Other non-current assets	(8,446)	(6,093)	(1,308)
Accounts payable	135,812	(23,975)	61,157
Short-term notes payable	30,593	116,453	(141,363)
Amounts due to related parties	(2,166)	47,522	(43,774)
Other payables	14,498	12,484	63,828
Advances from customers	40,311	(30,123)	19,710
Other liabilities	(16,282)	56,542	(995)
Accrued warranty costs	15,516	12,004	(3,847)
Prepaid land use rights	5,319	(16,262)	(19,714)
Liability for uncertain tax positions	(1,613)	(1,111)	(6,037)
Deferred taxes	9,208	(112,263)	(95,629)
Net settlement of derivatives	17,192	24,878	(1,922)
Net cash provided by (used in) operating activities	<u>265,106</u>	<u>413,658</u>	<u>(278,073)</u>

See notes to consolidated financial statements.

CANADIAN SOLAR INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

	Years Ended December 31,		
	2014	2015	2016
	(In Thousands of U.S. Dollars)		
Investing activities:			
(Increase) decrease in restricted cash	(27,585)	(100,935)	50,585
Investments in affiliates	(72)	(84,389)	(124,737)
Return of investment from unconsolidated investees	337	1,698	7,442
Purchase of property, plant and equipment	(49,660)	(90,905)	(286,722)
Purchase of solar power systems	(15,480)	(551,863)	(824,766)
Loan to a third party	(24,382)	—	—
Repayment of loan received from a third party	—	24,467	—
Proceeds from disposal of solar power systems	—	—	90,078
Proceeds from insurance claim	—	—	46,801
Proceeds from disposal of investment on subsidiaries	—	3,615	1,899
Distribution to non-controlling shareholders upon disposal of a subsidiary	—	(4,225)	(3,137)
Acquisition of subsidiaries, net of cash received	—	(196,783)	—
Proceeds from disposal of property, plant and equipment	793	216	—
Net cash used in investing activities	(116,049)	(999,104)	(1,042,557)
Financing activities:			
Proceeds from short-term borrowings	928,879	1,436,950	1,841,808
Repayment of short-term borrowings	(1,045,596)	(1,308,235)	(2,243,003)
Proceeds from long-term borrowings	56,989	487,228	1,076,332
Profit distribution to a non-controlling interest	—	(305)	—
Payment to non-controlling interests for sales of project companies	(5,483)	—	—
Gross proceeds from issuance of common shares	115,009	—	23,864
Issuance costs paid for common shares offering	(6,091)	—	(456)
Payment of financing costs	—	(39,297)	(3,750)
Purchase of shares from non-controlling shareholders	—	(927)	—
Proceeds from non-controlling interest	—	—	1,648
Proceeds from issuance of warrant	—	16,378	—
Proceeds from third party financing liabilities	—	1,685	415,523
Proceeds from capital lease	—	25,246	96,697
Repayment of capital lease obligation	—	(1,107)	(24,191)
Proceeds from short-term commercial paper	—	—	134,311
Proceeds from issuance of convertible notes	150,000	—	—
Issuance cost paid on convertible notes	(5,103)	—	—
Payments for repurchase of convertible notes	—	—	(19,667)
Proceeds from exercise of stock options	3,343	1,867	707
Net cash provided by financing activities	191,947	619,483	1,299,823
Effect of exchange rate changes	(19,711)	(30,501)	(12,312)
Net increase (decrease) in cash and cash equivalents	321,293	3,536	(33,119)
Cash and cash equivalents at the beginning of the year	228,250	549,543	553,079
Less: Cash and cash equivalents included in assets held-for-sale at the end of the year	—	—	8,921
Cash and cash equivalents at the end of the year	549,543	553,079	511,039
Supplemental disclosure of cash flow information:			
Interest paid (net of amounts capitalized)	47,227	49,619	70,827
Income taxes paid	14,016	87,348	187,876
Supplemental schedule of non-cash activities:			
Reclassification of solar power systems to project assets	—	114,131	1,362,037
Unpaid proceeds from disposal of subsidiaries included in prepaid expenses and other current assets	—	—	14,604
Amounts due to non-controlling interests for sales of project companies included in payables	1,765	—	—
Property, plant and equipment costs included in other payables	23,541	34,161	120,881
Solar power systems costs included in accounts payables	339	115,887	72,885
Reclassification of partial interests in project assets to investment in connection with a sale of 51% equity in the project	—	84,200	—
Decrease in amounts due from related parties, net of investments in affiliates	—	—	65,090

See notes to consolidated financial statements.

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**1. ORGANIZATION AND PRINCIPAL ACTIVITIES**

Canadian Solar Inc. ("CSI") was incorporated pursuant to the laws of the Province of Ontario in October 2001, and changed its jurisdiction by continuing under the Canadian federal corporate statute, the Canada Business Corporations Act, or CBCA, effective June 1, 2006.

CSI and its subsidiaries (collectively, the "Company") design, develop, and manufacture solar wafers, cells and solar power products. In recent years, the Company has increased investment in, and management attention on its total solutions business, which primarily consists of solar power project development and sale, EPC and development services, O&M services, operating solar power projects and sales of electricity, and sales of solar system kits. As of December 31, 2016, major subsidiaries of CSI are included in Appendix 1.

**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES**

**(a) Basis of presentation**

The consolidated financial statements of the Company have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP").

**(b) Basis of consolidation**

The consolidated financial statements include the financial statements of the Company and its subsidiaries in which it has a controlling financial interest or variable interest entities ("VIEs") for which the Company is a primary beneficiary.

A controlling financial interest is typically determined when a company holds a majority of the voting equity interest in an entity. All intercompany balances and transactions between the Company and its subsidiaries have been eliminated in consolidation.

The Company consolidates VIEs when the Company is the primary beneficiary. The primary beneficiary of a VIE is the party that has the power to direct the activities that most significantly impact the performance of the entity and the obligation to absorb losses or the right to receive benefits that could potentially be significant to the entity. VIEs are entities that lack sufficient equity to finance their activities without additional financial support from other parties or whose equity holders, as a group, lack one or more of the following characteristics: (a) direct or indirect ability to make decisions; (b) obligation to absorb expected losses; or (c) right to receive expected residual returns. VIEs must be evaluated quantitatively and qualitatively to determine the primary beneficiary, which is the reporting entity that has (a) the power to direct activities of a VIE that most significantly impact the VIEs economic performance and (b) the obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. The primary beneficiary is required to consolidate the VIE for financial reporting purposes. A VIE can have only one primary beneficiary, but may not have a primary beneficiary if no party meets the criteria described above.

When evaluating whether the Company is the primary beneficiary of a VIE, and must therefore consolidate the entity, we perform a qualitative analysis that considers the design of the VIE, the nature of its involvement and the variable interests held by other parties. If that evaluation is

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

inconclusive as to which party absorbs a majority of the entity's expected losses or residual returns, a quantitative analysis is performed to determine the primary beneficiary.

For the Company's consolidated VIEs, the Company has presented on the consolidated balance sheets, to the extent material, the assets of its consolidated VIEs that can only be used to settle specific obligations of the consolidated VIE, and the liabilities of its consolidated VIEs for which creditors do not have recourse to its general assets outside of the consolidated VIE. All significant intercompany accounts and transactions between the Company and its consolidated VIEs have been eliminated in consolidation.

*(c) Use of estimates*

The preparation of consolidated financial statements in conformity with U.S. GAAP requires the Company to make estimates and assumptions that affect reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant accounting estimates reflected in the Company's consolidated financial statements include revenue recognition for sales of solar power projects, EPC and development services accounted for under the percentage-of-completion method, allowance for doubtful accounts receivable and advances to suppliers, valuation of inventories and provision for firm purchase commitments, provision for contingent liability, impairment of long-lived assets and project assets, the estimated useful lives of long-lived assets, determination of assets retirement obligation ("ARO"), accrual for warranty and the recognition of the benefit from the purchased warranty insurance, fair value estimate of financial instruments including warrants and other types of derivative, accrual for uncertain tax positions, tax valuation allowances, applying acquisition method of accounting to business acquisitions and the grant-date fair value of share-based compensation awards and related forfeiture rates.

*(d) Cash and cash equivalents and restricted cash*

Cash and cash equivalents are stated at cost, which approximates fair value. Cash and cash equivalents consist of cash on hand and demand deposits, which are unrestricted as to withdrawal and use, and have original maturities of three months or less when acquired.

Restricted cash represents amounts held by banks, which are not available for the Company's general use, as security for issuance of letters of credit, short-term notes payable and bank borrowings. Upon maturity of the letters of credit, repayment of short-term notes payable or bank borrowings which generally occur within one year, the deposits are released by the bank and become available for general use by the Company.

*(e) Accounts receivable, unbilled*

Accounts receivable, unbilled represents revenue that has been recognized in advance of billing the customer. The Company uses the percentage-of-completion method to recognize revenue from EPC and development services and sales of solar power projects when all relevant revenue recognition criteria have been met. Under this accounting method, revenue may be recognized in advance of billing

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

the customer, which results in the recording of accounts receivable, unbilled. Once the Company meets the billing criteria under such contract, it bills the customer and reclassifies the unbilled balance to accounts receivable trade. Billing requirements vary by contract, but are generally structured around completion of certain construction milestones.

**(f) Allowance for doubtful receivables**

The Company began purchasing insurance from China Export & Credit Insurance Corporation ("Sinasure") since 2009 for certain of its accounts receivable trade in order to reduce its exposure to bad debt loss. The Company provides an allowance for accounts receivable trade using primarily a specific identification methodology. An allowance is recorded based on the likelihood of collection from the specific customer regardless whether such account is covered by Sinasure. At the time the claim is made to Sinasure, the Company records a receivable from Sinasure equal to the expected recovery up to the amount of the specific allowance. The Company had recorded a receivable from Sinasure in prepaid expenses and other current assets of \$442 and \$409 as of December 31, 2015 and 2016, respectively and a corresponding reduction in bad debt expense.

**(g) Advances to suppliers**

The Company makes prepayments to certain suppliers and such amounts are recorded in advances to suppliers in the consolidated balance sheets. Advances to suppliers expected to be utilized within twelve months as of each balance sheet date are recorded as current assets and the portion expected to be utilized after twelve months are classified as non-current assets in the consolidated balance sheets.

**(h) Inventories**

Before 2016, inventories were stated at the lower of cost or market. In 2016, the Company adopted ASU 2015-11 prospectively, and inventories are stated at the lower of cost or net realizable value as of December 31, 2016. Cost is determined by the weighted-average method. Cost of inventories consists of direct materials and, where applicable, direct labor costs, tolling costs and those overhead costs that have been incurred in bringing the inventories to their present location and condition.

Adjustments are recorded to write down the cost of obsolete and excess inventories to the estimated net realizable value based on historical and forecast demand.

The Company outsources portions of its manufacturing process. These outsourcing arrangements may or may not include transfer of title of the raw materials inventory to third-party manufacturers. Such raw materials are recorded as raw materials inventory when purchased from suppliers. For those outsourcing arrangements in which the title is not transferred, the Company maintains such inventory on the Company's consolidated balance sheets as raw materials inventory while it is in physical possession of the third-party manufacturer. Upon receipt, processed inventory is reclassified to work-in-process inventory and a processing fee is paid to the third-party manufacturer.

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

For those outsourcing arrangements, characterized as sales, in which title (including risk of loss) is transferred to the third-party manufacturer, the Company is constructively obligated, through raw materials sales agreements and processed inventory purchase agreements, which have been entered into with the third-party manufacturer simultaneously, to repurchase the inventory once processed. In this case, the raw materials remain classified as raw material inventory while in physical possession of the third-party manufacturer and cash is received, which is classified as "advances from customers" on the consolidated balance sheets and not as revenue or deferred revenue. Cash payments for outsourcing arrangements, which require prepayments for repurchase of the processed inventory, are classified as "advances to suppliers" on the consolidated balance sheets. There is no right of offset for these arrangements and accordingly, "advances from customers" and "advances to suppliers" remain on the consolidated balance sheets until the processed inventory is repurchased.

On occasion, the Company enters into firm purchase commitments to acquire materials from its suppliers. A firm purchase commitment represents an agreement that specifies all significant terms, including the price and timing of the transactions, and includes a disincentive for non-performance that is sufficiently large to make performance probable. This disincentive is generally in the form of a take-or-pay provision, which requires the Company to pay for committed volumes regardless of whether the Company actually acquires the materials. The Company evaluates these agreements and records a loss, if any, on firm purchase commitments using the same way as that used to value inventory losses.

*(i) Project assets*

Project assets consist primarily of capitalized costs relating to solar power projects in various stages of development prior to the intended sale of the solar power projects to a third party. These costs include certain acquisition costs, land costs and costs for developing and constructing a solar power system. Development costs can include legal, consulting, permitting, and other similar costs. Construction costs can include execution of field construction, installation of solar equipment, solar modules and related equipment. Interest costs incurred on debt during the construction phase and all deferred financing costs amortized during the construction phase are also capitalized within project assets.

Solar power projects are preliminarily classified as project assets unless the Company has intention not to sell them to third parties. In that case, they will be classified as solar power systems on the balance sheet. During the development phase, solar power projects are accounted for in accordance with the recognition, initial measurement and subsequent measurement subtopics of ASC 970-360, as they are considered in substance real estates. The costs to construct solar power projects are presented as operating activities or investing activities in the consolidated statement of cash flows, if they are related to project assets or solar power systems, respectively. While the solar power projects are in the development phase, they are generally classified as non-current assets, unless it is anticipated that construction will be completed and the sale will occur within one year.

Once the development of the solar power projects is substantially complete and the projects reach Commercial Operation Date ("COD"), appropriateness of the classification of the solar power projects is re-assessed based on the circumstances at that time. Solar power projects that the Company intends

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

to sell, which meet the criteria of ASC 360-10-45-9 on COD, are classified as project assets-current. Solar power projects that the Company intends to hold and operate to generate electricity are still classified as solar power systems. The Company reclassified solar power systems of \$111.3 million and \$1,202.1 million to project assets-current, and \$2.8 million and \$160.0 million to project assets-non-current on the consolidated balance sheet in 2015 and 2016, respectively.

The Company reviews project assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The Company considers a project commercially viable or recoverable if it is anticipated to be sold for a profit once it is either fully developed or fully constructed. The Company considers a partially developed or partially constructed project commercially viable or recoverable if the anticipated selling price is higher than the carrying value of the related project assets. The Company examines a number of factors to determine if the project will be recoverable, the most notable of which include whether there are any changes in environmental, ecological, permitting, market pricing or regulatory conditions that impact the project. Such changes could cause the costs of the project to increase or the selling price of the project to decrease. If a project is not considered recoverable, the Company impairs the respective project assets and adjusts the carrying value to the estimated recoverable amount, with the resulting impairment recorded within operations.

Project assets are often held in separate legal entities which are formed for the special purpose of constructing the project assets, which the Company refers to as "project companies". The Company consolidates project companies as described in note (b) above. The cash paid to the non-controlling interest in connection with disposal of such project companies was recorded as a financing activity in the consolidated statement of cash flows.

The Company does not depreciate the project assets. Any revenue generated from a solar power system connected to the grid would be considered incidental revenue and accounted for as a reduction of the capitalized project costs for development. If circumstances change, and the Company will begin to operate the project assets for the purpose of generating income from the sale of electricity, the project assets will be reclassified to solar power systems.

**(j) Business combination**

Business combinations are recorded using the acquisition method of accounting and, accordingly, the acquired assets and liabilities are recorded at their fair market value at the date of acquisition. Any excess of acquisition cost over the fair value of the acquired assets and liabilities, including identifiable intangible assets, is recorded as goodwill. The Company charges acquisition related costs that are not part of the purchase price consideration to general and administrative expenses as they are incurred. These costs typically include transaction and integration costs, such as legal, accounting, and other professional fees.

**(k) Assets acquisition**

When the Company acquires other entities, if the assets acquired and liabilities assumed do not constitute a business, the transaction is accounted for as an asset acquisition. Assets are recognized



CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

based on the cost, which generally includes the transaction costs of the asset acquisition, and no gain or loss is recognized unless the fair value of noncash assets given as consideration differs from the assets' carrying amounts on the Company's books. The costs of asset acquisitions generally include the direct transaction costs of the asset acquisition. If the consideration given is not in the form of cash (that is, in the form of noncash assets, liabilities incurred, or equity interests issued), measurement is based on either the cost to the acquiring entity or the fair value of the assets (or net assets) acquired, whichever is more clearly evident and, thus, more reliably measurable. The cost of a group of assets acquired in an asset acquisition is allocated to the individual assets acquired or liabilities assumed based on their relative fair value and does not give rise to goodwill.

**(l) Goodwill**

Goodwill represents the excess of the purchase price of acquired businesses over the estimated fair value assigned to the individual assets acquired and liabilities assumed. The Company does not amortize goodwill but instead test goodwill for impairment at least annually in the fourth quarter. The Company performs impairment tests between scheduled annual tests if facts and circumstances indicate that it is more likely than not that the fair value of a reporting unit that has goodwill is less than its carrying value.

The Company may first make a qualitative assessment of whether it is more likely than not that a reporting unit's fair value is less than its carrying value to determine whether it is necessary to perform the two-step goodwill impairment test. The qualitative impairment test considers various factors including macroeconomic conditions, industry and market conditions, cost factors, a sustained share price or market capitalization decrease, and any reporting unit specific events. If it is determined through the qualitative assessment that a reporting unit's fair value is more likely than not greater than its carrying value, the two-step impairment test is not required. If the qualitative assessment indicates it is more likely than not that a reporting unit's fair value is not greater than its carrying value, the Company proceeds to perform the two-step impairment test. The Company may also elect to proceed directly to the two step impairment test without considering such qualitative factors.

The first step in a two-step impairment test is the comparison of the fair value of a reporting unit with its carrying amount, including goodwill. In accordance with the authoritative guidance over fair value measurements, the Company defines the fair value of a reporting unit as the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. The Company primarily uses the income approach methodology of valuation, which includes the discounted cash flow method, to estimate the fair values of the reporting units.

Significant management judgment is required when estimating the fair value of the reporting units including the forecasting of future operating results and the selection of discount and expected future growth rates that the Company uses in discounting cash flows. If the estimated fair value of a reporting unit exceeds its carrying value, goodwill is not impaired and no further analysis is required.

If the carrying value of a reporting unit exceeds its estimated fair value in the first step, then the Company is required to perform the second step of the impairment test. In this step, the Company assigns the fair value of the reporting unit calculated in step one to all of the assets and liabilities of

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

the reporting unit, as if a market participant just acquired the reporting unit in a business combination. The excess of the fair value of the reporting unit determined in the first step of the impairment test over the total amount assigned to the assets and liabilities in the second step of the impairment test represents the implied fair value of goodwill. If the carrying value of a reporting unit's goodwill exceeds the implied fair value of goodwill, the Company would record an impairment loss equal to the difference. If there is no such excess, no goodwill impairment is required.

The Company performed a qualitative assessment for each of the reporting units in the fourth quarter of 2016 and concluded that it was not more likely than not that the fair value of each reporting unit was less than its carrying amount. Accordingly, the two-step goodwill impairment test for the Company's reporting units was not considered necessary.

**(m) Property, plant and equipment**

Property, plant and equipment is recorded at cost less accumulated depreciation. The cost of property, plant and equipment comprises its purchase price and any directly attributable costs, including interest costs capitalized during the period the asset is brought to its working condition and location for its intended use. The Company expenses repair and maintenance costs as incurred.

Depreciation is computed on a straight-line basis over the following estimated useful lives:

Buildings	20 years
Leasehold improvements	Over the shorter of the lease term or their estimated useful lives
Machinery	5-10 years
Furniture, fixtures and equipment	5 years
Motor vehicles	5 years

Costs incurred in constructing new facilities, including progress payments, capitalized interests and other costs relating to the construction, are capitalized and transferred to property, plant and equipment on completion and depreciation commences from that time.

For property, plant and equipment that has been placed into service, but is subsequently idled temporarily, the Company continues to record depreciation expense during the idle period. The Company adjusts the estimated useful life of the idled assets if the estimated useful life has changed.

**(n) Assets held-for-sale**

Long-lived assets (disposal group) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when management commits to a plan to sell the asset; the asset is available for immediate sale in its present condition; an active program to locate a buyer and other actions required to complete the plan have been initiated; the sale of the asset is probable within one year; the asset is being actively marketed for sale at a reasonable price in relation to its current fair value; and it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn. Long-lived

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

assets classified as held for sale are measured at lower of their carrying amount and fair value less costs to sell and depreciation (amortization) ceases once the asset is classified as held for sale.

*(o) Solar power systems*

Solar power systems are comprised of ground-mounted projects and roof top systems that the Company intends to hold for use. The solar power systems are stated at cost less accumulated depreciation. The cost consists primarily of direct costs incurred in various stages of development prior to the commencement of operations. For a self-developed solar power system, the actual cost capitalized is the amount of the expenditure incurred for the application of the feed-in tariff ("FIT") or other similar contracts, permits, consents, construction costs, interest costs capitalized, and other costs capitalized. For a solar power system acquired from third parties, the initial costs include the consideration transferred and certain direct acquisition costs. Expenditures for major additions and improvements are capitalized and minor replacements, maintenance, and repairs are charged to expense as incurred.

When solar power systems is retired, or otherwise disposed of, the cost and accumulated depreciation is removed from the balance sheets and any resulting gain or loss is included in the results of operations for the respective period. Depreciation is recognized using the straight-line method over the estimated useful lives of the solar power systems of 20 to 25 years.

*(p) Intangible assets*

Intangible assets primarily represent the technical know-how and computer software purchased from third parties. Intangible assets are recorded at fair value at the time of acquisition less accumulated amortization, if applicable. Amortization is recorded according to the following table on a straight-line basis for all intangible assets:

Power purchase agreement ("PPA")	Over the estimated useful lives
Technical know-how	10 years
Computer software	1-10 years

*(q) Prepaid land use rights*

Prepaid land use rights represent amounts paid for the Company's lease for the use right of lands located in China ("PRC") and Japan. Amounts are charged to earnings ratably over the lease periods of 20 to 50 years.

*(r) Investments in affiliates*

The Company accounts for the investments in affiliates using either the cost or equity method of accounting depending upon whether the Company has the ability to exercise significant influence over the affiliates. As part of this evaluation, the Company considers the participating and protective rights in the affiliates as well as its legal form. The Company records the cost method investments at historical cost and subsequently record any dividends received from the net accumulated earnings of

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

the investee as income. Dividends received in excess of earnings are considered a return of investment and are recorded as reductions in the cost of the investment. The Company uses the equity method of accounting for the investments when the Company has the ability to significantly influence the operations or financial activities of the investee. The Company records the equity method investments at historical cost and subsequently adjusts the carrying amount each period for share of the earnings or losses of the investee and other adjustments required by the equity method of accounting. Dividends received from the equity method investments are recorded as reductions in the cost of such investments.

Investments are evaluated for impairment when facts or circumstances indicate that the fair value of the investment is less than its carrying value. An impairment is recognized when a decline in fair value is determined to be other-than-temporary. The Company reviews several factors to determine whether a loss is other-than-temporary. These factors include, but are not limited to, the: (i) nature of the investment; (ii) cause and duration of the impairment; (iii) extent to which fair value is less than cost; (iv) financial conditions and near term prospects of the affiliates; and (v) ability to hold the security for a period of time sufficient to allow for any anticipated recovery in fair value. During the years ended December 31, 2014, 2015 and 2016, the Company recorded no impairment charges on its investments.

**(s) Impairment of long-lived assets**

The Company assesses the recoverability of the carrying value of long-lived assets when an indicator of impairment has been identified. The Company reviews the long-lived assets each reporting period to assess whether impairment indicators are present. For purposes of recognition and measurement of an impairment loss, a long-lived asset or assets is grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. For long-lived assets, when impairment indicators are present, the Company compares undiscounted future cash flows, including the eventual disposition of the asset group at market value, to the asset group's carrying value to determine if the asset group is recoverable. Assessments also consider changes in asset group utilization, including the temporary idling of capacity and the expected timing of placing this capacity back into production. If the sum of the expected undiscounted cash flows is less than the carrying amount of the assets, the Company will recognize an impairment loss based on the fair value of the assets. The Company recorded impairment charges for long-lived assets of \$1,573, \$6,992 and \$22,757 for the years ended December 31, 2014, 2015 and 2016, respectively.

**(t) Interest capitalization**

The Company capitalizes interest costs as part of the historical costs of acquiring or constructing certain assets during the period of time required to get the assets ready for their intended use or sell the asset to a customer. The Company capitalizes interest costs to the extent that expenditures to acquire, construct, or develop an asset have occurred and interest costs have been incurred. Interest capitalized for property, plant and equipment, or solar power systems is depreciated over the estimated useful life of the related asset, as the qualifying asset is placed into service. The interest capitalized for

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

project assets forms part of the cost of revenues when such project assets are sold and all revenue recognition criteria are met. Interest capitalization ceases once a project is substantially complete or no longer undergoing construction activities to prepare it for its intended use.

**(u) Assets retirement obligation**

Certain jurisdictions in which the Company's project assets are located or certain land lease agreements require the removal of the solar power systems when the project is decommissioned. ARO for the estimated costs of decommissioning associated with long-lived assets at a future date are accounted for in accordance with ASC 410-20, Asset Retirement Obligations ("ASC 410-20"). ASC 410-20 requires an entity to recognize the fair value of a liability for an ARO in the period in which it is incurred and a reasonable estimate of fair value can be made. Upon initial recognition of a liability for an ARO, the asset retirement cost is capitalized by increasing the carrying amount of the related long-lived asset by the same amount. Over time, the liability is accreted to its expected future value, while the capitalized cost is depreciated over the useful life of the related asset. The Company's ARO included in solar power systems were \$7,574 and \$1,503 as of December 31, 2015 and 2016, respectively.

**(v) 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. If a potential material loss contingency is not probable but is reasonably possible, or is probable but the amount cannot be estimated, then the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material, is disclosed. Legal costs incurred in connection with loss contingencies are expensed as incurred.

**(w) Income taxes**

Deferred income taxes are recognized for temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements, net tax loss carry-forwards and credits using the enacted tax rates expected to apply to taxable income in the periods in which the deferred tax liability or asset is expected to be settled or realized. Deferred tax assets are reduced by a valuation allowance when it is more likely than not that some portion or all of the deferred tax assets will not be realized. Current income taxes are provided for in accordance with the laws of the relevant taxing authorities. Before 2016, the components of the deferred tax assets and liabilities were individually classified as current and non-current based on the characteristics of the underlying assets and liabilities, or the expected timing of their use when they did not relate to a specific asset or liability. In 2016, the Company adopted ASU2015-17 prospectively and did not revise prior periods, and as of December 31, 2016, the components of the deferred tax assets and liabilities are all classified as non-current on the consolidated balance sheet.

Income tax expense includes (i) deferred tax expense, which generally represents the net change in the deferred tax asset or liability balance during the year plus any change in valuation allowances;

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

(ii) current tax expense, which represents the amount of tax currently payable to or receivable from a taxing authority; and (iii) non-current tax expense, which represents the increases and decreases in amounts related to uncertain tax positions from prior periods and not settled with cash or other tax attributes. The Company only recognizes tax benefits related to uncertain tax positions when such positions are more likely than not of being sustained upon examination. For such positions, the amount of tax benefit that the Company recognizes is the largest amount of tax benefit that is more than fifty percent likely of being sustained upon the ultimate settlement of such uncertain tax position. The Company records penalties and interests associated with the uncertain tax positions as a component of income tax expense.

The Company uses the flow-through method to account for investment tax credits earned on qualifying projects placed into service. Under this method the investment tax credits are recognized as a reduction to income tax expense in the year the credit arises. The use of the flow-through method also results in a basis difference from the recognition of a deferred tax liability and an immediate income tax expense for reduced future tax depreciation of the related assets. Such basis differences are accounted for pursuant to the income statement method.

**(x) Revenue recognition**

Solar power products

The Company recognizes revenues for solar product sales when persuasive evidence of an arrangement exists, delivery of the product has occurred and title and risk of loss has passed to the customers, the sales price is fixed or determinable and the collectability of the resulting receivable is reasonably assured. If collectability is not reasonably assured, the Company recognizes revenue only upon collection of cash. Revenues also include reimbursements received from customers for shipping and handling costs. Sales agreements typically contain the customary product warranties but do not contain any post-shipment obligations nor any return or credit provisions.

A majority of the Company's contracts provide that products are shipped under the term of free on board ("FOB"), ex-works, or cost, insurance and freight ("CIF") and delivered duty paid ("DDP"). Under FOB, the Company fulfills its obligation to deliver when the goods have passed over the ship's rail at the named port of shipment. The customer has to bear all costs and risks of loss or damage to the goods from that point. Under ex-works, the Company fulfills its obligation to deliver when it has made the goods available at its premises to the customer. The customer bears all costs and risks involved in taking the goods from the Company's premises to the desired destination. Under CIF, the Company must pay the costs, marine insurance and freight necessary to bring the goods to the named port of destination but the risk of loss of or damage to the goods as well as any additional costs due to events occurring after the time the goods have been delivered on board the vessel, is transferred to the customer when the goods pass the ship's rail in the port of shipment. Under DDP, the Company is responsible for making a safe delivery of goods to a named destination, paying all transportation expenses and the duty. The Company bears the risks and costs associated with supplying the goods to the delivery location.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

As of December 31, 2014, 2015 and 2016, the Company had inventories of \$7.5 million, \$7.3 million and \$5.9 million, respectively, relating to sales to customers where revenues were not recognized because the collection of payment was not reasonably assured. The delivered products remain as inventories on consolidated balance sheets, regardless of whether title has been transferred. In such cases, the Company recognizes revenue, adjusts inventories and recognizes cost of revenues when payment is collected from customers.

Revenues from sales to customers are recorded net of estimated returns.

The Company enters into toll manufacturing arrangements in which the Company receives cells and returns finished modules. In such cases, the title of the cells received and risk of loss remains with the seller. As a result, the Company does not recognize inventory on the consolidated balance sheets. The Company recognizes a service fee as revenue when the processed modules are delivered. During the years ended December 31, 2014, 2015 and 2016, the Company recognized revenue of \$16,578, \$6,764 and nil, respectively, under toll manufacturing arrangements.

*EPC and development services*

The Company uses the percentage-of-completion method to recognize revenues for which the Company provides EPC and development services, unless the Company cannot make reasonably dependable estimates of the costs to complete the contract, in which case the Company would use the completed contract method. The percentage-of-completion method is considered appropriate in circumstances in which reasonably dependable estimates can be made and in which all the following conditions exist: (i) contracts executed by the parties normally include provisions that clearly specify the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement; (ii) the buyer can be expected to satisfy all obligations under the contract; and (iii) the contractor can be expected to perform all contractual obligations. The Company uses the cost-to-cost method to measure the percentage of completion and recognize revenue based on the estimated progress to completion. The Company periodically revises its profit estimates based on changes in facts, and immediately recognizes any losses that are identified on contracts. Incurred costs include all direct material, labor, subcontractor cost, and other associated costs. The Company recognizes job material costs as incurred costs when the job materials have been permanently attached or fitted to the solar power projects as required by the engineering design. The construction periods normally extend beyond six months and less than one year.

The percentage-of-completion method of revenue recognition requires the Company to make estimates of net contract revenues and costs to complete contracts. In making such estimates, management judgments are required to evaluate significant assumptions including the amount of net contract revenues, the cost of materials and labor, expected labor productivity, the impact of potential variances in schedule completion, and the impact of any penalties, claims, change orders, or performance incentives.

If estimated total costs on any contract are greater than the net contract revenues, the Company recognizes the entire estimated loss in the period the loss becomes known. The cumulative effect of the

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

revisions to estimates related to net contract revenues and costs to complete contracts, including penalties, claims, change orders, performance incentives, anticipated losses, and others are recorded in the period in which revisions to the estimates are identified and the amounts can be reasonably estimated. The effect of the changes on future periods are recognized as if the revised estimates had been used since revenue was initially recognized under the contract. Such revisions could occur in any reporting period, and the effects may be material depending on the size of the contracts or the changes in estimates.

Solar power projects

The Company recognizes revenue from the sale of project assets in accordance with ASC 360-20, Real Estate Sales. For these transactions, the Company has determined that the project assets, which represent the costs of constructing solar power projects, represent "integral" equipment and as such, the entire transaction is in substance the sale of real estate and subject to the revenue recognition guidance under ASC 360-20 Real Estate Sales. The Company records the sale as revenue using one of the following revenue recognition methods, based upon evaluation of the substance and form of the terms and conditions of such real estate sales arrangements:

- (i) Full accrual method. The Company records revenue for certain sales arrangements after construction of discrete portions of a project or after the entire project is substantially complete. The Company recognizes revenue and profit using the full accrual method when all of the following requirements are met: (a) the sales are consummated; (b) the buyer's initial and continuing investments are adequate to demonstrate its commitment to pay; (c) the receivable is not subject to any future subordination; and (d) the Company has transferred the usual risk and rewards of ownership to the buyer. Specifically, the Company considers the following factors in determining whether the sales have been consummated: (a) the parties are bound by the terms of a contract; (b) all consideration has been exchanged; (c) permanent financing for which the seller is responsible has been arranged; and (d) all conditions precedent to closing have been performed, and the Company does not have any substantial continuing involvement with the project.
- (ii) Percentage-of-completion method. The Company applies the percentage-of-completion method, as further described below, to certain real estate sales arrangements where the Company conveys control of land or land rights, (a) when a sale has been consummated; (b) the Company has transferred the usual risks and rewards of ownership to the buyer; (c) the initial and continuing investment criteria have been met; (d) the Company has the ability to estimate its costs and progress toward completion, and (e) all other revenue recognition criteria have been met. The initial and continuing investment requirements, which demonstrate a buyer's commitment to honor their obligations for the sales arrangement, can typically be met through the receipt of cash or an irrevocable letter of credit from a highly creditworthy lending institution. When evaluating whether the usual risks and rewards of ownership have transferred to the buyer, the Company considers whether it has or may be contingently required to have any prohibited forms of continuing involvement with the project. Prohibited forms of continuing involvement in a real estate sales arrangement may include the Company



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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

retaining risks or rewards associated with the project that are not customary with the range of risks or rewards that an EPC contractor may assume.

- (iii) Installment method. Depending on whether the initial and continuing investment requirements have been met, and whether collectability from the buyer is reasonably assured, the Company may align its revenue recognition and release of project assets or deferred project costs to cost of sales with the receipt of payment from the buyer if the sale has been consummated and the Company has transferred the usual risks and rewards of ownership to the buyer.

On occasion, the Company sells an interest in the project assets to a third party with an option to repurchase those assets in the future. The Company considers that there are continuing involvements in the projects and thus no profit or revenue is recognized. The transactions are accounted for as financing arrangement or profit-sharing arrangement.

- (iv) Financing method. If the Company determines that it is likely the repurchase option will be exercised, the transactions are accounted for as financing arrangement. All the project assets remain on the Company's consolidated balance sheets. The buyer's shares of earnings in the projects, during each period are reflected as interest expenses with a corresponding increase to the respective financing liabilities. Further distributions from the projects are reflected as a decrease to the financing liabilities. As of December 31, 2015 and 2016, the Company recorded financing liabilities of \$3.2 million and \$459.3 million in other non-current liabilities and financing liabilities on the consolidated balance sheet, respectively. The balances had been net of distributions of nil and \$1.4 million as of December 31, 2015 and 2016, respectively.
- (v) Profit-sharing arrangement. If the Company determines that it is unlikely the repurchase option will be exercised, the transactions are accounted for as profit-sharing arrangement. The Company reclassifies the property and any related existing debt assumed by the buyer to an investment account on its balance sheet and any cash received from the buyer is credited to the investment account. The amount will be recorded in investments in affiliates or other liabilities on the balance sheet depending on whether the amount is a debit or credit. As of December 31, 2015 and 2016, the Company recorded nil and \$4.8 million, respectively, in other liabilities on the consolidated balance sheet.

During 2014, 2015 and 2016, the Company recognized \$754,210, \$557,132 and \$22,237 of revenue from the sale of solar power projects using the full accrual method and recognized \$137,726, \$863 and \$428 from sales of power projects using percentage-of-completion method, respectively.

The Company allocates revenue for transactions involving multiple-element arrangements to each unit of accounting on a relative fair value basis. The Company estimates fair value on each unit of accounting on the following basis: (i) vendor-specific objective evidence of selling price, if it exists, otherwise, (ii) third-party evidence of selling price. If neither (i) nor (ii) exists, management's best estimate of the selling price for that unit of accounting is used. The Company recognizes revenue for each unit of accounting when the revenue recognition criteria have been met.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

Electricity revenue

Electricity revenue is generated primarily from various non-affiliated parties under long-term PPAs and performance based energy incentives. The Company recognizes electricity revenue when persuasive evidence of an arrangement exists, electricity has been generated and transmitted to the grid, the price of electricity is fixed or determinable and the collectability of the resulting receivable is reasonably assured.

Performance-based energy incentives are awarded under certain state programs for the delivery of renewable electricity. The Company recognizes performance-based energy incentives of electricity revenue generated from solar power systems when the condition attached to it has been met and there is reasonable assurance that the grant will be received. During the years ended December 31, 2014, 2015 and 2016, the Company recognized performance-based energy incentives of \$2.0 million, \$16.1 million, and \$22.8 million related to electricity generated from solar power systems and assets held-for-sale in revenue.

Certain PPAs are accounted for as operating leases in accordance with ASC 840-20, Operating Leases. Minimum lease payments are recognized over the term of the lease and contingent rents are recorded when the achievement of the contingency becomes probable in accordance with the U.S. GAAP. None of the Company's operating leases have minimum lease payments, so revenue from these contracts is recognized as energy and any related renewable energy attributes are delivered. During the years ended December 31, 2014, 2015 and 2016, the total lease income recognized was nil, \$6.1 million, and \$6.2 million related to PPAs, respectively.

**(y) Shipping and handling costs**

Payments received from customers for shipping and handling costs are included in net revenues. Shipping and handling costs relating to sales of \$55,671, \$73,008 and \$68,451, are included in selling expenses for the years ended December 31, 2014, 2015 and 2016, respectively.

**(z) Research and development**

Costs related to the design, development, testing and enhancement of products and silicon reclamation program are included in research and development expenses. Research and development costs are expensed when incurred and amounted to \$12,057, \$17,056 and \$17,407 for the years ended December 31, 2014, 2015 and 2016, respectively.

**(aa) Other operating income, net**

Other operating income, net primarily consists of gains or losses on disposal of solar power systems and property, plant and equipment, and government grants received.

Government grants received by the Company consist of unrestricted and restricted grants and subsidies. Unrestricted grants that allowed the Company's full discretion in utilizing the funds were recognized as other operating income upon receipt of cash and when all the conditions for their receipt have been satisfied. Restricted grants related to prepaid land use rights are recorded as deferred

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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## 2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

subsidies in other non-current liabilities and are amortized on a straight-line basis over the term of the land use right. In 2016, the Company received government grants related to land use rights of \$3,416 and amortized the deferred subsidies of \$17 into other operating income.

Before 2016, the net loss on disposal of property, plant and equipment and government grants were included in general and administrative expenses. In 2016, the Company reclassified the prior years' numbers, which are immaterial to the financial statements, to be consistent with current year's presentation.

The following table summarizes the Company's other operating income, net:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Net gain on disposal of solar power systems	—	—	(47,899)
Net loss on disposal of property, plant and equipment	1,478	1,801	8,094
Government grants	(5,801)	(7,193)	(2,734)
	<u>(4,323)</u>	<u>(5,392)</u>	<u>(42,539)</u>

*(ab) Warranty cost*

Before June 2009, the Company typically sold its standard solar modules with a two-year guarantee for defects in materials and workmanship and a 10-year and 25-year warranty against declines of more than 10% and 20%, respectively, from the initial minimum power generation capacity at the time of delivery. In June 2009, the Company increased its warranty against defects in materials and workmanship to six years.

In August 2011, the Company increased its guarantee for defects in materials and workmanship to ten years and the Company warrants that, for a period of 25 years, its standard solar modules will maintain the following performance levels: (i) during the first year, the actual power output of the module will be no less than 97% of the labeled power output; (ii) from the second year to the 24th year, the actual annual power output decline of the module will be no more than 0.7%; and (iii) by the end of the 25th year, the actual power output of the module will be no less than 80% of the labeled power output.

Effective June 2015, the Company warrants that, for a period of 25 years, its polycrystalline modules will maintain the following performance levels: (i) during the first year, the actual power output of the module will be no less than 97.5% of the labeled power output; (ii) from the second year to the 24th year, the actual annual power output decline will be no more than 0.7%; and (iii) by the end of the 25th year, the actual power output of the module will be no less than 80.7% of the labeled power output.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

Effective June 2015, the Company warrants that, for a period of 25 years, its monocrystalline modules will maintain the following performance levels: (i) during the first year, the actual power output of the module will be no less than 97% of the labeled power output; (ii) from the second year to the 24th year, the actual annual power output decline will be no more than 0.7%; and (iii) by the end of the 25th year, the actual power output of the module will be no less than 80.2% of the labeled power output. In addition, effective January 1, 2015, the Company lengthened the warranty against decline in its Dymond modules to 30 years and the Company guarantees that, for a period of 30 years, the Dymond modules will maintain the following performance levels: (i) during the first year, the actual power output of the module will be no less than 97.5% of the labeled power output; (ii) from the second year to the 29th year, the actual annual power output decline will be no more than 0.5%; and (iii) by the end of the 30th year, the actual power output of the module will be no less than 83% of the labeled power output.

Effective August 2016, the Company lengthened the warranty against decline in its Dymond polycrystalline modules to 30 years and the Company warrants that, for a period of 30 years, the Dymond modules will maintain the following performance levels: (i) during the first year, the actual power output of the module will be no less than 97.5% of the labeled power output; (ii) from the second year to the 29th year, the actual annual power output decline will be no more than 0.5%; and (iii) by the end of the 30th year, the actual power output of the module will be no less than 83% of the labeled power output.

Effective August 2016, the Company warrants that, for a period of 30 years, its Dymond monocrystalline modules will maintain the following performance levels: (i) during the first year, the actual power output of the module will be no less than 97% of the labeled power output; (ii) from the second year to the sixth year, the actual annual power output decline will be no more than 0.7%; (iii) from the seventh year to the 29th year, the actual annual power output decline will be no more than 0.5% and (iiii) by the end of the 30th year, the actual power output of the module will be no less than 81.5% of the labeled power output.

In resolving claims under the workmanship warranty, the Company has the option of remedying through repair, refurbishment or replacement of equipment. In resolving claims under the performance warranty, the Company has the right to repair or replace solar modules, at the Company's option.

For solar power projects built by the Company, the Company provides a limited workmanship or balance of system warranty against defects in engineering design, installation and construction under normal use, operation and service conditions for a period of up to five years following the energizing of the solar power project. In resolving claims under the workmanship or balance of system warranty, the Company has the option of remedying through repair, refurbishment or replacement of equipment. The Company has entered into similar workmanship warranties with its suppliers to back up its warranties.

The Company maintains warranty reserves to cover potential liabilities that could arise under these guarantees and warranties. Due to limited warranty claims to date, the Company accrues the estimated costs of warranties based on an assessment of its competitors' and its own actual claim history, industry-standard accelerated testing, estimates of failure rates from the Company's quality review, and other assumptions that the Company believes to be reasonable under the circumstances. Actual

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

warranty costs are accumulated and charged against the accrued warranty liability. To the extent that accrual for warranty costs differs from the estimates, the Company will prospectively revise its accrual rate. The Company currently records a 1% warranty provision against the revenue for sales of solar power products.

In April 2010, the Company began entering into agreements with a group of insurance companies with high credit ratings to back up its warranties. Under the terms of the insurance policies, which are designed to match the terms of its solar module product warranty policy, the insurance companies are obliged to reimburse the Company, subject to certain maximum claim limits and certain deductibles, for the actual product warranty costs that the Company incurs under the terms of its solar module product warranty policy. The Company records the insurance premiums initially as prepaid expenses and amortizes them over the respective policy period of one year. Each prepaid policy provides insurance against warranty costs for panels sold within that policy year. The unamortized carrying amount is \$1,921 and \$2,531 as of December 31, 2015 and 2016, respectively and was included as a component of prepaid expenses and other current assets.

The warranty obligations the Company records relate to defects that existed when the product was sold to the customer. The event which the Company is insured against through its insurance policies is the sale of products with these defects. Accordingly, the Company views the insured losses attributable to the shipment of defective products covered under its warranty as analogous to potential claims, or claims that have been incurred as of the product ship date, but not yet reported. The Company expects to recover all or a portion of its obligation through insurance claims. Therefore, the Company's accounting policy is to record an asset for the amount determined to be probable of recovery from the insurance claims (not to exceed the amount of the total losses incurred), consistent with the guidance set forth at ASC 410-30.

The Company considers the following factors in determining whether an insurance receivable that is probable and recoverability can be reasonably estimated: (i) reputation and credit rating of the insurance company; (ii) comparison of the solar module product warranty policy against the terms of the insurance policies, to ensure valid warranty claims submitted by customers will be covered by the policy and therefore reimbursed by the insurance companies; and (iii) with respect to specific claims submitted, written communications from the insurance company are monitored to ensure the claim has been promptly submitted to and accepted by the insurance company, and reimbursements have been subsequently collected. The successfully processed claims provide further evidence that the insurance policies are functioning as anticipated.

To the extent uncertainties regarding the solvency of insurance carriers or the legal sufficiency of insurance claims (including if they became subject to litigation) were to arise, the Company will establish a provision for uncollectible amounts based on the specific facts and circumstances. To date, no provision had been determined to be necessary. In addition, to the extent that accrual for warranty costs differs from the estimates and the Company prospectively revises its accrual rate, this change may result in a change to the amount expected to be recovered from insurance.

As the warranty obligation and related recovery asset do not meet the criteria for offsetting, the gross amounts are reported in the Company's consolidated balance sheets. The asset is expected to be

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

realized over the life of the warranty obligation, which is 25 years and is treated as a non-current asset consistent with the underlying warranty obligation. When a specific claim is submitted, and the corresponding insurance proceeds will be collected within twelve months of the balance sheet date, the Company will reclassify that portion of the receivable as being current. The insurance receivable amounts were \$56,605 and \$61,879 as of December 31, 2015 and 2016, respectively, and were included as a component of other non-current assets.

The Company made downward adjustments to its accrued warranty costs of \$16,869 and other non-current assets of \$15,189, for the year ended December 31, 2016, to reflect the general declining trend of the average selling price of solar modules, which is a primary input into the estimated warranty costs. Accrued warranty costs (net effect of adjustments) of \$18,570, \$15,876 and \$9,817 are included in cost of revenues for the years ended December 31, 2014, 2015 and 2016, respectively.

*(ac) Foreign currency translation*

The United States dollar ("U.S. dollar" or "\$"), the currency in which a substantial amount of the Company's transactions are denominated, is used as the functional and reporting currency of CSI. Monetary assets and liabilities denominated in currencies other than the U.S. dollar are translated into U.S. dollars at the rates of exchange ruling at the balance sheet date. Transactions in currencies other than the U.S. dollar during the year are converted into the U.S. dollar at the applicable rates of exchange prevailing on the transaction date. Transaction gains and losses are recognized in the consolidated statements of operations. Gains and losses on intra-entity foreign currency transactions that are of a long-term-investment nature (that is, settlement is not planned or anticipated in the foreseeable future) between consolidated entities are not recognized in earnings, but are included as a component of other comprehensive income.

The financial records of certain of the Company's subsidiaries are maintained in local currencies other than the U.S. dollar, such as Renminbi ("RMB"), Euro, Canadian dollar ("CAD"), Japanese yen and British pound ("GBP"), which are their functional currencies. Assets and liabilities are translated at the exchange rates at the balance sheet date, equity accounts are translated at historical exchange rates and revenues, expenses, gains and losses are translated using the average rate for the year. Translation adjustments are reported as foreign currency translation adjustment and are shown as a separate component of other comprehensive income in the statements of comprehensive income.

*(ad) Comprehensive income*

Comprehensive income includes all changes in equity except those resulting from investments by owners and distributions to owners. For the years presented, total comprehensive income included (i) net income, (ii) foreign currency translation adjustments, (iii) gains and losses on intra-entity foreign currency transactions that are of a long-term-investment nature (that is, settlement is not planned or anticipated in the foreseeable future) between consolidated entities, and (iv) the unrealized gains or losses (effective portion) on derivative instruments that qualify for and have been designated as cash flow hedges.

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

## 2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

*(ae) 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 China foreign exchange trading system market. The Company's cash and cash equivalents and restricted cash denominated in RMB amounted to \$722,734 and \$538,788 as of December 31, 2015 and 2016, respectively.

*(af) Concentration of credit risk*

Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash and cash equivalents, restricted cash, accounts receivable, advances to suppliers and amounts due from related parties.

All of the Company's cash and cash equivalents are held with financial institutions that Company management believes to have high credit quality.

The Company conducts credit evaluations of customers and generally does not require collateral or other security from its customers. The Company establishes an allowance for doubtful accounts primarily based upon the age of the receivables and factors surrounding the credit risk of specific customers. With respect to advances to suppliers, such suppliers are primarily suppliers of raw materials. The Company performs ongoing credit evaluations of its suppliers' financial conditions. The Company generally does not require collateral or security against advances to suppliers, however, it maintains a reserve for potential credit losses and such losses have historically been within management's expectation.

The prepayments made by the Company are unsecured and expose the Company to supplier credit risk. As of December 31, 2015 and 2016, gross prepayments made to individual suppliers in excess of 10% of total advances to suppliers are as follows:

	At December 31, 2015	At December 31, 2016
	\$	\$
Supplier A	18,260	18,260
Supplier B	9,086	—

*(ag) Fair value of financial instruments*

The Company applies authoritative guidance for fair value measurements for its financial assets and liabilities. The guidance defines fair value as an exit price representing the amount that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants. The guidance also establishes a fair value hierarchy, which prioritized the inputs

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

used in measuring fair value. The standard describes three levels of inputs that may be used to measure fair value:

*Level 1*—Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets. The Company's restricted cash balance for all periods presented uses level one fair value inputs.

*Level 2*—Inputs reflect quoted prices for identical assets or liabilities in markets that are not active; quoted prices for similar assets or liabilities in active markets; inputs other than quoted prices that are observable for the assets or liabilities; or inputs that are derived principally from or corroborated by observable market data by correlation or other means.

*Level 3*—Unobservable inputs reflecting the Company's own assumptions incorporated in valuation techniques used to determine fair value. These assumptions are required to be consistent with market participant assumptions that are reasonably available.

**(ah) Derivatives instruments and hedging activity**

The Company's primary objective for holding derivative financial instruments is to manage risks. Depending on the terms of the specific derivative instruments and market conditions, some of the Company's derivative instruments may be assets and others liabilities at any particular point in time. The recognition of gains or losses resulting from changes in fair value of these derivative instruments is based on the use of each derivative instrument and whether it qualifies for hedge accounting.

The Company enters into derivatives to hedge its foreign currency risk, exposure to losses from price adjustments of electricity and interest rate risk. When the Company determines to designate a derivative instrument as a cash flow hedge, the Company formally documents the hedging relationship and its risk management objective and strategy for undertaking the hedge, the hedging instrument, the hedged item, the nature of the risk being hedged, how the hedging instrument's effectiveness in offsetting the hedged risk will be assessed, and a description of the method of measuring ineffectiveness. The Company also formally assesses, both at the hedge's inception and on an ongoing basis, whether the derivative that is used in hedging transactions is highly effective in offsetting changes in cash flows of hedged items. The effective portion of gains and losses on derivatives designated as cash flow hedges are initially deferred in other comprehensive income before being recognized in the statements of operations in the same period as the hedged transactions are reflected in earnings. Gains and losses on derivatives that are not designated or fail to qualify as effective hedges are recognized in the statements of operations as incurred.

Fair value of the derivative instruments is determined using pricing models developed based on the underlying price of the hedged items. The values are also adjusted to reflect nonperformance risk of the counterparty and the Company, as necessary.



CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

*(ai) Earnings (loss) per share*

Basic earnings (loss) is computed by dividing income (loss) attributable to holders of common shares by the weighted average number of common shares outstanding during the year. Diluted earnings (loss) per common share reflects the potential dilution that could occur if securities or other contracts to issue common shares were exercised or converted into common shares. Common share equivalents are not included in the calculation of dilutive earnings per share if their effects are anti-dilutive.

*(aj) Share-based compensation*

The Company's share-based compensation with employees, such as share options, restricted shares and restricted share units ("RSUs"), is measured at the grant date, based on the fair value of the award, and is recognized as compensation expense, net of estimated forfeitures, over the period during which an employee is required to provide service in exchange for the award, which is generally the vesting period.

*(ak) Recently issued accounting pronouncements*

In May 2014, the Financial Accounting Standards Board (or "FASB") issued Accounting Standards Updates (or "ASU") 2014-09, Revenue from Contracts with Customers (Topic 606), to clarify the principles of recognizing revenue and create common revenue recognition guidance between U.S. GAAP and International Financial Reporting Standards. An entity has the option to apply the provisions of ASU 2014-09 either retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying this standard recognized at the date of initial application. ASU 2014-09 is effective for fiscal years and interim periods within those years beginning after December 15, 2016, and early adoption is not permitted. In August 2015, the FASB updated this standard to ASU 2015-14, the amendments in this ASU defer the effective date of ASU 2014-09, that the ASU should be applied to annual reporting periods beginning after December 15, 2017 and earlier application is permitted only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period.

The Company currently plans to adopt this ASU in the period beginning from January 1, 2018 using the full retrospective approach, however, a final decision regarding the adoption method has not been made at this time. The Company's final determination will depend on a number of factors such as the process of finalizing the impact to the Company's financial results and in particular on the timing and extent of revenue recognition for the sales of project assets.

The Company expects this adoption to primarily affect certain energy business sales arrangements currently accounted for under ASC 360-20, which requires the Company to evaluate whether such arrangements have any forms of continuing involvement that may affect the revenue or profit recognition of the transactions, including arrangements with prohibited forms of continuing involvement requiring the Company to reduce the potential profit on a project sale by the maximum exposure to loss. The Company anticipates that ASU 2014-09, which supersedes the real estate sales guidance under ASC 360-20, will result in the earlier recognition of revenue and profit. The Company expects revenue

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

recognition for other sales arrangements, including sales of solar power products, EPC and development services, O&M services and electricity income, to remain materially consistent with the current practice.

The Company will continue to assess the potential impacts of the new standard, including the areas described above, and anticipates that this standard will have a material impact on its consolidated financial statements. However, the Company does not know or cannot reasonably estimate quantitative information, beyond that discussed above, related to the impact of the new standard on the consolidated financial statements at this time.

In February 2015, the FASB issued ASU 2015-02, Consolidation (Topic 810)—Amendments to the Consolidation Analysis. ASU 2015-02 modifies existing consolidation guidance related to (i) limited partnerships and similar legal entities, (ii) the evaluation of variable interests for fees paid to decision makers or service providers, (iii) the effect of fee arrangements and related parties on the primary beneficiary determination, and (iv) certain investment funds. These changes are expected to limit the number of consolidation models and place more emphasis on risk of loss when determining a controlling financial interest. ASU 2015-02 is effective for fiscal years and interim periods within those years beginning after December 15, 2015. The adoption of ASU 2015-02 in the first quarter of 2016 did not have a significant impact on the consolidated financial statements and associated disclosures.

In January 2016, the FASB issued ASU 2016-01, Financial Instruments—Overall (Subtopic 825-10)—Recognition and Measurement of Financial Assets and Financial Liabilities. ASU 2016-01 changes how entities measure certain equity investments and present changes in the fair value of financial liabilities measured under the fair value option that are attributable to their own credit. The guidance also changes certain disclosure requirements and other aspects of current U.S. GAAP. ASU 2016-01 is effective for fiscal years and interim periods within those years beginning after December 15, 2017, and certain provisions of the guidance may be early adopted. The Company is still evaluating the impact ASU 2016-01 will have on the consolidated financial statements and associated disclosures.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)". This ASU requires an entity to recognize lease assets and lease liabilities on the balance sheet and to disclose key information about the entity's leasing arrangements. ASU 2016-02 is effective for annual reporting periods, and interim periods therein, beginning after December 15, 2018, with early application permitted. A modified retrospective approach is required. The Company is currently evaluating the impact of the adoption this standard on its consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, "Compensation—Stock Compensation (Topic 718) Improvements to Employee Share-Based Payment Accounting". This guidance is intended to simplify the employee share-based payment accounting regarding several aspects, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. For public business entities, the amendments in this ASU are effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted for any entity in any interim or annual period. If an entity early adopts the amendments in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

includes that interim period. An entity that elects early adoption must adopt all of the amendments in the same period. The Company is in the process of evaluating the impact of the standard on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230)—Classification of Certain Cash Receipts and Cash Payments". The ASU reduces the existing diversity in practice on how certain cash flows should be presented and classified in the statement of cash flows and is effective no later than the first quarter of fiscal 2018. Early adoption is permitted. The ASU should be applied using a retrospective transition method to each period presented. The Company is currently evaluating the impact of the adoption of this ASU on its consolidated financial statements.

In October, 2016, the FASB issued ASU 2016-16, "Income Taxes (Topic 230)—Intra-Entity Transfers of Assets Other Than Inventory", which removes the prohibition in ASC 740 against the immediate recognition of the current and deferred income tax effects of intra-entity transfers of assets other than inventory. The ASU, which is part of the Board's simplification initiative, is intended to reduce the complexity of U.S. GAAP and diversity in practice related to the tax consequences of certain types of intra-entity asset transfers, particularly those involving intellectual property (IP). For public business entities, the ASU is effective for annual periods beginning after December 15, 2017, and interim periods within those annual periods. Early adoption is permitted for all entities as of the beginning of a fiscal year for which neither the annual or interim (if applicable) financial statements have been issued or made available for issuance. The Company is currently evaluating the impact of the adoption this standard on its consolidated financial statements.

In November, 2016, the FASB issued ASU 2016-18, which amends ASC 230 to add or clarify guidance on the classification and presentation of restricted cash in the statement of cash flows. An entity should include in its cash and cash-equivalent balances in the statement of cash flows those amounts that are deemed to be restricted cash and restricted cash equivalents. The ASU does not define the terms "restricted cash" and "restricted cash equivalents" but states that an entity should continue to provide appropriate disclosures about its accounting policies pertaining to restricted cash in accordance with other GAAP. The ASU also states that any change in accounting policy will need to be assessed under ASC 250. For public business entities, the guidance is effective for fiscal years beginning after December 15, 2017, including interim periods therein. Early adoption is permitted for all entities. The Company is in the process of evaluating the impact of the standard on its consolidated financial statements.

In January, 2017, the FASB issued ASU 2017-04, which removes the requirement to compare the implied fair value of goodwill with its carrying amount as part of step 2 of the goodwill impairment test. As a result, under the ASU, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. An entity should consider income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit when measuring the goodwill impairment loss, if applicable. For public business entities that are SEC filers, the guidance is effective for fiscal years beginning after

**CANADIAN SOLAR INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**  
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**2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)**

December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company does not expect the adoption to have a significant impact to the financial statements.

**3. BUSINESS COMBINATION**

*Acquisition of Recurrent*

On March 30, 2015, the Company acquired 100% of the equity interests in Recurrent Energy, LLC ("Recurrent"), a limited liability company organized and existing under the laws of the State of Delaware. Through its subsidiaries, Recurrent engages in developing, building, operating and sales of utility scale and commercial solar systems. Subsequent to the acquisition, Recurrent has become a wholly owned subsidiary of the Company and operates and develops its major solar project pipeline in the United States.

The purchase price of Recurrent was allocated to identifiable assets acquired and liabilities assumed on their estimated fair values at the date of acquisition. The excess of the purchase price over fair value of net assets acquired was allocated to goodwill.

The Company acquired Recurrent for a total cash consideration of approximately \$261.4 million. The fair values assigned are based on reasonable methods applicable to the nature of the assets acquired and liabilities assumed. The following table summarized the estimated fair values of assets acquired and liabilities assumed at the date of acquisition.

	<u>In Millions of U.S. Dollars</u>
<b>Recognized identifiable assets acquired and liabilities assumed</b>	
Cash	108.4
Restricted cash	38.2
Project assets	233.5
Solar power systems, net	46.8
Other assets	40.2
Less : Long term borrowings and notes payable	165.2
Other liabilities	51.4
<b>Total identifiable net assets</b>	<b>250.5</b>
<b>Goodwill</b>	<b>10.9</b>

The goodwill is allocated to each project under Recurrent with respect to their fair value. None of the goodwill recognized from the acquisition of Recurrent is expected to be deductible for income tax purposes. Goodwill recognized from this acquisition reflects the current value of the expected future income resulting from synergies of the Company's combined operations. For the year ended December 31, 2015 and 2016, \$3.3 million and nil goodwill have been included in the cost of revenues with the sales of the related project assets, respectively.

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**3. BUSINESS COMBINATION (Continued)**

Revenue of the Company for the year ended December 31, 2015 included \$266.9 million generated from Recurrent since acquisition day, and net income of the Company for the year ended December 31, 2015 included \$3.5 million net income from Recurrent since acquisition, respectively.

Bank fees, legal costs and accounting costs associated with the acquisition of \$4.2 million and nil have been expensed and recorded within general and administrative expense in the consolidated statement of operations for the year ended December 31, 2015 and 2016, respectively.

Acquisition of SSM

On September 28, 2015, the Company acquired 100% of the equity interests in SSM1 Solar ULC, SSM2 Solar ULC, and SSM3 Solar ULC (together as "SSM"). Subsequent to the acquisition, SSM have become wholly owned subsidiaries of the Company and operates and develops its solar project pipeline in Canada.

The Company acquired SSM for a total cash consideration of approximately \$59.0 million. The following table summarized the fair value of assets acquired and liabilities assumed at the acquisition date:

	In Millions of U.S. Dollars
<b>Recognized identifiable assets acquired and liabilities assumed</b>	
Cash	8.1
Solar power systems	141.9
Intangible assets	72.0
Other assets	11.7
Less: Short-term borrowings	7.4
Long-term borrowings	134.6
Other liabilities	32.7
<b>Total identifiable net assets</b>	<b>59.0</b>

Bank fees, legal costs and accounting costs associated with the acquisition of \$2.4 million and nil have been expensed and recorded within general and administrative expense in the consolidated statement of operations for the year ended December 31, 2015 and 2016, respectively.

Pro forma results of acquisitions (unaudited)

The following pro forma condensed consolidated financial results of operations are presented as if the acquisitions described above had been completed at the beginning of the comparable annual reporting period. Specifically, the pro forma results give effect as though the acquisition of Recurrent and the acquisition of SSM were consummated on January 1, 2014.

	For the year end December 31	
	2014	2015
<b>(In thousands of U.S. Dollars, except per share data)</b>		
Pro forma revenues	4,174,232	3,505,324
Pro forma net income attributable to CSI	431,539	159,231
Diluted earnings per share attributable to CSI	7.35	2.72

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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The unaudited pro forma net income for the year ended December 31, 2015 excludes the impact of \$6.6 million of non-recurring items related to transaction related costs.

The pro forma condensed consolidated financial information has been prepared for comparative purposes only and includes certain adjustments, as noted above. The adjustments do not reflect the effect of costs or synergies that would have been expected to result from the integration of the acquisitions. The pro forma information does not purport to be indicative of the results of operations that actually would have resulted had the combinations occurred at the beginning of each period presented or of future results of the consolidated entities.

**4. ALLOWANCE FOR DOUBTFUL ACCOUNTS**

Allowance for doubtful accounts are comprised of allowances for accounts receivable trade, advances to suppliers and other receivables.

An analysis of allowances for accounts receivable, trade for the years ended December 31, 2014, 2015 and 2016 is as follows:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Beginning of the year	38,483	31,817	28,156
Allowances reversed during the year, net	(5,843)	(1,084)	(854)
Accounts written-off against allowances	(9)	(858)	(47)
Foreign exchange effect	(814)	(1,719)	(1,136)
Closing balance	<u>31,817</u>	<u>28,156</u>	<u>26,119</u>

An analysis of allowances for advances to suppliers for the years ended December 31, 2014, 2015 and 2016 is as follows:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Beginning of the year	40,047	37,735	28,629
Allowances made (reversed) during the year, net	4	1,291	(5,427)
Accounts written-off against allowances	—	(9,465)	(3,644)
Foreign exchange effect	(2,316)	(932)	(31)
Closing balance	<u>37,735</u>	<u>28,629</u>	<u>19,527</u>

**CANADIAN SOLAR INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**  
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**4. ALLOWANCE FOR DOUBTFUL ACCOUNTS (Continued)**

An analysis of allowances for other receivables for the years ended December 31, 2014, 2015 and 2016 is as follows:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Beginning of the year	887	830	3,885
Allowances made (reversed) during the year, net	(53)	3,257	5,954
Foreign exchange effect	(4)	(202)	(588)
Closing balance	<u>830</u>	<u>3,885</u>	<u>9,251</u>

**5. INVENTORIES**

Inventories consist of the following:

	At December 31, 2015	At December 31, 2016
	\$	\$
Raw materials	97,331	71,655
Work-in-process	18,904	22,776
Finished goods	218,254	200,940
	<u>334,489</u>	<u>295,371</u>

In 2014 and 2015, inventory was written down by \$16,951 and \$23,013, respectively, to reflect the lower of cost or market measurement. In 2016, inventory was written down by \$19,467 to reflect the lower of cost and net realizable value since the Company adopted ASU 2015-11 prospectively.

**6. PROJECT ASSETS**

Project assets consist of the following:

	At December 31, 2015	At December 31, 2016
	\$	\$
Project assets—Acquisition cost	2,220	38,298
Project assets—EPC and other cost	111,911	1,461,995
	<u>114,131</u>	<u>1,500,293</u>
Current portion	111,317	1,317,902
Non-current portion	2,814	182,391

The Company recorded impairment charges and write-off for project assets of \$2,311, nil and \$2,952 for the years ended December 31, 2014, 2015 and 2016, respectively.

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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## 7. ASSETS HELD-FOR-SALE

In 2016, the Company was in negotiation with a number of potential buyers to sell certain solar power projects in operation in Spain, Canada and the United Kingdom. Solar power projects meeting the conditions of being classified as held for sale were presented as assets held-for-sale and associated liabilities were presented as liabilities held-for-sale on the consolidated balance sheet.

The Company's assets of solar power projects held for sale as of December 31, 2016 were as follows:

	At December 31, 2016
	\$
Cash and cash equivalents	8,921
Restricted cash—current	41
Accounts receivable trade, net	6,555
Prepaid expenses and other current assets	7,427
Solar power systems, net	290,613
Intangible assets, net	68,438
Other non-current assets	10,094
Total assets held-for-sale	<u>392,089</u>

The Company's liabilities of solar power projects held for sale as of December 31, 2016 were as follows:

	At December 31, 2016
	\$
Short-term borrowings	12,221
Accounts payable	880
Other payables	13,240
Derivative liabilities—current	3,863
Other current liabilities	1,537
Long-term borrowings	224,545
Derivative liabilities—non-current	16,672
Other non-current liabilities	6,314
Total liabilities held-for-sale	<u>279,272</u>



CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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**8. PROPERTY, PLANT AND EQUIPMENT, NET**

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

	At December 31, 2015	At December 31, 2016
	\$	\$
Buildings	166,030	187,179
Leasehold improvements	7,755	9,023
Machinery	459,471	458,624
Furniture, fixtures and equipment	39,413	44,443
Motor vehicles	3,907	4,653
Land	—	13,451
	<u>676,576</u>	<u>717,373</u>
Accumulated depreciation	(391,635)	(402,792)
Impairment	(8,470)	(17,601)
	276,471	296,980
Construction in process	54,581	165,365
Property, plant and equipment, net	<u>331,052</u>	<u>462,345</u>

Depreciation expense of property, plant and equipment was \$79,895, \$80,642 and \$72,813 for the years ended December 31, 2014, 2015 and 2016, respectively. Construction in process primarily represents production facilities under construction and the machinery under installation.

**9. SOLAR POWER SYSTEMS, NET**

Solar power systems, net consist of the following:

	At December 31, 2015	At December 31, 2016
	\$	\$
Solar power systems in operation	508,584	120,935
Solar power systems under construction	706,118	4,782
Accumulated depreciation	(14,261)	(13,655)
Solar power systems, net	<u>1,200,441</u>	<u>112,062</u>

For the years ended December 31, 2016, the Company completed construction of certain solar power projects and transferred from solar power systems to project assets totaling \$1,362.1 million. In connection with decisions to sell certain operating solar power projects, the Company reclassified solar power systems of \$405.9 million to assets held-for-sale, of which \$115.3 million was sold, during the year ended December 31, 2016. Depreciation expense of solar power systems was \$1,173, \$11,340 and \$16,492 for the years ended December 31, 2014, 2015 and 2016, respectively.

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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## 10. INTANGIBLE ASSETS, NET

The following table summarizes the Company's intangible assets:

<u>At December 31, 2016</u>	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Net</u>
	\$	\$	\$
Technical know-how	1,431	(1,183)	248
Computer software	15,884	(7,710)	8,174
Total intangible assets, net	<u>17,315</u>	<u>(8,893)</u>	<u>8,422</u>

<u>At December 31, 2015</u>	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Net</u>
	\$	\$	\$
Power purchase agreements	71,770	(37)	71,733
Technical know-how	1,528	(1,164)	364
Computer software	14,226	(7,385)	6,841
Total intangible assets, net	<u>87,524</u>	<u>(8,586)</u>	<u>78,938</u>

Amortization expense for the years ended December 31, 2014, 2015 and 2016 were \$1,559, \$2,235 and \$6,544, respectively.

Amortization expenses of the above intangible assets are expected to be approximately \$2.5 million, \$2.2 million, \$1.4 million, \$1.0 million and \$1.3 million for the years ended December 31, 2017, 2018, 2019, 2020, 2021 and thereafter, respectively.

## 11. FAIR VALUE MEASUREMENT

The Company measures at fair value its financial assets and liabilities by using a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. Fair value is the price that would be received from the sale of an asset or paid to transfer a liability (i.e., an exit price) on the measurement date in an orderly transaction between market participants.

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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11. FAIR VALUE MEASUREMENT (Continued)

As of December 31, 2015 and 2016, the following financial assets and liabilities were measured at fair value on a recurring basis in periods subsequent to their initial recognition using the type of inputs shown as follows:

At December 31, 2016	Fair Value Measurements Using			
	Total Fair Value and Carrying Value on the Balance Sheets	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	\$	\$	\$	\$
<b>Assets:</b>				
Foreign exchange forward contracts	10,632	—	10,632	—
Commodity hedge	4,230	—	4,230	—
Interest rate swap	12,854	—	12,854	—
<b>Total assets</b>	<b>27,716</b>	<b>—</b>	<b>27,716</b>	<b>—</b>
<b>Liabilities:</b>				
Interest rate swap	5,418	—	5,418	—
Warrants	711	—	711	—
Foreign exchange forward contracts	3,496	—	3,496	—
<b>Total liabilities</b>	<b>9,625</b>	<b>—</b>	<b>9,625</b>	<b>—</b>

At December 31, 2015	Fair Value Measurements Using			
	Total Fair Value and Carrying Value on the Balance Sheets	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
	\$	\$	\$	\$
<b>Assets:</b>				
Foreign exchange forward contracts	1,924	—	1,924	—
Commodity hedge	2,072	—	2,072	—
Interest rate swaption	4,335	—	4,335	—
<b>Total assets</b>	<b>8,331</b>	<b>—</b>	<b>8,331</b>	<b>—</b>
<b>Liabilities:</b>				
Interest rate swap	21,546	—	21,546	—
Warrants	25,265	—	25,265	—
Foreign exchange forward contracts	5,775	—	5,775	—
<b>Total liabilities</b>	<b>52,586</b>	<b>—</b>	<b>52,586</b>	<b>—</b>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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**11. FAIR VALUE MEASUREMENT (Continued)**

*Foreign exchange forward contracts*

The Company entered into certain foreign currency derivative contracts to protect against volatility of future cash flows caused by the changes in foreign exchange rates. The foreign currency derivative contracts do not qualify for hedge accounting and, as a result, the changes in fair value of the foreign currency derivative contracts are recognized in the consolidated statements of operations.

The Company's foreign currency derivative instruments relate to foreign exchange options or forward contracts involving major currencies such as Japanese yen, Euro, Canadian dollar and Renminbi. Since its derivative instruments are not traded on an exchange, the Company values them using valuation models. Interest rate yield curves and foreign exchange rates are the significant inputs into these valuation models. These inputs are observable in active markets over the terms of the instruments the Company holds, and accordingly, the fair value measurements are classified as Level 2 in the hierarchy. The Company considers the effect of its own credit standing and that of its counterparties in valuations of its derivative financial instruments.

*Commodity hedge*

During the year ended December 31, 2015, the Company entered into a fixed for floating energy commodity swap with a financial institution to hedge cash flows associated with electricity sales of the Astoria project in the U.S. for the period between expected COD and commencement of the long term PPA with the off taker in January 2019. The swap contract was designated as a cash flow hedge at inception and is anticipated to be effective through its two-year term that ends on December 31, 2018. The fair value of the swap contract was \$2,072 and \$4,230, an asset position, recorded in derivative assets on the balance sheet at December 31, 2015 and 2016, respectively. The effective portion of gains and losses on derivatives designated as cash flow hedges are initially deferred in other comprehensive income before being recognized in the statements of operations in the same period as the hedged transactions are reflected in earnings. Gains and losses on derivatives that are not designated or fail to qualify as effective hedges are recognized in the statements of operations as incurred.

Fair value of the commodity swap is determined using pricing models developed based on the underlying commodity price of electricity and adjusted to reflect nonperformance risk of the counterparty and the Company, as necessary, which are considered Level 2 inputs.

*Interest rate swaption*

During the year ended December 31, 2015, the Company entered into an option to purchase fixed for floating interest rate swaps, also known as a swaption, with a financial institution to hedge cash flows associated with interest payments of certain projects of Recurrent. The swaptions had not been designated as a hedge for accounting purposes. During the year ended December 31, 2016, the Company exercised swaptions with total notional amounts of approximately \$399.0 million. The fair value of the swaption contract was \$4,335 and nil as of December 31, 2015 and 2016, respectively, and the change in its fair value was recorded in gain (loss) on change in fair value of derivatives during the year ended December 31, 2016.

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**11. FAIR VALUE MEASUREMENT (Continued)**

The fair value of the swaption was measured based on observable market data, which are considered Level 2 inputs.

***Interest rate swap***

SSM, which the Company acquired on September 28, 2015, entered into fixed for floating interest rate swaps with a financial institution to hedge the interest rate risk resulting from fluctuations in interest rates on its project construction debts with notional amount totaling CAD186.0 million (\$133.9 million), which will expire in 2029. The interest rate swaps had not been designated as a hedge for accounting purposes. The total estimated fair value of the swap contracts was \$21,546 and \$3,863, a liability position, as of December 31, 2015 and recorded in liabilities held-for-sale on the balance sheet as of December 31, 2016, respectively, and the change in its fair value was recorded in gain (loss) on change in fair value of derivatives during the year ended December 31, 2015 and 2016.

During the year ended December 31, 2016, the Company entered into fixed for floating interest rate swaps with two financial institutions to hedge the interest rate risk on its project debts obtained in the United Kingdom with notional amount totaling GBP78.4 million (\$96.8 million), which will expire between 2033 and 2034. The interest rate swaps had been designated as cash flow hedges for accounting purposes.

Together with interest rate swap contracts of total notional amounts of approximately \$399.0 million entered into for Recurrent projects upon the exercise of the swaption and designated as cash flow hedges, the total estimated fair value of the swap contracts was recorded as derivative assets of \$12,854 and derivative liabilities of \$5,418 on the balance sheet as of December 31, 2016. The effective portion of gains and losses on derivatives designated as cash flow hedges are initially deferred in other comprehensive income before being recognized in the statements of operations in the same period as the hedged transactions are reflected in earnings. Gains and losses on derivatives that are not designated or fail to qualify as effective hedges are recognized in the statements of operations as incurred.

The estimated fair value of interest rate swaps was measured based on observable market data, which are considered Level 2 inputs.

***Warrants***

The fair value of the warrants (see Note 28) was determined using the Binomial model, with certain inputs significant to the valuation methodology classified as Level 2 inputs.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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11. FAIR VALUE MEASUREMENT (Continued)

The fair value of derivative instruments on the consolidated balance sheets as of December 31, 2015 and 2016 and the effect of derivative instruments on the consolidated statements of operations for the years ended December 31, 2014, 2015 and 2016 are as follows:

	Fair Value of Derivative Assets			
	At December 31, 2015		At December 31, 2016	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
		\$		\$
Foreign exchange forward contracts	Derivative assets—current	1,924	Derivative assets—current	10,632
Commodity hedge	Derivative assets—current	—	Derivative assets—current	1,638
Interest rate swaption	Derivative assets—current	4,335	Derivative assets—current	—
Commodity hedge	Derivative assets—non-current	2,072	Derivative assets—non-current	2,592
Interest rate swap	Derivative assets—non-current	—	Derivative assets—non-current	12,854
	Total	<u>8,331</u>	Total	<u>27,716</u>

	Fair Value of Derivative Liabilities			
	At December 31, 2015		At December 31, 2016	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
		\$		\$
Foreign exchange forward contracts	Derivative liabilities—current	5,775	Derivative liabilities—current	3,496
Warrants	Derivative liabilities—current	25,265	Derivative liabilities—current	711
Interest rate swap	Derivative liabilities—current	4,188	Derivative liabilities—current	5,418
Interest rate swap	Derivative liabilities—non-current	17,358	Derivative liabilities—non-current	—
	Total	<u>52,586</u>	Total	<u>9,625</u>

	Location of Gain (Loss) Recognized in Statements of Operations	Amount of Gain (Loss) Recognized in Statements of Operations		
		Years Ended December 31		
		2014	2015	2016
		\$	\$	\$
Foreign exchange forward contracts	Gain (loss) on change in fair value of derivatives	19,656	(3,738)	4,798
Warrants	Gain (loss) on change in fair value of derivatives	—	(8,887)	24,554
Commodity hedge	Gain (loss) on change in fair value of derivatives	—	(7)	75
Interest rate swaption	Gain (loss) on change in fair value of derivatives	—	(107)	(4,335)
Interest rate swap	Gain (loss) on change in fair value of derivatives	—	543	2,230
	Total	<u>19,656</u>	<u>(12,196)</u>	<u>27,322</u>

The Company measures certain long-lived assets or long-term investments at fair value on a non-recurring basis in periods after initial measurement in circumstances when the fair value of such assets is below its recorded cost and impairment is required.

The Company recorded impairment charges for certain idle assets of \$1,573, \$6,992 and \$22,757 for the years ended December 31, 2014, 2015 and 2016, respectively. The fair value of these assets was

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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**11. FAIR VALUE MEASUREMENT (Continued)**

measured based on prices offered by unrelated third-party willing buyers and classified as level 3 fair value measurements as the offering prices are not observable.

The Company also holds financial instruments that are not recorded at fair value in the consolidated balance sheets, but whose fair value is required to be disclosed under the U.S. GAAP.

The carrying values of cash and cash equivalents, restricted cash, trade receivables, billed and unbilled, amounts due from related parties, accounts payables, short-term notes payable, amounts due to related parties and short-term borrowings approximate their fair values due to the short-term maturity of these instruments. Long-term borrowings were \$606,577 and \$493,455 as of December 31, 2015 and 2016, respectively, which approximate their fair values since most of the borrowings contain variable interest rates. The fair value of long-term borrowings was measured based on discounted cash flow approach, which is classified as level 2 as the key inputs can be corroborated with market data.

The carrying value of the Company's outstanding convertible notes was \$146.7 million and \$125.6 million as of December 31, 2015 and 2016, respectively.

**12. VARIABLE INTEREST ENTITIES**

In February 2016, the Company, through its wholly owned subsidiary, CSE Japan Investment Company Limited, entered into a silent partnership agreement with Tida Power 24 G.K. ("TP24"), the project company of Aomori-Misawa project in Japan previously owned by the Company, for the purpose of raising a project finance bond arranged by Goldman Sachs Japan Co., Ltd. Under the silent partnership agreement, TP24 is considered a VIE in which the Company has no equity interests in TP24 but is entitled to substantially all of the economic interests of Aomori-Misawa project. In addition, the Company has the power to make decisions over the activities that most significantly impact the economic performance of Aomori-Misawa project under the asset management agreement signed simultaneously between TP24 and Canadian Solar Project K.K. As such, the Company concluded it was the primary beneficiary of TP24 and thus TP24 was accounted for as a consolidated VIE for the year ended December 31, 2016.

In October 2016, the Company, through its wholly owned subsidiary, Canadian Solar Energy Holding Company Limited, entered into an equity subscription agreement with Tida Power 22 G.K. ("TP22"), the project company of Kumamoto Mashiki project in Japan previously owned by the Company, for the purpose of refinancing project facility agreement with Deutsche Bank AG, Tokyo Branch. Under the equity subscription agreement, TP22 is considered a VIE in which the Company has no common equity interests in TP22 but entitles all economic interests of Kumamoto Mashiki project through its preferred equity interests in TP22. Together with the power to make decisions over the activities that most significantly impact the economic performance of Kumamoto Mashiki project under the asset management agreement signed simultaneously between TP22 and Canadian Solar Project K.K., As such, the Company concluded it was the primary beneficiary of TP22 and thus TP22 was accounted for as a consolidated VIE for the year ended December 31, 2016.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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12. VARIABLE INTEREST ENTITIES (Continued)

As of December 31, 2016, the carrying amounts and classifications of the consolidated VIEs' assets and liabilities, excluding intercompany balances which are eliminated upon consolidation, included in the Company's consolidated balance sheet are as follows:

	At December 31, 2016
	\$
Current assets	146,713
Non-current assets	6,523
Total assets	153,236
Current liabilities	99,646
Total liabilities	99,646

All of the assets are restricted for settlement of the VIEs' obligations, and all of the liabilities can only be settled using VIE resources. Net income and overall cash flow activities during the year are immaterial to the consolidated financial statements.

13. INVESTMENTS IN AFFILIATES

Investments in affiliates consist of the following:

	At December 31,			
	2015		2016	
	Carrying Value	Ownership Percentage	Carrying Value	Ownership Percentage
	\$	(%)	\$	(%)
Suzhou Gaochuangte New Energy Co., Ltd.	6,837	40	7,049	40
CSI SkyPower	3,332	50	3,749	50
GCL-CSI (Suzhou) Photovoltaic Technology Co., Ltd.	4,526	10	—	—
Foto Light LP ("Foto Light")	1,735	5	—	—
Discovery Light LP ("Discovery Light")	1,951	5	—	—
City Light LP ("City Light")	1,943	5	—	—
RE Tranquillity Holdings LLC ("Tranquillity")	90,325	49	143,951	49
RE Silverlake Holdings LLC ("Garland")	8,599	49	118,641	49
RE Roserock Holdings LLC ("Roserock")	34,898	49	30,870	49
Suzhou Financial Leasing Co., Ltd.	13,860	6	12,974	6
Pirapora Solar Holding S.A.	—	—	13,775	20
Others	19,125	21-49	37,450	21-49
Total	187,131		368,459	



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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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13. INVESTMENTS IN AFFILIATES (Continued)

*Tax equity transactions*

In 2015, the Company, through its wholly owned subsidiary, Recurrent, entered into the following tax equity transactions:

In August 2015, the Company completed the sale of 100% of the class A membership interests of RE Tranquillity Holdings LLC, the holding company of the Tranquillity project companies, to Southern Power ("Southern"), a subsidiary of Southern Company. The Company maintains 100% ownership in the class B membership interests of RE Tranquillity Holdings LLC. Southern paid the Company an initial contribution of \$100 million in cash for the class A membership interests in RE Tranquillity Holdings LLC.

In October 2015, the Company completed the sale of 100% of the class A membership interests of RE Silverlake Holdings LLC, the holding company of the Garland project companies, to Southern. The Company maintains 100% ownership in the class B membership interests of RE Silverlake Holdings LLC. Southern paid the Company an initial contribution of \$49 million in cash for the class A membership interests in RE Silverlake Holdings LLC.

In December 2015, the Company completed the sale of 100% of the class A membership interests of RE Roserock Holdings LLC, the holding company of the Roserock project companies, to Southern. The Company maintains 100% ownership in the class B membership interests of RE Roserock Holdings LLC. Southern paid the Company an initial contribution of \$45 million in cash for the class A membership interests in RE Roserock Holdings LLC.

Under the LLC agreements, the class A membership interests and class B membership interests will receive 51% and 49%, respectively, of future cash flow distributions, and Southern is entitled to substantially all of the projects' federal tax benefits.

Effective with the sale of the class A membership interests, the Company ceased having controlling financial interests in Tranquillity, Roserock and Garland, and accounted for the transactions as partial sales of real estate under ASC360-20. The Company also considered that it would continue to exercise significant influences over its retained interests in and has accounted for these interests pursuant to the equity method of accounting.

Under this method, the Company recognizes its equity in earnings attributable to class B membership interests according to its proportionate share of investees' operating cash flows. Additionally, the Company amortizes the basis difference between the cost of investment and its proportionate share of the investees' net assets over the estimated lives of the related assets.

In connection with these sales to Southern in 2015, \$190.4 million was recognized as revenue, and with the loss of controlling financial interests in Tranquillity, Garland and Roserock, the Company derecognized net assets of \$93.9 million, \$56.4 million and \$23.5 million, respectively, and recognized its class B membership interests in investments in affiliates.

Subsequent to sales of the class A membership interests, the Company further contributed \$69.5 million and \$123.2 million to the projects in 2015 and 2016, respectively.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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13. INVESTMENTS IN AFFILIATES (Continued)

*Other investments*

On December 17, 2009, CSI Cells Co., Ltd. ("SZCC") established a joint venture, Suzhou Gaochuangte New Energy Co., Ltd. ("Gaochuangte"), for total cash consideration of \$2,929. SZCC holds 40% voting interests and one of the three board members is designated by SZCC and, as such, SZCC is considered to have significant influence over the investee. On July 4, 2011, Gaochuangte increased its share capital and SZCC paid \$3,119 in proportion to its ownership percentage.

On July 4, 2011, CSI Solar Power Group Co., Ltd. (formerly "CSI Solar Power (China) Inc.") ("SZSP") acquired 10% interests in a joint venture, GCL-CSI (Suzhou) Photovoltaic Technology Co., Ltd., for cash consideration of \$2,549. SZSP is able to exercise significant influence over the investee through its representative in the board. In September 2016, the Company sold its entire interests in the investee.

On May 23, 2012, CSI established a joint venture, CSI SkyPower, for cash consideration of \$3,429. In August 2013, CSI SkyPower increased its share capital, and CSI paid \$4,000 in proportion to its ownership percentage. CSI holds a 50% voting interests and two of the four board members are designated by CSI and, as such, CSI is considered to have significant influence over the investee.

In December 2014, CSI sold its 95% equity interests in two solar power project companies, Discovery Light and Foto Light, to a third party buyer. In June 2016, the Company sold the remaining 5% equity interests of the two project companies.

In March 2015, CSI sold its 95% equity interests in a project company, City Light, to a third party buyer. In June 2016, the Company sold the remaining 5% equity interests of this project company.

On September 8, 2015, SZSP established an entity, Suzhou Financial Leasing Co., Ltd., for cash consideration of \$13,860, in which the Company holds 6% voting interests. One board member is designated by SZSP and, as such SZSP is considered having significant influence over the investee and the equity method is used in this investment.

On October 7, 2016, CSI entered into a shareholders' agreement with EDF EN do Brasil ("EDF"), a subsidiary of EDF Energies Nouvelles, pursuant to which EDF owned 80% equity interests in Pirapora I project companies previously transferred from CSI and the Company retained the remaining 20% equity interests.

Equity in earnings (loss) of unconsolidated investees was \$487, \$(643) and \$(4,404) for the years ended December 31, 2014, 2015 and 2016, respectively.

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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## 14. BORROWINGS

	At December 31, 2015	At December 31, 2016
	\$	\$
Bank borrowings	1,631,858	1,960,893
Analysis as:		
Short-term	961,639	902,348
Long-term, current portion	107,392	675,857
Subtotal for short-term	1,069,031	1,578,205
Long-term, non-current portion	562,827	382,688
Borrowings from non-banking institutions	131,295	132,595
Analysis as:		
Short-term	53,899	—
Long-term, current portion	33,646	21,828
Subtotal for short-term	87,545	21,828
Long-term, non-current portion	43,750	110,767
Total	1,763,153	2,093,488

As of December 31, 2016, the Company had contractual bank credit facilities of \$2,889,031, of which \$1,555,384 has been drawn down with the due dates beyond December 31, 2017, \$712,726 has been drawn down with the due dates before December 31, 2017 and \$620,921 was available for draw down upon demand. In addition, as of December 31, 2016, the Company also had non-binding bank credit facilities of \$449,641, of which \$2,870 has been drawn down with the due dates beyond December 31, 2017, \$336,861 has been drawn down with the due dates before December 31, 2017 and \$109,910 was subject to banks' discretion upon request for additional drawn down.

As of December 31, 2016, short-term borrowings of \$1,275,455 and long-term borrowings of \$432,455 were secured by property, plant and equipment with carrying amounts of \$89,901, inventories of \$50,145, prepaid land use rights of \$10,315, equity of \$626,809, restricted cash of \$102,298, accounts receivable of \$321,892 and project assets and solar power systems of \$1,177,569.

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**14. BORROWINGS (Continued)**

*a) Short-term*

The Company's short-term borrowings consist of the following:

	At December 31, 2015	At December 31, 2016
	<u>\$</u>	<u>\$</u>
<b>Bank borrowings</b>		
Short-term bank borrowings secured by restricted cash	139,412	266,685
Short-term bank borrowings secured by inventories	12,926	46,408
Short-term bank borrowings secured by prepaid land use rights and property, plant and equipment	302,379	211,263
Short-term bank borrowings secured by project assets and solar power systems	189,222	82,079
Short-term borrowings secured by equity	76,837	—
Unsecured short-term borrowings	240,863	295,913
Long-term borrowings due within one year		
Long-term bank borrowings due within one year secured by inventories	46	—
Long-term borrowings due within one year secured by prepaid land use rights and property, plant and equipment	13,327	16,919
Long-term borrowings due within one year secured by project assets and solar power systems	83,264	630,696
Long-term bank borrowings due within one year secured by equity	308	18,765
Unsecured long-term borrowings due within one year	10,447	9,477
	<u>1,069,031</u>	<u>1,578,205</u>
<b>Borrowings from non-banking institutions</b>		
Short-term borrowings secured by restricted cash	53,899	—
Long-term borrowings due within one year secured by project assets	32,568	2,640
Unsecured long-term borrowings due within one year	1,078	19,188
	<u>87,545</u>	<u>21,828</u>
<b>Total</b>	<u>1,156,576</u>	<u>1,600,033</u>

The average interest rate on short-term borrowings was 4.32% and 3.45% per annum for the years ended December 31, 2015 and 2016, respectively. The short-term borrowings are repayable within one year.

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**14. BORROWINGS (Continued)**

*b) Long-term*

The Company's long-term borrowings consist of the following:

	<u>At December 31, 2015</u>	<u>At December 31, 2016</u>
	\$	\$
<b>Bank borrowings</b>		
Unsecured long-term bank borrowings	10,124	—
Long-term bank borrowings secured by project assets and solar power systems	162,993	27,100
Long-term bank borrowings secured by property, plant and equipment	13,327	15,588
Long-term bank borrowings secured by equity	<u>376,383</u>	<u>340,000</u>
	562,827	382,688
<b>Borrowings from non-banking institutions</b>		
Long-term borrowings secured by project assets and solar power systems	13,745	49,767
Unsecured long-term borrowings	<u>30,005</u>	<u>61,000</u>
	43,750	110,767
<b>Total</b>	<u><u>606,577</u></u>	<u><u>493,455</u></u>

The average interest rate on long-term borrowings was 4.75% and 3.75% per annum for the years ended December 31, 2015 and 2016, respectively.

Future principal repayments on the long-term borrowings are as follows:

2017	697,685
2018	260,379
2019	198,171
2020	19,480
2021	3,460
Thereafter	11,965
<b>Total</b>	1,191,140
Less: future principal repayment related to long-term borrowings, current portion	(697,685)
<b>Total long-term portion</b>	<u>\$ 493,455</u>

On June 20, 2013, Canadian Solar New Energy (Tumushuke) Co. Ltd., the Company's 100% owned subsidiary, entered into a loan agreement, denominated in RMB, with China Development Bank, Suzhou Branch ("CDB"). The total credit facility under this agreement is \$26,236 and used to finance the project costs. The outstanding borrowing under this agreement equaled \$26,236 at December 31, 2016, which requires repayment semi-annually and matures in 2026. The loan is secured by solar power systems. The agreement does not contain any financial covenants or restrictions.

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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**14. BORROWINGS (Continued)**

On August 28, 2013, CSI Solar Power Group Co., Ltd. (formerly "CSI Solar Power (China) Inc.") entered into a financing agreement, denominated in RMB, with CDB, pursuant to which CDB agreed to provide long-term financing of \$4,613 for the construction of solar power projects in Suzhou National New and High-tech Industrial Development Zone. The outstanding borrowing under this agreement equaled \$4,613 at December 31, 2016, which requires repayment semi-annually and matures in 2021. The loan is secured by project assets and guaranteed by Canadian Solar Manufacturing (Changshu) Inc. As at December 31, 2016, the Company met all the requirements of the financial covenants.

On June 25, 2014, CSI-GCL (Yancheng) Solar Manufacturing Co., Ltd. ("YCSM") entered into a financing agreement, denominated in RMB, with local Chinese state-owned companies, which agreed to provide long-term construction financing of \$56,989 for the construction of solar power projects and production line construction in Yancheng, Jiangsu. The facility is free of securities, financial covenants or restrictions. The total outstanding borrowings under this agreement equaled \$48,340 at December 31, 2016, which requires repayment of \$11,367, \$16,720 and \$20,253 in 2017, 2018 and 2019, respectively.

On April 30, 2015, CSI entered into a loan agreement with total credit facility of \$210,000 with China Minsheng Bank for acquisition purposes. The outstanding borrowing under this agreement was \$200,000 as of December 31, 2016, which requires repayment of \$10,000 and \$190,000 in 2017 and 2018, respectively. The loan is secured by equity interests of CSI Solar Power Group Co., Ltd. and guaranteed by Canadian Solar Manufacturing (Changshu) Inc., CSI Cells Co., Ltd. and Canadian Solar Manufacturing (Luoyang) Inc. The agreement does not contain any financial covenants or restrictions.

On November 25, 2015, Recurrent entered into a facility agreement for \$150,000 with Ping An Bank, China (Shanghai) Pilot Free Trade Zone Branch, to finance its project development and operation. The outstanding borrowing under this agreement was \$150,000 at December 31, 2016, which requires full repayment in 2019. The loan is secured by 100% LLC interests of Recurrent and guaranteed by CSI and CSI Solar Power Group Co., Ltd. As at December 31, 2016, the Company was in compliance with all requirements of the financial covenants.

On January 28, 2016, Canadian Solar Solutions Inc. and Canadian Solar Manufacturing Vietnam Co., Ltd. entered into a loan agreement of \$60,000 with International Finance Corporation ("IFC"), a member of World Bank Group, to fund the construction of solar cell and module production facilities in Vietnam and other countries approved by IFC. The outstanding borrowing under this agreement was \$20,032 at December 31, 2016, which requires repayment of \$4,444 and \$15,588 in 2017 and 2020, respectively. The loan is secured by accounts receivable, inventory and property, plant and equipment. As at December 31, 2016, the Company was in compliance with all requirements of the financial covenants.

On July 8, 2016, Tida Holdings 3 G.K. entered into a private placement agreement with Prudential Capital Group, pursuant to which the global investment management company of Prudential Financial, Inc. agreed to purchase nonrecourse senior notes, denominated in Japanese yen, with an aggregate principal amount of approximately \$53,261. The outstanding notes under this agreement were \$52,407 at December 31, 2016, which require repayment of \$2,640 and \$49,767 in 2017 and 2018, respectively.

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**14. BORROWINGS (Continued)**

The senior notes are secured by project assets. The agreement does not contain any financial covenants or restrictions.

On March 23, 2016, CSI Cells Co., Ltd. entered into a financing agreement, denominated in RMB, with a local Chinese state-owned company, which agreed to provide long-term working capital financing of approximately \$28,831. The total outstanding borrowings under this agreement were \$23,892 at December 31, 2016, which require repayment of \$7,821 and \$16,071 in 2017 and 2019, respectively. The agreement does not contain any financial covenants or restrictions.

On January 6, 2016, Canadian Solar Manufacturing (Luoyang) Inc. entered into a loan agreement, denominated in RMB, with a local Chinese state-owned company, which agreed to provide long-term working capital financing of approximately \$7,955. The total outstanding borrowings under this agreement equaled \$7,955 at December 31, 2016, which require full repayment in 2019. The agreement does not contain any financial covenants or restrictions.

The long-term borrowings disclosed above bear floating interest rates from nil to 5.65% per annum.

**c) Interest expense**

The Company capitalized interest costs incurred on borrowings obtained to finance construction of solar power projects or property, plant and equipment until the asset is ready for its intended use. The interests incurred during the years ended December 31, 2014, 2015 and 2016 are as follows:

	Years Ended December 31		
	2014	2015	2016
	\$	\$	\$
Interest capitalized—project assets	10,304	102	47,881
Interest capitalized—solar power systems	—	23,328	3,113
Interest capitalized—property, plant and equipment	203	912	819
Interest expense	48,906	54,148	69,723
Total interest incurred	<u>59,413</u>	<u>78,490</u>	<u>121,536</u>

**15. SHORT-TERM NOTES PAYABLE**

The Company enters into arrangements with banks whereby the banks issue notes to the Company's vendors, which effectively serve to extend the payment date of the associated accounts payable. Vendors may present the notes for payment to a bank, including the bank issuing the note, prior to the stated maturity date, but generally at a discount from the face amount of the note. The Company is generally required to deposit restricted cash balances with the issuing bank, which are utilized to immediately repay the bank upon the banks' settlement of the notes. Given the purpose of these arrangements is to extend the payment dates of accounts payable, the Company has recorded such amounts as short-term notes payable. As payments by the bank are immediately repaid by the Company's restricted cash balances and other deposits with the same bank, the notes payable do not

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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**15. SHORT-TERM NOTES PAYABLE (Continued)**

represent cash borrowings from the bank and, as such, the associated cash payments have been recorded by the Company as an operating activity in the consolidated statements of cash flows. As of December 31, 2015 and 2016, short-term notes payable was \$473,247 and \$296,663, respectively.

**16. SHORT-TERM COMMERCIAL PAPER**

On September 5, 2016, the Company issued a RMB400 million (\$60 million) commercial paper at par value with a fixed interest rate of 5.5% per annum for a tenor of one year, the net proceeds from the issuance after deducting issuance expenses, were approximately RMB398.4 million (\$59.9 million), interest is payable from September 7, 2016, the paper will mature on September 7, 2017 and repayable at its principal amount plus accrued interest. The amortization expense was RMB508 (\$73) for the year ended December 31, 2016. Coupon interest of RMB6,992 (\$1,008) was recorded for the year ended December 31, 2016, which was not paid and recorded in other payables.

On September 23, 2016, the Company issued a RMB500 million (\$74.8 million) commercial paper for a term of nine months with a fixed interest rate of 5.3% per annum, the net proceeds from the issuance after deducting issuance expenses, were approximately RMB498.5 million (\$74.7 million), interest is payable from September 26, 2016, the paper will mature on June 23, 2017 and repayable at its principal amount plus accrued interest. The amortization expense was RMB539 (\$78) for the year ended December 31, 2016. Coupon interest of RMB7,042 (\$1,015) was recorded for the year ended December 31, 2016, which was not paid and recorded in other payables.

**17. ACCRUED WARRANTY COSTS**

The Company's warranty activity is summarized below:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Beginning balance	40,605	54,644	65,193
Warranty provision	18,570	15,876	9,817
Warranty costs incurred	(2,996)	(3,872)	(13,663)
Foreign exchange effect	(1,535)	(1,455)	(208)
Ending balance	<u>54,644</u>	<u>65,193</u>	<u>61,139</u>

**18. RESTRICTED NET ASSETS**

As stipulated by the relevant laws and regulations applicable to China's foreign investment enterprise, the Company's PRC subsidiaries are required to make appropriations from net income as determined under accounting principles generally accepted in the PRC ("PRC GAAP") to non-distributable reserves, which include general reserve, enterprise expansion reserve and staff welfare and bonus reserve. The wholly-owned PRC subsidiaries are not required to make appropriations to the enterprise expansion reserve but appropriations to the general reserve are required to be made at not less than 10% of the profit after tax as determined under PRC GAAP. The board of directors determines the staff welfare and bonus reserve.



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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**18. RESTRICTED NET ASSETS (Continued)**

The general reserve is used to offset future losses. The PRC subsidiaries may, upon a resolution passed by the stockholder, convert the general reserve into capital. The staff welfare and bonus reserve is used for the collective welfare of the employee of the subsidiaries. The enterprise expansion reserve is for the expansion of the PRC subsidiaries' operations and can be converted to capital subject to approval by the relevant authorities. These reserves represent appropriations of the retained earnings determined in accordance with Chinese law.

In addition to the general reserve, the Company's PRC subsidiaries are required to obtain approval from the local PRC government prior to distributing any registered share capital. Accordingly, both the appropriations to general reserve and the registered share capital of the Company's PRC subsidiaries are considered as restricted net assets amounting to \$411,882 as of December 31, 2016.

**19. CONVERTIBLE NOTES**

On February 18, 2014, the Company issued \$130,000 of convertible notes (the "2014 Notes"). The Company granted the initial purchasers a 30-day option to purchase up to an additional \$20,000 aggregate principal amount of the 2014 Notes. The option was fully exercised by initial purchasers on the same day. The key terms of the 2014 Notes are described as follows:

*Maturity date.* The 2014 Notes mature on February 15, 2019.

*Interest.* The 2014 Notes holders are entitled to receive interest at 4.25% per annum on the principal outstanding, in semi-annually installments, payable in arrears on February 15 and August 15 of each year, beginning August 15, 2014.

*Conversion.* The initial conversion rate is 22.2222 shares per \$1,000 initial principal amount, which represents an initial conversion price of approximately \$45.00 per share. The 2014 Notes are convertible at any time prior to maturity. The conversion rate is subject to change for certain anti-dilution events and upon a change in control. If the holders elect to convert the 2014 Notes upon a change of control, the conversion rate will increase by a number of additional shares as determined by reference to an adjustment schedule based on the date on which the change in control becomes effective and the price paid per common share in the transaction (referred to as the "Fundamental Change Make-Whole Premium"). The Fundamental Make-Whole Premium is intended to compensate holders for the loss of time value upon early exercise.

*Redemption.* The Company may redeem for cash all or any portion of the notes (i) at the Company's option, on or after February 21, 2017, if the last reported sale price of the Company's common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive) during any 30 consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption, or (ii) following the occurrence of certain tax related events, in each case, at a redemption price equals to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date. During the year ended December 31, 2016, the Company repurchased convertible notes of \$22.5 million at weighted average price of \$85.43 per \$100 par value. A gain of \$2,782 on repurchase of convertible notes was recorded in the statements of operations.

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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19. CONVERTIBLE NOTES (Continued)

As of December 31, 2015 and 2016, the carrying value of the convertible notes was \$146,674 and \$125,569, respectively. The balance at December 31, 2015 and 2016 was net of unamortized issuance costs of \$3,326 and \$1,931, respectively. The debt issuance costs are being amortized through interest expense over the period from February 18, 2014, the date of issuance, to February 15, 2019, the date of expiration, using the effective interest rate method which was 4.98% for the year ended December 31, 2016. The amortization expense was \$794, \$810 and \$898 for the years ended December 31, 2014, 2015 and 2016, respectively. Coupon interest of \$6,375 and \$5,642 was recorded for the years ended December 31, 2015 and 2016, of which, \$2,387 and \$2,008 was not paid and recorded in other payables on the consolidated balance sheets, respectively.

20. INCOME TAXES

The provision for income taxes is comprised of the following:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
<b>Income before income taxes</b>			
Canada	248,666	79,631	57,922
United States	12,009	(14,183)	(74,002)
PRC	50,746	134,330	133,847
Others	9,897	23,050	(34,516)
	<u>321,318</u>	<u>222,828</u>	<u>83,251</u>
<b>Current tax</b>			
Canada	17,721	71,002	610
United States	18,702	40,567	96,172
PRC	7,559	20,145	29,339
Others	2,757	6,639	(6,246)
	<u>46,739</u>	<u>138,353</u>	<u>119,875</u>
<b>Deferred tax</b>			
Canada	40,895	(44,548)	6,366
United States	(14,928)	(45,024)	(74,562)
PRC	10,827	7,506	(10,880)
Others	(6,102)	(6,775)	(22,823)
	<u>30,692</u>	<u>(88,841)</u>	<u>(101,899)</u>
<b>Total income tax expense</b>			
Canada	58,616	26,454	6,976
United States	3,774	(4,457)	21,610
PRC	18,386	27,651	18,459
Others	(3,345)	(136)	(29,069)
	<u>77,431</u>	<u>49,512</u>	<u>17,976</u>

**CANADIAN SOLAR INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**  
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**20. INCOME TAXES (Continued)**

The Company mainly operates in Canada, PRC, Japan, Germany, the United States, Hong Kong and Vietnam.

**Canada**

The Company was incorporated in Ontario, Canada and is subject to both federal and Ontario provincial corporate income taxes at a rate of 26.5% for the years ended December 31, 2014, 2015 and 2016.

Canadian Solar Solutions Inc. was incorporated in Ontario, Canada and is subject to both federal and Ontario provincial corporate income taxes at a rate of 25% for all years ended December 31, 2014, 2015 and 2016.

**United States**

Canadian Solar (USA) Inc. was incorporated in Delaware, USA and is subject to federal, California, and other states' corporate income taxes at a rate of 37.95%, 38.56% and 37.69% for the years ended December 31, 2014, 2015 and 2016, respectively.

Canadian Solar Energy Acquisition Co. was incorporated in Delaware, USA on January 22, 2015 and is subject to federal, California, and other states' corporate income taxes at a rate of 44.84% and 43.63% for the years ended December 31, 2015 and 2016, respectively.

**Japan**

Canadian Solar Japan K.K. was incorporated in Japan and is subject to Japanese corporate income taxes at a normal statutory rate of approximately 35.64%, 35.64% and 35.15% for the years ended December 31, 2014, 2015 and 2016, respectively.

**Germany**

Canadian Solar EMEA GmbH was incorporated in Munich, Germany and is subject to German corporate income tax at a rate of approximately 33% for the years ended December 31, 2014, 2015 and 2016, respectively.

**Vietnam**

Canadian Solar Manufacturing Vietnam Co., Ltd was incorporated in Vietnam in June 25, 2015 and is subject to Vietnamese corporate income taxes at a normal statutory rate of 10% for the years ended December 31, 2015 and 2016, respectively. 2016 is the first profitable year, hence it enjoys tax exemption from 2016 to 2019 and reduced statutory rate of 5% from 2020 to 2028.

**Hong Kong**

Canadian Solar International Ltd. was incorporated in Hong Kong, China, and is subject to Hong Kong profits tax at a rate of 16.5% for the years ended December 31, 2014, 2015 and 2016, respectively.

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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## 20. INCOME TAXES (Continued)

## PRC

The other major operating subsidiaries, including CSI Solartronics (Changshu) Co., Ltd., CSI Solar Technologies Inc., CSI Cells Co., Ltd., Canadian Solar Manufacturing (Luoyang) Inc., CSI Solar Power Group Co., Ltd. (formerly "CSI Solar Power (China) Inc.") and Canadian Solar Manufacturing (Changshu) Inc., and Suzhou Sanysolar Materials Technology Co., Ltd. were governed by the PRC Enterprise Income Tax Law ("EIT Law").

CSI Solartronics (Changshu) Co., Ltd., CSI Solar Technologies Inc., CSI Cells Co., Ltd., Canadian Solar Manufacturing (Luoyang) Inc., Canadian Solar Manufacturing (Changshu) Inc., CSI Solar Power Group Co., Ltd. (formerly "CSI Solar Power (China) Inc.") are all subject to the enterprise income tax rate of 25% for the years ended December 31, 2014, 2015 and 2016.

Suzhou Sanysolar Materials Technology Co., Ltd. is subject to the enterprise income tax rate of 15% resulting from its High and New Technology Enterprise status for the years ended December 31, 2014, 2015 and 2016.

The Company makes an assessment of the level of authority for each of its uncertain tax positions (including the potential application of interest and penalties) based on their technical merits, and has measured the unrecognized benefits associated with such tax positions. This liability is recorded as liability for uncertain tax positions in the consolidated balance sheets. In accordance with its policies, the Company accrues and classifies interest and penalties associated with such unrecognized tax benefits as a component of its income tax provision. The amount of interest and penalties accrued as of December 31, 2015 and 2016 was \$4,978 and \$2,747, respectively. The Company does not anticipate any significant changes to its liability for unrecognized tax positions within the next 12 months.

The following table illustrates the movement and balance of the Company's liability for uncertain tax positions (excluding interest and penalties) for the years ended December 31, 2014, 2015 and 2016, respectively.

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Beginning balance	13,001	10,844	9,490
Addition for tax positions related to the current year	—	196	1,376
Reductions for tax positions from prior years/Statute of limitations expirations	(1,368)	—	(5,436)
Foreign exchange effect	(789)	(1,550)	254
Ending balance	<u>10,844</u>	<u>9,490</u>	<u>5,684</u>

The Company is subject to taxation in various jurisdictions where it operates, mainly including Canada, China and the United States. Generally, the Company's taxation years from 2009 to 2016 are open for reassessment to the Canadian tax authorities. The Company's taxation years from 2006 through 2016 are subject to examination by the Chinese tax authorities due to its permanent establishment in China. The Company is subject to taxation in the United States and various state jurisdictions. We are not currently under examination by the federal or state tax authorities. The

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**20. INCOME TAXES (Continued)**

Company's income tax returns for 2012 through 2016 remain open to examination by the US tax authorities.

According to the PRC Tax Administration and Collection Law, the statute of limitations is three years if the underpayment of income taxes has resulted from the computational errors of the taxpayer. The statute of limitations could be extended to five years under special circumstances. Though not being clearly defined, a special circumstance would suffice where any underpayment of income taxes exceeds RMB100. For income tax adjustments relating to transfer pricing matters, the statute of limitations is ten years. Therefore, the Company's Chinese subsidiaries might be subject to reexamination by the Chinese tax authorities on non-transfer pricing matters for taxation years up to 2011 retrospectively, and on transfer pricing matters for taxation years up to 2006 retrospectively. There is no statute of limitations in case of tax evasion in China.

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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20. INCOME TAXES (Continued)

The components of the deferred tax assets and liabilities are presented as follows:

	At December 31, 2015	At December 31, 2016
	\$	\$
Deferred tax assets:		
Accrued warranty costs	25,548	23,228
Bad debt allowance	8,358	8,058
Investment in affiliates under tax equity transactions	—	54,187
Inventory write-down	4,239	4,564
Future deductible expenses	13,878	13,321
Depreciation and impairment difference of property, plant and equipment and solar power systems	34,248	29,668
Accrued liabilities related to countervailing and anti-dumping duty deposits	55,115	111,021
Deferred tax assets relating to sales of solar power systems	32,159	996
Net operating losses carry-forward	70,637	48,678
Others	8,532	7,728
Total deferred tax assets, gross	252,714	301,449
Valuation allowance	(55,959)	(71,469)
Total deferred tax assets, net of valuation allowance	196,755	229,980
Deferred tax liabilities:		
Derivative assets	4,558	3,315
Depreciation difference of property, plant and equipment	8,327	468
Deferred profit of projects	40,793	—
Insurance recoverable	15,000	16,727
Basis difference related to acquisitions	18,339	—
Others	3,047	2,838
Total deferred tax liabilities	90,064	23,348
Net deferred tax assets	106,691	206,632
Analysis as:		
Current deferred tax assets	30,013	—
Non-current deferred tax assets	97,134	229,980
Current deferred tax liabilities	(1,426)	—
Non-current deferred tax liabilities	(19,030)	(23,348)
Net deferred tax assets	106,691	206,632

**CANADIAN SOLAR INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**  
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**20. INCOME TAXES (Continued)**

Movement of the valuation allowance is as follows:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Beginning balance	57,190	52,985	55,959
Additions (Reversals)	(4,411)	(944)	14,486
Addition from acquisition of Recurrent	—	4,949	—
Foreign exchange effect	206	(1,031)	1,024
Ending balance	<u>52,985</u>	<u>55,959</u>	<u>71,469</u>

As of December 31, 2016, the Company has accumulated net operating losses of \$273,840, of which \$137,065 will expire between 2017 and 2036, and the remaining can be carried forward indefinitely.

The Company considers positive and negative evidences to determine whether some portion or all of the deferred tax assets will not be realized. This assessment considers, among other matters, the nature, frequency and severity of recent losses, forecasts of future profitability, the duration of statutory carry-forward periods, the Company's experience with tax attributes expiring unused and tax planning alternatives. The Company has considered the following possible sources of taxable income when assessing the realization of deferred tax assets:

- Tax planning strategies;
- Future reversals of existing taxable temporary differences;
- Further taxable income exclusive of reversing temporary differences and carry-forwards;

The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible for tax purposes. As a result, the Company has recognized a valuation allowance of \$55,959 and \$71,469 as at December 31, 2015 and 2016, respectively.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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20. INCOME TAXES (Continued)

Reconciliation between the provision for income tax computed by applying Canadian federal and provincial statutory tax rates to income before income taxes and the actual provision and benefit for income taxes is as follows:

	Years Ended December 31,		
	2014	2015	2016
Combined federal and provincial income tax rate	27%	27%	27%
Effect of permanent difference	—	1%	(16)%
Effect of different tax rate on earnings in other jurisdictions	(2)%	(3)%	(18)%
Effect of tax holiday	—	—	(4)%
Unrecognized tax provision	—	—	4%
Change in valuation allowance	(1)%	—	32%
Effect of tax credit	—	—	(7)%
Effect of true-up	—	(1)%	4%
Foreign exchange effect	—	(2)%	—
	<u>24%</u>	<u>22%</u>	<u>22%</u>

In accordance with the EIT Law, dividends, which arise from profits of foreign invested enterprises in PRC earned after January 1, 2008, are subject to a 10% withholding income tax. Under applicable accounting principles, a deferred tax liability should be recorded for taxable temporary difference attributable to excess of financial reporting basis over tax basis in the investment in a foreign subsidiary. However, a deferred tax liability is not recognized if the basis difference is not expected to reverse in the foreseeable future and is expected to be permanent in duration. As of December 31, 2016, all of the undistributed earnings of approximately \$284.3 million attributable to the Company's PRC subsidiaries and affiliates are considered to be permanently reinvested, and no provision for PRC withholding income tax on dividend has been made thereon accordingly. Upon distribution of those earnings generated after January 1, 2008, in the form of dividends or otherwise, the Company would be subject to the then applicable PRC tax laws and regulations. Distributions of earnings generated before January 1, 2008 are exempt from PRC dividend withholding tax. The amounts of unrecognized deferred tax liabilities for these earnings are in the range of \$14.2 million to \$28.4 million, as the withholding tax rate of the profit distribution will be 5% or 10% depends on whether the immediate offshore companies can enjoy the preferential withholding tax rate of 5%.

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

	Years Ended December 31,		
	2014	2015	2016
	(In Thousands of US Dollars, except per share data)		
The aggregate amount	—	—	3,343
Per share—basic	—	—	0.06
Per share—diluted	—	—	0.06



**CANADIAN SOLAR INC.**  
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**21. EARNINGS PER SHARE**

The following table sets forth the computation of basic and diluted earnings per share for the years indicated:

	Years Ended December 31,		
	2014	2015	2016
	(In Thousands of US Dollars, except share and per share data)		
<b>Numerator:</b>			
Net income attributable to Canadian Solar Inc.—basic	\$ 239,502	\$ 171,861	\$ 65,249
Dilutive effect of interest expense of convertible notes	4,641	5,275	—
Net income attributable to Canadian Solar Inc.—diluted	<u>\$ 244,143</u>	<u>\$ 177,136</u>	<u>\$ 65,249</u>
<b>Denominator:</b>			
Denominator for basic calculation—weighted average number of common shares—basic	54,408,037	55,728,903	57,524,349
Diluted effects of share number from share options and RSUs	2,051,601	1,343,162	534,714
Diluted effects of share number from warrants	—	20,658	—
Dilutive effects of share number from convertible notes	2,894,977	3,333,333	—
Denominator for diluted calculation—weighted average number of common shares—diluted	<u>59,354,615</u>	<u>60,426,056</u>	<u>58,059,063</u>
Basic earnings per share	<u>\$ 4.40</u>	<u>\$ 3.08</u>	<u>\$ 1.13</u>
Diluted earnings per share	<u>\$ 4.11</u>	<u>\$ 2.93</u>	<u>\$ 1.12</u>

The following table sets forth anti-dilutive shares excluded from the computation of diluted earnings per share for the years indicated.

	Years Ended December 31,		
	2014	2015	2016
Share options and RSUs	<u>95,422</u>	<u>115,017</u>	<u>476,043</u>

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**22. RELATED PARTY BALANCES AND TRANSACTIONS**

***Related party balances:***

The amount due from related parties of \$19,082 as of December 31, 2016 consists of (i) trade receivable of \$1,446 for solar power products sold to Gaochuangte, the Company's 40% owned affiliate, (ii) prepayments for bid deposits of \$1,897 to CSI Skypower, the Company's 50% owned affiliate, and (iii) trade receivable of \$15,739 for solar power products sold and development services provided to Tranquillity, Garland and Roserock, the Company's 49% owned affiliates. No amount was due as of December 31, 2016.

The amount due from related parties of \$104,579 as of December 31, 2015 consists of (i) trade receivable of \$1,619 for solar power products sold to Gaochuangte, (ii) prepayments for bid deposits of \$1,836 to CSI Skypower, and (iii) trade receivable of \$101,124 for solar power products sold and development services provided to Tranquillity, Garland and Roserock. No amount was due as of December 31, 2015.

The amount due to related parties of \$19,912 as of December 31, 2016 consists of (i) a trade payable of \$19,912 due to Gaochuangte for the EPC service fees.

The amount due to related parties of \$90,002 as of December 31, 2015 consists of (i) advance of \$36,982 from the Company's 49% owned affiliates, (ii) a trade payable of \$25,827 due to Gaochuangte for the EPC service fees, (iii) advances receipt of development services fee of \$27,116 from Tranquillity and Roserock, and (iv) a government award of \$77 to Dr. Shawn Qu, Chairman, President, Chief Executive Officer, and major shareholder of the Company, which was initially paid to the Company.

***Related party transactions:***

**Guarantees and loans**

In each of the three years ended December 31, 2016, Dr. Shawn Qu fully guaranteed one-year loan facilities of RMB896 million (\$129.2 million) from Chinese commercial banks. Amounts drawn down from the facilities as at December 31, 2015 and 2016 were \$78,225 and \$79,558, respectively.

Dr. Shawn Qu fully guaranteed a two-year loan facility of RMB450 million (\$69.3 million) from Chinese commercial banks in 2015. Amounts drawn down from the facilities were \$63,113 and \$55,466 as at December 31, 2015 and 2016, respectively.

Dr. Shawn Qu fully guaranteed three-year loan facilities of \$150 million from Chinese commercial banks in 2015. Amounts drawn down as at December 31, 2015 were nil. The facility was fully drawn down as at December 31, 2016.

In the first quarter of 2015, Dr. Shawn Qu loaned the Company \$35.0 million at an interest rate of 4.25% per annum. The Company fully repaid the loan, including interest of \$21, in March 2015.

In January 2014, Dr. Shawn Qu loaned the Company an aggregate of \$25.0 million at an interest rate of 4.27% per annum. The Company fully repaid the loan, including interest of \$112, in February 2014.

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

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**22. RELATED PARTY BALANCES AND TRANSACTIONS (Continued)**

In 2015, Recurrent entered into buyer payment guaranties with a third party supplier in connection with certain solar module supply agreements of Tranquillity and Garland, pursuant to which Recurrent unconditionally guarantees to the third party supplier the timely payment in full when due and other payment obligations of Tranquillity and Garland required under the solar module supply agreements. The payable balance due by Tranquillity and Garland was \$98.2 million and nil, respectively, as of December 31, 2015 and was nil and \$11.1 million, respectively, as of December 31, 2016.

**Sales and purchase contracts with affiliates**

In 2016, the Company sold solar power products to Roserock and Garland in the amount of \$247,743, provided development services to Tranquillity, Garland and Roserock in the amount of \$48,711.

In 2015, the Company sold solar power products to Gaochuangte in the amount of RMB39,922 (\$6,508), sold solar power products to Roserock and Garland in the amount of \$28,132, provided development services to Tranquillity, Garland and Roserock in the amount of \$69,712.

In 2014, the Company sold solar power products to Gaochuangte in the amount of RMB15,740 (\$2,569).

In 2016, 2015 and 2014, the Company incurred costs of RMB54,891 (\$8,274), RMB175,272 (\$28,159) and RMB33,884 (\$5,515) to Gaochuangte for EPC services related to the Company's solar power projects, respectively. These amounts were recorded in project assets.

**23. COMMITMENTS AND CONTINGENCIES****a) Lease commitments**

The Company has operating lease agreements principally for its office properties in the PRC, Canada, Japan and the United States. Such leases have remaining terms ranging from one to 356 months and are renewable upon negotiation. Rental expenses were \$12,187, \$15,451 and \$17,116 for the years ended December 31, 2014, 2015 and 2016, respectively.

Future minimum lease payments under non-cancelable operating lease agreements at December 31, 2016 were as follows:

<u>Year Ending December 31:</u>	<u>\$</u>
2017	10,502
2018	8,591
2019	7,487
2020	7,112
2021	6,152
Thereafter	65,875
<b>Total</b>	<b><u>105,719</u></b>

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**23. COMMITMENTS AND CONTINGENCIES (Continued)**

The Company also leases machinery and equipment from unaffiliated third parties in the PRC under non-cancellable capital leases. As of December 31, 2016, future minimum lease payments for assets under capital leases to be paid over the remaining terms of up to four years were as follows:

<u>Year Ending December 31:</u>	<u>\$</u>
2017	15,497
2018	16,130
2019	9,748
2020	2,384
Total minimum lease payments	43,759
Less: Amount representing interest	3,542
Present value of net minimum lease payments	40,217
Current portion	15,497
Non-current portion	<u>24,720</u>

**b) Property, plant and equipment purchase commitments**

As of December 31, 2016, the commitments for the purchase of property, plant and equipment were \$203,217.

**c) Supply purchase commitments**

In order to secure future solar wafers supply, the Company has entered into long-term supply agreements with suppliers in the past several years. Under such agreements, the suppliers agreed to provide the Company with specified quantities of solar wafers, and the Company has made prepayments to the suppliers in accordance with the supply contracts.

The following is a schedule, by year, of future minimum obligation, using market prices, under all supply agreements as of December 31, 2016:

<u>Year Ending December 31:</u>	<u>\$</u>
2017	562,357
2018	446,879
Total	<u>1,009,236</u>

**d) Contingencies**Deutsche Solar AG

In 2007, the Company entered into a twelve-year wafer supply agreement with Deutsche Solar AG, under which the Company was required to purchase a contracted minimum volume of wafers at pre-determined fixed prices and in accordance with a pre-determined schedule, commencing January 1,

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**23. COMMITMENTS AND CONTINGENCIES (Continued)**

2009. The fixed prices may be adjusted annually at the beginning of each calendar year by Deutsche Solar AG to reflect certain changes in their material costs. The agreement also contains a take-or-pay provision, which requires the Company to pay the contracted amount regardless of whether the Company acquires the contracted annual minimum volumes. In 2009, the Company did not meet the minimum volume requirements under the agreement. Deutsche Solar AG agreed that the Company could fulfill its fiscal 2009 purchase obligation in fiscal 2010. In 2010, the Company fulfilled its 2009 purchase commitment under the agreement but did not meet the minimum purchase obligation for 2010. In 2011, the Company did not meet its purchase commitment for the respective years. The Company believes that the take-or-pay provisions of the agreement are void under German law and, accordingly, as of December 31, 2010 had not accrued for the full \$21,144 that would otherwise be due under the take-or-pay provision of the agreement. Rather, the Company assumed that it would be permitted to purchase its 2010 contracted quantity, in addition to its 2011 contracted quantity, in fiscal 2011 and had included the purchase obligation for both years in its evaluation of the loss on the long-term purchase commitments. The Company did not record a loss on firm purchase commitments in any of the three years ended December 31, 2016.

In December 2011, Deutsche Solar AG gave notice to the Company to terminate the twelve-year wafer supply agreement with immediate effect. Deutsche Solar AG justified the termination with alleged breach of the agreement by the Company. In the notice, Deutsche Solar AG also reserved its right to claim damage of Euro 148.6 million in court. The agreement was terminated in 2011. As a result, the Company reclassified the accrued loss on firm purchase commitments reserve of \$27,862 as of December 31, 2011 to loss contingency accruals. In addition, the Company made a full bad debt allowance of \$17,409 against the balance of its advance payments to Deutsche Solar as a result of the termination of the long-term supply contract. As of December 31, 2016, the accrued amount of \$22,654 represents the Company's best estimate for its loss contingency. Deutsche Solar did not specify the basis for its claimed damage of Euro 148.6 million in the notice.

LDK

In 2007, the Company entered into a three-year agreement with Jiangxi LDK Solar Hi-Tech Co., Ltd., or LDK, under which the Company purchased specified quantities of silicon wafers and LDK converted the Company's reclaimed silicon feedstock into wafers. In June 2008, the Company entered into two long-term supply purchase agreements with LDK in which the Company was required to purchase a contracted minimum volume of wafers at pre-determined fixed prices and in accordance with a pre-determined schedule. In April 2010, the Company sent a notice to LDK and announced termination of these two contracts.

In July 2010, CSI Cells Co. Ltd., one of the Company's wholly-owned subsidiaries, filed a request for arbitration against LDK with Shanghai International Economy and Trade Arbitration Commission, formerly known as CIETAC Shanghai Branch, in relation to wafer supply contracts the Company entered into with LDK in October 2007, or the 2007 Supply Contract, and in June 2008, or the 2008 Supply Contracts. In December 2012, CIETAC Shanghai Branch awarded RMB248.9 million in compensation plus RMB2.32 million in arbitration expenses to LDK for the damages LDK claimed to

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**23. COMMITMENTS AND CONTINGENCIES (Continued)**

have suffered from the alleged breaches by the Company of the 2007 Supply Contract and 2008 Supply Contracts between July 2009 and September 2010, or the 2012 Arbitral Award.

In February 2013, LDK filed for enforcement of the 2012 Arbitral Award with Jiangsu Suzhou Intermediate People's Court, or the Suzhou Intermediate Court. In 2013, LDK initiated two separate proceedings against the Company in Jiangxi Xinyu Intermediate People's Court, or the Xinyu Intermediate Court, claiming that the Company had forfeited its rights to the initial deposits under the 2007 Supply Contract and 2008 Supply Contracts because of the alleged breaches under these contracts. On October 18, 2013, the Xinyu Intermediate Court stayed these proceedings pending the decision by the Suzhou Intermediate Court as to the 2012 Arbitral Award.

On September 9, 2015, the Suzhou Intermediate Court ruled in favor of LDK. On October 19, 2015, the Company reached a settlement agreement with LDK, or the 2015 Settlement Agreement. Under the 2015 Settlement Agreement, the Company agreed to pay RMB132.7 million (\$20.8 million—translated by using the rate in 2015) to LDK and to purchase 64.3 million pieces of silicon wafers from LDK at market price over a three year period starting in or around December 2015, in exchange for which LDK (i) would release the Company from the 2012 Arbitration Award and waive its rights and claims thereunder and (ii) would withdraw its complaints from the Xinyu Intermediate Court and terminate such proceedings. The Suzhou Intermediate Court reviewed the 2015 Settlement Agreement and terminated the enforcement proceeding relating to the 2012 Arbitral Award. The Company has already paid the required amounts and fulfilled its obligations under the 2015 Settlement Agreement. The \$20.8 million paid to LDK was recognized as general and administrative expenses in 2015. As of December 31, 2014, the Company had provided a full allowance against the advance to LDK of \$9,798, due to the uncertainty of recovery. As of December 31, 2015, the allowance was written-off.

On May 19, 2016, the Company received a copy of a bill of complaint from Xinyu Intermediate Court, in which LDK's receiver applied to the court for an order to revoke the 2015 Settlement Agreement pursuant to PRC bankruptcy law, and requested us to pay an amount that LDK's receiver alleged to have been waived by LDK under the 2015 Settlement Agreement. On December 1, 2016, Xinyu Intermediate Court heard this case, and now it is pending for the court's further notice.

In March 2014, LDK filed an application for arbitration with CIETAC, seeking compensation and enforcement expenses for damages LDK claimed to have suffered from the alleged breaches under the 2008 Supply Contracts between October 2010 and December 2013. The Company filed counterclaims against LDK in July 2014. On December 22, 2015, CIETAC ruled to reject both LDK's claims and the Company's counterclaims.

Class Action Lawsuits

Following the two subpoenas from the SEC in 2010, six class action lawsuits were filed in the U.S. District Court for the Southern District of New York, or the New York cases, and another class action lawsuit was filed in the U.S. District Court for the Northern District of California, or the California case. The New York cases were consolidated into a single action in December 2010. On January 5, 2011, the California case was dismissed by the plaintiff, who became a member of the lead plaintiff group in the New York action. On March 11, 2011, a Consolidated Complaint was filed with respect to

CANADIAN SOLAR INC.

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**23. COMMITMENTS AND CONTINGENCIES (Continued)**

the New York action. The Consolidated Complaint alleges generally that the Company's financial disclosures during 2009 and early 2010 were false or misleading; asserts claims under Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 thereunder; and names the Company, its chief executive officer and its former chief financial officer as defendants. The Company filed its motion to dismiss in May 2011, which was taken under submission by the Court in July 2011. On March 30, 2012, the Court dismissed the Consolidated Complaint with leave to amend, and the plaintiffs filed an Amended Consolidated Complaint against the same defendants on April 19, 2012. On March 29, 2013, the Court dismissed with prejudice a class action lawsuit filed against us and certain named defendants alleging that the Company's financial disclosures during 2009 and early 2010 were false or misleading and in violation of federal securities law. The court found that the plaintiffs failed to adequately allege a securities law violation and granted the Company's motion to dismiss all claims against all defendants with prejudice. On December 20, 2013, the United States Court of Appeals for the Second Circuit affirmed the district court's order dismissing such class action lawsuit.

In addition, a similar class action lawsuit was filed against the Company and certain of its executive officers in the Ontario Superior Court of Justice on August 10, 2010. The lawsuit alleges generally that the Company's financial disclosures during 2009 and 2010 were false or misleading and brings claims under the shareholders' relief provisions of the CBCA, Part XX III.1 of the Ontario Securities Act as well as claims based on negligent misrepresentation. In December 2010, the Company filed a motion to dismiss the Ontario action on the basis that the Ontario Court has no jurisdiction over the claims and potential claims advanced by the plaintiff. The court dismissed the Company's motion on August 29, 2011. On March 30, 2012, the Ontario Court of Appeal denied the Company's appeal with regard to its jurisdictional motion. On November 29, 2012, the Supreme Court of Canada denied the Company's application for leave to appeal the order of the Ontario Court of Appeal. The plaintiff's motions for class certification and leave to assert the statutory cause of action under the Ontario Securities Act were served in January 2013 and initially scheduled for argument in the Ontario Superior Court of Justice in June 2013. However, the plaintiff's motions were adjourned in view of the plaintiff's decision to seek an order compelling the Company to file additional evidence on the motions. On July 29, 2013 the Court dismissed the plaintiff's motion to compel evidence. On September 24, 2013 the plaintiff's application for leave to appeal from the July 29 order was dismissed. In September 2014, the plaintiff obtained an order granting him leave to assert the statutory cause of action under the Ontario Securities Act for certain of his misrepresentation claims.

In January 2015, the plaintiff in the class action lawsuit filed against the Company and certain of its executive officers in the Ontario Superior Court of Justice obtained an order for class certification in respect of certain claims for which he had obtained leave in September 2014 to assert the statutory cause of action for misrepresentation under the Ontario Securities Act, for certain negligent misrepresentation claims and for oppression remedy claims advanced under the CBCA. The Court dismissed the Company's application for leave to appeal and the class action has moved to the merits stage. The Company believes the Ontario action is without merit and the Company is defending it vigorously.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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23. COMMITMENTS AND CONTINGENCIES (Continued)

Countervailing and anti-dumping duties

In October 2011, a trade action was filed with the U.S. Department of Commerce, or USDOC, and the U.S. International Trade Commission, or USITC, by the U.S. unit of SolarWorld AG and six other U.S. firms, accusing Chinese producers of crystalline silicon photovoltaic cells, or CSPV cells, whether or not incorporated into modules, of selling their products (i.e., CSPV cells or modules incorporating these cells) into the United States at less than fair value, or dumping, and of receiving countervailable subsidies from the Chinese authorities. These firms asked the U.S. government to impose anti-dumping and countervailing duties on Chinese-origin CSPV cells. The Company was identified as one of a number of Chinese exporting producers of the subject goods to the U.S. market. The Company also has affiliated U.S. operations that import the subject goods from China.

On October 9, 2012, the USDOC issued final affirmative determinations with respect to its anti-dumping and countervailing duty investigations on CSPV, cells, whether or not incorporated into modules, from China. On November 7, 2012, the USITC ruled that imports of CSPV cells had caused material injury to the U.S. CSPV industry. As a result of these rulings, the Company is required to pay cash deposits on Chinese-origin CSPV cells imported into the U.S., whether alone or incorporated into modules. The announced cash deposit rates applicable to the Company were 13.94% (anti-dumping duty) and 15.24% (countervailing duty). The Company paid all the cash deposits due under these determinations. A number of parties challenged the determinations of the USDOC and the USITC in appeals to the U.S. Court of International Trade. On August 7, 2015, the U.S. Court of International Trade sustained the USITC's final determination and on December 11, 2015, the U.S. Court of International Trade sustained the USDOC's final determination. Certain of these decisions have also been appealed to the U.S. Court of Appeals for the Federal Circuit. Decisions on those appeals are expected in 2017 or 2018.

The rates at which duties will be assessed and payable are subject to ongoing administrative reviews.

The first of these reviews was concluded on July 14, 2015, when the USDOC published its final results of the 2012-2013 administrative reviews of the anti-dumping and countervailing duty orders on CSPV cells. As a result of these decisions, the duty rates applicable to the Company were revised to 9.67% (anti-dumping duty) and 20.94% (countervailing duty). The rates at which duties will be assessed and payable for the 2012-2013 period are subject to ongoing litigation at the U.S. Court of International Trade. Decisions on these appeals are not expected until mid to late 2017.

The second of these reviews was concluded in June 2016 (anti-dumping duty order) and July 2016 (countervailing duty order) when the USDOC published the final results of the 2013-2014 administrative reviews of the anti-dumping and countervailing duty orders on CSPV cells. As result of these decisions, the anti-dumping duty rate applicable to the Company was changed to 8.52% (from 9.67%). Because the Company was not subject to the second administrative review of the countervailing duty order, its countervailing duty rate remained at 20.94%. The rates at which duties will be assessed and payable for the 2013-2014 period are subject to ongoing litigation at the U.S. Court of International Trade. Decisions on these appeals are not expected until late 2017 or 2018.



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**23. COMMITMENTS AND CONTINGENCIES (Continued)**

The third and fourth of these reviews for the 2014-2015 period and 2015-2016 period, respectively, are ongoing and are expected to conclude in mid-2017 and mid-2018, respectively. These reviews may result in duty rates that differ from the previous duty rates and cash deposit rates applicable to the Company. These duty rates could materially and adversely affect our U.S. import operations and increase the Company's cost of selling into the U.S. In 2016, a total of \$144.3 million cash deposits were paid relating to countervailing and anti-dumping rulings in the U.S., of which \$132.2 million were charged into cost of sales. As of December 31, 2016, \$3.8 million countervailing and anti-dumping rulings remained in inventories. In addition, the Company booked a true-up provision of \$44.1 million primarily associated with prior years' module sales from China to the United States pursuant to the preliminary results of the third administrative review by the U.S. Department of Commerce of anti-dumping and countervailing duty for solar products incorporating solar cells from China ("Solar 1"). Given the significant uncertainty surrounding the investigations and their ultimate resolution, the Company is unable to estimate any additional possible loss or range of loss that may arise from this action.

The preliminary results of the third administrative review changed the antidumping duty rate applicable to the Company to 30.42% (from 8.52%) and the countervailing duty rate applicable to the Company to 20.98% (from 20.94%). The Company is vigorously contesting the preliminary results in the final phase of this administrative review.

On December 31, 2013, the U.S. unit of SolarWorld AG filed a new trade action with the USDOC and the USITC accusing Chinese producers of certain CSPV cells and modules of dumping their products into the U.S. and of receiving countervailable subsidies from the Chinese authorities. This trade action also accused Taiwanese producers of certain CSPV cells and modules of dumping their products into the U.S. Excluded from these new actions were those Chinese-origin solar products covered by the Solar 1 rulings described above. The Company was identified as one of a number of Chinese producers exporting the subject goods to the U.S. market.

On December 15, 2014, the USDOC issued final affirmative determinations with respect to its anti-dumping and countervailing duty investigation on these CSPV products. On January 21, 2015, the USITC ruled that imports of these CSPV products had caused material injury to the U.S. CSPV industry. As a result of these rulings, the Company is required to pay cash deposits on these CSPV products. The announced cash deposit rates applicable to its Chinese CSPV products subject to Solar 2 orders were 30.06% (anti-dumping duty) and 38.43% (countervailing duty). The cash deposit rate applicable to its Taiwanese CSPV products subject to Solar 2 orders varied by solar cell producer. The Company paid all the cash deposits due under these determinations.

"Chinese CSPV products subject to Solar 2 orders" refer to CSPV products manufactured in mainland China using non-Chinese (e.g., Taiwanese) CSPV cells and imported into the USA during the investigation or review periods of Solar 2. "Taiwanese CSPV products subject to Solar 2 orders" refer to CSPV products manufactured outside of mainland China using Taiwanese CSPV cells and imported into the USA during the investigation or review periods of Solar 2.

The rates at which duties will be assessed and payable are subject to two ongoing administrative reviews that began in 2016: the first for the 2014-2015 period and the second for the 2015-2016 period.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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**23. COMMITMENTS AND CONTINGENCIES (Continued)**

Because the Company is not subject to the first administrative reviews of the Chinese orders of Solar 2, its duty rates will remain at 30.06% (anti-dumping duty) and 38.43% (countervailing duty) for its Chinese CSPV products subject to Solar 2 orders during the period of the first administrative review. For its Taiwanese CSPV products subject to the Solar 2 orders, DOC calculated preliminary antidumping margins ranging from 3.50% to 4.20%. Final margins are yet to be determined in the first administrative review, for which the final results are currently scheduled to be issued on July 5, 2017. The final results will set the new cash deposit rate. The second administrative reviews for both the Chinese and Taiwanese orders of Solar 2 are expected to conclude in mid-2018. These reviews may result in duty rates that differ from the cash deposit rates applicable to us. These duties could materially and adversely affect the Company's U.S. import operations and increase its cost of selling into the U.S.

On September 6, 2012, following a complaint lodged by EU ProSun, an ad-hoc industry association of EU CSPV module, cell and wafer manufacturers, the European Commission initiated an anti-dumping investigation concerning EU imports of CSPV modules and key components (i.e., cells and wafers) originating in China. On November 8, 2012, following a complaint lodged by the same parties, the European Commission initiated an anti-subsidy investigation on these same products.

On December 6, 2013, the EU imposed definitive anti-dumping and countervailing measures on imports of CSPV modules and key components (i.e., cells) originating in or consigned from China.

On February 28, 2014, the Company filed separate actions with the General Court of the EU for annulment of the regulation imposing the definitive anti-dumping measures and of the regulation imposing the definitive countervailing measures (case T-162/14 and joined cases T-158/14, T-161/14, and T-163/14). The General Court rejected these actions for annulment. The Company is assessing whether to appeal the judgment before the Court of Justice of the EU.

On June 20, 2014, the Company filed a request for leave to intervene in two separate actions brought by SolarWorld AG and others before the General Court of the EU for annulment of the undertaking agreement between the European Commission and Chinese exporting producers (cases T-141/14 and T-142/14).

On November 23, 2015, the Company submitted to the General Court of the European Union requests for the withdrawal of the Company's intervention in cases T-141/14 and T-142/14. On February 1, 2016, the General Court of the EU declared both actions brought by SolarWorld AG and others to be inadmissible and accepted the Company's request for the withdrawal of its intervention. SolarWorld AG and others have appealed before the Court of Justice of the EU (cases C-204/16 P and C-205/16 P). The Company has not intervened in the appeal proceedings.

On December 5, 2015, the European Commission initiated expiry (sunset) reviews of the anti-dumping and countervailing measures on imports of CSPV modules and key components (i.e., cells) originating in or consigned from China. On March 3, 2017, the European Commission extended the anti-dumping and countervailing measures for 18 months on imports of CSPV modules and key components (i.e., cells) originating in or consigned from China. On the same day, the European Commission initiated a partial interim review limited to the form of the extended measures.

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**23. COMMITMENTS AND CONTINGENCIES (Continued)**

On June 3, 2015, the Canada Border Services Agency released final determinations of dumping and subsidization which found dumping calculated by way of a Ministerial Specification based on a Non Market Economy finding applicable to all cooperative exporters and ascertained a Canadian Solar-specific subsidies rate of RMB0.014 per Watt. On July 3, 2015 the Canadian International Trade Tribunal determined that a Canadian industry was not negatively affected as a result of imported modules but was threatened with negative impact. As a result of these findings, definitive duties have been imposed on imports of Chinese solar modules into Canada starting on July 3, 2015. The Company does not believe the imposition of these duties will have a material negative effect upon its results of operations because it has significant module manufacturing capacity in Ontario and do not rely on Chinese solar modules to serve its Canadian business.

**24. SEGMENT INFORMATION**

The Company uses the management approach to determine operating segments. The management approach considers the internal organization and reporting used by the Company's chief operating decision maker ("CODM") for making decisions, allocating resources and assessing performance. The Company's CODM has been identified as the Chief Executive Officer of the Company, who reviews consolidated and segment results when making decisions about allocating resources and assessing performance of the Company.

Following the Company's decision to terminate the Yieldco launch and monetize the majority of its solar power projects in operation in 2016, the Company operates its business in two principal reportable business segments, i.e., module segment and energy segment. The prior year segment information has been restated to conform to the current year's presentation. The module segment primarily comprises design, development, manufacture and sales of solar power products and solar system kits. The energy segment primarily comprises solar project development and sale, EPC and development services, O&M services, operating solar power projects and sales of electricity. The sales from module segment to energy segment have terms and conditions similar to sales to third parties. The Company's CODM reviews net revenue and gross profit and does not review balance sheet information by segment.

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**24. SEGMENT INFORMATION (Continued)**

The following table summarizes the Company's revenues and gross profit generated from each segment:

	Years Ended December 31, 2016			
	Module	Energy	Elimination	Total
	\$	\$	\$	\$
Net revenues	2,821,142	110,560	(78,624)	2,853,078
Cost of revenues	2,426,618	69,544	(60,272)	2,435,890
Gross profit	<u>394,524</u>	<u>41,016</u>	<u>(18,352)</u>	<u>417,188</u>

	Years Ended December 31, 2015			
	Module	Energy	Elimination	Total
	\$	\$	\$	\$
Net revenues	2,672,689	979,247	(184,310)	3,467,626
Cost of revenues	2,277,904	778,951	(165,999)	2,890,856
Gross profit	<u>394,785</u>	<u>200,296</u>	<u>(18,311)</u>	<u>576,770</u>

	Years Ended December 31, 2014			
	Module	Energy	Elimination	Total
	\$	\$	\$	\$
Net revenues	2,034,626	1,212,899	(286,898)	2,960,627
Cost of revenues	1,721,474	931,761	(273,602)	2,379,633
Gross profit	<u>313,152</u>	<u>281,138</u>	<u>(13,296)</u>	<u>580,994</u>

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

24. SEGMENT INFORMATION (Continued)

The following table summarizes the Company's net revenues generated from different geographic locations. The information presented below is based on the location of customers' headquarters:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Europe and other regions:			
—Germany	137,012	75,912	132,185
—United Kingdom	59,878	98,800	73,274
—Netherlands	9,166	12,859	36,732
—Australia	18,100	18,150	33,634
—France	9,990	97,398	23,552
—Spain	1,125	8,246	22,516
—Others	24,774	22,018	89,272
	<u>260,045</u>	<u>333,383</u>	<u>411,165</u>
The Americas:			
—United States	604,537	903,748	863,500
—Canada	1,182,091	747,100	193,790
—Others	8,862	99,152	46,219
	<u>1,795,490</u>	<u>1,750,000</u>	<u>1,103,509</u>
Asia:			
—PRC	163,658	402,180	585,296
—Japan	623,692	578,173	373,396
—India	63,817	262,536	292,234
—Singapore	18,021	24,131	7,615
—Others	35,904	117,223	79,863
	<u>905,092</u>	<u>1,384,243</u>	<u>1,338,404</u>
Total net revenues	<u>2,960,627</u>	<u>3,467,626</u>	<u>2,853,078</u>

The following table summarizes the Company's long-lived assets, including property, plant and equipment, non-current project assets, solar power systems, prepaid land use rights and intangible

**CANADIAN SOLAR INC.**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**  
**FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016**  
**(In Thousands of U.S. Dollars, unless otherwise indicated)**

**24. SEGMENT INFORMATION (Continued)**

assets at December 31, 2015 and 2016 by geographic region, based on the physical location of the assets:

	At December 31, 2015	At December 31, 2016
	\$	\$
PRC	412,583	434,989
Japan	172,318	167,465
United States	627,724	67,652
Canada	300,482	7,308
United Kingdom	115,797	—
Others	13,433	136,457
<b>Total long-lived assets</b>	<b>1,642,337</b>	<b>813,871</b>

The following table summarizes the Company's revenues generated from each product or service:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Solar power products	1,550,386	2,303,287	2,573,685
Solar system kits	104,215	93,406	86,794
Solar power projects	891,920	557,995	22,665
EPC and development services	316,572	385,882	11,990
Electricity	2,863	32,059	68,789
O&M services	1,544	3,310	4,128
Others	93,127	91,687	85,027
<b>Total net revenues</b>	<b>2,960,627</b>	<b>3,467,626</b>	<b>2,853,078</b>

**25. MAJOR CUSTOMERS**

Details of customers accounting for 10% or more of total net revenues are as follows:

	Years Ended December 31,		
	2014	2015	2016
	\$	\$	\$
Company A	214,347	160,183	—
Company B	218,631	7,544	—

The accounts receivable from three customers with the largest receivable balances represents 9%, 6% and 4% of the balance of the account at December 31, 2016, and 18%, 5% and 4% of the balance of the account at December 31, 2015, respectively. The balance from the customer with the largest receivable balance is \$78,630 and \$34,468 as of December 31, 2015 and 2016, respectively.

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**26. EMPLOYEE BENEFIT PLANS**

Employees of the Company located in the PRC are covered by the retirement schemes defined by local practice and regulations, which are essentially defined contribution schemes. The calculation of contributions for eligible employees is based on 20% of the applicable payroll cost in 2016. The expense incurred by the Company to these defined contributions schemes was \$5,806, \$6,189 and \$7,186 for the years ended December 31, 2014, 2015 and 2016, respectively.

In addition, in 2016, the Company is required by PRC law to contribute approximately 10%, 8%, 2% and 2% of applicable salaries for medical insurance benefits, housing funds, unemployment and other statutory benefits, respectively. The PRC government is directly responsible for the payment of the benefits to these employees. The amounts contributed for these benefit schemes were \$5,980, \$8,193 and \$9,128 for the years ended December 31, 2014, 2015 and 2016, respectively.

**27. SHARE-BASED COMPENSATION**

In March 2006, the Company adopted a share incentive plan, or the Plan. The purpose of the Plan is to promote the success and enhance the value of the Company by linking the personal interests of the directors, employees and consultants to those of the shareholders and providing the directors, employees and consultants with an incentive for outstanding performance to generate superior returns to the shareholders. The Plan is also intended to motivate, attract and retain the services of the directors, employees and consultants upon whose judgment, interest and effort the successful conduct of the Company's operations is largely dependent. In September 2010, the shareholders approved an amendment to the Plan to increase the maximum number of common shares which may be issued pursuant to all awards of options, restricted shares and RSUs under the Plan to the sum of (i) 2,330,000 plus (ii) the sum of (a) 1% of the number of outstanding common shares of the Company on the first day of each of 2007, 2008 and 2009 and (b) 2.5% of the number of outstanding common shares of the Company outstanding on the first day of each calendar year after 2009. The Plan will expire on, and no awards may be granted after, May 8, 2021. Under the terms of the Plan, options are generally granted with an exercise price equal to the fair market value of the Company's ordinary shares and expire ten years from the date of grant.

*Options to Employees*

As of December 31, 2016, there was nil unrecognized compensation expense related to share-based compensation awards. During the years ended December 31, 2014, 2015 and 2016, \$1,321, \$355 and \$44 was recognized as compensation expense, respectively.

The Company utilizes the Binomial option-pricing model to estimate the fair value of stock options. No stock options were granted in 2014, 2015 and 2016.

The Company used the market yield of Chinese International Government Bonds, denominated in U.S. dollar, with maturities that can cover the contractual life of the shares option for the risk-free rates. In 2013, since the Company has been listed for approximately 7 years and its share price history is more comparable to the life of the issued options, the Company estimated the expected volatility based on the annualized standard deviation of its daily stock price return from the date of listing to the valuation date. The Company's dividend policy is to retain earnings for reinvestment purpose, thus the

CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

27. SHARE-BASED COMPENSATION (Continued)

dividend yield is assumed to be zero. The Company estimated the annual exit rates based on the historical general exit rate of employees at different levels. The Company estimated the exercise multiple based on the historical exercise pattern of prior employee stock options granted by the Company.

A summary of the option activity is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contract Terms	Aggregate Intrinsic Value In Thousands of U.S. Dollars
		\$		
Options outstanding at January 1, 2016	675,709	12.44	3 years	12,354
Granted	—			
Exercised	(184,873)	3.47		
Forfeited	(24,550)	40.40		
Options outstanding at December 31, 2016	<u>466,286</u>	14.52	3 years	1,081
Options vested or expected to be vested at December 31, 2016	<u>466,286</u>	14.52	3 years	1,081
Options exercisable at December 31, 2016	<u>466,286</u>	14.52	3 years	1,081

The weighted average grant-date fair values of options granted in 2014, 2015 and 2016 was nil. The total intrinsic value of options exercised during the years ended December 31, 2014, 2015 and 2016 was \$7,493, \$3,422 and \$2,643, respectively.

*RSUs to Employees*

The Company granted 283,862, 574,488 and 868,036 RSUs to employees in 2014, 2015 and 2016, respectively. The RSUs entitle the holders to receive the Company's common shares upon vesting. The RSUs were granted for free and generally vest over periods from one to four years based on the specific terms of the grants. The fair market value of the Company's ordinary shares at the date of grant resulted in total compensation cost of approximately \$7.3 million, \$13.2 million and \$12.1 million that will be recognized ratably over the vesting period for the RSUs granted in 2014, 2015 and 2016, respectively. In the years ended December 31, 2014, 2015 and 2016, the Company recognized \$3,767, \$5,611 and \$7,713 in compensation expense associated with these awards, respectively.

As of December 31, 2016, there was \$20,383 of total unrecognized share-based compensation related to unvested RSUs, which is expected to be recognized over a weighted-average period of 2.44 years.



CANADIAN SOLAR INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

27. SHARE-BASED COMPENSATION (Continued)

A summary of the RSU activity is as follows:

	Number of Shares	Weighted Average Grant-Date Fair Value \$
Unvested at January 1, 2016	1,311,410	15.75
Granted	868,036	15.26
Vested	(650,172)	11.16
Forfeited	(126,415)	19.34
Unvested at December 31, 2016	<u>1,402,859</u>	17.27

The total fair value of RSUs vested during the years ended December 31, 2014, 2015 and 2016 was \$2,965, \$4,641 and \$7,271, respectively.

28 WARRANTS

In connection with \$180 million of two-year senior secured term syndicated loan arranged by Credit Suisse, the Company issued the lenders warrants to purchase up to 1,348,040 shares of CSI's common stock, at an exercise price of \$24.48 per share on October 26, 2015, and warrants to purchase up to 940,171 shares of common stock, at an exercise price of \$28.08 per share on December 11, 2015, respectively (the "Warrants"), subject to adjustment under several special circumstances, including anti-dilution clauses.

The Warrants can be settled in cash at the discretion of the holder. As a result, they were accounted for as derivative liabilities which were fair valued at issuance and are subsequently marked to market at the end of each reporting period, until such time as the warrant is exercised or expired.

On the issuance dates of the Warrants, the Company recorded them at the fair value of \$16,378 with an offset to the borrowing proceeds. The Company recognized a loss of \$8,887 and \$24,554 from change in fair value of the Warrants in the consolidated statements of operations for the year ended December 31, 2015 and 2016, respectively.

The Company utilizes the Binomial model to estimate the fair value of the Warrants. The following assumptions were used to estimate the fair value of the Warrants as of the date that the Warrants were originally issued and as of December 31, 2015 and 2016:

	At October 26, 2015	At December 11, 2015	At December 31, 2016
Exercise price	\$ 24.48	\$ 28.08	\$24.48 ~ \$28.08
Risk-free interest rate	0.672%	0.935%	0.850% ~ 0.875%
Dividend yield	—	—	—
Time to maturity	2	2	0.82 ~ 0.94
Expected volatility	67.24%	65.13%	53.99% ~ 59.21%

## CANADIAN SOLAR INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

FOR THE YEARS ENDED DECEMBER 31, 2014, 2015 and 2016

(In Thousands of U.S. Dollars, unless otherwise indicated)

**28 WARRANTS (Continued)**

The Company used the market yield of U.S. Government Bonds with maturity on October 31, 2017 as of the valuation date for the risk-free interest rate. The Company's dividend policy is to retain earnings for reinvestment purpose and the Company does not intend to distribute dividends, thus the dividend yield is assumed to be zero. Expected volatility is based on the historical share price movement of the Company for the period of time close to the expected time to exercise. The expected life is based on the remaining term of the Warrants.

The following is a reconciliation of the beginning and ending balances of the Warrants measured at fair value on a recurring basis using Level 2 inputs:

<u>Derivative Liabilities</u>	<u>At December 31,</u> <u>2016</u>
	\$
Beginning balance	25,265
Warrants issued	—
Fair value change of the Warrants included in earnings	(24,554)
Ending balance	<u>711</u>

**29 SUBSEQUENT EVENTS**

In February 2017, the Company completed the sale of three solar farms, SSM 1, SSM 2 and SSM 3, totaling 59.8 MWac to Fengate SSM Holdco LP, an affiliate of Fengate Real Asset Investments, for over \$195 million.

In March 2017, the Company completed the sale of two solar power plants in China, totaling approximately 69.5 MWp to Shenzhen Energy Nanjing Holding Co., Ltd., a subsidiary of Shenzhen Energy Group Co., Ltd., for approximately RMB687.1 million (\$99.8 million).

**Additional Information—Financial Statement Schedule I**

**Canadian Solar Inc.**

Schedule I has been provided pursuant to the requirements of Rule 12-04(a) and 4-08(e)(3) of Regulation S-X, which require condensed financial information as to financial position, changes in financial position and results of operations of a parent company as of the same dates and for the same periods for which audited consolidated financial statements have been presented as the restricted net assets of Canadian Solar Inc.'s consolidated and unconsolidated subsidiaries not available for distribution to Canadian Solar Inc. as of December 31, 2016 of \$411,882, exceeded the 25% threshold.

The condensed financial information has been prepared using the same accounting policies as set out in the consolidated financial statements, except that the equity method has been used to account for investments in subsidiaries.

FINANCIAL INFORMATION OF PARENT COMPANY

BALANCE SHEETS

	December 31, 2015	December 31, 2016
	(In Thousands of U.S. Dollars, except share data)	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	34,206	21,348
Restricted cash	6,512	—
Accounts receivable trade, net of allowance for doubtful accounts of \$3,852 and \$3,007 as of December 31, 2015 and 2016, respectively	2,268	103
Inventories	146	—
Amounts due from related parties	725,063	419,075
Derivative assets—current	1,030	2,425
Advances to suppliers, net of allowance for doubtful accounts of \$5,225 and \$5,225 as of December 31, 2015 and 2016, respectively	226	—
Prepaid expenses and other current assets	13,809	4,871
Total current assets	783,260	447,822
Investment in subsidiaries	765,880	789,633
Deferred tax assets—non-current	2,204	22,609
Other non-current assets	59,571	64,903
<b>TOTAL ASSETS</b>	<b>1,610,915</b>	<b>1,324,967</b>
<b>LIABILITIES AND EQUITY</b>		
Current liabilities:		
Short-term borrowings	10,000	10,000
Accounts payable	8	3
Amounts due to related parties	202,359	73,053
Derivative liabilities—current	27,029	1,914
Other current liabilities	12,661	10,952
Total current liabilities	252,057	95,922
Accrued warranty costs	15,331	2,950
Convertible notes	146,674	125,569
Long-term borrowings	364,680	190,000
Deferred tax liabilities—non-current	—	20,054
Liability for uncertain tax positions	13,205	5,791
<b>TOTAL LIABILITIES</b>	<b>791,947</b>	<b>440,286</b>
Equity:		
Common shares—no par value: unlimited authorized shares, 55,965,443 and 57,830,149 shares issued and outstanding at December 31, 2015 and 2016, respectively	677,103	701,283
Additional paid-in capital	(17,139)	(8,897)
Retained earnings	218,860	284,109
Accumulated other comprehensive loss	(59,856)	(91,814)
<b>TOTAL EQUITY</b>	<b>818,968</b>	<b>884,681</b>
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>1,610,915</b>	<b>1,324,967</b>

## FINANCIAL INFORMATION OF PARENT COMPANY

## STATEMENTS OF OPERATIONS

	Years Ended December 31		
	2014	2015	2016
	(In Thousands of U.S. Dollars)		
Net revenues	15,900	23,302	13,748
Cost of revenues	4,401	15,850	9,657
Gross profit	11,499	7,452	4,091
Operating expenses:			
Selling expenses	4,000	3,309	3,727
General and administrative expenses	8,331	29,124	17,167
Research and development expenses	416	450	589
Total operating expenses	12,747	32,883	21,483
Loss from operations	(1,248)	(25,431)	(17,392)
Other income (expenses):			
Interest expense	(6,329)	(17,241)	(29,032)
Interest income	10,369	34,471	44,666
Gain (loss) on change in fair value of derivatives	—	(13,571)	30,988
Foreign exchange gain (loss)	(5,335)	1,324	(3,810)
Gain on repurchase of convertible notes	—	—	2,782
Others	47	—	—
Other income (expenses), net:	(1,248)	4,983	45,594
Income (loss) before income taxes and equity in earnings (loss) of subsidiaries and unconsolidated investees	(2,496)	(20,448)	28,202
Income tax expense	(1,005)	(1,231)	(6,599)
Equity in earnings of subsidiaries	243,283	193,813	43,596
Equity in earnings (loss) of unconsolidated investees	(280)	(273)	50
Net income	239,502	171,861	65,249

**FINANCIAL INFORMATION OF PARENT COMPANY**  
**STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**

	<u>Years Ended December 31,</u>		
	<u>2014</u>	<u>2015</u>	<u>2016</u>
	<u>(In Thousands of U.S. Dollars)</u>		
Net income	239,502	171,861	65,249
Other comprehensive loss (net of tax of nil):			
Foreign currency translation adjustment	<u>(33,853)</u>	<u>(79,913)</u>	<u>(31,958)</u>
Comprehensive income	<u>205,649</u>	<u>91,948</u>	<u>33,291</u>

**FINANCIAL INFORMATION OF PARENT COMPANY**
**STATEMENTS OF CASH FLOWS**

	<b>Years Ended December 31,</b>		
	<b>2014</b>	<b>2015</b>	<b>2016</b>
	<b>(In Thousands of U.S. Dollars)</b>		
<b>Operating activities:</b>			
Net income	239,502	171,861	65,249
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	1	32	32
Loss on disposal of property, plant and equipment	4	—	—
(Gain) loss on change in fair value of derivatives	—	13,571	(30,988)
Gain on repurchase of convertible notes	—	—	(2,782)
Allowance for doubtful accounts	11,434	1,535	(844)
Equity in earnings of subsidiaries	(243,283)	(193,813)	(43,596)
Equity in loss (earnings) of unconsolidated investees	280	273	(50)
Share-based compensation	5,088	5,966	7,757
Changes in operating assets and liabilities:			
Inventories	(286)	296	146
Accounts receivable trade	(5,244)	2,189	3,010
Amounts due from related parties	3,905	228,284	21,731
Advances to suppliers	(11,836)	(226)	226
Prepaid expenses and other current assets	(2,260)	(7,106)	6,955
Other non-current assets	(19,727)	(14,710)	(2,039)
Accounts payable	(9)	3	(4)
Advances from customers	(657)	1,352	(1,413)
Amounts due to related parties	(42,128)	103,348	(129,307)
Accrued warranty costs	84	(2,941)	(12,381)
Other liabilities	3,544	4,484	(297)
Liability for uncertain tax positions	633	(1,111)	(7,413)
Deferred taxes	1,208	1,451	199
Net settlement of derivatives	—	(3,950)	17,043
Net cash provided by (used in) operating activities	<u>(59,747)</u>	<u>310,788</u>	<u>(108,766)</u>
<b>Investing activities:</b>			
(Increase) decrease in restricted cash	—	(6,513)	6,512
Investment in subsidiaries	(39,668)	(116,840)	—
Purchase of property, plant and equipment	(5)	—	—
(Funding) repayment of loans to subsidiaries	(128,213)	(550,776)	299,578
Net cash provided by (used in) investing activities	<u>(167,886)</u>	<u>(674,129)</u>	<u>306,090</u>
<b>Financing activities:</b>			
Proceeds from short-term borrowings	—	10,000	—
Repayment of short-term borrowings	(12,246)	—	(190,000)
Proceeds from long-term borrowings	—	364,680	—
Repayment of long-term borrowings	(16,393)	—	—
Proceeds from issuance of warrant	—	16,378	—
Investment on non-controlling interest	—	(918)	—
Proceeds from issuance of common shares	115,009	—	23,864
Issuance costs paid for common shares offering	(6,090)	—	(456)
Proceeds from issuance of convertible notes	150,000	—	—
Payment for repurchase of convertible notes	—	—	(19,667)
Issuance cost paid on convertible notes	(5,103)	—	—
Proceeds from exercise of stock options	3,342	1,867	707
Net cash provided by (used in) financing activities	<u>228,519</u>	<u>392,007</u>	<u>(185,552)</u>
Effect of exchange rate changes	(27,016)	2,085	(24,630)
Net increase (decrease) in cash and cash equivalents	<u>(26,130)</u>	<u>30,751</u>	<u>(12,858)</u>
Cash and cash equivalents at the beginning of the year	29,585	3,455	34,206
Cash and cash equivalents at the end of the year	<u>3,455</u>	<u>34,206</u>	<u>21,348</u>
<b>Supplemental disclosure of cash flow information:</b>			
Interest paid (net of amounts capitalized)	3,942	15,299	29,288
Income taxes paid	736	—	—

**Appendix 1**

**Major Subsidiaries of CSI**

The following table sets forth information concerning CSI's major subsidiaries:

<b>Subsidiary</b>	<b>Place and Date of Incorporation</b>	<b>Attributable Equity Interest Held</b>	<b>Principal Activity</b>
CSI Solartronics (Changshu) Co., Ltd.	PRC November 23, 2001	100%	Developing solar power project
CSI Solar Technologies Inc.	PRC August 8, 2003	100%	Sales and marketing of solar products
CSI New Energy Holding Co., Ltd.	PRC January 7, 2005	100%	Investment holding
Canadian Solar Manufacturing (Luoyang) Inc.	PRC February 24, 2006	100%	Manufacture of solar modules, ingots and wafers
Canadian Solar Manufacturing (Changshu) Inc.	PRC August 1, 2006	100%	Production of solar modules
CSI Cells Co., Ltd.	PRC August 23, 2006	100%	Manufacture of solar cells
Canadian Solar (USA) Inc.	USA June 8, 2007	100%	Sales and marketing of modules
Canadian Solar Japan K.K.	Japan June 21, 2009	100%	Sales and marketing of modules
Canadian Solar Solutions Inc.	Canada June 22, 2009	100%	Developing solar power project and manufacture of solar modules
CSI Solar Power Group Co., Ltd. (formerly named/known as "CSI Solar Power (China) Inc.")	PRC July 7, 2009	100%	Investment holding
Canadian Solar EMEA GmbH	Germany August 21, 2009	100%	Sales and marketing of modules
Canadian Solar (Australia) Pty Limited	Australia February 3, 2011	100%	Developing solar power project, sales and marketing of modules
Canadian Solar International Limited	Hong Kong March 25, 2011	100%	Sales and marketing of modules
Canadian Solar O and M (Ontario) Inc.	Canada May 10, 2011	100%	Solar farm operating and maintenance service
Suzhou Sansolar Materials Technology Co., Ltd.	PRC August 17, 2011	75.324%	Production of solar module materials
Canadian Solar South East Asia Pte. Ltd.	Singapore September 19, 2011	100%	Sales and marketing of modules
Canadian Solar South Africa Pty., Ltd.	South Africa June 22, 2012	100%	Sales and marketing of modules
Canadian Solar Brazil Commerce, Import and Export of Solar Panels Ltd.	Brazil November 14, 2012	100%	Sales and marketing of solar modules, and provide solar energy solution to customer
Canadian Solar Middle East Limited	United Arab Emirates December 10, 2012	100%	Sales and marketing of modules
Canadian Solar Construction (USA) LLC	USA May 20, 2014	100%	Solar farm operating and maintenance service
Canadian Solar Project K.K.	Japan May 20, 2014	100%	Developing solar power project
CSI-GCL Solar Manufacturing (Yancheng) Co., Ltd.	PRC May 29, 2014	80%	Research and developing, manufacture and sales of solar cells, and solar power projects development
Canadian Solar UK Ltd.	United Kingdom May 29, 2014	100%	Sales and marketing of modules
Canadian Solar UK Projects Ltd.	United Kingdom August 29, 2014	100%	Developing solar power project
Changshu Tegu New Material Technology Co., Ltd.	PRC September 2, 2014	75%	EVA solar packaging film research and development, production, and sales



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<b>Subsidiary</b>	<b>Place and Date of Incorporation</b>	<b>Attributable Equity Interest Held</b>	<b>Principal Activity</b>
Changshu Tlian Co., Ltd.	PRC December 26, 2014	100%	Junction box and connector research, development, production and sales
Canadian Solar Trading (Changshu) Inc.	PRC January 22, 2015	100%	Sales of solar wafers, cells and other photovoltaic products
Recurrent Energy, LLC	USA March 31, 2015	100%	Developing solar power project
PT. Canadian Solar Indonesia	Indonesia February 26, 2015	67%	Production of solar modules
Canadian Solar Manufacturing Vietnam Co., Ltd.	Vietnam June 25, 2015	100%	Production of solar modules
Canadian Solar Energy Private Limited	India May 06, 2015	100%	Sales and marketing of modules
Canadian Solar Australia 1 Pty Ltd.	Australia August 03, 2015	100%	Sales and marketing of modules
Canadian Solar Manufacturing (Thailand) Co., Ltd.	Thailand November 20, 2015	99.99992%	Cells and module production
Canadian Solar Sunenergy (Suzhou) Co., Ltd.	PRC May 12, 2016	100%	Production of solar modules
Canadian Solar Energy Holding Singapore 1 Pte. Ltd.	Singapore June 7, 2016	100%	Development & Ownership of Solar PV Projects
Canadian Solar Sunenergy (Baotou) Co., Ltd.	PRC August 18, 2016	100%	Production of solar modules, ingots and wafers



CANADIAN SOLAR INC.

AMENDED AND RESTATED SHARE INCENTIVE PLAN

ARTICLE 1.

PURPOSE

The purpose of the Plan is to permit the Company to attract, motivate and retain the services of Directors, Employees and Consultants upon whose judgment, interest and special effort the successful conduct of the Company's operations is largely dependent and to promote the success and enhance the value of the Company by linking the personal interests of Holders with those of Shareholders by providing Holders with an incentive for outstanding performance to generate superior returns to Shareholders.

This amendment and restatement of the Plan is effective on May 8, 2011. See also Section 9.1.

ARTICLE 2.

DEFINITIONS AND CONSTRUCTION

The following terms used in the Plan shall have the meanings specified below, unless the context clearly indicates otherwise. The singular pronoun includes the plural and vice versa.

2.1 "Applicable Accounting Standards" means the generally accepted accounting principles or reporting standards applicable to the Company's consolidated financial statements.

2.2 "Applicable Laws" means the laws of any jurisdiction as they relate to the Plan and Awards and the rules of any securities exchange, national market system or automated quotation system on which the Shares are listed, quoted or traded.

2.3 "Award" means an Option, a Restricted Share or a Restricted Share Unit awarded or granted to a Participant under the Plan.

2.4 "Award Agreement" means any written instrument or document evidencing and setting out the terms and conditions of an Award, including through electronic medium.

2.5 "Board" means the board of directors of the Company.

2.6 "Code" means the United States Internal Revenue Code of 1986, as amended from time to time.

2.7 "Committee" has the meaning set forth in Section 8.1.

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2.8 “Company” means Canadian Solar Inc.

2.9 “Consultant” means any consultant or adviser:

(a) who is a natural person and renders *bona fide* services to a Service Recipient;

(b) who has contracted directly with the Service Recipient to render such services; and

(c) whose services are not in connection with the offer or sale of securities of the Company in a capital-raising transaction and do not directly or indirectly promote or maintain a market for the Company’s securities.

2.10 “Corporate Transaction” means any of the following transactions; provided that the Committee shall determine under (f) and (g) whether multiple transactions are related, and its determination shall be final, binding and conclusive:

(a) an amalgamation, arrangement, consolidation or scheme of arrangement in which the Company is not the surviving entity, except for a transaction the principal purpose of which is to change the jurisdiction in which the Company is incorporated or a transaction where, following the transaction, the holders of the Company’s voting securities immediately prior to the transaction own fifty percent (50%) or more of the surviving entity;

(b) the direct or indirect acquisition by any person or related group of persons (other than an acquisition from or by the Company or by a Company-sponsored employee benefit plan or by a person that directly or indirectly controls, is controlled by, or is under common control with, the Company) of beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities possessing more than fifty percent (50%) of the total combined voting power of the Company’s outstanding securities pursuant to a tender or exchange offer made directly to Shareholders which a majority of the Incumbent Board (as defined in (c) below) who are not affiliates or associates of the offeror (within the meaning of Rule 12b-2 under the Exchange Act) do not recommend that Shareholders accept;

(c) the individuals who, as of the Effective Date, are members of the Board (the “Incumbent Board”) cease for any reason to constitute at least fifty percent (50%) of the Board; provided that, if the election or nomination for election by Shareholders of any new member of the Board is approved by a vote of at least fifty percent (50%) of the Incumbent Board, such new member of the Board shall be considered as a member of the Incumbent Board;

(d) the sale, transfer or other disposition of all or substantially all of the assets of the Company (other than to a Parent, Subsidiary or Related Entity);

(e) the completion of a voluntary or insolvent liquidation or dissolution of the Company;

(f) any reverse takeover, scheme of arrangement, or series of related transactions culminating in a reverse takeover or scheme of arrangement (including, but not limited to, a tender offer followed by a reverse takeover) in which the Company survives but:

(i) the Shares of the Company outstanding immediately prior to such transaction are converted or exchanged by virtue of the transaction into other property, whether in the form of securities, cash or otherwise, or

(ii) securities possessing more than fifty percent (50%) of the total combined voting power of the Company's outstanding securities are transferred to a person or related group of persons different from those who held such securities immediately prior to such transaction culminating in such takeover or scheme of arrangement,

but excluding any such transaction or series of related transactions that the Committee determines shall not be a Corporate Transaction; or

(g) the acquisition in a single or series of related transactions by any person or related group of persons (other than the Company or by a Company-sponsored employee benefit plan) of beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of securities possessing more than fifty percent (50%) of the total combined voting power of the Company's outstanding securities but excluding any such transaction or series of related transactions that the Committee determines shall not be a Corporate Transaction.

2.11 "Director" means a member of the Board, as constituted from time to time.

2.12 "Disability" of a Holder means:

(a) in the case where the Service Recipient to which the Holder provides services has a long-term disability plan in place and the Holder is a member of that plan, that the Holder qualifies to receive long-term disability payments under the plan; and

(b) in the case where the Service Recipient to which the Holder provides services does not have a long-term disability plan in place or, if it does, the Holder is not a member of that plan, that the Holder is unable to carry out the responsibilities and functions of the position held by the Holder by reason of any medically determinable physical or mental impairment for a period of not less than ninety (90) consecutive days.

A Holder will not be considered to have a Disability unless he or she furnishes proof of such impairment sufficient to satisfy the Committee in its discretion.

2.13 "Effective Date" has the meaning set forth in Section 9.1.

2.14 "Eligible Individual" means any person who is a Director, an Employee or a Consultant, in each case as determined by the Committee; provided that Awards shall not be granted to Directors or Consultants who are resident of any country the Applicable Laws of which do not permit grants to non-employees.

2.15 “Employee” means any person who is employed by a Service Recipient. The payment of a director’s fee by a Service Recipient shall not constitute the recipient an employee of the Service Recipient.

2.16 “Exchange Act” means the United States Securities Exchange Act of 1934, as amended from time to time.

2.17 “Fair Market Value” of a Share means, as of any date:

(a) if the Shares are listed on an established and regulated securities exchange, national market system or automated quotation system, the closing sales price for Shares (or the closing bid price, if no sales were reported) as quoted on the principal exchange or system on which the Shares are listed (as determined by the Committee) on the date of determination (or, if no closing sales price or closing bid price was reported on that date, on the last trading date such closing sales price or closing bid was reported), as reported in *The Wall Street Journal* or such other source as the Committee deems reliable;

(b) if the Shares are not listed on an established and regulated securities exchange, national market system or automated quotation system, but are regularly quoted by a recognized securities dealer, the closing sales price for Shares as quoted by such securities dealer on the date of determination; provided that, if the closing sales price is not reported, the Fair Market Value shall be the mean between the high bid and low asked prices for Shares on the date of determination (or, if no such prices were reported on that date, on the last date such prices were reported), as reported in *The Wall Street Journal* or such other source as the Committee deems reliable; or

(c) in the absence of (a) and (b), the Fair Market Value shall be determined by the Committee in good faith and in its sole and absolute discretion by reference to:

(i) the placing price of the latest private placement of Shares and the development of the Company’s business operations and the general economic and market conditions since such latest private placement,

(ii) other third party transactions involving the Shares and the development of the Company’s business operations and the general economic and market conditions since such sale,

(iii) an independent valuation of the Shares, or

(iv) such other methodologies or information as the Committee determines to be indicative of Fair Market Value.

2.18 “Holder” means an Eligible Individual who has been granted an Award.

2.19 “Incentive Option” means an Option that is intended to meet the applicable provisions of Section 422 of the Code. Incentive Options may only be granted to Employees.

2.20 “Non-Employee Director” means a Director who is not an Employee.

- 2.21 “Non-Qualified Option” means an Option that is not an Incentive Option.
- 2.22 “Option” means the right to purchase a Share at the exercise price, at the time and on the terms and conditions specified by the Committee.
- 2.23 “Plan” means this Canadian Solar Inc. Share Incentive Plan, as amended and restated from time to time.
- 2.24 “Related Entity” means any entity in which the Company or a Subsidiary holds, directly or indirectly, a substantial economic interest, whether through ownership or contractual arrangements, but which is not a Subsidiary and which the Board designates as a Related Entity for purposes of the Plan.
- 2.25 “Restatement Effective Date” has the meaning set forth in Section 9.1.
- 2.26 “Restricted Share” means a Share awarded under Article 6 that is subject to certain restrictions and may be subject to risk of forfeiture or repurchase.
- 2.27 “Restricted Share Unit” or “RSU” means the right to receive a Share at the time and on the terms and conditions specified by the Committee.
- 2.28 “Securities Act” means the United States Securities Act of 1933, as amended from time to time.
- 2.29 “Service Recipient” means the Company, a Subsidiary or a Related Entity.
- 2.30 “Share” means a common share in the capital of the Company.
- 2.31 “Shareholder” means a holder of Shares.
- 2.32 “Subsidiary” means any entity (other than the Company), whether domestic or foreign, in an unbroken chain of entities beginning with the Company if each of the entities, other than the last entity in the unbroken chain, beneficially owns, at the time of the determination, securities or other interests representing more than fifty percent (50%) of the total combined voting power of all classes of securities or interests in one of the other entities in such chain.
- 2.33 “Termination of Service” of a Holder means”
- (a) in the case of a Holder who is a Consultant, the time when the engagement of the Holder as a Consultant to a Service Recipient terminates for any reason; but excluding a case where the Holder simultaneously commences employment with, enters into another engagement as a Consultant to, or becomes a Director of, the same or another Service Recipient;
- (b) in the case of a Holder who is Non-Employee Director, the time when the Holder ceases to be a Director of a Service Recipient for any reason, but excluding a case where the Holder simultaneously commences employment with, or enters into an engagement as a Consultant to, or becomes a Director of, the same or another Service Recipient; and

(c) in the case of a holder who is an Employee, the time when the Holder ceases to be in the employ of a Service Recipient for any reason, but excluding a case where the Holder simultaneously commences employment with, enters into an engagement as a Consultant to, or becomes a Director of, the same or another Service Recipient.

The Committee may, in its sole discretion, determine the effect of all matters and questions relating to a Termination of Service, including, without limitation, whether a particular leave of absence constitutes a Termination of Service; provided that, with respect to Incentive Options, unless the Committee provides to the contrary in the Award Agreement or otherwise, a leave of absence, change in status from an employee to an independent contractor or other change in the employee-employer relationship shall constitute a Termination of Service only if, and to the extent that, such leave of absence, change in status or other change interrupts employment for the purposes of Section 422(a)(2) of the Code and the regulations and revenue rulings thereunder. For purposes of the Plan, a Holder's employee-employer or consultancy relationship shall be deemed to have been terminated if the Service Recipient employing or contracting with the Holder ceases to be a Subsidiary or Related Entity.

2.34 "Trading Date" means the closing of the first sale of Shares to the general public, pursuant to an effective registration statement under Applicable Laws, which results in the Shares being publicly traded on an established securities exchange or national market system.

### ARTICLE 3.

#### SHARES SUBJECT TO THE PLAN

##### 3.1 Number of Shares.

(a) Subject to Article 8 and Section 3.1(b), the maximum number of Shares that may be issued pursuant to all Awards (including Incentive Share Options) is 2,330,000 plus, for Awards other than Incentive Option Shares, the sum of:

- (i) one percent (1%) of the number of Shares outstanding on the first day of each of 2007, 2008 and 2009, and
- (ii) two and one-half percent (2.5%) of the number of Shares outstanding on the first day of each year after 2009.

(b) If an Award terminates, expires or lapses for any reason, or is settled in cash and not Shares, the Shares subject to the Award shall again be available for the grant of an Award pursuant to the Plan.

3.2 Shares Distributed. Any Shares distributed pursuant to an Award may consist, in whole or in part, of treasury Shares or Shares purchased on the open market or, in the discretion of the Committee, American Depository Shares in an amount equal to the number of Shares which otherwise would be distributed. If the number of Shares represented by an American Depository Share is other than on a one-to-one basis, the limitations of Section 3.1 shall be adjusted to reflect the distribution of American Depository Shares in lieu of Shares.



## ARTICLE 4.

### GRANTING OF AWARDS

4.1 Participation. The Committee shall determine those Eligible Individuals to whom Awards shall be granted and shall determine the nature and amount of each Award, which shall not be inconsistent with the requirements of the Plan. No Eligible Individual shall have any right to be granted an Award pursuant to the Plan.

4.2 Award Agreement. Each Award shall be evidenced by an Award Agreement. Award Agreements evidencing Incentive Options shall contain such terms and conditions as are necessary to satisfy the applicable provisions of Section 422 of the Code.

4.3 Jurisdictions. Notwithstanding any provision of the Plan to the contrary, in order to comply with Applicable Laws, the Committee may:

- (a) determine which Subsidiaries and Related Entities shall be covered by the Plan;
- (b) determine which Eligible Individuals are eligible to participate in the Plan;
- (c) modify the terms and conditions of any Award granted to Eligible Individuals;
- (d) establish sub plans and modify exercise and other terms and procedures to the extent that such actions may be necessary or advisable (any such sub plans and/or modifications shall be attached to the Plan as appendices); provided that no such sub plans and/or modifications shall increase the share limitations contained in Section 3.1; and
- (e) take any action, before or after an Award is made, that it deems necessary or advisable to obtain any required approvals under or to comply with any Applicable Laws, including, without limitation, necessary governmental regulatory exemptions or approvals or listing requirements of any securities exchange.

## ARTICLE 5.

### OPTIONS

5.1 General. The Committee may grant Options to Eligible Individuals on the following terms and conditions:

- (a) Exercise Price. The exercise price per Share subject to an Option shall be a fixed or variable price related to the Fair Market Value of the Shares; provided that no Option may be granted to an individual subject to taxation in the United States at less than the Fair Market Value on the date of grant without compliance with Section 409A of the Code, or the Holder's consent. The exercise price per Share subject to an Option may be amended by the Committee at any time and from time to time without the consent of the Shareholders.

(b) Vesting. The Committee shall specify the period before and during which an Option vests in the Holder and may, at any time after the grant of an Option, accelerate the vesting period on such terms and conditions as may determine. No portion of an Option which is unexercisable on the Termination of Service of the Holder shall thereafter become exercisable, except as may be otherwise provided by the Committee, either in the Award Agreement or otherwise.

(c) Time and Conditions of Exercise. The Committee shall specify the time or times at which an Option may be exercised in whole or in part. The Committee shall also specify any conditions that must be satisfied before all or part of an Option may be exercised.

(d) Partial Exercise. An exercisable Option may be exercised in whole or in part; provided that an Option shall not be exercisable with respect to fractional shares and the Committee may require that a partial exercise must be with respect to a minimum number of Shares.

(e) Manner of Exercise. All or a portion of an exercisable Option shall be deemed exercised upon delivery of all of the following to the Secretary of the Company, or such other person or entity designated by the Committee, or his, her or its office, as applicable:

(i) a written or electronic notice complying with the applicable rules established by the Committee stating that the Option, or such portion thereof, is exercised. The notice shall be signed by the Holder or other person then entitled to exercise the Option or such portion thereof;

(ii) such representations and documents as the Committee deems necessary or advisable to effect compliance with all Applicable Laws. The Committee may also take whatever additional action it deems necessary or advisable to effect such compliance including, without limitation, placing legends on Share certificates and issuing stop-transfer notices to agents and registrars;

(iii) if the Option is exercised pursuant to Section 9.3 by any person or persons other than the Holder, such proof of the right of such person or persons to exercise the Option as the Committee may require; and

(iv) full payment of the exercise price and any withholding taxes applicable to the exercise of the Option, or such portion thereof, in a manner permitted by Section 7.1 and 7.2.

(f) Term. The term of any Option granted under the Plan shall not exceed ten (10) years. Except as limited by the requirements of Section 409A or Section 422 of the Code and the regulations and rulings thereunder, the Committee may extend the term of outstanding Options and, in connection with a Termination of Service of the Holder, may extend the time period during which vested Options may be exercised and may amend any other term or condition of such Options.

(g) Evidence of Grant. All Options shall be evidenced by an Award Agreement between the Company and the Holder. The Award Agreement shall include such additional provisions as may be specified by the Committee.

5.2 Incentive Options. Incentive Options may be granted to Employees of the Company or any Subsidiary which qualifies as a subsidiary corporation under Section 424(e) and (f) of the Code respectively. Incentive Options may not be granted to Employees of a Related Entity or to Directors or Consultants. In addition to the requirements of Section 5.1, the terms of any Incentive Options must comply with the following additional provisions of this Section 5.2:

(a) Expiration of Option. An Incentive Option may not be exercised to any extent by anyone after the first to occur of the following events:

(i) ten (10) years from the date it is granted, unless an earlier time is set in the Award Agreement;

(ii) three (3) months after the Termination of Service of the Holder as an Employee (save in the case of Disability or death);

and

(iii) one (1) year after the date of the Termination of Service of the Holder on account of Disability or death. Upon the Holder's Disability or death, any Incentive Options exercisable at the Holder's Disability or death may be exercised by the Holder's legal representative or representatives, by the person or persons entitled to do so pursuant to the Holder's last will and testament or, if the Holder fails to make testamentary disposition of such Incentive Option or dies intestate, by the person or persons entitled to receive the Incentive Option pursuant to the applicable laws of descent and distribution as determined under Applicable Law.

(b) Individual Dollar Limitation. The aggregate Fair Market Value (determined as of the time the Option is granted) of all Shares with respect to which Incentive Options are first exercisable by a Holder in any calendar year may not exceed U.S.\$100,000 or such other limitation as may be imposed under Section 422(d) of the Code, or any successor provision. To the extent that Incentive Options are first exercisable by a Holder in excess of such limitation, the excess shall be considered Non-Qualified Options.

(c) Ten Percent Owners. An Incentive Option may not be granted to any individual who, at the date of grant, owns Shares possessing more than ten percent (10%) of the total combined voting power of all classes of shares of the Company unless such Incentive Option is granted at a price that is not less than one hundred and ten percent (110%) of Fair Market Value on the date of grant and the Incentive Option is exercisable for no more than five years from the date of grant.

(d) Transfer Restriction. The Holder shall give the Company prompt notice of any disposition of Shares acquired by exercise of an Incentive Option within:

(i) two (2) years from the date of grant of such Incentive Option, or

(ii) one (1) year after the transfer of such Shares to the Holder.

(e) Expiration of Incentive Options. No Award of an Incentive Option may be made after the tenth (10<sup>th</sup>) anniversary of the Effective Date.

(f) Right to Exercise. During a Holder's lifetime, an Incentive Option may be exercised only by the Holder.

## ARTICLE 6.

### AWARD OF RESTRICTED SHARES

#### 6.1 Award of Restricted Share.

(a) The Committee may grant Restricted Share to Eligible Individuals, and shall determine the amount and the terms and conditions of, including without limitation the restrictions applicable to, each award of Restricted Shares, which terms and conditions shall not be inconsistent with the Plan, and may impose such conditions on the issuance of such Restricted Share as it deems appropriate.

(b) The Committee shall specify the purchase price, if any, and form of payment for Restricted Shares; provided that such purchase price shall be no less than the par value, if any, of the Shares to be purchased, unless otherwise permitted by Applicable Laws. In all cases, legal consideration shall be required for each issuance of Restricted Shares.

6.2 Rights as Shareholders. Subject to Section 6.4, upon issuance of Restricted Shares, the Holder shall have, unless otherwise provided by the Committee, all the rights of a Shareholder with respect to such Restricted Shares, subject to the restrictions in his or her Award Agreement, including the right to receive all dividends and other distributions paid or made with respect to Shares; provided that any extraordinary distributions with respect to such Restricted Shares shall be subject to the restrictions set forth in Section 6.3.

6.3 Restrictions. All Restricted Shares (including any shares received by Holders thereof with respect to Restricted Shares as a result of share dividends, share splits or any other form of recapitalization) shall, in the terms of each individual Award Agreement, be subject to such restrictions and vesting requirements as the Committee shall provide. Such restrictions may include, without limitation, restrictions concerning voting rights and transferability and such restrictions may lapse separately or in combination at such times and pursuant to such circumstances or based on such criteria as selected by the Committee, including, without limitation, criteria based on the Holder's duration of employment, directorship or consultancy with the Service Recipient, or other criteria selected by the Committee. By action taken after the Restricted Shares are issued, the Committee may, on such terms and conditions as it may determine to be appropriate, accelerate the vesting of such Restricted Shares by removing any or all of the restrictions imposed by the terms of the Award Agreement. Restricted Shares may not be sold or encumbered until all restrictions are terminated or expire.

6.4 Repurchase or Forfeiture of Restricted Shares. If no price was paid by the Holder for the Restricted Shares, upon the Termination of Service of the Holder, the Holder's rights in unvested Restricted Shares then subject to restrictions shall lapse and such Restricted Shares shall be surrendered to the Company and cancelled without consideration. If a purchase price was paid by the Holder for the Restricted Shares, upon the Termination of Service of the Holder, the Company shall have the right to repurchase from the Holder the unvested Restricted Shares then subject to restrictions at a cash price per share equal to the price paid by the Holder for such Restricted Shares or such other amount as may be specified in the Award Agreement. The Committee in its sole discretion may provide that, in the event of certain events, the Holder's rights in unvested Restricted Shares shall not lapse, such Restricted Shares shall vest and shall be non-forfeitable and, if applicable, the Company shall not have a right of repurchase.

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6.5 Certificates for Restricted Share. Restricted Shares granted pursuant to the Plan may be evidenced in such manner as the Committee may determine. Certificates or book entries evidencing Restricted Shares must include an appropriate legend referring to the terms, conditions and restrictions applicable to the Restricted Shares and the Company may, in its sole discretion, retain physical possession of any share certificate evidencing Restricted Shares until such time as all applicable restrictions lapse.

## ARTICLE 7.

### ADDITIONAL TERMS OF AWARDS

7.1 Payment. The Committee shall determine the methods by which payments by any Holder with respect to any Awards granted under the Plan shall be made, including, without limitation:

(a) cash or check;

(b) Shares (including, in the case of payment of the exercise price of an Award, Shares issuable pursuant to the exercise of the Award) or Shares held for such period of time as may be required by the Committee in order to avoid adverse accounting consequences under Applicable Accounting Standards, in each case, having a Fair Market Value on the date of delivery equal to the aggregate payments required;

(c) delivery of a notice that the Holder has placed a market sell order with a broker with respect to Shares then issuable upon exercise or vesting of an Award, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate payments required; provided that payment of such proceeds is then made to the Company upon settlement of such sale; or

(d) other form of legal consideration acceptable to the Committee.

The Committee shall also determine the methods by which Shares shall be delivered or deemed to be delivered to Holders. Notwithstanding any other provision of the Plan to the contrary, no Holder shall be permitted to make payment with respect to any Awards granted under the Plan to the extent prohibited by Applicable Law.

7.2 Withholding Tax. No Shares shall be delivered under the Plan to any Holder until such Holder has made arrangements acceptable to the

Committee for the satisfaction of any income, employment, social welfare or other tax withholding obligations under Applicable Laws. Each Service Recipient shall have the authority and the right to deduct or withhold, or require a Holder to remit to the applicable Service Recipient, an amount sufficient to satisfy federal, state, local and foreign taxes (including the Holder's employment, social welfare or other tax obligations) required by Applicable Laws to be withheld with respect to any taxable event concerning a Holder arising as a result of the Plan. The Committee may, in its sole discretion and in satisfaction of the foregoing requirement, allow a Holder to elect to have the Company withhold Shares otherwise issuable under an Award (or allow the surrender of Shares). The number of Shares which may be so withheld or surrendered shall be limited to the number of Shares which have a Fair Market Value on the date of withholding or repurchase equal to the aggregate amount of such liabilities based on the minimum statutory withholding rates for tax purposes that are applicable to such taxable income. The Committee shall determine the Fair Market Value of the Shares, consistent with Applicable Laws, for tax withholding obligations due in connection with a broker-assisted cashless Option exercise involving the sale of shares to pay the Option exercise price or any tax withholding obligation.

7.3 Transferability of Awards.

(a) Except as otherwise provided in Section 7.3(b):

(i) no Award under the Plan may be sold, pledged, assigned or transferred in any manner other than by will or the laws of descent and distribution or, subject to the consent of the Committee, as required under applicable domestic relations laws, unless and until such Award has been exercised, or the Shares underlying such Award have been issued, and all restrictions applicable to such shares have lapsed;

(ii) no Award or interest or right therein shall be liable for the debts, contracts or engagements of the Holder or his successors in interest or shall be subject to disposition by transfer, alienation, anticipation, pledge, hypothecation, encumbrance, assignment or any other means whether such disposition be voluntary or involuntary or by operation of law by judgment, levy, attachment, garnishment or any other legal or equitable proceedings (including bankruptcy), and any attempted disposition thereof shall be null and void and of no effect, except to the extent that such disposition is permitted by the preceding sentence; and

(iii) during the lifetime of the Holder, only the Holder may exercise an Award (or any portion thereof) granted to him under the Plan, unless it has been disposed of pursuant to applicable domestic relations law; after the death of the Holder, any exercisable portion of an Award may, prior to the time when such portion becomes unexercisable under the Plan or the applicable Award Agreement, be exercised by his personal representative or by any person or persons empowered to do so under the deceased Holder's will or under the then Applicable Laws of descent and distribution.

(b) Notwithstanding Section 7.3(a), the Committee, in its sole discretion, may determine to permit a Holder to transfer an Award other than an Incentive Option to certain persons or entities related to the Holder, including but not limited to members of the Holder's family, charitable institutions, or trusts or other entities whose beneficiaries or beneficial owners are members of the Holder's family and/or charitable institutions, or to such other persons or entities as may be expressly approved by the Committee, pursuant to such conditions and procedures as the Committee may establish, including the following:

(i) an Award transferred shall not be assignable or transferable other than by will or the laws of descent and distribution;

(ii) an Award transferred shall continue to be subject to all the terms and conditions of the Award as applicable to the original Holder (other than the ability to further transfer the Award); and

(iii) the Holder and the permitted transferee shall execute any and all documents requested by the Committee, including without limitation documents to confirm the status of the transferee as a permitted transferee, satisfy any requirements for an exemption for the transfer under Applicable Laws and evidence the transfer.

(c) Notwithstanding Section 7.3(a), a Holder may, in the manner determined by the Committee, designate a beneficiary to exercise the rights of the Holder and to receive any distribution with respect to any Award upon the Holder's death. A beneficiary, legal guardian, legal representative, or other person claiming any rights pursuant to the Plan is subject to all terms and conditions of the Plan and any Award Agreement applicable to the Holder, except to the extent the Plan and Award Agreement otherwise provide, and to any additional restrictions deemed necessary or appropriate by the Committee. If the Holder is married and resides in a community property jurisdiction, a designation of a person other than the Holder's spouse as his or her beneficiary with respect to more than 50% of the Holder's interest in the Award shall not be effective without the prior written or electronic consent of the Holder's spouse. If no beneficiary has been designated or survives the Holder, payment shall be made to the person entitled thereto pursuant to the Holder's will or the laws of descent and distribution. Subject to the foregoing, a beneficiary designation may be changed or revoked by a Holder at any time provided the change or revocation is filed with the Committee prior to the Holder's death.

#### 7.4 Conditions to Issuance of Shares.

(a) Notwithstanding anything herein to the contrary, the Company shall not be required to issue or deliver any certificates or make any book entries evidencing Shares pursuant to the exercise of any Award unless and until the Committee has determined, with advice of counsel, that the issuance of such Shares is in compliance with all Applicable Laws, and the Shares are covered by an effective registration statement or applicable exemption from registration. In addition to the terms and conditions provided herein, the Committee may require that a Holder make such reasonable covenants, agreements, and representations as the Committee, in its discretion, deems advisable in order to comply with any such laws, regulations, or requirements.

(b) All Share certificates delivered pursuant to the Plan and all Shares issued pursuant to book entry procedures are subject to any stop-transfer orders and other restrictions as the Committee deems necessary or advisable to comply with all Applicable Laws, rules and regulations. The Committee may place legends on any Shares certificate or book entry to reference restrictions applicable to the Shares.

(c) The Committee shall have the right to require any Holder to comply with any timing or other restrictions with respect to the settlement, distribution or exercise of any Award, including a window-period limitation.

(d) No fractional Shares shall be issued and the Committee shall determine, in its sole discretion, whether cash shall be given in lieu of fractional shares or whether such fractional shares shall be eliminated by rounding down.

(e) Notwithstanding any other provision of the Plan, unless otherwise determined by the Committee or required by any Applicable Law, rule or regulation, the Company shall not deliver to any Holder certificates evidencing Shares issued in connection with any Award and instead such Shares shall be recorded in the books of the Company (or, as applicable, its transfer agent or share plan administrator).

7.5 Applicable Currency. The Committee shall designate in the Award Agreement the currency applicable to an Award, which may be in U.S. dollars, Canadian dollars, Chinese Renminbi or such other currency as the Committee shall determine required under Applicable Law. A Holder may be required to provide evidence that any currency used to pay the exercise price of any Award was acquired and taken out of the jurisdiction in which the Holder resides in accordance with Applicable Laws, including foreign exchange control laws and regulations. If the exercise price for an Award is paid in a foreign currency, other than that designated in the Award Agreement, as permitted by the Committee, the amount payable will be determined by conversion at the exchange rate as selected by the Committee on the date of exercise.

## ARTICLE 8.

### ADMINISTRATION

8.1 Committee. A committee of the Board (the "Committee") shall administer the Plan (except as otherwise permitted herein). The Committee shall comprise two or more Non-Employee Directors appointed by and holding office at the pleasure of the Board, each of whom shall comply with Applicable Laws. Notwithstanding the foregoing:

(a) the full Board, acting by a majority of its members in office, shall conduct the general administration of the Plan with respect to Awards granted to Non-Employee Directors; and

(b) the Board or the Committee may delegate its authority hereunder to the extent permitted by Section 8.6.

8.2 Duties and Powers of Committee. The Committee shall be responsible for the general administration of the Plan in accordance with its provisions. The Committee shall have the power to interpret the Plan and the Award Agreements and to adopt such rules for the administration, interpretation and application of the Plan as are not inconsistent therewith, to interpret, amend or revoke any such rules and to amend any Award Agreement provided that the rights or obligations of the Holder of the Award that is the subject of any such Award Agreement are not affected adversely by such amendment, unless the consent of the Holder is obtained or such amendment is otherwise permitted under Section 9.10. Any such grant or award under the Plan need not be the same with respect to each Holder. Any such interpretations and rules with respect to Incentive Options shall be consistent with the provisions of Section 422 of the Code. In its sole discretion, the Board may at any time and from time to time exercise any and all rights and duties of the Committee under the Plan except with respect to matters which under Applicable Law are required to be determined in the sole discretion of the Committee.



8.3 Action by the Committee. Each member of the Committee is entitled to, in good faith, rely or act upon any report or other information furnished to that member by any officer or other employee of a Service Recipient, the Company's independent certified public accountants or any executive compensation consultant or other professional retained by the Company to assist in the administration of the Plan.

8.4 Authority of Committee. Subject to any specific designation in the Plan, the Committee has the exclusive power, authority and sole discretion to:

- (a) designate Eligible Individuals to receive Awards;
- (b) determine the type or types of Awards to be granted to each Eligible Individual;
- (c) determine the number of Awards to be granted and the number of Shares to which an Award will relate;
- (d) determine the terms and conditions of any Award granted pursuant to the Plan, including, but not limited to, the exercise price, grant price, or purchase price, any reload provision, any restrictions or limitations on the Award, any schedule for vesting, lapse of forfeiture restrictions or restrictions on the exercisability of an Award, and accelerations or waivers thereof, and any provisions related to non-competition and recapture of gain on an Award, based in each case on such considerations as the Committee in its sole discretion determines;
- (e) determine whether, to what extent, and pursuant to what circumstances an Award may be settled in, or the exercise price of an Award may be paid in cash, Shares, other Awards, or other property, or an Award may be canceled, forfeited, or surrendered;
- (f) prescribe the form of each Award Agreement, which need not be identical for each Holder;
- (g) decide all other matters that must be determined in connection with an Award;
- (h) establish, adopt, or revise any rules and regulations as it may deem necessary or advisable to administer the Plan;
- (i) interpret the terms of, and any matter arising pursuant to, the Plan or any Award Agreement; and

(j) make all other decisions and determinations that may be required pursuant to the Plan or as the Committee deems necessary or advisable to administer the Plan.

8.5 Decisions Binding. The Committee's interpretation of the Plan, any Award granted pursuant to the Plan and any Award Agreement and all decisions and determinations by the Committee with respect to the Plan are final, binding, and conclusive on all parties.

8.6 Delegation of Authority. To the extent permitted by Applicable Laws, the Board or the Committee may from time to time delegate to a committee of one or more members of the Board or one or more officers of the Company the authority to carry out the day-to-day administration of the Plan subject at all times to the control and direction of the Board or the Committee; provided that, in no event, shall any delegatee be delegated the authority to grant or amend Awards. Any delegation hereunder shall be subject to such restrictions and limits as the Board or the Committee specifies at the time of such delegation, and the Board or the Committee may at any time rescind the authority so delegated or appoint a new delegatee. At all times, the delegatee shall serve at the pleasure of the Board or the Committee.

## ARTICLE 9.

### MISCELLANEOUS PROVISIONS

9.1 Effective Date. The Plan was originally effective on March 15, 2006 (the "Effective Date"). The Plan was subsequently amended and restated by approval of the Shareholders on September 20, 2010 (the "Restatement Effective Date").

9.2 Expiration Date. The Plan will expire on, and no Award may be granted pursuant to the Plan after, the tenth (10<sup>th</sup>) anniversary of the Restatement Effective Date. Any Awards that are outstanding on the tenth (10<sup>th</sup>) anniversary of the Restatement Effective Date shall remain in force according to the terms of the Plan and the applicable Award Agreement.

9.3 Amendment or Termination of the Plan. Except as otherwise provided in this Section 9.3, at any time and from time to time, the Committee may terminate, amend or modify the Plan; provided that:

(a) to the extent necessary and desirable to comply with Applicable Laws, the Company shall obtain Shareholder approval of any Plan amendment in such a manner and to such a degree as required, and

(b) Shareholder approval is required for any amendment to the Plan that:

(i) increases the number of Shares available under the Plan (other than any adjustment as provided by Article 10),

(ii) permits the Committee to extend the exercise period for an Option beyond ten (10) years from the date of grant, or

(iii) results in a material increase in benefits or a change in eligibility requirements. Except as provided in the Plan or any Award Agreement, no amendment, suspension or termination of the Plan shall, without the consent of the Holder, impair any rights or obligations under any Award theretofore granted or awarded.

9.4 No Shareholders Rights. Except as otherwise provided herein, a Holder shall have none of the rights of a Shareholder with respect to Shares covered by any Award until the Holder becomes the record owner of such Shares.

9.5 Paperless Administration. In the event that the Company establishes, for itself or using the services of a third party, an automated system for the documentation, granting or exercise of Awards, such as a system using an internet website or interactive voice response, then the paperless documentation, granting or exercise of Awards by a Holder may be permitted through the use of such an automated system.

9.6 Effect of Plan upon Other Compensation Plans. The adoption of the Plan shall not affect any other compensation or incentive plans in effect for a Service Recipient. Nothing in the Plan shall be construed to limit the right of a Service Recipient:

(a) to establish any other forms of incentives or compensation for Eligible Individuals, or

(b) to grant or assume options or other rights or awards otherwise than under the Plan in connection with any proper corporate purpose, including without limitation, the grant or assumption of options in connection with the acquisition by purchase, lease, merger, consolidation or otherwise, of the business, securities or assets of any corporation, partnership, limited liability company, firm or association.

9.7 Compliance with Laws. The Plan, the granting and vesting of Awards under the Plan and the issuance and delivery of Shares and the payment of money under the Plan or under Awards granted or awarded under the Plan are subject to compliance with all Applicable Laws and to such approvals by any listing, regulatory or governmental authority as may, in the opinion of counsel for the Company, be necessary or advisable in connection therewith. Any securities delivered under the Plan shall be subject to such restrictions, and the person acquiring such securities shall, if requested by the Company, provide such assurances and representations to the Company as the Company may deem necessary or desirable to assure compliance with all applicable legal requirements. To the extent permitted by Applicable Law, the Plan and Awards granted or awarded hereunder shall be deemed amended to the extent necessary to conform to such laws, rules and regulations.

9.8 Titles and Headings, References to Sections of the Code or Exchange Act. The titles and headings of the Sections in the Plan are for convenience of reference only and, in the event of any conflict, the text of the Plan, rather than such titles or headings, shall control. References to sections of the Code or the Exchange Act shall include any amendment or successor thereto.

9.9 Governing Law. The Plan and any agreements hereunder shall be administered, interpreted and enforced under the internal laws of Canada, without regard to conflicts of laws thereof.

9.10 Section 409A. To the extent that the Committee determines that any Award granted under the Plan is subject to Section 409A of the Code, the Award Agreement evidencing such Award shall incorporate the terms and conditions required by Section 409A of the Code. To the extent applicable, the Plan and Award Agreements shall be interpreted in accordance with Section 409A of the Code and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date. Notwithstanding any provision of the Plan to the contrary, in the event that following the Effective Date the Committee determines that any Award may be subject to Section 409A of the Code and related Department of Treasury guidance (including such Department of Treasury guidance as may be issued after the Effective Date), the Committee may adopt such amendments to the Plan and the applicable Award Agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Committee determines are necessary or appropriate to:

- (a) exempt the Award from Section 409A of the Code and/or preserve the intended tax treatment of the benefits provided with respect to the Award, or
- (b) comply with the requirements of Section 409A of the Code and related Department of Treasury guidance and thereby avoid the application of any penalty taxes under such Section.

9.11 No Rights to Awards. No Eligible Individual or other person shall have any claim to be granted any Award pursuant to the Plan, and neither the Company nor the Committee is obligated to treat Eligible Individuals, Holders or any other persons uniformly.

9.12 No Right to Employment or Services. Nothing in the Plan or any Award Agreement shall interfere with or limit in any way the right of the Service Recipient to terminate any Holder's employment or services at any time, nor confer upon any Holder any right to continue in the employ or service of any Service Recipient.

9.13 Unfunded Status of Awards. The Plan is intended to be an "unfunded" plan for incentive compensation. With respect to any payments not yet made to a Holder pursuant to an Award, nothing contained in the Plan or any Award Agreement shall give the Holder any rights that are greater than those of a general creditor of the Company, any Subsidiary or any Related Entity.

9.14 Indemnification. To the extent allowable pursuant to Applicable Laws, each member of the Committee or of the Board shall be indemnified and held harmless by the Company from any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by such member in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action or failure to act pursuant to the Plan and against and from any and all amounts paid by him or her in satisfaction of judgment in such action, suit, or proceeding against him or her; provided that he or she gives the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled pursuant to the Company's Articles, as a matter of law, or otherwise, or any power that the Company may have to indemnify them or hold them harmless.

9.15 Relationship to other Benefits. No payment pursuant to the Plan shall be taken into account in determining any benefits under any pension, retirement, savings, profit sharing, group insurance, welfare or other benefit plan of any Service Recipient except to the extent otherwise expressly provided in writing in such other plan or an agreement thereunder.

9.16 Expenses. The expenses of administering the Plan shall be borne by the Service Recipients.

## ARTICLE 10.

### CHANGES IN CAPITAL STRUCTURE

10.1 Adjustments. In the event of any distribution, share split, combination or exchange of Shares, amalgamation, arrangement or consolidation, reorganization of the Company, including the Company becoming a subsidiary in a transaction not involving a Corporate Transaction, spin-off, recapitalization or other distribution (other than normal cash dividends) of Company assets to Shareholders, or any other change affecting the Shares or the share price of a Share, the Committee shall make such proportionate and equitable adjustments, if any, to reflect such change with respect to:

- (a) the aggregate number and type of shares that may be issued under the Plan (including, but not limited to, adjustments of the limitations in Section 3.1 and substitutions of shares in a parent or surviving company);
- (b) the terms and conditions of any outstanding Awards (including, without limitation, any applicable performance targets or criteria with respect thereto); and
- (c) the grant or exercise price per share for any outstanding Awards under the Plan. The form and manner of any such adjustments shall be determined by the Committee in its sole discretion.

10.2 Corporate Transactions. Except as may otherwise be provided in any Award Agreement or any other written agreement entered into by and between the Company and a Holder, if a Corporate Transaction occurs and a Holder's Awards are not converted, assumed, or replaced by a successor as provided in Section 10.3, such Awards shall become fully exercisable and all forfeiture restrictions on such Awards shall lapse. Upon, or in anticipation of, a Corporate Transaction, the Committee may in its sole discretion provide for:

- (a) any and all Awards outstanding hereunder to terminate at a specific time in the future and shall give each Holder the right to exercise such Awards during a period of time as the Committee shall determine,
- (b) either the purchase of any Award for an amount of cash equal to the amount that could have been attained upon the exercise of such Award or realization of the Holder's rights had such Award been currently exercisable or payable or fully vested (and, for the avoidance of doubt, if as of such date the Committee determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Holder's rights, then such Award may be terminated by the Company without payment), or

(c) the replacement of such Award with other rights or property selected by the Committee in its sole discretion or the assumption of or substitution of such Award by the successor or surviving corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of Shares and prices.

10.3 Assumption of Awards — Corporate Transactions. In the event of a Corporate Transaction, each Award may be assumed by the successor entity in connection with the Corporate Transaction. Except as provided otherwise in an Award Agreement, an Award will be considered assumed if the Award either is:

(a) assumed by the successor entity or replaced with a comparable Award (as determined by the Committee) with respect to capital shares (or equivalent) of the successor entity or Parent thereof; or

(b) replaced with a cash incentive program of the successor entity which preserves the compensation element of such Award existing at the time of the Corporate Transaction and provides for subsequent payout in accordance with the same vesting schedule applicable to such Award.

If an Award is assumed in a Corporate Transaction, then such Award, the replacement Award or the cash incentive program automatically shall become fully vested, exercisable and payable and be released from any restrictions on transfer (other than transfer restrictions applicable to Options) and repurchase or forfeiture rights, immediately upon termination of the Holder's employment or service with all Service Recipients within twelve (12) months of the Corporate Transaction without cause.

10.4 Outstanding Awards — Other Changes. In the event of any other change in the capitalization of the Company or corporate change other than those specifically referred to in this Article 12, the Committee may, in its absolute discretion, make such adjustments in the number and class of shares subject to Awards outstanding on the date on which such change occurs and in the per share grant or exercise price of each Award as the Committee may consider appropriate to prevent dilution or enlargement of rights.

10.5 No Other Rights. Except as expressly provided in the Plan, no Holder shall have any rights by reason of any subdivision or consolidation of shares of any class, the payment of any dividend, any increase or decrease in the number of shares of any class or any dissolution, liquidation, merger, or consolidation of the Company or any other corporation. Except as expressly provided in the Plan or pursuant to action of the Committee under the Plan, no issuance by the Company of shares of any class, or securities convertible into shares of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number of shares subject to an Award or the grant or exercise price of any Award.

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## ARTICLE 11.

### AWARD OF RESTRICTED SHARE UNITS

11.1 Award of Restricted Share. The Committee may grant Restricted Share Units to Eligible Individuals in such amounts and subject to such terms and conditions as it deems appropriate.

11.2 Term. Except as otherwise provided herein, the term of a Restricted Share Unit award shall be set by the Committee in its sole discretion.

11.3 Purchase Price. The Committee shall specify the consideration, if any, to be paid by the Holder to the Company with respect to any Restricted Share Unit award; provided that the value of the consideration shall not be less than the par value of a Share, unless otherwise permitted by Applicable Law.

11.4 Vesting of Restricted Share Units. At the time of grant, the Committee shall specify the date or dates on which the Restricted Share Units shall become fully vested and nonforfeitable, and may specify such conditions to vesting as it deems appropriate, including, without limitation, vesting based upon the Holder's duration of service with the Company or any Affiliate, Company performance, individual performance or other criteria, in each case on a specified date or dates or over any period or periods, as determined by the Committee.

11.5 Maturity and Payment. At the time of grant, the Committee shall specify the maturity date applicable to the Restricted Share Units, which date shall be no earlier than the vesting date or dates of the Award and may be determined at the election of the Holder (if permitted by the applicable Award Agreement); provided that, except as otherwise determined by the Committee or set forth in any applicable Award Agreement, and subject to compliance with Section 409A of the Code, in no event shall the maturity date relating to each Restricted Share Unit occur following the later of:

(a) the 15th day of the third month following the end of calendar year in which the Restricted Share Unit vests; and

(b) the 15th day of the third month following the end of the Company's fiscal year in which the Restricted Share Unit vests.

On the maturity date, the Company shall, subject to Section 10.1, transfer to the Holder one unrestricted, fully transferable Share for each Restricted Share Unit scheduled to be paid out on such date and not previously forfeited, or in the sole discretion of the Committee, an amount in cash equal to the Fair Market Value of such Shares on the maturity date or a combination of cash and Shares as determined by the Committee.

11.6 Payment upon Termination of Service. An Award of Restricted Share Units shall only be payable while the Holder is an Employee, a Consultant or a member of the Board, as applicable; provided that the Committee, in its sole and absolute discretion, may provide (in an Award Agreement or otherwise) that a Restricted Share Unit award may be paid subsequent to a Termination of Service in certain events, including a Change in Control, the Holder's death, retirement or disability or any other specified Termination of Service.

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11.7 No Rights as a Shareholder. Unless otherwise determined by the Committee, a Holder who is awarded Restricted Share Units shall possess no incidents of ownership with respect to the Shares represented by such Restricted Share Units unless and until the same are transferred to the Holder pursuant to the terms of this Plan and the Award Agreement.

11.8 Dividend Equivalents. The Committee may, in its sole discretion, provide that the Holder of Restricted Share Units shall be entitled to receive the equivalent of any dividends declared on the Shares represented by the Restricted Share Units, to be credited as of dividend payment dates during the period between the date an Award of Restricted Share Units is granted to a Holder and the maturity date of such Award.

11.9 Canadian Employment and Employees. Notwithstanding anything in this Article 11 to the contrary, no amount may be paid in respect of a Restricted Share Unit in the form of cash to an Eligible Individual who was granted such Restricted Share Unit while a resident of Canada or in respect of employment exercised in Canada unless the cash payment is received by that individual within three years from the end of the year in which the grant of the relevant Restricted Share Unit was made.

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## LIST OF MAJOR SUBSIDIARIES

(As of March 31, 2017)

Name of entity	Place of incorporation	Ownership interest
CSI Solartronics (Changshu) Co., Ltd.	PRC	100%
CSI Solar Technologies Inc.	PRC	100%
CSI New Energy Holding Co., Ltd.	PRC	100%
Canadian Solar Manufacturing (Luoyang) Inc.	PRC	100%
Canadian Solar Manufacturing (Changshu) Inc.	PRC	100%
CSI Cells Co., Ltd.	PRC	100%
Canadian Solar (USA) Inc.	USA	100%
Canadian Solar Japan K.K.	Japan	100%
Canadian Solar Solutions Inc.	Canada	100%
CSI Solar Power Group Co., Ltd. (formerly, CSI Solar Power (China) Inc.)	PRC	100%
Canadian Solar EMEA GmbH	Germany	100%
Canadian Solar (Australia) Pty Limited	Australia	100%
Canadian Solar International Limited	Hong Kong	100%
Canadian Solar O and M (Ontario) Inc.	Canada	100%
Suzhou Sanysolar Materials Technology Co., Ltd.	PRC	75.324%
Canadian Solar South East Asia Pte. Ltd.	Singapore	100%
Canadian Solar South Africa Pty., Ltd.	South Africa	100%
Canadian Solar Brazil Commerce, Import and Export of Solar Panels Ltd.	Brazil	100%
Canadian Solar Middle East Limited	United Arab Emirates	100%
Canadian Solar Construction (USA), LLC	USA	100%
Canadian Solar Project K.K.	Japan	100%
CSI-GCL Solar Manufacturing (Yancheng) Co., Ltd.	PRC	80%
Canadian Solar UK Ltd.	United Kingdom	100%
Canadian Solar UK Projects Ltd.	United Kingdom	100%
Changshu Tegu New Material Technology Co., Ltd.	PRC	75%
Changshu Tlian Co., Ltd.	PRC	100%
Canadian Solar Trading (Changshu) Inc.	PRC	100%
Recurrent Energy, LLC	USA	100%
PT. Canadian Solar Indonesia	Indonesia	67%
Canadian Solar Manufacturing Vietnam Co., Ltd.	Vietnam	100%
Canadian Solar Energy Private Limited	India	100%
Canadian Solar Australia 1 Pty Ltd.	Australia	100%
Canadian Solar Manufacturing (Thailand) Co., Ltd.	Thailand	99.99992%
Canadian Solar Sunenergy (Suzhou) Co., Ltd.	PRC	100%
Canadian Solar Energy Holding Singapore 1 Pte. Ltd.	Singapore	100%
Canadian Solar Sunenergy (Baotou) Co., Ltd.	PRC	100%



**Certification by the Chief Executive Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Shawn (Xiaohua) Qu, certify that:

1. I have reviewed this annual report on Form 20-F of Canadian Solar Inc. (the "Company");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: April 27, 2017

By: /s/ Shawn (Xiaohua) Qu  
Name: Shawn (Xiaohua) Qu  
Title: Chief Executive Officer

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**Certification by the Chief Financial Officer  
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Huifeng Chang, certify that:

1. I have reviewed this annual report on Form 20-F of Canadian Solar Inc. (the “Company”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the Company’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the Company’s internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting; and
5. The Company’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company’s auditors and the audit committee of the Company’s board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company’s ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over financial reporting.

Date: April 27, 2017

By: /s/ Huifeng Chang  
Name: Huifeng Chang  
Title: Chief Financial Officer

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**Certification by the Chief Executive Officer  
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of Canadian Solar Inc. (the "Company") on Form 20-F for the year ended December 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Shawn (Xiaohua) Qu, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 27, 2017

By: /s/ Shawn (Xiaohua) Qu  
Name: Shawn (Xiaohua) Qu  
Title: Chief Executive Officer

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**Certification by the Chief Financial Officer  
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of Canadian Solar Inc. (the "Company") on Form 20-F for the year ended December 31, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Hui Feng Chang, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 27, 2017

By: /s/ Hui Feng Chang  
Name: Hui Feng Chang  
Title: Chief Financial Officer

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in Registration Statement Nos. 333-147042, 333-178187 and 333-201766 on Form S-8 and Registration Statement No. 333-208828 on Form F-3 of our reports dated April 27, 2017, relating to the financial statements and financial statement schedule of Canadian Solar Inc. and subsidiaries (the "Company"), and the effectiveness of the Company's internal control over financial reporting, appearing in this Annual Report on Form 20-F of the Company for the year ended December 31, 2016.

/s/ Deloitte Touche Tohmatsu Certified Public Accountants LLP

Shanghai, China  
April 27, 2017

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