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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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, 2020

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

(Translation of Registrant's name into English)

British Columbia

(Jurisdiction of incorporation or organization)

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

(Address of principal executive offices)

Huifeng Chang, Chief Financial Officer
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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	Trading Symbol	Name of Each Exchange on Which Registered
Common shares with no par value	CSIQ	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

(Title of Class)

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

None

(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.

59,820,384 common shares issued and outstanding which were not subject to restrictions on voting, dividend rights and transferability, as of December 31, 2020.

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 every Interactive Data File required to be submitted 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 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 ☐

† 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.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒ Yes ☐ No

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INTRODUCTION

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

- "AC" and "DC" refer to alternating current and direct current, respectively;
- "AUD" and "Australian dollars" refer to the legal currency of Australia;
- "BRL" and "Brazilian reals" refer to the legal currency of Brazil;
- "China" and the "PRC" refer 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;
- "COD" refers to commercial operation date;
- "CSI", "we", "us", "our company" and "our" refer to Canadian Solar Inc., a British Columbia, Canada corporation, its predecessor entities and its consolidated subsidiaries;
- "C$" and "Canadian dollars" refer to the legal currency of Canada;
- "EPC" refers to engineering, procurement and construction;
- "EU" refers to the European Union;
- "FIT" refers to feed-in tariff;
- "GAAP" refers to generally accepted accounting principles;
- "MSS" refers to module and system solutions;
- "O&M services" refers to operation and maintenance services;
- "PPA" refers to power purchase agreement;
- "PV" refers to photovoltaic. The photovoltaic effect is a process by which sunlight is converted into electricity;
- "RMB" and "Renminbi" refer to the legal currency of China;
- "U.S." refers to the United States of America;
- "SEC" refers to the U.S. Securities and Exchange Commission;
- "shares" and "common shares" refer to common shares, with no par value, of Canadian Solar Inc.;
- "THB" and "Thai Bhat" refer to the legal currency of Thailand;
- "W", "kW", "MW" and "GW" refer to watts, kilowatts, megawatts and gigawatts, respectively;
- "$", "US$" and "U.S. dollars" refer to the legal currency of U.S.;
- "€" and "Euros" refer to the legal currency of the Economic and Monetary Union of the European Union;
- "£", "GBP" and "British pounds" refer to the legal currency of the United Kingdom;
- "¥", "JPY" and "Japanese yen" refer to the legal currency of Japan; and
- "ZAR" and "South African rand" refer to the legal currency of South Africa.

This annual report on Form 20-F includes our audited consolidated financial statements for the years ended December 31, 2018, 2019 and 2020 and as of December 31, 2019 and 2020.

We use the noon buying rate in The City of New York for cable transfers in Renminbi, Euros, British pounds, Japanese yen, Canadian dollars, Australian dollars, Thai Baht, Brazilian reals and South African rand per U.S. dollars as certified for customs purposes by the Federal Reserve Bank of New York to translate Renminbi, Euros, British pounds, Japanese yen, Canadian dollars, Australian dollars, Thai Baht, Brazilian reals and South African rand 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, Australian dollars, Thai Baht, Brazilian reals and South African rand into U.S. dollars was made by the noon buying rate in effect on December 31, 2020, which was RMB6.5250 to $1.00, €0.8177 to $1.00, £0.7320 to $1.00, ¥103.1900 to $1.00, C$1.2753 to $1.00, AUD1.2972 to $1.00, THB30.0200 to $1.00, BRL5.1935 to $1.00 and ZAR14.6500 to $1.00. We make no representation that the Renminbi, Euros, British pounds, Japanese yen, Canadian dollars, Australian dollars, Thai Baht, Brazilian reals, South African rand or U.S. dollars 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, Australian dollars, Thai Baht, Brazilian reals South African rand 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 component production capability and our expectations regarding the timing of the expansion of our internal production capacity;
- 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 range of products and services and to successfully execute plans for our energy business;
- our ability to develop, build and sell solar power projects in Canada, the U.S., Japan, China, the EU, Brazil, Mexico, Argentina, 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, 2018, 2019 and 2020 and balance sheet data as of December 31, 2019 and 2020 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, 2016 and 2017 and our consolidated balance sheet data as of December 31, 2016, 2017 and 2018 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.

In July 2020, we reached a strategic decision to pursue a listing of our subsidiary, CSI Solar Co., Ltd., in China. As a result, beginning from the fourth quarter of 2020, we report our financial performance, including revenue, gross profit and income from operations, based on the following two reportable business segments:

- **CSI Solar Segment,** which includes solar modules, solar system kits, battery energy storage solutions, China energy (including solar projects, EPC services and electricity revenue in China), and other materials, components and services (including EPC); and
- **Global Energy Segment,** which includes global solar and energy storage power projects (excluding China), O&M and asset management services, global electricity revenue (excluding China), as well as other development services.

The prior period segment information has been recast to conform to the current period's presentation. Refer to *"Item 5. Operating and Financial Review and Prospects-A. Operating Results-Segment Reporting"* for further details.

	For the years ended, or as of, December 31,				
	2016	2017	2018	2019	2020
	(In thousands of $, except share and per share data, and operating data and percentages)				
Statement of operations data:					
Net revenues	2,853,078	3,390,393	3,744,512	3,200,583	3,476,495
Income from operations	93,164	269,345	364,657	258,879	220,430
Net income	65,275	102,983	242,431	166,555	147,246
Net income attributable to Canadian Solar Inc.	65,249	99,572	237,070	171,585	146,703
Earnings per share, basic	1.13	1.71	4.02	2.88	2.46
Shares used in computation, basic	57,524,349	58,167,004	58,914,540	59,633,855	59,575,898
Earnings per share, diluted	1.12	1.69	3.88	2.83	2.38
Shares used in computation, diluted	58,059,063	61,548,158	62,291,670	60,777,696	62,306,819
Other financial data:					
Gross margin	14.6 %	18.8 %	20.7 %	22.4 %	19.8 %
Operating margin	3.3 %	7.9 %	9.7 %	8.1 %	6.3 %
Net margin	2.3 %	3.0 %	6.5 %	5.2 %	4.2 %
Selected operating data:					
Solar power products sold (in MW)					
—CSI Solar segment[1]	4,948	6,543	5,987	7,940	10,311
—Global Energy segment[2]	256	350	830	475	601
Total	5,204	6,893	6,817	8,415	10,912
Average selling price (in $ per watt)					
—Solar module	0.51	0.40	0.34	0.29	0.25
Balance Sheet Data:					
Net current assets (liabilities)	69,697	(22,709)	125,964	160,939	597,467
Total assets	5,406,606	5,889,627	4,892,658	5,467,207	6,536,854
Net assets	899,390	1,059,775	1,272,845	1,425,058	1,892,785
Long-term borrowings	493,455	404,341	393,614	619,477	446,090
Convertible notes	125,569	126,476	127,428	—	223,214
Common shares	701,283	702,162	702,931	703,806	687,033
Number of shares outstanding	57,830,149	58,496,685	59,180,624	59,371,684 [3]	59,820,384

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

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

(3) Excludes 609,516 common shares held as treasury stock as of December 31, 2019.

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. We believe that the solar power market and industry may from time to time experience oversupply. When this occurs, 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, may be adversely affected. Our shipments of solar modules increased moderately in 2019 compared to 2018, and further increased in 2020. The average selling prices for our solar modules declined from the previous year in each of 2018, 2019 and 2020. Over the past several quarters, oversupply conditions across the value chain and foreign trade disputes 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 for solar power products, demand and the average selling price for our products 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 and Brazil 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.

The operating results of our Global Energy segment and our China energy business within CSI Solar segment (collectively our "energy business"), and the mix of revenues from our CSI Solar and Global Energy segments may be subject to significant fluctuation due to a number of factors, including the unpredictability of the timing of the development and sale of our solar power projects and 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 Global Energy segment develops, sells and/or operates and maintains solar power projects primarily in the U.S., Japan, Argentina, Mexico, the EU, Canada, Brazil and Australia. Our CSI Solar segment develops, sells and/or operates and maintains solar power projects in China. Our solar project development activities have grown over the past several years through a combination of organic growth and acquisitions. After completing their development, we either sell our solar power projects to third party buyers, or operate them under PPAs or other contractual arrangements with utility companies or grid operators. Revenues from our Global Energy segment decreased by $708.5 million, or 49.6%, to $718.7 million for the year ended December 31, 2019, and then increased by $7.5 million, or 1%, to $726.2 million for the year ended December 31, 2020. We intend to monetize the majority of our current portfolio of solar power projects in operation with an estimated resale value of approximately $620 million as of January 31, 2021. We also intend to monetize certain of our projects before they reach COD. However, there is no assurance whether or when we will be able to realize their estimated resale value.

The operating results of our energy business may be subject to significant period-over-period fluctuations for a variety of reasons, including but not limited to the unpredictability of the timing of the development and sale of our solar power projects, 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 CSI Solar and Global 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. Higher interest rates could increase the cost of existing funding and present an obstacle for future 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 plans and materially and adversely affect our results of operations. 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 projects is determined in part based on the perceived sovereign credit risk of the country where a particular project is located.

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 business in several key markets, which exposes us to a number of risks and uncertainties.

Historically, our module and beyond-pure-module business (which includes sales of solar system kits, battery storage solutions, and other EPC, materials, components and services, and excludes China energy and electricity sale in China) have accounted for the majority of our net revenues. We have, in recent years, increased our investment in, and management attention on our energy business, which primarily consists of solar power project development and sale, operating solar power projects and sale of electricity.

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

Historically, 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. Until recently, the cost of solar power exceeds retail electricity rates in many locations. Government incentives vary by geographic market. Governments in many countries provided incentives in the form of FITs, rebates, tax credits, renewable portfolio standards and other incentives. These governments 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. However, these government mandates and economic incentives in many markets either have been or are scheduled to be reduced or eliminated altogether, and it is likely that eventually subsidies for solar energy will be phased out completely. Over the past few years, the cost of solar energy has declined and the industry has become less dependent on government subsidies and economic incentives. However, governments in some of our largest markets have expressed their intention to continue supporting various forms of “green” energies, including solar power, as part of broader policies towards the reduction of carbon emissions. The governments in many of our largest markets, including the United States, Japan and the European Union, continue to provide incentives for investments in solar power that will directly benefit the solar industry. We believe that the near-term growth of the market still depends in large part on the availability and size of such government subsidies and economic incentives.

While solar power projects may continue to offer attractive internal rates of return, it is unlikely that these rates 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 for solar energy, 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 subsidies 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.

Imposition of antidumping 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, and may be in the future, subject to the imposition of antidumping and countervailing duty orders in one or more of the markets in which we sell our products. In the past, we were subject to the imposition of antidumping 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., the EU and Canada are important markets for us. Ongoing proceedings relating to past, and the imposition of any new, antidumping 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.

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. A decrease in solar power tariffs in many markets placed downward pressure on the price of solar systems in those and other markets. In addition, reductions in oil and coal prices may reduce the demand for and the prices of solar power products and services. Our growth and profitability depend on the demand for and the prices of solar power products and services. If we experience negative market and industry conditions 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.

Our project development and construction activities may not be successful, projects under development may not receive required permits, property rights, EPC agreements, 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 and permitting and may incur 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, pandemics 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 our 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 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.

The development of solar power projects can take many months or years to complete and may be delayed for reasons beyond our control. It often requires 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 invest in other projects.

In contrast to producing 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 business 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.

In order to facilitate greater opportunities in solar projects, we have recently began establishing investment funds for the purpose of pooling capital to develop, build and accumulate solar power projects. For example, in 2020 we established Japan Green Infrastructure Fund (the “Fund”), partnering with a business unit of Macquarie Group as a minority investor of the Fund. By creating these funds, we are subject to a variety of risks and regulations that substantially differ from the risks the rest of our businesses are subject to, such as the risk that the funds may not generate a sufficient rate of return to satisfy fund investors. If we are unable to consistently deliver quality returns, it may impact our ability to attract capital and continue holding the assets acquired by the funds. We may also suffer reputational damage if our funds do not perform in-line with investor expectations.

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 and other clauses, all of which could materially and adversely affect our energy business, 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 prices, 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. Failure to enter into PPAs on terms favorable to us, or at all, 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. We expect our future projects will also have long-term PPAs or similar offtake arrangements such as FIT programs. If, for any reason, any of the purchasers of power under these contracts are unable or unwilling to fulfill their related contractual obligations, they refuse to accept delivery of the power delivered thereunder or they otherwise terminate them prior to their expiration, 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 of a counterparty default.

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 own 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 the related 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. The average selling price of our solar modules decreased from $0.51 per watt in 2016 to $0.40 per watt in 2017, $0.34 per watt in 2018, $0.29 per watt in 2019 and $0.25 per watt in 2020. Although 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. On the other hand, demand for solar products remains strong and may continue to increase, driven by various factors such as the efforts being made by major economies toward clean, renewable energy sources and decarbonization, which could result in increase in the costs of and difficulties in sourcing raw materials to support the increased production levels. As a result, we may not be able to keep up with fast growth in the demand for our solar products. Accordingly, due to fluctuations in the supply and price of solar power products throughout the value chain, we may not be able, on an ongoing basis, to procure silicon, wafers and cells at reasonable costs if any of the above risks materializes. If, on an ongoing basis, we are unable 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.

We are subject to numerous laws, regulations and policies at the national, regional and local levels of government in the markets where we do business. Any changes to these laws, 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 subject to a variety of laws and regulations in the markets where we do business, some of which may conflict with each other and all of which are subject to change. These laws and regulations include 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, including antidumping and countervailing duty orders, which could increase the prices of our products and make us less competitive in some countries. See "—Imposition of antidumping 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 and beyond-pure-module business, 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 business, 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 government energy policies, law and regulation supporting the creation of wholesale energy markets are 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 solar power project may make the continued development of the project infeasible or economically disadvantageous and any expenditure that we have previously made on the 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-corruption 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 in countries in which we conduct activities. We face significant liabilities if we fail to comply with these laws. 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 or other applicable anticorruption 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, results of operation, 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 evolving quickly, 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 business, we may not be able to compete successfully and we may not be able to maintain or increase our market share.

In our module and beyond-pure-module business, we face intense competition from a large number of competitors, including non-China-based companies such as First Solar, Inc., or First Solar, SunPower Corporation, or SunPower, and Maxeon Solar Technologies, Ltd, or Maxeon, and China-based companies such as LONGI Green Energy Technology Co. Ltd., or Longi, 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, 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.

In our energy business, 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 have a global footprint and develop solar power projects primarily in the U.S., Japan, China, the EU, Brazil, Mexico, Argentina and Australia. There is no guarantee that we can compete successfully in the markets in which 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.

We also provide EPC, O&M, System Solutions and Energy Storage ("SSES") and asset management services, and face intense competition from other service providers in those markets.

Our business also 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, sale, distribution and delivery of our products and services 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;
- 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 to Asia and other regions, respectively. However, in 2018, Europe and other regions contributed 18.6% while the Americas contributed 39.4% and Asia contributed 42.0% of our revenues; in 2019, Europe and other regions contributed 24.4% while the Americas contributed 43.8% and Asia contributed 31.8% of our revenues; and in 2020, Europe and other regions contributed 18.3% while the Americas contributed 35.1% and Asia contributed 46.6% of our revenues. 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 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. Any government policies that are unfavorable towards international trade, such as capital controls or tariffs, may affect the demand for our products and services, impact our competitive position, or prevent us from expanding globally. If any new tariffs, legislation, or regulations are implemented, or if existing trade agreements are renegotiated, such changes could adversely affect our business, financial condition, and results of operations. Many perceive globalization to be in retreat and protectionism on the rise, as evidenced by the United Kingdom’s departure from the EU and the decisions of the U.S. Government to, among other actions, impose Section 301 and other tariffs on goods imported from China and renegotiate certain trade arrangements, such as the North American Free Trade Agreement (replaced by the United States-Mexico-Canada Agreement). Tensions have continued to escalate in 2020, in areas ranging from trade, national security and national and regional politics and have resulted in contentious punitive or retaliatory measures being imposed on businesses and individuals. For instance, following the introduction of the Law of the People’s Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region, or the National Security Law, the U.S. Government concluded that Hong Kong’s autonomy had been undermined, and it implemented measures in response. The tensions surrounding the National Security Law and potential foreign sanctions in response to the National Security Law could negatively affect the economy in Hong Kong in general and our subsidiaries incorporated in Hong Kong, and in addition, could further deteriorate the relationship between United States and China. Sustained tensions between the United States and China could significantly undermine the stability of the global economy in general and the Chinese economy in particular. These recent events have also caused significant volatility in global equity and debt capital markets, which could trigger a severe contraction of liquidity in the global credit markets. If tensions increase among the U.S., China and/or other countries, there may be a material adverse effect on our international operations. Furthermore, we may need to make substantial investments in our overseas operations 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. The dismissal was subsequently affirmed by the circuit court in December 2013. A settlement of the lawsuit in Canada was achieved and approved by the Ontario Superior Court of Justice on October 30, 2020. The settlement is not an admission of liability or wrongdoing by the Company or any of the other defendants.

There is no guarantee that we will not become party to additional lawsuits. If we were involved in a class action suit, it could divert a significant amount of our management's attention and other resources from our business and operations and require us to incur significant expenses to defend the suit. 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 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;
- 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, investment and offering 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 Renminbi, Euros, Japanese yen, Brazilian reals, Australian dollars and Canadian dollars;
- 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 credit losses;
- inventory write-downs;
- impairment of property, plant and equipment;
- impairment of project assets;
- impairment of investments in affiliates;
- depreciation charges relating to under-utilized assets;

- construction progress of solar power projects and related revenue recognition; and
- antidumping, countervailing and other duty costs and 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 2018, 2019 and 2020 were denominated in U.S. dollars, Renminbi and Euros, with the remainder in other currencies such as Japanese Yen, Brazilian reals, Australian dollars and Canadian dollars. The majority of our costs and expenses in 2018, 2019 and 2020 were denominated in Renminbi and were primarily related to the sourcing of solar cells, silicon wafers and silicon, other raw materials, including aluminium and silver paste, toll manufacturing fees, labor costs and local overhead expenses within the PRC. From time to time, we enter into loan arrangements with commercial banks that are denominated primarily in Renminbi, U.S. dollars and Japanese yen. Most of our cash and cash equivalents and restricted cash are denominated in Renminbi. Fluctuations in exchange rates, particularly between the U.S. dollars, Renminbi, Canadian dollars, Japanese yen, Euros, Brazilian reals, South African rand and Thailand Baht may result in foreign exchange gains or losses. We recorded net foreign exchange gain of $6.5 million and $10.4 million in 2018 and 2019, respectively, and net foreign exchange loss of $64.8 million in 2020.

The value of the Renminbi against the U.S. dollars, the Euros and other currencies is affected by, among other things, changes in China's political and economic conditions and China's foreign exchange policies. 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. dollars or other foreign currencies in the future.

Since 2008, we have hedged part of our foreign currency exposures against the U.S. dollars using foreign currency forward or option contracts. In addition to the requirement to provide collateral when entering 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. While these contracts are intended to reduce the effects of fluctuations in foreign currency exchange rates, our hedging strategy does not mitigate the longer-term impacts of changes to foreign exchange rates. We do not enter into these contracts for trading purposes or speculation, and we believe all these contracts are entered into as hedges of underlying transactions. Nonetheless, these contracts involve costs and risks of their own in the form of transaction costs, credit requirements and counterparty risk. Also, the effectiveness of our hedging program may be limited due to cost effectiveness, cash management, exchange rate visibility and associated management judgment on exchange rate movement, and downside protection. We recorded losses on change in foreign currency derivatives of $18.4 million in 2018, $21.3 million in 2019, and a gain on change in foreign currency derivative of $51.2 million in 2020. These gains or losses on change in foreign currency derivatives are related to our hedging program. If our hedging program is not successful, or if we change our hedging activities in the future, we may experience significant unexpected expenses from fluctuations in exchange rates.

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 tax laws (e.g., in connection with fundamental U.S. international tax reform); changes in U.S. GAAP; and expiration of or the inability to renew tax rulings or tax holiday incentives. 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. Demand for solar power products and services from some countries, such as the U.S., China and Japan, may also be subject to significant seasonality due to adverse weather conditions that can complicate the installation of solar power systems and negatively impact the construction schedules of solar power projects. 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 in manufacturing capacity and solar project development.

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 financing substantially from Chinese banks for our manufacturing operations. We cannot guarantee that we will continue to be able to extend existing or obtain new 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 and had successfully issuing convertible notes in the past, we may not be able to raise capital via public equity and debt issuances due 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 project financing 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.

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 interest and debt coverage 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 a significant portion of our borrowings come from Chinese banks, we are exposed to lending policy changes by the Chinese banks. As of December 31, 2020, we had outstanding borrowings of $638.9 million with Chinese banks.

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.

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 may enter into long-term supply agreements with silicon and wafer suppliers with fixed price and quantity terms in order to secure a stable supply of raw materials to meet our production requirements. 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.

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 significant 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 material suppliers. In 2020, we purchased a significant portion of the silicon wafers and solar cells used in our solar modules from third parties. Our major silicon wafer suppliers in 2020 included Longi and Zhenjiang Rende New Energy Science Technology Co., Ltd. Our major suppliers of solar cells in 2020 included Aiko Solar Energy Co., Ltd ("Aiko Solar") and Tongwei Solar Co., Ltd. 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 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-effective way, 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.

We warrant, for a period up to twelve years, that our solar products will be free from defects in materials and workmanship.

We also warrant that, for a period of 25 years, our standard 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 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 80.7% of the labeled power output.

We have lengthened this warranty against decline in performance to 30 years for our bifacial module and double glass module products.

We believe that our warranty periods are consistent with industry practice. Due to the long warranty period, however, 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, these have not been and cannot be tested in an environment simulating the up-to-30-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 30 years after the sale of our products.

For solar power projects built by us, we also 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 ten 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.

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 (after adjusting for actual solar irradiation). 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 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. 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.

Our annual solar cell, solar wafer and ingot production capacity was 9.6 GW, 6.3 GW and 2.1 GW, respectively, as of December 31, 2020. To remain competitive, we intend to expand our annual solar cell, wafer and ingot production capacity to meet expected growth in demand for our solar modules. In doing so, we 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 result in no yield or cause 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. For more details, see “Item 6. Directors, Senior Management and Employees—D. Employees.”

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 modules, cells, ingots and wafers can cause a percentage of the solar modules, cells, ingots 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, tornados, droughts, power losses and similar events beyond our control that would affect our facilities. A disruption in any step of 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 qualified technical 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 qualified 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 31.9%, 24.2% and 21.2% of our net revenues in 2018, 2019 and 2020, 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 and entities that have the ability to interconnect projects to the grid, 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, normally 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, 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 solar power plants should this become necessary. Additionally, these possible purchasers may have a role in connecting our projects to the grid to allow the flow of electricity. Furthermore, if the financial condition of these utilities and/or power purchasers deteriorates, or government policies or regulations to which they are subject and which compel them to source renewable energy supplies change, demand for electricity produced by our plants or the ability to connect to the grid 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 could reduce revenues to us from our 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 the PPAs, our revenues and our decisions regarding development of additional projects in the energy business 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 or death. 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 February 28, 2021, Dr. Shawn Qu, our founder, Chairman, President and Chief Executive Officer, beneficially owned 13,825,523 common shares, or 23.1% of our outstanding shares. As a result, Dr. Shawn Qu has substantial influence over our business, including decisions regarding mergers and acquisition, consolidations, 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 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 face risks related to natural disasters, health epidemics, such as COVID-19, and other catastrophes, which could significantly disrupt our operations.

Our business could be materially and adversely affected by natural disasters or other catastrophes, such as earthquakes, fire, floods, hail, windstorms, severe weather conditions, environmental accidents, power loss, communications failures, explosions, terrorist attacks and similar events. Our business could also be materially and adversely affected by public health emergencies, such as the outbreak of avian influenza, severe acute respiratory syndrome, or SARS, Zika virus, Ebola virus, the 2019 novel coronavirus or other local health epidemics in China and elsewhere and global pandemics. If any of our employees is suspected of having contracted any contagious disease, we may, under certain circumstances, be required to quarantine those employees and the affected areas of our operations. As a result, we may have to temporarily suspend part or all of our facilities. Furthermore, authorities may impose restrictions on travel and transportation and implement other preventative measures in affected regions to deal with the catastrophe or emergency, which may lead to the temporary closure of our facilities and declining economic activity at large. A prolonged outbreak of any health epidemic or other adverse public health developments, in China or elsewhere in the world, could have a material adverse effect on our business operations.

In early February 2020, the World Health Organization declared the outbreak of novel coronavirus, or COVID-19, a Public Health Emergency of International Concern. In an effort to limit the spread of the disease, the national Chinese authorities took various emergency measures, including extending the Lunar New Year holiday, implementing travel bans, closing factories and businesses, and placing quarantine restrictions on high-risk areas. These measures prevented many of our employees from going to work for several weeks during the first quarter of 2020, which adversely impacted our business operations during that time. While the majority of our employees have since resumed their normal working functions, any further outbreaks resulting in prolonged deviations from normal daily operations could further negatively impact our business. Due to the widespread nature and severity of COVID-19 as well as the measures taken to limit its spread, the Chinese economy has been adversely impacted in the first quarter of 2020 and beyond. Further, the spread of COVID-19 has caused severe disruptions in the EU and the U.S. and global economies and financial markets and could potentially create widespread business continuity issues of an as-yet unknown magnitude and duration. In addition, COVID-19 has severely impacted global supply chains, causing significant uncertainties and increases to shipping prices and timelines to those businesses that rely upon the global logistical infrastructure, such as ours. To the extent that COVID-19 or any health epidemic harms the Chinese and global economies in general, our results of operations could be adversely affected.

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 February 28, 2021, we had 1,982 patents and 734 patent applications pending in the PRC for products that contribute a relatively small percentage of our net revenues. We have 13 U.S. patents, including 2 design patent, and 6 European patents, including 5 design patents. We have registered the “Canadian Solar” trademark in the U.S., Australia, Canada, Europe, South Korea, Japan, the United Arab Emirates, Hong Kong, Singapore, India, Argentina, Brazil, Peru and more than 20 other countries and we have applied for registration of the “Canadian Solar” trademark in a number of other countries. As of February 28, 2021, we had 89 registered trademarks and 15 trademark applications pending in the PRC, and 106 registered trademarks and 38 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 damage, 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 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. As required by Section 404 of the Sarbanes-Oxley Act of 2002, the SEC 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, 2020, 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.

We have reached a strategic decision to pursue an initial public offering of CSI Solar Co., Ltd., our module and systems business and principal China subsidiary, in China, which could be time-consuming and costly. Once CSI Solar Co., Ltd. is listed, the fluctuations in its share price could affect the price of our common shares, or vice versa.

We have reached a strategic decision to pursue and are in the process of preparing for an initial public offering of CSI Solar Co., Ltd., our module and systems business and principal China subsidiary, in China. The process of listing a company on the public exchanges in the PRC can be time-consuming and expensive, potentially requiring significant time, resources and focus from our management team. Due to the complexity of conducting an initial public offering in the PRC, including the factors that are beyond our control, we cannot assure you that we would be able to complete the offering in accordance with our anticipated timeline, or at all.

Once CSI Solar Co., Ltd. is listed in China, it will be subject to the listing and securities law regime of the PRC, and will result in increased legal, accounting and other compliance expenses that it did not incur as a private company. Furthermore, the stock exchange in China and Nasdaq have different trading hours, trading characteristics (including trading volume and liquidity), trading and listing rules, and investor bases, including different levels of retail and institutional participation. As a result of these differences and given the fact that CSI Solar Co., Ltd. will remain one of our significant subsidiaries, fluctuations in the price of the shares of CSI Solar Co., Ltd. due to circumstances peculiar to the PRC capital markets or otherwise could materially and adversely affect the price of our common shares, or vice versa.

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. According to Article 177 of the PRC Securities Law which became effective in March 2020, no overseas securities regulator is allowed to directly conduct investigation or evidence collection activities within the territory of the PRC. Accordingly, without the consent of the competent PRC securities regulators and relevant authorities, no organization or individual may provide the documents and materials relating to securities business activities to overseas parties. Because we have substantial operations within the PRC and our auditors are located in the PRC, a jurisdiction where the PCAOB is currently unable to conduct inspections without the approval of the Chinese authorities, our independent registered public accounting firm is not currently inspected fully by the PCAOB. This lack of PCAOB inspections in the PRC prevents the PCAOB from regularly evaluating our independent registered public accounting firm's audits and its quality control procedures. As a result, investors may be deprived of the benefits of PCAOB inspections.

On May 24, 2013, PCAOB announced that it had entered into a Memorandum of Understanding on Enforcement Cooperation with the China Securities Regulatory Commission, or the CSRC, and the Ministry of Finance which establishes a cooperative framework between the parties for the production and exchange of audit documents relevant to investigations in the United States and China. On inspection, it appears that the PCAOB continues to be in discussions with the Mainland China regulators CSRC and the Ministry of Finance to permit joint inspections in the PRC of audit firms that are registered with PCAOB in relation to the audit of and audit Chinese companies that trade on U.S. exchanges. On December 7, 2018, the SEC and the PCAOB issued a joint statement highlighting continued challenges faced by the U.S. regulators in their oversight of financial statement audits of U.S.-listed companies with significant operations in China. The joint statement reflects a heightened interest in this issue. However, it remains unclear what further actions the SEC and PCAOB will take and its impact on Chinese companies listed in the U.S. On April 21, 2020, the SEC and the PCAOB issued another joint statement reiterating the greater risk that disclosures will be insufficient in many emerging markets, including China, compared to those made by U.S. domestic companies. In discussing the specific issues related to the greater risk, the statement again highlights the PCAOB's inability to inspect audit work paper and practices of accounting firms in China, with respect to their audit work of U.S. reporting companies. On June 4, 2020, the U.S. President issued a memorandum ordering the President's Working Group on Financial Markets to submit a report to the President within 60 days of the memorandum that includes recommendations for actions that can be taken by the executive branch and by the SEC or PCAOB on Chinese companies listed on U.S. stock exchanges and their audit firms, in an effort to protect investors in the United States. However, it remains unclear what further actions the SEC and PCAOB will take and the impact of those actions on Chinese companies listed in the United States.

Inspections of other firms that the PCAOB has conducted outside the PRC have identified deficiencies in those firms' audit procedures and quality control procedures, which may be addressed as part of the inspection process to improve future audit quality. The inability of the PCAOB to conduct full inspections of auditors in the PRC makes it more difficult to evaluate the effectiveness of our independent registered public accounting firm's audit procedures or quality control procedures as compared to auditors outside the PRC that are subject to PCAOB inspections. Investors may lose confidence in our reported financial information and procedures and the quality of our financial statements.

As part of a continued regulatory focus in the United States on access to audit and other information currently protected by national laws, in particular the laws of China, in June 2019, a bipartisan group of lawmakers introduced bills in both houses of the U.S. Congress, which if passed, would require the SEC to maintain a list of issuers for which the PCAOB is not able to inspect or investigate an auditor report issued by a foreign public accounting firm. The proposed Ensuring Quality Information and Transparency for Abroad-Based Listings on our Exchanges (EQUITABLE) Act prescribes increased disclosure requirements for these issuers and, beginning in 2025, the delisting from U.S. national securities exchanges of issuers included on the SEC's list for three consecutive years. On May 20, 2020, the U.S. Senate passed S. 945, the Holding Foreign Companies Accountable Act, or the HFCAA. The HFCAA was approved by the U.S. House of Representatives on December 2, 2020. On December 18, 2020, the president of the United States signed into law the HFCAA. In essence, the HFCAA requires the SEC to prohibit foreign companies from listing securities on U.S. securities exchanges if a company retains a foreign accounting firm that cannot be inspected by the PCAOB for three consecutive years, beginning in 2021.

In August 2020, the President's Working Group on Financial Markets, or the PWG, released the Report on Protecting United States Investors from Significant Risks from Chinese Companies. The PWG recommends that the SEC take steps to implement the recommendations outlined in the report. In particular, to address companies from non-cooperating jurisdictions, or NCJs, such as China, that do not provide the PCAOB with sufficient access to fulfill its statutory mandate the PWG recommends enhanced listing standards on U.S. securities exchanges. This would require, as a condition to initial and continued exchange listing, PCAOB access to work papers of the principal audit firm for the audit of the listed company. Companies unable to satisfy this standard as a result of governmental restrictions on access to audit work papers and practices in NCJs may satisfy this standard by providing a co-audit from an audit firm with comparable resources and experience where the PCAOB determines it has sufficient access to audit work papers and practices to conduct an appropriate inspection of the co-audit firm. There is currently no legal process under which such a co-audit may be performed in China. To reduce market disruption, the new listing standards could provide for a transition period until January 1, 2022 for currently listed companies. The other recommendations in the report include, among other things, requiring enhanced and prominent issuer disclosures of the risks of investing in certain NCJs such as China. The measures in the PWG Report are presumably subject to the standard SEC rulemaking process before becoming effective. On August 10, 2020, the SEC announced that SEC Chairman had directed the SEC staff to prepare proposals in response to the PWG Report, and that the SEC was soliciting public comments and information with respect to these proposals. Under the PWG recommendations, if we fail to meet the new listing standards before the deadline specified thereunder due to factors beyond our control, we could face possible de-listing from the Nasdaq Stock Market, deregistration from the SEC, and other risks, which may materially and adversely affect, or effectively terminate, our ADS trading in the United States. It is unclear when the SEC will complete its rulemaking and when such rules will become effective and what, if any, of the PWG recommendations will be adopted.

Enactment of the HFCAA and any additional rulemaking efforts to increase U.S. regulatory access to audit information could cause investor uncertainty for affected issuers, including us, the market price of our shares could be adversely affected, and we could be delisted if we are unable to cure the situation to meet the PCAOB inspection requirement in time. It is unclear if and when any of such proposed legislations will be enacted. Furthermore, there have been recent media reports on deliberations within the U.S. government regarding potentially limiting or restricting China-based companies from accessing U.S. capital markets. If any such deliberations were to materialize, the resulting legislation may have a material and adverse impact on the stock performance of China-based issuers listed in the United States.

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.

In late 2012, the SEC commenced administrative proceedings under Rule 102(e) of its Rules of Practice and also under the Sarbanes-Oxley Act of 2002 against the mainland Chinese affiliates of the "Big Four" accounting firms (including the mainland Chinese affiliate of our independent registered public accounting firm). A first instance trial of the 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 Chinese accounting firms including a temporary suspension of their right to practice before the SEC, although that proposed penalty did not take effect pending review by the Commissioners of the SEC. On February 6, 2015, before a review by the Commissioner had taken place, the Chinese accounting firms reached a settlement with the SEC whereby the proceedings were stayed. Under the settlement, the SEC accepted that future requests by the SEC for the production of documents would normally be made to the CSRC. The Chinese accounting firms would receive requests matching those under Section 106 of the Sarbanes-Oxley Act of 2002, and would be required to abide by a detailed set of procedures with respect to such requests, which in substance would require them to facilitate production via the CSRC. The CSRC for its part initiated a procedure whereby, under its supervision and subject to its approval, requested classes of documents held by the accounting firms could be sanitized of problematic and sensitive content so as to render them capable of being made available by the CSRC to US regulators.

Under the terms of the settlement, the underlying proceeding against the four PRC-based accounting firms was deemed dismissed with prejudice at the end of four years starting from the settlement date, which was on February 6, 2019. Despite the final ending of the proceedings, the presumption is that all parties will continue to apply the same procedures: i.e. the SEC will continue to make its requests for the production of documents to the CSRC, and the CSRC will normally process those requests applying the sanitization procedure. We cannot predict whether, in cases where the CSRC does not authorize production of requested documents to the SEC, the SEC will further challenge the four PRC-based accounting firms' compliance with U.S. law. If additional challenges are imposed on the Chinese affiliates of the "big four" accounting firms, we could be unable to timely file future financial statements in compliance with the requirements of the Exchange Act.

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 common shares from Nasdaq, or deregistration from the SEC, or both, which would substantially reduce or effectively terminate the trading of our common shares in the U.S.

It may be difficult for overseas regulators to conduct investigation or collect evidence within China.

Shareholder claims or regulatory investigation that are common in the United States generally are difficult to pursue as a matter of law or practicality in China. For example, in China, there are significant legal and other obstacles to providing information needed for regulatory investigations or litigations initiated outside China. Accordingly, you are deprived of the benefits of such regulatory actions on our accounting firm and our subsidiaries in the PRC. Although the authorities in China may establish a regulatory cooperation mechanism with the securities regulatory authorities of another country or region to implement cross-border supervision and administration, such cooperation with the securities regulatory authorities in the Unities States may not be efficient in the absence of mutual and practical cooperation mechanism. Furthermore, according to Article 177 of the PRC Securities Law amended in 2019, which became effective in March 2020, no overseas securities regulator is allowed to directly conduct investigation or evidence collection or other similar activities within the PRC territory. No entity or individual may provide documents or information related to securities business activities to overseas entities without prior consent of the competent PRC securities regulatory authority. While detailed interpretation of or implementation rules under Article 177 have yet to be promulgated, the inability for an overseas securities regulator to directly conduct investigation or evidence collection activities within China may further increase the difficulties you face in protecting your interests.

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 was promulgated and became effective on September 18, 2008. 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 fifteen days, depending on their length of service, subject to certain exceptions. 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, subject to certain exceptions. 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. In addition, according to the PRC Social Insurance Law promulgated in October 2010 and revised in 2018, effective as of December 29, 2018, employees shall participate in pension insurance, work-related injury insurance, medical insurance, unemployment insurance and maternity insurance and the employers shall, together with their employees or separately, pay for the social insurance premiums for such employees.

Furthermore, as the interpretation and implementation of these new laws and regulations are still evolving, we cannot assure you that our employment practice will at all times be deemed fully in compliance, which may cause us to face labor disputes or governmental investigation.

The increase or decrease in tax benefits from local tax bureau could affect our total PRC taxes payments, 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 and December 29, 2018. 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 they satisfy other applicable statutory requirements.

Certain of our PRC subsidiaries, such as CSI New Energy Holding Co., Ltd., or CSI New Energy Holding, Canadian Solar Manufacturing (Luoyang) Inc., or CSI Luoyang Manufacturing, were once HNTEs and enjoyed preferential enterprise income tax rates. These benefits have, however, expired. In 2020, only Suzhou Sanysolar Materials Technology, CSI Cells, Canadian Solar Manufacturing (Changshu), Changshu Tegu New Material Technology, CSI New Energy Development (Suzhou) (formerly known as Suzhou Gaochuangte New Energy Development), Canadian Solar Sunenergy (Suzhou) Co., Ltd. (merged with CSI Cells in 2020) and Changshu Tlian were HNTEs and enjoyed preferential enterprise income tax rates.

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

We are a Canadian company with a substantial portion of our manufacturing operations in China. Under the EIT Law and its implementation regulations, enterprises established outside China whose "de facto management body" is located in China are considered PRC tax resident enterprises 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 Certain Issues Relating to the Identification of China-controlled Overseas-registered Enterprises as Resident Enterprises on the Basis of Actual Management Organization, or Circular 82, effective as of January 1, 2008, 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 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. It is unclear under PRC tax law whether we have a "de facto management body" located in China for PRC tax purposes. As of the date of this annual report on Form 20-F, we have not been notified or informed by the PRC tax authorities that we are considered a PRC resident enterprise for the purpose of EIT Law. However, 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. Therefore, there is a risk that we and certain of our non-PRC subsidiaries may be treated as tax resident in the PRC.

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 tax at a rate of 10% (which in the case of dividends will be withheld at source).

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 PRC tax resident enterprise for purposes of the IIT Law, 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 PRC-sourced income and, consequently, be subject to PRC tax at a rate of up to 20% (which in the case of dividends will be withheld at source).

Such PRC taxes may be reduced by an applicable tax treaty, but it is unclear whether in practice our non-PRC noteholders and shareholders would be able to obtain the benefits of any tax treaties between their country of tax residence and the PRC in the event that we are treated as a PRC resident enterprise.

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.

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, the approval of or the record-filing with, certain government authorities, including the Ministry of Commerce or its local counterparts, is required. If our PRC subsidiaries obtain foreign debt through medium and long-term loan or through issuance of bonds, foreign debt approval may also be required to be obtained from the National Development and Reform Commission of PRC, or the NDRC. 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.

On March 15, 2019, the PRC National People's Congress approved the 2019 PRC Foreign Investment Law, which came into effect on January 1, 2020 and replaced the trio of existing laws regulating foreign investment in China, namely, the Sino-foreign Equity Joint Venture Enterprise Law, the Sino-foreign Cooperative Joint Venture Enterprise Law, and the Wholly Foreign-invested Enterprise Law. On December 26, 2019, the PRC State Council approved the Implementation Rules of Foreign Investment Law, which came into effect on January 1, 2020 and replaced implementation rules and ancillary regulations of the Sino-foreign Equity Joint Venture Enterprise Law, the Sino-foreign Cooperative Joint Venture Enterprise Law, and the Wholly Foreign-invested Enterprise Law. The 2019 PRC Foreign Investment Law and its Implementation Rules embody an expected PRC regulatory trend to rationalize its foreign investment regulatory regime in line with prevailing international practice and the legislative efforts to unify the corporate legal requirements for both foreign and domestic investments. However, since the 2019 PRC Foreign Investment Law is relatively new, substantial uncertainties exist with respect to its interpretation and implementation. The 2019 PRC Foreign Investment Law specifies that foreign investments shall be conducted in line with the "negative list" and obtain relevant approval to be issued by or approved to be issued by the State Council from time to time. An FIE would not be allowed to make investments in prohibited industries in the "negative list," while the FIE must satisfy certain conditions stipulated in the "negative list" for investment in restricted industries. It is uncertain whether the solar power industry, in which our subsidiaries operate, will be subject to the foreign investment restrictions or prohibitions set forth in the "negative list" to be issued in the future, although it is not subject to the foreign investment restrictions set forth in the currently effective 2020 Negative List. There are uncertainties as to how the 2019 PRC Foreign Investment Law and the Implementation Rules would be further interpreted and implemented. We cannot assure you that the interpretation and implementation of the 2019 PRC Foreign Investment Law made by the relevant governmental authorities in the future will not materially impact the viability of our current corporate structure, corporate governance and business operations in any aspect.

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.

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, 2020, the market price of our common shares ranged from $1.95 to $56.42 per share. From January 1, 2020 to December 31, 2020, the market price of our common shares ranged from $12.00 to $56.42 per share. The closing market price of our common shares on December 31, 2020 was $51.24 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, projected 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. dollars, Euros, Japanese yen, Canadian dollars, Renminbi, Brazilian reals and Thailand Bhat;
- the release or expiration of lock-up or other transfer restrictions on our outstanding common shares;
- sales or anticipated sales of additional common shares; and
- share repurchase program.

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, 2020, we had 59,820,384 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 the past, in connection with debt financing, we have issued warrants and convertible notes, and may issue additional warrants to purchase our common shares and convertible notes that can be converted to our common shares. To the extent these warrants and conversion features are exercised, and the common shares 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 of 1933, or 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 contain certain provisions that could adversely affect the rights of holders of our common shares.

The following provisions in our articles 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. Subject to the BCBCA, our board of directors may, if none of the shares of that particular series are issued, 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.
- In accordance with the provisions of the BCBCA, our articles provide that the number of directors on our board of directors is set at the greater of three directors and such number of directors equal to the number of directors most recently elected by ordinary resolution at a meeting of shareholders. However, our articles also provide that between annual meetings of shareholders, our board of directors may appoint one or more additional directors, subject to the limitation that the total number of directors so appointed may not exceed one-third of the number of the corporation's first directors or the number of directors elected at the previous annual meeting of shareholders. Any director so appointed ceases to hold office immediately before the election of directors at the next annual meeting of shareholders but is eligible for re-election or re-appointment.

You may have difficulty enforcing judgments obtained against us.

We are a corporation organized under the laws of British Columbia, 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. 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. 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.

If a United States person is treated as owning at least 10% of our shares, such person may be subject to adverse United States federal income tax consequences.

If a United States person is treated as owning (directly, indirectly or constructively) at least 10% of the value or voting power of our shares, such person may be treated as a "United States shareholder" with respect to each "controlled foreign corporation," or CFC, in our group. Where our group includes one or more United States subsidiaries that are corporations for United States federal income tax purposes, in certain circumstances we could be treated as a CFC and certain of our non-United States subsidiaries could be treated as CFCs (regardless of whether or not we are treated as a CFC).

A United States shareholder of a CFC may be required to annually report and include in its United States taxable income its pro rata share of "Subpart F income," "global intangible low-taxed income" and investments in United States property by CFCs, whether or not we make any distributions. An individual who is a United States shareholder with respect to a CFC generally would not be allowed certain tax deductions or foreign tax credits that would be allowed to a corporation that is a United States shareholder. A failure to comply with these reporting obligations may subject a United States shareholder to significant monetary penalties and may prevent starting of the statute of limitations with respect to such shareholder's United States federal income tax return for the year for which reporting was due. We do not intend to monitor whether we are or any of our non-United States subsidiaries is treated as a CFC or whether any investor is treated as a United States shareholder with respect to us or any of our CFC subsidiaries, or to furnish to any United States shareholders information that may be necessary to comply with the aforementioned reporting and tax paying obligations. A United States investor should consult its tax advisor regarding the potential application of these rules in its particular circumstances.

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.

We will be a passive foreign investment company, or PFIC, for United States federal income tax purposes for any taxable year if, applying applicable look-through rules, either (a) at least 75% of our gross income for such year is passive income or (b) at least 50% of the value of our assets (generally determined based on an average of the quarterly values of the assets) during such year is attributable to assets that produce or are held for the production of passive income. Based on the value of our assets and the nature and composition of our income and assets, we do not believe we were a PFIC for United States federal income tax purposes for our taxable year ended December 31, 2020. 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. Moreover, we cannot guarantee that the United States Internal Revenue Service, or IRS, will agree with any positions that we 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 position contrary to any position that we take.

Changes in the nature or composition of our income or assets may cause us to be more likely to be a PFIC. The determination of whether we are a PFIC for any taxable year may also 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 our 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 and cash generated from our operations. Among other matters, if our market capitalization declines, we may be more likely to be a PFIC because our liquid assets and cash (which are for this purpose considered assets that produce passive income) may then represent a greater percentage of the value of our overall assets. Further, while we believe our classification methodology and valuation approach are reasonable, it is possible that the IRS may challenge our classification or valuation of our goodwill and other unbooked intangibles, which may result in our being or becoming a PFIC for the current taxable year or one or more future taxable years.

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 our common shares, certain adverse United States federal income tax consequences would generally 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, effective June 1, 2006. In July 2020, we filed articles of continuance to change our jurisdiction from the federal jurisdiction of Canada to the provincial jurisdiction of the Province of British Columbia. As a result, we are governed by the British Columbia Business Corporation Act, or the BCBCA, and our affairs are governed by our notice of articles and our articles. See "—C. Organizational Structure" for additional information on our corporate structure, including a list of our major subsidiaries.

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. The information contained on or accessible through our website does not form part of this annual report.

B Business Overview

Overview

We are one of the world's largest solar power companies and a leading vertically-integrated provider of solar power products, services and system solutions with operations in North America, South America, Europe, South 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 and Southeast Asia. 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 business. Our Global Energy segment primarily comprises solar power project development and sale, solar power projects operation and sales of electricity globally outside of China, and our CSI Solar segment comprises solar power project development and sale, solar power projects operation, and sale of electricity in China. While we plan to continue to monetize our current portfolio of solar power projects in operation, we also intend to grow our energy business by building up our project pipeline. In March 2015, we acquired Recurrent Energy, LLC, or Recurrent, a leading solar energy developer with solar power projects located principally in California and Texas, and thereby significantly increased our solar project pipeline. As of January 31, 2021, our project backlog (formerly called late-stage, utility-scale, solar project pipeline), which refers to projects that have passed their Cliff Risk Date and are expected to be built in the next one to four years, totaled approximately 3.8 gigawatt peak, or GWp, with 728 megawatt peak, or MWp, in North America, 2,229 MWp in Latin America, 312 MWp in Asia Pacific excluding China, 429 MWp in EMEA, and 125 MWp in China. The Cliff Risk Date depends on the country where a project is located and is defined as the date on which the project passes the last of the high-risk development stages (usually receipt of all required environmental approvals, interconnection agreements, FITs and PPAs. As of January 31, 2021, our project pipeline (formerly called our early-to-mid-stage, utility-scale, solar project pipeline) totaled 14.8 GW. In addition to our project backlog and project pipeline, as of January 31, 2021, we had 1,563 MWp of solar projects in construction; and a portfolio of solar power projects in operation totaling 493 MWp with an estimated resale value of approximately $620 million. As of January 31, 2021, our battery storage project pipeline totaled 6.5 GWh, 1,388 MWh of backlog, 913 MWh in construction, and 3 MWh in operation. As of January 31, 2021, our battery storage solutions pipeline totaled 3.6 GWh, 1,400 MWh in high probability forecast, and 861 MWh contracted or in construction. Contracted/in construction projects are expected to be delivered within the next 12 to 18 months. Forecast projects include those that have more than 75% probability of being contracted within the next 12 months, and the remaining pipeline includes projects that have been identified but have a below 75% probability of being contracted. See "—Sales, Marketing and Customers-Global Energy Segment-Solar Project Development and Sale" and "-Sales, Marketing and Customers-Global Energy Segment-Operating Solar Power Projects and Sales of Electricity" for a description of the status of our solar power projects in operation.

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 output to high efficiency, high-power output multi-crystalline and 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 the U.S., Japan, China, Vietnam, Brazil, Spain, Australia, Germany, Mexico, Canada and the Netherlands. Our customers are primarily 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, 2020, we had:

- 16.1 GW of total annual solar module manufacturing capacity, approximately 12.5 GW of which is located in China, 3.6 GW in Southeast Asia and the rest in other regions;

- 9.6 GW of total annual solar cell manufacturing capacity, approximately 3.2 GW of which is located in Southeast Asia and the rest in China;
- 6.3 GW of total annual wafer manufacturing capacity located in China; and
- 2.1 GW of total annual ingot manufacturing capacity located in China.

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 projects. Our solar module manufacturing costs in China, including purchased polysilicon, wafers and cells, decreased from 20.4 cents per watt in December 2018 to 18.8 cents per watt in December 2019, and increased to 21.9 cents per watt in December 2020. Despite the recent increase, we expect to continue to decrease the manufacturing costs for our production of wafers, cells and modules in the long run.

We intend to continue to focus on reducing our manufacturing costs by improving solar cell conversion efficiency, enhancing manufacturing yields and reducing raw material costs.

Our Products and Services

Our business consists of the following two business segments: CSI Solar segment and Global Energy segment. Our CSI Solar Segment involves the design, development, manufacturing and sale of a wide range of solar power products, including solar modules, solar system kits, battery energy storage solutions, China energy (including solar projects, EPC services and electricity revenue in China), and other materials, components and services (including EPC). Our Global Energy Segment primarily consists of global solar and energy storage power projects (excluding China), O&M and asset management services, global electricity revenue (excluding China), as well as other development services.

Products Offered in Our CSI Solar 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 3W to over 665W in power and using mono-crystalline or multi-crystalline cells in several different design patterns, including shingled cells. We introduced the industry's first module product using 166mm wafers, in comparison with the conventional 156.75mm wafers. We also first introduced the highest power 665W module using 210mm wafers in mass production. Our mainstream solar modules include CS7N (132 half-cells, 210mm wafer), CS7L (120 half-cells, 210mm wafer), CS6W (144 half-cells, 182mm wafer), CS3Y (156 half-cells, 166mm wafer), CS3W (144 half-cells, 166mm wafer), CS3N (132 half-cells, 166mm wafer), CS3L (120 half-cells, 166mm wafer), BiHiKu7 (bifacial module, 210mm wafer), BiHiKu6 (bifacial module, 182mm wafer), BiHiKu5 (bifacial module, 166mm wafer), BiHiKu (bifacial module, 166mm wafer), and HiDM CS1Y all-black modules. The mainstream modules are designed for residential, commercial and utility applications. The 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. 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 with high efficiency and high reliability. We started commercial production of Quintech CS6K and CS6U modules in 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.

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.

In July 2016, we launched the 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.

In 2017, we launched the Ku module series which results in an improvement in failure redundancy with innovative cell matrix interconnection technology. The module power output is enhanced by up to 10 Watt per module while reducing the module working temperature. We developed P4 cell technology, which is multi-crystalline PERC technology. The combination of P4 cell and Ku module technologies enable us to offer customer higher wattage and more reliable multi crystalline module products. We also launched and shipped HDM (High Density Module) product to some markets this year. The HDM offers high wattage, high module efficiency and pleasant aesthetics for residential applications.

In 2018, we launched the BiKu modules which are bifacial designed and can generate additional electricity from the backside of the module. These modules have more shading tolerance and a much lower hot spot risk thanks to the innovative design on the bifacial cell and double glass module. At the end of 2018, we began the mass production of the HiKu module, the first commercially available multi-crystalline module exceeding 400 watts with significant leveraged cost of energy, or LCOE, advantages. In 2018, we launched the HiDM module, which is an upgrade of the HDM module and uses shingled cells to increase both module wattage and efficiency. We also launched P5 technology, which is based on casted mono technology developed in house, and will boost cell and module efficiencies close to mono while retaining all the advantages of multi technology, such as LID, LeTID and lower cost.

In 2019, we continued to expand our high-power module product portfolio based on 166mm wafers. In July 2019, we started to mass-produce BiHiku modules. BiHiKu is a bifacial module utilizing our 166mm P4 (multi PERC) cells which have a front side power output exceeding 400 watts. In addition to modules utilizing our 166mm P4 (multi PERC) cells, we launched HiKu and BiHiKu modules using 166mm P5 (casted mono) and mono PERC cells. Our CS3L (120 half-cells, 166mm wafer) mono PERC modules can achieve power output exceeding 360 watts, which is suited for residential applications, and our CS3W (144 half-cells, 166mm wafer) mono modules can reach wattage up to 445 watts. By the end of August 2019, we converted 100% of our cell production capacity into PERC and by the end of the year, over one-third of our module capacity was for HiKu and BiHiKu. Our 166mm wafer module products are becoming our new “standard” products. For the residential market, we ramped up the all-black version of our HiDM module with appealing aesthetics and high module efficiency. Our full-cell modules such as CS6K and CS6U are gradually being phased out and replaced by Ku, BiKu and HiDM modules. In 2019, we also officially phased out all the double glass mono-facial modules due to the introduction of the more competitive bifacial modules.

In 2020, we continued to launch high power modules using bigger wafers. In July 2020, we introduced CS3Y (156 half-cells, 166mm wafer) module to the market. The power wattage of the HiKu series modules is further enhanced to 490W to accommodate the needs of our customers. Several new technologies were first used in this new module and were further used in the HiKu6 and HiKu7 modules launched later. Smaller gap between cells brings the blank area down by 70% on the module surface, and helps to increase the module efficiency by 0.3%. HTR (Hetero ribbon) and flexible welding process further facilitates the smart interconnection without causing additional microcracks, especially on bigger modules. In November 2020, we began mass production of CS6W (144 half-cells, 182mm wafer) module. The module power of CS6W is up to 550W. HiKu7, the power module with the highest power output, was then brought to market in December 2020, including HiKu7L (120 half-cells, 210mm wafer), and HiKu7N (132 half-cells, 210mm wafer). The module power of HiKu7L reaches 595W while HiKu7N reaches 665W, the highest power output in the market. 210mm wafer based modules HiKu7 will be our standard offering in the coming years. For the residential market, we brought HiDM-all black modules and HiKu3L-all black module with appealing aesthetics to our customers. We also introduced HiKu-Lite module with less weight for loading-limited installation locations. We are among the first few companies to supply light weight modules in Japan.

Our standard solar modules are designed to endure harsh weather conditions and to be transported and installed easily. We sell our standard solar modules primarily under our brand name.

Energy Solution Products

Our non-module, energy solution products are mainly solar inverters and energy storage systems for utility, commercial, residential and specialty product applications.

Our solar string inverters are grid-tied, converting direct current electricity from our solar modules. Our inverter products cover typical power ranges from 1.5kW to 125kW power levels and are certified and available broadly in many regions globally.

Our Maple solar system is an economical, safe and clean energy solution for families who burn kerosene for lighting. The Maple solar system includes a solar panel, energy-efficient light-emitting diode, or LED, lights, Li-ion batteries and multiple cell phone charger plugs. It can be used as a regular light at home or for camping, as an SOS signal in emergency, and as a mobile power bank for consumer electronics, such as mobile phones or other 5 V DC electronic devices.

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. In 2020,we sold them primarily to customers in Japan and China.

EPC Services

We started to provide EPC services in 2018, covering China.

Battery Storage Solutions

Our battery storage solutions team focuses on delivering bankable, end-to-end, integrated battery storage solutions for utility scale, commercial and industrial, as well as residential applications. These systems solutions will be complemented with long-term service agreements, including future battery capacity augmentation services. See "—Sales, Marketing and Customers- CSI Solar Segment—Battery Storage Solutions" for a description of the status of our battery storage solutions in China.

China Solar Project Development and Sale

We develop, build and sell solar power projects in China. We have a team of experts who specialize in project development, evaluations, system designs, engineering, managing, project coordination and organizing financing. Our project sales team actively identifies and pursues suitable buyers for our solar power projects. See "—Sales, Marketing and Customers- CSI Solar Segment—Solar Project Development and Sale" for a description of the status of our solar power projects in China.

Operating China Solar Power Plants and Sales of Electricity

We operate certain of our solar plants in China and generate income from the sale of electricity. Although most of our solar power projects are developed for sale, we may operate them for a period of time before they are sold. As of January 31, 2021, we had a fleet of solar power plants in operation with an aggregate capacity of approximately 257 MWp.

Products and Services Offered in Our Global 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 U.S., Japan, the EU, Brazil, Mexico and Australia. We have a team of experts who specialize in project development, evaluations, system designs, engineering, managing, project coordination and organizing financing. Our project sales team actively identifies and pursues suitable buyers for our solar power projects. See "—Sales, Marketing and Customers- Global Energy Segment—Solar Project Development and Sale" for a description of the status of our solar power projects.

Operating Solar Power Plants and Sales of Electricity

We operate certain of our solar plants and generate income from the sale of electricity. Although most of our solar power projects are developed for sale, we may operate them for a period of time before they are sold. We have been optimizing our operating model to increasingly retaining minority ownership interest in our own projects. As of January 31, 2021, we had a fleet of solar power plants in operation with an aggregate capacity of approximately 236 MWp.

O&M Services

In 2020, we provided O&M services primarily in North America, Japan, Australia and United Kingdom. O&M services include inspections, repair and replacement of plant equipment and site management and administrative support services for solar power projects in operation.

Asset Management Services

In 2020, we provided asset management services primarily in the North America and Japan.

Battery Storage Solutions

Our energy storage project development is now fully integrated within the main solar development teams. Given the segment's large and growing pipeline, it is uniquely positioned to capture utility-scale energy storage projects, both co-located with solar PV as well as stand-alone opportunities. See "—Sales, Marketing and Customers- Global Energy Segment—Battery Storage Solutions" for a description of the status of our battery storage solutions.

Fund Formation

We have recently began establishing investment funds for the purpose of pooling capital to develop, build and accumulate solar power projects. For example, in 2020 we established Japan Green Infrastructure Fund (the "Fund"), partnering with a business unit of Macquarie Group as a minority investor of the Fund to raise JPY22 billion ($213.2 million) of committed capital that will be used to develop, build and accumulate new solar projects in Japan. Once the projects are acquired, we contract with the fund to provide asset management services.

Supply Chain Management

CSI Solar Segment

Our CSI Solar 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. While these agreements usually set forth specific price terms, most of them also include mechanisms to adjust the prices, either upwards or downwards, based on market conditions. Over the years, we have entered into a number of long-term supply agreements with various silicon and wafer suppliers in order to secure a stable supply of raw materials to meet our production requirements. 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 2020, we purchased a significant portion of the silicon wafers used in our solar modules from third parties. Our largest silicon wafer supplier was Longi, which we have silicon wafer purchase agreement with through 2022. We plan to continue to diversify our external wafer and polysilicon suppliers.

We purchase solar cells from a number of international and local suppliers primarily in China, 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. In 2020, our largest supplier of solar cells was Aiko Solar. 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."

Our CSI Solar segment also supplies part of the solar modules used in its own solar power projects development in China.

Global Energy Segment

Our CSI Solar segment supplies part of the solar modules used in our Global Energy segment.

Manufacturing, Construction and Operation

CSI Solar 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 automated equipment 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 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.

For solar power projects development in China, we generally construct solar projects through CSI New Energy Development (Suzhou) Co., Ltd. (formerly known as Suzhou Gaochuangte New Energy Development Co., Ltd.), a subsidiary of CSI Solar Co., Ltd. See "-Global Energy segment" below for stages of our solar power projects development process.

Global Energy Segment

We develop, construct, maintain, sell and/or operate solar power and energy storage projects primarily in U.S., Japan, Argentina, Mexico, the EU, Canada, Brazil and Australia. We engage in all aspects of the development and operation of solar power and energy storage projects, including project selection, design, permitting, engineering, procurement, construction, installation, monitoring, operation and maintenance. For the solar power and energy storage projects that we develop, we have the option of either using our own engineering and operation teams or hiring third-party contractors to build and operate the projects prior to sale.

Our solar power and energy storage 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 and energy storage 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 and energy storage projects. As we consider undertaking new solar power and energy storage 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 and energy storage projects varies from country to country and often from region to region within a country.
- *Project design, engineering, procurement and construction*. Our engineering team generally designs solar power and energy storage 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.

Currently, we operate and maintain solar power plants primarily in Japan, Argentina and Australia. We enter into 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 standards. TUV Rheinland Group, a leading international service company that 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 also maintain various international and domestic certifications for our solar modules. For example, we have obtained IEC61215/61730 certifications for sales of our modules in Europe, UL1703 and UL61730 certifications for sales of our modules in North America, and other necessary certifications for sales of our modules in Japan, South Korea, India, Brazil, Australia, Taiwan, and Great Britain and under several solar programs in China, including Top Runner. The IEC certification is issued by Verband Deutscher Elektrotechniker, or VDE, and the UL certification by Canadian Standards Association, or CSA. All of our modules launched in the past years satisfy the latest standards, including IEC 61215, IEC61730 and UL 1703, and have achieved high California Energy Commission, or CEC, PVUSA test condition ratings. All have passed additional extended stress program qualifications such as salt mist testing, ammonia testing, PID testing, as well as extra-standard or "3-times" testing programs from PVEL and VDE. Earlier this year, we also achieved successfully all required steps for a new competitive carbon footprint certification for the French market special tender requirements.

Our PV test laboratory is accredited by CNAS according to ISO 17025 quality management standard, and has been approved into various Data Acceptance Program by the CSA, the VDE, Intertek Satellite Lab in the U.S. and the China Quality Certification Center, or CQC, in China. The PV test laboratory allows us to conduct some product certification testing in-house, which decreases time-to-market and certification costs, as well as exhaustive product and component reliability research to drive improvements in product durability.

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:

	Years Ended December 31,					
	2018		2019		2020	
Region	Total Net Revenues	%	Total Net Revenues	%	Total Net Revenues	%
	(In thousands of $, except for percentages)					
Asia	1,571,287	42.0	1,018,083	31.8	1,620,840	46.6
Americas	1,474,657	39.4	1,402,041	43.8	1,221,105	35.1
Europe and others	698,568	18.6	780,459	24.4	634,550	18.3
Total	3,744,512	**100.0**	3,200,583	**100.0**	3,476,495	**100.0**

CSI Solar Segment

Our primary customers are distributors, system integrators, project developers and installers/EPC companies. A small number of customers have historically accounted for a significant portion of our net revenues. In 2018, 2019 and 2020, the top five customers of the CSI Solar segment by net revenues collectively accounted for approximately 12.9%, 15.8% and 15.8%, respectively, of our total net revenues. Sales to our largest customer in those years accounted for 5.2%, 6.6% and 3.9%, 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 in their marketing of our business and products, in addition to providing to them various services such as product training, new product briefing, and sales training. Furthermore, 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, China, Europe, India, Japan, Australia, South Africa and Korea.

We sell our standard solar module products primarily under three types of arrangements: sales contracts to distributors; sales to systems integrators, installers/EPC companies and project developers; and 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 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 increase our sales and marketing efforts 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 with our system solutions offering, we continue to develop new customer relationships in a wider range of geographic markets to further decrease single market dependency. Since 2013, we significantly increased our total number of buying customers and achieved leading market share in Canada, Japan and Brazil, which we maintained in the following years. Given our growing product and solutions offering, we became one of the leading turnkey PV-system providers in Australia in 2018 and 2019 as well as becoming a key system kits/packages and turnkey system provider in Brazil since 2018. In the U.S., we have been recognized as a top 10 system/inverter supplier since 2019. In general, we are continuously growing our direct sales channel and our global customer base to sell modules and other solar system components directly to EPC, developer as well as contractor/installer, to lower customer concentration and to reduce payment risks and demand fluctuation risks. In parallel, we are further growing and managing different solar application channels such as large utility-scale ground mounted systems, large and medium sized ground-mounted systems as well as roof-top systems ranging from small residential application to commercial and industrial roof-top systems. We are also adding storage based solar system applications and are growing our market position for this offering.

Solar System Kits

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 2020, we sold approximately 474 MW of system kits primarily in Japan and China.

Battery Storage Solutions

The table below sets forth CSI Solar's battery storage system integration's forecast projects and pipeline as of January 31, 2021. Forecast projects include those that have more than 75% probability of being contracted within the next 12 months, and the remaining pipeline includes projects that have been identified but have a below 75% probability of being contracted.

	Forecast	Pipeline	Total
Storage (MWh)	1,400	3,646	5,046

Solar Project Development

As of January 31, 2021, our project backlog in China (formerly called our late-stage, utility-scale, solar project pipeline), which refers to projects that have passed their Cliff Risk Date and are expected to be built in the next one to four years, totaled approximately 125 MWp. The Cliff Risk Date is defined as the date on which the project passes the last of the high-risk development stages (usually receipt of all required environmental approvals, interconnection agreements, FITs and PPAs).

As of January 31, 2021, our China project pipeline (formerly called our early-to-mid-stage, utility-scale, solar project pipeline) totaled 1,500 MW.

Operating Solar Power Plants and Sales of Electricity

In addition to our project backlog, we had a portfolio of China solar power plants in operation totaling 257 MWp as of January 31, 2021. The resale value of these plants was estimated at approximately $200 million as of January 31, 2021.

Global Energy Segment

We develop, construct, maintain, sell and/or operate solar plants primarily in U.S., Japan, Argentina, Mexico, , the EU, Canada, Brazil, Australia. We also provide development, O&M and assets management services. We sell our projects to large utility companies, other power producers and asset managers. Customers for our development, O&M and asset management services include solar project developers and owners.

In order to continue to grow our Global 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 team has extensive industry expertise and significant experience in working with government authorities and developing new projects for our target markets.

Solar Project Development

As of January 31, 2021, our project backlog (formerly called our late-stage, utility-scale, solar project pipeline), which refers to projects that have passed their Cliff Risk Date and are expected to be built in the next one to four years, totaled approximately 3.8 GWp, with 728 MWp in North America, 2,229 MWp in Latin America, 312 MWp in Asia Pacific and 429 MWp in Europe and the Middle East ("EMEA"). The Cliff Risk Date depends on the country where a project is located and is defined as the date on which the project passes the last of the high-risk development stages (usually receipt of all required environmental approvals, interconnection agreements, FITs and PPAs).

As of January 31, 2021, our project pipeline (formerly called our early-to-mid-stage, utility-scale, solar project pipeline) totaled 13.3 GW.

Project Pipeline by Region as of January 31, 2021 (in MWp)*

Region	In construction	Backlog	Pipeline	Total
North America	328	728	5,030	6,086
Latin America	731	2,229	3,495	6,455
EMEA	—	429	2,912	3,341
Japan	159	121	24	304
Asia Pacific excluding Japan	345	191	1,810	2,346
Total	1,563	3,698	13,271	18,532

Note: Backlog and pipeline table represents the gross MWp size of the projects, including minority interest. Gross MWp size of projects includes 510 MWp and 63 MWp of projects in construction and backlog, respectively, in Latin America, and 129 MWp in backlog in EMEA, that are not owned by us or have been sold to third parties.

We have a sizable amount of premium, high FIT projects in Japan. The table below sets forth the expected COD schedule of the Company's project backlog in development and construction in Japan, as of January 31, 2021.

Japan Expected COD Schedule (in MWp)

2021	2022	2023 and Thereafter	Total
63	167	50	280

Operating Solar Power Plants and Sales of Electricity

In addition to our project backlog, we had a portfolio of solar power plants in operation totaling 236 MWp as of January 31, 2021. The resale value of these plants was estimated at approximately $420 million as of January 31, 2021. Our total portfolio of solar power plants in operation as of January 31, 2021 was as follows:

Projects in Operation (in MWp)

Latin America	Japan	Asia Pacific excluding Japan & China	Total
100	75	61	236

Note: Gross MWp size of projects, includes 26 MWp in Asia Pacific excluding Japan and China already sold to third parties. Also includes 61 MWp of projects in Japan which were sold in March 2021.

O&M Services

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

Battery Storage Solutions

The table below sets forth our storage project backlog and pipeline as of January 31, 2021.

	Backlog	Pipeline	Total
Storage (MWh)	1,388	6,467	7,855

Customer Support and Service

We typically sell our standard solar modules with a twelve-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 ten 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 (after adjusting for actual solar irradiation). 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 function handles technical inquiries and warranty-related issues. In recent years, 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 2019, we renewed our product warranty insurance coverage to provide additional security to our customers. See "—Insurance" below. Our customer support and service function will continue to expand and improve services we provide to our customers.

Competition

Module and Beyond-Pure-Module Business

The market for solar power products is competitive and evolving. We compete with American companies, such as First Solar, SunPower and Maxeon, and Asia-based companies such as Longi, 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;
- 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 our ability to deliver cost-effective products in a timely manner and to develop and maintain 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. Our goal is to offer our customers solar power products that deliver the lowest LCOE. Additionally, 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 Business

Our energy business 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 vary in terms of size, geographic focus, financial resources and operating capabilities and are active in Japan, China, the U.S., Brazil, Mexico, the EU, 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.

We cannot, however, 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.

Currently, we develop and construct and, in limited cases, operate and maintain solar power projects in various regions including the U.S., China, Japan, Brazil, Argentina, Mexico, the EU and Australia. We compete to supply energy to 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 business, 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 primarily from China Export & Credit Insurance Corporation, or Sinosure. Credit insurance is designed to offset the collection risk of our account receivables for certain customers within the credit limits approved by the insurers. 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 directors and officers liability insurance.

We have 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 major operations are certified under ISO14001 environmental and ISO45001 Occupational Health and Safety standards, which required that we implement and operate according to various procedures that demonstrate waste reduction, energy conservation, injury reduction and other environmental, safety and health objectives.

We have finished establishing our internal ISO14064:2018 GHG (Green House Gas) quantification and reporting system under guidance of 3rd party Société Générale de Surveillance (SGS), to identify, quantify and report our GHG emissions and removals at the organization level, setting up solid ground for continuous GHG emissions reduction.

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 Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

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 sources 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 newly revised 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.

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 Energy Development Strategy (2014-2020), which requested accelerating the development of solar power generation, including promoting the construction of photovoltaic base construction, among others.

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.

In November 2017, the NDRC issued the Opinions on Comprehensively Deepening the Reform of the Price Mechanism, which requested improving the price mechanism of renewable energy, including adopting the decrement mechanism on the on-grid benchmark price of new energy resources such as wind power and photovoltaic power.

In March 2021, National People's Congress approved the Outline of the Thirteenth Five-Year Plan for National Economic and Social Development and the Long-term Goals for 2035 of the PRC, in which renewable energy industry was supported.

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 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, as amended and promulgated in 2018, the PRC Law on the Prevention and Control of Air Pollution, which became effective in 1988, as amended and promulgated in 1995, 2000, 2015 and 2018, the PRC Law on the Prevention and Control of Water Pollution, which became effective in 1984, as amended and promulgated in 1996, 2008 and 2017, 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, 2016 and 2020, the PRC Law on Evaluation of Environmental Affects, which became effective in 2003, as amended and promulgated in 2016 and 2018, 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, as amended and promulgated in 2017.

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, 2012 and 2018, and the Implementation Plan of Jiangsu Province on Comprehensive Treatment of Water Environment in Taihu Lake Basin, which was promulgated in February 2009 and amended in 2013. 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, except for those satisfy certain applicable statutory requirements.

Admission of Foreign Investment

The principal regulation governing foreign ownership of solar power businesses in the PRC is the Catalogue of Encouraged Industries for Foreign Investment. Under the current catalogue, which was amended in December 2020 and became effective on January 27, 2021, the solar power related business is classified as an “Encouraged Industries for Foreign Investment.” 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, the 2015 catalogue and the 2017 catalogue, the 2019 catalogue, and the current 2020 catalogue also cover 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, 2013 and 2018. The Company Law is applicable to our PRC subsidiaries unless PRC laws on foreign investment stipulate otherwise.

In March 2019, the Foreign Investment Law was promulgated, effective on January 1, 2020, at which time the Wholly Foreign-owned Enterprise Law will be repealed. Regulation for Implementing the Foreign Investment Law of the People’s Republic of China took effect on January 1, 2020. Foreign- invested enterprises that were established in accordance with Wholly Foreign-owned Enterprise Law before the implementation of Foreign Investment Law may retain their original organizational forms and other aspects for five years.

Income Tax and VAT

PRC enterprise income tax is calculated based on taxable income determined under PRC accounting principles. 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 they satisfy other applicable statutory requirements.

Certain of our PRC subsidiaries, such as CSI New Energy Holding and CSI Luoyang Manufacturing, were once HNTEs and enjoyed preferential enterprise income tax rates. These benefits have, however, expired. In 2020, only Suzhou Sanysolar Materials Technology, CSI Cells, Canadian Solar Manufacturing (Changshu), Changshu Tegu New Material Technology, CSI New Energy Development (Suzhou) (formerly known as Suzhou Gaochuangte New Energy Development), Canadian Solar Sunenergy (Suzhou) Co., Ltd. (merged with CSI Cells in 2020) and Changshu Tlian were HNTEs and enjoyed preferential enterprise income tax rates.

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.

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 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.

Under the Provisional Regulation of the PRC on Value Added Tax amended in 2008, 2016 and 2017 and its implementation rules, which became effective in 2009 and were amended in 2011, all entities and individuals that are engaged in the sale of goods, processing, repairs and replacement services, the sales of services, intangible assets or real estate, and the importation of goods in China are required to pay VAT. Gross proceeds from sales and importation of goods and sales of labor services are generally subject to VAT at a rate of 17%, with exceptions for certain categories of goods that are taxed at a rate of 11%. Gross proceeds from sales of real estate are subject to VAT at a rate of 11%. Gross proceeds from sales of services and intangible assets are generally subject to VAT at a rate of 6%, with exceptions for certain categories of services or intangible assets that are taxed at a rate of 17% or 11%. When engaging in exportation of certain goods or cross-border sales of certain services or intangible assets, the exporter or the seller is entitled to a refund of a portion or all of the VAT that it has already paid or borne.

In April 2018, Ministry of Finance and State Administration of Taxation jointly announced that as of May 1, 2018, if the VAT taxpayer is subject to VAT taxable sales or imported goods, the original 17% tax rate or the original 11% tax rate shall be adjusted to 16% or 10%, respectively.

In March 2019, Ministry of Finance, State Administration of Taxation and General Administration of Customs jointly announced that as of April 1, 2019, if the VAT general taxpayer is subject to VAT taxable sales or imported goods, the original 16% tax rate shall be adjusted to 13%; if the original 10% tax rate is applied, the tax rate shall be adjusted to 9%.

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, or Circular 19, 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 June 9, 2016, SAFE issued the Circular on Reforming and Regulating Policies on the Control over Foreign Exchange Settlement of Capital Accounts, or Circular 16. Compared to Circular 19, Circular 16 provides that discretionary foreign exchange settlement applies to foreign exchange capital, foreign debt offering proceeds and remitted foreign listing proceeds, and the corresponding RMB obtained from foreign exchange settlement are not restricted from extending loans to related parties or repaying the inter-company loans (including advances by third parties).

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.

On January 18, 2017, SAFE promulgated the Circular on Further Improving Reform of Foreign Exchange Administration and Optimizing Genuineness and Compliance Verification, which sets out various measures that relaxes the policy restriction on foreign exchange inflow to further enhance trade and investment facilitation and that tightens genuineness and compliance verification of cross-border transactions and cross-border capital flow.

Dividend Distribution

The principal regulations governing distribution of dividends paid by Foreign Investment Law and its implementation rules both effective in 2020, the Company Law effective in 1994 and amended in 1999, 2004, 2005, 2013 and 2018 and the EIT Law effective in 2008 and amended in 2017, 2018, and the implementation rules of EIT Law effective in 2008 and amended in 2019.

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 invested 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

There are multiple 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, and December 29, 2018, 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 March 1, 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 and amended on December 29, 2018, 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, as amended in 2019, 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, as amended, 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 February 28, 2021.

Name of entity	Place of incorporation	Ownership interest
Canadian Solar Solutions Inc.	Canada	100 %
Canadian Solar (Australia) Pty Limited	Australia	100 %
Canadian Solar O and M (Ontario) Inc.	Canada	100 %
Canadian Solar Projects K.K.	Japan	100 %
Canadian Solar UK Projects Ltd.	United Kingdom	100 %
Recurrent Energy, LLC	USA	100 %
Canadian Solar Energy Singapore Pte. Ltd.	Singapore	100 %
Canadian Solar Netherlands Cooperative U.A.	Netherlands	100 %
Canadian Solar Construction (Australia) Pty Ltd	Australia	100 %
CSUK Energy Systems Construction and Generation JSC	Turkey	100 %
Canadian Solar Argentina Investment Holding Ltd.	United Kingdom	100 %
Canadian Solar New Energy Holding Company Limited	Hong Kong	100 %
Canadian Solar Energy Holding Singapore Pte. Ltd.	Singapore	100 %
CSI Solar Co., Ltd. (formerly known as “CSI Solar Power Group Co., Ltd.”)	PRC	79.59 %
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 EMEA GmbH	Germany	100 %*
Canadian Solar International Limited	Hong Kong	100 %*
Suzhou Sanysolar Materials Technology Co., Ltd.	PRC	100 %*
Canadian Solar South East Asia Pte. Ltd.	Singapore	100 %*
Canadian Solar Brazil Commerce, Import and Export of Solar Panels Ltd.	Brazil	100 %*
Canadian Solar Construction (USA) LLC	USA	100 %*
CSI Solar Manufacturing (Funing) Co., Ltd. (formerly known as “CSI&GCL Solar Manufacturing (Yancheng) Inc.”)	PRC	100 %*
Changshu Tegu New Material Technology Co., Ltd.	PRC	100 %*
Changshu Tlian Co., Ltd.	PRC	100 %*
Canadian Solar Manufacturing Vietnam Co., Ltd.	Vietnam	100 %*
Canadian Solar Energy Private Limited	India	100 %*
Canadian Solar MSS (Australia) Pty Ltd.	Australia	100 %*
Canadian Solar Manufacturing (Thailand) Co., Ltd.	Thailand	99.99992 %*
Canadian Solar Sunenergy (Baotou) Co., Ltd.	PRC	100 %*
Canadian Solar Middle East DMCC	United Arab Emirates	100 %*
CSI Investment Management (Suzhou) Co., Ltd.	PRC	100 %*
CSI New Energy Development (Suzhou) Co., Ltd. (formerly known as “Suzhou Gaochuangte New Energy Development Co., Ltd.”)	PRC	90 %*
CSI Cells (Yancheng) Co., Ltd.	PRC	70 %*
CSI Modules (Jiaxing) Co., Ltd.	PRC	100 %*
CSI Wafer (Luoyang) Co., Ltd.	PRC	100 %*
Canadian Solar SSES (Canada) Inc.	Canada	100 %*
Canadian Solar SSES (UK) Ltd	United Kingdom	100 %*

* Major subsidiaries within the scope of CSI Solar are held through CSI Solar Co., Ltd. of which CSI holds 79.59% equity rights of CSI Solar Co., Ltd.

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 on Form 20-F:

- CSI Changshu Manufacturing has the land use right to two pieces of land of approximately 40,000 square meters and 180,000 square meters, respectively, in Changshu, on which we have built manufacturing facilities with a total floor area of approximately 164,817 square meters. We have obtained certificates of property ownership for all of CSI Changshu Manufacturing’s facilities.

- CSI Luoyang Manufacturing has a land use right to a piece of land of approximately 35,345 square meters in Luoyang (Phase I), on which we have built manufacturing facilities of approximately 6,761 square meters. The certificates for property ownership were granted in June 2008. In the same year of 2008, CSI Luoyang Manufacturing obtained the land use right to a piece of land adjacent of approximately 79,685 square meters (Phase II), on which we have built manufacturing facilities of approximately 29,811 square meters. The floor area of Phase II is approximately 29,811 square meters. The certificates for property ownership were granted in September 2013. Subsequently in 2016, CSI Luoyang Manufacturing obtained the land use right to another piece of land of 159,961 square meters (Phase III), on which we have constructed manufacturing facilities with the floor area of approximately 38,955 square meters. We obtained the certificates for property ownership of Phase III in March 2018.
- CSI Cells has the land use right to a piece of land of approximately 65,661 square meters in Suzhou. We completed the construction of our first solar cell manufacturing facilities of 14,077 square meters (Phase I) on this site in the first quarter of 2007 and subsequently obtained the certificate of property ownership. 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 obtained the certificates of property ownership for Phase II and Phase III in September 2019. CSI Cells merged with CSI Solar New Energy (Suzhou) Co., Ltd. in 2012, and obtained the land use right to another piece of land of approximately 10,000 square meters in Suzhou and the certificate of property ownership for approximately 4,833 square meters of floor area.
- CSI Solar Manufacturing (Yan Cheng) Inc. has leased the cell manufacturing facilities of approximately 26,921 square meters on a piece of land of approximately 66,667 square meters (Phase I) since 2015. It has the right and expects to purchase these facilities and obtain the property ownership and land use right between 2021 and 2022. In 2016, CSI Solar Manufacturing obtained the land use right to a piece of land of approximately 133,333 square meters (Phase II and Phase III), on which we have built cell manufacturing facilities with a total floor area of approximately 26,093.42 square meters. The commercial operations have commenced since then and we obtained the certificates for property ownership of Phase II and Phase III cell manufacturing facilities in August 2018. In 2017, CSI Solar Manufacturing obtained the land use right of approximately 33,664 square meters for the construction of Phase IV facilities, on which and former land, we are building manufacturing facilities with a total floor area of approximately 55,640 square meters and expected to obtain the certificate of property ownership by the end of 2022.
- In Baotou of Inner Mongolia, Canadian Solar Sunenergy (Baotou) Co., Ltd. have obtained the land use right of a piece of land of approximately 224,997 square meters, on which we have built poly ingots manufacturing facilities with a floor area of approximately 18,000 square meters. The production of poly ingots manufacturing has commenced since May 2017. We have also started the construction of other facilities producing mono ingots with a floor area of approximately 61,728 square meters on the same land.
- In Suzhou, Canadian Solar Sunenergy (Suzhou) Co., Ltd. (Canadian Solar Sunenergy (Suzhou) Co., Ltd. has been merged with CSI Cells Co., Ltd.) has obtained the land use right to a piece of land of approximately 60,000 square meters and owns the module manufacturing facility thereon with a floor area of 28,355 square meters, which commenced production in the first quarter of 2017.
- CSI Cells (Yancheng) Co., Ltd. has the land use right to a piece of land of approximately 133,857 square meters (Phase I) located in National Yancheng Economic Technical Development Zone of Yancheng City. The floor area of cell manufacturing facilities (Phase I) is approximately 62,910.15 square meters. A part of the cell manufacturing facilities has completed construction and commenced operations since September 2018 and the entire Phase I facilities commenced operations in May 2019. In the same year of 2019, we made an advanced payment to purchase the Phase II land of approximately 64,436 square meters and have obtained the land use right in September 2020.
- CSI Modules (DaFeng) Co., Ltd. obtained the land use right to a piece of land of 200,006 square meters in Yan-Cheng Da-Feng Economic Development District in 2017. The module production facility of 78,133 square meters (Phase I) completed construction and the production began in September 2018. We obtained the certificate of property ownership for Phase I in January 2020. On the same piece of land, we are building manufacturing facilities with a total floor area of approximately 68,066 square meters (Phase II) since the fourth quarter of 2020.
- CSI Modules (JiaXing) Co., Ltd. obtained the land use right to a piece of land of 165,057 square meters in 2018. On which we have constructed manufacturing facilities with the floor area of approximately 124,042 square meters.
- CSI New Energy Development (Suzhou) Co., Ltd. (formerly known as Suzhou Gaochuangte New Energy Development Co., Ltd.) and its wholly-owned subsidiary obtained the land use right to a piece of land of 598 square meters in 2018 and own the office building thereon with a floor area of 1,972 square meters.

- In Ontario, we lease approximately 14,851 square meters of operation facilities in Guelph, Ontario, Canada for a term of ten years commencing September 1, 2010. 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 operation facilities for the same term. In December 2019, we have renewed the leases for three years from 2020 to 2023.
- In Vietnam, we lease approximately 15,784 square meters of manufacturing facilities in Haiphong City, Vietnam since 2015 and have renewed for another three years commencing August 7, 2018. The production has begun since 2016.
- In Thailand, Canadian Solar Manufacturing (Thailand) Co., Ltd. has a land of 179.2 Rai (286,732 square meters) with the ownership certificate obtained. A module manufacturing facility of 29,723 square meters and a cell manufacturing facility of 19,139 square meters were built and the production commenced in the third quarter of 2016 and in April 2017, respectively. The construction of another cell manufacturing facility with a floor area of 18,100 square meters and a module manufacturing facility with a floor area of 15,460 square meters were completed and the production commenced in the third quarter of 2019.

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 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. For discussion of 2018 items and year-over-year comparisons between 2019 and 2018 that are not included in this annual report on Form 20-F, refer to "Item 5. - Operating and Financial Review and Prospects" found in our Form 20-F for the year ended December 31, 2019, that was filed with the Securities and Exchange Commission on April 28, 2020.

In 2020, the Company reached a strategic decision to pursue a listing of its module and systems business in China, and resulted in a change of reportable business segments to CSI Solar segment and Global Energy segment. The prior period segment information has been recast to conform to the current period's presentation. Refer to "Item 5. Operating and Financial Review and Prospects—A. Operating Results—Segment Reporting" for further details.

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 materials and solar ingots, wafers and cells relative to the selling prices of modules;
- government subsidies and the availability of financing for solar projects;
- industry and seasonal demand;
- impact of assets impairment;
- solar power project development and sale and EPC and development services;
- antidumping, countervailing and other 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 2019, we generated 77.5% of our net revenues from our CSI Solar segment, which includes solar modules, solar system kits, battery energy storage solutions, China energy (including solar projects, EPC services and electricity revenue in China), and other materials, components and services (including EPC), and 22.5% from our Global Energy segment, which includes global solar and energy storage power projects (excludes China), O&M and asset management services, global electricity revenue (excludes China), as well as other development services . In 2020, we generated 79.1% of our net revenues from our CSI Solar segment and 20.9% from our Global Energy segment.

Our standard solar modules are priced based on 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 for modules in the solar power market 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 materials and solar ingots, wafers and cells. During the first few years of our operations, the average selling price 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 has declined sharply as competition increased. In 2017 and 2018, the average selling price of our standard solar modules was approximately $0.40 per watt and $0.34 per watt, respectively; and, in 2019 and 2020, it was approximately $0.29 per watt and $0.25 per watt, respectively. We expect the averaging selling price of our standard solar modules to continue to decline, albeit at a more moderate rate.

Costs of Silicon Raw Materials and Solar Ingots, Wafers and Cells 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 materials and solar ingots, wafers and cells at reduced prices in line with the decreasing selling prices of our solar modules, 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

Over the past few years, the cost of solar energy has declined and the industry has become less dependent on government subsidies and economic incentives. However, governments in some of our largest markets have expressed their intention to continue supporting various forms of “green” energies, including solar power, as part of broader policies towards the reduction of carbon emissions. The governments in many of our largest markets, including the United States, Japan and the European Union, continue to provide incentives for investments in solar power that will directly benefit the solar industry. We believe that the near-term growth of the market still depends in large part on the availability and size of such government subsidies and economic incentives.

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 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, when adverse weather conditions can complicate the installation of solar power systems, thereby decreasing demand for solar modules. 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."

Impact of Assets Impairment

For our property, plant and equipment, investments in affiliates, and project assets, if their fair value is less than their carrying value or their carrying value cannot be recoverable, we need to record an impairment loss. We had impairment loss of $42.1 million and $36.3 million for our property, plant and equipment, investments in affiliates, and project assets in 2019 and 2020, respectively.

Our business development and operation involve numerous risks and uncertainties which could lead to the assets impairment. These risks and uncertainties include what have been discussed in "Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—We may not continue to be successful in developing and maintaining a cost-effective solar cell, wafer and ingot manufacturing capability." 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."

Solar Power Project Development and Sale and EPC and Development Services

Revenues generated from our Global Energy segment accounted for 22.5% and 20.9% of our net revenues in 2019 and 2020, 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 plants in operation that have an estimated resale value of approximately $620 million as of January 31, 2021. We also intend to monetize certain of our projects before they reach COD. Our revenues from the Global 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—Global 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 business 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."

Antidumping,Countervailing and Other Duty Costs and True-up Charges

In 2020, we booked the benefits of antidumping and countervailing duty provision reversals of $17.9 million, primarily associated with prior years' module sales based on the updated rates arising from the administrative reviews carried out by the U.S. Department of Commerce.

We have been in the past, and may be in the future, subject to antidumping and countervailing duty rulings and orders. In particular, we have been subject to antidumping 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, antidumping 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 2020 were denominated in U.S. dollars, Renminbi and Euros, with the remainder in other currencies such as Japanese Yen, Brazilian reals, Australian dollars and Canadian dollars. The majority of our costs and expenses in 2020 were denominated in Renminbi, primarily 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 commercial banks that are denominated primarily in Renminbi, U.S. dollars and Japanese yen. 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, since he reviews consolidated and segment results when making decisions about allocating resources and assessing performance for us.

From 2016 through the third quarter of 2020, we had been operating in two principal reportable business segments:

- **MSS Segment,** which primarily comprised the design, development, manufacture and sale of solar power products and solar system kits. The MSS segment also provided EPC and O&M services; and
- **Energy Segment,** which primarily comprised solar power project development and sale, operating solar power projects and sales of electricity.

In July 2020, we reached a strategic decision to pursue a listing of our subsidiary, CSI Solar Co., Ltd., in China. As a result, beginning from the fourth quarter of 2020, we report our financial performance, including revenue, gross profit and income from operations, based on the following two reportable business segments:

- **CSI Solar Segment,** which includes solar modules, solar system kits, battery energy storage solutions, China energy (including solar projects, EPC services and electricity revenue in China), and other materials, components and services (including EPC); and
- **Global Energy Segment,** which includes global solar and energy storage power projects (excluding China), O&M and asset management services, global electricity revenue (excluding China), as well as other development services.

Comparative period financial information for 2018 and 2019 by reportable business segment in this annual report has been recast to conform to current presentation.

Impact of COVID-19

The outbreak of COVID-19 posed significant challenges to many aspects of our business. Global commerce generally has been negatively affected due to travel restrictions, disruptions of global shipping and logistics systems, quarantines, and other measures taken by governments. Near-term global economic growth has also been adversely impacted. As a result, investors may have a reduced appetite for equity investment in the near term; credit markets may become unsettled in the near term; and project installation activities may see delays. In addition, lockdowns may impact the rooftop installation market. The COVID-19 situation remains fluid and we will continue to monitor it closely to assess the potential impacts.

We are taking mitigation strategies to reduce the adverse impact of COVID-19 to our business. For our module and beyond-pure-module business, we closely monitor market changes; secure orders by leveraging our channel strength and brand loyalty; adjust production plans by, for example, increasing the amount of "build-to-order" production and reducing "build-to-stock" production; tightening credit controls to reduce potential credit losses; and accelerating R&D and product development to improve our product offerings ahead of an eventual market recovery. For our energy business, we closely monitor market changes; intend to increase NTP and COD sales; renegotiate PPA execution dates; leverage our global footprint to ensure access to project finance; start construction on critical projects to sell later; and accelerate storage projects that do not require ITC.

We expect governments around the world will continue to adopt various stimulus policies to curb the economic downturn resulting from the response to the outbreak of COVID-19. For example, a lower interest rate environment resulting from such stimulus policies around the world may facilitate capital partnerships to fund our energy business development.

See “Item 3. Key Information-D. Risk Factors-Risks Related to Our Company and Our Industry-We face risks related to natural disasters, health epidemics, such as COVID-19, and other catastrophes, which could significantly disrupt our operations.” for further discussion.

Overview of Financial Results

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

Net Revenues

CSI Solar Segment

Revenues generated from our CSI Solar segment accounted for 77.5% and 79.1% of our net revenues in 2019 and 2020, respectively. Our revenues from our CSI Solar segment are affected primarily by average selling prices per watt and unit volumes shipped, both of which depend on product supply and demand. Our revenues from sales to customers are recorded net of estimated returns.

Global Energy Segment

Revenues generated from our Global Energy segment accounted for 22.5% and 20.9% of our net revenues in 2019 and 2020, respectively. Our revenues from our Global 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—Global Energy Segment-Solar Project Development and Sale” for a description of the status of our solar power projects.

Revenue recognition for our Global Energy segment is not necessarily linear in nature due to the timing of when all relevant revenue recognition criteria for the sale of our solar power projects have been met. During 2020, we recognized $655 million of revenue from the sale of solar power projects. Our revenue recognition policies for the solar power project development are described in “-Critical Accounting Policies-Revenue Recognition.”

Cost of Revenues

CSI Solar Segment

The cost of revenues of our CSI Solar 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 restricted share units and 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;
- operation and maintenance costs;
- solar project EPC services; and
- antidumping, countervailing and other duty costs and true-up charges.
- acquiring solar power projects in China;
- acquiring and developing solar project sites in China, including interconnection fees and permitting costs;
- solar project EPC and development services in China;

- interest capitalized for China solar power projects during construction period;
- operating and maintaining China solar power plants, including depreciation of solar power plants; and
- impairment of China project assets.

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. In 2019, we increased our guarantee for defects in materials and workmanship up to twelve years and we warrant that, for a period of 25 years, our standard 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 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 80.7% of the labeled power output.

We have lengthened the warranty against decline in performance for our bifacial module and double glass module products to 30 years.

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 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. See “Item 3. Key Information—D. Risk Factors—Risks Related to Our Company and Our Industry—We may be subject to unexpected warranty expense that may not be adequately covered by our insurance policies.”

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.

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 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. The warranty insurance is renewable annually. See “—Critical Accounting Policies—Warranty Costs.”

In 2020, we booked the benefits of antidumping and countervailing duty provision reversals of $17.9 million, primarily associated with prior years’ module sales based on the updated rates arising from the administrative reviews carried out by the U.S. Department of Commerce.

Global Energy Segment

The cost of revenues of our Global 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 power plants, including depreciation of solar power plants; and
- impairment of project assets.

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 ten 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.

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 (after adjusting for actual solar irradiation). 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.

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 and distribution expenses, general and administrative expenses, research development expenses and other operating income, net. Our operating expenses increased in 2019 and 2020. We expect our operating expenses to increase as our net revenues grow in the future.

Selling and Distribution Expenses

Selling and distribution expenses consist primarily of salaries and benefits, transportation and customs expenses for delivery of our products, sales commissions for our sales agents, advertising, promotional and trade show expenses, and other sales and marketing expenses. Our selling and distribution expenses increased in 2019 and 2020. We expect that as we increase our sales volumes in the future, our selling and distribution 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, insurance fees and impairment of long-lived assets. Our general and administrative expenses decreased in 2019 and 2020.

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 2019 and 2020, our research and development expenses accounted for 1.5% and 1.3%, respectively, 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, government grants received, and business interruption insurance compensation.

Share-based Compensation Expenses

Under our share incentive plan, as of December 31, 2020, we had outstanding:

- 26,291 stock options; and
- 116,500 restricted shares; and
- 1,888,753 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 awards 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, 2020, we recorded share-based compensation expenses of $12.4 million, compared to $10.7 million for the year ended December 31, 2019. We have allocated these share-based compensation expenses to our cost of revenues, selling and distribution expenses, general and administrative expenses and research and development expenses, depending on the job functions of the individuals to whom we granted the options 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,			
	2019		2020	
	(In thousands of $, except for percentages)			
Share-based compensation expenses included in:				
Cost of revenues	1,196	11.2 %	1,270	10.3 %
Selling and distribution expenses	1,664	15.6 %	1,961	15.9 %
General and administrative expenses	6,991	65.4 %	8,343	67.5 %
Research and development expenses	831	7.8 %	776	6.3 %
Total share-based compensation expenses	10,682	100.0 %	12,350	100.0 %

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

Interest Expense

Interest expense consists primarily of interest incurred with respect to our short and long-term borrowings from banks and other lenders, and the convertible senior notes issued by us in September 2020.

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 Renminbi, Canadian dollars, Brazilian reals, and Japanese Yen, and interest rate swap to hedge the part of risks of floating interest rate. In 2019, we had a loss on the change in fair value of derivatives of $22.2 million, which included a $21.3 million loss on change in fair value of foreign currency derivatives and a $0.9 million loss on change in fair value of interest rate swap contracts. In 2020, we had a gain on the change in fair value of derivatives of $50.0 million, which included a $51.2 million gain on change in fair value of foreign currency derivatives and a $1.2 million loss in change in fair value of interest rate swap.

Income Tax Benefit (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 BCBCA and are registered to carry on business in Ontario and British Columbia. This subjects us to Canadian federal, Ontario provincial and British Columbia provincial corporate income taxes. Our combined tax rate was 26.5% for each of the years ended 2019 and 2020.

PRC enterprise income tax is calculated based on taxable income determined under PRC accounting principles with a uniform enterprise income tax rate of 25%. Certain of our PRC subsidiaries, such as CSI New Energy Holding and CSI Luoyang Manufacturing, once enjoyed preferential enterprise income tax rates. These benefits have, however, expired. In 2020, only Suzhou Sanysolar Materials Technology, CSI Cells, Canadian Solar Manufacturing (Changshu), Changshu Tegu New Material Technology, CSI New Energy Development (Suzhou) (formerly known as Suzhou Gaochuangte New Energy Development), Canadian Solar Sunenergy (Suzhou) Co., Ltd. (merged with CSI Cells in 2020) and Changshu Tlian enjoyed preferential enterprise income tax rates.

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. In 2020, we have made $12.9 million 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.

Revenue Recognition

We recognize revenue when it satisfies a performance obligation by transferring a promised good or service to a customer.

Solar power products and materials

Solar power products, including solar modules, other solar power products, solar system kits and materials related to solar power products are transferred at a point in time when the customer obtains control of the products, which is typically upon shipment or delivery depending on the contract terms. Revenues of solar product sales also include reimbursements received from customers for shipping and handling costs. Sales agreements typically contain the assurance-type customary product warranties but do not contain any post-shipment obligations nor any return or credit provisions, see our accounting policy for warranty.

We assessed whether it is probable that we will collect substantially all of the consideration to which it will be entitled in exchange for the products that will be transferred to the customer. As of December 31, 2019 and 2020, we had inventories of $7.7 million and $9.5 million, respectively, relating to sales to customers where revenues were not recognized because the collection of payment was determined to be not probable. The delivered products remain as inventories on consolidated balance sheets, regardless of whether the control has been transferred. If the collection of payment becomes probable in the future, we would then recognize revenue, adjust inventories and recognize cost of revenues.

O&M and asset management services

O&M and asset management services are transferred over time when customers receive and consume the benefits provided by our performance under the terms of service arrangements. Revenues from O&M and asset management services are recognized over time based on the work completed to date which does not require re-performances and the costs of O&M and asset management services are expensed when incurred.

Battery storage solutions, EPC and development services

We recognize revenue for sales of battery storage solutions, EPC and development services over time based on the estimated progress to completion using a cost-based input method. In applying the cost-based input method of revenue recognition, we use the actual costs incurred relative to the total estimated costs to determine our progress towards contract completion and to calculate the corresponding amount of revenue and gross profit to recognize. Cost based input method of revenue recognition is considered a faithful depiction of our efforts to satisfy battery storage solutions, EPC and development services contracts and therefore reflect the transfer of goods or services to a customer under such contracts. Costs incurred towards contract completion may include costs associated with direct materials, labor, subcontractors, and other indirect costs related to contract performance. The cost-based input method of revenue recognition requires us to make estimates of net contract revenues and costs to complete our projects. In making such estimates, significant judgment is required to evaluate assumptions related to the amount of net contract revenues, including the impact of any performance incentives, liquidated damages, and other payments to customers. Significant judgment is also required to evaluate assumptions related to the costs to complete our projects, including materials, labor, contingencies, and other system costs. If estimated total costs of any contract are greater than the estimated net revenues of the contract, we recognize the entire estimated loss in the period the loss becomes known. The cumulative effect of 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 estimates are identified and the amounts can be reasonably estimated.

Solar power and energy storage projects

Sales of solar power and energy storage projects are recognized at a point in time when customers obtain control of solar power projects. For sales of solar power and energy storage projects in which we obtain an interest in the project sold to the customer, we recognize all of the revenue for the consideration received, including the fair value of the non-controlling interest we obtained, and defer any profit associated with the interest obtained.

Our solar power projects are often held in separate legal entities which are formed for the special purpose of constructing the solar power projects, which we refer to as “project companies”. Our management uses judgment to determine whether deconsolidation of the project companies is appropriate upon transfer of equity interest to the customers, to identify performance obligations, and to estimate the variable consideration, if any, as part of the transaction price.

Electricity revenue

Electricity revenue is generated primarily by our solar power plants under long-term PPAs and performance-based energy incentives. For electricity sold under PPAs, we recognize electricity revenue based on the price stated in the PPAs when electricity has been generated and transmitted to the grid. Performance-based energy incentives are awarded under certain state programs for the delivery of renewable electricity when the conditions attached to it have been met and there is reasonable assurance that the incentives will be received. During the years ended December 31, 2019 and 2020, we recognized performance-based energy incentives related to electricity generated of $3.9 million and $6.6 million, respectively, in revenue.

Warranty Costs

We warrant, for a period up to twelve years, that our solar products will be free from defects in materials and workmanship.

We also warrant that, for a period of 25 years, our standard 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 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 80.7% of the labeled power output.

We have lengthened the warranty against decline in performance for our bifacial module and double glass module products to 30 years.

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 ten 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 1.0% warranty provision against our revenue for sales of solar power products.

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 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.

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 or 30 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 $79.9 million and $82.5 million at the end of 2019 and 2020, respectively, and were included as a component of other non-current assets.

We made downward adjustments to our accrued warranty costs of $1.4 million and $0.2 million and other non-current assets of $0.8 million and $0.6 million, for the years ended December 31, 2019 and 2020, respectively, 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 $28.0 million and $26.9 million are included in cost of revenues for the years ended December 31, 2019 and 2020, respectively.

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 $70.6 million and $50.1 million as of December 31, 2019 and 2020, respectively.

Current income taxes are provided for in accordance with the laws of the relevant taxing authorities.

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 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

See note 2(ak) Recently issued accounting pronouncements in the notes to our consolidated financial statements, included herein.

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,			
	2019		2020	
	(in thousands of $, except percentages)			
Net revenues	$ 3,200,583	100.0 %	3,476,495	100.0 %
CSI Solar segment	2,591,154	80.9 %	3,105,044	89.3 %
Global Energy segment	718,735	22.5 %	726,167	20.9 %
Elimination	(109,306)	(3.4)%	(354,716)	(10.2)%
Cost of revenues	2,482,086	77.6 %	2,786,581	80.2 %
CSI Solar segment	1,977,502	61.8 %	2,496,153	71.8 %
Global Energy segment	604,856	18.9 %	577,052	16.6 %
Elimination	(100,272)	(3.1)%	(286,624)	(8.2)%
Gross profit	718,497	22.4 %	689,914	19.8 %
CSI Solar segment	613,652	19.1 %	608,891	17.5 %
Global Energy segment	113,879	3.6 %	149,115	4.3 %
Elimination	(9,034)	(0.3)%	(68,092)	(2.0)%
Operating expenses:				
Selling and distribution expenses	180,326	5.6 %	224,243	6.5 %
General and administrative expenses	242,783	7.6 %	225,597	6.5 %
Research and development expenses	47,045	1.5 %	45,167	1.3 %
Other operating income, net	(10,536)	(0.3)%	(25,523)	(0.7)%
Total operating expenses	459,618	14.4 %	469,484	13.5 %
Income from operations	258,879	8.1 %	220,430	6.3 %
Other income (expenses)				
Interest expense	(81,326)	(2.5)%	(71,874)	(2.1)%
Interest income	12,039	0.4 %	9,306	0.3 %
Gain (loss) on change in fair value of derivatives, net	(22,218)	(0.7)%	50,001	1.4 %
Foreign exchange gain (loss)	10,370	0.3 %	(64,820)	(1.9)%
Investment income (loss)	1,929	0.1 %	(8,559)	(0.2)%
Other expenses, net	(79,206)	(2.5)%	(85,946)	(2.5)%
Income before income taxes and equity in earnings of unconsolidated investees	179,673	5.6 %	134,484	3.9 %
Income tax benefit (expense)	(42,066)	(1.3)%	1,983	0.1 %
Equity in earnings of unconsolidated investees	28,948	0.9 %	10,779	0.3 %
Net income	166,555	5.2 %	147,246	4.2 %
Less: Net income (loss) attributable to non-controlling interests	(5,030)	(0.2)%	543	0.0 %
Net income attributable to Canadian Solar Inc.	171,585	5.4 %	146,703	4.2 %

Year Ended December 31, 2020 Compared to Year Ended December 31, 2019

Net Revenues. Our total net revenues increased by $275.9 million, or 8.6%, from $3,200.6 million for the year ended December 31, 2019 to $3,476.5 million for the year ended December 31, 2020. The increase was primarily due to higher solar module shipments recognized in revenue from our CSI Solar segment from 7.9 GW to 10.3 GW), and an increase in revenue contribution from the sale of solar power projects in China, partially offset by a decrease in the average selling price of our solar modules. For the year ended December 31, 2020, Asia contributed 46.6%, the Americas contributed 35.1%, and Europe and others accounted for 18.3% of our net revenues. Our top five customers by revenues collectively accounted for 21.2% of our net revenues for the year ended December 31, 2020.

- *CSI Solar Segment*. Revenues generated by our CSI Solar segment increased by $513.9 million, or 19.8%, from $2,591.2 million for the year ended December 31, 2019 to $3,105.0 million for the year ended December 31, 2020. $987.4 million of the increased revenues was attributable to a 46.6% increase in volume of shipments of our solar modules and offset by $473.5 million attributable to a 15.3% decline in the average selling price of our solar modules. Our solar system kits revenues generated by our CSI Solar segment increased by 35.4% year-over-year, from $116.4 million in 2019 to $157.7 million in 2020. In addition, our China project (including electricity) sales increased by 201.9%, from $58.1 million in 2019 to $175.4 million in 2020. Our battery storage solutions, newly introduced in 2020, generated revenue of $7.9 million. These increases were partially offset by a $234.6 million decrease of other CSI Solar revenues, primarily related to a decrease of EPC services revenue. We see our beyond-pure-module sales and China project (including electricity) sales as important items for us going forward, and expect their revenues to increase in the future.

  Our total solar module shipments recognized in revenue at CSI Solar segment for the year ended December 31, 2020 were 10,311 MW, an increase of 29.9% from 7,940 MW for the year ended December 31, 2019. The increase was primarily due to an increase in sales in our key geographical regions, particularly the Americas markets where sales increased by 446 MW from 2,426 MW for the year ended December 31, 2019 to 2,872 MW for the year ended December 31, 2020, mainly as a result of higher shipments to customers in the U.S. market. Shipments to Asian markets increased by 2,055 MW, from 2,859 MW for the year ended December 31, 2019 to 4,914 MW for the year ended December 31, 2020. Shipments to European markets increased by 559 MW and shipments to other regions decreased by 689 MW, principally as a result of decreased sales to the Australia market.

  The average selling price of our solar modules declined from $0.29 for the year ended December 31, 2019 to $0.25 for the year ended December 31, 2020. The decline was primarily due to the supply of solar products exceeding demand and a change in the geographic mix of sales.

- *Global Energy Segment*. Revenues generated by our Global Energy segment increased by $7.5 million, or 1.0%, from $718.7 million for the year ended December 31, 2019 to $726.2 million for the year ended December 31, 2020. This increase was primarily due to an increase of $2.8 million in sales of solar power projects.

Cost of Revenues. Our total cost of revenues increased $304.5 million, or 12.3%, from $2,482.1 million for the year ended December 31, 2019 to $2,786.6 million for the year ended December 31, 2020. The increase was primarily due to higher solar module shipments and higher solar module manufacturing costs, partially offset by lower cost of revenue related to solar power project sales. Total cost of revenues as a percentage of total net revenues increased from 77.6% for the year ended December 31, 2019 to 80.2% for the year ended December 31, 2020.

- *CSI Solar Segment*. Cost of revenues of our CSI Solar segment increased by $518.7 million, or 26.2%, from $1,977.5 million for the year ended December 31, 2019 to $2,496.2 million for the year ended December 31, 2020. The increase was primarily due to increased solar module shipments and higher module manufacturing costs. Our module manufacturing cost in China, including purchased polysilicon, wafers and cells, increased to $0.219 per watt in December 2020.

  For the year ended December 31, 2020, we booked the benefits of antidumping and countervailing duty provision reversals of $17.9 million, primarily associated with prior years' module sales based on the updated rates arising from the administrative reviews carried out by the U.S. Department of Commerce.

- *Global Energy Segment*. Cost of revenues incurred by our Global Energy segment decreased by $27.8 million, or 4.6%, from $604.9 million for the year ended December 31, 2019 to $577.1 million for the year ended December 31, 2020. The decrease was primarily due to a more favorable mix of solar power project sales.

Gross Profit. As a result of the foregoing, our total gross profit decreased by $28.6 million, or 4.0%, from $718.5 million for the year ended December 31, 2019 to $689.9 million for the year ended December 31, 2020. Our total gross margin decreased from 22.4% for the year ended December 31, 2019 to 19.8% for the year ended December 31, 2020.

- *CSI Solar Segment*. Gross profit for our CSI Solar segment decreased by $4.8 million, or 0.8%, from $613.7 million for the year ended December 31, 2019 to $608.9 million for the year ended December 31, 2020, primarily due to a decrease in the average selling price of our solar modules and an increase in our solar module manufacturing costs, partially offset by an increase in solar module shipments and an increase in China energy (including electricity) sales. Gross margin decreased from 23.7% for the year ended December 31, 2019 to 19.6% for the year ended December 31, 2020, primarily due to a decrease in the average selling price of our solar modules and an increase in our solar module manufacturing cost, partially offset by an increase in the China energy (including electricity) sale which has a higher gross margin.
- *Global Energy Segment*. Gross profit for our Global Energy segment increased by $35.2 million, or 30.9% from $113.9 million for the year ended December 31, 2019 to $149.1 million for the year ended December 31, 2020, primarily due to a more favorable mix of solar power project sales. Gross margin increased from 15.8% for the year ended December 31, 2019 to 20.5% for the year ended December 31, 2020, primarily due to a higher proportion of sales of high margin solar power projects in 2020.

Operating Expenses. Our operating expenses increased by $9.9 million, or 2.1%, from $459.6 million for the year ended December 31, 2019 to $469.5 million for the year ended December 31, 2020. Operating expenses as a percentage of our total net revenues decreased from 14.4% for the year ended December 31, 2019 to 13.5% for the year ended December 31, 2020.

Selling and Distribution Expenses. Our selling and distribution expenses increased by $43.9 million, or 24.4%, from $180.3 million for the year ended December 31, 2019 to $224.2 million for the year ended December 31, 2020. The increase was primarily due to an increase of $46.2 million in shipping and handling expenses which was contributed by the increase in module shipment and transportation costs, an increase of $5.9 million in various professional fees, and an increase of $4.2 million in lease expenses, partially offset by a decrease of $3.6 million in travel and discretionary expenses, a decrease of $3.5 million in warranty costs, and a decrease of $3.1 million in labor costs. Selling and distribution expenses as a percentage of our net total revenues increased from 5.6% for the year ended December 31, 2019 to 6.5% for the year ended December 31, 2020.

General and Administrative Expenses. Our general and administrative expenses decreased by $17.2 million, or 7.1%, from $242.8 million for the year ended December 31, 2019 to $225.6 million for the year ended December 31, 2020. The decrease was primarily due to a decrease of $9.1 million in impairment charge related to certain manufacturing assets, $6.0 million in travel expenses, $3.3 million in outsourced services, and $2.2 million in labor cost, partially offset by an increase of $3.9 million in provision for credit losses. General and administrative expenses as a percentage of our total net revenues decreased from 7.6% for the year ended December 31, 2019 to 6.5% for the year ended December 31, 2020.

Research and Development Expenses. Our research and development expenses decreased by $1.9 million, or 4.0%, from $47.0 million for the year ended December 31, 2019 to $45.2 million for the year ended December 31, 2020. Research and development expenses as a percentage of our total net revenues were 1.5% for the year ended December 31, 2019 and 1.3% for the year ended December 31, 2019.

Other Operating Income, Net. Our other operating income, net, increased by $15.0 million, or 142.2%, from $10.5 million for the year ended December 31, 2019 to $25.5 million for the year ended December 31, 2020. The increase was primarily due to an increase of $14.5 million in government grants.

Income from Operations. As a result of the foregoing, income from operations decreased by $38.5 million, or 14.9%, from $258.9 million for the year ended December 31, 2019 to $220.4 million for the year ended December 31, 2020.

Interest Expense, Net. Our interest expense, net, decreased $6.7 million, or 9.7%, from $69.3 million for the year ended December 31, 2019 to $62.6 million for the year ended December 31, 2020. Interest expense decreased by $9.5 million, or 11.6%, from 81.3 million for the year ended December 31, 2019 to $71.9 million for the year ended December 31, 2020. The decrease was primarily due to repayment of debt with higher interest rates, partially offset by higher debt. Our debt balance increased to $2,070 million as of December 31, 2020 compared to $1,839 million as of December 31, 2019. Interest income decreased by $2.7 million, or 22.7%, from $12.0 million for the year ended December 31, 2019 to $9.3 million for the year ended December 31, 2020.

Gain (Loss) on Change in Fair Value of Derivatives, Net. We recorded a gain of $50.0 million on change in fair value of derivatives for the year ended December 31, 2020, compared to a loss of $22.2 million for the year ended December 31, 2019. The gain recorded for the year ended December 31, 2020 was due to a gain of $51.2 million on change in fair value of foreign currency derivatives and a loss of $1.2 million on change in fair value of interest rate swap. The loss recorded for the year ended December 31, 2019 was attributable to a gain on foreign currency forward and option contracts that we purchased to hedge part of the fluctuation of exchange rates for a variety of foreign currencies.

Foreign Exchange Gain (Loss). We recorded a foreign exchange loss of $64.8 million for the year ended December 31, 2020, compared to a foreign exchange gain of $10.4 million for the year ended December 31, 2019. The loss for the year ended December 31, 2020 was primarily due to the appreciation of Renminbi against the U.S. dollars, depreciation of Brazilian reals against the U.S. dollars, partially offset by the appreciation of Japanese Yen against U.S. dollars.

Investment Income (Loss). We recorded investment loss of $8.6 million for the year ended December 31, 2020, compared to investment income of $1.9 million for the year ended December 31, 2019.

Income Tax Benefit (Expense). We recorded an income tax benefit of $2.0 million for the year ended December 31, 2020, compared to an income tax expense of $42.1 million for the year ended December 31, 2019. The income tax benefit in 2020 was primarily due to a one-time net operating loss carryback provision, a higher expected utilization of tax losses carried forward, partially offset by a withholding tax expense in China related to a special dividend distribution from one of our Chinese subsidiaries, CSI Solar Co., Ltd.

Equity in Earnings of Unconsolidated Investees. Our share of the earnings of unconsolidated investees was a net gain of $10.8 million for the year ended December 31, 2020, compared to a net gain of $28.9 million for the year ended December 31, 2019. The decrease was primarily due to the disposal of our Roserock project in July 2020, in which we had 49% equity interest.

Net Income (Loss) Attributable to Non-Controlling Interest. The net income (loss) attributable to non-controlling interest is the share of net income (loss) attributable to the interests of non-controlling shareholders in CSI Solar Co., Ltd and certain of our subsidiaries in Australia, Japan and Mexico.

Net Income Attributable to Canadian Solar Inc. As a result of the foregoing, we recorded net income of $146.7 million for the year ended December 31, 2020, which was a decrease of $24.9 million, or 14.5%, compared to our net income of $171.6 million for the year ended December 31, 2019.

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 business required significant working capital and capital expenditure financing in 2020 and is expected to continue to do so 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. We may have to use part of 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 2020, we financed our operations primarily through short-term and long-term borrowings.

As of December 31, 2020, we had $1,178.8 million in cash and cash equivalents and $461.0 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. In 2020, our restricted cash was mainly used as collateral to secure bank acceptances and borrowings.

As of February 28, 2021, we had contractual credit facilities with an aggregate limit of approximately $2,815.4 million. In addition, we had uncommitted credit facilities of approximately $1,035.7 million.

As of February 28, 2021, we had approximately $421.4 million of long-term borrowings, $1,372.0 million of short-term borrowings and $58.7 million of long-term borrowings on project assets-current.

The long-term borrowings will mature during the period from the first quarter of 2022 to the first quarter of 2040 and bear interest ranging from 1.33% to 7.78% per annum.

The long-term borrowings on project assets - current have maturity dates ranging from the second quarter of 2022 to the third quarter of 2040, which are reclassified as current liabilities because these borrowings are associated with certain solar power projects that are expected to be sold in 2021, and bear interest ranging from 2.37% to 6.97% per annum.

The short-term borrowings will mature during the period from the first quarter of 2021 to the fourth quarter of 2021 and bear interest ranging from 0.08% to 5.66% per annum. The credit facilities 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 January 2016, we signed a $60.0 million loan facility agreement with International Finance Corporation, or IFC, a member of World Bank Group to fund the construction of our solar cell and module production facilities in Vietnam and other countries approved by IFC. The loan was fully repaid in December 2020.

In 2016, we entered into a financing agreement with the Export Development Canada, or EDC, pursuant to which EDC agreed to provide bank guarantees or letters of credit of up to $100 million to support our global project development. Royal Bank of Canada and Toronto Branch of China Construction Bank Corporation serve as fronting banks for the facility. In September 2018, we renewed the agreement with EDC and increased the facility amount to $125 million with a more focused support for project development activities in North America, Latin America, Europe, Asia and Australia. Since September 2019, Credit Agricole Corporate and Investment Bank (Canada Branch) has joined as one of the fronting banks. In July 2020, the guarantee was renewed with an extended facility amount totaling $150 million.

In 2016, we obtained a syndicated three-year loan facility of JPY9.6 billion ($85.2 million) with Sumitomo Mitsui Banking Corporation, or SMBC, acting as the lead arranger and 13 other participating financial institutions. The facility is unsecured and loan proceeds may be used to develop our solar project pipeline in Japan and for general corporate working capital purposes. In October 2020, the facility agreement was renewed with 11 participating financial institutions led by SMBC at a term of two years and a facility amount of JPY9.1 billion ($88.2 million).

In January 2017, we obtained a five-year syndicated credit facility of $210 million with the Siam Commercial Bank Public Company Limited, or SCB, acting as the lead arranger and China Minsheng Banking Corporation Ltd, as one of the lenders. As of February 28, 2021, $96.4 million of the facility has been used to finance the construction of our solar cell and module manufacturing facilities in Thailand. Under the same facility agreement, we obtained a working capital facility of THB3.54 billion ($119.0 million) from SCB to support the operations of our manufacturing company in Thailand and $96.8 million was drawn as of February 28, 2021.

In March 2017, we entered into a three-year credit agreement of JPY4.0 billion ($35.5 million) with Sumitomo Mitsui Finance and Leasing Company, Limited, or SMFL, a member of Sumitomo Mitsui Financial Group. The facility received commitments from five finance leasing institutions. In April 2019, we renewed the agreement with a syndicate of four finance leasing institutions led by SMFL and expanded the facility to JPY5.35 billion ($48.0 million). In September 2019, we further expanded the facility to JPY6.85 billion ($63.0 million) and the facility will mature in March 2022. As of February 28, 2021, JPY3.3 billion ($31.4 million) was utilized in the development of our solar power projects in Japan.

In April 2017, we completed our second non-recourse project bond placement of JPY5.4 billion ($47.9 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. The project reached COD in December 2017 and the bond was assumed by the buyer upon the completion of project sale in December 2020.

In May 2017, we secured a five-year non-recourse project financing of AUD65 million ($50.8 million) with Bank of Tokyo-Mitsubishi UFJ, Ltd. and Clean Energy Finance Corporation for two solar farm power projects, the 17 MW Longreach project and the 30 MW Oakey 1 project, both in Queensland, Australia. In October 2017, we entered into a binding contract with Foresight Solar Fund Limited, or Foresight, pursuant to which Foresight agreed to acquire 49% interests in Longreach and Oakey. The sale of 49% interests was completed in the first quarter of 2018 and we have an option and intend to sell the remaining 51% interests to Foresight within three years after project COD. The Longreach project and the Oakey 1 project reached COD in November 2019 and February 2020, respectively.

In March 2018, we secured a non-recourse 18.5 years term facility of JPY16 billion ($142.0 million) from Shinsei Bank, Limited to finance the construction of our 53.4 MWp Oita Hijimachi solar power project in Japan. The project reached COD in October 2019 and was sold to Canadian Solar Infrastructure Fund, Inc. in March 2021. The term loan was fully repaid by using the sales proceed.

In May 2019, we secured a $50 million term loan from Credit Suisse AG, Singapore Branch, one of the world's leading financial services providers, to support the development of international solar project pipeline and for general corporate purposes. In March 2020, we expanded the facility to $80 million.

In September and October 2019, Recurrent entered into two credit facilities with syndicated financial institutions led by Rabobank and Nomura Corporate Funding Americas, LLC., or Nomura, which agreed to provide financing of $123.7 million and $60 million, respectively. The proceeds from the credit facilities were available for purchasing solar modules and other eligible equipment that will allow solar energy systems to qualify for the U.S. Federal Investment Tax Credit by satisfying the 5% safe harbor method outlined in the U.S. Internal Revenue Service (IRS) guidance notice. The outstanding balance as of February 28, 2021 was $175.0 million and requires repayment by 2022. The credit facilities are secured by the solar modules and certain project equity interests and is guaranteed by CSI.

In March 2020, we secured a bilateral revolving facility of Euro 55.0 million ($61.7 million) with Intesa Sanpaolo to fund a 151 MWp portfolio of 12 solar projects in Italy, located across different municipalities in Sicily, Apulia and Lazio.

In July 2020, Recurrent closed a debt financing of $282 million to construct 327.5 MWp Maplewood solar power project in Pecos County, Texas. The financing package, provided by a bank club led by Norddeutsche Landesbank, consists of a tranche 1 construction loan facility of $254 million, and a tranche 2 construction loan facility of $28 million. The project has commenced construction and $224.6 million was drawn as of February 28, 2021. CSI guarantees the performance obligations of certain subsidiaries under agreements entered into in connection with this credit facility that is subject to a cap of approximately $47 million.

In August 2020, Recurrent executed a $75 million development loan with Nomura. The loan facility leverages Recurrent's strong existing pipeline to fund and accelerate our development activities of solar energy projects and battery storage projects in the U.S. and Canada. As of February 28, 2021, the loan was fully drawn.

In September 2020, we completed an offering of $230 million in aggregate principal amount of 2.50% convertible senior notes, or the Notes. We received net proceeds of approximately $223 million from the offering, after deducting discounts, commissions and offering expenses. The Notes will mature on October 1, 2025.

In September 2020, we announced a RMB1.78 billion (approximately $261.3 million) capital raising for CSI Solar Co., Ltd. to qualify it for the planned carve-out IPO in China and bring in leading institutional investors and strategic partners. As a result, we received $224.6 million of share purchase proceeds in 2020.

In February 2021, we established Japan Green Infrastructure Fund LP, or the Fund, partnering with a business unit of Macquarie Group as a minority investor of the Fund to secure JPY22 billion ($213.2 million) of committed capital that will be used to develop, build and accumulate new solar projects in Japan.

We often 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 $134.8 million and $189.5 million as of December 31, 2019 and 2020, 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 primarily 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,	
	2019	2020
	(in thousands of $)	
Net cash provided by (used in) operating activities	600,111	(120,541)
Net cash used in investing activities	(294,102)	(319,662)
Net cash provided by (used in) financing activities	(34,614)	823,501
Net increase in cash, cash equivalents and restricted cash	264,430	434,295
Cash, cash equivalents and restricted cash at the beginning of the year	940,990	1,205,420
Cash, cash equivalents and restricted cash at the end of the year	1,205,420	1,639,715

Operating Activities

Net cash used in operating activities was $120.5 million in 2020, compared to net cash provided by operating activities of $600.1 million in 2019. The decreased operating cash flow in 2020 was primarily due to an increase of inventories which includes safe-harbor inventories increase in the U.S., and an increase in advances to suppliers due to expansion in manufacturing capacity. These were partially offset by an increase in other liabilities, an increase in notes payable, and a decrease in accounts receivable trade due to timing of collection.

In respect to the increase of the working capital used in inventories, we have increased safe-harbor modules that allow solar energy systems to qualify for the U.S. Federal Investment Tax Credit. As of December 31, 2019 and 2020, the safe-harbor modules amounted to $84.2 million and $181.0 million, respectively.

Investing Activities

Net cash used in investing activities was $319.7 million in 2020, compared to net cash used in investing activities of $294.1 million in 2019. The change was primarily due to an increase in payments of $43.6 million for purchase of property, plant and equipment, and an increase of $10.1 million in investment in affiliates, partially offset by a $31.4 million increase in proceeds from disposal of investment in affiliates.

Financing Activities

Net cash provided by financing activities was $823.5 million in 2020, compared to net cash used in financing activities of $34.6 million in 2019. The change was primarily due to an increase of $249.8 million in proceeds from issuance of and disposal to non-controlling interests, a $222.8 million of proceeds from issuance of convertible notes, a $175.5 million net increase in borrowings, a non-recurring $127.5 million payment for repurchase of convertible notes in 2019, as well as a subscription advances of $36.3 million relating to CSI Solar Co., Ltd.'s employee stock ownership plan (for additional information of the plan, see Note 1 to our consolidated financial statements, included herein).

As of December 31, 2020, we had total outstanding credit facilities of $2,619 million, of which $707.2 million were undrawn and available. We believe that our current cash and cash equivalents, anticipated cash flow from operations and existing credit facilities will be sufficient to meet our anticipated cash needs, including our cash needs for working capital, capital expenditures, investment requirements, share repurchases, as well as debt service repayment obligations for the 12 months ending December 31, 2021.

We may also from time to time seek to refinance our outstanding debt, or retire or purchase our outstanding debt through cash purchases and exchanges for securities, in the open market purchases, privately negotiated transactions or otherwise. From time to time, we may make acquisitions of, or investments in, other companies and businesses that we believe could expand our business, augment our market coverage, enhance our technical capabilities or otherwise offer growth opportunities. Such additional financing, refinancing, repurchases, exchanges, acquisitions or investments, if any, will depend on prevailing market conditions, our liquidity requirements, contractual restrictions and other factors. The amounts involved may be significant.

As of December 31, 2020, we had outstanding short-term borrowings of $638.9 million with Chinese banks. 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 $291.2 million and $334.8 million in 2019 and 2020, 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, 2020, our commitments for the purchase of property, plant and equipment were $305 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 boards of directors of our PRC subsidiaries determine the staff welfare and bonus reserves. The general reserves are used to offset future extraordinary losses. Our PRC subsidiaries may, upon a resolution of their boards of directors, convert their general reserves into capital. The staff welfare and bonus reserves are used for the collective welfare of the employees of the PRC subsidiaries. In addition to their general reserves, 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 $497.2 million and $568.9 million as of December 31, 2019 and 2020, 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 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, 2020, $381.7 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 conduct research and development activities in the following areas: i) ingot growth and wafering, ii) cells, iii) modules, iv) system performance analysis, v) energy solution products, and vi) reliability testing and analysis.

- Ingot growth and wafering is focused on developing advanced crystallization and sawing technologies to produce high quality mono and poly wafers.
- Solar cell research is focused on developing new high efficiency solar cells and advanced solar cell processing technologies.
- Module development is focused on module innovations, developing new module designs and technologies for leading wattage, efficiency, reliability and system-level performance.
- System performance analysis provides system-level performance evaluation and LCOE benchmarking for our various new products and innovations.
- Research and development on energy solution products is aimed at developing high quality inverters and energy storage systems for utility, commercial and residential applications. Energy solution products are also designed to advance solar system kits including modules, inverters, racking system, energy storage and other accessories in a package.
- The photovoltaic testing and reliability analysis laboratory has been accredited and operating according to ISO/IEC17025 standard since 2009. It is focused on the reliability testing and certification of solar module and system components, and has been qualified by VDE, CSA, Intertek and TUV Rheinland in their Test Data Acceptance Programs. Our research and development teams actively participate in and contribute to IEC standards for solar modules and systems, such as IEC 62804 test method for PID, IEC 60904-5 method for determining the cell temperature in operation, IEC 62788-8-1 for ECA measurement procedures, IEC 63202-3 measurement of bifacial cell's IV curve and IEC 63202-4 measurement of LeTID at cell level, etc.

As of December 31, 2020, we had 408 employees engaged in research, product development and engineering.

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

- developing novel multi crystalline casting technologies to continuously improve the ingot quality with reduced cost;
- developing CZ mono pulling technologies compatible to 210mm ingot size with competitive cost structure;

- developing novel diamond wire sawing technology compatible with 210mm mono ingot;
- continuously improving the conversion efficiency of solar cells and reducing cost through process and material improvement and innovation;
- developing new cell structures and technologies for higher efficiencies and performance;
- continuously improving the wattage of solar modules and reducing cost through process and material improvement and innovation;
- developing modules with improved design and assembly methods to have higher power output, module-level efficiency, reliability and system-level performance;
- designing and developing customized solar modules and products to meet customer requirements;
- designing and developing power electronics such as inverters;
- designing and developing energy storage systems;
- designing and developing solar system kits including modules, inverters, racking system, energy storage and other accessories in a package;
- testing, data tracing and analysis for system-level performance and reliability for our various products and innovations;
- developing new methods and equipment for analysis and quality control of incoming materials (such as polysilicon, wafers, cells and module materials, system product components and material).

In the future, we expect to focus on the following research and development initiatives that we believe will enhance our competitiveness. As we continue to move into the downstream energy business, we have strengthened the capabilities of our engineering staff and increased investment in the system areas.

- *210mm ingot and wafer*. We developed CZ pulling technologies compatible with 210mm ingot growth and related diamond wire sawing process for thin wafers. Our self-manufactured 210mm wafer will further bring the wafer cost down and make our module product more competitive in the market. The self-supply chain is also established with good quality and high performance.
- *High efficiency cells*. For current cell capacity, we are converting to large-size wafers, and converting from multi cells to mono cells production. Most of the mono PERC and multi PERC cells are based on 166mm or larger size wafers. Our research and development efforts enabled us to mass produce 166+mm mono PERC cells with best-in-class conversion efficiency since Q2 2020. Our new cell capacity expansion with 210mm wafer size commenced in October 2020, and is planned to ramp up from May 2021. The new 210mm cell capacity is equipped with state-of-the-art process technologies and equipment. We also improved advanced LID (Light Induced Degradation) and LeTID (Light and elevated Temperature Induced Degradation) mitigation technologies which enhanced our cell and module performances and stability. We have focused our research and development initiatives on N-type heterojunction (HJT) cell, PASSCon cell, and other technologies such as Perovskite. To explore the next generation technology beyond PERC, we invested on HJT technology and build a 250MW pilot line in Jiaxing, and the construction of the pilot line was completed in late 2020. We plan to launch HJT cell and module products in the second half of 2021 with best technical competence. With these advanced technologies, we can significantly lower the LCOE on the system level and improve our products' market competitiveness.
- *Competitive solar module products*. Our R&D teams including the module R&D, processing, testing and reliability, makes our products the most competitive in the market. We were the first to develop and mass-produce multi bus-bar (9BB) half-cut (Ku) modules in GW-scale. We were among the first to mass-produce bifacial modules with significant reduction in LCOE. We also pioneered the introduction and volume production of cells and modules using 166mm wafers, which enabled us to surpass 455W with our HiKu and BiHiKu module in 2020. Most of our existing production lines have been converted to be compatible with MBB half-cut, bifacial and 166mm+ cells. We plan to mass-produce HiKu7 modules using self-manufactured 210mm wafers in the first half of 2021, with wattage exceeding 655W, and the module efficiency exceeding 21%. All the newly invested production lines will be compatible with 210mm cells. Continuously improving the module reliability and system-level performance is another top-prioritized R&D activity. Through the optimization of design, process, quality control and testing methods of modules and incoming materials, the annual degradation rate of our modules has been reduced by approximately 8%. Last but not least, we were developing special modules per customers' requests, for instance, lightweight modules for loading-limited roofs, modules for seawater floating systems, and over 40 years' long lifetime modules for utility applications, etc. Innovative modules and installation methods for building integrated applications were also in the development.

- *Energy solution products*. Our energy solution products developed are mainly single-phase solar, three-phase solar and hybrid storage inverters, as well as energy storage systems for utility, commercial, residential applications, for both front and behind the meter applications. Our string inverter products will be certified and will be available broadly in many regions globally. We continue to advance our solar system kits which are 'ready-to-install', consisting of solar modules, inverters, racking system, energy storage and other accessories. These kits are deployed in significant markets globally.

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, 2020:

	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	1,401,079	1,401,079	—	—	—
Interest related to short-term debt obligations[1]	17,615	17,615	—	—	—
Operating lease obligations	28,903	14,374	11,059	1,611	1,859
Financing lease obligations	25,220	22,706	2,514	—	—
Purchase obligations[2]	304,713	174,509	130,204	—	—
Long-term debt obligations[3]	446,090	—	347,549	21,696	76,845
Interest related to long-term debt obligations[4]	64,500	18,433	19,459	4,896	21,712
Convertible notes[5]	230,000	—	—	230,000	—
Interest related to convertible notes[6]	28,750	5,990	11,500	11,260	—
Financing liability	81,871	—	24,552	57,319	—
Interest related to financing liability	17,109	5,177	8,953	2,979	—
Total	2,645,850	1,659,883	555,790	329,761	100,416

(1) Interest rates range from 0.30% to 6.33% per annum for short-term debt obligations.

(2) Includes commitments to purchase property, plant and equipment.

(3) The maturity dates of long-term debt obligations are based on our estimate timing of the monetization of related projects.

(4) Interest rates range from 0.89% to 7.78% 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 2.50% per annum on the principal outstanding.

The above table excludes accrued warranty costs of $37.7 million, liability for uncertain tax positions of $14.7 million, deferred tax liabilities-non-current of $49.1 million and loss contingency accruals of $26.5 million as we are unable to reasonably estimate the timing of future payments of these liabilities. Other long-term liabilities of $163.3 million were 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-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 business;
- our ability to develop, build and sell solar power projects in Canada, the U.S., Japan, the EU, China, Brazil, Mexico, Argentina, 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 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, strategic advisor and executive officers as of the date of this annual report on Form 20-F.

Name	Age	Position/Title
Shawn (Xiaohua) Qu	57	Chairman of the Board, President and Chief Executive Officer
Harry E. Ruda	62	Independent Director
Andrew (Luen Cheung) Wong	63	Independent Director
Arthur (Lap Tat) Wong	61	Independent Director
Lauren C. Templeton	45	Independent Director
Leslie Li Hsien Chang	66	Independent Director
Karl E. Olsoni	63	Independent Director
Yan Zhuang	57	Director
Huifeng Chang	55	Director and Chief Financial Officer
Jianyi Zhang	63	Senior Vice President, General Counsel and Chief Compliance 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. Dr. Qu has also served as chairman of the board of CSI Solar Co., Ltd. since July 2009. 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.

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, a Fellow of the Institute of Nanotechnology, and a Fellow of the Canadian Academy of Engineering. 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. 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 served 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, between 2013 and 2018. 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 Minsheng 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 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.

Mr. Arthur (Lap Tat) Wong has served as an independent director of our company since March 2019. Mr. Wong currently serves as an independent director and chair of the audit committee of the following companies: Tarena International, Inc. (NASDAQ: TEDU), Daqo New Energy Corp. (NYSE: DQ); and China Maple Leaf Educational Systems Limited (HKSE: 1317). From 2008 to 2018, Mr. Wong served as the Chief Financial Officer of Asia New Energy Holdings Pte. Ltd, Nobao Renewable Energy Holding Ltd., GreenTree Inns Hotel Management Group, Inc. and Beijing Radio Cultural Transmission Company Limited, sequentially. From 1982 to 2008, Mr. Wong held various positions with Deloitte Touche Tohmatsu (Deloitte) in Hong Kong, San Jose and Beijing, with his last position as a partner in Deloitte's Beijing office. Mr. Wong received a Higher Diploma in Accountancy from Hong Kong Polytechnic University and a Bachelor of Science degree in Applied Economics from University of San Francisco. He is a fellow of the Hong Kong Institute of Certified Public Accountants; a fellow of the Association of Chartered Certified Accountants; and a member of the American Institute of Certified Public Accountants.

Ms. Lauren C. Templeton has served as an independent director of our company since January 2020. Ms. Templeton is the founder and President of Templeton & Phillips Capital Management, LLC, a global investing boutique located in Chattanooga, Tennessee. She is also an independent director and member of the Audit Committee of Fairfax Financial Holdings Limited, a financial holding company engaged in property and casualty insurance and reinsurance and associated investment management, and its publicly-traded subsidiary, Fairfax India Holdings Corporation. Ms. Templeton serves on a number of non-profit organizations, including the John Templeton Foundation, the Templeton World Charities Foundation and the Templeton Religion Trust. She also serves on the Board of Trustees at the Baylor School, the Board of Trustees at the Bright School and the Board of Overseers at the Atlas Economic Research Foundation. Ms. Templeton is the former President of the Southeastern Hedge Fund Association, based in Atlanta, Georgia. She is also the co-author of "Investing the Templeton Way: The Market Beating Strategies of Value Investing's Legendary Bargain Hunter", which has been translated into nine languages. Ms. Templeton holds a Bachelor of Arts Degree in Economics from the University of the South, Sewanee.

Mr. Leslie Li Hsien Chang has been serving as an independent director of the Company since September 2020, and has been serving as a director of CSI Solar Co., Ltd. since December 2020. Mr. Chang has been serving as Senior Advisor to CITIC Capital (Holdings) Limited since 2014. Prior to that, Mr. Chang served as a senior corporate executive and board director at several listed companies in Hong Kong. He joined CITIC Pacific limited as General Manager, Finance in 1994 and later became the Executive Director and Deputy Managing Director of the company responsible for the Group's financial management, accounting, and treasury functions. Mr. Chang also served as the Executive Director and Chief Executive Officer of HKC (Holdings) Limited; Executive Director and Vice Chairman of China Renewable Energy Investment Limited; Alternate Director on the board of Cathay Pacific Airways Limited and Independent Non-Executive Director of Pou Sheng International (Holdings) Limited, among other roles. Mr. Chang started his career after graduating from George Mason University business school in 1984 and joined the New York Office of KPMG. He became a partner of the firm specializing in the financial services industry and served as the Director of the Chinese Practice. Mr. Chang served as a certified public accountant in the State of New York and member of the American Institute of Certified Public Accountants, Chartered Global Management Accountants, and the Hong Kong Institute of Certified Public Accountants.

Mr. Karl E. Olsoni has been serving as an independent director of our Company since June 2020 and was a strategic advisor to the Board of Directors between January 2020 and June 2020. Mr. Olsoni has more than 30 years of international energy sector experience. He is currently an Operating Partner with Quinbrook Infrastructure Partners, an infrastructure fund manager investing in clean energy infrastructure in the United States, the United Kingdom and Australia. He is also a Partner with the kRoad group of companies which invest in battery storage, waste transformation and e-mobility. He previously served as Managing Director of the Clean Energy and Infrastructure team at Capital Dynamics where he and his partners raised and invested approximately $1 billion in clean energy infrastructure projects. Mr. Olsoni was formerly Chief Financial Officer and Senior Vice President of PPM Energy Inc. (now Iberdrola Renewables/Avangrid), a US-based energy company, and Chief Financial Officer of Koch Materials, Inc., a unit of the Koch Industries, Inc. Before that, he spent 16 years with the Southern Company where, among other things, he was part of the original management team that built the Southern Company's independent power and merchant energy business (Southern Energy, Inc., later Mirant, Inc. and NRG Energy, Inc.) into one of the largest independent power producers in the world. Mr. Olsoni holds a Bachelor of Arts degree in Economics from George Washington University and an MBA from the College of William and Mary.

Mr. Yan Zhuang has been serving as a director of our Company since September 2020. He is also President of CSI Solar Co., Ltd., and has been serving as a director of CSI Solar Co., Ltd. since September 2020. He has served various leadership roles, most recently as our president and chief operating officer, and previously as acting chief executive officer, senior vice president and chief commercial officer, senior vice president of global sales and marketing, and prior to that as our vice president of global sales and marketing. 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 20 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 its 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. 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.

Dr. Huifeng Chang has served as our senior vice president and chief financial officer since May 2016, and as a director of our company since September 2020. He has 18 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.

Executive Officer

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 May 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.

Duties of Directors

Under the BCBCA, our directors are required to manage, or to supervise the management of, the business and affairs of our company. They 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.

No provision in a contract or in our articles relieves a director or officer from the duty to act in accordance with the BCBCA or from liability that by virtue of any enactment or rule of law or equity would otherwise attach to that director or officer in respect of any negligence, default, breach of duty or breach of trust of which the director or officer may be guilty in relation to us.

However, a director will not be liable for breaching his or her duty to act in accordance with the BCBCA in certain circumstances if the director relied in good faith on:

- financial statements of our company represented to the director by an officer or in a written report of the auditor to fairly reflect the financial position of our company;
- a written report of a lawyer, accountant, engineer, appraiser or other person whose profession lends credibility to a statement made by that person;
- a statement of fact represented to the director by an officer to be correct, or
- any record, information or representation that a court considers provides reasonable grounds for the actions of the director, whether or not the record was forged, fraudulently made or inaccurate, or the information or representation was fraudulently made or inaccurate.

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 $6.5 million for 2020. Of this amount, we paid approximately $0.6 million to our six independent directors and approximately $5.9 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 $0.1 million in 2020.

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 and (b) 2.5% of our outstanding common shares on the first day of each calendar year after 2009. In June 2020 , the shareholders approved an amendment to the Plan to extend the term of the Plan for a further ten-year period. As a result, the Plan will expire on, and no awards may be granted after, June 30, 2029. As of February 28, 2021, 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 18,949,000 common shares, of which 566,190 restricted shares, 3,284,393 options, and 5,914,680 restricted share units (in each case net of forfeitures) have been awarded, leaving 9,183,737 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 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 February 28, 2021, the restricted shares that we had granted under the Plan to our employees and certain individuals as a group. We have not granted any restricted shares to our directors and executive officers. 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.

Name	Restricted Shares Granted	Restricted Shares Vested	Restricted Shares Forfeited	Date of Grant
Employees				
Twelve individuals as a group	330,860	330,860	—	May 30, 2006
Hanbing Zhang[1]	116,500 [2]	116,500	—	July 28, 2006
Employees as a group	**447,360**	**447,360**	**—**	
Other Individuals				
One individual	2,330 [3]	2,330	—	May 30, 2006
One individual	116,500 [4]	116,500	—	June 30, 2006
Other Individuals as a group	**118,830**	**118,830**	**—**	
Total Restricted Shares	**566,190**	**566,190**	**—**	

(1) The wife of Dr. Shawn Qu.

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

(3) Vest on accelerated termination.

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

Options

The following table summarizes, as of February 28, 2021, the options that we had granted under the Plan to our directors and certain other individuals. 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
Directors:							
Shawn (Xiaohua) Qu	20,000	20,000	—	—	3.18	March 12, 2009	—
	25,000	25,000	—	—	11.33	August 27, 2010	—
	18,779	—	—	18,779	9.33	May 20, 2011	May 19, 2021 (3)
Harry E. Ruda	23,300 (1)	23,300	—	—	8.31 (2)	August 14, 2011	—
	23,300 (1)	23,300	—	—	3.03 (2)	June 11, 2012	—
	23,300 (1)	23,300	—	—	8.29 (2)	June 7, 2013	—
Yan Zhuang	23,300 (1)	23,300	—	—	7.36	September 24, 2007	—
	23,300 (1)	—	23,300	—	41.75	June 26, 2008	—
	80,000	80,000	—	—	9.37	May 23, 2009	—
	15,000	15,000	—	—	11.33	August 27, 2010	—
	11,268	11,268	—	—	9.33	May 20, 2011	—
Directors as a Group	**266,547**	**244,468**	**23,300**	**18,779**			
Employees:							
Hanbing Zhang	46,600	46,600	—	—	4.29	July 28, 2006	—
	6,000	6,000	—	—	3.18	March 12, 2009	—
	12,000	12,000	—	—	11.33	August 27, 2010	—
	7,512	—	—	7,512	9.33	May 20, 2011	May 19, 2021 (3)
Other employees and certain individuals as a group	4,389,731	2,948,034	1,421,697	—	2.12 to 46.28	Various dates from May 30, 2006 to June 7, 2013	Various dates from May 29, 2016 to June 6, 2023
Total Options	**4,728,390**	**3,257,102**	**1,444,997**	**26,291**			

(1) Vest immediately upon the date of grant.

(2) Exercise price equal to the average of the trading prices of the common shares for the 20 trading days preceding the date of grant.

(3) On March 18, 2021, the Compensation Committee of the Board extended the expiration date of these awards to May 20, 2023.

Restricted Share Units

The following table summarizes, as of February 28, 2021, the restricted share units that we had granted under the Plan to our directors, executive officers and certain other individuals.

Name	Restricted Share Units Granted	Restricted Share Units Vested	Restricted Share Units Forfeited	Date of Grant
Directors:				
Shawn (Xiaohua) Qu	6,154 (1)	6,154	—	May 8, 2011
	13,706 (2)	13,706	—	May 20, 2011
	75,075 (2)	75,075	—	March 16, 2012
	67,024 (2)	67,024	—	March 9, 2013
	11,983 (2)	11,983	—	May 4, 2014
	8,274 (2)	8,274	—	May 3, 2015
	20,216 (2)	20,216	—	July 8, 2016
	121,951 (3)	121,951	—	November 6, 2016
	22,607 (2)	16,955	—	May 17, 2017
	77,289 (3)	77,289	—	November 5, 2017
	18,018 (2)	9,009	—	May 13, 2018
	83,805 (3)	83,805	—	November 10, 2018
	15,690 (2)	3,922	—	May 13, 2019
	26,691 (3)	26,691	—	November 9, 2019
	15,748 (2)	—	—	May 23, 2020
	11,924 (2)	—	—	August 22, 2020
	26,073 (4)	26,073	—	December 30, 2020
Huifeng Chang	23,340 (2)	23,340	—	May 8, 2016
	13,477 (2)	13,477	—	July 8, 2016
	15,072 (2)	11,304	—	May 17, 2017
	12,012 (2)	6,006	—	May 13, 2018
	10,460 (2)	2,615	—	May 13, 2019
	3,923 (1)	3,923	—	May 13, 2019
	10,499 (2)	—	—	May 23, 2020
	7,949 (2)	—	—	August 22, 2020
Yan Zhuang	2,564 (1)	2,564	—	May 8, 2011
	8,224 (2)	8,224	—	May 20, 2011
	45,045 (2)	45,045	—	March 16, 2012
	40,214 (2)	40,214	—	March 9, 2013
	7,988 (2)	7,988	—	May 4, 2014
	5,516 (2)	5,516	—	May 3, 2015
	13,477 (2)	13,477	—	July 8, 2016
	15,072 (2)	11,304	—	May 17, 2017
	12,012 (2)	6,006	—	May 13, 2018
	10,460 (2)	2,615	—	May 13, 2019
	5,230 (1)	5,230	—	May 13, 2019
	15,748 (2)	—	—	May 23, 2020
	11,924 (2)	—	—	August 22, 2020

Name	Restricted Share Units Granted	Restricted Share Units Vested	Restricted Share Units Forfeited	Date of Grant
Harry E. Ruda	1,020	1,020	—	July 1, 2014
	800	800	—	October 1, 2014
	1,274	1,274	—	January 1, 2015
	880	880	—	April 1, 2015
	993	993	—	July 1, 2015
	1,820	1,820	—	October 1, 2015
	1,033	1,033	—	January 1, 2016
	1,572	1,572	—	April 1, 2016
	2,051	2,051	—	July 1, 2016
	2,228	2,228	—	October 1, 2016
	2,411	2,411	—	January 1, 2017
	2,562	2,562	—	April 1, 2017
	1,901	1,901	—	July 1, 2017
	1,818	1,818	—	October 1, 2017
	1,767	1,767	—	January 1, 2018
	1,802	—	—	April 1, 2018
	2,458	—	—	July 1, 2018
	2,056	—	—	October 1, 2018
	2,096	—	—	January 1, 2019
	1,623	—	—	April 1, 2019
	1,381	—	—	July 1, 2019
	1,486	—	—	October 1, 2019
	1,361	—	—	January 1, 2020
	1,883	—	—	April 1, 2020
	1,587	—	—	July 1, 2020
	908	—	—	October 1, 2020
	588	—	—	January 1, 2021
Andrew (Luen Cheung) Wong	610	610	—	August 7, 2014
	800	800	—	October 1, 2014
	1,274	1,274	—	January 1, 2015
	880	880	—	April 1, 2015
	993	993	—	July 1, 2015
	1,820	1,820	—	October 1, 2015
	1,033	1,033	—	January 1, 2016
	1,572	1,572	—	April 1, 2016
	2,051	2,051	—	July 1, 2016
	2,228	2,228	—	October 1, 2016
	2,411	2,411	—	January 1, 2017
	2,562	2,562	—	April 1, 2017
	1,901	1,901	—	July 1, 2017
	1,818	1,818	—	October 1, 2017
	1,767	1,767	—	January 1, 2018
	1,802	—	—	April 1, 2018
	2,458	—	—	July 1, 2018
	2,056	—	—	October 1, 2018
	2,096	—	—	January 1, 2019
	1,623	—	—	April 1, 2019
	1,381	—	—	July 1, 2019
	1,486	—	—	October 1, 2019
	1,361	—	—	January 1, 2020
	1,883	—	—	April 1, 2020
	1,587	—	—	July 1, 2020
	908	—	—	October 1, 2020
	588	—	—	January 1, 2021
Arthur (Lap Tat) Wong	559	—	—	March 8, 2019
	1,623	—	—	April 1, 2019

	1,381	—	—	July 1, 2019
	1,486	—	—	October 1, 2019
	1,361	—	—	January 1, 2020
	1,883	—	—	April 1, 2020
	1,587	—	—	July 1, 2020
	908	—	—	October 1, 2020
	588	—	—	January 1, 2021
Lauren C. Templeton	1,361	—	—	January 1, 2020
	1,883	—	—	April 1, 2020
	1,587	—	—	July 1, 2020
	908	—	—	October 1, 2020
	588	—	—	January 1, 2021
Karl E. Olsoni	1,021	—	—	January 1, 2020
	1,412	—	—	April 1, 2020
	1,587	—	—	July 1, 2020
	908	—	—	October 1, 2020
	588	—	—	January 1, 2021
Leslie Li Hsien Chang	908	—	—	October 1, 2020
	588	—	—	January 1, 2021
Directors as a group	**1,023,457**	**824,825**	**—**	

Name	Restricted Share Units Granted	Restricted Share Units Vested	Restricted Share Units Forfeited	Date of Grant
Executive Officer				
Jianyi Zhang	25,934 (2)	25,934	—	May 8, 2016
	13,477 (2)	13,477	—	July 8, 2016
	15,072 (2)	11,304	—	May 17, 2017
	12,012 (2)	6,006	—	May 13, 2018
	10,460 (2)	2,615	—	May 13, 2019
	10,499 (2)	—	—	May 23, 2020
	7,949 (2)	—	—	August 22, 2020
Executive Officer	**95,403**	**59,336**	**—**	

Name	Restricted Share Units Granted	Restricted Share Units Vested	Restricted Share Units Forfeited	Date of Grant
Employees				
Hanbing Zhang	1,538 (1)	1,538	—	May 8, 2011
	5,482 (2)	5,482	—	May 20, 2011
	21,021 (2)	21,021	—	March 16, 2012
	18,767 (2)	18,767	—	March 9, 2013
	2,796 (2)	2,796	—	May 4, 2014
	2,344 (2)	2,344	—	May 3, 2015
	4,717 (2)	4,717	—	July 8, 2016
	5,275 (2)	3,956	—	May 17, 2017
	4,204 (2)	2,102	—	May 13, 2018
	3,661 (2)	915	—	May 13, 2019
	5,249 (2)	—	—	May 23, 2020
	3,975 (2)	—	—	August 22, 2020
Other employees and certain individuals as a group	6,443,770 (5)	4,283,334	2,670,781	Various dates from May 8, 2011 to December 17, 2019
	976,983 (5)	14,720	33,181	Various dates from January 1, 2020 to January 1, 2021
Total Restricted Share Units	**8,618,642**	**5,245,853**	**2,703,962**	

(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) Vest over an eight-quarter period from date of grant.

(4) Vest immediately upon the date of grant.

(5) 13,844 restricted share units granted on May 8, 2011 vested over one-year period from the date of grant. 126,036 restricted share units granted on August 11, 2013 vested immediately upon the date of grant. The other restricted share units granted vest over a four-year period from the date of grant.

We grant each of our independent directors 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 vested.

C Board Practices

In 2020, our board of directors held 16 meetings and passed 38 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 research and development committee.

Audit Committee

Our audit committee consists of Messrs. Arthur (Lap Tat) Wong, Olsoni and Ms. Templeton and is chaired by Mr. Arthur (Lap Tat) Wong. Mr. Arthur (Lap Tat) Wong qualifies as an "audit committee financial expert" as required by the SEC. Each of Messrs. Olsoni and Ms. Templeton is "financially literate" as required by the Nasdaq rules. Each of the members of our audit committee satisfies the "independence" requirements of the Nasdaq corporate governance 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 2020, our audit committee held 5 meetings, and did not pass any resolution by unanimous written consent.

Compensation Committee

Our compensation committee consists of Messrs. Ruda, Olsoni and Andrew (Luen Cheung) Wong and is chaired by Mr. Andrew (Leun Cheung) Wong. Each of the members of our compensation committee 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 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 2020, our compensation committee held 8 meetings and passed 1 resolution by unanimous written consent.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of Messrs. Ruda, Andrew (Luen Cheung) Wong and Arthur (Lap Tat) Wong and Ms. Templeton and is chaired by Ms. Templeton. Each of the members of our nominating and corporate governance committee 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 2020, our nominating and corporate governance committee held 9 meetings and did not pass any resolutions 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. The research and development committee advises and assists the board of directors and management on matters 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.

In 2020, our research and development committee held 1 meeting and did not pass any resolutions by unanimous written consent.

Interested Transactions

Under the BCBCA, a director or senior officer of a company holds a disclosable interest in a contract or transaction if (a) the contract or transaction is material to the company, (b) the company has entered, or proposes to enter, into the contract or transaction, and (c) either the director or senior officer has a material interest in the contract or transaction, or the director or senior officer is a director or senior officer of, or has a material interest in, a person who has a material interest in the contract or transaction. A director who has a disclosable interest in a contract or transaction is not entitled to vote on any directors' resolution to approve that contract or transaction. Further, subject to the BCBCA, generally a director or senior officer of the company is liable to account to the company for any profit that accrues to him or her under or as a result of a contract or transaction in which he or she holds a disclosable interest. However in certain circumstances a director or senior officer of the company will not be liable to account for and may retain any such profit including if the contract or transaction is approved by the directors after the nature and extent of the disclosable interest has been disclosed to the directors, or if the contract or transaction is approved by a special resolution of the shareholders after the nature and extent of the disclosable interest has been disclosed to the shareholders entitled to vote on that resolution. The disclosure of the nature and extent of a disclosable interest may be made to the company in writing or be evidenced in a consent resolution, the minutes of a meeting or other record deposited in the company's records office.

In 2020, 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 articles provide that our board of directors may from time to time on behalf of our company (a) borrow money in the manner and amount, on the security, from the sources and on the terms and conditions that they consider appropriate; (b) issue bonds, debentures and other debt obligations either outright or as security for any liability or obligation of ours or any other person, and at any discount or premium and on such terms as they consider appropriate; (c) guarantee the repayment of money by any other person or the performance of any obligation of any other person; and (d) mortgage or charge, whether by way of specific or floating charge, or give other security on the whole or any part of the present and future assets and undertaking of our company.

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 and to satisfy this requirement before 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 the employment of an executive officer at any time by giving written notice of termination to the executive officer. An executive officer may terminate his employment at any time by giving 30 days' written notice of termination to us.

If we terminate the employment of an executive officer for any reason other than cause or disability, or the executive officer terminates his employment for good reason, in both cases other than within 12 months after a change of control, (a) the unvested RSUs held by the executive officer immediately before the date of termination of the employment that would otherwise vest within 12 months after the date of termination of the employment will be deemed to have vested immediately before the date of termination of the employment; (b) the executive officer is entitled to receive his target bonus for the year in which the date of termination of the employment occurs; and (c) the executive officer is entitled to continue to receive his base salary and benefits for a period of six plus N months following the date of termination of the employment provided that he continues to comply with his confidentiality, inventions, non-competition, non-solicitation and assistance obligations described below. "N" is the number of years (including part years) that the executive officer was employed by us and our subsidiaries during the period beginning on January 1, 2007 and ending on the date of termination of the Employment but not exceeding 12.

If we terminate the employment of an executive officer for any reason other than cause or disability, or the executive officer terminates his employment for good reason, in both cases within 12 months after a change of control, (a) all unvested RSUs held by the executive officer immediately before the date of termination of the employment will be deemed to have vested immediately before the date of termination of the employment; (b) the executive officer is entitled to receive an lump sum amount equal to the sum of: (1) his target bonus for the year in which the date of termination of the employment occurs, (2) his annual base salary and (3) the estimated annual cost of his providing his benefits multiplied by a fraction, the numerator of which is 12 plus N and the denominator of which is 12.

Each executive officer has agreed: (a) not to disclose or use 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; (b) 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; (c) during and within one year after the termination of his employment, (1) not to communicate or have any other dealings with our customers or suppliers that would be likely to harm the business relationship between us and our suppliers; (2) not to provide services, whether as a director, officer, employee, independent contractor or otherwise, to a competitor; and (3) not to solicit, whether by offer of employment or otherwise, the services of any of our employees; and (d) at our request, to answer our requests for information about those aspects of our business and affairs in which he was involved and assist us in prosecuting or defending claims or responding to investigations or reviews by any regulatory authority or stock exchange in relation to events or occurrences that took place during the employment. "Competitor" is a person that, directly or indirectly, carries on business in any jurisdiction where we and our subsidiaries carry on business if that person or any subsidiary or division of that person generates more than 10% of its revenues from solar power products and services similar to those provided by the us and our subsidiaries.

Our compensation committee is required to approve the employment agreements entered into by us with our executive officers.

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 Division 5 of Part 5 of the BCBCA, 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 judgments, penalties or fines awarded or imposed in, or amounts paid in settlement of, a proceeding in which any such director, officer or other individual, by reason of him or her being or having been a director of officer of, or holding or having held a position equivalent to that of a director or officer of, our company or an associated corporation (a) is or may be joined as a party, or (b) is or may be liable for or in respect of a judgment, penalty or fine in, or expenses related to, the proceeding. In addition we may, after the final disposition of any such proceeding, pay the expenses actually and reasonably incurred by any such director, officer or other individual in respect of that proceeding, or in certain circumstances we may pay such expenses as they are incurred. However, Division 5 of Part 5 of the BCBCA also provides that we must not provide such indemnification or payment of expenses in certain circumstances including if, in relation to the subject matter of the proceeding, such director, officer or other individual did not act honestly and in good faith with a view to our best interests, or, as the case may be, to the best interests of the associated corporation, and if, in the case of a proceeding other than a civil proceeding, such director, officer or other individual did not have reasonable grounds for believing that his or her conduct was lawful.

Under our articles, our board of directors must cause us to indemnify our directors and officers and former directors and officers, and their respective heirs and personal or other legal representatives to the greatest extent permitted by Division 5 of Part 5 of the BCBCA.

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, 2018, 2019 and 2020, we had 12,442, 13,478 and 12,774 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, 2020.

	As of December 31, 2020	
	Number of Employees	Percentage of Total
Manufacturing	10,240	80.2 %
General and administrative	1,245	9.7 %
Research and development	408	3.2 %
Sales and marketing	881	6.9 %
Total	12,774	100.0 %

As of December 31, 2020, we had 2,091 employees at our facilities in Suzhou, 2,452 employees at our facilities in Changshu, 1,817 employees at our facilities in Luoyang, 2,290 employees at our facilities in Yancheng, 686 employees at our facilities in Baotou, 408 employees at our facilities in Jiaxing, 154 employees at our facilities in Suqian, and 2,876 employees based in our facilities and offices in Canada, Japan, Australia, Singapore, South Korea, Hong Kong, Taiwan, India, Indonesia, Israel, Thailand, Vietnam, Brazil, United Arab Emirates, South Africa, the Americas and the EU (which includes Germany, Italy, Netherlands, United Kingdom 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.

Continuous learning is the cornerstone of our human capital development strategy. Employees across all functions and levels of us are offered participation in the CSI University program, which is designed to support their career development through an extensive suite of resources including classroom training, e-learning, coaching, mentoring and on-the-job training. We partner with professional consultants such as Development Dimensions International ("DDI") for establishing leadership standards and creating tailor-made development programs.

Training programs for junior positions are focused on developing technical and professional skills, including but not limited to areas such as project development, permitting, asset management, project finance, sales management, order management and operations, supply chain management, marketing, technical services and support, etc. This is complemented by a CSI Boot Camp, which is designed to develop soft skills and nurture a culture of continuous self and mutual learning.

For more senior-level employees, our in-house training program is more targeted on developing leadership and managerial skills. The Leadership Foundation Program focuses on executive strategy, effective decision-making, coaching for peak performance, delegation, and other leadership skills. Global workshops on key business topics such as PPA and storage are organized to help our leaders continue to learn. We also selectively sponsor key talents to attend top MBA programs. We regularly carry out global succession planning reviews to identify the high-potential talents and follows up with individual development plans for them.

We strive to create a culture of openness and transparency which values and promotes two-way communication between management and team members. Feedback is both encouraged and appreciated, as we consider it a key driver for employee engagement.

E Share Ownership

The following table sets forth information with respect to the beneficial ownership of our common shares as of February 28, 2021, 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 59,865,245 common shares outstanding, as of February 28, 2021.

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 February 28, 2021, including through the vesting of any restricted share unit, 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[1]	
	Number	%
Directors and Executive Officers: [2]		
Shawn (Xiaohua) Qu [3]	13,825,523	23.1 %
Harry E. Ruda [4]	19,249	*
Andrew (Luen Cheung) Wong [5]	3,568	*
All Directors and Executive Officers as a Group	13,848,340	23.1 %
Principal Shareholders:		
BlackRock, Inc. [6]	6,821,417	11.4 %
Invesco Ltd. [7]	3,470,643	5.8 %

* 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) Comprises 13,799,232 common shares directly held by Dr. Shawn Qu and Hanbing Zhang, the wife of Dr. Shawn Qu and 26,291 common shares issuable upon the exercise of options held by Dr. Shawn Qu and Ms. Zhang within 60 days from February 28, 2021.

(4) Comprises 17,447 common shares directly held by Dr. Ruda and 1,802 common shares issuable upon vesting of restricted share units held by Dr. Ruda within 60 days from February 28, 2021.

(5) Comprises 1,766 common shares directly held by Mr. Andrew (Luen Cheung) Wong and 1,802 shares issuable upon vesting of restricted share units held by Mr. Andrew (Luen Cheung) Wong within 60 days from February 28, 2021.

(6) Represents 6,821,417 common shares owned by BlackRock, Inc., as reported on Schedule 13G filed by BlackRock, Inc. on January 8, 2021. The percentage of beneficial ownership was calculated based on the total number of our common shares as of February 28, 2021. The principal business address of BlackRock, Inc. is 55 East 52nd Street, New York, NY 10055.

(7) Represents 3,470,643 common shares held by Invesco Ltd., as reported on Schedule 13G filed by Invesco Ltd. on February 16, 2021. The percentage of beneficial ownership was calculated based on the total number of our common shares as of February 28, 2021. The principal business address of Invesco Ltd. is 1555 Peachtree Street NE, Suite 1800, Atlanta, GA 30309.

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 that we are directly or indirectly owned or controlled by another corporation, by any foreign government or by any other natural or legal person severally or jointly and 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

Dr. Shawn Qu fully guaranteed loan facilities from two Chinese banks of RMB1,270 million ($185 million), RMB1,420 million ($204 million) and RMB135 million ($21 million) in 2018, 2019 and 2020, respectively. Amounts drawn down under the facilities as at December 31, 2018, 2019 and 2020 were $156.0 million, $82.9 million and nil, respectively. These guaranteed loan facilities will mature during the period from first quarter of 2021 to the first quarter of 2023. We do not intend to renew these guarantees with, nor seek additional guarantees from, Dr. Shawn Qu in the future.

We granted 83,805, 26,691 and 26,073 restricted share units to Dr. Shawn Qu in 2018, 2019 and 2020, respectively, on account of his having guaranteed these loan facilities.

Sales and Purchase Contracts with Affiliates

In 2020, we sold 2 solar power projects to CSIF, our 14.66% owned affiliate in Japan, in the amount of JPY888.0 million ($8.4 million).

In 2020, we provided asset management services to CSIF in the amount of JPY394.5 million ($3.7 million).

In 2020, we provided O&M services to CSIF in the amount of JPY805.0 million ($7.6 million).

In 2020, we sold modules to Salgueiro I Renewable Energy S.A., Salgueiro II Renewable Energy S.A. and Salgueiro III Renewable Energy S.A., each our 20% owned affiliate in Brazil, in the amounts of $11.6 million, $10.0 million and $9.4 million, respectively.

In 2020, we sold modules to Jaiba 3 Renewable Energy S.A., Jaiba 4 Renewable Energy S.A. and Jaiba 9 Renewable Energy S.A., each our 20% owned affiliate in Brazil, in the amounts of $6.0 million, $3.7 million and $1.4 million, respectively.

In 2020, we purchased raw materials from Luoyang Jiwa New Material Technology Co., Ltd., our 20% owned affiliate, in the amount of RMB31.4 million ($4.5 million).

In 2020, we provided EPC services to Lavras Solar Holding S.A., our 20% owned affiliate in Brazil, in the amount of BRL5.1 million ($1.0 million).

We purchased raw materials from Suzhou iSilver Materials Co., Ltd, our former 14.63% owned affiliate in China. In December 2020, we fully disposed of our ownership of Suzhou iSilver Materials Co., Ltd to an unrelated third party. From January 1, 2020 through the date of disposal, we purchased raw materials in the amount of RMB168.0 million ($24.3 million) from this former affiliate.

We purchased equipment from Suzhou Kzone Equipment Technology Co., Ltd, our former 32% owned affiliate in China. In July 2020, we fully disposed of our ownership of Suzhou Kzone Equipment Technology Co., Ltd to an unrelated third party. From January 1, 2020 through the date of disposal, we purchased raw materials in the amount of RMB7.4 million ($1.0 million) from this former affiliate.

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 approved a settlement of the action on October 30, 2020. The settlement is no admission of liability or wrongdoing by us or any of the other defendants.

U.S. Antidumping, Countervailing Duty and Safeguard Proceedings

Solar 1

On October 17, 2012, the United States Department of Commerce, or USDOC, issued final affirmative determinations with respect to its antidumping and countervailing duty investigations on crystalline silicon photovoltaic, or CSPV, cells, whether or not incorporated into modules, from China. On November 30, 2012, the U.S. International Trade Commission, or USITC, determined that imports of CSPV cells had caused material injury to the U.S. CSPV industry. The USITC's determination was subsequently affirmed by the U.S. Court of International Trade, or CIT, and the U.S. Court of Appeals for the Federal Circuit, or Federal Circuit.

As a result of these determinations, we were required to pay cash deposits on Chinese-origin CSPV cells imported into the U.S., whether or not incorporated into modules. The rates applicable to us were 13.94% (antidumping duty) and 15.24% (countervailing duty). We paid all the cash deposits due under these determinations. Several parties challenged the determinations of the USITC in appeals to the CIT. On August 7, 2015, the CIT sustained the USITC's final determination and on January 22, 2018, the Federal Circuit upheld the CIT's decision. There was no further appeal to the U.S. Supreme Court and, therefore, this decision is final.

The rates at which duties will be assessed and payable are subject to administrative reviews.

The USDOC published the final results of the first administrative reviews in July 2015. As a result of these decisions, the duty rates applicable to us were revised to 9.67% (antidumping duty) and 20.94% (countervailing duty). The assessed rates were appealed to the CIT. The CIT affirmed the USDOC's countervailing duty rates, and no change was made to our countervailing duty rate. This decision by the CIT was not appealed to the Federal Circuit. The CIT likewise affirmed USDOC's antidumping duty rates, and no change was made to our antidumping duty rate. This decision by the CIT was, however, appealed to the Federal Circuit, which upheld the CIT's decision. There was no further appeal to the U.S. Supreme Court and, therefore, this decision is final.

The USDOC published the final results of the second administrative reviews in June 2016 (antidumping duty) and July 2016 (countervailing duty). As a result of these decisions, the antidumping duty rate applicable to us was reduced to 8.52% (from 9.67%) and then to 3.96% (from 8.52%). Because we were not subject to the second administrative review of the countervailing duty order, our countervailing duty rate remained at 20.94%. The antidumping duty rates were appealed to the CIT. The CIT affirmed the USDOC's second antidumping duty rate. This decision by the CIT was appealed to the Federal Circuit, which in June 2020 reversed the CIT's decision, in part, and directed the USDOC to reconsider certain issues related to its final determination. The USDOC has submitted its antidumping duty redetermination to the CIT. A decision is expected in mid-2021.

The USDOC published the final results of the third administrative reviews in June 2017 (antidumping duty) and July 2017 (countervailing duty), and later amended in October 2017. As result of these decisions, the duty rates applicable to us were changed to 13.07% (from 8.52%) (antidumping duty) and 18.16% (from 20.94%) (countervailing duty). The assessed rates were appealed to the CIT. The CIT has twice remanded the antidumping duty appeal to the USDOC to consider adjustments to our rate. Pursuant to CIT's remand orders, the USDOC issued a redetermination. The antidumping duty rate applicable to us was reduced to 4.12% (from 13.07%) and then further to 3.19% (from 4.12%). In June 2020, the CIT issued its third opinion sustaining the USDOC's remand redetermination. Canadian Solar filed a motion for reconsideration with the CIT advocating for an even lower antidumping duty rate. In September 2020, the CIT granted our motion for reconsideration and remanded to USDOC for further consideration of our antidumping duty rate. The CIT has likewise twice remanded the countervailing duty appeal to the USDOC to consider adjustments to our rate. In August 2020, the CIT sustained USDOC's second remand redetermination. As a result, our countervailing duty rate was reduced to 7.36% (from 18.16%). There was no further appeal to the Federal Circuit of the USDOC's countervailing duty redetermination and, therefore, this decision is final.

The USDOC published the final results of the fourth administrative reviews in July 2018 (both antidumping duty and countervailing duty), with the countervailing duty rate later amended in October 2018. Because we were not subject to the fourth administrative review of the antidumping duty order, our antidumping duty rate remains at 13.07%. Because of these decisions, the countervailing duty rate applicable to us was reduced to 11.59% (from 18.16%). The countervailing duty rates were appealed to the CIT. The CIT remanded the countervailing duty appeal to the USDOC to consider adjustments to our rate. Pursuant to the CIT's remand orders, the USDOC made a redetermination that reduced our countervailing duty rate to 5.02% (from 11.59%). We appealed the CIT decision to the Federal Circuit to contest USDOC's continued assessment of a countervailing duty rate related to the alleged electricity subsidy program; a decision is expected in late 2021.

The USDOC published the final results of the fifth administrative reviews in July and August 2019. The antidumping duty rate applicable to us was lowered to 4.06% (from 13.07%). The countervailing duty rate applicable to us was reduced to 9.70% (from 11.59%). The countervailing duty final results were amended to correct ministerial errors in December 2019, but they resulted in no change to our 9.70% rate. The countervailing duty and antidumping duty rates were appealed to the CIT, which is likely to issue decisions in late 2021.

The USDOC published the final results of the sixth administrative reviews in October 2020 and December 2020, and amended final results of the sixth administrative review of the antidumping order in December 2020. In the amended antidumping final results, the antidumping duty rate applicable to us was raised to 95.50% (from 13.07%). USDOC assessed a countervailing duty rate of 12.67% (from 9.70%). The countervailing duty final results were amended to correct ministerial errors in March 2021 and, as a result, our countervailing duty rate was reduced to 11.97% (from 12.67%). The antidumping duty rates were appealed to the CIT, which is likely to issue decisions in late 2021 or early 2022. We did not appeal USDOC's final results of its sixth administrative review of the countervailing duty order and, therefore, this decision is final and our countervailing duty rate will remain at 11.97%.

The seventh and eighth antidumping duty and countervailing duty administrative reviews were initiated in February 2020 and February 2021 and are currently underway. The USDOC is currently scheduled to release the preliminary results of the seventh administrative reviews on April 16, 2021 (antidumping duty) and April 19, 2021 (countervailing duty). The final results of both the seventh antidumping and countervailing reviews will likely be published in late 2021. USDOC will likely issue preliminary results of the eighth administrative reviews in early 2022. The final results of the seventh and eighth administrative 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. market.

Between 2017 and 2019, the USDOC and USITC conducted five-year sunset reviews and determined to continue the Solar 1 antidumping and countervailing duty orders. In March 2018, the USDOC published the results of its expedited first sunset reviews and concluded that revocation of the Solar 1 orders would likely lead to a continuation or recurrence of dumping and a countervailable subsidy. We did not participate in USDOC's first sunset review. We did, however, participate in the USITC's first sunset review and requested that the Solar 1 duties be revoked. The USITC issued an affirmative determination in March 2019 declining to revoke the Solar 1 orders and finding that such revocation would be likely to lead to a continuation or recurrence of material injury to the U.S. industry within a reasonably foreseeable time. As a result, the Solar 1 orders remain in effect.

Solar 2

On December 31, 2013, SolarWorld Industries America, Inc. filed a new trade action with the USDOC and the USITC accusing Chinese producers of certain CSPV modules of dumping their products into the U.S. and of receiving countervailable subsidies from the Chinese authorities. This trade action also alleged that Taiwanese producers of certain CSPV cells and modules dumped their products into the U.S. Excluded from these new actions were those Chinese-origin solar products covered by the Solar 1 orders described above. We were identified as one of a number of Chinese producers exporting the Solar 2 subject goods to the U.S. market.

"Chinese CSPV products subject to Solar 2 orders" refers to CSPV products manufactured in mainland China using non-Chinese (e.g., Taiwanese) CSPV cells and imported into the U.S. during the investigation or administrative 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 U.S. during the investigation or review periods of Solar 2.

On December 23, 2014, the USDOC issued final affirmative determinations with respect to its antidumping and countervailing duty investigation on these CSPV products. On January 21, 2015, the USITC determined that imports of these CSPV products had caused material injury to the U.S. CSPV industry. As a result of these determinations, we are required to pay cash deposits on these CSPV products, the rates of which applicable to our Chinese CSPV products were 30.06% (antidumping duty) and 38.43% (countervailing duty).

The USDOC's determination and the assessed countervailing duty rates were appealed to the CIT and the Federal Circuit. In March 2019, the Federal Circuit affirmed the CIT's decision confirming the USDOC's determination but reduced our countervailing duty rate to 33.58% (from 38.43%). There was no further appeal to the U.S. Supreme Court and, therefore, this decision is final.

The antidumping 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. There is no countervailing duty order on Taiwan Solar 2 products.

The rates at which duties will be assessed and payable are subject to administrative reviews.

The USDOC published the final results of the first administrative reviews in July 2017 (China and Taiwan antidumping duty orders) and September 2017 (China-only countervailing duty order). Because we were not subject to the first administrative reviews of the Chinese orders of Solar 2, our duty rates will remain at 30.06% (antidumping duty) and 33.58% (countervailing duty) for our Chinese CSPV products. Our antidumping duty rates for our Taiwanese CSPV products had ranged from 3.56% to 4.20%, until they were changed to 1.52% to 3.78% in June 2019.

The second administrative reviews for the Chinese antidumping and countervailing duty orders were rescinded, meaning that there is no change in the Chinese antidumping and countervailing duty rates applicable to our Chinese CSPV products 30.06% (antidumping duty) and 33.58% (countervailing duty). The USDOC published the final results of the second administrative review for the Taiwanese antidumping duty order (there is no countervailing duty order) in June 2018. The rate applicable to us is 1.33%. There is no ongoing litigation related to the Taiwanese antidumping duty rate.

We were not subject to the third administrative reviews of the Chinese orders and, therefore, our duty rates remained unchanged at 30.06% (antidumping duty) and 33.58% (countervailing duty) for our Chinese CSPV products. The third administrative review of the Taiwanese antidumping order concluded in mid-2019. The rate assessed to us was 4.39% (from 1.33%). There is no ongoing litigation related to the Taiwanese antidumping duty rate.

The USDOC rescinded the fourth administrative reviews of the Chinese antidumping duty and countervailing duty orders in late 2019. Our duty rates will remain unchanged at 30.06% (antidumping duty) and 33.58% (countervailing duty) for our Chinese CSPV products. The rate assessed to us in the fourth administrative review of the Taiwanese antidumping order was 2.57% (from 4.39%). The USDOC also found that certain Canadian Solar entities had no shipments during this period of this review.

The USDOC rescinded the fifth administrative reviews of the Chinese antidumping and countervailing duty orders. Our duty rates will remain unchanged at 30.06% (antidumping duty) and 33.58% (countervailing duty) for our Chinese CSPV products. The USDOC initiated the fifth administrative review of the Taiwanese antidumping duty order in April 2020, and that review remains ongoing. Certain Canadian Solar entities have filed a no shipment letter for this period of review. The USDOC is scheduled to publish the preliminary results of the fifth administrative review for the Taiwanese antidumping duty order on April 23, 2021. The final results will likely be published in late 2021.

The USDOC is expected to initiate the sixth administrative reviews of the Chinese antidumping and countervailing duty orders soon. No party, however, requested an antidumping or countervailing duty administrative review for any company, including Canadian Solar and, therefore, these reviews should be rescinded. Our duty rates will remain unchanged at 30.06% (antidumping duty) and 33.58% (countervailing duty) for our Chinese CSPV products. The USDOC is expected to initiate the sixth administrative review of the Taiwanese antidumping duty order soon.

In 2020, the USDOC and USITC conducted five-year sunset reviews and determined to continue the Solar 2 antidumping and countervailing duty orders. In May 2020, the USDOC published the results of its expedited first sunset reviews and concluded that revocation of the Solar 2 orders would likely lead to a continuation or recurrence of dumping and a countervailable subsidy. The USITC issued an affirmative determination on September 4, 2020, declining to revoke the Solar 2 orders and finding that such revocation would be likely to lead to a continuation or recurrence of material injury to the U.S. industry within a reasonably foreseeable time. As a result, the Solar 2 orders are expected to remain in effect for an additional five years.

Section 201

On May 17, 2017, following receipt of a petition from Suniva, Inc., which was later joined by SolarWorld Americas, Inc., the USITC instituted a safeguard investigation to determine whether there were increased imports of CSPV products in such quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing like or directly competitive products. On September 22, 2017, the USITC determined that CSPV products are being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry.

On January 23, 2018, the President of the United States imposed a safeguard measure on imports of CSPV cells, whether or not partially or fully assembled into other products such as modules, consisting of (1) a tariff-rate quota for four years on imports of CSPV cells not partially or fully assembled into other products, with (a) an in-quota quantity of 2.5 gigawatts, and (b) a tariff rate applicable to over-quota CSPV cells of 30%, declining annually by five percentage points to 25% in the second year, 20% in the third year, and 15% in the fourth year; and (2) a 30% tariff for four years on CSPV modules, declining annually by five percentage points to 25% in the second year, 20% in the third year, and 15% in the fourth year. This safeguard measure, which became effective on February 7, 2018, applies to CSPV products imported from all countries, except for certain developing country members of the World Trade Organization.

On June 13, 2019 and following an abbreviated public comment period, the Office of the U.S. Trade Representative (or USTR) granted an exclusion from the safeguard measure for solar panels comprising solely bifacial solar cells (or bifacial solar panels). In October 2019, USTR determined to withdraw this exclusion. Invenergy Renewables LLC (or Invenergy) promptly contested USTR's withdrawal determination at the CIT and secured a temporary restraining order against USTR in November 2019. In December 2019, the CIT preliminarily enjoined USTR's withdrawal due to procedural deficiencies. USTR then sought and was granted a voluntary remand to reconsider its withdrawal determination for bifacial solar panels.

In early 2020, USTR conducted a renewed notice-and-comment process regarding the exclusion for bifacial solar panels from the safeguard measures. In April 2020, USTR again determined that the exclusion for bifacial solar panels should be withdrawn based on the findings of its second notice-and-comment process. Notwithstanding, in May 2020 the CIT denied without prejudice the United States' motion to dissolve the preliminary injunction and to resume the collection of the safeguard tariff on entries of bifacial modules. USTR appealed the CIT's interlocutory decision to the Federal Circuit in July 2020, but subsequently dismissed its appeal in January 2021. The United States has continued to litigate the merits of USTR's April 2020 withdrawal of the bifacial exclusion before the CIT.

In early 2020, the USITC conducted a midterm review of the safeguard order, issuing its monitoring report in February 2020. Additionally, in March 2020, at the request of the USTR, the USITC released a report regarding the probable economic effect on the domestic CSPV cell and module manufacturing industry of modifying the safeguard measure on CSPV products. The USITC found that increasing the tariff-rate quota (TRQ) on CSPV cells (an integral component of CSPV modules) would likely result in a substantial increase in U.S. module producers' production, capacity utilization, and employment.

The President must consider the USITC's views but is not required to follow them or to take any action in the safeguard midterm review. On October 10, 2020, President Trump issued Proclamation 10101 pertaining to the midterm review. Proclamation 10101 authorized the following: (1) the revocation of the bifacial module exclusion effective October 25, 2020; (2) the reduction of the safeguard tariff to 18% *ad valorem* (as opposed to 15% *ad valorem* as prescribed in the original safeguard measures) effective February 7, 2021; and (3) the delegation to USTR of the President's authority to ask the USITC to assess whether the safeguard measures should be extended. The President decided not to follow the USITC's recommendation to increase the TRQ applicable to CSPV cells.

Following the issuance of Proclamation 10101, Invenergy and other plaintiffs (AES Distributed Energy, Inc., Clearway Energy Group LLC, EDF Renewables, Inc. (or EDF), the Solar Energy Industries Association (or SEIA)) sought to challenge the Proclamation and filed motions to amend their complaints with the CIT. The CIT ultimately denied plaintiffs' motions and refused to extend the bifacial module exclusion beyond October 24, 2020 as a consequence of the Proclamation (as opposed to USTR's withdrawals). Subsequently, on December 29, 2020, Invenergy and another set of plaintiffs (SEIA, NextEra Energy, Inc., and EDF) commenced new and separate litigation once again challenging Proclamation 10101 in the CIT. This new complaint alleges that the President unlawfully terminated the bifacial module exclusion and revised the safeguard tariff, effective February 7, 2021, to be 18% ad valorem (as opposed to the originally announced 15% ad valorem). This new CIT case has also been assigned to Judge Katzmann, and no substantive decision has been made to date.

European Antidumping 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 antidumping 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 antidumping and countervailing measures on imports of CSPV modules and key components (i.e., cells and wafers) originating in or consigned from China. On March 3, 2017, the European Commission extended the antidumping and countervailing measures for 18 months on imports of CSPV modules and key components (i.e., cells and wafers) originating in or consigned from China. On September 16, 2017, the European Commission amended the form of the antidumping and countervailing measures for certain Chinese exporters (but not for Canadian Solar). On March 9, 2018, the antidumping and countervailing measures expired. As a result, since then, our CSPV modules and cells that originate in, or are consigned from, China, are no longer subject to antidumping or countervailing measures.

On February 28, 2014, we filed separate actions with the General Court of the EU for annulment of the regulation imposing the definitive antidumping 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. On May 8, 2017, we appealed the judgements of the General Court before the Court of Justice of the EU (cases C-236/17 and C-237/17). On March 27, 2019, the Court of Justice rejected the appeals. There is no further action with regard to these matters.

Canadian Antidumping and Countervailing Duties Expiry Review

On June 3, 2015, the Canada Border Services Agency (CBSA) released final determinations regarding the dumping and subsidization of solar modules and laminates originating from China. The CBSA determined that such goods were dumped and subsidized. The CBSA found Canadian Solar to be a "cooperative exporter" and, as such, ascertained a low (relative to other Chinese exporters) Canadian Solar-specific subsidies rate of RMB0.014 per Watt. On July 3, 2015 the Canadian International Trade Tribunal (CITT) determined that the Canadian industry was not negatively affected as a result of imported modules but was threatened with such negative impact. As a result of these findings, definitive duties were imposed on imports of Chinese solar modules into Canada starting on July 3, 2015. The CITT may initiate an expiry review pursuant to Subsection 76.03(3) of the Special Import Measures Act ("SIMA") before the end of 5 years of its finding. If the CITT does not initiate such an expiry review pursuant to Subsection 76.03(3) of SIMA, the finding is deemed to have been rescinded as of the expiry of the five years.

On April 1, 2020, the CITT initiated the preliminary stage of the expiry review regarding the above finding. The expiry review was concluded on March 25, 2021. The CITT determined to continue its aforementioned finding. As a result the Canadian Solar-specific subsidies rate of RMB0.014 per Watt remains unchanged. Such subsidies rate does not have a material negative effect upon our results of operations because we have 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 BCBCA. 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

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

Not applicable.

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

In July 2020, we filed articles of continuance to change our jurisdiction from the federal jurisdiction of Canada to the provincial jurisdiction of the Province of British Columbia. As a result, we are governed by the BCBCA, and our affairs are governed by our notice of articles and our articles. Our British Columbia incorporation number is C1258489.

The following are summaries of material provisions of our articles. The information set forth in Exhibit 2.2 to this Annual Report on Form 20-F is incorporated herein by reference.

Objects and Purposes of Our Company

Our articles do not contain any stated objects or purposes and do not place any limitations on the business that we may carry on.

Voting on Proposals. Arrangements, Contracts or Compensation by Directors

Other than as disclosed below, our articles do not restrict directors’ power to (a) vote on a proposal, arrangement or contract in which the directors are materially interested or (b) to vote compensation to themselves or any other members of their body in the absence of an independent quorum.

The BCBCA does, however, contain restrictions in this regard. The BCBCA provides that a director who holds a disclosable interest in a contract or transaction into which we have entered or proposes to enter is not entitled to vote on any directors' resolution to approve that contract or transaction, unless all the directors have a disclosable interest in that contract or transaction, in which case any or all of those directors may vote on such resolution. A director who holds a disclosable interest in a contract or transaction into which we have entered or proposes to enter and who is present at the meeting of directors at which the contract or transaction is considered for approval may be counted in the quorum at the meeting whether or not the director votes on any or all of the resolutions considered at the meeting. A director or senior officer generally holds a disclosable interest in a contract or transaction if (a) the contract or transaction is material to our company; (b) we have entered, or proposed to enter, into the contract or transaction, and (c) either (i) the director or senior officer has a material interest in the contract or transaction or (ii) the director or senior officer is a director or senior officer of, or has a material interest in, a person who has a material interest in the contract or transaction. A director or senior officer does not hold a disclosable interest in a contract or transaction merely because the contract or transaction relates to the remuneration of the director or senior officer in that person's capacity as director, officer, employee or agent of our company or of an affiliate of our company.

Borrowing Powers of Directors

Our articles provide that our board of directors may from time to time on behalf of our company (a) borrow money in the manner and amount, on the security, from the sources and on the terms and conditions that they consider appropriate; (b) issue bonds, debentures and other debt obligations either outright or as security for any liability or obligation of ours or any other person, and at any discount or premium and on such terms as they consider appropriate; (c) guarantee the repayment of money by any other person or the performance of any obligation of any other person; and (d) mortgage or charge, whether by way of specific or floating charge, or give other security on the whole or any part of the present and future assets and undertaking of our company.

Qualifications of Directors

Under our articles, a director is not required to hold a share in the capital of the Company as qualification for his or her office but must be qualified as required by the BCBCA to become, act or continue to act as a director.

Under the BCBCA a director must not be:

- under eighteen years of age;
- found by a court, in Canada or elsewhere, to be incapable of managing their own affairs;
- an undischarged bankrupt; or
- convicted in or out of the Province of British Columbia of an offence in connection with the promotion, formation or management of a corporation or unincorporated business, or of an offence involving fraud, unless:
  - (a) a court orders otherwise,
  - (b) 5 years have elapsed since the last to occur of:
    - (i) the expiration of the period set for suspension of the passing of sentence without a sentence having been passed;
    - (ii) the imposition of a fine;
    - (iii) the conclusion of the term of any imprisonment; and
    - (iv) the conclusion of the term of any probation imposed, or
  - (c) a pardon was granted or issued, or a record suspension was ordered, under the Criminal Records Act (Canada) and the pardon or record suspension, as the case may be, has not been revoked or ceased to have effect.

Share Rights

All holders of common shares are entitled to receive dividends out of assets legally available therefore at such times and in such amounts as the board of directors may from time to time determine. All holders of common shares will share equally on a per share basis in any dividend declared by the board of directors. The dividend entitlement time limit will be fixed by the board of directors at the time any such dividend is declared. Each outstanding common share is entitled to one vote on all matters submitted to a vote of our shareholders at a duly called shareholders meeting. All directors stand for re-election annually. Upon any liquidation, dissolution or winding up, all common shareholders are entitled to share pro rata in all net assets available for distribution after payment to creditors. The common shares are not convertible or redeemable and have no preemptive, subscription or conversion rights. In the event of a merger or consolidation, all common shareholders will be entitled to receive the same per share consideration.

Procedures to Change the Rights of Shareholders

Our articles provide that the Company may by resolution of our directors or our shareholders: (a) create one or more classes or series of shares or, if none of the shares of a class or series of shares are allotted or issued, eliminate that class or series of shares; (b) increase, reduce or eliminate the maximum number of shares that the Company is authorized to issue out of any class or series of shares or establish a maximum number of shares that the Company is authorized to issue out of any class or series of shares for which no maximum is established; (c) subdivide all or any of its unissued or fully paid issued shares without par value; (d) consolidate all or any of its unissued or fully paid issued shares without par value; (e) create special rights or restrictions for, and attach those special rights or restrictions to, the shares of any class or series of shares, whether or not any or all of those shares have been issued; (f) vary or delete any special rights or restrictions attached to the shares of any class or series of shares, whether or not any or all of those shares have been issued; (g) change the name of the Company; or (h) otherwise alter its shares or authorized share structure when required or permitted to do so by the BCBCA.

An amendment of our articles by shareholders would require the approval of holders of two-thirds of the votes of the Company's common shares cast at a duly called special meeting.

Shareholder Meetings

Each director holds office until our next annual general meeting or until his office is earlier vacated in accordance with our articles or with the provisions of the BCBCA. A director appointed or elected to fill a vacancy on our board also holds office until our next annual general meeting.

Pursuant to the BCBCA, we must hold an annual meeting of our shareholders at least once every calendar year at a time and place determined by the Board, provided that the meeting must not be held later than 15 months after the preceding annual meeting or later than six months after the end of our preceding financial year. A meeting of our shareholders may be held at any place within British Columbia or, if determined by our directors, any location outside British Columbia including, but not limited to, New York, New York, United States of America, Los Angeles, California, United States of America, London, England, and the Hong Kong Special Administrative Region of the People's Republic of China or Shanghai, the People's Republic of China.

The BCBCA provides that the holders of not less than five percent of the issued shares of a corporation that carry the right to vote at a meeting sought to be held may give notice to the directors requiring them to call a meeting for the purposes stated in the requisition.

Under the BCBCA, unless the corporation's Articles provide otherwise, a quorum is present at a meeting of shareholders if two shareholders entitled to vote at the meeting are present whether in person or represented by proxy. Our articles provide that, subject to the special rights and restrictions attached to the shares of any affected class or series of shares, the quorum for the transaction of business at a meeting of shareholders is two or more persons, present in person or by proxy and together holding or representing by proxy shares carrying at least 33⅓ percent of the votes entitled to be voted at the meeting.

Our articles state that in addition to those persons who are entitled to vote at a meeting of our shareholders, the only other persons entitled to be present at the meeting are the directors, the president (if any), the secretary (if any), and any lawyer or auditor for our company.

Limitations on Ownership of Securities

Except as provided in the *Investment Canada Act* (Canada), there are no limitations specific to the rights of non-Canadians to hold or vote our common shares under the laws of Canada or British Columbia, or in our charter documents.

Change in Control

There are no provisions in our articles or in the BCBCA that would have the effect of delaying, deferring or preventing a change in control of our Company, and that would operate only with respect to a merger, acquisition or corporate restructuring involving our Company.

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 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 advisors.

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 advisors 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.

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, moreover, does not address the United States federal estate, gift, Medicare, and alternative minimum tax consequences, or any state, local and non-United States tax consequences, relating to an investment in our common shares. Except as explicitly described below, this discussion does not address any tax consequences or reporting obligations that may be applicable to persons holding our common shares through a bank, financial institution or other entity, or a branch thereof, located, organized or resident outside the United States, and does not describe any tax consequences arising in respect of the "Foreign Account Tax Compliance Act", or FATCA, regime.

This discussion applies only to a United States Holder (as defined below) that holds our 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 and certain other financial institutions;
- insurance companies;
- regulated investment companies;
- real estate investment trusts;

- brokers or dealers in stocks and securities, or currencies;
- persons that 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 common shares representing 10% or more of our total voting power or value;
- persons who acquired common shares pursuant to the exercise of an employee stock option or otherwise as compensation;
- partnerships or other pass-through entities, or persons holding common shares through such entities;
- persons required to accelerate the recognition of any item of gross income with respect to our common shares as a result of such income being recognized on an applicable financial statement; or
- persons that held, directly, indirectly or by attribution, common shares or other ownership interest in us prior to our initial public offering.

If a partnership (including an entity or arrangement treated as a partnership for United States federal income tax purposes) holds our 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 holding our common shares, or a partner in such a partnership, should consult its tax advisors regarding the tax consequences of investing in and holding our common shares.

THE FOLLOWING DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT A SUBSTITUTE FOR CAREFUL TAX PLANNING AND ADVICE. HOLDERS SHOULD CONSULT THEIR 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 our 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 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 our 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. However, a non-United States corporation will not be treated as a qualified foreign corporation if it is a passive foreign investment company in the taxable year in which the dividend is paid or the preceding taxable year.

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 Global Market, as our common shares are, but we cannot guarantee that our common shares will always be so listed. 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. If we are eligible for such benefits, then dividends that we pay to certain non-corporate United States Holders on our common shares would, subject to applicable limitations, be eligible for the reduced rates of taxation.

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 (disregarding certain periods of ownership while the United States Holder's risk of loss is diminished) or if such 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 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 our common shares (at a rate not exceeding any applicable treaty rate in the case of a United States Holder that is eligible for the benefits of a relevant treaty) generally will be treated as foreign taxes eligible for deduction or credit against your United States federal income tax liability, subject to the various limitations and disallowance rules that apply to foreign tax credits generally (including that the election to deduct or credit foreign taxes applies to all of your other applicable foreign taxes for a particular tax year). 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, or in certain cases, general category income. The rules relating to the determination of the 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 generally will be United States source ordinary income 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 our 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 our 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 our 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 purposes of the foreign tax credit. 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 our common shares generally 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 our 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 generally 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 value of our assets and the nature and 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, 2020. 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. Moreover, we cannot guarantee that the United States Internal Revenue Service, or IRS, will agree with any positions that we 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 position contrary to any position that we take.

We 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 our gross income for such year is passive income; or
- at least 50% of the value of our assets (generally 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 and gains from commodities transactions (other than certain royalties, rents and commodities gains derived in the active conduct of a trade or business and not derived from a related person). We will be treated as owning a proportionate share of the assets and earning a proportionate share of the income of any other corporation in which we own, directly or indirectly, more than 25% by value of the stock. We hold a substantial amount of cash and other assets treated as producing passive income and if the percentage of our assets treated as producing passive income increases, we may be more likely to be a PFIC for the current or one or more future taxable years.

Changes in the nature or composition of our income or assets may cause us to be more likely to be a PFIC. 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) and by how, and how quickly, we spend our liquid assets and the cash we generate from our operations. Among other matters, if our market capitalization declines, we may be a PFIC because our liquid assets and cash (which are for this purpose considered assets that produce passive income) may 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) are reasonable, it is possible that the IRS may challenge our classification or valuation of our goodwill and other unbooked intangibles, which may result in our being or becoming a PFIC for the current taxable year or one or more future taxable years.

If we are a PFIC for any taxable year during your holding period for our 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 a sale or other taxable 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 during your holding period for our 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;

- 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 during your holding period for our 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 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 during your holding period for our 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 Global Market, which is a qualified exchange or other market for these purposes. Consequently, as long as our common shares are regularly traded, and you are a holder of such common shares, we expect that the mark-to-market election would be available to you, if we become a PFIC, 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 a mark-to-market election with respect to our common shares 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 United States holder of shares 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 our 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 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 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 (and certain entities closely held by 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 US$50,000.

United States Holders should consult their tax advisors regarding the application of these information reporting rules.

People's Republic of China Taxation

Under the EIT Law, which took effect as of January 1, 2008 and amended on February 24, 2017 and December 29, 2018, 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.

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 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 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

Our business transactions are curried out in various currencies. The majority of our sales in 2020 are denominated in U.S. dollars, Renminbi and Euros, with the remainder in other currencies such as Japanese Yen, Brazilian reals, Australian dollars and Canadian dollars, while a substantial portion of our costs and expenses are denominated in Renminbi and U.S. dollars. From time to time, we enter into loan arrangements with commercial banks that are denominated primarily in Renminbi, U.S. dollars and Japanese yen. These transactions involve sales, purchases, borrowings, and investments in currencies other than the functional currencies of different companies in CSI. Therefore, fluctuations in currency exchange rates could have a significant impact on the cash flows we expect to receive or pay. The fluctuations in exchange rates could cause us significant foreign currency transaction risk. We recorded a foreign exchange gain of $10.4 million and a foreign exchange loss of $64.8 million in 2019 and 2020, 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.

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 loss on change in foreign currency derivatives of $21.3 million in 2019 and a gain on change in foreign currency derivatives of $51.2 million in 2020. The gains or losses on change in foreign currency derivatives are related to our hedging program.

As of December 31, 2020, we had approximately $638.7 million equivalent of monetary net liabilities balances denominated in various transactional currencies. A 10% appreciation or depreciation of these transactional currencies against their corresponding functional currencies would have an impact of approximately $64 million on our foreign exchange loss or gain, excluding the effect of our hedging activities.

In addition, our financial statements are presented in U.S. dollars, while some of our subsidiaries use different functional currencies, such as the Renminbi, Euros, Canadian dollars, British pounds and Japanese yen. The value of your investment in our common shares would be affected by the foreign currency translation risk resulted from the fluctuation between the U.S. dollar and functional currencies of 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.

As we continue to expand our business into new markets, particularly emerging markets, our total foreign currency exchange risk could increase significantly.

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, 2018, 2019 and 2020.

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

A 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.

B Use of Proceeds

Not applicable.

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 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, 2020 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, 2020.

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, 2020, has also audited the effectiveness of internal control over financial reporting as of December 31, 2020.

Report of the Independent Registered Public Accounting Firm

To the shareholders and the Board of Directors of Canadian Solar Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Canadian Solar Inc. and subsidiaries (the ”Company”) as of December 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission(COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2020, of the Company and our report dated April 19, 2021, expressed an unqualified opinion on those financial statements.

Basis for Opinion

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 are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. 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.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (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 (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 its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte Touche Tohmatsu Certified Public Accountants LLP
Shanghai, China
April 19, 2021

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 Arthur (Lap Tat) Wong 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. 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 (in whole U.S. dollars) by categories specified below in connection with certain professional services rendered by Deloitte Touche Tohmatsu Certified Public Accountants LLP, 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,	
	2019	2020
Audit fees[1]	$ 1,830,000	$ 1,830,000
Audit related fees[2]	$ 512,862	$ 876,993
Tax fees[3]	$ 116,132	$ 7,549
All other fees[4]	$ 544,709	$ 210,578

(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 2019, "Audit related fees" included approximately $0.5 million for the statutory audits of our subsidiary companies. In 2020, "Audit related fees" included approximately $0.9 million for the statutory audits of our subsidiary companies.

(3) "Tax fees" of 2019 and 2020 were for services rendered by our principal accountants for tax compliance, tax advice and tax planning.

(4) "All other fees", refers to the consulting service for CRM consulting service.

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***

On December 19, 2019, we announced a $150 million share repurchase program for a six-month period beginning December 9, 2019 and ending June 8, 2020. We have fully executed the program as of the date of this report, and repurchased 990,846 shares in total under this share repurchase plan. These repurchased shares have been cancelled and retired.

The following table sets forth information about our purchase of outstanding treasury stocks from January 1, 2020 to the date of this annual report:

Period	(a) Total Number of Treasury Stocks Purchased	(b) Average Price Paid Per Treasury Stocks	(c) Total Number of Treasury Stocks Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Approximate Dollar Value of Treasury Stocks That May Yet Be Purchased Under the Plans or Program
		$		US$ in thousands
January 2020	91,424	21.88	91,424	136,154
March 2020	289,906	13.67	289,906	132,191
Total	381,330	15.64	381,330	

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***

Exhibit Number	Description of Document
1.1*	Notice of Articles, Certificate of Continuation and the Articles of Canadian Solar Inc.
2.1*	Registrant's Specimen Certificate for Common Shares
2.2*	Description of Securities of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934
2.3*	Indenture, dated as of September 15, 2020, between Canadian Solar Inc. and The Bank of New York Mellon, as trustee
4.1	Amended and Restated Share Incentive Plan of the Registrant, effective on May 8, 2011 (incorporated by reference to Exhibit 4.1 of our annual report on Form 20-F for the year ended December 31, 2016 (File No. 001-33107), initially filed with the SEC on April 27, 2017)
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)
8.1*	List of Major Subsidiaries
12.1*	CEO Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
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, 2020 formatted in eXtensible Business Reporting Language (XBRL): (i) Consolidated Balance Sheets as of December 31, 2019 and 2020; (ii) Consolidated Statements of Operations for the Years Ended December 31, 2019, 2019 and 2020; (iii) Consolidated Statements of Comprehensive Income for the Years Ended December 31, 2018, 2019 and 2020; (iv) Consolidated Statements of Changes in Equity for the Years Ended December 31, 2018, 2019 and 2020; (v) Consolidated Statements of Cash Flows for the Years Ended December 31, 2018, 2019 and 2020; (vi) Notes to Consolidated Financial Statements; and (vii) Additional Information—Financial Statements Schedule I
104*	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith.

** Furnished herewith.

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: Director and
Chief Financial Officer

Date: April 19, 2021

CANADIAN SOLAR INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Canadian Solar Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Canadian Solar Inc. and subsidiaries (the "Company") as of December 31, 2020 and 2019, 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, 2020, the related notes and the financial statement schedule (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated April 19, 2021, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matter does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition -sales of solar power projects - Refer to Note 2 (w) to the financial statements

Critical Audit Matter Description

The Company recognizes revenue from the sale of a solar power project at the point in time when a customer obtains control of the solar power project. The dollar amount of revenues from the sale of solar power projects was $801,294 thousand for the year ended December 31, 2020. The solar power projects are often held in separate legal entities which are formed for the special purpose of constructing the solar power projects, which the Company refers to as "project companies". Management of the Company use its judgment to determine whether deconsolidation of the project companies is appropriate upon transfer of equity interest to the customers, to identify performance obligations, and to estimate the variable consideration, if any, as part of the transaction price.

We identified revenue recognition for sales of solar power projects as a critical audit matter because of the judgments necessary for management to determine whether it may derecognize the project companies according to Accounting Standard Codification ("ASC") 810-10, to identify performance obligations, and to estimate the variable consideration as part of transaction price according to ASC 606. This requires a high degree of auditor judgment when performing audit procedures to evaluate management's conclusion of the aforementioned judgmental areas.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's conclusion of de-recognition of the project companies, identification of performance obligations and estimation of variable consideration included the following, among others:

- We tested the effectiveness of controls over revenue recognition for sales of solar power projects, including management's controls over the conclusion with respect to de-recognition of the project companies, identification of performance obligation and estimation of variable consideration.
- We selected a sample of solar power project sales and performed the following:
  - Evaluated whether the fact patterns within the contracts and other relevant documents were properly included in management's assessment in accordance with ASC 810-10.
  - Evaluated management's accounting analysis in terms of whether the identification of performance obligations, and determination of transaction price, including estimation of variable consideration, if any, is conducted in accordance with ASC 606.
  - Tested the mathematical accuracy of management's calculation of revenue for each performance obligation that can be recognized in a given period.

/s/ Deloitte Touche Tohmatsu Certified Public Accountants LLP

Shanghai China

April 19, 2021

We have served as the Company's auditor since 2006.

CANADIAN SOLAR INC.
CONSOLIDATED BALANCE SHEETS

	December 31, 2019	December 31, 2020
	(In Thousands of U.S. Dollars, except share data)	
ASSETS		
(Including balances in variable interest entities, see Note 10)		
Current assets:		
Cash and cash equivalents	668,770	1,178,752
Restricted cash	526,723	458,334
Accounts receivable trade, net of allowance of $29,545 and $40,293 as of December 31, 2019 and 2020, respectively	436,815	408,958
Accounts receivable, unbilled	15,256	28,461
Amounts due from related parties	31,232	5,834
Inventories	554,070	695,981
Value added tax recoverable	108,920	102,460
Advances to suppliers, net of allowance of $7,222 and $5,845 as of December 31, 2019 and 2020, respectively	47,978	182,146
Derivative assets	5,547	23,351
Project assets	604,083	747,764
Prepaid expenses and other current assets	253,542	353,781
Total current assets	3,252,936	4,185,822
Restricted cash	9,927	2,629
Property, plant and equipment, net	1,046,035	1,157,731
Solar power systems, net	52,957	158,262
Deferred tax assets, net	153,963	170,656
Advances to suppliers, net of allowance of $13,059 and $13,855 as of December 31, 2019 and 2020, respectively	40,897	97,173
Prepaid land use rights	60,836	62,414
Investments in affiliates	152,828	78,291
Intangible assets, net	22,791	22,429
Project assets	483,051	389,702
Right-of-use assets	37,733	26,793
Other non-current assets	153,253	184,952
TOTAL ASSETS	5,467,207	6,536,854
LIABILITIES AND EQUITY		
(Including balances in variable interest entities, see Note 10)		
Current liabilities:		
Short-term borrowings, including long-term borrowings - current portion	933,120	1,202,285
Long-term borrowings on project assets — current	286,173	198,794
Accounts payable	585,601	514,742
Short-term notes payable	544,991	710,636
Amounts due to related parties	10,077	314
Other payables	446,454	508,839
Advances from customers	134,806	189,470
Derivative liabilities	10,481	10,755
Operating lease liabilities	18,767	15,204
Other current liabilities	121,527	237,316
Total current liabilities	3,091,997	3,588,355
Accrued warranty costs	55,878	37,732
Long-term borrowings	619,477	446,090
Convertible notes	—	223,214
Derivative liabilities	1,841	—
Liability for uncertain tax positions	15,353	14,729
Deferred tax liabilities	56,463	49,080
Loss contingency accruals	28,513	26,458
Operating lease liabilities	20,718	13,232
Financing liabilities	76,575	81,871
Other non-current liabilities	75,334	163,308
TOTAL LIABILITIES	4,042,149	4,644,069
Commitments and contingencies (Note 21)		
Equity:		
Common shares – no par value: unlimited authorized shares, 59,371,684 and 59,820,384 shares issued and outstanding at December 31, 2019 and 2020, respectively	703,806	687,033
Treasury stock, at cost, 609,516 and nil common shares as of December 31, 2019 and 2020, respectively	(11,845)	—
Additional paid-in capital	17,179	(28,236)
Retained earnings	793,601	940,304
Accumulated other comprehensive loss	(109,607)	(28,679)
Total Canadian Solar Inc. shareholders' equity	1,393,134	1,570,422
Non-controlling interests in subsidiaries	31,924	322,363
TOTAL EQUITY	1,425,058	1,892,785
TOTAL LIABILITIES AND EQUITY	5,467,207	6,536,854

See notes to consolidated financial statements.

CANADIAN SOLAR INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2018	2019	2020
	(In Thousands of U.S. Dollars, except share and per share data)		
Net revenues:			
–Non-related parties	3,624,687	3,101,113	3,413,769
–Related parties	119,825	99,470	62,726
Total net revenues	3,744,512	3,200,583	3,476,495
Cost of revenues:			
–Non-related parties	2,894,611	2,424,476	2,756,687
–Related parties	74,819	57,610	29,894
Total cost of revenues	2,969,430	2,482,086	2,786,581
Gross profit	775,082	718,497	689,914
Operating expenses:			
Selling and distribution expenses	165,402	180,326	224,243
General and administrative expenses	245,376	242,783	225,597
Research and development expenses	44,193	47,045	45,167
Other operating income, net	(44,546)	(10,536)	(25,523)
Total operating expenses, net	410,425	459,618	469,484
Income from operations	364,657	258,879	220,430
Other income (expenses):			
Interest expense	(106,032)	(81,326)	(71,874)
Interest income	11,207	12,039	9,306
Gain (loss) on change in fair value of derivatives, net	(19,230)	(22,218)	50,001
Foreign exchange gain (loss)	6,529	10,370	(64,820)
Investment income (loss)	41,361	1,929	(8,559)
Other expenses, net	(66,165)	(79,206)	(85,946)
Income before income taxes and equity in earnings of unconsolidated investees	298,492	179,673	134,484
Income tax benefit (expense)	(61,969)	(42,066)	1,983
Equity in earnings of unconsolidated investees	5,908	28,948	10,779
Net income	242,431	166,555	147,246
Less: net income (loss) attributable to non-controlling interests	5,361	(5,030)	543
Net income attributable to Canadian Solar Inc.	237,070	171,585	146,703
Earnings per share — basic	$ 4.02	$ 2.88	$ 2.46
Shares used in computation — basic	58,914,540	59,633,855	59,575,898
Earnings per share — diluted	$ 3.88	$ 2.83	$ 2.38
Shares used in computation — diluted	62,291,670	60,777,696	62,306,819

See notes to consolidated financial statements.

CANADIAN SOLAR INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended December 31,		
	2018	2019	2020
	(In Thousands of U.S. Dollars)		
Net income	242,431	166,555	147,246
Other comprehensive income (loss) (net of tax of nil):			
Foreign currency translation adjustment	(50,577)	319	76,188
Gain on commodity hedge	953	—	—
Gain (loss) on interest rate swap	5,141	(5,847)	10,724
De-recognition of commodity hedge and interest rate swap	(8,752)	—	(4,115)
Comprehensive income	189,196	161,027	230,043
Less: comprehensive income (loss) attributable to non-controlling interests	8,241	(11,100)	2,412
Comprehensive income attributable to Canadian Solar Inc.	180,955	172,127	227,631

See notes to consolidated financial statements.

CANADIAN SOLAR INC.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Common Shares		Treasury Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Earnings Attributable to Canadian Solar Inc.	Non-Controlling Interests	Total Equity
	Number	$	Number	$	$	$	$	$	$	$
	(In Thousands of U.S. Dollars, except share data)									
Balance at December 31, 2017	58,496,685	702,162	—	—	417	383,681	(54,034)	1,032,226	27,549	1,059,775
Net income	—	—	—	—	—	237,070	—	237,070	5,361	242,431
Foreign currency translation adjustment	—	—	—	—	—	—	(53,457)	(53,457)	2,880	(50,577)
Cumulative-effect adjustment for the adoption of ASU 2014-09	—	—	—	—	—	1,265	—	1,265	—	1,265
Acquisition of subsidiaries	—	—	—	—	—	—	—	—	7,703	7,703
Acquisition of non-controlling interest's ownership	—	—	—	—	—	—	—	—	(6,591)	(6,591)
Transfer of equity interest in subsidiaries to non-controlling shareholders	—	—	—	—	—	—	—	—	10,470	10,470
Share-based compensation	—	—	—	—	10,258	—	—	10,258	—	10,258
Exercise of share options and RSUs	683,939	769	—	—	—	—	—	769	—	769
De-recognition of derivatives	—	—	—	—	—	—	(8,752)	(8,752)	—	(8,752)
Fair value change on derivatives	—	—	—	—	—	—	6,094	6,094	—	6,094
Balance at December 31, 2018	59,180,624	702,931	—	—	10,675	622,016	(110,149)	1,225,473	47,372	1,272,845
Net income (loss)	—	—	—	—	—	171,585	—	171,585	(5,030)	166,555
Foreign currency translation adjustment	—	—	—	—	—	—	6,389	6,389	(6,070)	319
Acquisition of non-controlling interest's ownership	—	—	—	—	(4,178)	—	—	(4,178)	(9,998)	(14,176)
Repurchase of common shares[1]	(609,516)	—	609,516	(11,845)	—	—	—	(11,845)	—	(11,845)
Share-based compensation	—	—	—	—	10,682	—	—	10,682	—	10,682
Exercise of share options and RSUs	800,576	875	—	—	—	—	—	875	—	875
Proceeds from non-controlling interests	—	—	—	—	—	—	—	—	5,650	5,650
Fair value change on derivatives	—	—	—	—	—	—	(5,847)	(5,847)	—	(5,847)
Balance at December 31, 2019	59,371,684	703,806	609,516	(11,845)	17,179	793,601	(109,607)	1,393,134	31,924	1,425,058
Net income	—	—	—	—	—	146,703	—	146,703	543	147,246
Foreign currency translation adjustment	—	—	—	—	—	—	74,319	74,319	1,869	76,188
Acquisition of non-controlling interest's ownership	—	—	—	—	(8,414)	—	—	(8,414)	0	(8,414)
Repurchase of common shares[2]	(381,330)	—	381,330	(5,963)	—	—	—	(5,963)	—	(5,963)
Retirement of treasury stock[1] [2]	—	(17,808)	(990,846)	17,808	—	—	—	—	—	—
Share-based compensation	—	—	—	—	12,350	—	—	12,350	—	12,350
Exercise of share options and RSUs	830,030	1,035	—	—	—	—	—	1,035	—	1,035
Transfer of equity interest in subsidiaries to non-controlling shareholders [3]	—	—	—	—	(49,351)	—	—	(49,351)	273,904	224,553
Proceeds from non-controlling interests	—	—	—	—	—	—	—	—	14,123	14,123
De-recognition of derivatives	—	—	—	—	—	—	(4,115)	(4,115)	—	(4,115)
Fair value change on derivatives	—	—	—	—	—	—	10,724	10,724	—	10,724
Balance at December 31, 2020	59,820,384	687,033	—	—	(28,236)	940,304	(28,679)	1,570,422	322,363	1,892,785

(1) Following the share repurchase plan authorized by the Board Directors on December 9, 2019, the Company repurchased 609,516 outstanding shares with total costs of $11,845 in December 2019. The Company retired all outstanding shares repurchased during 2020.

(2) Following the share repurchase plan authorized by the Board Directors on December 9, 2019, the Company repurchased 91,424 and 289,906 outstanding shares with total costs of $2,000 and $3,963 in January 2020 and March 2020, respectively. The Company retired all outstanding shares repurchased during 2020.

(3) On September 30, 2020, the Company announced a RMB1.78 billion (approximately $261,332) capital raising for CSI Solar Co., Ltd., to qualify it for the planned carve-out IPO in China and bring in leading institutional investors and strategic partners. Refer to Note 1 to the consolidated financial statements for further information.

See notes to consolidated financial statements.

CANADIAN SOLAR INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
	2018	2019	2020
	(In Thousands of U.S. Dollars)		
Operating activities:			
Net income	242,431	166,555	147,246
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	129,256	159,723	209,118
Accretion of convertible notes	—	—	388
Loss (gain) on disposal of property, plant and equipment	2,565	1,227	(253)
Gain on disposal of solar power systems	(36,098)	(1,666)	—
Gain on disposal of investment in affiliates	(47,102)	(1,928)	(13,936)
Impairment loss of property, plant and equipment	30,968	21,866	11,854
Impairment loss of project assets	9,016	20,194	369
Impairment loss of investment	5,738	—	24,060
Loss (gain) on change in fair value of derivatives, net	19,230	22,218	(50,001)
Equity in earnings of unconsolidated investees	(5,908)	(28,948)	(10,779)
Allowance for credit losses	2,812	1,250	9,874
Non-cash operating lease expenses	—	14,318	19,260
Write-down of inventories	14,646	19,447	42,907
Share-based compensation	10,258	10,682	12,350
Unrealized gain (loss) from sales to affiliates	(13,573)	6,194	(66)
Derecognition of commodity hedge and interest rate swap	—	—	4,439
Changes in operating assets and liabilities:			
Accounts receivable trade	(179,607)	51,670	65,379
Accounts receivable, unbilled	1,158	(15,268)	(12,064)
Amounts due from related parties	9,237	(17,347)	26,828
Inventories	55,408	(312,781)	(180,974)
Value added tax recoverable	(9,206)	(849)	2,687
Advances to suppliers	29,001	(27,066)	(138,915)
Project assets	(30,501)	28,527	(443,730)
Prepaid expenses and other current assets	(2,208)	33,283	(72,188)
Other non-current assets	9,387	(24,037)	(11,913)
Accounts payable	47,756	209,175	(89,180)
Short-term notes payable	(173,148)	185,827	120,445
Amounts due to related parties	10,467	(5,798)	(9,773)
Other payables	39,791	42,810	10,386
Advances from customers	(11,225)	96,115	51,683
Operating lease liabilities	—	(12,566)	(19,369)
Other liabilities	(29,691)	(10,851)	179,911
Accrued warranty costs	(3,563)	4,624	(19,143)
Prepaid land use rights	6,557	2,622	452
Goodwill	5,243	1,005	—
Liability for uncertain tax positions	10,863	(4,775)	(623)
Deferred taxes	37,591	(12,455)	(21,439)
Net settlement of derivatives	28,731	(27,012)	33,054
Loss contingency accruals	—	4,126	1,115
Net cash provided by (used in) operating activities	216,280	600,111	(120,541)

See notes to consolidated financial statements.

CANADIAN SOLAR INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS – (Continued)

	Years Ended December 31,		
	2018	2019	2020
	(In Thousands of U.S. Dollars)		
Investing activities:			
Investments in affiliates	(11,036)	(7,684)	(17,758)
Return of investment from affiliates	816	3,012	—
Proceeds from disposal of investment in affiliates	337,773	1,649	33,037
Purchase of property, plant and equipment and intangible assets	(316,282)	(291,182)	(334,781)
Purchase of solar power systems	—	—	(160)
Proceeds from disposal of solar power systems	17,800	103	—
Net cash provided by (used in) investing activities	29,071	(294,102)	(319,662)
Financing activities:			
Proceeds from short-term borrowings	1,430,708	1,257,009	1,667,703
Repayment of short-term borrowings	(2,368,967)	(1,649,721)	(1,561,597)
Proceeds from long-term borrowings	382,831	530,990	207,632
Acquisition of non-controlling interests	(6,591)	(14,176)	—
Proceeds from non-controlling interests	10,470	11,488	261,332
Proceeds from third party financing liabilities	119,095	3,000	6,419
Proceeds from sales-leaseback arrangement	35,944	9,044	9,945
Distributions to tax equity investors	(3,013)	(1,120)	—
Repayment of finance lease obligation	(64,859)	(42,658)	(22,173)
Net proceeds from issuance of convertible notes	—	—	222,826
Payments for repurchase of convertible notes	—	(127,500)	—
Proceeds from subscription of employee stock ownership plan	—	—	36,342
Proceeds from exercise of stock options	769	875	1,035
Payments for repurchase of common shares	—	(11,845)	(5,963)
Net cash provided by (used in) financing activities	(463,613)	(34,614)	823,501
Effect of exchange rate changes	(38,725)	(6,965)	50,997
Net increase (decrease) in cash, cash equivalents and restricted cash	(256,987)	264,430	434,295
Cash, cash equivalents and restricted cash at the beginning of the year	1,190,134	940,990	1,205,420
Less: net decrease in cash, cash equivalents and restricted cash classified within assets held-for-sale	(7,843)	—	—
Cash, cash equivalents and restricted cash at the end of the year	940,990	1,205,420	1,639,715
Supplemental disclosure of cash flow information:			
Interest paid (net of amounts capitalized)	103,236	85,362	78,747
Income taxes paid, net of tax refund	32,135	40,454	38,193
Supplemental schedule of non-cash activities:			
Property, plant and equipment costs included in other payables	228,970	244,483	244,512

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the balance sheets that sum to the total of the same such amounts shown in the statements of cash flows.

	Years Ended December 31,	
	2019	2020
	(In Thousands of U.S. Dollars)	
Cash and cash equivalents	668,770	1,178,752
Restricted cash — current	526,723	458,334
Restricted cash — non-current	9,927	2,629
Total cash and cash equivalents, and restricted cash shown in the statements of cash flows	1,205,420	1,639,715

See notes to consolidated financial statements.

CANADIAN SOLAR INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2018, 2019 and 2020
(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. In July 2020, CSI filed articles of continuance, or the articles, to change its jurisdiction from the federal jurisdiction of Canada to the provincial jurisdiction of the Province of British Columbia. As a result, CSI is governed by the British Columbia Business Corporation Act, or the BCBCA, and its affairs are governed by its notice of articles and the articles.

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, partial ownership of solar projects, battery storage solutions, EPC and development services, O&M and asset management services, operating solar power and energy storage projects and sales of electricity, and sales of solar system kits. As of December 31, 2020, major subsidiaries of CSI are included in Appendix 1.

In July 2020, the Company announced its plan to carve-out and publicly list its legacy Module and System Solutions ("MSS") subsidiary, CSI Solar Co., Ltd. ("CSI Solar Co"), in China ("the IPO"). In preparation for the IPO, the Company successfully completed the restructuring of its business segments during the fourth quarter of 2020. The main change being the transfer and inclusion of the China Energy business within the scope of CSI Solar Co, refer to Note 22 for further information.

On September 30, 2020, the Company announced a RMB1.78 billion (approximately $261,332) capital raising for CSI Solar Co, to qualify CSI Solar Co for the planned carve-out IPO in China and bring in leading institutional investors and strategic partners ("third-party investors").

The third-party investors have agreed to purchase existing CSI Solar Co shares from the Company for an aggregate of RMB1.50 billion (approximately $219,000) at an equity valuation of RMB7.50 billion (approximately $1,100,000). At the same time, selected employees also purchased existing CSI Solar Co shares from the Company for an aggregate of RMB31 million (approximately $4,500) at the same valuation. As of December 31, 2020, $224,553 of share purchase proceeds were fully received and recorded as non-controlling interests in subsidiaries on the consolidated balance sheets.

In addition, CSI Solar Co approved an employee incentive plan (the "ESOP scheme") and utilized a limited liability partnership (the "LLP") as a vehicle to hold CSI Solar Co shares that will be used under the ESOP scheme. Eligible CSI Solar Co directors and employees and board members have collectively agreed to subscribe to equity interest in the LLP for an aggregate of RMB248 million ($36,342) at a discount of 30%, or at an equity valuation of RMB5.25 billion (approximately $768,000), for which the vesting conditions include the successful completion of the IPO and service period. The ESOP scheme will be accounted for based on the grant date fair value which equals to the value of the discount benefited by the ESOP scheme participants. Compensation cost recognized was nil in the year ended December 31, 2020. Compensation cost will be recognized over the vesting period upon and after completion of IPO. As of December 31, 2020, $36,342 of subscription advances were fully received and recorded as other payables on the consolidated balance sheets.

As of December 31, 2020, the third-party investors and Canadian Solar employees, in aggregate, owned 20.4% of CSI Solar Co. The Company's wholly-owned global project development business, its Global Energy (formerly known as Energy) subsidiary, is not part of this transaction.

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.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(b) Basis of consolidation (Continued)

The Company consolidates VIEs when the Company is the primary beneficiary. 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, the Company performs 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 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 in note 10, 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 intercompany accounts and transactions between the Company and its consolidated VIEs have been eliminated in consolidation.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(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 a cost-based input method, allowance for credit losses 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"), discount rates used to measure operating lease liabilities, 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, valuation allowances for deferred tax assets, 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, the deposits are released by the bank and become available for general use by the Company.

(e) Accounts receivable, unbilled

Accounts receivable, unbilled represents a contract asset for revenue that has been recognized in advance of billing the customer. The Company uses a cost-based input method to recognize revenue from EPC and development services when all relevant revenue recognition criteria have been met. Under this accounting method, revenue may be recognized in advance of billing the customer, which results in the recording of accounts receivable, unbilled. Once the Company meets the billing criteria under such contract, the rights to consideration becomes unconditional, 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.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(f) Allowance for credit losses

Before 2020, the Company determined its allowance for doubtful accounts by actively monitoring the financial condition of its customers to determine the potential for any nonpayment of accounts receivable trade, advances to suppliers and other receivables. In determining its allowance for doubtful accounts, the Company also considered other economic factors, such as aging trends. The Company believed that its process of specific review of customers, combined with overall analytical review, provided an effective evaluation of ultimate collectability of trade receivables. Provisions for allowance for doubtful accounts were recorded as general and administrative expenses in the consolidated statements of operations.

After the adoption of ASU 2016-13 “Financial Instruments—Credit Losses (Topic 326)” beginning on January 1, 2020, the financial instruments are presented net of an allowance for credit losses. The Company establishes current expected credit losses (“CECL”) through an assessment based on external credit rating, internal credit rating and historical loss rates of debtors. Where CECL is measured on a collective basis or cater for cases where evidence at the individual instrument level may not yet be available, the financial instruments are grouped on the aging status; and nature, size and industry of debtors. Refer to section (ak) of this Note for further details of the adoption of this ASU.

The Company began purchasing credit insurance from insurers, such as the China Export & Credit Insurance Corporation, 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 credit insurance. At the time the claim is made, the Company records a receivable from these insurers equal to the expected recovery up to the amount of the specific allowance. The Company had recorded a receivable from these insurers in prepaid expenses and other current assets of $166 and $386 as of December 31, 2019 and 2020, 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

Inventories are stated at the lower of cost or net realizable value. 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.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(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 the sale will occur within one year. Appropriateness of the classification of the solar power projects is assessed based on the circumstances on each balance sheet date. Solar power projects that the Company intends to sell within one year, which meet the criteria of ASC 360, are classified as project assets-current. Solar power projects that the Company intends to hold and operate to generate electricity are classified as solar power systems.

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, permitting, capital cost, 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 project asset 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 2(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 intends 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.

CANADIAN SOLAR INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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(In Thousands of U.S. Dollars, unless otherwise indicated)

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(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 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. If the consideration given is not in the form of cash (that is, in the form of non cash 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) 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.

CANADIAN SOLAR INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
FOR THE YEARS ENDED DECEMBER 31, 2018, 2019 and 2020
(In Thousands of U.S. Dollars, unless otherwise indicated)

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(m) Solar power systems

Solar power systems comprised of ground-mounted utility-scale projects 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 power purchase agreements ("PPA"), 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.

(n) 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:

Technical know-how	10 years
Computer software	1-10 years

(o) Prepaid land use rights

Prepaid land use rights, in substance right-of-use assets recorded according to ASC 842 from January 1, 2019, represent amounts paid for the use right of lands located in China ("PRC"). Amounts are charged to earnings ratably over the lease periods of 20 to 50 years.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(p) Investments in affiliates

The Company uses the equity method of accounting for the investments. 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. The amount associated with the share of earnings is considered as return on investment, and the rest amount is considered as return of investment.

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, 2018, 2019 and 2020, the Company recorded $5,738, nil and $24,060 of impairment charges on its investments, respectively.

(q) 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 $30,968, $21,866 and $11,854 for the years ended December 31, 2018, 2019 and 2020, respectively.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(r) 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 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.

(s) 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. Assets retirement obligation ("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 was not material as of December 31, 2019 and 2020.

(t) Leases

Effective January 1, 2019, the Company adopted Accounting Standards Update ("ASU") No. 2016-02, Leases (Topic 842), as amended ("ASC 842") for its lease arrangements, which were recorded under ASC 840, Leases, before implementation. Upon adoption of ASC 842, the Company elected to use the remaining lease term as of January 1, 2019 in the estimation of the applicable discount rate for leases that were in place at adoption. For the initial measurement of the lease liability for leases commencing after January 1, 2019, the Company use the discount rate as of the commencement date of the lease, incorporating the entire lease term. The Company, as a lessee, has both finance and operating lease arrangements. Right-of-use ("ROU") assets and operating lease liabilities on the consolidated balance sheets include operating lease agreements. Finance lease agreements are recorded in property, plant and equipment, other payables and other non-current liabilities on the consolidated balance sheets. Lease liabilities that become due within one year of the balance sheet date are classified as current liabilities. The Company elected the practical expedient to combine the lease and related non-lease components for all existing leases.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(t) Leases (Continued)

The Company determines if an arrangement is a lease at inception. Leases are classified as operating or finance leases in accordance with the recognition criteria in ASC 842-20-25. At the commencement date of a lease, the Company determines the classification of the lease based on the relevant factors and presents and records a right-of- use ("ROU") asset and lease liability. ROU assets represent the right to use an underlying asset for the lease term and lease liabilities represent the obligation to make lease payments arising from the lease. ROU assets and lease liabilities are calculated as the present value of the lease payments not yet paid. Variable lease payments are excluded from the ROU asset and lease liability calculations and are recognized in the period which the obligations for those payments are incurred. Operating lease ROU assets also include any lease prepayments made, initial direct costs and deferred rent if any and exclude lease incentives. As the rate implicit in the Company's operating leases is not typically readily available, the Company uses an incremental borrowing rate based on the information available at the lease commencement date in determining the present value of lease payments. Some of the Company's lease agreements include options to extend or terminate the lease, which are not included in its minimum lease terms unless they are reasonably certain to be exercised. All operating lease expenses are fixed, which are accounted for on a straight-line basis over the lease term and that of finance lease include interest and amortization expenses incurred during the current year.

The Company's leases do not contain any material residual value guarantees or material restrictive covenants. Leases with an initial lease term of 12 months or less are not recorded on the consolidated balance sheet.

For finance leases, the amortization of the asset is recognized over the shorter of the lease term or useful life of the underlying asset within depreciation and amortization expense and other expenses from managed and franchised properties in consolidated statements of operations. The interest expense related to finance leases, including any variable lease payments, is recognized in interest expense in consolidated statements of operations.

The Company assesses ROU assets for impairment quarterly. When events or circumstances indicate the carrying value may not be recoverable, the Company evaluates the net book value of the asset for impairment by comparison to the projected undiscounted future cash flows. If the carrying value of the asset is determined to not be recoverable and is in excess of the estimated fair value, the Company recognizes an impairment charge in asset impairments on its consolidated statements of income.

(u) 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.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(v) 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.

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; (ii) current tax expense, which represents the amount of tax 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.

(w) Revenue recognition

The Company recognizes revenue when it satisfies a performance obligation by transferring a promised good or service to a customer.

Solar power products and materials

Solar power products, including solar modules, other solar power products, solar system kits and materials related to solar power products are transferred at a point in time when the customer obtains control of the products, which is typically upon shipment or delivery depending on the contract terms. Revenues of solar product sales also include reimbursements received from customers for shipping and handling costs. Sales agreements typically contain the assurance-type customary product warranties but do not contain any post-shipment obligations nor any return or credit provisions, see note 2 (aa) for the Company’s accounting policy for warranty.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(w) Revenue recognition (Continued)

The Company assessed whether it is probable that the Company will collect substantially all of the consideration to which it will be entitled in exchange for the products that will be transferred to the customer. As of December 31, 2019 and 2020, the Company had inventories of $7,701 and $9,548, respectively, relating to sales to customers where revenues were not recognized because the collection of payment was determined to be not probable. The delivered products remain as inventories on consolidated balance sheets, regardless of whether the control has been transferred. If the collection of payment becomes probable in the future, the Company would then recognize revenue, adjust inventories and recognize cost of revenues.

O&M and asset management services

O&M and asset management services are transferred over time when customers receive and consume the benefits provided by the Company's performance under the terms of service arrangements. Revenues from O&M and asset management services are recognized over time based on the work completed to date which does not require re-performances and the costs of O&M and asset management services are expensed when incurred.

Battery storage solutions, EPC and development services

The Company recognizes revenue for sales of battery storage solutions, EPC and development services over time based on the estimated progress to completion using a cost-based input method. In applying the cost-based input method of revenue recognition, the Company use the actual costs incurred relative to the total estimated costs to determine the Company's progress towards contract completion and to calculate the corresponding amount of revenue and gross profit to recognize. Cost-based input method of revenue recognition is considered a faithful depiction of the Company's efforts to satisfy battery storage solutions, EPC and development services contracts and therefore reflect the transfer of goods or services to a customer under such contracts. Costs incurred towards contract completion may include costs associated with direct materials, labor, subcontractors, and other indirect costs related to contract performance. The cost-based input method of revenue recognition requires the Company to make estimates of net contract revenues and costs to complete the Company's projects. In making such estimates, significant judgment is required to evaluate assumptions related to the amount of net contract revenues, including the impact of any performance incentives, liquidated damages, and other payments to customers. Significant judgment is also required to evaluate assumptions related to the costs to complete the Company's projects, including materials, labor, contingencies, and other system costs. If estimated total costs of any contract are greater than the estimated net revenues, of the contract, the Company recognizes the entire estimated loss in the period the loss becomes known. The cumulative effect of 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 estimates are identified and the amounts can be reasonably estimated.

Solar power and energy storage projects

Sales of solar power and energy storage projects are recognized at a point in time when customers obtain control of solar power projects. For sales of solar power and energy storage projects in which the Company obtains an interest in the project sold to the customer, the Company recognizes all of the revenue for the consideration received, including the fair value of the non-controlling interest it obtained, and defer any profit associated with the interest obtained.

The solar power projects are often held in separate legal entities which are formed for the special purpose of constructing the solar power projects, which the Company refers to as "project companies". The Company applies guidance under ASC 810 to determine deconsolidation of the project companies upon transfer of equity interest to the customers, and then applies guidance under ASC 606 for revenue recognition.

CANADIAN SOLAR INC.
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FOR THE YEARS ENDED DECEMBER 31, 2018, 2019 and 2020
(In Thousands of U.S. Dollars, unless otherwise indicated)

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(w) Revenue recognition (Continued)

Electricity revenue

Electricity revenue is generated primarily by the Company's solar power plants under long-term PPAs and performance based energy incentives. For electricity sold under PPAs, the Company recognizes electricity revenue based on the price stated in the PPAs when electricity has been generated and transmitted to the grid. Performance-based energy incentives are awarded under certain state programs for the delivery of renewable electricity when the attached conditions have been met and there is reasonable assurance that the incentives will be received. During the years ended December 31, 2018, 2019 and 2020, the Company recognized performance-based energy incentives related to electricity generated of $4,688, $3,915 and $6,628, respectively, in revenue.

Disaggregation of Revenue

The disaggregation of revenue from contracts with customers for the years ended December 31, 2018, 2019, and 2020 has been disclosed under Segment Information. See Note 22 for details of revenues generated from each product or service and revenues generated from different geographic locations.

The following table represents a disaggregation of revenue recognized at a point in time or over time (Comparative period financial information for 2018 and 2019 by reportable segment has been recast to conform to current presentation. Refer to Note 22 for further information.):

	Years Ended December 31,		
	2018	2019	2020
CSI Solar Segment:			
Revenue recognized at a point in time	$ 2,232,424	$ 2,210,459	$ 2,704,332
Revenue recognized over time	84,843	271,389	45,996
Global Energy Segment:			
Revenue recognized at a point in time	1,406,196	696,326	687,759
Revenue recognized over time	21,049	22,409	38,408
	3,744,512	3,200,583	3,476,495

The Company's contract assets and liabilities are as follow:

	At December 31, 2019	At December 31, 2020
Contract Assets		
Accounts receivable, unbilled	$ 15,256	$ 28,461
Contract Liabilities		
Advances from customers	134,806	189,470
Other current liabilities	20,917	35,012
	155,723	224,482

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(w) Revenue recognition (Continued)

For the year ended December 31, 2020, $139,387 of the Company's revenue was recognized from the beginning balance of contract liabilities as of January 1, 2020. Contract liabilities of $224,482 as of December 31, 2020 are expected to be realized within one year.

The Company has applied the practical expedients related to the revenue requirements to a portfolio of contracts (or performance obligations) with similar characteristics for transactions where it is expected that the effects on the financial statements of applying the revenue recognition guidance to the portfolio would not differ materially from applying this guidance to the individual contracts (or performance obligations) within that portfolio. Therefore, the Company has elected the portfolio approach in applying the revenue guidance.

The Company has made an accounting policy election to not assess whether promised products are performance obligations if they are immaterial in the context of the contract with the customer. If the revenue related to a performance obligation that includes products that are immaterial in the context of the contract is recognized before those immaterial products are transferred to the customer, then the related costs to transfer those products are accrued.

The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which the Company recognizes revenue at the amount to which it has the right to invoice for services performed.

The Company generally expenses incremental costs of obtaining a contract when incurred because the amortization period would be less than one year. The incremental costs are recorded in operating expense. Incremental costs of obtaining a contract with an amortization period more than one year are not material to the Company.

(x) 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 $69,855, $88,079 and $134,248, are included in selling and distribution expenses for the years ended December 31, 2018, 2019 and 2020, respectively.

(y) Research and development

Costs related to the design, development, testing and enhancement of products are included in research and development expenses. Research and development costs are expensed when incurred and amounted to $44,193, $47,045 and $45,167 for the years ended December 31, 2018, 2019 and 2020, respectively.

(z) 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, and compensation from business interruption insurance.

CANADIAN SOLAR INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)
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2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(z) Other operating income, net (Continued)

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 are 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, property, plants and equipment and certain projects, are recorded as deferred subsidies in other non-current liabilities and are amortized on a straight-line basis over the term of related assets.

The following table summarizes the Company's other operating income, net:

	Years Ended December 31,		
	2018	2019	2020
	$	$	$
Net gain on disposal of solar power system	(36,098)	(1,666)	—
Net (gain) loss on disposal of property, plant and equipment	2,565	1,227	(253)
Government grants	(11,013)	(10,097)	(24,245)
Business interruption insurance compensation	—	—	(1,025)
	(44,546)	(10,536)	(25,523)

(aa) 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 guarantee for 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.

In 2019, the Company increased its guarantee for defects in materials and workmanship up to twelve years and the Company warrant that, for a period of 25 years, its standard 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 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 80.7% of the labeled power output.

The Company has lengthened the warranty against decline in performance for its bifacial module and double glass module products to 30 years.

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 ten 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.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(aa) Warranty cost (Continued)

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 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.

The Company has entered 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 the Company's 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. The unamortized carrying amount is $1,486 and $1,728 as of December 31, 2019 and 2020, 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 the cost of its obligations with respect to the defective products 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 submitted to the insurance company, and reimbursements are probable to be 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 changes its accrual rate, this change may result in a change to the amount expected to be recovered from insurance.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(aa) Warranty cost (Continued)

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 realized over the life of the warranty obligation, which is 25 or 30 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 $79,888 and $82,532 as of December 31, 2019 and 2020, respectively, and were included as a component of other non-current assets.

The Company made downward adjustments to its accrued warranty costs of $243 and other non-current assets of $642, for the year ended December 31, 2020, 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 $13,188, $28,044 and $26,931 are included in cost of revenues for the years ended December 31, 2018, 2019 and 2020, respectively.

(ab) Foreign currency translation

The United States dollars ("U.S. dollars" 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. dollars 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. dollars during the year are converted into the U.S. dollars 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. dollars, such as Renminbi ("RMB"), Euros, Canadian dollars ("CAD"), Japanese yen, Brazilian reals ("BRL") and Australian dollars, 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.

(ac) 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.

(In Thousands of U.S. Dollars, unless otherwise indicated)

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(ad) Foreign currency risk

The majority of the Company's sales in 2018, 2019 and 2020 were denominated in U.S. dollars, Renminbi and Japanese yen, with the remainder in other currencies such as Euros, Brazilian reals, Australian dollars and Canadian dollars. The Company's Renminbi costs and expenses are primarily related to the sourcing of solar cells, silicon wafers and silicon, other raw materials, including aluminum and silver paste, glass, toll manufacturing fees, labor costs and local overhead expenses within the PRC. From time to time, the Company enters into loan arrangements with commercial banks that are denominated primarily in Renminbi, U.S. dollars and Japanese yen. Most of its cash and cash equivalents and restricted cash are denominated in Renminbi. Fluctuations in exchange rates, particularly between the U.S. dollars, Renminbi, Thailand Baht, Canadian dollars, Japanese yen, Brazilian reals, Euros and Australian dollars, may result in foreign exchange gains or losses. Since 2008, the Company has hedged part of its foreign currency exposures against the U.S. dollars using foreign currency forward or option contracts.

(ae) 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 credit losses 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, 2019, prepayments made to individual suppliers were all less than 10% of total advances to suppliers and the concentration risk is relatively low. As of December 31, 2020, gross prepayments made to individual suppliers in excess of 10% of total advances to suppliers are as follows:

	Years Ended December 31,	
	2019	2020
	$	$
Supplier A	— (1)	43,821

(1) No individual supplier is in excess of 10% of total advances to suppliers in 2019.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(af) 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 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.

(ag) 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 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.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(ah) Earnings per share

Basic earnings per common share is computed by dividing income attributable to holders of common shares by the weighted average number of common shares outstanding during the year. Diluted earnings 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.

(ai) Share-based compensation

The Company's share-based compensation with employees, such as share options, restricted shares and restricted share units ("RSUs") with a time-based vesting condition, 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. The share-based compensation expense related to the award which contains both time-based and performance-based vesting condition will be recognized when it is probable that the performance-based condition will be met. The probability of the performance condition to be met is not reflected when determining the fair value of the award.

(aj) Risks and uncertainties related to the COVID-19 pandemic

In March 2020, the World Health Organization categorized the outbreak of novel coronavirus, or COVID-19 as a pandemic. The outbreak of COVID-19 posed significant challenges to many aspects of the Company's business. COVID-19 continues to spread globally, and the duration, magnitude and severity of its effects on the global population and economy are unknown. The Company is unable to predict the impact that COVID-19 will ultimately have on its result of operations, financial condition, liquidity and cash flows because of numerous uncertainties, including the duration and severity of the pandemic and the impact of various mitigation efforts.

As of the date of issuance of these consolidated financial statements, the Company is not aware of any specific event or circumstance that would require updates to its estimates and judgments or revisions due to COVID-19 to the carrying value of its assets or liabilities. These estimates may change, as new events occur and additional information is obtained, and are recognized in the consolidated financial statements as soon as they become known.

(ak) Recently issued accounting pronouncements

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments—Credit Losses (Topic 326)", which has been subsequently updated by ASU 2019-04, 2019-05, 2019-10, 2019-11 and 2020-03. The amendments change the impairment model for most financial assets, and will require the use of an "expected loss" model for instruments measured at amortized cost. Under this model, entities will be required to estimate the lifetime expected credit loss on such instruments and record an allowance to offset the amortized cost basis of the financial asset, resulting in a net presentation of the amount expected to be collected on the financial asset. The Company adopted this standard effective January 1, 2020 using the modified-retrospective approach, which no cumulative-effect adjustments were made due to its immaterial nature. Refer to Note 3 to the Consolidated Financial Statements for further information.

2. SUMMARY OF PRINCIPAL ACCOUNTING POLICIES (Continued)

(ak) Recently issued accounting pronouncements (Continued)

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement (Topic 820): Disclosure Framework–Changes to the Disclosure Requirements for Fair Value". ASU 2018-13 removes and modifies existing disclosure requirements on fair value measurement, namely regarding transfers between levels of the fair value hierarchy and the valuation processes for Level 3 fair value measurements. Additionally, ASU 2018-13 adds further disclosure requirements for Level 3 fair value measurements, specifically changes in unrealized gains and losses and other quantitative information. The Company adopted this standard effective January 1, 2020. The adoption of this new standard did not have a material impact on the Company's consolidated financial statements.

In October 2018, the FASB issued ASU 2018-17, "Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities", which expands variable interests to indirect interests held through related parties under common control. The Company adopted this standard effective January 1, 2020. The adoption of this new standard did not have a material impact on the Company's consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes", which simplifies income tax accounting in various areas including, but not limited to, the accounting for hybrid tax regimes, tax implications related to business combinations, and interim period accounting for enacted changes in tax law, along with some codification improvements. This ASU is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. Certain changes in the standard require retrospective or modified retrospective adoption, while other changes must be adopted prospectively. The Company is currently evaluating ASU 2019-12 and its impact on the Company's consolidated financial statements.

In March 2020, the FASB issued ASU No. 2020-04, "Reference Rate Reform (Topic 848)", to provide optional expedients and exceptions for applying generally accepted accounting principles to contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met. The new guidance is effective, at the Company's election, beginning March 12, 2020 through December 31, 2022. The Company has borrowings with interest payments that are correlated to a reference rate, and it is currently evaluating the impact of adopting this guidance and the potential effects it could have on the Company's consolidated financial statements.

(In Thousands of U.S. Dollars, unless otherwise indicated)

3. ALLOWANCE FOR CREDIT LOSSES

Allowance for credit losses is comprised of allowances for accounts receivable trade, advances to suppliers and other receivables.

Accounts receivable trade, net consisted of the following:

	At December 31, 2019	At December 31, 2020
	$	$
Accounts receivable trade, gross	466,360	449,251
Allowance for credit losses	(29,545)	(40,293)
Accounts receivable trade, net	436,815	408,958

Advances to suppliers, net consisted of the following:

	At December 31, 2019	At December 31, 2020
	$	$
Advances to suppliers, gross	109,156	299,019
Allowance for credit losses	(20,281)	(19,700)
Advances to suppliers, net	88,875	279,319

Other receivable, net consisted of the following:

	At December 31, 2019	At December 31, 2020
	$	$
Other receivable, gross	181,524	238,779
Allowance for credit losses	(11,431)	(8,802)
Other receivable, net	170,093	229,977

(In Thousands of U.S. Dollars, unless otherwise indicated)

3. ALLOWANCE FOR CREDIT LOSSES (Continued)

The following table presents the change in the allowances for credit losses related to the Company's accounts receivable trade and advances to suppliers during 2020:

	Accounts Receivable Trade	Advances to Suppliers and Other Receivable
	$	$
Balance as of December 31, 2017	32,941	29,111
Allowances made during the year, net	869	2,112
Accounts written-off against allowances	(297)	—
Foreign exchange effect	(780)	(593)
Balance as of December 31, 2018	32,733	30,630
Allowances made (reversed) during the year, net	(1,386)	2,657
Accounts written-off against allowances	(309)	(1,452)
Foreign exchange effect	(1,493)	(123)
Balance as of December 31, 2019	29,545	31,712
Cumulative-effect adjustment for the adoption of ASU 2016-13	—	—
Provision for credit losses, net	11,387	2,280
Writeoffs	(639)	(5,490)
Balance as of December 31, 2020	40,293	28,502

4. INVENTORIES

Inventories consist of the following:

	At December 31, 2019	At December 31, 2020
	$	$
Raw materials	75,722	90,308
Work-in-process	74,105	69,132
Finished goods	404,243	536,541
	554,070	695,981

Finished goods include modules of $84,202 and $181,012 as of December 31, 2019 and 2020, respectively, that allow solar energy systems to qualify for the U.S. Federal Investment Tax Credit by satisfying the 5% safe harbor method outlined in the U.S. Internal Revenue Service (IRS) guidance notice.

In 2018, 2019 and 2020, inventory was written down by $14,646, $19,447 and $42,907, respectively, to reflect the lower of cost and net realizable value.

(In Thousands of U.S. Dollars, unless otherwise indicated)

5. PROJECT ASSETS

Project assets consist of the following:

	At December 31, 2019	At December 31, 2020
	$	$
Project assets — Acquisition cost	55,158	44,549
Project assets — EPC and other cost	1,031,976	1,092,917
	1,087,134	1,137,466
Current portion	604,083	747,764
Non-current portion	483,051	389,702

The Company recorded impairment charges and write-off for project assets of $9,016, $20,194 and $369 for the years ended December 31, 2018, 2019 and 2020, respectively.

6. PROPERTY, PLANT AND EQUIPMENT, NET

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

	At December 31, 2019	At December 31, 2020
	$	$
Buildings	453,712	533,647
Leasehold improvements	14,225	14,804
Machinery	1,074,460	1,191,780
Furniture, fixtures and equipment	64,117	75,656
Motor vehicles	6,351	7,643
Land	20,451	20,231
	1,633,316	1,843,761
Accumulated depreciation	(598,297)	(827,601)
Impairment	(45,437)	(52,149)
Subtotal	989,582	964,011
Construction in process	56,453	193,720
Property, plant and equipment, net	1,046,035	1,157,731

Depreciation expense of property, plant and equipment was $120,834, $148,034 and $197,600 for the years ended December 31, 2018, 2019 and 2020, respectively. Construction in process primarily represents production facilities under construction and the machinery under installation.

(In Thousands of U.S. Dollars, unless otherwise indicated)

7. SOLAR POWER SYSTEMS, NET

Solar power systems, net consist of the following:

	At December 31, 2019	At December 31, 2020
	$	$
Solar power systems in operation	70,449	182,232
Solar power systems under construction	4,830	6,565
Accumulated depreciation	(22,322)	(30,535)
Solar power systems, net	52,957	158,262

Depreciation expense of solar power systems was $3,756, $6,379 and $6,396 for the years ended December 31, 2018, 2019 and 2020, respectively.

8. INTANGIBLE ASSETS, NET

The following table summarizes the Company's intangible assets:

At December 31, 2020	Gross Carrying Amount	Accumulated Amortization	Net
	$	$	$
Technical know-how	1,543	(1,525)	18
Computer software	41,085	(18,674)	22,411
Total intangible assets, net	42,628	(20,199)	22,429

At December 31, 2019	Gross Carrying Amount	Accumulated Amortization	Net
	$	$	$
Technical know-how	1,428	(1,425)	3
Computer software	38,205	(15,417)	22,788
Total intangible assets, net	39,633	(16,842)	22,791

Amortization expense for the years ended December 31, 2018, 2019 and 2020 were $4,666, $5,310 and $5,122, respectively.

Amortization expenses of the above intangible assets are expected to be approximately $4,443, $3,662, $3,035, $2,503, $2,034 and $6,752 for the years ended December 31, 2021, 2022, 2023, 2024, 2025 and thereafter, respectively.

9. 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.

As of December 31, 2019 and 2020, the Company's financial assets and liabilities were measured at fair value on a recurring basis in periods subsequent to their initial recognition all using the significant other observable inputs, which are Level 2 inputs.

Foreign exchange option and 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 Renminbi, Canadian dollars, Brazilian reals, Japanese yen and Australian dollars. 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.

Interest rate swap

In 2016, interest rate swap contracts of total notional amounts of approximately $399,000 were entered into for Recurrent projects and these were designated as cash flow hedges. The interest rate swap contracts were transferred along with the sale of the underlying projects, and the fair value of the residual notional contract amount of approximately $47,439 related to the Roserock back-leverage loan was recorded as derivative liabilities of $2,170 on the balance sheet as of December 31, 2019. In July 2020, the Company completed the sale of its class B membership interests in the Roserock project to an unrelated third party, and consequently all of the Company's interest rate swap contracts were paid off following the loan repayment.

The estimated fair value of interest rate swaps was measured based on observable market data, which were considered Level 2 inputs.

(In Thousands of U.S. Dollars, unless otherwise indicated)

9. FAIR VALUE MEASUREMENT (Continued)

The fair value of derivative instruments on the consolidated balance sheets as of December 31, 2019 and 2020 and the effect of derivative instruments on the consolidated statements of operations for the years ended December 31, 2018, 2019 and 2020 are as follows:

	Fair Value of Derivative Assets			
	At December 31, 2019		At December 31, 2020	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
		$		$
Foreign exchange forward contracts	Derivative assets — current	5,097	Derivative assets — current	22,178
Foreign exchange option contracts	Derivative assets — current	450	Derivative assets — current	1,173
	Total	5,547	Total	23,351

	Fair Value of Derivative Liabilities			
	At December 31, 2019		At December 31, 2020	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
		$		$
Foreign exchange forward contracts	Derivative liabilities — current	10,127	Derivative liabilities — current	10,753
Foreign exchange option contracts	Derivative liabilities — current	25	Derivative liabilities — current	2
Interest rate swap	Derivative liabilities — current	329	Derivative liabilities — current	—
Interest rate swap	Derivative liabilities — non-current	1,841	Derivative liabilities — non-current	—
	Total	12,322	Total	10,755

		Amount of Gain (Loss) Recognized in Statements of Operations		
	Location of Gain (Loss) Recognized in Statements of Operations	Years Ended December 31		
		2018	2019	2020
		$	$	$
Foreign exchange forward contracts	Gain (loss) on change in fair value of derivatives	(16,414)	(20,249)	49,807
Foreign exchange option contracts	Gain (loss) on change in fair value of derivatives	(2,023)	(1,022)	1,376
Interest rate swap	Loss on change in fair value of derivatives	(793)	(947)	(1,182)
	Total	(19,230)	(22,218)	50,001

Other fair value measurements

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 manufacturing asset group of $30,968, $21,866 and $11,854 for the years ended December 31, 2018, 2019 and 2020, respectively. The fair value of these assets was 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 impairment was recorded in general and administrative expenses of the CSI Solar segment.

(In Thousands of U.S. Dollars, unless otherwise indicated)

9. FAIR VALUE MEASUREMENT (Continued)

Other fair value measurements (Continued)

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 $619,477 and $446,090 as of December 31, 2019 and 2020, 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 nil and $223,214 as of December 31, 2019 and 2020, respectively, which approximates the fair value.

10. VARIABLE INTEREST ENTITIES

Since 2016, the Company, through its wholly-owned subsidiary, CSE Japan Investment Company Limited, entered into silent partnership agreements with various Japan project companies, to securitize project finance bonds and other type of project assets. Under the silent partnership agreements, the project entities are considered VIEs in which the Company has no equity interests, but is entitled to substantially all of the economic interests of the projects. In addition, the Company has the power to make decisions over the activities that most significantly impact the economic performance of the projects under the asset management agreement signed simultaneously between the project companies and a wholly-owned subsidiary, Canadian Solar Project K.K. As such, the Company concluded it was the primary beneficiary of the project companies and thus these project companies were accounted for as consolidated VIEs since their establishment.

As of December 31, 2019 and 2020, the carrying amounts and classifications of the consolidated VIEs' major assets and liabilities with immaterial items combined, excluding intercompany balances which are eliminated upon consolidation, included in the Company's consolidated balance sheets are as follows:

	At December 31, 2019	At December 31, 2020
	$	$
Cash	14,011	42,064
Project assets	197,366	337,836
Other assets	12,091	79,580
Total assets	223,468	459,480
Short-term borrowings	139,708	180,773
Long-term borrowings	—	52,408
Other liabilities	66,569	60,845
Total liabilities	206,277	294,026

Net income and overall cash flow activities during the year are immaterial to the consolidated financial statements.

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11. INVESTMENTS IN AFFILIATES

Investments in affiliates consist of the following:

	At December 31,			
	2019		2020	
	Carrying Value	Ownership Percentage	Carrying Value	Ownership Percentage
	$	(%)	$	(%)
Canadian Solar Infrastructure Fund, Inc.	19,162	14.66	19,980	14.66
Suzhou Financial Leasing Co., Ltd.	16,050	6	23,969	6
RE Roserock Holdings LLC (“Roserock”)	83,034	49	—	—
Others	34,582	15-49	34,342	15-49
Total	152,828		78,291	

In 2017, Canadian Solar Infrastructure Fund, Inc. (“CSIF”) completed its initial public offering. As of December 31, 2019 and 2020, the Company owned 14.66% of total units of CSIF. One out of the three members of the board of directors of CSIF represents the Company. The quorum for a board resolution of CSIF is a majority of the members of the board of directors, and the adoption of a resolution requires a majority of the votes presents. As such, the Company is considered having significant influence over the investee and the equity method is used in this investment.

CSI Solar Co established an entity, Suzhou Financial Leasing Co., Ltd., in 2015, in which the Company holds 6% voting interests. One of five board members is designated by CSI Solar Power Group, and as such CSI Solar Power Group is considered having significant influence over the investee and the equity method is used in this investment.

In December 2018, the Company wrote down the class B membership interests in Roserock project to its anticipated resell value by $4,995. In July 2020, the Company completed the sale of its class B membership interests in Roserock project to an unrelated third party, and recognized $18,486 of loss from this transaction as investment loss in the consolidated statements of operations.

In September 2018, the Company made full impairment charge of $700 on investment in eNow, Inc., in which the Company holds 10% voting interests, due to deterioration of the investee’s financial position.

In December 2020, the Company fully disposed of its ownership of Suzhou iSilver Materials Co., Ltd to an unrelated third party, and recognized $13,140 of gain from this transaction as investment gain in the consolidated statements of operations.

Equity in earnings of unconsolidated investees were $5,908, $28,948 and $10,779 for the years ended December 31, 2018, 2019 and 2020, respectively.

12. LEASE

The Company leases office space, office equipment and vehicles for solar power plants construction, and manufacturing facilities in various regions where the Company operates. Leased assets are mainly located in PRC, United States and Canada.

The operating and financing lease expenses were $20,905 and $24,696, respectively, for the year ended December 31, 2018, as defined under the previous lease accounting guidance of ASC Topic 840.

(In Thousands of U.S. Dollars, unless otherwise indicated)

12. LEASE (Continued)

Upon adoption of ASC 842, the leases considered as ROU assets have various terms of up to twenty years. The Company also has certain leases with terms of 12 months or less, which are not recorded on the consolidated balance sheet.

The components of lease expenses were as follows:

	Year ended December 31, 2019 $	Year ended December 31, 2020 $
Finance lease cost:		
Amortization of right-of-use assets	18,900	8,036
Interest on lease liabilities	3,213	1,497
Operating fixed lease cost	17,619	19,630
Short-term lease cost	8,920	850
Total lease cost	48,652	30,013

Other supplemental information related to leases is summarized below:

	Year ended December 31, 2019 $	Year ended December 31, 2020 $
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash outflows from finance lease	(3,213)	(1,497)
Operating cash outflows from operating lease	(15,866)	(20,589)
Financing cash outflows from finance lease	(33,614)	(19,163)
ROU assets obtained in exchange of new finance lease liabilities in non-cash transaction	7,300	10,666
ROU assets obtained in exchange of new operating lease liabilities in non-cash transaction	18,222	14,892
ROU assets disposed through early termination of operating leases in non-cash transaction	—	(6,572)

	At December 31, 2019	At December 31, 2020
Weighted average of remaining operating lease term - finance leases (in years)	1.41	0.90
Weighted average of remaining operating lease term - operating leases (in years)	3.03	3.07
Weighted average of operating lease discount rate - finance lease	5.82 %	5.54 %
Weighted average of operating lease discount rate - operating lease	4.36 %	4.18 %

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12. LEASE (Continued)

As of December 31, 2020, maturities of operating and finance lease liabilities were as follows:

	Operating Lease Payment	Finance Lease Payment	Total Lease Payment
	$	$	$
Year Ending December 31:			
2021	14,374	22,706	37,080
2022	7,427	2,514	9,941
2023	3,632	—	3,632
2024	1,242	—	1,242
2025	369	—	369
Thereafter	1,859	—	1,859
Total future minimum lease payments	28,903	25,220	54,123
Less: imputed interest	467	963	1,430
NPV for future minimum lease payments	28,436	24,257	52,693
Analysis as:			
Short-term	15,204	21,887	37,091
Long-term	13,232	2,370	15,602
Total lease liabilities	28,436	24,257	52,693

As of December 31, 2019, maturities of operating and finance lease liabilities were as follows:

	Operating Lease Payment	Finance Lease Payment	Total Lease Payment
	$	$	$
Year Ending December 31:			
2020	18,953	27,439	46,392
2021	12,980	13,087	26,067
2022	4,666	604	5,270
2023	2,541	—	2,541
2024	1,077	—	1,077
Thereafter	1,504	—	1,504
Total future minimum lease payments	41,721	41,130	82,851
Less: imputed interest	2,236	2,056	4,292
NPV for future minimum lease payments	39,485	39,074	78,559
Analysis as:			
Short-term	18,767	25,998	44,765
Long-term	20,718	13,076	33,794
Total lease liabilities	39,485	39,074	78,559

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13. BORROWINGS

Borrowings consist of the following:

	At December 31, 2019	At December 31, 2020
	$	$
Short-term borrowings	819,031	912,549
Long-term borrowings, current portion	114,089	289,736
Subtotal for short-term borrowings	933,120	1,202,285
Long-term borrowings on project assets — current [(1)]	286,173	198,794
Long-term borrowings	619,477	446,090
Total	1,838,770	1,847,169

(1) Certain long-term borrowings were classified as current liabilities because these borrowings are associated with certain solar power projects that are expected to be sold within one year.

As of December 31, 2020, the Company had contractual credit facilities of $2,618,761, and $707,174 was available for draw down upon demand. In addition, as of December 31, 2020, the Company also had non-binding credit facilities of $966,270. As of December 31, 2020, $433,628 of the Company's borrowings were non-recourse in nature.

As of December 31, 2020, short-term borrowings of $628,519, long-term borrowings, current portion of $258,978, long-term borrowings on project assets – current of $198,794 and long-term borrowings of $351,431 were secured by property, plant and equipment with carrying amounts of $224,893, inventories of $243,124, prepaid land use rights of $9,509, restricted cash of $107,598, accounts receivable of $15,882, equity interest of $529,431 and project assets and solar power systems of $696,955.

Significant long-term borrowings newly obtained during the year ended December 31, 2019 and 2020 were as follows:

In 2019, Recurrent Energy, LLC entered into two credit facilities with syndicated financial institutions, which agreed to provide financing of $123,708 and $60,000, respectively. The proceeds from the credit facilities were available for purchasing solar modules and other eligible equipment that will allow solar energy systems to qualify for the U.S. Federal Investment Tax Credit by satisfying the 5% safe harbor method outlined in the U.S. Internal Revenue Service (IRS) guidance notice. The outstanding balance at December 2020 was $177,214 and requires repayment by 2022. The credit facilities are secured by the solar modules and certain project equity interests and is guaranteed by CSI. As of December 31, 2020, the Company met all the requirements of financial covenants.

In April 2020, Canadian Solar New Energy Holding Co., Ltd. entered into a $30,000 facility agreement with China-Portuguese Speaking Countries Cooperation and Development Fund for the development and construction of solar projects in Brazil. The facility is unsecured, guaranteed by CSI, and matures in March 2023. The agreement does not contain any financial covenants or restrictions. As of December 31, 2020, the facility was fully drawn.

(In Thousands of U.S. Dollars, unless otherwise indicated)

13. BORROWINGS (Continued)

In July 2020, Recurrent Energy, LLC entered into a debt financing of $282,000 with a bank club led by Norddeutsche Landesbank to construct 327.5 MWp Maplewood solar power project in Pecos County, Texas. The loan is secured by project assets, guaranteed by CSI and will mature in September 2021. As of December 31, 2020, $203,747 was drawn and the Company met all the performance obligations.

In August 2020, Recurrent Energy, LLC entered into a $75,000 development loan facility with Nomura Corporate Funding Americas, LLC. The loan facility is secured by certain project assets and equity interests of certain entities wholly-owned by Recurrent Energy, LLC, guaranteed by CSI and matures in August 2022. As of December 31, 2020, the loan was fully drawn.

In October 2020, Canadian Solar International Limited entered into a working capital facility up to $50,000 with China Development Bank. The loan facility is unsecured, guaranteed by CSI Solar Co., Ltd. (formerly known as “CSI Power China Group Co., Ltd.”), and matures in November 2022. As of December 31, 2020, the loan was fully drawn.

These obtained long-term borrowings mentioned above bear effective floating interest rates from 1.7% to 6.5%.

Future principal repayments on the long-term borrowings are as follows. Included in the future principal repayment of 2021 are $198,794 of long-term borrowings on project assets – current, associated with certain solar power projects that are expected to be sold within one year:

2021	$ 488,530
2022	275,985
2023	71,563
2024	18,785
2025	2,912
Thereafter	76,845
Total	934,620
Less: future principal repayment related to long-term borrowings, current portion	(488,530)
Total long-term portion	$ 446,090

(In Thousands of U.S. Dollars, unless otherwise indicated)

13. BORROWINGS (Continued)

Interest expenses

Average effective interest rates on borrowings are as follows:

	At December 31, 2019	At December 31, 2020
Short-term borrowings	4.86 %	3.26 %
Long-term borrowings on project assets – current	3.65 %	3.63 %
Long-term borrowings	5.43 %	4.37 %

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, 2018, 2019 and 2020 are as follows:

	Years Ended December 31,		
	2018	2019	2020
	$	$	$
Interest capitalized — project assets	15,462	10,794	10,197
Interest capitalized — property, plant and equipment	1,182	2,620	154
Interest expense	106,032	81,326	71,874
Total interest incurred	122,676	94,740	82,225

14. 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 does not represent cash borrowings from the bank. As of December 31, 2019 and 2020, short-term notes payable was $544,991 and $710,636, respectively.

15. ACCRUED WARRANTY COSTS

The Company's warranty activity is summarized below:

	Years Ended December 31,		
	2018	2019	2020
	$	$	$
Beginning balance	55,659	50,605	55,878
Warranty provision	13,188	28,044	26,931
Warranty costs incurred	(16,732)	(23,282)	(46,067)
Foreign exchange effect	(1,510)	511	990
Ending balance	50,605	55,878	37,732

16. RESTRICTED NET ASSETS

As stipulated by the relevant laws and regulations applicable to PRC'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.

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 $568,931 as of December 31, 2020.

17. CONVERTIBLE NOTES

On September 16, 2020, the Company issued $200,000 of convertible notes (the "2020 Notes"). The Company granted the initial purchasers a 30-day option to purchase up to an additional $30,000 aggregate principal amount of the 2020 Notes. The option was fully exercised by initial purchasers on the same day. The key terms of the 2020 Notes are described as follows:

Maturity date. The 2020 Notes mature on October 1, 2025.

Interest. The 2020 Notes holders are entitled to receive interest at 2.50% per annum on the principal outstanding, in semi-annually installments, payable in arrears on April 1 and October 1 of each year, beginning April 1, 2021.

Conversion. The initial conversion rate is 27.2707 shares per $1,000 initial principal amount, which represents an initial conversion price of approximately $36.67 per share. The 2020 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 2020 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 October 6, 2023, 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.

As of December 31, 2020, the carrying value of the convertible notes was $223,214, net of unamortized issuance costs of $6,786. The debt issuance costs are being amortized through interest expense over the period from September 16, 2020, the date of issuance, to October 1, 2025, the date of expiration, using the effective interest rate method at the rate of 3.18%. The amortization expense was $388 for the year ended December 31, 2020. Coupon interest of $1,677 was recorded for the year ended December 31, 2020, and was reflected as other payables as of December 31, 2020.

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18. INCOME TAXES

Income tax expenses (benefits)

The provision for income taxes is comprised of the following:

	Years Ended December 31,		
	2018	2019	2020
	$	$	$
Income (loss) before income taxes			
Canada	10,570	(61,880)	(31,896)
United States	61,377	8,319	(113,262)
PRC including Hong Kong and Taiwan	178,050	204,632	189,398
Japan	27,555	29,335	50,642
Other	26,848	28,215	50,381
	304,400	208,621	145,263
Current tax expense (benefit)			
Canada	(1,846)	(3,420)	36,226
United States	(14,786)	(4,803)	(71,421)
PRC including Hong Kong and Taiwan	27,285	44,622	30,276
Japan	5,325	13,229	18,941
Other	2,397	7,057	8,233
	18,375	56,685	22,255
Deferred tax expense (benefit)			
Canada	12,117	(6,558)	(10,792)
United States	32,696	(2,412)	23,173
PRC including Hong Kong and Taiwan	2,653	(5,333)	(17,998)
Japan	(3,381)	(2,953)	(10,571)
Other	(491)	2,637	(8,050)
	43,594	(14,619)	(24,238)
Total income tax expense (benefit)			
Canada	10,271	(9,978)	25,434
United States	17,910	(7,215)	(48,248)
PRC including Hong Kong and Taiwan	29,938	39,289	12,278
Japan	1,944	10,276	8,370
Other	1,906	9,694	183
	61,969	42,066	(1,983)

The Company mainly operates in Canada, PRC, Japan, the United States and Hong Kong.

18. INCOME TAXES (Continued)

Canada

CSI was incorporated in Ontario, Canada and was subject to both federal and Ontario provincial corporate income taxes at a rate of 26.5% for the years ended December 31, 2018 and 2019, and for the period from January 2020 to June 2020. In July 2020, CSI filed articles of continuance, or the articles, to change its jurisdiction from the federal jurisdiction of Canada to the provincial jurisdiction of the Province of British Columbia. CSI is subject to federal, Ontario provincial and British Columbia provincial corporate income taxes at a rate of 26.5% for the period from July 2020 through December 31, 2020.

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, 2018, 2019 and 2020.

United States

Canadian Solar (USA) Inc. was incorporated in Delaware, U.S. and is subject to federal and state corporate income taxes at a rate of 24.8%, 22.9% and 22.2% for the years ended December 31, 2018, 2019 and 2020, respectively.

Recurrent Energy Group Inc. was incorporated in Delaware, U.S. and is subject to federal and state corporate income taxes at a rate of 25.3%, 27.9% and 26.1% for the years ended December 31, 2018, 2019 and 2020, respectively.

In March 2020, the “Coronavirus Aid, Relief and Economic Security (CARES) Act” was signed into law. The CARES Act allows net operating losses incurred in 2018, 2019, and 2020 to be carried back to each of the five preceding taxable years. As a result, the Company has received tax refund of $62,699 in 2020.

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 32.0%, 31.8% and 31.8% for the years ended December 31, 2018, 2019 and 2020, 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, 2018, 2019 and 2020, respectively.

Vietnam

Canadian Solar Manufacturing Vietnam Co., Ltd was incorporated in Vietnam and is subject to Vietnamese corporate income taxes at a normal statutory rate of 10%. The Company enjoyed full tax exemption from 2016 to 2019 and uses a reduced statutory rate of 5% from 2020 to 2028.

(In Thousands of U.S. Dollars, unless otherwise indicated)

18. INCOME TAXES (Continued)

Thailand

Canadian Solar Manufacturing (Thailand) Co.,Ltd. was incorporated in Thailand and is subject to Thailand corporate income taxes at a normal statutory rate of 20%. The Company currently has two Board of Investment certificates for full tax exemption which have different effective years. The licenses both started from year 2017, one of which will expire in year 2022 and the other in year 2025.

Hong Kong

Canadian Solar New Energy Holding Company Ltd and Canadian Solar International Ltd. were incorporated in Hong Kong, China, and are subject to Hong Kong profits tax at a rate of 16.5% for the years ended December 31, 2018, 2019 and 2020, respectively.

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 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., Canadian Solar Manufacturing (Luoyang) Inc., CSI Solar 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, 2018, 2019 and 2020.

Certain of the Company's PRC subsidiaries, such as CSI New Energy Holding and CSI Luoyang Manufacturing, were once HNTEs and enjoyed preferential enterprise income tax rates. These benefits have, however, expired. In 2020, Suzhou Sanysolar, CSI Cells, CSI Changshu Manufacturing, Changshu Tegu, CSI New Energy Development (Suzhou) (formerly "Suzhou Gaochuangte New Energy Development"), Canadian Solar Sunenergy (Suzhou) Co., Ltd. (merged with CSI Cells in 2020) and Changshu Tlian enjoyed preferential enterprise income tax rates.

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,		
	2018	2019	2020
Combined federal and provincial income tax rate	27 %	27 %	27 %
Effect of permanent difference	(11)%	(1)%	4 %
Effect of different tax rate on earnings in other jurisdictions	— %	3 %	(6)%
Effect of tax holiday	(1)%	(4)%	(1)%
Unrecognized tax provision	4 %	(3)%	(13)%
Change in valuation allowance	7 %	(3)%	(14)%
Effect of change in tax rate	(3)%	(1)%	2 %
Others	(3)%	2 %	— %
	20 %	20 %	(1)%

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18. INCOME TAXES (Continued)

PRC (Continued)

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

	Years Ended December 31,		
	2018	2019	2020
	(In Thousands of U.S. Dollars, except per share data)		
The aggregate amount	3,089	7,956	1,287
Per share — basic	0.05	0.13	0.02
Per share — diluted	0.05	0.13	0.02

The components of the deferred tax assets and liabilities are presented as follows:

	At December 31, 2019	At December 31, 2020
	$	$
Deferred tax assets:		
Accrued warranty costs	8,326	8,699
Bad debt allowance	10,324	3,218
Inventory write-down	1,128	3,121
Future deductible expenses	20,731	24,454
Depreciation and impairment difference of property, plant and equipment and solar power systems	23,380	30,138
Accrued liabilities related to antidumping, countervailing and other duty costs and true-up charges	496	406
Government subsidies	8,927	16,461
Net operating losses carry-forward	112,710	85,850
Unrealized foreign exchange loss and capital loss	7,064	1,221
Interest limitation	2,767	1,956
Others	26,415	30,958
Total deferred tax assets, gross	222,268	206,482
Valuation allowance	(70,627)	(50,118)
Total deferred tax assets, net of valuation allowance	151,641	156,364
Deferred tax liabilities:		
Derivative assets	217	996
Depreciation difference of property, plant and equipment	18,789	17,027
Insurance recoverable	15,771	785
Unrealized foreign exchange gain	10,984	10,746
Others	8,380	5,234
Total deferred tax liabilities	54,141	34,788
Net deferred tax assets	97,500	121,576
Analysis as:		
Deferred tax assets	153,963	170,656
Deferred tax liabilities	(56,463)	(49,080)
Net deferred tax assets	97,500	121,576

(In Thousands of U.S. Dollars, unless otherwise indicated)

18. INCOME TAXES (Continued)

PRC (Continued)

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, 2020, all of the undistributed earnings of approximately $381,716 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 $19,086 to $38,172, 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%.

Valuation allowance

Movement of the valuation allowance is as follows:

	Years Ended December 31,		
	2018	2019	2020
	$	$	$
Beginning balance	65,399	76,522	70,627
Additions (reversals)	11,051	(6,156)	(21,585)
Foreign exchange effect	72	261	1,076
Ending balance	76,522	70,627	50,118

As of December 31, 2020, the Company has accumulated net operating losses of $567,049 of which $466,507 will expire between 2021 and 2040, and the remaining can be carried forward and back.

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;

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18. INCOME TAXES (Continued)

Valuation allowance (Continued)

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. The CARES Act allows net operating losses incurred in 2018, 2019, and 2020 to be carried back to each of the five preceding taxable years. As a result, the tax effect of releasing the valuation allowance on net operating losses is $15,227.

The Company has recognized a valuation allowance of $70,627 and $50,118 as at December 31, 2019 and 2020, respectively.

Uncertain tax positions

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, 2019 and 2020 was $4,795 and $5,101, 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, 2018, 2019 and 2020, respectively.

	Years Ended December 31,		
	2018	2019	2020
	$	$	$
Beginning balance	6,181	15,730	10,557
Addition for tax positions related to the current year	9,806	11	—
Reductions for tax positions from prior years/Statute of limitations expirations	—	(5,720)	(1,011)
Foreign exchange effect	(257)	536	82
Ending balance	15,730	10,557	9,628

The Company is subject to taxation in various jurisdictions where it operates, mainly including Canada, PRC, the United States and Japan. Generally, the Company's taxation years from 2015 to 2020 are open for reassessment to the Canadian tax authorities. The Company is subject to taxation in the United States and various state jurisdictions. The Company is not currently under examination by the federal or state tax authorities. The Company's income tax returns for 2016 through 2020 remain open to examination by the U.S. 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. For income tax adjustments relating to transfer pricing matters, the statute of limitations is ten years. Therefore, the Company's PRC subsidiaries might be subject to reexamination by the PRC tax authorities on non-transfer pricing matters for taxation years up to 2015 retrospectively, and on transfer pricing matters for taxation years up to 2010 retrospectively. There is no statute of limitations in case of tax evasion in PRC.

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19. 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,		
	2018	2019	2020
	(In Thousands of U.S. Dollars, except share and per share data)		
Numerator:			
Net income attributable to Canadian Solar Inc. — basic	$ 237,070	$ 171,585	$ 146,703
Dilutive effect of interest expense of convertible notes	4,683	975	1,518
Net income attributable to Canadian Solar Inc. — diluted	$ 241,753	$ 172,560	$ 148,221
Denominator:			
Denominator for basic calculation — weighted average number of common shares — basic	58,914,540	59,633,855	59,575,898
Diluted effects of share number from share options and RSUs	543,797	794,526	897,258
Dilutive effects of share number from convertible notes	2,833,333	349,315	1,833,663
Denominator for diluted calculation — weighted average number of common shares — diluted	62,291,670	60,777,696	62,306,819
Basic earnings per share	$ 4.02	$ 2.88	$ 2.46
Diluted earnings per share	$ 3.88	$ 2.83	$ 2.38

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,		
	2018	2019	2020
Share options and RSUs	276,618	41,950	187,083

20. RELATED PARTY BALANCES AND TRANSACTIONS

Related party balances

The amount due from related parties of $5,834 as of December 31, 2020 consists of (i) trade receivables of $3,364, $195 and $2,123 respectively for modules sales to Salgueiro I Renewable Energy S.A., Salgueiro II Renewable Energy S.A., Jaíba 4 Energias Renováveis S.A., each the Company's 20% owned affiliate, (ii) a cash funding of $16 to Pilipinas Newton Energy Corp, the Company's 40% owned affiliate, and (iii) a $136 receivable for asset management service provided to CSIF, the Company's 14.66% owned affiliate. No amount was due as of December 31, 2020.

The amount due to related parties of $314 as of December 31, 2020 consists of (i) a trade advance of $104 from Salgueiro III Renewable Energy S.A., the Company's 20% owned affiliate and (ii) a payable of $210 for material purchased from Luoyang Jiwa New Material Technology Co., Ltd., the Company's 20% owned affiliate.

20. RELATED PARTY BALANCES AND TRANSACTIONS (Continued)

Related party balances (Continued)

Guarantees and loans

Dr. Shawn Qu fully guaranteed loan facilities from two Chinese banks of RMB1,270 million ($185,045), RMB1,420 million ($203,549) and RMB135 million ($20,648) in 2018, 2019 and 2020, respectively. Amounts drawn down under the facilities as of December 31, 2018, 2019 and 2020 were $155,956, $82,937 and nil, respectively.

The Company granted 83,805, 26,691 and 26,073 restricted share units to Dr. Shawn Qu in 2018, 2019 and 2020, respectively, on account of his having guaranteed these loan facilities.

Sales and purchase contracts with affiliates

In 2019 and 2020, the Company sold three and two solar power projects to CSIF, the Company's 14.66% owned affiliate in Japan, respectively, in the amount of JPY5,889,000 ($53,874) and JPY888,000 ($8,392), respectively, recorded in revenue.

In 2018, the Company sold 5 solar power projects to CSIF, the Company's 14.66% owned affiliate in Japan, in the amount of JPY12,276,404 ($109,597) recorded in revenue, and JPY89,238 ($836) recorded in other operating income, respectively.

In 2018, 2019 and 2020, the Company provided asset management service to CSIF in the amount of JPY247,341 ($2,210), JPY 281,094 ($2,573) and JPY394,506 ($3,723), respectively.

In 2018, 2019 and 2020, the Company provided O&M service to CSIF in the amount of JPY122,529 ($1,105), JPY 223,598 ($2,052) and JPY805,021 ($7,564), respectively.

In 2020, the Company sold modules to Salgueiro I Renewable Energy S.A., Salgueiro II Renewable Energy S.A. and Salgueiro III Renewable Energy S.A., each the Company's 20% owned affiliate in Brazil, in the amounts of $11,636, $9,996 and $9,403, respectively.

In 2020, the Company sold modules to Jaiba 3 Renewable Energy S.A., Jaiba 4 Renewable Energy S.A. and Jaiba 9 Renewable Energy S.A., each the Company's 20% owned affiliate in Brazil, in the amounts of $5,971, $3,696 and $1,372, respectively.

In 2018 and 2019, the Company sold solar power products to ET Solutions South Africa 1 Pty, the Company's 49% owned affiliate in South Africa in the amount of RMB45,407 ($6,859) and ZAR586,832 ($40,970), respectively.

In 2019 and 2020, Company purchased raw materials from Luoyang Jiwa New Material Technology Co., Ltd., the Company's 20% owned affiliate, in the amount of RMB18,124 ($2,584) and RMB31,388 ($4,545), respectively.

In 2020, the Company provided EPC services to Lavras Solar Holding S.A., the Company's 20% owned affiliate in Brazil, in the amount of BRL5,061 ($974).

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20. RELATED PARTY BALANCES AND TRANSACTIONS (Continued)

Sales and purchase contracts with affiliates (Continued)

In 2018 and 2019, the Company purchased raw materials from Suzhou iSilver Materials Co., Ltd, the Company's former 14.63% owned affiliate in PRC, in the amount of RMB512,154 ($74,490) and RMB350,590 ($50,359), respectively. In December 2020, the Company fully disposed of its ownership of Suzhou iSilver Materials Co., Ltd to an unrelated third party. From January 1, 2020 through the date of disposal, the Company purchased raw materials in the amount of RMB168,032 ($24,301) from this former affiliate.

In 2018 and 2019, the Company purchased equipment from Suzhou Kzone Equipment Technology Co., Ltd, the Company's former 32% owned affiliate in PRC, in the amount of RMB41,635 ($6,056) and RMB61,174 ($8,787), respectively. In July 2020, the Company fully disposed of its ownership of Suzhou Kzone Equipment Technology Co., Ltd to an unrelated third party. From January 1, 2020 through the date of disposal, the Company purchased raw materials in the amount of RMB7,381 ($1,048) from this former affiliate.

21. COMMITMENTS AND CONTINGENCIES

a) Capital commitments

As of December 31, 2020, the commitments for the purchase of property, plant and equipment were approximately $304,712, and the payment schedule for the commitments is as follow:

Year Ending December 31:	$
2021	174,509
2022	84,795
2023	45,408
Total	304,712

21. COMMITMENTS AND CONTINGENCIES (Continued)

b) Contingencies

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 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 the Company 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.

21. COMMITMENTS AND CONTINGENCIES (Continued)

b) Contingencies (Continued)

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 approved a settlement of the action on October 30, 2020. The settlement is no admission of liability or wrongdoing by the Company or any of the other defendants.

Solar 1

On October 17, 2012, the United States Department of Commerce, or USDOC, issued final affirmative determinations with respect to its antidumping and countervailing duty investigations on crystalline silicon photovoltaic, or CSPV, cells, whether or not incorporated into modules, from China. On November 30, 2012, the U.S. International Trade Commission, or USITC, determined that imports of CSPV cells had caused material injury to the U.S. CSPV industry. The USITC's determination was subsequently affirmed by the U.S. Court of International Trade, or CIT, and the U.S. Court of Appeals for the Federal Circuit, or Federal Circuit.

As a result of these determinations, the Company was required to pay cash deposits on Chinese-origin CSPV cells imported into the U.S., whether or not incorporated into modules. The rates applicable to the company were 13.94% (antidumping duty) and 15.24% (countervailing duty). The Company paid all the cash deposits due under these determinations. Several parties challenged the determinations of the USITC in appeals to the CIT. On August 7, 2015, the CIT sustained the USITC's final determination and on January 22, 2018, the Federal Circuit upheld the CIT's decision. There was no further appeal to the U.S. Supreme Court and, therefore, this decision is final.

The rates at which duties will be assessed and payable are subject to administrative reviews.

The USDOC published the final results of the first administrative reviews in July 2015. As a result of these decisions, the duty rates applicable to the Company were revised to 9.67% (antidumping duty) and 20.94% (countervailing duty). The assessed rates were appealed to the CIT. The CIT affirmed the USDOC's countervailing duty rates, and no change was made to the Company's countervailing duty rate. This decision by the CIT was not appealed to the Federal Circuit. The CIT likewise affirmed USDOC's antidumping duty rates, and no change was made to the Company's antidumping duty rate. This decision by the CIT was, however, appealed to the Federal Circuit, which upheld the CIT's decision. There was no further appeal to the U.S. Supreme Court and, therefore, this decision is final.

The USDOC published the final results of the second administrative reviews in June 2016 (antidumping duty) and July 2016 (countervailing duty). As a result of these decisions, the antidumping duty rate applicable to the Company was reduced to 8.52% (from 9.67%) and then to 3.96% (from 8.52%). Because the Company is not subject to the second administrative review of the countervailing duty order, the Company's countervailing duty rate remained at 20.94%. The antidumping duty rates were appealed to the CIT. The CIT affirmed the USDOC's second antidumping duty rate. This decision by the CIT was appealed to the Federal Circuit, which in June 2020 reversed the CIT's decision, in part, and directed the USDOC to reconsider certain issues related to its final determination. The USDOC has submitted its antidumping duty redetermination to the CIT. A decision is expected in mid-2021.

21. COMMITMENTS AND CONTINGENCIES (Continued)

b) Contingencies (Continued)

The USDOC published the final results of the third administrative reviews in June 2017 (antidumping duty) and July 2017 (countervailing duty), and later amended in October 2017. As result of these decisions, the duty rates applicable to the Company were changed to 13.07% (from 8.52%) (antidumping duty) and 18.16% (from 20.94%) (countervailing duty). The assessed rates were appealed to the CIT. The CIT has twice remanded the antidumping duty appeal to the USDOC to consider adjustments to the Company's rate. Pursuant to CIT's remand orders, the USDOC issued a redetermination. The antidumping duty rate applicable to the company was reduced to 4.12% (from 13.07%) and then further to 3.19% (from 4.12%). In June 2020, the CIT issued its third opinion sustaining the USDOC's remand redetermination. The Company filed a motion for reconsideration with the CIT advocating for an even lower antidumping duty rate. In September 2020, the CIT granted the Company's motion for reconsideration and remanded to USDOC for further consideration of the Company's antidumping duty rate. The CIT has likewise twice remanded the countervailing duty appeal to the USDOC to consider adjustments to the Company's rate. In August 2020, the CIT sustained USDOC's second remand redetermination. As a result, the company's countervailing duty rate was reduced to 7.36% (from 18.16%). There was no further appeal to the Federal Circuit of the USDOC's countervailing duty redetermination and, therefore, this decision is final.

The USDOC published the final results of the fourth administrative reviews in July 2018 (both antidumping duty and countervailing duty), with the countervailing duty rate later amended in October 2018. Because the Company is not subject to the fourth administrative review of the antidumping duty order, the Company's antidumping duty rate remains at 13.07%. Because of these decisions, the countervailing duty rate applicable to the Company was reduced to 11.59% (from 18.16%). The countervailing duty rates were appealed to the CIT. The CIT remanded the countervailing duty appeal to the USDOC to consider adjustments to the Company's rate. Pursuant to the CIT's remand orders, the USDOC made a redetermination that reduced the Company's countervailing duty rate to 5.02% (from 11.59%). The Company appealed the CIT decision to the Federal Circuit to contest USDOC's continued assessment of a countervailing duty rate related to the alleged electricity subsidy program; a decision is expected in late 2021.

The USDOC published the final results of the fifth administrative reviews in July and August 2019. The antidumping duty rate applicable to the Company was lowered to 4.06% (from 13.07%). The countervailing duty rate applicable to the Company was reduced to 9.70% (from 11.59%). The countervailing duty final results were amended to correct ministerial errors in December 2019, but they resulted in no change to the Company's 9.70% rate. The countervailing duty and antidumping duty rates were appealed to the CIT, which is likely to issue decisions in late 2021.

The USDOC published the final results of the sixth administrative reviews in October 2020 and December 2020, and amended final results of the sixth administrative review of the antidumping order in December 2020. In the amended antidumping final results, the antidumping duty rate applicable to the Company was raised to 95.50% (from 13.07%). USDOC assessed a countervailing duty rate of 12.67% (from 9.70%). The countervailing duty final results were amended to correct ministerial errors in March 2021 and, as a result, the company's countervailing duty rate was reduced to 11.97% (from 12.67%). The antidumping duty rates were appealed to the CIT, which is likely to issue decisions in late 2021 or early 2022. The Company did not appeal USDOC's final results of its sixth administrative review of the countervailing duty order and, therefore, this decision is final and the Company's countervailing duty rate will remain at 11.97%.

21. COMMITMENTS AND CONTINGENCIES (Continued)

b) Contingencies (Continued)

The seventh and eighth antidumping duty and countervailing duty administrative reviews were initiated in February 2020 and February 2021 and are currently underway. The USDOC is currently scheduled to release the preliminary results of the seventh administrative reviews on April 16, 2021 (antidumping duty) and April 19, 2021 (countervailing duty). The final results of both the seventh antidumping and countervailing reviews will likely be published in late 2021. USDOC will likely issue preliminary results of the eighth administrative reviews in early 2022. The final results of the seventh and eighth administrative 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 the Company's U.S. import operations and increase the Company's cost of selling into the U.S. market.

Between 2017 and 2019, the USDOC and USITC conducted five-year sunset reviews and determined to continue the Solar 1 antidumping and countervailing duty orders. In March 2018, the USDOC published the results of its expedited first sunset reviews and concluded that revocation of the Solar 1 orders would likely lead to a continuation or recurrence of dumping and a countervailable subsidy. The Company did not participate in USDOC's first sunset review. The Company did, however, participate in the USITC's first sunset review and requested that the Solar 1 duties be revoked. The USITC issued an affirmative determination in March 2019 declining to revoke the Solar 1 orders and finding that such revocation would be likely to lead to a continuation or recurrence of material injury to the U.S. industry within a reasonably foreseeable time. As a result, the Solar 1 orders remain in effect.

Solar 2

On December 31, 2013, SolarWorld Industries America, Inc. filed a new trade action with the USDOC and the USITC accusing Chinese producers of certain CSPV modules of dumping their products into the U.S. and of receiving countervailable subsidies from the Chinese authorities. This trade action also alleged that Taiwanese producers of certain CSPV cells and modules dumped their products into the U.S. Excluded from these new actions were those Chinese-origin solar products covered by the Solar 1 orders described above. The Company was identified as one of a number of Chinese producers exporting the Solar 2 subject goods to the U.S. market.

"Chinese CSPV products subject to Solar 2 orders" refers to CSPV products manufactured in mainland China using non-Chinese (e.g., Taiwanese) CSPV cells and imported into the U.S. during the investigation or administrative 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 U.S. during the investigation or review periods of Solar 2.

On December 23, 2014, the USDOC issued final affirmative determinations with respect to its antidumping and countervailing duty investigation on these CSPV products. On January 21, 2015, the USITC determined that imports of these CSPV products had caused material injury to the U.S. CSPV industry. As a result of these determinations, the Company is required to pay cash deposits on these CSPV products, the rates of which applicable to the Company's Chinese CSPV products were 30.06% (antidumping duty) and 38.43% (countervailing duty).

The USDOC's determination and the assessed countervailing duty rates were appealed to the CIT and the Federal Circuit. In March 2019, the Federal Circuit affirmed the CIT's decision confirming the USDOC's determination but reduced the Company's countervailing duty rate to 33.58% (from 38.43%). There was no further appeal to the U.S. Supreme Court and, therefore, this decision is final.

21. COMMITMENTS AND CONTINGENCIES (Continued)

b) Contingencies (Continued)

The antidumping cash deposit rate applicable to the Company's Taiwanese CSPV products subject to Solar 2 orders varied by solar cell producer. The Company paid all the cash deposits due under these determinations. There is no countervailing duty order on Taiwan Solar 2 products. The rates at which duties will be assessed and payable are subject to administrative reviews.

The USDOC published the final results of the first administrative reviews in July 2017 (China and Taiwan antidumping duty orders) and September 2017 (China-only countervailing duty order). Because the Company is not subject to the first administrative reviews of the Chinese orders of Solar 2, the Company's duty rates will remain at 30.06% (antidumping duty) and 33.58% (countervailing duty) for the Company's Chinese CSPV products. The Company's antidumping duty rates for the Company's Taiwanese CSPV products had ranged from 3.56% to 4.20%, until they were changed to 1.52% to 3.78% in June 2019.

The second administrative reviews for the Chinese antidumping and countervailing duty orders were rescinded, meaning that there is no change in the Chinese antidumping and countervailing duty rates applicable to the Company's Chinese CSPV products 30.06% (antidumping duty) and 33.58% (countervailing duty). The USDOC published the final results of the second administrative review for the Taiwanese antidumping duty order (there is no countervailing duty order) in June 2018. The rate applicable to the Company is 1.33%. There is no ongoing litigation related to the Taiwanese antidumping duty rate.

The Company was not subject to the third administrative reviews of the Chinese orders and, therefore, the Company's duty rates remained unchanged at 30.06% (antidumping duty) and 33.58% (countervailing duty) for the Company's Chinese CSPV products. The third administrative review of the Taiwanese antidumping order concluded in mid-2019. The rate assessed to the Company was 4.39% (from 1.33%). There is no ongoing litigation related to the Taiwanese antidumping duty rate.

The USDOC rescinded the fourth administrative reviews of the Chinese antidumping duty and countervailing duty orders in late 2019. The Company's duty rates will remain unchanged at 30.06% (antidumping duty) and 33.58% (countervailing duty) for the Company's Chinese CSPV products. The rate assessed to the Company in the fourth administrative review of the Taiwanese antidumping order was 2.57% (from 4.39%). The USDOC also found that certain Canadian Solar entities had no shipments during this period of this review.

The USDOC rescinded the fifth administrative reviews of the Chinese antidumping and countervailing duty orders. The Company's duty rates will remain unchanged at 30.06% (antidumping duty) and 33.58% (countervailing duty) for the Company's Chinese CSPV products. The USDOC initiated the fifth administrative review of the Taiwanese antidumping duty order in April 2020, and that review remains ongoing. Certain Canadian Solar entities have filed a no shipment letter for this period of review. The USDOC is scheduled to publish the preliminary results of the fifth administrative review for the Taiwanese antidumping duty order on April 23, 2021. The final results will likely be published in late 2021.

The USDOC is expected to initiate the sixth administrative reviews of the Chinese antidumping and countervailing duty orders soon. No party, however, requested an antidumping or countervailing duty administrative review for any company, including the Company and, therefore, these reviews should be rescinded. The Company's duty rates will remain unchanged at 30.06% (antidumping duty) and 33.58% (countervailing duty) for the Company's Chinese CSPV products. The USDOC is expected to initiate the sixth administrative review of the Taiwanese antidumping duty order soon.

21. COMMITMENTS AND CONTINGENCIES (Continued)

b) Contingencies (Continued)

In 2020, the USDOC and USITC conducted five-year sunset reviews and determined to continue the Solar 2 antidumping and countervailing duty orders. In May 2020, the USDOC published the results of its expedited first sunset reviews and concluded that revocation of the Solar 2 orders would likely lead to a continuation or recurrence of dumping and a countervailable subsidy. The USITC issued an affirmative determination on September 4, 2020, declining to revoke the Solar 2 orders and finding that such revocation would be likely to lead to a continuation or recurrence of material injury to the U.S. industry within a reasonably foreseeable time. As a result, the Solar 2 orders are expected to remain in effect for an additional five years.

Section 201

On May 17, 2017, following receipt of a petition from Suniva, Inc., which was later joined by SolarWorld Americas, Inc., the USITC instituted a safeguard investigation to determine whether there were increased imports of CSPV products in such quantities as to be a substantial cause of serious injury, or the threat thereof, to the domestic industry producing like or directly competitive products. On September 22, 2017, the USITC determined that CSPV products are being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry.

On January 23, 2018, the President of the United States imposed a safeguard measure on imports of CSPV cells, whether or not partially or fully assembled into other products such as modules, consisting of (1) a tariff-rate quota for four years on imports of CSPV cells not partially or fully assembled into other products, with (a) an in-quota quantity of 2.5 gigawatts, and (b) a tariff rate applicable to over-quota CSPV cells of 30%, declining annually by five percentage points to 25% in the second year, 20% in the third year, and 15% in the fourth year; and (2) a 30% tariff for four years on CSPV modules, declining annually by five percentage points to 25% in the second year, 20% in the third year, and 15% in the fourth year. This safeguard measure, which became effective on February 7, 2018, applies to CSPV products imported from all countries, except for certain developing country members of the World Trade Organization.

On June 13, 2019 and following an abbreviated public comment period, the Office of the U.S. Trade Representative (or USTR) granted an exclusion from the safeguard measure for solar panels comprising solely bifacial solar cells (or bifacial solar panels). In October 2019, USTR determined to withdraw this exclusion. Invenergy Renewables LLC (or Invenergy) promptly contested USTR's withdrawal determination at the CIT and secured a temporary restraining order against USTR in November 2019. In December 2019, the CIT preliminarily enjoined USTR's withdrawal due to procedural deficiencies. USTR then sought and was granted a voluntary remand to reconsider its withdrawal determination for bifacial solar panels.

In early 2020, USTR conducted a renewed notice-and-comment process regarding the exclusion for bifacial solar panels from the safeguard measures. In April 2020, USTR again determined that the exclusion for bifacial solar panels should be withdrawn based on the findings of its second notice-and-comment process. Notwithstanding, in May 2020 the CIT denied without prejudice the United States' motion to dissolve the preliminary injunction and to resume the collection of the safeguard tariff on entries of bifacial modules. USTR appealed the CIT's interlocutory decision to the Federal Circuit in July 2020, but subsequently dismissed its appeal in January 2021. The United States has continued to litigate the merits of USTR's April 2020 withdrawal of the bifacial exclusion before the CIT.

21. COMMITMENTS AND CONTINGENCIES (Continued)

b) Contingencies (Continued)

In early 2020, the USITC conducted a midterm review of the safeguard order, issuing its monitoring report in February 2020. Additionally, in March 2020, at the request of the USTR, the USITC released a report regarding the probable economic effect on the domestic CSPV cell and module manufacturing industry of modifying the safeguard measure on CSPV products. The USITC found that increasing the tariff-rate quota (TRQ) on CSPV cells (an integral component of CSPV modules) would likely result in a substantial increase in U.S. module producers' production, capacity utilization, and employment.

The President must consider the USITC's views but is not required to follow them or to take any action in the safeguard midterm review. On October 10, 2020, President Trump issued Proclamation 10101 pertaining to the midterm review. Proclamation 10101 authorized the following: (1) the revocation of the bifacial module exclusion effective October 25, 2020; (2) the reduction of the safeguard tariff to 18% ad valorem (as opposed to 15% ad valorem as prescribed in the original safeguard measures) effective February 7, 2021; and (3) the delegation to USTR of the President's authority to ask the USITC to assess whether the safeguard measures should be extended. The President decided not to follow the USITC's recommendation to increase the TRQ applicable to CSPV cells.

Following the issuance of Proclamation 10101, Invenergy and other plaintiffs (AES Distributed Energy, Inc., Clearway Energy Group LLC, EDF Renewables, Inc. (or EDF), the Solar Energy Industries Association (or SEIA)) sought to challenge the Proclamation and filed motions to amend their complaints with the CIT. The CIT ultimately denied plaintiffs' motions and refused to extend the bifacial module exclusion beyond October 24, 2020 as a consequence of the Proclamation (as opposed to USTR's withdrawals). Subsequently, on December 29, 2020, Invenergy and another set of plaintiffs (SEIA, NextEra Energy, Inc., and EDF) commenced new and separate litigation once again challenging Proclamation 10101 in the CIT. This new complaint alleges that the President unlawfully terminated the bifacial module exclusion and revised the safeguard tariff, effective February 7, 2021, to be 18% ad valorem (as opposed to the originally announced 15% ad valorem). This new CIT case has also been assigned to Judge Katzmann, and no substantive decision has been made to date.

European Antidumping 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 antidumping 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 antidumping and countervailing measures on imports of CSPV modules and key components (i.e., cells and wafers) originating in or consigned from China. On March 3, 2017, the European Commission extended the antidumping and countervailing measures for 18 months on imports of CSPV modules and key components (i.e., cells and wafers) originating in or consigned from China. On September 16, 2017, the European Commission amended the form of the antidumping and countervailing measures for certain Chinese exporters (but not for Canadian Solar). On March 9, 2018, the antidumping and countervailing measures expired. As a result, since then, the Company's CSPV modules and cells that originate in, or are consigned from, China, are no longer subject to antidumping or countervailing measures.

21. COMMITMENTS AND CONTINGENCIES (Continued)

b) Contingencies (Continued)

On February 28, 2014, the Company filed separate actions with the General Court of the EU for annulment of the regulation imposing the definitive antidumping 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. On May 8, 2017, the Company appealed the judgements of the General Court before the Court of Justice of the EU (cases C-236/17 and C-237/17). On March 27, 2019, the Court of Justice rejected the appeals. There is no further action with regard to these matters.

Canadian Antidumping and Countervailing Duties Expiry Review

On June 3, 2015, the Canada Border Services Agency (CBSA) released final determinations regarding the dumping and subsidization of solar modules and laminates originating from China. The CBSA determined that such goods were dumped and subsidized. The CBSA found Canadian Solar to be a “cooperative exporter” and, as such, ascertained a low (relative to other Chinese exporters) Canadian Solar-specific subsidies rate of RMB0.014 per Watt. On July 3, 2015 the Canadian International Trade Tribunal (CITT) determined that the Canadian industry was not negatively affected as a result of imported modules but was threatened with such negative impact. As a result of these findings, definitive duties were imposed on imports of Chinese solar modules into Canada starting on July 3, 2015. The CITT may initiate an expiry review pursuant to Subsection 76.03(3) of the Special Import Measures Act (“SIMA”) before the end of 5 years of its finding. If the CITT does not initiate such an expiry review pursuant to Subsection 76.03(3) of SIMA, the finding is deemed to have been rescinded as of the expiry of the five years.

On April 1, 2020, the CITT initiated the preliminary stage of the expiry review regarding the above finding. The expiry review was concluded on March 25, 2021. The CITT determined to continue its aforementioned finding. As a result, the Canadian Solar-specific subsidies rate of RMB0.014 per Watt remains unchanged. Such subsidies rate does not have a material negative effect upon the Company’s results of operations because it has module manufacturing capacity in Ontario and does not rely on Chinese solar modules to serve its Canadian business.

Please refer to “Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—Legal and Administrative Proceedings” in the Company’s Form 20-F for detailed information on antidumping and countervailing duties.

22. 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, since he reviews consolidated and segment results when making decisions about allocating resources and assessing performance of the Company.

From 2016 through the third quarter of 2020, the Company had been operating in two principal businesses: MSS and Energy. The MSS business comprised primarily the design, development, manufacture and sale of solar modules, other solar power products and solar system kits. The MSS business also provided engineering, procurement and construction (EPC) services. The Energy business comprised primarily the development and sale of solar projects, operating solar power projects, the sale of electricity and operating and maintenance (O&M) services. The module sales from the Company’s MSS business to its Energy business were on terms and conditions similar to sales to third parties.

(In Thousands of U.S. Dollars, unless otherwise indicated)

22. SEGMENT INFORMATION (Continued)

In July 2020, the Company reached a strategic decision to pursue a listing of its subsidiary, CSI Solar Co, in China. To align with the objective of ASC 280, Segment Reporting ("Topic 280") and present the Company's disaggregated financial information consistent with the management approach, beginning from the fourth quarter of 2020, the Company reports its financial performance, including revenue, gross profit and income from operations, based on the following two reportable segments:

- **CSI Solar**, which includes solar modules, solar system kits, battery energy storage solutions, China energy (including solar projects, EPC services and electricity revenue in China), and other materials, components and services (including EPC); and
- **Global Energy**, which includes global solar and energy storage power projects (excludes China), O&M and asset management services, global electricity revenue (excludes China), as well as other development services.

The module sales from the Company's CSI Solar business to its Global Energy business are on terms and conditions similar to sales to third parties. Comparative period financial information for 2018 and 2019 by reportable segment has been recast to conform to current presentation.

The Company continually monitors and reviews its segment reporting structure in accordance with Topic 280 to determine whether any changes have occurred that would impact its reportable segments.

The Company's CODM reviews net revenue and gross profit and does not review balance sheet information by segment.

The following table summarizes the Company's revenues, gross profit and income from operations generated from each segment:

	Years Ended December 31, 2020			
	CSI Solar	Global Energy	Elimination and unallocated items [1]	Total
	$	$	$	$
Net revenues	3,105,044	726,167	(354,716)	3,476,495
Cost of revenues	2,496,153	577,052	(286,624)	2,786,581
Gross profit	608,891	149,115	(68,092)	689,914
Income from operations	253,105	53,414	(86,089)	220,430

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22. SEGMENT INFORMATION (Continued)

	Years Ended December 31, 2019			
	CSI Solar	Global Energy	Elimination and unallocated items [1]	Total
	$	$	$	$
Net revenues	2,591,154	718,735	(109,306)	3,200,583
Cost of revenues	1,977,502	604,856	(100,272)	2,482,086
Gross profit	613,652	113,879	(9,034)	718,497
Income from operations	267,642	18,795	(27,558)	258,879

	Years Ended December 31, 2018			
	CSI Solar	Global Energy	Elimination and unallocated items [1]	Total
	$	$	$	$
Net revenues	2,448,057	1,427,245	(130,790)	3,744,512
Cost of revenues	1,941,539	1,184,724	(156,833)	2,969,430
Gross profit	506,518	242,521	26,043	775,082
Income from operations	182,488	171,876	10,293	364,657

(1) Includes inter-segment elimination, and unallocated corporate costs not considered part of management's evaluation of reportable segment operating performance.

Income from operations is estimated based on the Company's management accounts as some services are shared by two segments.

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22. 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,		
	2018	2019	2020
	$	$	$
Europe and other regions:			
—Australia	232,409	313,167	120,403
—Germany	95,514	109,119	119,035
—Spain	58,811	78,228	138,972
—Netherlands	83,475	68,770	96,372
—South Africa	53,739	93,911	49,375
—United Kingdom	101,479	33,158	8,842
—Czech	17,411	17,717	16,144
—Others	55,730	66,389	85,407
	698,568	780,459	634,550
The Americas:			
—United States	999,144	852,231	696,101
—Brazil	339,964	395,303	284,478
—Mexico	50,004	94,446	118,846
—Canada	57,478	30,330	100,284
—Others	28,067	29,731	21,396
	1,474,657	1,402,041	1,221,105
Asia:			
—Japan	483,041	372,687	560,701
—PRC	620,520	317,077	504,656
—Vietnam	4,216	39,268	289,621
—Korea	46,697	72,552	25,896
—India	145,873	70,893	61,141
—United Arab Emirates	104,467	43,311	53,981
—Thailand	23,511	12,753	6,108
—Others	142,962	89,542	118,736
	1,571,287	1,018,083	1,620,840
Total net revenues	3,744,512	3,200,583	3,476,495

(In Thousands of U.S. Dollars, unless otherwise indicated)

22. SEGMENT INFORMATION (Continued)

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 assets at December 31, 2019 and 2020 by geographic region, based on the physical location of the assets:

	At December 31, 2019	At December 31, 2020
	$	$
PRC	835,991	1,002,409
Thailand	331,931	295,240
Japan	259,197	204,515
Australia	63,143	76,330
United States	60,177	64,009
Canada	14,718	8,898
Others	100,513	139,137
Total long-lived assets	1,665,670	1,790,538

The following table summarizes the Company's revenues generated from each product or service:

	Years Ended December 31,		
	2018	2019	2020
	$	$	$
CSI Solar:			
Solar modules	1,847,305	2,012,059	2,348,724
Solar system kits	93,253	116,449	157,656
Battery storage solutions	—	—	7,899
China energy (includes electricity sales)	245,321	58,096	175,388
Others	131,388	295,244	60,661
Global Energy:			
Solar power projects	1,319,021	652,050	654,827
O&M and asset management services	13,271	19,750	26,386
Others	94,953	46,935	44,954
Total net revenues	3,744,512	3,200,583	3,476,495

23. MAJOR CUSTOMERS

Details of customers accounting for 10% or more of total net revenues are as follows:

	Years Ended December 31,		
	2018	2019	2020
	$	$	$
Company A	718,341	— (1)	— (1)

(1) Not a 10% or more customer in 2019 and 2020.

The accounts receivable from three customers with the largest receivable balances represents 7%, 3% and 3% of the balance of the account at December 31, 2020, and 17%, 5% and 4% of the balance of the account at December 31, 2019, respectively. The balance from the customer with the largest receivable balance is $74,376 and $27,014 as of December 31, 2019 and 2020, respectively.

24. 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 16% of the applicable payroll cost in 2019. The expense incurred by the Company to these defined contributions schemes was $12,544, $11,738 and $8,064 for the years ended December 31, 2018, 2019 and 2020, respectively.

In addition, in 2019, the Company is required by PRC law to contribute approximately 6-8.5%, 8%, 0.5-0.7% and 0.9-2.5% 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 $11,211, $11,409 and $11,486 for the years ended December 31, 2018, 2019 and 2020, respectively.

25. 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. In June 2020, the shareholders approved an amendment to the Plan to extend the term of the Plan for a further ten years period. As a result, the Plan will expire on, and no awards may be granted after, June 30, 2029. 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 Activities

During the year ended December 31, 2020, 93,488 options were exercised with a weighted average exercise price of $11.39. The total intrinsic value of options exercised during the years ended December 31, 2018, 2019 and 2020 was $256, $1,422 and $893, respectively. As of December 31, 2020, there were 26,291 options outstanding with a weighted average exercise price of $9.33 and weighted average remaining contract terms of 0.4 year. The intrinsic value of outstanding options as of December 31, 2020 was $1,102. No compensation cost on options was recognized in the year ended December 31, 2020.

(In Thousands of U.S. Dollars, unless otherwise indicated)

25. SHARE-BASED COMPENSATION (Continued)

RSUs Activities

The Company granted 759,702, 706,637 and 1,105,640 RSUs in 2018, 2019 and 2020, 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 $10,225, $12,179 and $24,918 that will be recognized ratably over the vesting period for the RSUs granted in 2018, 2019 and 2020, respectively. In the years ended December 31, 2018, 2019 and 2020, the Company recognized $10,258, $10,682 and $12,350 in compensation expense associated with these awards, respectively.

As of December 31, 2020, there was $31,116 of total unrecognized share-based compensation related to unvested RSUs, which is expected to be recognized over a weighted-average period of 2.81 years.

A summary of the RSU activity is as follows:

	Number of Shares	Weighted Average Grant-Date Fair Value
		$
Unvested at January 1, 2020	1,659,767	15.26
Granted	1,105,640	22.80
Vested	(736,542)	14.85
Forfeited	(140,112)	16.07
Unvested at December 31, 2020	1,888,753	19.78

The total fair value of RSUs vested during the years ended December 31, 2018, 2019 and 2020 was $10,242, $10,733 and $14,420, respectively.

26. SUBSEQUENT EVENTS

In February 2021, the Company, partnering with a business unit of the Macquarie Group as a minority investor, closed the Japan Green Infrastructure Fund and raised a total of JPY22 billion (approximately $208 million) committed capital to develop new projects in Japan.

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, cash flows 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, 2020 of $568,931, 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, 2019	December 31, 2020
	(In Thousands of U.S. Dollars, except share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	1,362	33,709
Restricted cash	950	1,316
Amounts due from subsidiaries	341,557	288,226
Derivative assets	—	1,111
Prepaid expenses and other current assets	9,846	22,672
Total current assets	353,715	347,034
Investment in subsidiaries	1,383,935	1,525,951
Investments in affiliates	2,483	5,322
Deferred tax assets	23,657	21,358
Other non-current assets	69,070	40,456
TOTAL ASSETS	1,832,860	1,940,121
LIABILITIES AND EQUITY		
Current liabilities:		
Short-term borrowings	—	80,000
Amounts due to related parties	340,502	—
Derivative liabilities	4,713	—
Other current liabilities	8,534	32,969
Total current liabilities	353,749	112,969
Convertible notes	—	223,214
Long-term borrowings	50,000	—
Deferred tax liabilities	22,936	20,169
Liability for uncertain tax positions	13,041	13,347
TOTAL LIABILITIES	439,726	369,699
Equity:		
Common shares — no par value: unlimited authorized shares, 59,371,684 and 59,820,384 shares issued and outstanding at December 31, 2019 and 2020, respectively	703,806	687,033
Treasury stock, at cost, 609,516 and nil common shares as of December 31, 2019 and 2020, respectively	(11,845)	—
Additional paid-in capital	17,179	(28,236)
Retained earnings	793,601	940,304
Accumulated other comprehensive loss	(109,607)	(28,679)
TOTAL EQUITY	1,393,134	1,570,422
TOTAL LIABILITIES AND EQUITY	1,832,860	1,940,121

FINANCIAL INFORMATION OF PARENT COMPANY

STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2018	2019	2020
	(In Thousands of U.S. Dollars)		
Net revenues	86,755	4,351	2,170
Cost of revenues	53,926	4,188	—
Gross profit	32,829	163	2,170
Operating expenses:			
Selling and distribution expenses	2,518	1,727	2,174
General and administrative expenses	18,970	29,093	49,688
Research and development expenses	795	462	692
Other operating loss, net	77	—	—
Total operating expenses	22,360	31,282	52,554
Income (loss) from operations	10,469	(31,119)	(50,384)
Other income (expenses):			
Interest expense	(9,170)	(3,005)	(9,628)
Interest income	32,370	25,272	30,536
Gain (loss) on change in fair value of derivatives, net	(2,671)	(5,193)	25,341
Foreign exchange gain (loss)	22,255	(11,318)	13,768
Investment loss	—	(116,879)	—
Other income (expenses), net:	42,784	(111,123)	60,017
Income (loss) before income taxes and equity in earnings of subsidiaries	53,253	(142,242)	9,633
Income tax benefit (expense)	(12,133)	5,230	(34,223)
Equity in earnings of subsidiaries	195,950	308,597	171,293
Net income	237,070	171,585	146,703

FINANCIAL INFORMATION OF PARENT COMPANY

STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended December 31,		
	2018	2019	2020
	(In Thousands of U.S. Dollars)		
Net income	237,070	171,585	146,703
Other comprehensive income (loss) (net of tax of nil)	(56,115)	542	80,928
Comprehensive income	180,955	172,127	227,631

FINANCIAL INFORMATION OF PARENT COMPANY

STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
	2018	2019	2020
	(In Thousands of U.S. Dollars)		
Operating activities:			
Net income	237,070	171,585	146,703
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization	21	154	156
Accretion of convertible notes	—	—	388
Loss on disposal of subsidiaries	—	116,879	—
Loss (gain) on change in fair value of derivatives	2,671	5,193	(25,341)
Allowance for credit losses	(212)	(83)	357
Equity in earnings of subsidiaries	(195,950)	(308,597)	(171,293)
Share-based compensation	10,259	10,682	12,350
Changes in operating assets and liabilities:			
Amounts due from subsidiaries	(184,755)	(43,630)	287,865
Prepaid expenses and other current assets	(7,778)	17,012	(13,183)
Other non-current assets	(149)	(1,158)	28,459
Amounts due to related parties	15,598	183,675	(340,502)
Other current liabilities	(22,058)	(2,707)	31,809
Liability for uncertain tax positions	6,008	408	306
Net deferred tax assets	9,230	(1,292)	(468)
Net settlement of derivatives	21,450	(11,125)	19,517
Net cash provided by (used in) operating activities	(108,595)	136,996	(22,877)
Investing activities:			
Investments in subsidiaries	(1,051)	(36,146)	(126,487)
Investments in affiliates	—	(2,483)	(2,766)
Funding of loans to subsidiaries	(94,000)	(40,600)	(264,848)
Repayment of loans from subsidiaries	375,635	12,809	20,485
Net cash provided by (used in) investing activities	280,584	(66,420)	(373,616)
Financing activities:			
Proceeds from (repayment of) short-term borrowings	(151,000)	—	30,000
Proceeds from long-term borrowings	—	50,000	—
Proceeds from changes in ownership interests in subsidiaries without change of control	—	—	224,553
Net proceeds from issuance of convertible notes	—	—	222,826
Payments for repurchase of convertible notes	—	(127,500)	—
Payments for repurchase of common shares	—	(11,845)	(5,963)
Proceeds from exercise of stock options	769	875	1,035
Net cash provided by (used in) financing activities	(150,231)	(88,470)	472,451
Effect of exchange rate changes	(29,618)	11,110	(43,246)
Net increase (decrease) in cash and cash equivalents	(7,860)	(6,784)	32,712
Cash and cash equivalents at the beginning of the year	16,957	9,097	2,313
Cash and cash equivalents at the end of the year	9,097	2,313	35,025
Supplemental disclosure of cash flow information:			
Interest paid (net of amounts capitalized)	10,154	4,644	7,966

Appendix 1

Major Subsidiaries of CSI

The following table sets forth information concerning CSI's major subsidiaries:

Subsidiary	Place and Date of Incorporation	Attributable Equity Interest Held	Principal Activity
Canadian Solar Solutions Inc.	Canada June 22, 2009	100 %	Developing solar power project and manufacture of solar modules
Canadian Solar (Australia) Pty Limited	Australia February 3, 2011	100 %	Developing solar power projects
Canadian Solar O and M (Ontario) Inc.	Canada May 10, 2011	100 %	Solar farm operating and maintenance services
Canadian Solar Projects K.K.	Japan May 20, 2014	100 %	Developing solar power projects
Canadian Solar UK Projects Ltd.	United Kingdom August 29, 2014	100 %	Developing solar power projects
Recurrent Energy, LLC	USA March 31, 2015	100 %	Developing solar power projects
Canadian Solar Energy Singapore Pte. Ltd.	Singapore October 29, 2015	100 %	Development & ownership of solar PV projects
Canadian Solar Netherlands Cooperative U.A.	Netherlands November 8, 2016	100 %	Project holding and financing
Canadian Solar Construction (Australia) Pty Ltd	Australia July 04, 2017	100 %	Providing engineering, procurement and construction services
CSUK Energy Systems Construction and Generation JSC	Turkey October 30, 2017	100 %	Project development and management services
Canadian Solar Argentina Investment Holding Ltd.	United Kingdom January 23, 2018	100 %	Developing solar power projects
Canadian Solar New Energy Holding Company Limited	Hong Kong March 20, 2019	100 %	Project investment, financing, trading of solar modules
Canadian Solar Energy Holding Singapore Pte. Ltd.	Singapore April 22, 2019	100 %	Development & ownership of solar PV projects
CSI Solar Co., Ltd. (formerly known as "CSI Solar Power Group Co., Ltd.")	PRC July 7, 2009	79.59 %	Investment holding and trading
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 EMEA GmbH	Germany August 21, 2009	100 %*	Sales and marketing of modules
Canadian Solar International Limited	Hong Kong March 25, 2011	100 %*	Sales and marketing of modules
Suzhou Sanysolar Materials Technology Co., Ltd.	PRC August 17, 2011	100 %*	Production of solar module materials
Canadian Solar South East Asia Pte. Ltd.	Singapore September 19, 2011	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 providing solar energy solution
Canadian Solar Construction (USA) LLC	USA May 20, 2014	100 %*	Solar farm operating and maintenance services
CSI Solar Manufacturing (Funing) Co., Ltd. (formerly known as "CSI&GCL Solar Manufacturing (Yancheng) Inc.")	PRC May 29, 2014	100 %*	Research and development, manufacture and sales of solar cells, and solar power project development
Changshu Tegu New Material Technology Co., Ltd.	PRC September 2, 2014	100 %*	EVA solar packaging film research and development, production and sales
Changshu Tlian Co., Ltd.	PRC December 26, 2014	100 %*	Junction box and connector research, development, production and sales
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 MSS (Australia) 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 (Baotou) Co., Ltd.	PRC August 18, 2016	100 %*	Production of solar modules, ingots and wafers
Canadian Solar Middle East DMCC	United Arab Emirates March 28, 2017	100 %*	Sales and marketing of modules
CSI Investment Management (Suzhou) Co., Ltd.	PRC May 5, 2017	100 %*	Investment management & asset management
CSI New Energy Development (Suzhou) Co., Ltd. (formerly known as "Suzhou Gaochuangte New Energy Development Co., Ltd.")	PRC June 12, 2017	90 %*	Design, engineering construction and management of solar power projects
CSI Cells (Yancheng) Co., Ltd.	PRC May 18, 2017	70 %*	Production of solar cells
CSI Modules (Jiaxing) Co., Ltd.	PRC November 3, 2017	100 %*	Production of solar modules
CSI Wafer (Luoyang) Co., Ltd.	PRC November 27, 2017	100 %*	Production of solar cells and wafers
Canadian Solar SSES (Canada) Inc.	Canada Nov 27, 2019	100 %*	System solution and energy storage
Canadian Solar SSES (UK) Ltd	United Kingdom December 18, 2019	100 %*	Intellectual property holding

* Major subsidiaries within the scope of CSI Solar are held through CSI Solar Co., Ltd. of which CSI holds 79.59% equity rights of CSI Solar Co., Ltd.

BC Registry Services

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PO Box 9431 Stn Prov Govt
Victoria BC V8W 9V3
www.corporateonline.gov.bc.ca

Location:
2nd Floor – 940 Blanshard Street
Victoria BC
1 877 526-1526

CERTIFIED COPY
Of a Document filed with the Province of
British Columbia Registrar of Companies

Notice of Articles

BUSINESS CORPORATIONS ACT

CAROL PREST

This Notice of Articles was issued by the Registrar on: July 23, 2020 11:09 AM Pacific Time

Incorporation Number: **C1258489**

Recognition Date and Time: *Continued into British Columbia on July 23, 2020 11:09 AM Pacific Time*

NOTICE OF ARTICLES

Name of Company:

CANADIAN SOLAR INC.

REGISTERED OFFICE INFORMATION

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VANCOUVER BC V6C 3H1
CANADA

Delivery Address:
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AUTHORIZED SHARE STRUCTURE

1.	No Maximum	Common Shares	Without Par Value Without Special Rights or Restrictions attached
2.	No Maximum	Preferred Shares	Without Par Value With Special Rights or Restrictions attached

Number: C1258489

CERTIFICATE
OF
CONTINUATION

BUSINESS CORPORATIONS ACT

I Hereby Certify that Canadian Solar Inc., has continued into British Columbia from the Jurisdiction of CANADA, under the Business Corporations Act, with the name CANADIAN SOLAR INC. on July 23, 2020 at 11:09 AM Pacific Time.

Issued under my hand at Victoria, British Columbia
On July 23, 2020

CAROL PREST
Registrar of Companies
Province of British Columbia
Canada

ELECTRONIC CERTIFICATE

Incorporation No. C1258489

BUSINESS CORPORATIONS ACT

ARTICLES
OF
CANADIAN SOLAR INC.

Table of Contents

Incorporation No. BC1258489

BUSINESS CORPORATIONS ACT

ARTICLES

OF

CANADIAN SOLAR INC.

PART 1– INTERPRETATION

1.1 Definitions

Without limiting Article 1.2, in these Articles, unless the context requires otherwise:

(a) **"adjourned meeting"** means the meeting to which a meeting is adjourned under Article 8.6 or 8.9;

(b) **"board"** and **"directors"** mean the board of directors of the Corporation for the time being;

(c) **"*Business Corporations Act*"** means the *Business Corporations Act*, S.B.C. 2002, c.57, as amended from time to time, and includes its regulations;

(d) **"Corporation"** means Canadian Solar Inc.;

(e) **"*Interpretation Act*"** means the *Interpretation Act*, R.S.B.C. 1996, c. 238, as amended from time to time; and

(f) **"trustee",** in relation to a shareholder, means the personal or other legal representative of the shareholder, and includes a trustee in bankruptcy of the shareholder.

1.2 Business Corporations Act definitions apply

The definitions in the *Business Corporations Act* apply to these Articles.

1.3 Interpretation Act applies

The *Interpretation Act* applies to the interpretation of these Articles as if these Articles were an enactment.

1.4 Conflict in definitions

If there is a conflict between a definition in the *Business Corporations Act* and a definition or rule in the *Interpretation Act* relating to a term used in these Articles, the definition in the *Business Corporations Act* will prevail in relation to the use of the term in these Articles.

1.5 Conflict between Articles and legislation

If there is a conflict between these Articles and the *Business Corporations Act*, the *Business Corporations Act* will prevail.

PART 2 – SHARES AND SHARE CERTIFICATES

2.1 Form of share certificate

Each share certificate issued by the Corporation must comply with, and be signed as required by, the *Business Corporations Act*.

2.2 Shareholder Entitled to Certificate or Acknowledgement

Unless the shares are uncertificated shares, each shareholder is entitled, without charge, to (a) one share certificate representing the shares of each class or series of shares registered in the shareholder's name or (b) a non-transferable written acknowledgement of the shareholder's right to obtain such a share certificate, provided that in respect of a share held jointly by several persons, the Corporation is not bound to issue more than one share certificate and delivery of a share certificate for a share to one of several joint shareholders or to one of the shareholders' duly authorized agents will be sufficient delivery to all.

2.3 Sending of share certificate

Any share certificate to which a shareholder is entitled may be sent to the shareholder by mail and neither the Corporation nor any agent is liable for any loss to the shareholder because the certificate sent is lost in the mail or stolen.

2.4 Replacement of worn out or defaced certificate

If the directors are satisfied that a share certificate is worn out or defaced, they must, on production to them of the certificate and on such other terms, if any, as they think fit:

(a) order the certificate to be cancelled; and

(b) issue a replacement share certificate.

2.5 Replacement of lost, stolen or destroyed certificate

If a share certificate is lost, stolen or destroyed, a replacement share certificate must be issued to the person entitled to that certificate if the directors receive:

(a) proof satisfactory to them that the certificate is lost, stolen or destroyed; and

(b) any indemnity the directors consider adequate.

2.6 Splitting share certificates

If a shareholder surrenders a share certificate to the Corporation with a written request that the

Corporation issue in the shareholder's name 2 or more certificates, each representing a specified number of shares and in the aggregate representing the same number of shares as the certificate so surrendered, the Corporation must cancel the surrendered certificate and issue replacement share certificates in accordance with that request.

2.7 Shares may be uncertificated

Notwithstanding any other provisions of this Part, the directors may, by resolution, provide that:

(a) the shares of any or all of the classes and series of the Corporation's shares may be uncertificated shares; or

(b) any specified shares may be uncertificated shares.

PART 3 – ISSUE OF SHARES

3.1 Directors authorized to issue shares

The directors may, subject to the rights of the holders of the issued shares of the Corporation, issue, allot, sell, grant options on or otherwise dispose of the unissued shares, and issued shares held by the Corporation, at the times, to the persons, including directors, in the manner, on the terms and conditions and for the issue prices that the directors, in their absolute discretion, may determine.

3.2 Corporation need not recognize unregistered interests

Except as required by law or these Articles, the Corporation need not recognize or provide for any person's interests in or rights to a share unless that person is the shareholder of the share.

PART 4 – SHARE TRANSFERS

4.1 Recording or registering transfer

A transfer of a share of the Corporation must not be registered

(a) unless a duly signed instrument of transfer in respect of the share has been received by the Corporation and the certificate (or acceptable documents pursuant to Article 2.5 hereof) representing the share to be transferred has been surrendered and cancelled; or

(b) if no certificate has been issued by the Corporation in respect of the share, unless a duly signed instrument of transfer in respect of the share has been received by the Corporation.

4.2 Form of instrument of transfer

The instrument of transfer in respect of any share of the Corporation must be either in the form, if any, on the back of the Corporation's share certificates or in any other form that may be approved by the directors from time to time.

4.3 Signing of instrument of transfer

If a shareholder, or his or her duly authorized attorney, signs an instrument of transfer in respect of shares registered in the name of the shareholder, the signed instrument of transfer constitutes a complete and sufficient authority to the Corporation and its directors, officers and agents to register the number of shares specified in the instrument of transfer, or, if no number is specified, all the shares represented by share certificates deposited with the instrument of transfer:

(a) in the name of the person named as transferee in that instrument of transfer; or

(b) if no person is named as transferee in that instrument of transfer, in the name of the person on whose behalf the share certificate is deposited for the purpose of having the transfer registered.

4.4 Enquiry as to title not required

Neither the Corporation nor any director, officer or agent of the Corporation is bound to inquire into the title of the person named in the instrument of transfer as transferee or, if no person is named as transferee in the instrument of transfer, of the person on whose behalf the instrument is deposited for the purpose of having the transfer registered or is liable for any claim related to registering the transfer by the shareholder or by any intermediate owner or holder of the shares, of any interest in the shares, of any share certificate representing such shares or of any written acknowledgment of a right to obtain a share certificate for such shares.

4.5 Transfer fee

There must be paid to the Corporation, in relation to the registration of any transfer, the amount determined by the directors from time to time.

PART 5 – ACQUISITION OF SHARES

5.1 Corporation authorized to purchase shares

Subject to the special rights and restrictions attached to any class or series of shares, the Corporation may, if it is authorized to do so by the directors, purchase or otherwise acquire any of its shares.

5.2 Corporation authorized to accept surrender of shares

The Corporation may, if it is authorized to do so by the directors, accept a surrender of any of its shares.

5.3 Corporation authorized to convert fractional shares into whole shares

The Corporation may, if it is authorized to do so by the directors, convert any of its fractional shares into whole shares in accordance with, and subject to the limitations contained in, the *Business Corporations Act*.

PART 6 – BORROWING POWERS

6.1 Powers of directors

The directors may from time to time on behalf of the Corporation:

(a) borrow money in the manner and amount, on the security, from the sources and on the terms and conditions that they consider appropriate;

(b) issue bonds, debentures and other debt obligations either outright or as security for any liability or obligation of the Corporation or any other person, and at any discount or premium and on such other terms as they consider appropriate;

(c) guarantee the repayment of money by any other person or the performance of any obligation of any other person; and

(d) mortgage or charge, whether by way of specific or floating charge, or give other security on the whole or any part of the present and future assets and undertaking of the Corporation.

PART 7 – GENERAL MEETINGS

7.1 Annual general meetings

Unless an annual general meeting is deferred or waived in accordance with section 182(2)(a) or (c) of the *Business Corporations Act*, the Corporation must hold its first annual general meeting within 18 months after the date on which it was incorporated or otherwise recognized, and after that must hold an annual general meeting at least once in each calendar year and not more than 15 months after the last annual general meeting.

7.2 When annual general meeting is deemed to have been held

If all of the shareholders who are entitled to vote at an annual general meeting consent by a unanimous resolution under the *Business Corporations Act* to all of the business that is required to be transacted at that annual general meeting, the annual general meeting is deemed to have been held on the date of the unanimous resolution. The shareholders must, in any unanimous resolution passed under this Article 7.2, select as the Corporation's annual reference date a date that would be appropriate for the holding of the applicable annual general meeting.

7.3 Calling of shareholder meetings

The directors may, whenever they think fit, call a meeting of shareholders.

7.4 Notice for meetings of shareholders

The Corporation must send notice of the date, time and location of any meeting of shareholders, in the manner provided in these Articles, or in such other manner, if any, as may be prescribed by ordinary resolution (whether previous notice of the resolution has been given or not), to each shareholder entitled to attend the meeting and to each director, unless these Articles otherwise provide, at least the following number of days before the meeting:

(a) if and for so long as the Corporation is a public company, 21 days;

(b) otherwise, 10 days.

7.5 Record date for notice

The directors may set a date as the record date for the purpose of determining shareholders entitled to notice of any meeting of shareholders. The record date must not precede the date on which the meeting is to be held by more than two months or, in the case of a general meeting requisitioned by shareholders under the *Business Corporations Act*, by more than four months. The record date must not precede the date on which the meeting is held by fewer than:

(a) if and for so long as the Corporation is a public company, 21 days;

(b) otherwise, 10 days.

If no record date is set, the record date is 5 p.m. on the day immediately preceding the first date on which the notice is sent or, if no notice is sent, the beginning of the meeting.

7.6 Record date for voting

The directors may set a date as the record date for the purpose of determining shareholders entitled to vote at any meeting of shareholders. The record date must not precede the date on which the meeting is to be held by more than two months or, in the case of a general meeting requisitioned by shareholders under the *Business Corporations Act*, by more than four months. If no record date is set as provided above, the record date for determining the shareholders entitled to vote at the meeting shall be 5:00 p.m. the day before the meeting.

7.7 Failure to give notice and waiver of notice

The accidental omission to send notice of any meeting to, or the non-receipt of any notice by, any of the persons entitled to notice does not invalidate any proceedings at that meeting. Any person entitled to notice of a meeting of shareholders may, in writing or otherwise, waive or reduce the period of notice of such meeting.

7.8 Notice of special business at meetings of shareholders

If a meeting of shareholders is to consider special business within the meaning of Article 8.1, the notice of meeting must:

(a) state the general nature of the special business; and

(b) if the special business includes considering, approving, ratifying, adopting or authorizing any document or the signing of or giving of effect to any document, have attached to it a copy of the document or state that a copy of the document will be available for inspection by shareholders:

(i) at the Corporation's records office, or at such other reasonably accessible location in British Columbia as is specified in the notice, and

(ii) during statutory business hours on any one or more specified days before the day set for the holding of the meeting.

PART 8 – PROCEEDINGS AT MEETINGS OF SHAREHOLDERS

8.1 Special business

At a meeting of shareholders, the following business is special business:

(a) at a meeting of shareholders that is not an annual general meeting, all business is special business except business relating to the conduct of or voting at the meeting or the election or appointment of directors;

(b) at an annual general meeting, all business is special business except for the following:

(i) business relating to the conduct of or voting at the meeting,

(ii) consideration of any financial statements of the Corporation presented to the meeting,

(iii) consideration of any reports of the directors or auditor,

(iv) the setting or changing of the number of directors,

(v) the election or appointment of directors,

(vi) the appointment of an auditor,

(vii) the setting of the remuneration of an auditor,

(viii) business arising out of a report of the directors not requiring the passing of a special resolution or an exceptional resolution, and

(ix) any other business which, under these Articles or the *Business Corporations Act*, may be transacted at a meeting of shareholders without prior notice of the business being given to the shareholders.

8.2 Special resolution

The votes required for the Corporation to pass a special resolution at a meeting of shareholders is two-thirds of the votes cast on the resolution.

8.3 Quorum

Subject to the special rights and restrictions attached to the shares of any affected class or series of shares, the quorum for the transaction of business at a meeting of shareholders is two or more persons, present in person or by proxy and together holding or representing by proxy shares carrying at least 33⅓ per cent of the votes entitled to be voted at the meeting.

8.4 Other persons may attend

The directors, the president, if any, the secretary, if any, and any lawyer or auditor for the Corporation are entitled to attend any meeting of shareholders, but if any of those persons does attend a meeting of shareholders, that person is not to be counted in the quorum, and is not entitled to vote at the meeting, unless that person is a shareholder or proxy holder entitled to vote at the meeting.

8.5 Requirement of quorum

No business, other than the election of a chair of the meeting and the adjournment of the meeting, may be transacted at any meeting of shareholders unless a quorum of shareholders entitled to vote at the meeting is present at the commencement of the meeting.

8.6 Lack of quorum

If, within 1/2 hour from the time set for the holding of a meeting of shareholders, a quorum is not present:

(a) in the case of a general meeting convened by requisition of shareholders, the meeting is dissolved; and

(b) in the case of any other meeting of shareholders, the shareholders entitled to vote at the meeting who are present, in person or by proxy, at the meeting may adjourn the meeting to a set time and place.

8.7 Chair

The following individual is entitled to preside as chair at a meeting of shareholders:

(a) the chair of the board, if any;

(b) if the chair of the board is absent or unwilling to act as chair of the meeting, the president, if any; or

(c) if the present is absent, a director designated by the board.

8.8 Alternate chair

At any meeting of shareholders, the directors present must choose one of their number to be chair of the meeting if: (a) there is no chair of the board or president present within 30 minutes after the time set for holding the meeting; (b) the chair of the board and the president are unwilling to act as chair of the meeting; or (c) if the chair of the board and the president have advised the secretary, if any, or any director present at the meeting, that they will not be present at the meeting. If, in any of the foregoing circumstances, all of the directors present decline to accept the position of chair or fail to choose one of their number to be chair of the meeting, or if no director is present, the shareholders present in person or by proxy must choose any person present at the meeting to chair the meeting.

8.9 Adjournments

The chair of a meeting of shareholders may, and if so directed by the meeting must, adjourn the meeting from time to time and from place to place, but no business may be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

8.10 Notice of adjourned meeting

It is not necessary to give any notice of an adjourned meeting or of the business to be transacted at an adjourned meeting of shareholders except that, when a meeting is adjourned for 30 days or more, notice of the adjourned meeting must be given as in the case of the original meeting.

8.11 Motion need not be seconded

No motion proposed at a meeting of shareholders need be seconded unless the chair of the meeting rules otherwise, and the chair of any meeting of shareholders is entitled to propose or second a motion.

8.12 Manner of taking a poll

Subject to Article 8.13, if a poll is duly demanded at a meeting of shareholders:

(a) the poll must be taken

(i) at the meeting, or within 7 days after the date of the meeting, as the chair of the meeting directs, and

(ii) in the manner, at the time and at the place that the chair of the meeting directs;

(b) the result of the poll is deemed to be a resolution of, and passed at, the meeting at which the poll is demanded; and

(c) the demand for the poll may be withdrawn.

8.13 Demand for a poll on adjournment

A poll demanded at a meeting of shareholders on a question of adjournment must be taken immediately at the meeting.

8.14 Demand for a poll not to prevent continuation of meeting

The demand for a poll at a meeting of shareholders does not, unless the chair of the meeting so rules, prevent the continuation of a meeting for the transaction of any business other than the question on which a poll has been demanded.

8.15 Poll not available in respect of election of chair

No poll may be demanded in respect of the vote by which a chair of a meeting of shareholders is elected.

8.16 Casting of votes on poll

On a poll, a shareholder entitled to more than one vote need not cast all the votes in the same way.

8.17 Chair must resolve dispute

In the case of any dispute as to the admission or rejection of a vote given on a poll, the chair of the meeting must determine the same, and his or her determination made in good faith is final and conclusive.

8.18 Chair has no second vote

In case of an equality of votes, the chair of a meeting of shareholders does not, either on a show of hands or on a poll, have a casting or second vote in addition to the vote or votes to which the chair may be entitled as a shareholder.

8.19 Declaration of result

The chair of a meeting of shareholders must declare to the meeting the decision on every question in accordance with the result of the show of hands or the poll, as the case may be, and that decision must be entered in the minutes of the meeting.

8.20 Meetings by telephone or other communications medium

A shareholder or proxy holder who is entitled to participate in a meeting of shareholders may do so in person, or by telephone or other communications medium, if all shareholders and proxy holders participating in the meeting are able to communicate with each other; provided, however, that nothing in this Section shall obligate the Corporation to take any action or provide any facility to permit or facilitate the use of any communications medium at a meeting of shareholders. If one or more shareholders or proxy holders participate in a meeting of shareholders in a manner contemplated by this Article 8.20:

(a) each such shareholder or proxy holder shall be deemed to be present at the meeting; and

(b) the meeting shall be deemed to be held at the location specified in the notice of the meeting.

PART 9 – ALTERATIONS AND RESOLUTIONS

9.1 Alteration of Authorized Share Structure

Subject to Article 9.2 and the *Business Corporations Act*, the Corporation may by resolution of the directors:

(a) create one or more classes or series of shares or, if none of the shares of a class or series of shares are allotted or issued, eliminate that class or series of shares;

(b) increase, reduce or eliminate the maximum number of shares that the Corporation is authorized to issue out of any class or series of shares or establish a maximum number of shares that the Corporation is authorized to issue out of any class or series of shares for which no maximum is established;

(c) if the Corporation is authorized to issue shares of a class of shares with par value:

(i) decrease the par value of those shares,

(ii) if none of the shares of that class of shares are allotted or issued, increase the par value of those shares,

(iii) subdivide all or any of its unissued or fully paid issued shares with par value into shares of smaller par value, or

(iv) consolidate all or any of its unissued or fully paid issued shares with par value into shares of larger par value;

(d) subdivide all or any of its unissued or fully paid issued shares without par value;

(e) change all or any of its unissued or fully paid issued shares with par value into shares without par value or all or any of its unissued shares without par value into shares with par value;

(f) alter the identifying name of any of its shares;

(g) consolidate all or any of its unissued or fully paid issued shares without par value; or

(h) otherwise alter its shares or authorized share structure when required or permitted to do so by the *Business Corporations Act*.

9.2 Change of Name

The Corporation may by resolution of the directors authorize an alteration to its Notice of Articles in order to change its name or adopt or change any translation of that name.

9.3 Other Alterations or Resolutions

If the *Business Corporations Act* does not specify:

(a) the type of resolution and these Articles do not specify another type of resolution, the Corporation may by resolution of the directors authorize any act of the Corporation, including without limitation, an alteration of these Articles; or

(b) the type of shareholders' resolution and these Articles do not specify another type of shareholders' resolution, the Corporation may by ordinary resolution authorize any act of the Corporation.

PART 10 – VOTES OF SHAREHOLDERS

10.1 Voting rights

Subject to any special rights or restrictions attached to any shares and to the restrictions imposed on joint registered holders of shares under Article 10.3:

(a) on a vote by show of hands, every person present who is a shareholder or proxy holder and entitled to vote at the meeting has one vote; and

(b) on a poll, every shareholder entitled to vote has one vote in respect of each share held by that shareholder that carries the right to vote on that poll and may exercise that vote either in person or by proxy.

10.2 Trustee of shareholder may vote

A person who is not a shareholder may vote on a resolution at a meeting of shareholders, whether on a show of hands or on a poll, and may appoint a proxy holder to act at the meeting in relation to that resolution, if, before doing so, the person satisfies the chair of the meeting at which the resolution is to be considered, or satisfies all of the directors present at the meeting, that the person is a trustee for a shareholder who is entitled to vote on the resolution.

10.3 Votes by joint shareholders

If there are joint shareholders registered in respect of any share:

(a) any one of the joint shareholders, but not both or all, may vote at any meeting, either personally or by proxy, in respect of the share as if that joint shareholder were solely entitled to it; or

(b) if more than one of the joint shareholders is present at any meeting, personally or by proxy, the joint shareholder present whose name stands first on the central securities register in respect of the share is alone entitled to vote in respect of that share.

10.4 Trustees as joint shareholders

Two or more trustees of a shareholder in whose sole name any share is registered are, for the purposes of Article 10.3, deemed to be joint shareholders.

10.5 Representative of a corporate shareholder

If a corporation that is not a subsidiary of the Corporation is a shareholder, that corporation may appoint a person to act as its representative at any meeting of shareholders of the Corporation, and:

(a) for that purpose, the instrument appointing a representative must

(i) be received at the registered office of the Corporation or at any other place specified, in the notice calling the meeting, for the receipt of proxies, at least 2 business days before the day set for the holding of the meeting, or

(ii) unless the notice of the meeting provides otherwise, be provided, at the meeting, to the chair of the meeting; and

(b) if a representative is appointed under this Article 10.5,

(i) the representative is entitled to exercise in respect of and at that meeting the same rights on behalf of the corporation that the representative represents as that corporation could exercise if it were a shareholder who is an individual, including, without limitation, the right to appoint a proxy holder, and

(ii) the representative, if present at the meeting, is to be counted for the purpose of forming a quorum and is deemed to be a shareholder present in person at the meeting.

10.6 When proxy provisions do not apply

Articles 10.7 to 10.13 do not apply to the Corporation if and for so long as it is a public company.

10.7 Appointment of proxy holder

Every shareholder of the Corporation, including a corporation that is a shareholder but not a subsidiary of the Corporation, entitled to vote at a meeting of shareholders of the Corporation may, by proxy, appoint a proxy holder to attend and act at the meeting in the manner, to the extent and with the powers conferred by the proxy.

10.8 Alternate proxy holders

A shareholder may appoint one or more alternate proxy holders to act in the place of an absent proxy holder.

10.9 When proxy holder need not be shareholder

A person must not be appointed as a proxy holder unless the person is a shareholder, although a person who is not a shareholder may be appointed as a proxy holder if:

(a) the person appointing the proxy holder is a corporation or a representative of a corporation appointed under Article 10.5;

(b) the Corporation has at the time of the meeting for which the proxy holder is to be appointed only one shareholder entitled to vote at the meeting; or

(c) the shareholders present in person or by proxy at and entitled to vote at the meeting for which the proxy holder is to be appointed, by a resolution on which the proxy holder is not entitled to vote but in respect of which the proxy holder is to be counted in the quorum, permit the proxy holder to attend and vote at the meeting.

10.10 Form of proxy

A proxy, whether for a specified meeting or otherwise, must be either in the following form or in any other form approved by the directors or the chair of the meeting:

(Name of Corporation)

The undersigned, being a shareholder of the above named Corporation, hereby appoints ..... or, failing that person, ..., as proxy holder for the undersigned to attend, act and vote for and on behalf of the undersigned at the meeting of shareholders to be held on the day of and at any adjournment of that meeting.

Signed this ..... day of ....., ...

.....

Signature of shareholder

10.11 Provision of proxies

A proxy for a meeting of shareholders must:

(a) be received at the registered office of the Corporation or at any other place specified in the notice calling the meeting for the receipt of proxies, at least the number of business days specified in the notice or, if no number of days is specified, 2 business days before the day set for the holding of the meeting; or

(b) unless the notice of the meeting provides otherwise, be provided at the meeting to the chair of the meeting.

10.12 Revocation of proxies

Subject to Article 10.13, every proxy may be revoked by an instrument in writing that is:

(a) received at the registered office of the Corporation at any time up to and including the last business day before the day set for the holding of the meeting at which the proxy is to be used; or

(b) provided at the meeting to the chair of the meeting.

10.13 Revocation of proxies must be signed

An instrument referred to in Article 10.12 must be signed as follows:

(a) if the shareholder for whom the proxy holder is appointed is an individual, the instrument must be signed by the shareholder or his or her trustee; or

(b) if the shareholder for whom the proxy holder is appointed is a corporation, the instrument must be signed by the corporation or by a representative appointed for the corporation under Article 10.5.

10.14 Validity of proxy votes

A vote given in accordance with the terms of a proxy is valid despite the death or incapacity of the shareholder giving the proxy and despite the revocation of the proxy or the revocation of the authority under which the proxy is given, unless notice in writing of that death, incapacity or revocation is received:

(a) at the registered office of the Corporation, at any time up to and including the last business day before the day set for the holding of the meeting at which the proxy is to be used; or

(b) by the chair of the meeting, before the vote is taken.

10.15 Production of evidence of authority to vote

The chair of any meeting of shareholders may, but need not, inquire into the authority of any person to vote at the meeting and may, but need not, demand from that person production of evidence as to the existence of the authority to vote.

10.16 Chair May Determine Validity of Proxy

Unless prohibited by applicable law, the chair of any meeting of shareholders may determine whether or not a proxy deposited for use at the meeting, which may not strictly comply with the requirements of this Article 10 as to form, execution, accompanying documentation, time of filing or otherwise, shall be valid for use at the meeting and any such determination made in good faith shall be final, conclusive and binding upon the meeting.

PART 11 – DIRECTORS

11.1 First directors; number of directors

The first directors are the persons designated as directors of the Corporation in the Notice of Articles that applies to the Corporation when it is recognized under the *Business Corporations Act*. The number of directors, excluding additional directors appointed under Article 12.7, is set at:

(a) subject to paragraphs (b) and (c), the number of directors that is equal to the number of the Corporation's first directors;

(b) if the Corporation is a public company, the greater of three and the number most recently elected by ordinary resolution (whether or not previous notice of the resolution was given); and

(c) if the Corporation is not a public company, the number most recently elected by ordinary resolution (whether or not previous notice of the resolution was given).

11.2 Change in number of directors

If the number of directors is set under Articles 11.1(b) or 11.1(c):

(a) the shareholders may elect or appoint the directors needed to fill any vacancies in the board of directors up to that number;

(b) if, contemporaneously with setting that number, the shareholders do not elect or appoint the directors needed to fill vacancies in the board of directors up to that number, then the directors may appoint, or the shareholders may elect or appoint, directors to fill those vacancies.

11.3 Directors' acts valid despite vacancy

An act or proceeding of the directors is not invalid merely because fewer directors have been appointed or elected than the number of directors set or otherwise required under these Articles.

11.4 Qualifications of directors

A director is not required to hold a share in the capital of the Corporation as qualification for his or her office but must be qualified as required by the *Business Corporations Act* to become, act or continue to act as a director.

11.5 Remuneration of directors

The directors are entitled to the remuneration, if any, for acting as directors as the directors may from time to time determine. If the directors so decide, the remuneration of the directors will be determined by the shareholders. That remuneration may be in addition to any salary or other remuneration paid to a director in such director's capacity as an officer or employee of the Corporation.

11.6 Reimbursement of expenses of directors

The Corporation must reimburse each director for the reasonable expenses that he or she may incur in and about the business of the Corporation.

11.7 Special remuneration for directors

If any director performs any professional or other services for the Corporation that in the opinion of the directors are outside the ordinary duties of a director, or if any director is otherwise specially occupied in or about the Corporation's business, he or she may be paid remuneration fixed by the directors, or, at the option of that director, fixed by ordinary resolution, and such remuneration may be either in addition to, or in substitution for, any other remuneration that he or she may be entitled to receive.

11.8 Gratuity, pension or allowance on retirement of director

Unless otherwise determined by ordinary resolution, the directors on behalf of the Corporation may pay a gratuity or pension or allowance on retirement to any director who has held any salaried office or place of profit with the Corporation or to his or her spouse or dependants and may make contributions to any fund and pay premiums for the purchase or provision of any such gratuity, pension or allowance.

PART 12 – ELECTION AND REMOVAL OF DIRECTORS

12.1 Election at annual general meeting

At every annual general meeting and in every unanimous resolution contemplated by Article 7.2:

(a) the shareholders entitled to vote at the annual general meeting for the election of directors may elect, or in the unanimous resolution appoint, a board of directors consisting of up to the number of directors for the time being set under these Articles; and

(b) all the directors cease to hold office immediately before the election or appointment of directors under paragraph (a), but are eligible for re-election or re-appointment.

12.2 Consent to be a director

No election, appointment or designation of an individual as a director is valid unless:

(a) that individual consents to be a director in the manner provided for in the *Business Corporations Act*;

(b) that individual is elected or appointed at a meeting at which the individual is present and the individual does not refuse, at the meeting, to be a director; or

(c) with respect to first directors, the designation is otherwise valid under the *Business Corporations Act*.

12.3 Failure to elect or appoint directors

If:

(a) the Corporation fails to hold an annual general meeting, and all the shareholders who are entitled to vote at an annual general meeting fail to pass the unanimous resolution contemplated by Article 7.2, on or before the date by which the annual general meeting is required to be held under the *Business Corporations Act*; or

(b) the shareholders fail, at the annual general meeting or in the unanimous resolution contemplated by Article 7.2, to elect or appoint any directors;

then each director in office at such time continues to hold office until the earlier of:

(c) the date on which his or her successor is elected or appointed; and

(d) the date on which he or she otherwise ceases to hold office under the *Business Corporations Act* or these Articles.

12.4 Directors may fill casual vacancies

Any casual vacancy occurring in the board of directors may be filled by the remaining directors.

12.5 Remaining directors' power to act

The directors may act notwithstanding any vacancy in the board of directors, but if the Corporation has fewer directors in office than the number set pursuant to these Articles as the quorum of directors, the directors may only act for the purpose of appointing directors up to that number or for the purpose of summoning a meeting of shareholders to fill any vacancies on the board of directors or for any other purpose permitted by the *Business Corporations Act*.

12.6 Shareholders may fill vacancies

If the Corporation has no directors or fewer directors in office than the number set pursuant to these Articles as the quorum of directors, and the directors have not filled the vacancies pursuant to Article 12.5 above, the shareholders may elect or appoint directors to fill any vacancies on the board of directors.

12.7 Additional directors

Notwithstanding Articles 11.1 and 11.2, between annual general meetings or unanimous resolutions contemplated by Article 7.2, the directors may appoint one or more additional directors, but the number of additional directors appointed under this Article 12.7 must not at any time exceed:

(a) one-third of the number of first directors, if, at the time of the appointments, one or more of the first directors have not yet completed their first term of office; or

(b) in any other case, one-third of the number of the current directors who were elected or appointed as directors other than under this Article 12.7.

Any director so appointed ceases to hold office immediately before the next election or appointment of directors under Article 12.1(a), but is eligible for re-election or re-appointment.

12.8 Ceasing to be a director

A director ceases to be a director when:

(a) the term of office of the director expires;

(b) the director dies;

(c) the director resigns as a director by notice in writing provided to the Corporation or a lawyer for the Corporation; or

(d) the director is removed from office pursuant to Articles 12.9 or 12.10.

12.9 Removal of director by shareholders

The Shareholders may, by special resolution, remove any director before the expiration of his or her term of office, and may, by ordinary resolution, elect or appoint a director to fill the resulting vacancy. If the shareholders do not contemporaneously elect or appoint a director to fill the vacancy created by the removal of a director, then the directors may appoint, or the shareholders may elect or appoint by ordinary resolution, a director to fill that vacancy.

12.10 Removal of director by directors

The directors may remove any director before the expiration of his or her term of office if the director is convicted of an indictable offence, or if the director ceases to be qualified to act as a director of a company and does not promptly resign, and the directors may appoint a director to fill the resulting vacancy.

12.11 Nominations of directors

(a) Only persons who are nominated in accordance with the following procedures shall be eligible for election as directors of the Corporation.

(b) Nominations of persons for election to the board may be made at any annual meeting of shareholders or at any special meeting of shareholders (if one of the purposes for which the special meeting was called was the election of directors):

(i) by or at the direction of the board, including pursuant to a notice of meeting;

(ii) by or at the direction or request of one or more shareholders pursuant to a proposal made in accordance with the provisions of the *Business Corporations Act*, or a requisition of the shareholders made in accordance with the provisions of the *Business Corporations Act*; or

(iii) by any person (a "**Nominating Shareholder**"): (A) who, at the close of business on the date of the giving of the notice provided for below in this Article 12.11 and on the record date for notice of such meeting, is entered in the securities register as a holder of one or more shares carrying the right to vote at such meeting or who beneficially owns shares that are entitled to be voted at such meeting; and (B) who complies with the notice procedures set forth below in this Article 12.11.

(c) In addition to any other applicable requirements, for a nomination to be made by a Nominating Shareholder, the Nominating Shareholder must have given timely notice thereof (as provided for in Article 12.11(d)) in proper written form to the secretary of the Corporation at the principal executive offices of the Corporation.

(d) To be timely, a Nominating Shareholder's notice to the secretary of the Corporation must be given:

(i) in the case of an annual meeting of shareholders, not less than 30 nor more than 65 days prior to the date of the annual meeting of shareholders; provided, however, that in the event that the annual meeting of shareholders is to be held on a date that is less than 50 days after the date (the "**Notice Date"**) on which the first public announcement (as defined below) of the date of the annual meeting was made, notice by the Nominating Shareholder may be given not later than the close of business on the tenth (10th) day after the Notice Date in respect of such meeting; and

(ii) in the case of a special meeting (which is not also an annual meeting) of shareholders called for the purpose of electing directors (whether or not called for other purposes), not later than the close of business on the fifteenth (15th) day following the day on which the first public announcement of the date of the special meeting of shareholders was made.

In no event shall any adjournment or postponement of a meeting of shareholders or the announcement thereof commence a new time period for the giving of a Nominating Shareholder's notice as described above.

(e) To be in proper written form, a Nominating Shareholder's notice to the secretary of the Corporation must set forth:

(i) as to each person whom the Nominating Shareholder proposes to nominate for election as a director: (A) the name, age, business address and residential address of the person; (B) the principal occupation or employment of the person during the past five years; (C) the class or series and number of shares in the capital of the Corporation which are controlled or which are owned beneficially or of record by the person as of the record date for the meeting of shareholders (if such date shall then have been made publicly available and shall have occurred) and as of the date of such notice; (D) a statement as to whether such person would be "independent" of the Corporation (as such term is defined under Applicable Securities Laws (as defined below)) if elected as a director at such meeting and the reasons and basis for such determination; (E) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among such Nominating Shareholder and beneficial owner, if any, and their respective affiliates and associates, or others acting jointly or in concert therewith, on the one hand, and such nominee, and his or her respective associates, or others acting jointly or in concert therewith, on the other hand; and (F) any other information relating to the person that would be required to be disclosed in a dissident's proxy circular in connection with solicitations of proxies for election of directors pursuant to the *Business Corporations Act* and Applicable Securities Laws (as defined below); and

(ii) as to the Nominating Shareholder giving the notice: (A) any proxy, contract, arrangement, understanding or relationship pursuant to which such Nominating Shareholder has a right to vote any shares of the Corporation; (B) the class or series and number of shares in the capital of the Corporation which are controlled or which are owned beneficially or of the record by the Nominating Shareholder as of the record date for the meeting of shareholders (if such date shall then have been made publicly available and shall have occurred) and as of the date of such notice, and (C) any other information relating to such Nominating Shareholder that would be required to be made in a dissident's proxy circular in connection with solicitations of proxies for election of directors pursuant to the *Business Corporations Act* and Applicable Securities Laws (as defined below).

(f) The Corporation may require any proposed nominee to furnish such other information as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation or that could be material to a reasonable shareholder's understanding of the independence, or lack thereof, of such proposed nominee.

(g) The chair of the meeting shall have the power and duty to determine whether a nomination was made in accordance with the provisions set forth in this Article 12.11 and, if any proposed nomination is not in compliance with such provisions, to declare that such defective nomination shall be disregarded.

(h) For purposes of this Article 12.11:

(i) "**Affiliate**", when used to indicate a relationship with a person, means a person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, such specified person;

(ii) "**Applicable Securities Laws**" means the applicable securities legislation of each relevant province and territory of Canada, as amended from time to time, the rules, regulations and forms made or promulgated under any such statute and the published national instruments, multilateral instruments, policies, bulletins and notices of the securities commission and similar regulatory authority of each province and territory of Canada;

(iii) "**Associate**", when used to indicate a relationship with a specified person, means:

A. any corporation or trust of which such person beneficially owns, directly or indirectly, voting securities carrying more than 10% of the voting rights attached to all voting securities of such corporation or trust for the time being outstanding,

B. any partner of that person,

C. any trust or estate in which such person has a substantial beneficial interest or as to which such person serves as trustee or in a similar capacity,

D. a spouse of such specified person,

E. any person of either sex with whom such specified person is living in a conjugal relationship outside marriage, or

F. any relative of such specified person or of a person mentioned in clauses D or E of this definition if that relative has the same residence as the specified person;

(iv) "**Derivatives Contract**" means a contract between two parties (the "**Receiving Party**" and the "**Counterparty**") that is designed to expose the Receiving Party to economic benefits and risks that correspond substantially to the ownership by the Receiving Party of a number of shares in the capital of the Corporation or securities convertible into such shares specified or referenced in such contract (the number corresponding to such economic benefits and risks, the "**Notional Securities**"), regardless of whether obligations under such contract are required or permitted to be settled through the delivery of cash, shares in the capital of the Corporation or securities convertible into such shares or other property, without regard to any short position under the same or any other Derivatives Contract. For the avoidance of doubt, interests in broad-based index options, broad-based index futures and broad-based publicly traded market baskets of stocks approved for trading by the appropriate governmental authority shall not be deemed to be Derivatives Contracts;

(v) "**owned beneficially**" or "**owns beneficially**" means, in connection with the ownership of shares in the capital of the Corporation by a person:

A. any such shares as to which such person or any of such person's Affiliates or Associates owns at law or in equity, or has the right to acquire or become the owner at law or in equity, where such right is exercisable immediately or after the passage of time and whether or not on condition or the happening of any contingency or the making of any payment, upon the exercise of any conversion right, exchange right or purchase right attaching to any securities, or pursuant to any agreement, arrangement, pledge or understanding whether or not in writing,

B. any such shares as to which such person or any of such person's Affiliates or Associates has the right to vote, or the right to direct the voting, where such right is exercisable immediately or after the passage of time and whether or not on condition or the happening of any contingency or the making of any payment, pursuant to any agreement, arrangement, pledge or understanding whether or not in writing,

C. any such shares which are beneficially owned, directly or indirectly, by a Counterparty (or any of such Counterparty's Affiliates or Associates) under any Derivatives Contract (without regard to any short or similar position under the same or any other Derivatives Contract) to which such person or any of such person's Affiliates or Associates is a Receiving Party; provided, however, that the number of shares that a person owns beneficially pursuant to this clause in connection with a particular Derivatives Contract shall not exceed the number of Notional Securities with respect to such Derivatives Contract; provided, further, that the number of securities owned beneficially by each Counterparty (including their respective Affiliates and Associates) under a Derivatives Contract shall for purposes of this clause be deemed to include all securities that are owned beneficially, directly or indirectly, by any other Counterparty (or any of such other Counterparty's Affiliates or Associates) under any Derivatives Contract to which such first Counterparty (or any of such first Counterparty's Affiliates or Associates) is a Receiving Party and this proviso shall be applied to successive Counterparties as appropriate, and

D. any such shares which are owned beneficially within the meaning of this definition by any other person with whom such person is acting jointly or in concert with respect to the Corporation or any of its securities; and

(vi) "**public announcement**" shall mean disclosure in a press release reported by a national news service in Canada, or in a document publicly filed by the Corporation under its profile on the System of Electronic Document Analysis and Retrieval at www.sedar.com.

(i) Notwithstanding any other provision of this Article 12.11, notice given to the secretary of the Corporation pursuant to this Article 12.11 may only be given by personal delivery, facsimile transmission or by email (at such email address as stipulated from time to time by the secretary of the Corporation for purposes of this notice), and shall be deemed to have been given and made only at the time it is served by personal delivery, email (at the address as aforesaid, provided that receipt of confirmation of such transmission has been received) or sent by facsimile transmission (provided that receipt of confirmation of such transmission has been received) to the secretary at the address of the principal executive offices of the Corporation; provided that if such delivery or electronic communication is made on a day which is a not a business day or later than 5:00 p.m. (Vancouver time) on a day which is a business day, then such delivery or electronic communication shall be deemed to have been made on the subsequent day that is a business day.

(j) Notwithstanding the foregoing, the board may, in its sole discretion, waive any requirement in this Article 12.11.

PART 13 – PROCEEDINGS OF DIRECTORS

13.1 Meetings of directors

The directors may meet together for the conduct of business, adjourn and otherwise regulate their meetings as they think fit, and meetings of the board held at regular intervals may be held at the place and at the time that the board may by resolution from time to time determine.

13.2 Chair of meetings

Meetings of directors are to be chaired by:

(a) the chair of the board, if any;

(b) in the absence of the chair of the board, the president, if any, if the president is a director; or

(c) any other director chosen by the directors if:

(i) neither the chair of the board nor the president, if a director, is present at the meeting within 15 minutes after the time set for holding the meeting,

(ii) neither the chair of the board nor the president, if a director, is willing to chair the meeting, or

(iii) the chair of the board and the president, if a director, have advised the secretary, if any, or any other director, that they will not be present at the meeting.

13.3 Voting at meetings

Questions arising at any meeting of directors are to be decided by a majority of votes and, in the case of an equality of votes, the chair of the meeting does not have a second or casting vote.

13.4 Meetings by telephone or other communications medium

A director may participate in a meeting of the directors or of any committee of the directors in person, or by telephone or other communications medium, if all directors participating in the meeting are able to communicate with each other. A director may participate in a meeting of the directors or of any committee of the directors by a communications medium other than telephone if all directors participating in the meeting, whether in person or by telephone or other communications medium, are able to communicate with each other and if all directors who wish to participate in the meeting agree to such participation. A director who participates in a meeting in a manner contemplated by this Article 13.4 is deemed for all purposes of the *Business Corporations Act* and these Articles to be present at the meeting and to have agreed to participate in that manner.

13.5 Who may call extraordinary meetings

A director may call a meeting of the board at any time. The secretary, if any, must on request of a director, call a meeting of the board.

13.6 Notice of extraordinary meetings

Subject to Articles 13.7 and 13.8, if a meeting of the board is called under Article 13.5, 24 hours' notice of that meeting, specifying the place, date and time of that meeting, must be given to each of the directors:

(a) by mail addressed to the director's address as it appears on the books of the Corporation or to any other address provided to the Corporation by the director for this purpose;

(b) by leaving it at the director's prescribed address or at any other address provided to the Corporation by the director for this purpose; or

(c) orally, by delivery of written notice or by telephone, voice mail, e-mail, fax or any other method of legibly transmitting messages.

13.7 When notice not required

It is not necessary to give notice of a meeting of the directors to a director if:

(a) the meeting is to be held immediately following a meeting of shareholders at which that director was elected or appointed or is the meeting of the directors at which that director is appointed;

(b) the director has filed a waiver under Article 13.9; or

(c) the director attends such meeting.

13.8 Meeting valid despite failure to give notice

The accidental omission to give notice of any meeting of directors to any director, or the non-receipt of any notice by any director, does not invalidate any proceedings at that meeting.

13.9 Waiver of notice of meetings

Any director may file with the Corporation a notice waiving notice of any past, present or future meeting of the directors and may at any time withdraw that waiver with respect to meetings of the directors held after that withdrawal.

13.10 Effect of waiver

After a director files a waiver under Article 13.9 with respect to future meetings of the directors, and until that waiver is withdrawn, notice of any meeting of the directors need not be given to that director unless the director otherwise requires in writing to the Corporation.

13.11 Quorum

The quorum necessary for the transaction of the business of the directors may be set by the directors and, if not so set, is a majority of the directors. If quorum is not present at a meeting of directors, no business may be conducted at the meeting except that a majority of directors present at the meeting may adjourn the meeting to a fixed time and place.

13.12 If only one director

If, in accordance with Article 11.1, the number of directors is one, the quorum necessary for the transaction of the business of the directors is one director, and that director may constitute a meeting.

PART 14 – COMMITTEES OF DIRECTORS

14.1 Appointment of committees

The directors may, by resolution:

(a) appoint one or more committees consisting of the director or directors that they consider appropriate or other persons;

(b) delegate to a committee appointed under paragraph (a) any of the directors' powers, except:

(i) the power to fill vacancies in the board,

(ii) the power to change the membership of, or fill vacancies in, any committee of the board, and

(iii) the power to appoint or remove officers appointed by the board; and

(c) make any delegation referred to in paragraph (b) subject to the conditions set out in the resolution.

14.2 Obligations of committee

Any committee formed under Article 14.1, in the exercise of the powers delegated to it, must:

(a) conform to any rules that may from time to time be imposed on it by the directors; and

(b) report every act or thing done in exercise of those powers to the earliest meeting of the directors to be held after the act or thing has been done.

14.3 Powers of board

The board may, at any time:

(a) revoke the authority given to a committee, or override a decision made by a committee, except as to acts done before such revocation or overriding;

(b) terminate the appointment of, or change the membership of, a committee; and

(c) fill vacancies in a committee.

14.4 Committee meetings

Subject to Article 14.2(a):

(a) the members of a directors' committee may meet and adjourn as they think proper;

(b) a directors' committee may elect a chair of its meetings but, if no chair of the meeting is elected, or if at any meeting the chair of the meeting is not present within 15 minutes after the time set for holding the meeting, the directors present who are members of the committee may choose one of their number to chair the meeting;

(c) a majority of the members of a directors' committee constitutes a quorum of the committee; and

(d) questions arising at any meeting of a directors' committee are determined by a majority of votes of the members present, and in case of an equality of votes, the chair of the meeting has no second or casting vote.

PART 15 – OFFICERS

15.1 Appointment of officers

The board may, from time to time, appoint a president, secretary or any other officers that it considers necessary or desirable, and none of the individuals appointed as officers need be a member of the board.

15.2 Functions, duties and powers of officers

The board may, for each officer:

(a) determine the functions and duties the officer is to perform;

(b) entrust to and confer on the officer any of the powers exercisable by the directors on such terms and conditions and with such restrictions as the directors think fit; and

(c) from time to time revoke, withdraw, alter or vary all or any of the functions, duties and powers of the officer.

15.3 Remuneration

All appointments of officers are to be made on the terms and conditions and at the remuneration (whether by way of salary, fee, commission, participation in profits or otherwise) that the board thinks fit and are subject to termination at the pleasure of the board.

PART 16 – CERTAIN PERMITTED ACTIVITIES OF DIRECTORS

16.1 Other office of director

A director may hold any office or place of profit with the Corporation (other than the office of auditor of the Corporation) in addition to his or her office of director for the period and on the terms (as to remuneration or otherwise) that the directors may determine.

16.2 No disqualification

No director or intended director is disqualified by his or her office from contracting with the Corporation either with regard to the holding of any office or place of profit the director holds with the Corporation or as vendor, purchaser or otherwise.

16.3 Professional services by director or officer

Subject to compliance with the provisions of the *Business Corporations Act*, a director or officer of the Corporation, or any corporation or firm in which that individual has an interest, may act in a professional capacity for the Corporation, except as auditor of the Corporation, and the director or officer or such corporation or firm is entitled to remuneration for professional services as if that individual were not a director or officer.

16.4 Remuneration and benefits received from certain entities

A director or officer may be or become a director, officer or employee of, or may otherwise be or become interested in, any corporation, firm or entity in which the Corporation may be interested as a shareholder or otherwise, and, subject to compliance with the provisions of the *Business Corporations Act*, the director or officer is not accountable to the Corporation for any remuneration or other benefits received by him or her as director, officer or employee of, or from his or her interest in, such other corporation, firm or entity.

PART 17 – INDEMNIFICATION

17.1 Indemnification of directors

The directors must cause the Corporation to indemnify its directors and officers and former directors and officers, and their respective heirs and personal or other legal representatives to the greatest extent permitted by Division 5 of Part 5 of the *Business Corporations Act*.

17.2 Deemed contract

Each director and officer, as applicable, is deemed to have contracted with the Corporation on the terms of the indemnity referred to in Article 17.1.

PART 18 – AUDITOR

18.1 Remuneration of an auditor

The directors may set the remuneration of the auditor of the Corporation without the prior approval of the shareholders.

18.2 Waiver of appointment of an auditor

The Corporation shall not be required to appoint an auditor if all of the shareholders of the Corporation, whether or not their shares otherwise carry the right to vote, resolve by a unanimous resolution to waive the appointment of an auditor. Such waiver may be given before, on or after the date on which an auditor is required to be appointed under the *Business Corporations Act*, and is effective for one financial year only.

PART 19 – DIVIDENDS

19.1 Declaration of dividends

Subject to the rights, if any, of shareholders holding shares with special rights as to dividends, the directors may from time to time declare and authorize payment of any dividends the directors consider appropriate.

19.2 No notice required

The directors need not give notice to any shareholder of any declaration under Article 19.1.

19.3 Directors may determine when dividend payable

Any dividend declared by the directors may be made payable on such date as is fixed by the directors.

19.4 Dividends to be paid in accordance with number of shares

Subject to the rights of shareholders, if any, holding shares with special rights as to dividends, all dividends on shares of any class or series of shares must be declared and paid according to the number of such shares held.

19.5 Manner of paying dividend

A resolution declaring a dividend may direct payment of the dividend wholly or partly by the distribution of specific assets or of paid up shares or fractional shares, bonds, debentures or other debt obligations of the Corporation, or in any one or more of those ways, and, if any difficulty arises in regard to the distribution, the directors may settle the difficulty as they consider expedient, and, in particular, may set the value for distribution of specific assets.

19.6 Dividend bears no interest

No dividend bears interest against the Corporation.

19.7 Fractional dividends

If a dividend to which a shareholder is entitled includes a fraction of the smallest monetary unit of the currency of the dividend, that fraction may be disregarded in making payment of the dividend and that payment represents full payment of the dividend.

19.8 Payment of dividends

Any dividend or other distribution payable in cash in respect of shares may be paid by cheque, made payable to the order of the person to whom it is sent, and mailed:

(a) subject to paragraphs (b) and (c), to the address of the shareholder;

(b) subject to paragraph (c), in the case of joint shareholders, to the address of the joint shareholder whose name stands first on the central securities register in respect of the shares; or

(c) to the person and to the address as the shareholder or joint shareholders may direct in writing.

19.9 Receipt by joint shareholders

If several persons are joint shareholders of any share, any one of them may give an effective receipt for any dividend, bonus or other money payable in respect of the share.

PART 20 – ACCOUNTING RECORDS

20.1 Recording of financial affairs

The board must cause adequate accounting records to be kept to record properly the financial affairs and condition of the Corporation and to comply with the provisions of the *Business Corporations Act*.

PART 21 – EXECUTION OF INSTRUMENTS

21.1 Who may attest seal

The Corporation's seal, if any, must not be impressed on any record except when that impression is attested by the signature or signatures of:

(a) any 2 directors;

(b) any officer, together with any director;

(c) if the Corporation has only one director, that director; or

(d) any one or more directors or officers or persons as may be determined by resolution of the directors.

21.2 Sealing copies

For the purpose of certifying under seal a true copy of any resolution or other document, the seal must be impressed on that copy and, despite Article 21.1, may be attested by the signature of any director or officer.

21.3 Execution of documents not under seal

Any instrument, document or agreement for which the seal need not be affixed may be executed, including through the use of electronic signature, for and on behalf of and in the name of the Corporation by any one director or officer of the Corporation, or by any other person appointed by the directors for such purpose.

PART 22 – NOTICES

22.1 Method of giving notice

Unless the *Business Corporations Act* or these Articles provides otherwise, a notice, statement, report or other record required or permitted by the *Business Corporations Act* or these Articles to be sent by or to a person may be sent by any one of the following methods:

(a) mail addressed to the person at the applicable address for that person as follows:

(i) for a record mailed to a shareholder, the shareholder's registered address,

(ii) for a record mailed to a director or officer, the prescribed address for mailing shown for the director or officer in the records kept by the Corporation or the mailing address provided by the recipient for the sending of that record or records of that class, or

(iii) in any other case, the mailing address of the intended recipient;

(b) delivery at the applicable address for that person as follows, addressed to the person:

(i) for a record delivered to a shareholder, the shareholder's registered address,

(ii) for a record delivered to a director or officer, the prescribed address for delivery shown for the director or officer in the records kept by the Corporation or the delivery address provided by the recipient for the sending of that record or records of that class,

(iii) in any other case, the delivery address of the intended recipient;

(c) sending the record by fax to the fax number provided by the intended recipient for the sending of that record or records of that class;

(d) sending the record by email to the email address provided by the intended recipient for the sending of that record or records of that class;

(e) physical delivery to the intended recipient; or

(f) such other manner of delivery as is permitted by applicable legislation governing electronic delivery.

22.2 Deemed receipt

A record that is mailed to a person by ordinary mail to the applicable address for that person referred to in Article 22.1 is deemed to be received by the person to whom it was mailed on the day, Saturdays, Sundays and holidays excepted, following the date of mailing.

A record that is sent by facsimile transmission or electronic document shall be deemed to have been received when sent or provided to a designated information system.

22.3 Certificate of sending

A certificate signed by the secretary, if any, or other officer of the Corporation or of any other corporation acting in that behalf for the Corporation stating that a notice, statement, report or other record was addressed as required by Article 22.1, prepaid and mailed or otherwise sent as permitted by Article 22.1 is conclusive evidence of that fact.

22.4 Notice to joint shareholders

A notice, statement, report or other record may be provided by the Corporation to the joint registered shareholders of a share by providing the notice to the joint registered shareholder first named in the central securities register in respect of the share.

22.5 Notice to trustees

A notice, statement, report or other record may be provided by the Corporation to the persons entitled to a share in consequence of the death, bankruptcy or incapacity of a shareholder by:

(a) mailing the record, addressed to them:

(i) by name, by the title of the legal personal representative of the deceased or incapacitated shareholder, by the title of trustee of the bankrupt shareholder or by any similar description, and

(ii) at the address, if any, supplied to the Corporation for that purpose by the persons claiming to be so entitled; or

(b) if an address referred to in Article 22.5(a)(ii) has not been supplied to the Corporation, by giving the notice in a manner in which it might have been given if the death, bankruptcy or incapacity had not occurred.

PART 23 – RESTRICTION ON SHARE TRANSFER

23.1 Application

Article 23.2 does not apply to the Corporation if and for so long as it is a public company.

23.2 Consent required for transfer

No shares may be sold, transferred or otherwise disposed of without the consent of the directors and the directors are not required to give any reason for refusing to consent to any such sale, transfer or other disposition.

PART 24 - SPECIAL RIGHTS AND RESTRICTIONS

24.1 Preferred shares issuable in series

The preferred shares may include one or more series and, subject to the *Business Corporations Act*, the directors may, by resolution, if none of the shares of that particular series are issued, alter the Articles of the Corporation and authorize the alteration of the Notice of Articles of the Corporation, as the case may be, to fix the number of preferred shares and, in addition thereto, determine the designation, rights, privileges, restrictions and conditions attaching to the preferred shares of, such series, including without limitation:

(a) the issue price per share, which may be expressed in a foreign currency, provided that the issue price per share shall not be less than C$1.00 (or its equivalent in a foreign currency at the date of issuance) or more than C$100.00 (or its equivalent in a foreign currency at the date of issuance);

(b) the rate, amount or method of calculation of dividends, including whether such rate, amount or method shall be subject to change or adjustment in the future;

(c) the method of payment of dividends, including whether such dividends shall be cumulative, non-cumulative, partially cumulative, deferred or payable on some other basis;

(d) the date or dates, manner and currency or currencies of payment of dividends;

(e) the restrictions, if any, on the payments of dividends on any Junior Shares (as defined below);

(f) the rights and obligations, if any, of the Corporation to redeem or purchase the shares, including the prices and other terms of redemption or purchase;

(g) the terms of any share purchase plan or sinking or similar fund providing for the purchase or redemption of the shares;

(h) the rights, if any, of the holders of the shares to retract the shares, including the prices and other terms of retraction;

(i) the rights, if any, of the holders of the shares or the Corporation to convert or exchange the shares for other securities of the Corporation or any other entity and the rates and other terms of conversion or exchange;

(j) the voting rights, if any, attached to the shares; and

(k) the preferences, if any, of the shares over any Junior Shares with respect to the distribution of assets of the Corporation in the event of liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary, or in the event of any other distribution of the property or assets of the Corporation among its shareholders for the purpose of winding-up its affairs, whether voluntary or involuntary.

For the purposes of this Part 24, "**Junior Shares**" means the common shares and any other shares of the Corporation ranking junior to the preferred shares with respect to the payment of dividends and with respect to the distribution of assets in the event of the liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary, or in the event of any other distribution of the property or assets of the Corporation among its shareholders for the purpose of winding-up its affairs, whether voluntary or involuntary.

24.2 Voting Rights

Except where the rights, privileges, restrictions and conditions attaching to a series of preferred shares otherwise provide, the holders of the preferred shares shall not be not entitled as such to receive notice of, or to attend or vote at, a meeting of the shareholders of the Corporation. Except where the rights, privileges, restrictions and conditions attaching to a series of preferred shares otherwise provide, on any poll taken at any meeting of the holders of preferred shares, whether as a class or a series or two or more series, each holder of preferred shares entitled to vote at the meeting shall have one one-hundredth of a vote in respect of each C$1.00 (or its equivalent in a foreign currency at the date of issuance) of the issue price for each preferred share held. Except where the rights, privileges, restrictions and conditions attaching to a series of preferred shares otherwise provide, the formalities to be observed with respect to the giving of notice of, and voting at, any meeting of holders of preferred shares, including without limitation, the quorum therefor, shall be the quorum prescribed by the Articles of the Corporation with respect to meetings of shareholders, as amended from time to time.

24.3 No Voting Required

Subject to the rights, privileges, restrictions and conditions attaching to a series of preferred shares, the Corporation may, without the approval or consent of the holders of the preferred shares voting separately as a class or series, at any time and from time to time:

(a) create one or more other classes of shares ranking on a parity with the preferred shares with respect to the payment of dividends or the distribution of assets in the event of the liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary, or in the event of any other distribution of the property or assets of the Corporation among its shareholders for the purpose of winding-up its affairs, whether voluntary or involuntary;

(b) if all dividends on each outstanding series of preferred shares accrued to the most recently preceding date for the payment of dividends on such series shall have been declared and paid or set apart for payment, create one or more other classes of shares ranking superior to the preferred shares with respect to the payment of dividends or the distribution of assets in the event of the liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary, or in the event of any other distribution of the property or assets of the Corporation among its shareholders for the purpose of winding-up its affairs, whether voluntary or involuntary;

(c) increase any maximum number of authorized shares of any other class of shares; and

(d) effect an exchange, reclassification or cancellation of all or part of the preferred shares.

24.4 Liquidation, Dissolution or Winding-Up

In the event of the liquidation, dissolution or winding-up of the Corporation, whether voluntary or involuntary, or in the event of any other distribution of the property or assets of the Corporation among its shareholders for the purpose of winding-up its affairs, whether voluntary or involuntary, before any amount shall be paid to, or any property distributed among, the holders of the common shares, the holders of the preferred shares shall be entitled to receive:

(a) the amount paid up on such shares or such other amount or amounts as have been provided for with respect to such shares;

(b) the premium, if any, provided for with respect to such shares;

(c) in the case of shares entitled to cumulative dividends, any unpaid cumulative dividends on such shares; and

(d) in the case of shares entitled to non-cumulative dividends, any declared but unpaid non-cumulative dividends on such shares.

After payment of the amounts payable to them, the holders of the preferred shares shall not be entitled to share in any further distribution of the property or assets of the Corporation.

24.5 No Pre-Emptive Rights

The holders of the preferred shares shall not be entitled as such to subscribe for, purchase or receive any part of any issue of securities of the Corporation, now or hereafter authorized, or any rights to acquire the same, otherwise than in accordance with any conversion, exchange or other rights which may from time to time be attached to any series of preferred shares.

Full Name and Signature of Director	Date of Signing
/s/ Shawn (Xiaohua) Qu **Signature** Shawn (Xiaohua) Qu **Name**	July 23, 2020

ZQ|CERT#|COY|CLS|RGSTRY|ACCT#|TRANSTYPE|RUN#|TRANS#

Canadian Solar Inc.

PO BOX 505000, Louisville, KY 40233-5006

MR A SAMPLE
DESIGNATION (IF ANY)
ADD 1
ADD 2
ADD 3
ADD 4

CUSIP/IDENTIFIER
Holder ID
Insurance Value
Number of Shares
DTC

XXXXXX XX X
XXXXXXXXXX
1,000,000.00
12345678 12345678901 12345

Certificate Numbers	Num	Denom.	Total
12345678901234567890	1	1	1
12345678901234567890	2	2	2
12345678901234567890	3	3	3
12345678901234567890	4	4	4
12345678901234567890	5	5	5
12345678901234567890	6	6	6
Total Transaction			7

COMMON STOCK
NO PAR VALUE

COMMON STOCK

Certificate Number
ZQ00000000

Shares

CANADIAN SOLAR INC.
CONTINUED UNDER THE LAWS OF THE PROVINCE OF BRITISH COLUMBIA

SEE REVERSE FOR CERTAIN DEFINITIONS

THIS CERTIFIES THAT

MR. SAMPLE & MRS. SAMPLE &
MR. SAMPLE & MRS. SAMPLE

CUSIP 136635 10 9

is the owner of

ZERO HUNDRED THOUSAND
ZERO HUNDRED AND ZERO

THIS CERTIFICATE IS TRANSFERABLE IN CITIES DESIGNATED BY THE TRANSFER AGENT, AVAILABLE ONLINE AT www.computershare.com

FULLY-PAID AND NON-ASSESSABLE COMMON SHARES, WITH NO PAR VALUE, OF

CANADIAN SOLAR INC.

transferable on the books of the Company by the holder hereof, in person, or by duly authorized attorney upon the surrender of this Certificate properly endorsed. The shares represented by this Certificate are subject to provisions of the articles of incorporation and by-laws of the Company as from time to time amended or restated. This Certificates is not valid until countersigned by the Transfer Agent and registered by the Registrar.

Witness the facsimile signatures of its duly authorized officers.

DATED DD-MMM-YYYY

COUNTERSIGNED AND REGISTERED:
COMPUTERSHARE TRUST COMPANY, N.A.
TRANSFER AGENT AND REGISTRAR,

Chairman and Chief Executive Officer

CANADIAN SOLAR INC.
BRITISH COLUMBIA CORPORATION

By _____
AUTHORIZED SIGNATURE

SECURITY INSTRUCTIONS ON REVERSE

1234567

CANADIAN SOLAR INC.

THE COMPANY IS AUTHORIZED TO ISSUE MORE THAN ONE CLASS OR SERIES OF SHARES. UPON WRITTEN REQUEST, THE COMPANY WILL FURNISH WITHOUT CHARGE TO EACH SHAREHOLDER WHO SO REQUESTS THE POWERS, DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL OR OTHER SPECIAL RIGHTS OF EACH CLASS OF SHARES OR SERIES THEREOF AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH PREFERENCES AND/OR RIGHTS.

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM	- as tenants in common	UNIF GIFT MIN ACT	- ..... (Cust) Custodian ..... (Minor) under Uniform Gifts to Minors Act ..... (State)
TEN ENT	- as tenants by the entireties		
JT TEN	- as joint tenants with right of survivorship and not as tenants in common	UNIF TRF MIN ACT	- ..... (Cust) Custodian (until age .....) ..... (Minor) under Uniform Transfers to Minors Act ..... (State)

Additional abbreviations may also be used though not in the above list.

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE

For value received, _____ hereby sell, assign and transfer unto

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING POSTAL ZIP CODE, OF ASSIGNEE)

_____

_____

_____ Shares

represented by the within Certificate, and do hereby irrevocably constitute and appoint

_____ Attorney

to transfer the said stock on the books of the within-named Company with full power of substitution in the premises.

Dated: _____ 20____

Signature: _____

Signature: _____

Notice: The signature to this assignment must correspond with the name as written upon the face of the certificate, in every particular, without alteration or enlargement, or any change whatever.

Signature(s) Guaranteed: Medallion Guarantee Stamp

THE SIGNATURE(S) SHOULD BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (Banks, Stockbrokers, Savings and Loan Associations and Credit Unions) WITH MEMBERSHIP IN AN APPROVED SIGNATURE GUARANTEE MEDALLION PROGRAM, PURSUANT TO S.E.C. RULE 17Ad-15

Exhibit 2.2

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Canadian Solar Inc. ("we," "us," "our company," or "our") has the following securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934 (the "Exchange Act"):

Title of each class registered as of the end of the period covered by the annual report	Trading symbol	Name of each exchange on which registered
Common shares with no par value	CSIQ	Nasdaq Global Select Market

This exhibit contains a description of the rights of the holders of our common shares. The following summary is subject to and qualified in its entirety by our notice of articles, as amended from time to time, (the "notice of articles"), our articles as effective from time to time (the "articles"), and by applicable Canadian law, particularly the *Business Corporations Act* (British Columbia) (the "BCBCA"). This is not a summary of all the significant provisions of the notice of articles, articles or of applicable Canadian law and does not purport to be complete. Capitalized terms used but not defined herein have the meanings given to them in our annual report on Form 20-F to which this description of securities registered under section 12 of the Exchange Act is an exhibit.

Item 9. General

Item 9.A.3 Pre-emptive rights

Our common shares do not contain any pre-emptive purchase rights to any of our securities.

Item 9.A.5 Type and class of securities

Our class of common shares are registered with the U.S. Securities and Exchange Commission. We may issue an unlimited number of common shares, without par value. Other than under applicable securities laws, there are no restrictions on the transferability of our common shares.

Item 9.A.6 Limitations or qualifications

Our board of directors has the authority to issue an unlimited number of preferred shares in one or more series, and may fix the designations, preferences, powers and other rights of the shares of a series of preferred shares in certain circumstances, see Items 9.A.7 below. Due to the issuance of preferred shares, the rights of our common shares, including their voting power, may be materially limited.

Item 9.A.7 Rights of other types of securities

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. Subject to the BCBCA, our board of directors may, if none of the shares of that particular series are issued, 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.

Item 10.B Articles

Item 10.B.3 Shareholder rights

Dividends

Holders of our common shares are entitled to receive, from funds legally available therefor, dividends when and as declared by the board of directors, subject to any prior rights of the holders of our preferred shares if issued. The BCBCA provides that a corporation may not declare or pay a dividend if there are reasonable grounds for believing that the corporation is, or would be after the payment of the dividend, unable to pay its debts as they become due in the ordinary course of its business. These rights are subject to the rights, privileges, restrictions and conditions attaching to any other series or class of shares ranking senior in priority to or on a pro rata basis with the holders of common shares with respect to dividends.

Voting rights

The holders of common shares are entitled to receive notice of and to attend and vote at all meetings of our shareholders and each common share confers the right to one vote in person or by proxy at all meetings of our shareholders.

Liquidation

With respect to a distribution of assets in the event of our liquidation, dissolution or winding-up, whether voluntary or involuntary, or any other distribution of our assets for the purposes of winding up our affairs, assets available for distribution among the holders of common shares shall be distributed among the holders of the common shares on a pro rata basis, subject to any prior rights of the holders of our preferred shares if issued.

There are no provisions in our articles discriminating against any existing or prospective shareholder as a result of such shareholder owning a substantial number of our common shares. Our common shares are not subject to liability to further capital calls by our company. Also, no provisions or rights exist in our articles regarding our common shares in connection with exchange, redemption, retraction, purchase for cancellation, surrender or sinking or purchase funds.

Item 10.B.4 Changes to shareholder rights

All or any of the rights attached to our common shares, or any other class of shares duly authorized may, subject to the provisions of our articles the BCBCA, be varied either with the unanimous written consent of the holders of the issued shares of that class or by a special resolution passed at a meeting of the holders of the shares of that class. A “special resolution” means a resolution passed by not less than two-thirds of the votes cast by the shareholders entitled to vote on the resolution at a meeting at which a quorum is present.

Item 10.B.6 Limitations on shareholder rights

There are no limitations under the BCBCA or in the organizational documents of our company on the rights of shareholders who are not residents of Canada to hold and vote common shares.

Other Canadian law considerations with respect to ownership and exchange controls

Competition Act

Limitations on the ability to acquire and hold our common shares may be imposed by the Competition Act (Canada). This legislation establishes a pre-merger notification regime for certain types of merger transactions that exceed certain statutory shareholding and financial thresholds. Transactions that are subject to notification cannot be closed until the required materials are filed and the applicable statutory waiting period has expired or been waived by the Commissioner of Competition, or the Commissioner. Further, the Competition Act (Canada) permits the Commissioner to review any acquisition of control over or of a significant interest in us, whether or not it is subject to mandatory notification. This legislation grants the Commissioner jurisdiction, for up to one year, to challenge this type of acquisition before the Canadian Competition Tribunal if it would, or would be likely to, substantially prevent or lessen competition in any market in Canada.

Investment Canada Act

The Investment Canada Act requires notification and, in certain cases, advance review and approval by the Government of Canada, through the Minister of Innovation, Science and Industry (the "**Minister**")**,** of an investment to establish a new Canadian business by a non-Canadian or of the acquisition by a non-Canadian of "control" of a "Canadian business", all as defined in the Investment Canada Act. Generally, the threshold for advance review and approval will be higher in monetary terms for an investor who is controlled in a country that is a member of the World Trade Organization and who is not a state-owned enterprise. The Investment Canada Act generally prohibits the implementation of such a reviewable transaction unless, after review, the Minister is satisfied that the investment is likely to be of net benefit to Canada. The Investment Canada Act contains various rules to determine if there has been an acquisition of control. For example, for purposes of determining whether an investor has acquired control of a corporation by acquiring shares, the following general rules apply, subject to certain exceptions: (1) the acquisition of a majority of the voting shares of a corporation is deemed to be acquisition of control of that corporation; (2) the acquisition of less than a majority but one-third or more of the voting shares of a corporation is presumed to be an acquisition of control of that corporation unless it can be established that, on the acquisition, the corporation is not controlled in fact by the acquiror through the ownership of voting shares; and (3) the acquisition of less than one-third of the voting shares of a corporation is deemed not to be acquisition of control of that corporation.

In addition, under the Investment Canada Act, "national security" review on a discretionary basis may also be undertaken by the federal Canadian government in respect of a much broader range of investments by a non-Canadian to "acquire, in whole or in part, or to establish an entity carrying on all or any part of its operations in Canada", with the relevant test being whether the Minister has "reasonable grounds to believe that an investment by a non-Canadian could be injurious to national security." The Minister has broad discretion to determine whether an investor is a non-Canadian and therefore may be subject to "national security" review. Review on national security grounds is at the discretion of the federal government and may occur on a pre- or post-closing basis. If the Minister, after consultation with the Minister of Public Safety and Emergency Preparedness, considers that the investment could be injurious to "national security", the Minister refers the investment to the Governor in Council. On referral of an investment, if the Governor in Council determines the investment could be injurious to "national security", the Governor in Council may takes any measures in respect of the investment that it considers advisable to protect national security, including denying the investment, asking for undertakings, imposing terms or conditions for the investment, or ordering divestiture (if the investment has been completed). Any of these provisions may discourage a potential acquirer from proposing or completing a transaction that may have otherwise presented a premium to our shareholders. We cannot predict whether investors will find our company and our common shares less attractive because we are governed by foreign laws.

Item 10.B.7 Change in control

There are no provisions in our articles or in the BCBCA that would have an effect of delaying, deferring or preventing a change in control of our company which would operate with respect to a merger, acquisition or corporate restructuring involving our company or any of our subsidiaries. Please see Item 9.A.7 regarding the preferred shares issuable in series.

Item 10.B.8 Ownership disclosure threshold for our common shares

Our articles do not have any specific threshold requiring disclosure of ownership by holders of our common shares. In addition, the BCBCA and securities regulation in Canada requires that we disclose in our proxy information circular for our annual general meeting and certain other disclosure documents filed by us under such regulation, holders who beneficially own more than 10% of our issued and outstanding common shares.

Item 10.B.9 Differences in the law

See Items 10.B.3, 10.B.4, 10.B.6, 10.B.7, 10.B.8 above.

Item 10.B.10 Changes in capital

The requirements imposed by our articles governing changes in capital are not more stringent than is required by applicable laws, including the BCBCA.

Item 12. Description of securities other than equity securities

Item 12.A Debt securities

Not applicable.

Item 12.B Warrants and rights

Not applicable.

Item 12.C Other securities

Not applicable.

Item 12.D.1 and 12.D.2 Description of American Depositary Shares

Not applicable.

Exhibit 2.3

EXECUTION VERSION

CANADIAN SOLAR INC.

AND

THE BANK OF NEW YORK MELLON,

as Trustee

INDENTURE

Dated as of September 15, 2020

2.50% Convertible Senior Notes due 2025

TABLE OF CONTENTS

EXHIBIT

INDENTURE dated as of September 15, 2020 between CANADIAN SOLAR INC., a British Columbia Business Corporations Act corporation, as issuer (the "**Company**," as more fully set forth in Section 1.01) and THE BANK OF NEW YORK MELLON, a banking corporation organized and existing under the laws of the State of New York with limited liability, as trustee (the "**Trustee**," as more fully set forth in Section 1.01).

W I T N E S S E T H:

WHEREAS, for its lawful corporate purposes, the Company has duly authorized the issuance of its 2.50% Convertible Senior Notes due 2025 initially in an aggregate principal amount not to exceed $230,000,000 subject to Section 2.10 (the "Notes"), and in order to provide the terms and conditions upon which the Notes are to be authenticated, issued and delivered, the Company has duly authorized the execution and delivery of this Indenture; and

WHEREAS, the Form of Note, the certificate of authentication to be borne by each Note, the Form of Notice of Conversion, the Form of Fundamental Change Repurchase Notice and the Form of Assignment and Transfer to be borne by the Notes are to be substantially in the forms hereinafter provided; and

WHEREAS, all acts and things necessary to make the Notes, when executed by the Company and authenticated and delivered by the Trustee or a duly authorized authenticating agent, as in this Indenture provided, the valid, binding and legal obligations of the Company, and this Indenture a valid agreement according to its terms, have been done and performed, and the execution of this Indenture and the issuance hereunder of the Notes have in all respects been duly authorized,

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

That in order to declare the terms and conditions upon which the Notes are, and are to be, authenticated, issued and delivered, and in consideration of the premises and of the purchase and acceptance of the Notes by the Holders thereof, the Company covenants and agrees with the Trustee for the equal and proportionate benefit of the respective Holders from time to time of the Notes (except as otherwise provided below), as follows:

ARTICLE 1
DEFINITIONS

Section 1.01. *Definitions.* The terms defined in this Section 1.01 for all purposes of this Indenture and of any indenture supplemental hereto (except as herein or therein otherwise expressly provided or unless the context otherwise requires) shall have the respective meanings specified in this Section 1.01. All other terms used in this Indenture that are defined in the Trust Indenture Act of 1939 or the definitions of which in the Securities Act of 1933 are referred to in the Trust Indenture Act of 1933 (except as herein otherwise expressly provided or unless the context otherwise clearly requires), shall have the meanings assigned to such terms in said Trust Indenture Act and in said Securities Act as in force at the date of this Indenture. The words "herein," "hereof," "hereunder" and words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision. The terms defined in this Article include the plural as well as the singular.

"**Additional Amounts**" shall have the meaning specified in Section 4.07(a).

"**Additional Interest**" means all amounts, if any, payable pursuant to Section 4.06(d), Section 4.06(e) and Section 6.03, as applicable.

"**Additional Shares**" shall have the meaning specified in Section 14.03(a).

"**Affiliate**" of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, "control," when used with respect to any specified Person means the power to direct or cause the direction of the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing.

"**Applicable PRC Rate**" means (i) in the case of deduction or withholding of People's Republic of China income tax, 10%, (ii) in the case of deduction or withholding of People's Republic of China value added tax (including any related local levies), 6.72%, or (iii) in the case of deduction or withholding of both People's Republic of China income tax and People's Republic of China value added tax (including any related local levies), 16.72%.

"**Board of Directors**" means the board of directors of the Company or a committee of such board duly authorized to act for it hereunder.

"**Board Resolution**" means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors, and to be in full force and effect on the date of such certification, and delivered to the Trustee.

"**Business Day**" means, with respect to any Note, any day other than a Saturday, a Sunday or a day on which banks in New York City are authorized or required by law or executive order to close or be closed.

"**Capital Stock**" means, for any entity, any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) stock issued by that entity.

"**Clause A Distribution**" shall have the meaning specified in Section 14.04(c).

"**Clause B Distribution**" shall have the meaning specified in Section 14.04(c).

"**Clause C Distribution**" shall have the meaning specified in Section 14.04(c).

"**close of business**" means 5:00 p.m. (New York City time).

"**Commission**" means the U.S. Securities and Exchange Commission, as from time to time constituted, created under the Securities Exchange Act of 1934, or if at any time after the execution and delivery of this Indenture such Commission is not existing and performing the duties assigned to it under the Trust Indenture Act of 1939, then the body performing such duties on such date.

"**Common Equity**" of any Person means Capital Stock of such Person that is generally entitled (a) to vote in the election of directors of such Person or (b) if such Person is not a corporation, to vote or otherwise participate in the selection of the governing body, partners, managers or others that will control the management or policies of such Person.

"**Common Shares**" means the common shares of the Company, no par value, at the date of this Indenture, subject to Section 14.07.

"**Company**" shall have the meaning specified in the first paragraph of this Indenture, and subject to the provisions of Article 11, shall include its successors and assigns.

"**Company Order**" means a written order of the Company, signed by the Company's Chief Executive Officer, President, Executive or Senior Vice President or any Vice President (whether or not designated by a number or numbers or word or words added before or after the title "Vice President") and delivered to the Trustee.

"**Conversion Agent**" shall have the meaning specified in Section 4.02.

"**Conversion Date**" shall have the meaning specified in Section 14.02(c).

"**Conversion Obligation**" shall have the meaning specified in Section 14.01.

"**Conversion Price**" means as of any date, $1,000, *divided by* the Conversion Rate as of such date.

"**Conversion Rate**" shall have the meaning specified in Section 14.01.

"**Corporate Trust Office**" means the principal office of the Trustee at which at any time its corporate trust business shall be administered, which office at the date hereof is located at 240 Greenwich Street, New York, NY 10286, USA, Attention: Global Corporate Trust –Canadian Solar Inc.; Facsimile: +1 212 815 5915, and shall include a reference to the Specified Corporate Trust Office or such other address as the Trustee may designate from time to time by notice to the Holders and the Company, or the principal corporate trust office of any successor trustee (or such other address as such successor trustee may designate from time to time by notice to the Holders and the Company).

"**Custodian**" means The Bank of New York Mellon, as custodian for The Depository Trust Company, with respect to the Global Notes, or any successor entity thereto.

"**Default**" means any event that is, or after notice or passage of time, or both, would be, an Event of Default.

"**Defaulted Amounts**" means any amounts on any Note (including, without limitation, the Redemption Price, the Fundamental Change Repurchase Price, principal and interest) that are payable but are not punctually paid or duly provided for.

"**Depositary**" means, with respect to each Global Note, the Person specified in Section 2.05(c) as the Depositary with respect to such Notes, until a successor shall have been appointed and become such pursuant to the applicable provisions of this Indenture, and thereafter, "**Depositary**" shall mean or include such successor.

"**Distributed Property**" shall have the meaning specified in Section 14.04(c).

"**Effective Date**" shall have the meaning specified in Section 14.03(c), except that, as used in Section 14.04, "**Effective Date**" means the first date on which Common Shares trade on the applicable exchange or in the applicable market, regular way, reflecting the relevant share split or share combination, as applicable.

"**Event of Default**" shall have the meaning specified in Section 6.01.

"**Ex-Dividend Date**" means, with respect to any issuance, dividend or distribution to holders of Common Shares, the first date on which Common Shares trade on the applicable exchange or in the applicable market, regular way, without the right to receive the issuance, dividend or distribution in question, from the Company or, if applicable, from the seller of Common Shares on such exchange or market (in the form of due bills or otherwise) as determined by such exchange or market.

"**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

"**Form of Assignment and Transfer**" means the "Form of Assignment and Transfer" attached as Attachment 3 to the Form of Note attached hereto as Exhibit A.

"**Form of Fundamental Change Repurchase Notice**" means the "Form of Fundamental Change Repurchase Notice" attached as Attachment 2 to the Form of Note attached hereto as Exhibit A.

"**Form of Note**" means the "Form of Note" attached hereto as Exhibit A.

"**Form of Notice of Conversion**" means the "Form of Notice of Conversion" attached as Attachment 1 to the Form of Note attached hereto as Exhibit A.

A "**Fundamental Change**" shall be deemed to have occurred at the time after the Notes are originally issued that any of the following occurs:

(a) a "person" or "group" within the meaning of Section 13(d) of the Exchange Act, other than the Company, its Wholly Owned Subsidiaries and the employee benefit plans of the Company and its Wholly Owned Subsidiaries, has become the direct or indirect "beneficial owner," as defined in Rule 13d-3 under the Exchange Act, of the Company's Common Equity representing more than 50% of the voting power of the Company's Common Equity;

(b) the consummation of (A) any recapitalization, reclassification or change of the Common Shares (other than changes resulting from a subdivision or combination) as a result of which the Common Shares would be converted into, or exchanged for, stock, other securities, other property or assets; (B) any share exchange, consolidation, merger or similar transaction involving the Company pursuant to which the Common Shares will be converted into cash, securities or other property; or (C) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of the Company and its Subsidiaries, taken as a whole, to any Person other than one of the Company's Wholly Owned Subsidiaries; *provided*, *however*, that a transaction of the type set forth in clause (B) in which the holders of all classes of the Company's Common Equity immediately prior to such transaction (each such holder, a "**PreTransaction Holder**") own, directly or indirectly, more than 50% of all classes of Common Equity of the continuing or surviving corporation or transferee or the parent thereof immediately after such event shall not be a Fundamental Change pursuant to this clause (b), so long as the proportion of the respective ownership of each Pre-Transaction Holder remains substantially the same relative to all other Pre-Transaction Holders;

(c) the shareholders of the Company approve any plan or proposal for the liquidation or dissolution of the Company; or

(d) the Common Shares (or other common stock underlying the Notes) ceases to be listed or quoted on any of The New York Stock Exchange, The Nasdaq Global Select Market or The Nasdaq Global Market (or any of their respective successors) (any such exchange, a "**Permitted Exchange**"); *provided*, *however*, that a transaction or transactions that constitute a Fundamental Change as a result of solely clause (b) above, or both of clauses (a) and (b) above, shall not be deemed to have occurred for purposes of this Fundamental Change definition if at least 90% of the consideration received or to be received by the common stockholders of the Company, excluding cash payments for fractional shares and cash payments made pursuant to dissenters' appraisal rights, in connection with such transaction or transactions consists of shares of common stock that are listed or quoted on any Permitted Exchange or will be so listed or quoted when issued or exchanged in connection with such transaction or transactions and as a result of such transaction or transactions the Notes become convertible into such consideration, excluding cash payments for fractional shares. The Trustee shall not be required to take any steps to ascertain whether a Fundamental Change or any event which could lead to a Fundamental Change has occurred and shall not be liable to any Person for any failure to do so.

"**Fundamental Change Company Notice**" shall have the meaning specified in Section 15.02(c).

"**Fundamental Change Repurchase Date**" shall have the meaning specified in Section 15.02(a).

"**Fundamental Change Repurchase Notice**" shall have the meaning specified in Section 15.02(b)(i).

"**Fundamental Change Repurchase Price**" shall have the meaning specified in Section 15.02(a).

"**Global Note**" shall have the meaning specified in Section 2.05(b).

"**Holder**," as applied to any Note, or other similar terms (but excluding the term "beneficial holder"), means any Person in whose name at the time a particular Note is registered on the Note Register.

"**Indenture**" means this instrument as originally executed or, if amended or supplemented as herein provided, as so amended or supplemented.

"**Interest Payment Date**" means each April 1 and October 1 of each year, beginning on April 1, 2021.

The "**Last Reported Sale Price**" of the Common Shares on any date means the closing sale price per share (or if no closing sale price is reported, the average of the bid and ask prices or, if more than one in either case, the average of the average bid and the average ask prices) on that date as reported in composite transactions for the Relevant Stock Exchange. If the Common Shares are not listed or quoted on any U.S. securities exchange or other market on the relevant date, the "**Last Reported Sale Price**" shall be the average of the mid-point of the last bid and ask prices for the Common Shares on the relevant date from each of at least three nationally recognized independent investment banking firms selected by the Company for this purpose.

"**Make-Whole Fundamental Change**" means any transaction or event that constitutes a Fundamental Change (as defined above and determined after giving effect to any exceptions to or exclusions from such definition, but without regard to the *proviso* in clause (b) of the definition thereof).

"**Maturity Date**" means October 1, 2025.

"**Merger Event**" shall have the meaning specified in Section 14.07(a).

"**Note**" or "**Notes**" shall have the meaning specified in the first paragraph of the recitals of this Indenture.

"**Notes Fungibility Date**" means the date, if any, following the Resale Restriction Termination Date on which all of the Rule 144A Notes and all of the Regulation S Notes (excluding any such Notes held by Persons who are, or during the three months immediately preceding have been, Affiliates of the Company) are no longer Restricted Securities, do not bear the restrictive legend required by Section 2.05(c), are fungible for U.S. securities law purposes and are assigned an identical, unrestricted CUSIP number.

"**Note Register**" shall have the meaning specified in Section 2.05(a).

"**Notice of Conversion**" shall have the meaning specified in Section 14.02(b).

"**Offering Memorandum**" means the offering memorandum dated September 10, 2020, relating to the offering and sale of the Notes.

"**Officer**" means, with respect to the Company, the President, the Chief Executive Officer, the Treasurer, the Secretary, any Executive or Senior Vice President or any Vice President (whether or not designated by a number or numbers or word or words added before or after the title "Vice President").

"**Officers' Certificate**," when used with respect to the Company, means a certificate that is delivered to the Trustee and that is signed by (a) two Officers of the Company or (b) one Officer of the Company and one of the Treasurer, any Assistant Treasurer, the Secretary, any Assistant Secretary or the Controller of the Company. Each such certificate shall comply with Section 314 of the Trust Indenture Act of 1939 and, except to the extent provided herein, shall include the statements provided for in Section 18.06. One of the Officers giving an Officers' Certificate pursuant to Section 4.09 shall be the principal executive, financial or accounting officer of the Company.

"**open of business**" means 9:00 a.m. (New York City time).

"**Opinion of Counsel**" means an opinion in writing signed by legal counsel, who may be an employee of or counsel to the Company, or other counsel and such opinion shall be acceptable to the Trustee, that is delivered to the Trustee. Each such opinion shall comply with Section 314 of the Trust Indenture Act of 1939 and shall include the statements provided for in Section 18.07 if and to the extent required by the provisions of such Section 18.07.

"**Optional Redemption**" shall have the meaning specified in Section 16.01.

"**Optional Redemption Date**" shall have the meaning specified in Section 16.02.

"**Optional Redemption Notice**" shall have the meaning specified in Section 16.02.

"**outstanding**," when used with reference to Notes, shall, subject to the provisions of Section 8.04, mean, as of any particular time, all Notes authenticated and delivered by the Trustee under this Indenture, except:

(a) Notes theretofore canceled by the Note Registrar or accepted by the Note Registrar for cancellation;

(b) Notes, or portions thereof, that have become due and payable and in respect of which monies in the necessary amount shall have been deposited in trust with the Trustee or with any Paying Agent (other than the Company) or shall have been set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent);

(c) Notes that have been paid pursuant to Section 2.06 or Notes in lieu of which, or in substitution for which, other Notes shall have been authenticated and delivered pursuant to the terms of Section 2.06 unless proof satisfactory to the Trustee is presented that any such Notes are held by protected purchasers in due course;

(d) Notes converted pursuant to Article 14 and required to be cancelled pursuant to Section 2.08; and

(e) Notes repurchased by the Company pursuant to the penultimate sentence of Section 2.10.

"**Paying Agent**" shall have the meaning specified in Section 4.02.

"**Person**" means an individual, a corporation, a limited liability company, an association, a partnership, a joint venture, a joint stock company, a trust, an unincorporated organization or a government or an agency or a political subdivision thereof.

"**Physical Notes**" means permanent certificated Notes in registered form issued in denominations of $1,000 principal amount and integral multiples thereof.

"**Predecessor Note**" of any particular Note means every previous Note evidencing all or a portion of the same debt as that evidenced by such particular Note; and, for the purposes of this definition, any Note authenticated and delivered under Section 2.06 in lieu of or in exchange for a mutilated, lost, destroyed or stolen Note shall be deemed to evidence the same debt as the mutilated, lost, destroyed or stolen Note that it replaces.

"**QIB**" means a "qualified institutional buyer" (as defined in Rule 144A).

"**Record Date**" means, with respect to any dividend, distribution or other transaction or event in which the holders of Common Shares have the right to receive any cash, securities or other property or in which the Common Shares are exchanged for or converted into any combination of cash, securities or other property, the date fixed for determination of shareholders entitled to receive such cash, securities or other property (whether such date is fixed by the Board of Directors, statute, contract or otherwise).

"**Redemption Price**" means, for any Notes to be redeemed pursuant to Section 16.01 or Section 17.01, 100% of the principal amount of such Notes, *plus* accrued and unpaid interest (including any Additional Amounts), if any, to, but excluding, the Optional Redemption Date or the Tax Redemption Date, as the case may be (unless the Optional Redemption Date or Tax Redemption Date, as the case may be, falls after a Regular Record Date but on or prior to the immediately succeeding Interest Payment Date, in which case the Redemption Price will be equal to 100% of the principal amount of such Notes).

"**Reference Property**" shall have the meaning specified in Section 14.07(a).

"**Regular Record Date**," with respect to any Interest Payment Date, means the March 15 or September 15 (whether or not such day is a Business Day) immediately preceding the applicable April 1 or October 1 Interest Payment Date, respectively.

"**Regulation S**" means Regulation S under the Securities Act or any successor to such regulation.

"**Regulation S Notes**" means (i) the Notes initially offered and sold outside the United States pursuant to Regulation S and (ii) Rule 144A Notes that have been exchanged for Notes bearing the legend applicable to Regulation S Notes in accordance with Section 2.05(a), in each case, for as long as such Notes bear the restrictive legend set forth in Section 2.05(c).

"**Relevant Stock Exchange**" means The Nasdaq Global Select Market or, if the Common Shares are not then listed on The Nasdaq Global Select Market, the principal other United States national or regional securities exchange on which the Common Shares are then listed or, if the Common Shares are not then listed on a United States national or regional securities exchange, the principal other market on which the Common Shares are then traded.

"**Relevant Taxing Jurisdiction**" shall have the meaning set forth in Section 4.07(a).

"**Resale Restriction Termination Date**" shall have the meaning specified in Section 2.05(c).

"**Responsible Officer**" means, when used with respect to the Trustee, any officer within the Corporate Trust Office of the Trustee, including any director, vice president, assistant vice president, assistant secretary, assistant treasurer, trust officer or any other officer of the Trustee located at the Specified Corporate Trust Office who customarily performs functions similar to those performed by the Persons who at the time shall be such officers, respectively, or to whom any corporate trust matter is referred because of such person's knowledge of and familiarity with the particular subject and who shall have direct responsibility for the administration of this Indenture.

"**Restricted Securities**" shall have the meaning specified in Section 2.05(c).

"**Rule 144A**" means Rule 144A as promulgated under the Securities Act.

"**Rule 144A Notes"** means (i) the Notes initially offered and sold to QIBs in reliance on Rule 144A and (ii) Regulation S Notes that have been exchanged for Notes bearing the legend applicable to Rule 144A Notes in accordance with Section 2.05(a), in each case, for as long as such Notes bear the restrictive legend set forth in Section 2.05(c).

"**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"**Significant Subsidiary**" means a Subsidiary of the Company that meets the definition of "significant subsidiary" in Article 1, Rule 1-02 of Regulation S-X under the Exchange Act.

"**Significant Subsidiary Group**" shall have the meaning specified in Section 6.01(j).

"**Specified Corporate Trust Office"** means The Bank of New York Mellon, Hong Kong Branch located at Level 26, Three Pacific Place, 1 Queen's Road East, Hong Kong; Attention: Corporate Trust – Canadian Solar Inc.; Facsimile: +852 2295 3283.

"**Spin-Off**" shall have the meaning specified in Section 14.04(c).

"**Stock Price**" shall have the meaning specified in Section 14.03(c).

"**Subsidiary**" means, with respect to any Person, any corporation, association, partnership or other business entity of which more than 50% of the total voting power of shares of Capital Stock or other interests (including partnership interests) entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers, general partners or trustees thereof is at the time owned or controlled, directly or indirectly, by (i) such Person; (ii) such Person and one or more Subsidiaries of such Person; or (iii) one or more Subsidiaries of such Person.

"**Successor Company**" shall have the meaning specified in Section 11.01(a).

"**Tax Redemption**" shall have the meaning specified in Section 17.01.

"**Tax Redemption Date**" shall have the meaning specified in Section 17.02(a).

"**Tax Redemption Notice**" shall have the meaning specified in Section 17.02(a).

"**Trading Day**" means a day on which (i) trading in the Common Shares (or other security for which a closing sale price must be determined) generally occurs on the Relevant Stock Exchange and (ii) a Last Reported Sale Price for the Common Shares is available on the Relevant Stock Exchange; *provided* that if the Common Shares are not so listed or traded, "**Trading Day**" means a Business Day.

"**transfer**" shall have the meaning specified in Section 2.05(c).

"**Transfer Agent**" shall have the meaning specified in Section 4.02.

"**Trigger Event**" shall have the meaning specified in Section 14.04(c).

"**Trust Indenture Act**" means the Trust Indenture Act of 1939, as amended, as it was in force at the date of execution of this Indenture; *provided*, *however*, that in the event the Trust Indenture Act of 1939 is amended after the date hereof, the term "Trust Indenture Act" shall mean, to the extent required by such amendment, the Trust Indenture Act of 1939, as so amended.

"**Trustee**" means the Person named as the "**Trustee**" in the first paragraph of this Indenture until a successor trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter "**Trustee**" shall mean or include each Person who is then a Trustee hereunder.

"**unit of Reference Property**" shall have the meaning specified in Section 14.07(a).

"**Valuation Period**" shall have the meaning specified in Section 14.04(c).

"**Wholly Owned Subsidiary**" means, with respect to any Person, any Subsidiary of such Person, except that, solely for purposes of this definition, the reference to "50%" in the definition of "Subsidiary" shall be deemed replaced by a reference to "100%".

Section 1.02. *References to Interest.* Unless the context otherwise requires, any reference to interest on, or in respect of, any Note in this Indenture shall be deemed to include Additional Interest if, in such context, Additional Interest is, was or would be payable pursuant to any of Section 4.06(d), Section 4.06(e) and Section 6.03. Unless the context otherwise requires, any express mention of Additional Interest in any provision hereof shall not be construed as excluding Additional Interest in those provisions hereof where such express mention is not made.

ARTICLE 2
ISSUE, DESCRIPTION, EXECUTION, REGISTRATION AND EXCHANGE OF NOTES

Section 2.01. *Designation and Amount.* The Notes shall be designated as the "2.50% Convertible Senior Notes due 2025." The aggregate principal amount of Notes that may be authenticated and delivered under this Indenture is initially limited to $230,000,000, subject to Section 2.10 and except for Notes authenticated and delivered upon registration or transfer of, or in exchange for, or in lieu of other Notes pursuant to any express provision hereof.

Section 2.02. *Form of Notes.* The Notes and the Trustee's certificate of authentication to be borne by such Notes shall be substantially in the respective forms set forth in Exhibit A, the terms and provisions of which shall constitute, and are hereby expressly incorporated in and made a part of this Indenture. To the extent applicable, the Company and the Trustee, by their execution and delivery of this Indenture, expressly agree to such terms and provisions and to be bound thereby.

Any Global Note may be endorsed with or have incorporated in the text thereof such legends or recitals or changes not inconsistent with the provisions of this Indenture as may be required by the Custodian or the Depositary, or as may be required to comply with any applicable law or any regulation thereunder or with the rules and regulations of any securities exchange or automated quotation system upon which the Notes may be listed or traded or designated for issuance or to conform with any usage with respect thereto, or to indicate any special limitations or restrictions to which any particular Notes are subject.

Any of the Notes may have such letters, numbers or other marks of identification and such notations, legends or endorsements as the Officers executing the same may approve (execution thereof to be conclusive evidence of such approval) and as are not inconsistent with the provisions of this Indenture, or as may be required to comply with any law or with any rule or regulation made pursuant thereto or with any rule or regulation of any securities exchange or automated quotation system on which the Notes may be listed or designated for issuance, or to conform to usage or to indicate any special limitations or restrictions to which any particular Notes are subject.

Each Global Note shall represent such principal amount of the outstanding Notes as shall be specified therein and shall provide that it shall represent the aggregate principal amount of outstanding Notes from time to time endorsed thereon and that the aggregate principal amount of outstanding Notes represented thereby may from time to time be increased or reduced to reflect repurchases, redemptions, cancellations, conversions, transfers or exchanges permitted hereby. Any endorsement of a Global Note to reflect the amount of any increase or decrease in the amount of outstanding Notes represented thereby shall be made by the Trustee or the Custodian, at the direction of the Trustee, in such manner and upon instructions given by the Holder of such Notes in accordance with this Indenture. Payment of principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, a Global Note shall be made to the Holder of such Note on the date of payment, unless a record date or other means of determining Holders eligible to receive payment is provided for herein.

Section 2.03. *Date and Denomination of Notes; Payments of Interest and Defaulted Amounts.* (a) The Notes shall be issuable in registered form without coupons in denominations of $1,000 principal amount and integral multiples thereof. Each Note shall be dated the date of its authentication and shall bear interest from the date specified on the face of such Note. Accrued interest on the Notes shall be computed on the basis of a 360-day year composed of twelve 30-day months and, for partial months, on the basis of actual days elapsed over a 30-day month.

(b) The Person in whose name any Note (or its Predecessor Note) is registered on the Note Register at the close of business on any Regular Record Date with respect to any Interest Payment Date shall be entitled to receive the interest payable semi-annually in arrears on such Interest Payment Date. The principal amount of Physical Notes shall be payable upon presentation of the Physical Note at the office or agency of the Company maintained by the Company for such purposes in the Borough of Manhattan, The City of New York, which shall initially be the Corporate Trust Office. The Company shall pay (i) interest on any Physical Notes (A) to Holders holding Physical Notes having an aggregate principal amount of $1,000,000 or less, by check mailed to the Holders of these Notes at their address as it appears in the Note Register (in which case the Company will act as its own Paying Agent) and (B) to Holders holding Physical Notes having an aggregate principal amount of more than $1,000,000, either by check mailed to each Holder (in which case the Company will act as its own Paying Agent) or, upon application by such a Holder to the Note Registrar not later than the relevant Regular Record Date, by wire transfer in immediately available funds to that Holder's account within the United States if such Holder has provided the Company, the Trustee or the Paying Agent with the requisite information necessary to make such wire transfer, which application shall remain in effect until the Holder notifies, in writing, the Note Registrar to the contrary or (ii) the principal of, or interest on, any Global Note by wire transfer of immediately available funds to the account of the Depositary or its nominee. For the avoidance of doubt, all payments made by The Bank of New York Mellon acting as the Paying Agent will be made by wire transfer only.

(c) Any Defaulted Amounts shall forthwith cease to be payable to the Holder on the relevant payment date but shall accrue interest per annum at the rate borne by the Notes *plus* 0.50% subject to the enforceability thereof under applicable law, from, and including, such relevant payment date, and such Defaulted Amounts together with such interest thereon shall be paid by the Company, at its election in each case, as provided in clause (i) or (ii) below:

(i) The Company may elect to make payment of any Defaulted Amounts to the Persons in whose names the Notes (or their respective Predecessor Notes) are registered at the close of business on a special record date for the payment of such Defaulted Amounts, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of the Defaulted Amounts proposed to be paid on each Note and the date of the proposed payment (which shall be not less than 25 days after the receipt by the Trustee of such notice, unless the Trustee shall consent to an earlier date), and the Company shall deposit with the Paying Agent an amount of money equal to the aggregate amount to be paid in respect of such Defaulted Amounts at least one Business Day prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Amounts as in this clause provided. Thereupon the Company shall fix a special record date for the payment of such Defaulted Amounts which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment, and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Company shall promptly notify the Trustee of such special record date and cause notice of the proposed payment of such Defaulted Amounts and the special record date therefor to be mailed, first-class postage prepaid, to each Holder at its address as it appears in the Note Register, not less than 10 days prior to such special record date. Notice of the proposed payment of such Defaulted Amounts and the special record date therefor having been so mailed, such Defaulted Amounts shall be paid to the Persons in whose names the Notes (or their respective Predecessor Notes) are registered at the close of business on such special record date and shall no longer be payable pursuant to the following clause (ii) of this Section 2.03(c).

(ii) The Company may make payment of any Defaulted Amounts to the Persons in whose names the Notes (or their respective Predecessor Notes) are registered in any other lawful manner not inconsistent with the requirements of any securities exchange or automated quotation system on which the Notes may be listed or designated for issuance, and upon such notice as may be required by such exchange or automated quotation system.

Section 2.04. *Execution, Authentication and Delivery of Notes.* The Notes shall be signed in the name and on behalf of the Company by the manual or facsimile signature of its Chief Executive Officer, President, Chief Financial Officer, Treasurer, Secretary or any of its Executive or Senior Vice Presidents.

At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Notes executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Notes, and the Trustee in accordance with such Company Order shall authenticate and deliver such Notes, without any further action by the Company hereunder.

Only such Notes as shall bear thereon a certificate of authentication substantially in the form set forth on the form of Note attached as Exhibit A hereto, executed manually or by facsimile by an authorized officer of the Trustee (or an authenticating agent appointed by the Trustee as provided by Section 18.12), shall be entitled to the benefits of this Indenture or be valid or obligatory for any purpose. Such certificate by the Trustee (or such an authenticating agent) upon any Note executed by the Company shall be conclusive evidence that the Note so authenticated has been duly authenticated and delivered hereunder and that the Holder is entitled to the benefits of this Indenture.

In case any Officer of the Company who shall have signed any of the Notes shall cease to be such Officer before the Notes so signed shall have been authenticated and delivered by the Trustee, or disposed of by the Company, such Notes nevertheless may be authenticated and delivered or disposed of as though the person who signed such Notes had not ceased to be such Officer of the Company; and any Note may be signed on behalf of the Company by such persons as, at the actual date of the execution of such Note, shall be the Officers of the Company, although at the date of the execution of this Indenture any such person was not such an Officer.

Section 2.05. *Exchange and Registration of Transfer of Notes; Restrictions on Transfer; Depositary.* (a) The Company shall cause to be kept at the Corporate Trust Office a register (the register maintained in such office or in any other office or agency of the Company designated pursuant to Section 4.02, the "**Note Register**") in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Notes and of transfers of Notes. Such register shall be in written form or in any form capable of being converted into written form within a reasonable period of time. The Bank of New York Mellon is hereby initially appointed the "**Note Registrar**" for the purpose of registering Notes and transfers of Notes as herein provided. The Company may appoint one or more co-Note Registrars in accordance with Section 4.02.

Upon surrender for registration of transfer of any Note to the Note Registrar or any coNote Registrar, and satisfaction of the requirements for such transfer set forth in this Section 2.05, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Notes of any authorized denominations and of a like aggregate principal amount and bearing such restrictive legends as may be required by this Indenture.

Prior to the Notes Fungibility Date, Rule 144A Notes and Regulation S Notes, as the case may be, may be exchanged for other Rule 144A Notes or Regulation S Notes, respectively, of any authorized denominations and of a like aggregate principal amount, upon surrender of the Rule 144A Notes or Regulation S Notes, as the case may be, to be exchanged at any such office or agency maintained by the Company pursuant to Section 4.02. Prior to the Notes Fungibility Date, (A) Regulation S Notes (or beneficial interests therein) may be exchanged for Rule 144A Notes (or an increase in the aggregate principal amount represented by a Global Note that constitutes a Rule 144A Note) only if (1) such exchange occurs in connection with a transfer of the Notes (or a beneficial interest therein) under Rule 144A and (2) the transferor first delivers to the Trustee a written certificate, in the form attached to such Note, to the effect that the Notes (or such beneficial interest) are being transferred to a Person (a) who the transferor reasonably believes to be a QIB; (b) purchasing for its own account or the account of a QIB in a transaction meeting the requirements of Rule 144A; and (c) in accordance with all applicable securities laws of the states of the United States and other jurisdictions and (B) Rule 144A Notes (or beneficial interests therein) may only be exchanged for Regulation S Notes (or an increase in the aggregate principal amount represented by a Global Note that constitutes a Regulation S Note) if the transferor first delivers to the Trustee a written certificate, in the form attached to such Note, to the effect that such transfer is being made in accordance with Rule 903 or 904 of Regulation S. Whenever any Rule 144A Notes or Regulation S Notes, as the case may be, are so surrendered for exchange pursuant to either of the two preceding sentences, the Company shall execute, and the Trustee shall authenticate and deliver, the Rule 144A Notes or Regulation S Notes, as the case may be, that the Holder making the exchange is entitled to receive, bearing registration numbers not contemporaneously outstanding. Following the Notes Fungibility Date, Notes may be exchanged for other Notes of any authorized denominations and of a like aggregate principal amount but not bearing the restrictive legend required by Section 2.05(c), upon surrender of the Notes to be exchanged at any such office or agency maintained by the Company pursuant to Section 4.02. Whenever any Notes are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Notes that the Holder making the exchange is entitled to receive, bearing registration numbers not contemporaneously outstanding.

All Notes presented or surrendered for registration of transfer or for exchange, repurchase or conversion shall (if so required by the Company, the Trustee, the Note Registrar or any coNote Registrar) be duly endorsed, or be accompanied by a written instrument or instruments of transfer in form satisfactory to the Company and duly executed, by the Holder thereof or its attorney-in-fact duly authorized in writing.

No service charge shall be imposed by the Company, the Trustee, the Note Registrar, any co-Note Registrar or the Paying Agent for any exchange or registration of transfer of Notes, but the Company may require a Holder to pay a sum sufficient to cover any documentary, stamp or similar issue or transfer tax required unless the tax is due upon conversion because the Holder requests Common Shares to be issued in a name other than the Holder’s name, in which case the Holder shall pay that tax.

None of the Company, the Trustee, the Note Registrar or any co-Note Registrar shall be required to exchange or register a transfer of (i) any Notes surrendered for conversion or, if a portion of any Note is surrendered for conversion, such portion thereof surrendered for conversion, (ii) any Notes, or a portion of any Note, surrendered for repurchase (and not withdrawn) in accordance with Article 15 or (iii) in the event of any Optional Redemption in part of the Notes pursuant to Article 16, any Note so selected for redemption, except the unredeemed portion thereof, if applicable.

All Notes issued upon any registration of transfer or exchange of Notes in accordance with this Indenture shall be the valid obligations of the Company, evidencing the same debt, and entitled to the same benefits under this Indenture as the Notes surrendered upon such registration of transfer or exchange.

(b) So long as the Notes are eligible for book-entry settlement with the Depositary, unless otherwise required by law, subject to the fourth paragraph from the end of Section 2.05(c), all Notes shall be represented by one or more Notes in global form (each, a "**Global Note**") registered in the name of the Depositary or the nominee of the Depositary. The transfer and exchange of beneficial interests in a Global Note that does not involve the issuance of a Physical Note shall be effected through the Depositary in accordance with this Indenture (including the restrictions on transfer set forth herein) and the procedures of the Depositary therefor. Prior to the Notes Fungibility Date, the Rule 144A Notes shall be represented by one or more Global Notes and the Regulation S Notes shall be represented by one or more separate Global Notes. Following the Notes Fungibility Date, the Rule 144A Notes and the Regulation S Notes may be represented by one or more of the same Global Notes.

(c) Every Note that bears or is required under this Section 2.05(c) to bear any legend set forth in this Section 2.05(c) (together with any Common Shares issued upon conversion of the Notes that is required to bear any legend set forth in Section 2.05(d), collectively, the "**Restricted Securities**") shall be subject to the restrictions on transfer set forth in this Section 2.05(c) (including the legend set forth below), unless such restrictions on transfer shall be eliminated or otherwise waived by written consent of the Company, and the Holder of each such Restricted Security, by such Holder's acceptance thereof, agrees to be bound by all such restrictions on transfer. As used in this Section 2.05(c) and Section 2.05(d), the term "**transfer**" encompasses any sale, pledge, transfer or other disposition whatsoever of any Restricted Security.

Until the date (the "**Resale Restriction Termination Date**") that is the later of (1) the date that is one year after the last date of original issuance of the Notes, or such shorter period of time as permitted by Rule 144 under the Securities Act or any successor provision thereto, and (2) such later date, if any, as may be required by applicable law, any certificate evidencing a Rule 144A Note (and all securities issued in exchange therefor or substitution thereof, other than Common Shares, if any, issued upon conversion thereof, which shall bear the applicable legend set forth in Section 2.05(d), if applicable) shall bear a legend in substantially the following form (unless such Notes have been transferred pursuant to a registration statement that has become or been declared effective under the Securities Act and that continues to be effective at the time of such transfer, or sold pursuant to the exemption from registration provided by Rule 144 or any similar provision then in force under the Securities Act, or unless otherwise agreed by the Company in writing, with notice thereof to the Trustee):

THIS SECURITY AND THE COMMON SHARES DELIVERABLE UPON CONVERSION OF THIS SECURITY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**SECURITIES ACT**"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT IN ACCORDANCE WITH THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF OR OF A BENEFICIAL INTEREST HEREIN, THE ACQUIRER:

(1) REPRESENTS THAT IT AND ANY ACCOUNT FOR WHICH IT IS ACTING IS (A) A "QUALIFIED INSTITUTIONAL BUYER" (WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT) OR (B) IS NOT A U.S. PERSON (WITHIN THE MEANING OF REGULATION S UNDER THE SECURITIES ACT) AND THAT IT EXERCISES SOLE INVESTMENT DISCRETION WITH RESPECT TO EACH SUCH ACCOUNT AND THAT IT AND ANY SUCH ACCOUNT IS NOT AN AFFILIATE OF THE COMPANY, AND

(2) AGREES FOR THE BENEFIT OF CANADIAN SOLAR INC. (THE "**COMPANY**") THAT IT WILL NOT OFFER, SELL, PLEDGE OR OTHERWISE TRANSFER THIS SECURITY OR ANY BENEFICIAL INTEREST HEREIN PRIOR TO THE DATE THAT IS THE LATER OF (X) ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (Y) SUCH LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, EXCEPT:

(A) TO THE COMPANY OR ANY SUBSIDIARY THEREOF, OR

(B) PURSUANT TO A REGISTRATION STATEMENT WHICH HAS BECOME EFFECTIVE UNDER THE SECURITIES ACT, OR

(C) TO A PERSON REASONABLY BELIEVED TO BE A QUALIFIED INSTITUTIONAL BUYER IN COMPLIANCE WITH RULE 144A UNDER THE SECURITIES ACT, OR

(D) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT, OR

(E) PURSUANT TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE).

PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(D) ABOVE, THE TRANSFEROR SHALL FIRST DELIVER TO THE TRANSFER AGENT A WRITTEN CERTIFICATE STATING THAT SUCH TRANSFER IS BEING MADE IN ACCORDANCE WITH RULE 903 OR 904 OF REGULATION S.

PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(E) ABOVE, THE COMPANY AND THE TRANSFER AGENT RESERVE THE RIGHT TO REQUIRE THE DELIVERY OF SUCH LEGAL OPINIONS, CERTIFICATIONS OR OTHER EVIDENCE AS MAY REASONABLY BE REQUIRED IN ORDER TO DETERMINE THAT THE PROPOSED TRANSFER IS BEING MADE IN COMPLIANCE WITH THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. NO REPRESENTATION IS MADE AS TO THE AVAILABILITY OF ANY EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT.

NO AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY OR PERSON THAT HAS BEEN AN AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY DURING THE THREE IMMEDIATELY PRECEDING MONTHS MAY PURCHASE, OTHERWISE ACQUIRE OR OWN THIS NOTE OR A BENEFICIAL INTEREST HEREIN.

Until the Resale Restriction Termination Date, any certificate evidencing a Regulation S Note (and all securities issued in exchange therefor or substitution thereof, other than Common Shares, if any, issued upon conversion thereof, which shall bear the applicable legend set forth in Section 2.05(d), if applicable) shall bear a legend in substantially the following form (unless such Notes have been transferred pursuant to a registration statement that has become or been declared effective under the Securities Act and that continues to be effective at the time of such transfer, or sold pursuant to the exemption from registration provided by Rule 144 or any similar provision then in force under the Securities Act, or unless otherwise agreed by the Company in writing, with notice thereof to the Trustee):

THIS SECURITY AND THE COMMON SHARES DELIVERABLE UPON CONVERSION OF THIS SECURITY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**SECURITIES ACT**"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT IN ACCORDANCE WITH THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF OR OF A BENEFICIAL INTEREST HEREIN, THE ACQUIRER:

(1) REPRESENTS THAT IT AND ANY ACCOUNT FOR WHICH IT IS ACTING IS (A) A "QUALIFIED INSTITUTIONAL BUYER" (WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT) OR (B) IS NOT A U.S. PERSON (WITHIN THE MEANING OF REGULATION S UNDER THE SECURITIES ACT) AND THAT IT EXERCISES SOLE INVESTMENT DISCRETION WITH RESPECT TO EACH SUCH ACCOUNT AND THAT IT AND ANY SUCH ACCOUNT IS NOT AN AFFILIATE OF THE COMPANY, AND

(2) AGREES FOR THE BENEFIT OF CANADIAN SOLAR INC. (THE "**COMPANY**") THAT IT WILL NOT OFFER, SELL, PLEDGE OR OTHERWISE TRANSFER THIS SECURITY OR ANY BENEFICIAL INTEREST HEREIN PRIOR TO THE DATE THAT IS THE LATER OF (X) ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (Y) SUCH LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, EXCEPT:

(A) TO THE COMPANY OR ANY SUBSIDIARY THEREOF, OR

(B) PURSUANT TO A REGISTRATION STATEMENT WHICH HAS BECOME EFFECTIVE UNDER THE SECURITIES ACT, OR

(C) TO A PERSON REASONABLY BELIEVED TO BE A QUALIFIED INSTITUTIONAL BUYER (A "QIB") IN COMPLIANCE WITH RULE 144A UNDER THE SECURITIES ACT, OR

(D) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT, OR

(E) PURSUANT TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE).

PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(C) ABOVE, THE TRANSFEROR SHALL FIRST DELIVER TO THE TRANSFER AGENT A WRITTEN CERTIFICATE STATING THAT THE NOTES ARE BEING TRANSFERRED TO A PERSON (1) WHO THE TRANSFEROR REASONABLY BELIEVES TO BE A QIB, (2) PURCHASING FOR ITS OWN ACCOUNT OR THE ACCOUNT OF A QIB IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A AND (3) IN ACCORDANCE WITH ALL APPLICABLE SECURITIES LAWS OF THE STATES OF THE UNITED STATES AND OTHER JURISDICTIONS.

PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(E) ABOVE, THE COMPANY AND THE TRANSFER AGENT RESERVE THE RIGHT TO REQUIRE THE DELIVERY OF SUCH LEGAL OPINIONS, CERTIFICATIONS OR OTHER EVIDENCE AS MAY REASONABLY BE REQUIRED IN ORDER TO DETERMINE THAT THE PROPOSED TRANSFER IS BEING MADE IN COMPLIANCE WITH THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. NO REPRESENTATION IS MADE AS TO THE AVAILABILITY OF ANY EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT.

NO AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY OR PERSON THAT HAS BEEN AN AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY DURING THE THREE IMMEDIATELY PRECEDING MONTHS MAY PURCHASE, OTHERWISE ACQUIRE OR OWN THIS NOTE OR A BENEFICIAL INTEREST HEREIN.

No transfer of any Rule 144A Note or any Regulation S Note prior to the Resale Restriction Termination Date will be registered by the Note Registrar unless the applicable box on the Form of Assignment and Transfer has been checked.

Any Rule 144A Note or Regulation S Note (or security issued in exchange or substitution therefor) as to which such restrictions on transfer shall have expired in accordance with their terms may, upon surrender of such Note for exchange to the Note Registrar in accordance with the provisions of this Section 2.05, be exchanged for a new Note or Notes, of like tenor and aggregate principal amount, which shall not bear the restrictive legend required by this Section 2.05(c) and shall not be assigned a restricted CUSIP number. The Company shall be entitled to instruct the Custodian in writing to so surrender any Global Note as to which such restrictions on transfer shall have expired in accordance with their terms for exchange, and, upon such instruction, the Custodian shall so surrender such Global Note for exchange; and any new Global Note so exchanged therefor shall not bear the restrictive legend specified in this Section 2.05(c) and shall not be assigned a restricted CUSIP number. The Company shall promptly notify the Trustee upon the occurrence of the Resale Restriction Termination Date and promptly after a registration statement, if any, with respect to the Notes or any Common Shares issued upon conversion of the Notes has been declared effective under the Securities Act.

Notwithstanding any other provisions of this Indenture (other than the provisions set forth in this Section 2.05(c)), a Global Note may not be transferred as a whole or in part except (i) by the Depositary to a nominee of the Depositary or by a nominee of the Depositary to the Depositary or another nominee of the Depositary or by the Depositary or any such nominee to a successor Depositary or a nominee of such successor Depositary and (ii) for transfers of portions of a Global Note in certificated form made upon request of a member of, or a participant in, the Depositary (for itself or on behalf of a beneficial owner) by written notice given to the Trustee by or on behalf of the Depositary in accordance with customary procedures of the Depositary and in compliance with this Section 2.05(c).

The Depositary shall be a clearing agency registered under the Exchange Act. The Company initially appoints The Depository Trust Company to act as Depositary with respect to each Global Note. Initially, each Global Note shall be issued to the Depositary, registered in the name of Cede & Co., as the nominee of the Depositary, and deposited with The Bank of New York Mellon as custodian for Cede & Co.

If (i) the Depositary notifies the Company at any time that the Depositary is unwilling or unable to continue as depositary for the Global Notes and a successor depositary is not appointed within 60 days, (ii) the Depositary ceases to be registered as a clearing agency under the Exchange Act and a successor depositary is not appointed within 60 days or (iii) an Event of Default with respect to the Notes has occurred and is continuing and a beneficial owner of any Note requests that its beneficial interest therein be issued as a Physical Note, the Company shall execute, and the Trustee, upon receipt of an Officers' Certificate and a Company Order for the authentication and delivery of Notes, shall authenticate and deliver (x) in the case of clause (iii), a Physical Note to such beneficial owner in a principal amount equal to the principal amount of such Note corresponding to such beneficial owner's beneficial interest and (y) in the case of clause (i) or (ii), Physical Notes to each beneficial owner of the related Global Notes (or a portion thereof) in an aggregate principal amount equal to the aggregate principal amount of such Global Notes in exchange for such Global Notes, and upon delivery of the Global Notes to the Note Registrar such Global Notes shall be canceled.

Physical Notes issued in exchange for all or a part of the Global Note pursuant to this Section 2.05(c) shall be registered in such names and in such authorized denominations as the Depositary, pursuant to instructions from its direct or indirect participants or otherwise, shall instruct the Trustee. Upon execution and authentication, the Trustee shall deliver such Physical Notes to the Persons in whose names such Physical Notes are so registered.

At such time as all interests in a Global Note have been converted, canceled, repurchased, redeemed or transferred, such Global Note shall be, upon receipt thereof, canceled by the Note Registrar in accordance with standing procedures and existing instructions between the Depositary and the Custodian. At any time prior to such cancellation, if any interest in a Global Note is exchanged for Physical Notes, converted, canceled, repurchased, redeemed or transferred to a transferee who receives Physical Notes therefor or any Physical Note is exchanged or transferred for part of such Global Note, the principal amount of such Global Note shall, in accordance with the standing procedures and instructions existing between the Depositary and the Custodian, be appropriately reduced or increased, as the case may be, and an endorsement shall be made on such Global Note, by the Trustee or the Custodian, at the direction of the Trustee, to reflect such reduction or increase.

None of the Company, the Trustee or any agent of the Company or the Trustee shall have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Note or maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

(d) Until the Resale Restriction Termination Date, any stock certificate representing Common Shares issued upon conversion of a Rule 144A Note shall bear a legend in substantially the following form (unless the Note or such Common Shares have been transferred pursuant to a registration statement that has become or been declared effective under the Securities Act and that continues to be effective at the time of such transfer, or pursuant to the exemption from registration provided by Rule 144 or any similar provision then in force under the Securities Act, or such Common Shares have been issued upon conversion of Notes that have been transferred pursuant to a registration statement that has become or been declared effective under the Securities Act and that continues to be effective at the time of such transfer, or pursuant to the exemption from registration provided by Rule 144 or any similar provision then in force under the Securities Act, or unless otherwise agreed by the Company with written notice thereof to the Trustee and any transfer agent for the Common Shares):

THIS SECURITY HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**SECURITIES ACT**"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT IN ACCORDANCE WITH THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF OR OF A BENEFICIAL INTEREST HEREIN, THE ACQUIRER:

(1) REPRESENTS THAT IT AND ANY ACCOUNT FOR WHICH IT IS ACTING (A) IS A "QUALIFIED INSTITUTIONAL BUYER" (WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT) OR (B) IS NOT A U.S. PERSON (WITHIN THE MEANING OF REGULATION S UNDER THE SECURITIES ACT) AND THAT IT EXERCISES SOLE INVESTMENT DISCRETION WITH RESPECT TO EACH SUCH ACCOUNT AND THAT IT AND ANY SUCH ACCOUNT IS NOT AN AFFILIATE OF CANADIAN SOLAR INC. (THE "**COMPANY**"), AND

(2) AGREES FOR THE BENEFIT OF THE COMPANY THAT IT WILL NOT OFFER, SELL, PLEDGE OR OTHERWISE TRANSFER THIS SECURITY OR ANY BENEFICIAL INTEREST HEREIN PRIOR TO THE DATE THAT IS THE LATER OF (X) ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE OF THE SERIES OF NOTES UPON THE CONVERSION OF WHICH THIS SECURITY WAS ISSUED OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (Y) SUCH LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, EXCEPT:

(A) TO THE COMPANY OR ANY SUBSIDIARY THEREOF, OR

(B) PURSUANT TO A REGISTRATION STATEMENT THAT HAS BECOME EFFECTIVE UNDER THE SECURITIES ACT, OR

(C) TO A PERSON REASONABLY BELIEVED TO BE A QUALIFIED INSTITUTIONAL BUYER (A "QIB") IN COMPLIANCE WITH RULE 144A UNDER THE SECURITIES ACT, OR

(D) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT, OR

(E) PURSUANT TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE).

PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(D) ABOVE, THE TRANSFEROR SHALL FIRST DELIVER TO THE TRANSFER AGENT FOR THE COMMON SHARES A WRITTEN CERTIFICATE STATING THAT SUCH TRANSFER IS BEING MADE IN ACCORDANCE WITH RULE 903 OR 904 OF REGULATION S.

PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(E) ABOVE, THE COMPANY AND THE TRANSFER AGENT FOR THE COMMON SHARES RESERVE THE RIGHT TO REQUIRE THE DELIVERY OF SUCH LEGAL OPINIONS, CERTIFICATIONS OR OTHER EVIDENCE AS MAY REASONABLY BE REQUIRED IN ORDER TO DETERMINE THAT THE PROPOSED TRANSFER IS BEING MADE IN COMPLIANCE WITH THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. NO REPRESENTATION IS MADE AS TO THE AVAILABILITY OF ANY EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT.

NO AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY OR PERSON THAT HAS BEEN AN AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY DURING THE THREE IMMEDIATELY PRECEDING MONTHS MAY PURCHASE, OTHERWISE ACQUIRE OR OWN THIS NOTE OR A BENEFICIAL INTEREST HEREIN.

Until the Resale Restriction Termination Date, any stock certificate representing Common Shares issued upon conversion of a Regulation S Note shall bear a legend in substantially the following form (unless the Note or such Common Shares have been transferred pursuant to a registration statement that has become or been declared effective under the Securities Act and that continues to be effective at the time of such transfer, or pursuant to the exemption from registration provided by Rule 144 or any similar provision then in force under the Securities Act, or such Common Shares have been issued upon conversion of Notes that have been transferred pursuant to a registration statement that has become or been declared effective under the Securities Act and that continues to be effective at the time of such transfer, or pursuant to the exemption from registration provided by Rule 144 or any similar provision then in force under the Securities Act, or unless otherwise agreed by the Company with written notice thereof to the Trustee and any transfer agent for the Common Shares):

THIS SECURITY HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**SECURITIES ACT**"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT IN ACCORDANCE WITH THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF OR OF A BENEFICIAL INTEREST HEREIN, THE ACQUIRER:

(1) REPRESENTS THAT IT AND ANY ACCOUNT FOR WHICH IT IS ACTING (A) IS A "QUALIFIED INSTITUTIONAL BUYER" (WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT) OR (B) IS NOT A U.S. PERSON (WITHIN THE MEANING OF REGULATION S UNDER THE SECURITIES ACT) AND THAT IT EXERCISES SOLE INVESTMENT DISCRETION WITH RESPECT TO EACH SUCH ACCOUNT AND THAT IT AND ANY SUCH ACCOUNT IS NOT AN AFFILIATE OF CANADIAN SOLAR INC. (THE "**COMPANY**"), AND

(2) AGREES FOR THE BENEFIT OF THE COMPANY THAT IT WILL NOT OFFER, SELL, PLEDGE OR OTHERWISE TRANSFER THIS SECURITY OR ANY BENEFICIAL INTEREST HEREIN PRIOR TO THE DATE THAT IS THE LATER OF (X) ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE OF THE SERIES OF NOTES UPON THE CONVERSION OF WHICH THIS SECURITY WAS ISSUED OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (Y) SUCH LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, EXCEPT:

(A) TO THE COMPANY OR ANY SUBSIDIARY THEREOF, OR

(B) PURSUANT TO A REGISTRATION STATEMENT THAT HAS BECOME EFFECTIVE UNDER THE SECURITIES ACT, OR

(C) TO A PERSON REASONABLY BELIEVED TO BE A QUALIFIED INSTITUTIONAL BUYER (A "QIB") IN COMPLIANCE WITH RULE 144A UNDER THE SECURITIES ACT, OR

(D) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT, OR

(E) PURSUANT TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE).

PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(C) ABOVE, THE TRANSFEROR SHALL FIRST DELIVER TO THE TRANSFER AGENT FOR THE COMMON SHARES A WRITTEN CERTIFICATE STATING THAT THE NOTES ARE BEING TRANSFERRED TO A PERSON (1) WHO THE TRANSFEROR REASONABLY BELIEVES TO BE A QIB, (2) PURCHASING FOR ITS OWN ACCOUNT OR THE ACCOUNT OF A QIB IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A, AND (3) IN

ACCORDANCE WITH ALL APPLICABLE SECURITIES LAWS OF THE STATES OF THE UNITED STATES AND OTHER JURISDICTIONS.

PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(E) ABOVE, THE COMPANY AND THE TRANSFER AGENT FOR THE COMMON SHARES RESERVE THE RIGHT TO REQUIRE THE DELIVERY OF SUCH LEGAL OPINIONS, CERTIFICATIONS OR OTHER EVIDENCE AS MAY REASONABLY BE REQUIRED IN ORDER TO DETERMINE THAT THE PROPOSED TRANSFER IS BEING MADE IN COMPLIANCE WITH THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. NO REPRESENTATION IS MADE AS TO THE AVAILABILITY OF ANY EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT.

NO AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY OR PERSON THAT HAS BEEN AN AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY DURING THE THREE IMMEDIATELY PRECEDING MONTHS MAY PURCHASE, OTHERWISE ACQUIRE OR OWN THIS NOTE OR A BENEFICIAL INTEREST HEREIN.

Any such Common Shares as to which such restrictions on transfer shall have expired in accordance with their terms may, upon surrender of the certificates representing such Common Shares for exchange in accordance with the procedures of the transfer agent for the Common Shares, be exchanged for a new certificate or certificates for a like aggregate number of Common Shares, which shall not bear the restrictive legend required by this Section 2.05(d).

> Any Note or Common Shares issued upon the conversion or exchange of a Note that is repurchased or owned by any Affiliate of the Company (or any Person who was an Affiliate of the Company at any time during the three months preceding) may not be resold by such Affiliate (or such Person, as the case may be) unless registered under the Securities Act or resold pursuant to an exemption from the registration requirements of the Securities Act in a transaction that results in such Note or Common Shares, as the case may be, no longer being a “restricted security” (as defined under Rule 144 under the Securities Act). The Company shall cause any Note that is repurchased or owned by it to be surrendered to the Note Registrar for cancellation in accordance with Section 2.08.

Section 2.06. *Mutilated, Destroyed, Lost or Stolen Notes.* In case any Note shall become mutilated or be destroyed, lost or stolen, the Company in its discretion may execute, and upon its written request the Trustee or an authenticating agent appointed by the Trustee shall authenticate and deliver, a new Note, bearing a registration number not contemporaneously outstanding, in exchange and substitution for the mutilated Note, or in lieu of and in substitution for the Note so destroyed, lost or stolen. In every case the applicant for a substituted Note shall furnish to the Company, to the Trustee and, if applicable, to such authenticating agent such security or indemnity as may be required by them to save each of them harmless from any loss, liability, cost or expense caused by or connected with such substitution, and, in every case of destruction, loss or theft, the applicant shall also furnish to the Company, to the Trustee and, if applicable, to such authenticating agent evidence to their satisfaction of the destruction, loss or theft of such Note and of the ownership thereof.

The Trustee or such authenticating agent may authenticate any such substituted Note and deliver the same upon the receipt of such security or indemnity as the Trustee, the Company and, if applicable, such authenticating agent may require. No service charge shall be imposed by the Company, the Trustee, the Note Registrar, any co-Note Registrar or the Paying Agent upon the issuance of any substitute Note, but the Company may require a Holder to pay a sum sufficient to cover any documentary, stamp or similar issue or transfer tax required in connection therewith as a result of the name of the Holder of the new substitute Note being different from the name of the Holder of the old Note that became mutilated or was destroyed, lost or stolen. In case any Note that has matured or as to which a Notice of Conversion or Fundamental Change Repurchase Notice has been duly delivered shall become mutilated or be destroyed, lost or stolen, the Company may, in its sole discretion, instead of issuing a substitute Note, pay or authorize the payment of or convert or authorize the conversion of the same (without surrender thereof except in the case of a mutilated Note), as the case may be, if the applicant for such payment or conversion shall furnish to the Company, to the Trustee and, if applicable, to such authenticating agent such security or indemnity as may be required by them to save each of them harmless for any loss, liability, cost or expense caused by or connected with such substitution, and, in every case of destruction, loss or theft, evidence satisfactory to the Company, the Trustee and, if applicable, any Paying Agent or Conversion Agent evidence of their satisfaction of the destruction, loss or theft of such Note and of the ownership thereof.

Every substitute Note issued pursuant to the provisions of this Section 2.06 by virtue of the fact that any Note is destroyed, lost or stolen shall constitute an additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Note shall be found at any time, and shall be entitled to all the benefits of (but shall be subject to all the limitations set forth in) this Indenture equally and proportionately with any and all other Notes duly issued hereunder. To the extent permitted by law, all Notes shall be held and owned upon the express condition that the foregoing provisions are exclusive with respect to the replacement, payment, redemption, conversion or repurchase of mutilated, destroyed, lost or stolen Notes and shall preclude any and all other rights or remedies notwithstanding any law or statute existing or hereafter enacted to the contrary with respect to the replacement, payment, redemption, conversion or repurchase of negotiable instruments or other securities without their surrender.

Section 2.07. *Temporary Notes.* Pending the preparation of Physical Notes, the Company may execute and the Trustee or an authenticating agent appointed by the Trustee shall, upon written request of the Company, authenticate and deliver temporary Notes (printed or lithographed). Temporary Notes shall be issuable in any authorized denomination, and substantially in the form of the Physical Notes but with such omissions, insertions and variations as may be appropriate for temporary Notes, all as may be determined by the Company. Every such temporary Note shall be executed by the Company and authenticated by the Trustee or such authenticating agent upon the same conditions and in substantially the same manner, and with the same effect, as the Physical Notes. Without unreasonable delay, the Company shall execute and deliver to the Trustee or such authenticating agent Physical Notes (other than any Global Note) and thereupon any or all temporary Notes (other than any Global Note) may be surrendered in exchange therefor, at each office or agency maintained by the Company pursuant to Section 4.02 and the Trustee or such authenticating agent shall authenticate and deliver in exchange for such temporary Notes an equal aggregate principal amount of Physical Notes. Such exchange shall be made by the Company at its own expense and without any charge therefor. Until so exchanged, the temporary Notes shall in all respects be entitled to the same benefits and subject to the same limitations under this Indenture as Physical Notes authenticated and delivered hereunder.

Section 2.08. *Cancellation of Notes Paid, Converted, Etc.* The Company shall cause all Notes surrendered for the purpose of payment, repurchase, redemption, registration of transfer or exchange or conversion, if surrendered to any Person other than the Trustee (including any of the Company's Agents, Subsidiaries or Affiliates), to be surrendered to the Note Registrar for cancellation. All Notes delivered to the Note Registrar shall be canceled promptly by it, and no Notes shall be authenticated in exchange thereof except as expressly permitted by any of the provisions of this Indenture. The Note Registrar shall dispose of canceled Notes in accordance with its customary procedures and, after such disposition, shall deliver a certificate of such disposition to the Company, at the Company's written request in a Company Order.

Section 2.09. *CUSIP Numbers.* The Company in issuing the Notes may use "CUSIP" numbers (if then generally in use), and, if so, the Trustee shall use "CUSIP" numbers in all notices issued to Holders as a convenience to such Holders; *provided* that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Notes or on such notice and that reliance may be placed only on the other identification numbers printed on the Notes. The Company shall promptly notify the Trustee and the Agents in writing of any change in the "CUSIP" numbers. Prior to the Notes Fungibility Date, the Rule 144A Notes and the Regulation S Notes shall have different "CUSIP" numbers. Following the Notes Fungibility Date, the Rule 144A Notes and the Regulation S Notes shall have the same "CUSIP" number.

Section 2.10. *Additional Notes; Repurchases.* The Company may, without the consent of the Holders and notwithstanding Section 2.01, reopen this Indenture and issue additional Notes hereunder with the same terms as the Notes initially issued hereunder (other than differences in the issue price and interest accrued prior to the issue date of such additional Notes) in an unlimited aggregate principal amount; *provided* that if any such additional Notes are not fungible with the Notes initially issued hereunder for U.S. federal securities law or income tax purposes, such additional Notes shall not have the same CUSIP, ISIN or other identifying number as the outstanding Notes. Prior to the issuance of any such additional Notes, the Company shall deliver to the Trustee a Company Order, an Officers' Certificate and an Opinion of Counsel, such Officers' Certificate and Opinion of Counsel to cover such matters, in addition to those required by Section 18.06, as the Trustee shall reasonably request. In addition, the Company may from time to time itself or through its Subsidiaries and directly or indirectly repurchase Notes in open market repurchases, private or public tender or exchange offers or other negotiated transactions, including by cash-settled swaps or other derivatives, without prior notice to Holders. The Company shall cause any Notes so repurchased (other than any Notes repurchased pursuant to cash-settled swaps or other derivatives) to be surrendered to the Note Registrar for cancellation in accordance with Section 2.08.

ARTICLE 3
SATISFACTION AND DISCHARGE

Section 3.01. *Satisfaction and Discharge*. This Indenture shall upon request of the Company contained in an Officers' Certificate cease to be of further effect, and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture, when (a) (i) all Notes theretofore authenticated and delivered (other than (x) Notes which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 2.06 and (y) Notes for which payment money has theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from trust as provided in Section 4.04) have been delivered to the Note Registrar for cancellation; or (ii) the Company has deposited with the Trustee or delivered to Holders, as applicable, after the Notes have become due and payable, whether on the Maturity Date, any Fundamental Change Repurchase Date or upon redemption or conversion or otherwise, cash or Common Shares, if any (solely to satisfy the Company's Conversion Obligation, if applicable), sufficient to pay all of the outstanding Notes or to satisfy the Company's Conversion Obligation, as the case may be, and to pay all other sums due and payable under this Indenture by the Company; and (b) the Company has delivered to the Trustee an Officers' Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture have been complied with. Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under Section 7.08 shall survive.

ARTICLE 4
PARTICULAR COVENANTS OF THE COMPANY

Section 4.01. *Payment of Principal and Interest.* The Company covenants and agrees that it will cause to be paid the principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, each of the Notes at the places, at the respective times and in the manner provided herein and in the Notes.

Section 4.02. *Maintenance of Office or Agency.* The Company will maintain in the Borough of Manhattan, The City of New York, an office or agency where the Notes may be surrendered for registration of transfer or exchange ("**Transfer Agent**") or for presentation for payment or repurchase ("**Paying Agent**") or for conversion ("**Conversion Agent**") and where notices and demands to or upon the Company in respect of the Notes and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office or the office or agency of the Trustee in the Borough of Manhattan, The City of New York.

The Company may also from time to time designate as co-Note Registrars one or more other offices or agencies where the Notes may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; *provided* that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in the Borough of Manhattan, The City of New York, for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency. The terms "**Paying Agent**" and "**Conversion Agent**" include any such additional or other offices or agencies, as applicable.

The Company hereby initially designates The Bank of New York Mellon as the Paying Agent, Note Registrar, Custodian, Conversion Agent, and Transfer Agent (collectively, the "**Agents**") and the Corporate Trust Office as the office or agency in the Borough of Manhattan, The City of New York, where Notes may be surrendered for registration of transfer or exchange or for presentation for payment, redemption or repurchase or for conversion and where notices and demands to or upon the Company in respect of the Notes and this Indenture may be served.

Section 4.03. *Appointments to Fill Vacancies in Trustee's Office.* The Company, whenever necessary to avoid or fill a vacancy in the office of Trustee, will appoint, in the manner provided in Section 7.12, a Trustee, so that there shall at all times be a Trustee hereunder.

Section 4.04. *Provisions as to Paying Agent.* (a) If the Company shall appoint a Paying Agent other than the Trustee, the Company will cause such Paying Agent to execute and deliver to the Trustee an instrument in which such agent shall agree with the Trustee, subject to the provisions of this Section 4.04:

(i) that it will hold all sums held by it as such agent for the payment of the principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, the Notes in trust for the benefit of the Holders of the Notes;

(ii) that it will give the Trustee prompt notice of any failure by the Company to make any payment of the principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, the Notes when the same shall be due and payable; and

(iii) that at any time during the continuance of an Event of Default, upon request of the Trustee, it will forthwith pay to the Trustee all sums so held in trust.

The Company shall, on or before 10 a.m. New York City time one Business Day prior to each due date of the principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) of, or accrued and unpaid interest on, the Notes, deposit with the Paying Agent a sum in U.S. Dollars in immediately available funds sufficient to pay such principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) or accrued and unpaid interest, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of any failure to take such action; *provided* that if such deposit is made on the due date, such deposit must be received by the Paying Agent by 11:00 a.m., New York City time, on such date.

(b) If the Company shall act as its own Paying Agent, it will, on or before each due date of the principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, the Notes, set aside, segregate and hold in trust for the benefit of the Holders of the Notes a sum sufficient to pay such principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) and accrued and unpaid interest so becoming due and will promptly notify the Trustee in writing of any failure to take such action and of any failure by the Company to make any payment of the principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) of, or accrued and unpaid interest on, the Notes when the same shall become due and payable.

(c) Anything in this Section 4.04 to the contrary notwithstanding, the Company may, at any time, for the purpose of obtaining a satisfaction and discharge of this Indenture, or for any other reason, pay, cause to be paid or deliver to the Trustee all sums or amounts held in trust by the Company or any Paying Agent hereunder as required by this Section 4.04, such sums or amounts to be held by the Trustee upon the trusts herein contained and upon such payment or delivery by the Company or any Paying Agent to the Trustee, the Company or such Paying Agent shall be released from all further liability but only with respect to such sums or amounts.

(d) Any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) of, and accrued and unpaid interest on, any Note and remaining unclaimed for two years after such principal (including the Redemption Price and Fundamental Change Repurchase Price, if applicable) or interest has become due and payable shall be paid to the Company on request of the Company contained in an Officers' Certificate, or (if then held by the Company) shall be discharged from such trust; and the Holder of such Note shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereupon cease; *provided*, *however*, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company cause to be published once, in a newspaper published in the English language, customarily published on each Business Day and of general circulation in The Borough of Manhattan, The City of New York, notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money then remaining will be repaid to the Company.

Section 4.05. *Existence*. Subject to Article 11, the Company shall do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence.

Section 4.06. *Rule 144A Information Requirement and Annual Reports.* (a) The Company covenants to comply with Section 314(a) of the Trust Indenture Act insofar as it relates to information, documentations, and other reports which the Issuer may be required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act. At any time the Company is not subject to Section 13 or 15(d) of the Exchange Act, the Company shall, so long as any of the Notes or any Common Shares issuable upon conversion thereof shall, at such time, constitute "restricted securities" within the meaning of Rule 144(a)(3) under the Securities Act, promptly provide to the Trustee and, upon written request, any Holder, beneficial owner or prospective purchaser of such Notes or any Common Shares issuable upon conversion of such Notes, the information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act to facilitate the resale of such Notes or Common Shares pursuant to Rule 144A. The Company shall take such further action as any Holder or beneficial owner of such Notes or such Common Shares may reasonably request to the extent from time to time required to enable such Holder or beneficial owner to sell such Notes or Common Shares in accordance with Rule 144A, as such rule may be amended from time to time.

(b) The Company shall file with the Trustee, within 15 days after the same are required to be filed with the Commission, copies of any documents or reports that the Company is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act (giving effect to any grace period provided by Rule 12b-25 under the Exchange Act). Any such document or report that the Company files with the Commission via the Commission's EDGAR system shall be deemed to be filed with the Trustee for purposes of this Section 4.06(b) at the time such documents are filed via the EDGAR system.

(c) Delivery of the reports and documents described in subsection (b) above to the Trustee is for informational purposes only, and the Trustee's receipt of such shall not constitute actual or constructive notice or knowledge of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to conclusively rely on an Officers' Certificate). Notwithstanding the deemed delivery of the information, document or report to the Trustee pursuant to Section 4.06(b), the Trustee has no obligation to monitor the Company's compliance with its reporting or other obligations and covenants and shall not be responsible for downloading any such information, document or report from the Commission's EDGAR system or otherwise and shall incur no liability to any person for not doing so.

(d) If, at any time during the six-month period beginning on, and including, the date that is six months after the last date of original issuance of the Notes, the Company fails to timely file any document or report that it is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act, as applicable (after giving effect to all applicable grace periods thereunder and other than reports on Form 6-K), or the Notes are not otherwise freely tradable by Holders other than the Company's Affiliates or Persons that were the Company's Affiliates at any time during the three immediately preceding months (as a result of restrictions pursuant to U.S. securities laws or the terms of this Indenture or the Notes), the Company shall pay Additional Interest on the Notes. Such Additional Interest shall accrue on the Notes at the rate of 0.50% per annum of the principal amount of the Notes outstanding for each day during such period for which the Company's failure to file has occurred and is continuing or the Notes are not otherwise so freely tradable. As used in this Section 4.06(d), documents or reports that the Company is required to "file" with the Commission pursuant to Section 13 or 15(d) of the Exchange Act does not include documents or reports that the Company furnishes to the Commission pursuant to Section 13 or 15(d) of the Exchange Act.

(e) If, and for so long as, the restrictive legend on the Notes specified in Section 2.05(c) has not been removed, the Notes are assigned a restricted CUSIP or the Notes are not otherwise freely tradable by Holders other than the Company's Affiliates or Persons that were the Company's Affiliates at any time during the three immediately preceding months (without restrictions pursuant to U.S. securities laws or the terms of this Indenture or the Notes) as of the 365th day after the last date of original issuance of the Notes, the Company shall pay Additional Interest on the Notes at a rate equal to 0.50% per annum of the principal amount of Notes outstanding until the restrictive legend on the Notes has been removed in accordance with Section 2.05(c), the Notes are assigned an unrestricted CUSIP and the Notes are freely tradable by Holders other than the Company's Affiliates (or Holders that were the Company's Affiliates at any time during the three immediately preceding months) (without restrictions pursuant to U.S. securities laws or the terms of this Indenture or the Notes).

(f) Additional Interest will be payable in arrears on each Interest Payment Date following accrual in the same manner as regular interest on the Notes.

(g) The Additional Interest that is payable in accordance with Section 4.06(d) or Section 4.06(e) shall be in addition to, and not in lieu of, any Additional Interest that may be payable as a result of the Company's election pursuant to Section 6.03.

(h) If Additional Interest is payable by the Company pursuant to Section 4.06(d) or Section 4.06(e), the Company shall deliver to the Trustee an Officers' Certificate to that effect stating (i) the amount of such Additional Interest that is payable and (ii) the date on which such Additional Interest is payable. Unless and until a Responsible Officer of the Trustee receives at the Specified Corporate Trust Office such a certificate, the Trustee may assume without inquiry that no such Additional Interest is payable. If the Company has paid Additional Interest directly to the Persons entitled to it, the Company shall deliver to the Trustee an Officers' Certificate setting forth the particulars of such payment.

Section 4.07. *Additional Amounts.* (a) All payments and deliveries made by or on behalf of the Company or any Successor Company under or with respect to the Notes, including, but not limited to, payments of principal (including, if applicable, the Fundamental Change Repurchase Price or the Redemption Price), payments of interest and deliveries of Common Shares or other Reference Property (together with payment of cash in lieu of any fractional Common Shares) upon conversion, will be made without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed or levied by or within any jurisdiction in which the Company or any Successor Company is, for tax purposes, organized or resident or doing business or through which payment is made (or any political subdivision or taxing authority thereof or therein) (each, as applicable, a "**Relevant Taxing Jurisdiction**"), unless such withholding or deduction is required by law or by regulation or governmental policy having the force of law. In the event that any such withholding or deduction is so required, the Company or any Successor Company will pay to the Holder of each Note such additional amounts (the "**Additional Amounts**") as may be necessary to ensure that the net amount received by the Holder after such withholding or deduction (and after deducting any taxes on the Additional Amounts) will equal the amounts that would have been received by such Holder had no such withholding or deduction been required; provided that no Additional Amounts will be payable:

(i) for or on account of:

(A) any tax, duty, assessment or other governmental charge that would not have been imposed but for:

(1) the existence of any present or former connection between the Holder or beneficial owner of such Note and the Relevant Taxing Jurisdiction, other than merely holding such Note or the receipt of payments thereunder, including, without limitation, such Holder or beneficial owner being or having been a national, domiciliary or resident of such Relevant Taxing Jurisdiction or treated as a resident thereof or being or having been physically present or engaged in a trade or business therein or having or having had a permanent establishment therein;

(2) the presentation of such Note (in cases in which presentation is required) more than 30 days after the later of the date on which the payment of the principal of (including the Fundamental Change Repurchase Price or the Redemption Price, in each case, if applicable) and interest on, such Note or the delivery of Common Shares and other Reference Property (together with payment of cash in lieu of any fractional Common Shares) upon conversion of such Note became due and payable pursuant to the terms thereof or was made or duly provided for; or

(3) the failure of the Holder or beneficial owner to comply with a timely request from the Company or any successor of the Company, addressed to the Holder, to provide certification, information, documents or other evidence concerning such Holder's or beneficial owner's nationality, residence, identity or connection with the Relevant Taxing Jurisdiction, or to make any declaration or satisfy any other reporting requirement relating to such matters, if and to the extent that due and timely compliance with such request is required by statute, regulation or administrative practice of the Relevant Taxing Jurisdiction in order to reduce or eliminate any withholding or deduction as to which Additional Amounts would have otherwise been payable to such Holder or beneficial owner;

(B) any estate, inheritance, gift, sale, transfer, excise, personal property or similar tax, assessment or other governmental charge;

(C) any tax, duty, assessment or other governmental charge that is payable otherwise than by withholding from payments under or with respect to the Notes;

(D) any tax, assessment, withholding or deduction required by sections 1471 through 1474 of the United States Internal Revenue Code of 1986, as amended ("**FATCA**"), any current or future Treasury regulations or rulings promulgated thereunder, any law, regulation or other official guidance enacted or issued in any jurisdiction implementing FATCA, any intergovernmental agreement between the United States and any other jurisdiction to implement FATCA or any law enacted by such other jurisdiction to give effect to such agreement, or any agreement with the U.S. Internal Revenue Service under FATCA; or

(E) any combination of taxes, duties, assessments or other governmental charges referred to in the preceding clauses (A), (B), (C) or (D); or

(ii) with respect to any payment of the principal of (including the Fundamental Change Repurchase Price or the Redemption Price, in each case, if applicable) and interest on, such Note or the delivery of Common Shares or other Reference Property (together with payment of cash in lieu of any fractional Common Shares) upon conversion of such Note to a Holder, if the Holder is a fiduciary, partnership or person other than the sole beneficial owner of that payment to the extent that such payment would be required to be included in the income under the laws of the Relevant Taxing Jurisdiction, for tax purposes, of a beneficiary or settlor with respect to the fiduciary, a partner or member of that partnership or a beneficial owner who would not have been entitled to such Additional Amounts had that beneficiary, settlor, partner, member or beneficial owner been the Holder thereof.

(b) If the Company or any Successor Company is required to make any deduction or withholding from any payments with respect to the Notes, the Company or such successor shall deliver to the Trustee official tax receipts evidencing the remittance to the relevant tax authorities of the amounts so withheld or deducted.

(c) Each party to this Indenture shall, within ten business days of a written request by another party, supply to that other party such forms, documentation and other information relating to it, its operations, or the Notes as that other party reasonably requests for the purposes of that other party's compliance with Applicable Law and shall notify the relevant other party reasonably promptly in the event that it becomes aware that any of the forms, documentation or other information provided by such party is (or becomes) inaccurate in any material respect; provided, however, that no party shall be required to provide any forms, documentation or other information pursuant to this Section 4.07(c) to the extent that: (i) any such form, documentation or other information (or the information required to be provided on such form or documentation) is not reasonably available to such party and cannot be obtained by such party using reasonable efforts; or (ii) doing so would or might in the reasonable opinion of such party constitute a breach of any: (a) Applicable Law; (b) fiduciary duty; or (c) duty of confidentiality. For purposes of this Section 4.07(c), “Applicable Law” shall be deemed to include (i) any rule or practice of any Authority by which any party is bound or with which it is accustomed to comply; (ii) any agreement between any Authorities; and (iii) any agreement between any Authority and any party that is customarily entered into by institutions of a similar nature.

The Company shall notify the Trustee in the event that it determines that any payment to be made by the Trustee under the Notes is a payment which could be subject to FATCA Withholding if such payment were made to a recipient that is generally unable to receive payments free from FATCA Withholding, and the extent to which the relevant payment is so treated, provided, however, that the Company’s obligation under this Section 4.07(c) shall apply only to the extent that such payments are so treated by virtue of characteristics of the Company, the Notes, or both.

Notwithstanding any other provision of this Indenture, the Trustee shall be entitled to make a deduction or withholding from any payment which it makes under the Notes for or on account of any Tax, if and only to the extent so required by Applicable Law, in which event the Trustee shall make such payment after such deduction or withholding has been made and shall account to the relevant Authority within the time allowed for the amount so deducted or withheld or, at its option, shall reasonably promptly after making such payment return to the Company the amount so deducted or withheld, in which case, the Company shall so account to the relevant Authority for such amount. For the avoidance of doubt, FATCA Withholding is a deduction or withholding which is deemed to be required by Applicable Law for the purposes of this Section 4.07(c).

For the purposes of this Section 4.07(c), capitalized terms shall have the following meanings:

"**Applicable Law**" means any law or regulation.

"**Authority**" means any competent regulatory, prosecuting, Tax or governmental authority in any jurisdiction.

"**Code**" means the U.S. Internal Revenue Code of 1986, as amended.

"**FATCA Withholding**" means any withholding or deduction required pursuant to an agreement described in section 1471(b) of the Code, or otherwise imposed pursuant to sections 1471 through 1474 of the Code, any regulations or agreements thereunder, any official interpretations thereof, or any law implementing an intergovernmental approach thereto.

"**Tax**" means any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or on behalf of any Authority having power to tax.

(d) Any reference in this Indenture or the Notes in any context to the delivery of Common Shares or other Reference Property (together with payments of cash in lieu of any fractional Common Shares) upon conversion of the Notes or the payment of principal of (including the Fundamental Change Repurchase Price or the Redemption Price, in each case, if applicable) and interest (including Additional Interest) on, any Note or any other amount payable with respect to such Note, shall be deemed to include payment of Additional Amounts provided for in this Section 4.07 to the extent that, in such context, Additional Amounts are, were or would be payable in respect thereof.

(e) The foregoing obligations shall survive termination or discharge of this Indenture.

Section 4.08. *Stay, Extension and Usury Laws.* The Company covenants (to the extent that it may lawfully do so) that it shall not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law or other law that would prohibit or forgive the Company from paying all or any portion of the principal of or interest on the Notes as contemplated herein, wherever enacted, now or at any time hereafter in force, or that may affect the covenants or the performance of this Indenture; and the Company (to the extent it may lawfully do so) hereby expressly waives all benefit or advantage of any such law, and covenants that it will not, by resort to any such law, hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

Section 4.09. *Compliance Certificate; Statements as to Defaults.* The Company shall deliver to the Trustee (i) within 120 days after the end of each fiscal year of the Company (beginning with the fiscal year ending on December 31, 2020) and (ii) promptly after receiving a written request from the Trustee, an Officers' Certificate stating whether the signers thereof have knowledge of any Default that occurred during the previous year and, if so, specifying each such Default and the nature thereof.

In addition, the Company shall deliver to the Responsible Officer of the Trustee, as soon as possible, and in any event within 30 days after the occurrence of any Event of Default or Default, an Officers' Certificate setting forth the details of such Event of Default or Default, its status and the action that the Company is taking or proposing to take in respect thereof.

Section 4.10. *Further Instruments and Acts.* Upon request of the Trustee, the Company will execute and deliver such further instruments and do such further acts as may be reasonably necessary or proper to carry out more effectively the purposes of this Indenture.

ARTICLE 5
LISTS OF HOLDERS AND REPORTS BY THE COMPANY

Section 5.01. *Lists of Holders.* The Company covenants and agrees that it will furnish or cause to be furnished to the Trustee a list in such form as the Trustee may reasonably require of the names and addresses of the Holders of the Notes pursuant to Section 312 of the Trust Indenture Act:

(a) semiannually and not more than 15 days after the Regular Record Date for any Interest Payment Date; and

(b) at such other times as the Trustee may request in writing, within 30 days after receipt by the Company of any such request (or such lesser time as the Trustee may reasonably request in order to enable it to timely provide any notice to be provided by it hereunder) as of a date not more than 15 days (or such other date as the Trustee may reasonably request in order to so provide any such notices) prior to the time such information is furnished, *provided*, that if and so long as the Trustee shall be the Note Registrar, such list shall not be required to be furnished.

Section 5.02. *Preservation and Disclosure of Lists.* The Trustee shall preserve, in as current a form as is reasonably practicable, all information as to the names and addresses of the Holders contained in the most recent list furnished to it as provided in Section 5.01 or maintained by the Trustee in its capacity as Note Registrar, if so acting. The Trustee may destroy any list furnished to it as provided in Section 5.01 upon receipt of a new list so furnished.

ARTICLE 6
DEFAULTS AND REMEDIES

Section 6.01. *Events of Default.* Each of the following events shall be an "**Event of Default**" with respect to the Notes:

(a) default in any payment of interest on any Note when due and payable if the default continues for a period of 30 days;

(b) default in the payment of principal of any Note when due and payable on the Maturity Date, upon redemption, upon any required repurchase in connection with a Fundamental Change, upon declaration of acceleration or otherwise;

(c) failure by the Company to comply with its obligation to convert the Notes in accordance with this Indenture upon exercise of a Holder's conversion right and such failure continues for five Business Days or more;

(d) failure by the Company to comply with its obligations under Article 11;

(e) (i) failure by the Company to issue a Fundamental Change Company Notice in accordance with Section 15.02(c) when due or (ii) delivery by a Holder to the Paying Agent of a Fundamental Change Repurchase Notice in accordance with Section 15.02(b) that is not withdrawn in accordance with Section 15.03, *provided* that in the case of Section 6.01(e)(ii), such Event of Default shall apply only in respect of such Holder's Notes that are to be repurchased pursuant to such Fundamental Change Repurchase Notice;

(f) failure by the Company for 60 days after written notice from the Trustee or the Holders of at least 25% in principal amount of the Notes then outstanding has been received by the Company to comply with any of its other agreements contained in the Notes or this Indenture;

(g) default by the Company or any Subsidiary of the Company with respect to any mortgage, agreement or other instrument under which there may be outstanding, or by which there may be secured or evidenced, any indebtedness for money borrowed in excess of $20 million (or its foreign currency equivalent) in the aggregate of the Company and/or any such Subsidiary, whether such indebtedness now exists or shall hereafter be created (i) resulting in such indebtedness becoming or being declared due and payable or (ii) constituting a failure to pay the principal of, or interest on, any such indebtedness when due and payable at its stated maturity, upon required repurchase, upon declaration of acceleration or otherwise, in each case of (i) and (ii) above, where such indebtedness is not discharged or such acceleration is not rescinded or annulled within a period of 30 days;

(h) a final judgment for the payment of $20 million (or its foreign currency equivalent) or more rendered against the Company or any Subsidiary of the Company if such amount is not covered by insurance or an indemnity and such judgment is not discharged or stayed within 30 days after (i) the date on which the right to appeal thereof has expired if no such appeal has commenced, or (ii) the date on which all rights to appeal have been extinguished;

(i) the Company or any Significant Subsidiary or any group of Subsidiaries that in the aggregate would constitute a Significant Subsidiary shall commence a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to the Company or any such Significant Subsidiary or any such group or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of the Company or any such Significant Subsidiary or any such group or any substantial part of its property, or shall consent to any such relief or to the appointment of or taking possession by any such official in an involuntary case or other proceeding commenced against it, or shall make a general assignment for the benefit of creditors, or shall fail generally to pay its debts as they become due; or

(j) a court of competent jurisdiction enters an order or decree under any bankruptcy, insolvency or similar law that:

(i) is for relief with respect to the Company or any of its Significant Subsidiaries or any group of Subsidiaries that in the aggregate would constitute a Significant Subsidiary of the Company (the "Significant Subsidiary Group") in an involuntary case or other proceeding, or adjudicates the Company or any of its Significant Subsidiary or Significant Subsidiary Group bankrupt or insolvent;

(ii) appoints a trustee, receiver, liquidator, custodian or similar official for the Company or any of its Significant Subsidiaries or Significant Subsidiary Group for all or substantially all of the property of the Company or any Significant Subsidiary or any Significant Subsidiary Group;

(iii) related to the winding up or liquidation of the Company or any of its Significant Subsidiaries or any Significant Subsidiary Group;

(iv) and in the case of each of the foregoing clauses (i), (ii) and (iii) of this Section 6.01(j), the order or decree remains unstayed and in effect for at least 60 consecutive days.

Section 6.02. *Acceleration; Rescission and Annulment*. If one or more Events of Default shall have occurred and be continuing (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body), then, and in each and every such case (other than an Event of Default specified in Section 6.01(i) or Section 6.01(j) with respect to the Company), unless the principal of all of the Notes shall have already become due and payable, (x) either the Trustee or the Holders of at least 25% in aggregate principal amount of the Notes then outstanding determined in accordance with Section 8.04, by notice in writing to the Company (and to the Trustee if given by Holders), may, and the Trustee at the written request of such requisite number of Holders (accompanied by security and/or indemnity to its reasonable satisfaction) shall, and (y) in the case of an Event of Default of the type described in Section 6.01(e)(ii), the applicable Holder may, declare 100% of the principal of, and accrued and unpaid interest on, all the Notes (or, in the case of an Event of Default of the type described in Section 6.01(e)(ii), the applicable Holder's Notes that are to be repurchased pursuant to the Fundamental Change Repurchase Notice described in Section 6.01(e)(ii)) to be due and payable immediately, and upon any such declaration the same shall become and shall automatically be immediately due and payable, anything contained in this Indenture or in the Notes to the contrary notwithstanding. If an Event of Default specified in Section 6.01(i) or Section 6.01(j) with respect to the Company occurs and is continuing, 100% of the principal of, and accrued and unpaid interest, if any, on, all Notes shall become and shall automatically be immediately due and payable.

The immediately preceding paragraph, however, is subject to the conditions that if, at any time after the principal of the Notes shall have been so declared due and payable, and before any judgment or decree for the payment of the monies due shall have been obtained or entered as hereinafter provided, the Company shall pay or shall deposit with the Trustee a sum sufficient to pay installments of accrued and unpaid interest upon all Notes and the principal of any and all Notes that shall have become due otherwise than by acceleration (with interest on overdue installments of accrued and unpaid interest to the extent that payment of such interest is enforceable under applicable law, and on such principal at the rate borne by the Notes *plus* 0.50% at such time) and amounts due to the Trustee pursuant to Section 7.08, and if (1) rescission would not conflict with any judgment or decree of a court of competent jurisdiction and (2) any and all existing Events of Default under this Indenture, other than the nonpayment of the principal of and accrued and unpaid interest, if any, on Notes that shall have become due solely by such acceleration, shall have been cured or waived pursuant to Section 6.09, then and in every such case the Holders of a majority in aggregate principal amount of the Notes then outstanding, by written notice to the Company and to the Trustee, may rescind and annul such declaration and its consequences, and any Event of Default arising therefrom shall be deemed to have been cured for every purpose of this Indenture; but no such rescission and annulment shall extend to or shall affect any subsequent Default or Event of Default, or shall impair any right consequent thereon.

Section 6.03. *Additional Interest*. Notwithstanding anything in this Indenture or in the Notes to the contrary, if the Company so elects, the sole remedy for an Event of Default relating to the Company's failure to comply with its obligations as set forth in Section 4.06(b) shall during the first 360 days following the occurrence of such an Event of Default consist exclusively of the right to receive Additional Interest on the Notes at a rate equal to(i) 0.25% per annum of the principal amount of the Notes outstanding for each day (x) during the 180-day period beginning on, and including, the date on which such an Event of Default first occurs and (y) on which such Event of Default is continuing and (ii) 0.50% per annum of the principal amount of the Notes outstanding for each day (x) during the 180-day period beginning on, and including, the 181st day following the date on which such an Event of Default first occurs and (y) on which such Event of Default is continuing. Additional Interest payable pursuant to this Section 6.03 shall be in addition to, not in lieu of, any Additional Interest payable pursuant to Section 4.06(d) or Section 4.06(e). If the Company so elects, such Additional Interest shall be payable in the same manner and on the same dates as the stated interest payable on the Notes. On the 361st day after such Event of Default (if the Event of Default relating to the Company's failure to file is not cured or waived prior to such 361st day), the Notes shall be immediately subject to acceleration as provided in Section 6.02. The provisions set forth in this Section 6.03 shall not affect the rights of Holders of the Notes in the event of the occurrence of any other Event of Default. In the event the Company does not elect to pay Additional Interest following an Event of Default in accordance with this Section 6.03 or the Company elected to make such payment but does not pay the Additional Interest when due, the Notes shall be immediately subject to acceleration as provided in Section 6.02.

In order to elect to pay Additional Interest as the sole remedy during the first 360 days after the occurrence of any Event of Default described in the immediately preceding paragraph, the Company must notify all Holders of the Notes, the Trustee and the Paying Agent of such election prior to the beginning of such 360-day period. Upon the failure to timely give such notice, the Notes shall be immediately subject to acceleration as provided in Section 6.02.

Section 6.04. *Payments of Notes on Default; Suit Therefor.* If an Event of Default described in clause (a) or (b) of Section 6.01 shall have occurred, the Company shall, upon demand of the Trustee, pay to the Trustee, for the benefit of the Holders of the Notes, the whole amount then due and payable on the Notes for principal and interest, if any, with interest on any overdue principal and interest, if any, at the rate borne by the Notes *plus* 0.50% at such time, and, in addition thereto, such further amount as shall be sufficient to cover any amounts due to the Trustee under Section 7.08. If the Company shall fail to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, may prosecute such proceeding to judgment or final decree and may enforce the same against the Company or any other obligor upon the Notes and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon the Notes, wherever situated.

In the event there shall be pending proceedings for the bankruptcy or for the reorganization of the Company or any other obligor on the Notes under Title 11 of the United States Code, or any other applicable law, or in case a receiver, assignee or trustee in bankruptcy or reorganization, liquidator, sequestrator or similar official shall have been appointed for or taken possession of the Company or such other obligor, the property of the Company or such other obligor, or in the event of any other judicial proceedings relative to the Company or such other obligor upon the Notes, or to the creditors or property of the Company or such other obligor, the Trustee, irrespective of whether the principal of the Notes shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand pursuant to the provisions of this Section 6.04, shall be entitled and empowered, by intervention in such proceedings or otherwise, to file and prove a claim or claims for the whole amount of principal and accrued and unpaid interest, if any, in respect of the Notes, and, in case of any judicial proceedings, to file such proofs of claim and other papers or documents and to take such other actions as it may deem necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceedings relative to the Company or any other obligor on the Notes, its or their creditors, or its or their property, and to collect and receive any monies or other property payable or deliverable on any such claims, and to distribute the same after the deduction of any amounts due to the Trustee under Section 7.08; and any receiver, assignee or trustee in bankruptcy or reorganization, liquidator, custodian or similar official is hereby authorized by each of the Holders to make such payments to the Trustee, as administrative expenses, and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due it for reasonable compensation, expenses, advances and disbursements, including agents and counsel fees, and including any other amounts due to the Trustee under Section 7.08, incurred by it up to the date of such distribution. To the extent that such payment of reasonable compensation, expenses, advances and disbursements out of the estate in any such proceedings shall be denied for any reason, payment of the same shall be secured by a lien on, and shall be paid out of, any and all distributions, dividends, monies, securities and other property that the Holders of the Notes may be entitled to receive in such proceedings, whether in liquidation or under any plan of reorganization or arrangement or otherwise.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting such Holder or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

All rights of action and of asserting claims under this Indenture, or under any of the Notes, may be enforced by the Trustee without the possession of any of the Notes, or the production thereof at any trial or other proceeding relative thereto, and any such suit or proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Notes.

In any proceedings brought by the Trustee (and in any proceedings involving the interpretation of any provision of this Indenture to which the Trustee shall be a party) the Trustee shall be held to represent all the Holders of the Notes, and it shall not be necessary to make any Holders of the Notes parties to any such proceedings.

In case the Trustee shall have proceeded to enforce any right under this Indenture and such proceedings shall have been discontinued or abandoned because of any waiver pursuant to Section 6.09 or any rescission and annulment pursuant to Section 6.02 or for any other reason or shall have been determined adversely to the Trustee, then and in every such case the Company, the Holders and the Trustee shall, subject to any determination in such proceeding, be restored respectively to their several positions and rights hereunder, and all rights, remedies and powers of the Company, the Holders and the Trustee shall continue as though no such proceeding had been instituted.

Section 6.05. *Application of Monies Collected by Trustee.* Any monies collected by the Trustee pursuant to this Article 6 with respect to the Notes shall be applied in the following order, at the date or dates fixed by the Trustee for the distribution of such monies, upon presentation of the several Notes, and stamping thereon the payment, if only partially paid, and upon surrender thereof, if fully paid:

First, to the payment of all amounts due the Trustee under Section 7.08;

Second, in case the principal of the outstanding Notes shall not have become due and be unpaid, to the payment of interest on the Notes in default in the order of the date due of the payments of such interest with interest (to the extent that such interest has been collected by the Trustee) upon such overdue payments at the rate borne by the Notes at such time (including the additional 0.50% interest that accrues on Defaulted Amounts), such payments to be made ratably to the Persons entitled thereto;

Third, in case the principal of the outstanding Notes shall have become due, by declaration or otherwise, and be unpaid to the payment of the whole amount (including, if applicable, the payment of the Redemption Price, the Fundamental Change Repurchase Price and any cash in lieu of fractional Common Shares upon conversion) then owing and unpaid upon the Notes for principal and interest, if any, with interest on the overdue principal and, to the extent that such interest has been collected by the Trustee, upon overdue installments of interest at the rate borne by the Notes at such time (including the additional 0.50% interest that accrues on Defaulted Amounts), and in case such monies shall be insufficient to pay in full the whole amounts so due and unpaid upon the Notes, then to the payment of such principal (including, if applicable, the Redemption Price, the Fundamental Change Repurchase Price and any cash in lieu of fractional Common Shares upon conversion) and interest without preference or priority of principal over interest, or of interest over principal or of any installment of interest over any other installment of interest, or of any Note over any other Note, ratably to the aggregate of such principal (including, if applicable, the Redemption Price and the Fundamental Change Repurchase Price) and accrued and unpaid interest; and

Fourth, to the payment of the remainder, if any, to the Company.

Section 6.06. *Proceedings by Holders.* Except to enforce the right to receive payment of principal (including, if applicable, the Fundamental Change Repurchase Price and the Redemption Price) or interest when due, or to enforce the right to receive delivery of the consideration due upon conversion, no Holder of any Note shall have any right by virtue of or by availing of any provision of this Indenture to institute any suit, action or proceeding in equity or at law upon or under or with respect to this Indenture, or for the appointment of a receiver, trustee, liquidator, custodian or other similar official, or for any other remedy hereunder, unless:

(a) such Holder previously shall have given to the Trustee written notice of an Event of Default and of the continuance thereof, as herein provided;

(b) Holders of at least 25% in aggregate principal amount of the Notes then outstanding shall have made written request upon the Trustee to institute such action, suit or proceeding or pursue such other remedy in its own name as Trustee hereunder;

(c) such Holders shall have offered to the Trustee such security and/or indemnity reasonably satisfactory to it against any loss, liability or expense to be incurred therein or thereby;

(d) the Trustee for 60 days after its receipt of such written notice, written request and offer of security and/or indemnity reasonably satisfactory to it, shall have neglected or refused to institute any such action, suit or proceeding; and

(e) no direction that, in the opinion of the Trustee, is inconsistent with such written request shall have been given to the Trustee by the Holders of a majority of the aggregate principal amount of the Notes then outstanding within such 60-day period pursuant to Section 6.09, it being understood and intended, and being expressly covenanted by the taker and Holder of every Note with every other taker and Holder and the Trustee that no one or more Holders shall have any right in any manner whatever by virtue of or by availing of any provision of this Indenture to affect, disturb or prejudice the rights of any other Holder, or to obtain or seek to obtain priority over or preference to any other such Holder, or to enforce any right under this Indenture, except in the manner herein provided and for the equal, ratable and common benefit of all Holders (except as otherwise provided herein). For the protection and enforcement of this Section 6.06, each and every Holder and the Trustee shall be entitled to such relief as can be given either at law or in equity.

Notwithstanding any other provision of this Indenture and any provision of any Note, the right of any Holder to receive payment or delivery, as the case may be, of (x) the principal (including the Redemption Price and the Fundamental Change Repurchase Price, if applicable) of, (y) accrued and unpaid interest, if any, on, and (z) the consideration due upon conversion of, such Note, on or after the respective due dates expressed or provided for in such Note or in this Indenture, or to institute suit for the enforcement of any such payment or delivery, as the case may be, on or after such respective dates against the Company shall not be impaired or affected without the consent of such Holder.

Section 6.07. *Proceedings by Trustee.* In case of an Event of Default, the Trustee may in its discretion proceed to protect and enforce the rights vested in it by this Indenture by such appropriate judicial proceedings as are necessary to protect and enforce any of such rights, either by suit in equity or by action at law or by proceeding in bankruptcy or otherwise, whether for the specific enforcement of any covenant or agreement contained in this Indenture or in aid of the exercise of any power granted in this Indenture, or to enforce any other legal or equitable right vested in the Trustee by this Indenture or by law.

Section 6.08. *Remedies Cumulative and Continuing.* Except as provided in the last paragraph of Section 2.06, all powers and remedies given by this Article 6 to the Trustee or to the Holders shall, to the extent permitted by law, be deemed cumulative and not exclusive of any thereof or of any other powers and remedies available to the Trustee or the Holders of the Notes, by judicial proceedings or otherwise, to enforce the performance or observance of the covenants and agreements contained in this Indenture, and no delay or omission of the Trustee or of any Holder of any of the Notes to exercise any right or power accruing upon any Default or Event of Default shall impair any such right or power, or shall be construed to be a waiver of any such Default or Event of Default or any acquiescence therein; and, subject to the provisions of Section 6.06, every power and remedy given by this Article 6 or by law to the Trustee or to the Holders may be exercised from time to time, and as often as shall be deemed expedient, by the Trustee or by the Holders.

Section 6.09. *Direction of Proceedings and Waiver of Defaults by Majority of Holders.* The Holders of a majority of the aggregate principal amount of the Notes at the time outstanding determined in accordance with Section 8.04 shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Notes; *provided*, *however*, that (a) such direction shall not be in conflict with any rule of law or with this Indenture, (b) the Trustee may take any other action deemed proper by the Trustee that is not inconsistent with such direction, and (c) prior to taking any action under this Indenture upon any such direction from Holders of the Notes, the Trustee shall be entitled to indemnification and/or security reasonably satisfactory to it against all losses and expenses caused by taking such action. The Trustee may refuse to follow any direction that it determines is unduly prejudicial to the rights of any other Holder or that would involve the Trustee in personal liability. The Holders of a majority in aggregate principal amount of the Notes at the time outstanding determined in accordance with Section 8.04 may on behalf of the Holders of all of the Notes waive any past Default or Event of Default hereunder and its consequences, other than a Default or Event of Default (i) in the payment of principal of, or interest on, any Note or, if applicable, in the payment of the Fundamental Change Repurchase Price or the Redemption Price that has not been cured pursuant to Section 6.01, (ii) arising from a failure by the Company to deliver the consideration due upon conversion of the Notes in accordance with this Indenture or (iii) in respect of any provision hereof which under Article 10 cannot be modified or amended without the consent of each Holder of an outstanding Note affected. Upon any such waiver the Company, the Trustee and the Holders of the Notes shall be restored to their former positions and rights hereunder; but no such waiver shall extend to any subsequent or other Default or Event of Default or impair any right consequent thereon. Whenever any Default or Event of Default hereunder shall have been waived as permitted by this Section 6.09, said Default or Event of Default shall for all purposes of the Notes and this Indenture be deemed to have been cured and to be not continuing; but no such waiver shall extend to any subsequent or other Default or Event of Default or impair any right consequent thereon.

Section 6.10. *Notice of Defaults.* The Trustee shall, within 90 days after the occurrence, and during the continuance, of a Default or Event of Default of which a Responsible Officer has written notice thereof, deliver to all Holders as the names and addresses of such Holders appear upon the Note Register, notice of all Defaults or Events of Default, unless such Defaults or Events of Default shall have been cured or waived before the giving of such notice.

Section 6.11. *Undertaking to Pay Costs.* All parties to this Indenture agree, and each Holder of any Note by its acceptance thereof shall be deemed to have agreed, that any court may, in its discretion, require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; *provided* that the provisions of this Section 6.11 (to the extent permitted by law) shall not apply to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of the Notes at the time outstanding determined in accordance with Section 8.04, or to any suit instituted by any Holder for the enforcement of the payment of the principal of or accrued and unpaid interest, if any, on any Note (including, but not limited to, the Redemption Price and the Fundamental Change Repurchase Price, if applicable) on or after the due date expressed or provided for in such Note or to any suit for the enforcement of the right to convert any Note, or receive the consideration due upon conversion, in accordance with the provisions of Article 14.

Section 7.01. *Duties and Responsibilities of Trustee*. The Trustee, prior to the occurrence of an Event of Default and after the curing or waiver of all Events of Default that may have occurred, undertakes to perform such duties and only such duties as are specifically set forth in this Indenture. In the event an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in its exercise, as a prudent person would exercise or use under the circumstances in the conduct of such person's own affairs.

No provision of this Indenture shall be construed to relieve the Trustee from liability for its own grossly negligent action, its own grossly negligent failure to act or its own willful misconduct, except that:

(a) prior to the occurrence of an Event of Default and after the curing or waiving of all Events of Default that may have occurred:

(i) the duties and obligations of the Trustee shall be determined solely by the express provisions of this Indenture, and the Trustee shall not be liable except for the performance of such duties and obligations as are specifically set forth in this Indenture and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(ii) in the absence of bad faith and willful misconduct on the part of the Trustee, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but, in the case of any such certificates or opinions that by any provisions hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether or not they conform to the requirements of this Indenture (but need not confirm or investigate the accuracy of any mathematical calculations or other facts stated therein);

(b) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer or Officers of the Trustee, unless it shall be proved that the Trustee was grossly negligent in ascertaining the pertinent facts;

(c) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders of not less than a majority of the aggregate principal amount of the Notes at the time outstanding determined as provided in Section 8.04 relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture;

(d) whether or not therein provided, every provision of this Indenture relating to the conduct or affecting the liability of, or affording protection to, the Trustee (including in any agency role) shall be subject to the provisions of this Section;

(e) the Trustee shall not be liable in respect of any payment (as to the correctness of amount, entitlement to receive or any other matters relating to payment) or notice effected by the Company or any Paying Agent or any records maintained by any co-Note Registrar with respect to the Notes;

(f) if any party fails to deliver a notice relating to an event the fact of which, pursuant to this Indenture, requires notice to be sent to the Trustee, the Trustee may conclusively rely on its failure to receive such notice as reason to act as if no such event occurred, unless a Responsible Officer of the Trustee had actual knowledge of such event;

(g) all cash received by the Trustee shall be placed in a non-interest bearing trust account and the Trustee shall have no liability for interest in the absence of a written executed agreement between the parties;

(h) in the event that the Trustee is also acting as Custodian, Note Registrar, Paying Agent, Conversion Agent or transfer agent hereunder, the rights, privileges, disclaimers, immunities and protections (including the right to receive compensation and be indemnified) afforded to the Trustee under this Indenture shall also be afforded to such Custodian, Note Registrar, Paying Agent, Conversion Agent or transfer agent; and

(i) the Trustee shall be under no obligation to enforce any of the provisions of this Indenture if an Event of Default occurs and is continuing, unless it is instructed by Holders of at least 25% in aggregate principal amount of the Notes then outstanding in accordance with this Indenture in writing and is provided with security and/or indemnity reasonably satisfactory to it.

None of the provisions contained in this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur personal financial liability in the performance of any of its duties or in the exercise of any of its rights or powers.

Section 7.02. *Reliance on Documents, Opinions, Etc.* In furtherance of and subject to the Trust Indenture Act of 1939, the mandatory provisions of which are incorporated herein in their entirety, and except as otherwise provided in Section 7.01:

(a) the Trustee may conclusively rely and shall be fully protected in acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, bond, note, coupon or other paper or document believed by it in good faith to be genuine and to have been signed or presented by the proper party or parties;

(b) any request, direction, order or demand of the Company mentioned herein shall be sufficiently evidenced by an Officers' Certificate (unless other evidence in respect thereof be herein specifically prescribed); and any Board Resolution may be evidenced to the Trustee by a copy thereof certified by the Secretary or an Assistant Secretary of the Company;

(c) the Trustee may consult with counsel and require an Opinion of Counsel and any advice of such counsel or Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken or omitted by it hereunder in good faith and in accordance with such advice or Opinion of Counsel;

(d) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Company, personally or by agent or attorney at the expense of the Company and shall incur no liability of any kind by reason of such inquiry or investigation;

(e) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents, custodians, nominees or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent, custodian, nominee or attorney appointed by it with due care hereunder; and

(f) the permissive rights of the Trustee enumerated herein shall not be construed as duties.

In no event shall the Trustee be liable for any consequential loss or damage of any kind whatsoever (including but not limited to lost profits), even if the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action other than any such loss or damage caused by the Trustee's willful misconduct or gross negligence.

Section 7.03. *No Responsibility for Recitals, Etc.* The recitals contained herein and in the Notes (except in the Trustee's certificate of authentication) shall be taken as the statements of the Company, and the Trustee assumes no responsibility for the correctness of the same. The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Notes. The Trustee shall not be accountable for the use or application by the Company of any Notes or the proceeds of any Notes authenticated and delivered by the Trustee in conformity with the provisions of this Indenture.

Section 7.04. *[Reserved.]*

Section 7.05. *Preservation of Information; Communication with Holders.* (a) The Trustee shall preserve, in as current a form as is reasonably practicable, all information as to the names and addresses of the Holders contained in the most recent list furnished to it as provided in Section 4.06 and as to the names and addresses of Holders received by the Trustee in its capacity as Notes Registrar (if acting in such capacity).

(b) The Trustee may destroy any list furnished to it a provided in Section 4.06 upon receipt of a new list so furnished.

(c) Holders may communicate as provided in Section 312(b) of the Trust Indenture Act with other Holders with respect to their rights under this Indenture or under the Notes. The Company, the Trustee, the Notes Registrar and any other Person shall have the protection of Section 312(c) of the Trust Indenture Act.

Section 7.06. *Trustee, Paying Agents, Conversion Agents or Note Registrar May Own Notes.* The Trustee, any Paying Agent, any Conversion Agent or Note Registrar, in its individual or any other capacity, may become the owner or pledgee of Notes with the same rights it would have if it were not the Trustee, Paying Agent, Conversion Agent or Note Registrar.

Section 7.07. *Monies to Be Held in Trust.* All monies received by the Trustee shall, until used or applied as herein provided, be held in trust for the purposes for which they were received. Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law.

Section 7.08. *Compensation and Expenses of Trustee.* The Company covenants and agrees to pay to the Trustee from time to time, and the Trustee shall be entitled to, reasonable compensation for all services rendered by it hereunder in any capacity (which shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust) and supplemental fees and reimbursement if extraordinary services are provided, including following a Default or Event of Default, as mutually agreed to in writing between the Trustee and the Company, and the Company will pay or reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances properly incurred or made by the Trustee in accordance with any of the provisions of this Indenture in any capacity thereunder (including the reasonable compensation and the expenses and disbursements of its agents and counsel and of all Persons not regularly in its employ) except any such expense, disbursement or advance as shall have been caused by its gross negligence or willful misconduct. The Company also covenants to indemnify the Trustee in any capacity under this Indenture and any other document or transaction entered into in connection herewith for, and to hold them harmless against, any loss, claim, damage, liability or expense incurred without gross negligence or willful misconduct on the part of the Trustee, its officers, directors, agents or employees, as the case may be, and arising out of or in connection with the acceptance or administration of this Indenture or in any other capacity hereunder, including the costs and expenses of defending themselves against any claim of liability in the premises. The obligations of the Company under this Section 7.08 to compensate or indemnify the Trustee and to pay or reimburse the Trustee for expenses, disbursements and advances shall be secured by a senior claim to which the Notes are hereby made subordinate on all money or property held or collected by the Trustee, except, subject to the effect of Section 6.05, funds held in trust herewith for the benefit of the Holders of particular Notes. The Trustee's right to receive payment of any amounts due under this Section 7.08 shall not be subordinate to any other liability or indebtedness of the Company. The obligation of the Company under this Section 7.08 shall survive the satisfaction and discharge of this Indenture and the earlier resignation or removal or the Trustee. The indemnification provided in this Section 7.08 shall extend to the officers, directors, agents and employees of the Trustee.

Without prejudice to any other rights available to the Trustee under applicable law, when the Trustee and its agents and any authenticating agent incur expenses or render services after an Event of Default specified in Section 6.01(i) or Section 6.01(j) occurs, the expenses and the compensation for the services are intended to constitute expenses of administration under any bankruptcy, insolvency or similar laws.

Section 7.09. *Officers' Certificate as Evidence.* Except as otherwise provided in Section 7.01, whenever in the administration of the provisions of this Indenture the Trustee shall deem it necessary or desirable that a matter be proved or established prior to taking or omitting any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may, in the absence of gross negligence, willful misconduct and bad faith on the part of the Trustee, be deemed to be conclusively proved and established by an Officers' Certificate delivered to the Trustee, and such Officers' Certificate, in the absence of gross negligence, willful misconduct and bad faith on the part of the Trustee, shall be full warrant to the Trustee for any action taken or omitted by it under the provisions of this Indenture upon the faith thereof.

Section 7.10. *Disqualification of Trustee.* If the Trustee has or shall acquire any "conflicting interest" within the meaning of Section 310(b) of the Trust Indenture Act, the Trustee and the Company shall in all respects comply with the provisions of Section 310(b) of the Trust Indenture Act.

Section 7.11. *Eligibility of Trustee.* There shall at all times be a Trustee hereunder which shall be a Person that is eligible pursuant to the Trust Indenture Act to act as such and has a combined capital and surplus of at least $150,000 and shall be eligible in accordance with the provisions of Section 310(a) of the Trust Indenture Act of 1939. If such Person publishes reports of condition at least annually, pursuant to law or to the requirements of any supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such Person shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article.

Section 7.12. *Resignation or Removal of Trustee.* (a) The Trustee may at any time resign by giving written notice of such resignation to the Company and by mailing notice thereof to the Holders at their addresses as they shall appear on the Note Register. Upon receiving such notice of resignation, the Company shall promptly appoint a successor trustee by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the resigning Trustee and one copy to the successor trustee. If no successor trustee shall have been so appointed and have accepted appointment within 60 days after the mailing of such notice of resignation to the Holders, the resigning Trustee may (on behalf of and at the sole expense of the Company) appoint its own successor who shall be a Person that is eligible to act as such in accordance with Section 7.11 or upon ten Business Days' notice to the Company and the Holders, petition any court of competent jurisdiction for the appointment of a successor trustee. Any Holder who has been a bona fide holder of a Note or Notes for at least six months may, subject to the provisions of Section 6.11, on behalf of himself or herself and all others similarly situated, petition any such court described in the immediately preceding sentence for the appointment of a successor trustee. Such court may thereupon, after such notice, if any, as it may deem proper and prescribe, appoint a successor trustee.

(b) In case at any time any of the following shall occur:

(i) the Trustee shall cease to be eligible in accordance with the provisions of Section 7.11 and shall fail to resign after written request therefor by the Company or by any such Holder, or

(ii) the Trustee shall become incapable of acting, or shall be adjudged a bankrupt or insolvent, or a receiver of the Trustee or of its property shall be appointed, or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, then, in either case, the Company may by a Board Resolution remove the Trustee and appoint a successor trustee by written instrument, in duplicate, executed by order of the Board of Directors, one copy of which instrument shall be delivered to the Trustee so removed and one copy to the successor trustee, or, subject to the provisions of Section 6.11, any Holder who has been a bona fide holder of a Note or Notes for at least six months may, on behalf of himself or herself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor trustee. Such court may thereupon, after such notice, if any, as it may deem proper and prescribe, remove the Trustee and appoint a successor trustee.

(c) The Holders of a majority in aggregate principal amount of the Notes at the time outstanding, as determined in accordance with Section 8.04, may at any time remove the Trustee and nominate a successor trustee that shall be deemed appointed as successor trustee unless within ten days after notice to the Company of such nomination the Company objects thereto, in which case the Trustee so removed or any Holder, upon the terms and conditions and otherwise as in Section 7.12(a) provided, may petition any court of competent jurisdiction for an appointment of a successor trustee.

(d) Any resignation or removal of the Trustee and appointment of a successor trustee pursuant to any of the provisions of this Section 7.12 shall become effective upon acceptance of appointment by the successor trustee as provided in Section 7.13.

Section 7.13. *Acceptance by Successor Trustee*. Any successor trustee appointed as provided in Section 7.12 shall execute, acknowledge and deliver to the Company and to its predecessor trustee an instrument accepting such appointment hereunder, and thereupon the resignation or removal of the predecessor trustee shall become effective and such successor trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, duties and obligations of its predecessor hereunder, with like effect as if originally named as Trustee herein; but, nevertheless, on the written request of the Company or of the successor trustee, the trustee ceasing to act shall, upon payment of any amounts then due it pursuant to the provisions of Section 7.08, execute and deliver an instrument transferring to such successor trustee all the rights and powers of the trustee so ceasing to act. Upon request of any such successor trustee, the Company shall execute any and all instruments in writing for more fully and certainly vesting in and confirming to such successor trustee all such rights and powers. Any trustee ceasing to act shall, nevertheless, retain a senior claim to which the Notes are hereby made subordinate on all money or property held or collected by such trustee as such, except for funds held in trust for the benefit of Holders of particular Notes, to secure any amounts then due it pursuant to the provisions of Section 7.08.

No successor trustee shall accept appointment as provided in this Section 7.13 unless at the time of such acceptance such successor trustee shall be eligible under the provisions of Section 7.10.

Upon acceptance of appointment by a successor trustee as provided in this Section 7.13, each of the Company and the successor trustee, at the written direction and at the expense of the Company shall mail or cause to be mailed notice of the succession of such trustee hereunder to the Holders at their addresses as they shall appear on the Note Register. If the Company fails to mail such notice within ten days after acceptance of appointment by the successor trustee, the successor trustee shall cause such notice to be mailed at the expense of the Company.

Section 7.14. *Succession by Merger, Etc.* Any corporation or other entity into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation or other entity resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation or other entity succeeding to all or substantially all of the corporate trust business of the Trustee (including the administration of this Indenture), shall be the successor to the Trustee hereunder without the execution or filing of any paper or any further act on the part of any of the parties hereto; *provided* that in the case of any corporation or other entity succeeding to all or substantially all of the corporate trust business of the Trustee such corporation or other entity shall be eligible under the provisions of Section 7.10.

In case at the time such successor to the Trustee shall succeed to the trusts created by this Indenture, any of the Notes shall have been authenticated but not delivered, any such successor to the Trustee may adopt the certificate of authentication of any predecessor trustee or authenticating agent appointed by such predecessor trustee, and deliver such Notes so authenticated; and in case at that time any of the Notes shall not have been authenticated, any successor to the Trustee or an authenticating agent appointed by such successor trustee may authenticate such Notes either in the name of any predecessor trustee hereunder or in the name of the successor trustee; and in all such cases such certificates shall have the full force which it is anywhere in the Notes or in this Indenture provided that the certificate of the Trustee shall have; *provided*, *however*, that the right to adopt the certificate of authentication of any predecessor trustee or to authenticate Notes in the name of any predecessor trustee shall apply only to its successor or successors by merger, conversion or consolidation.

Section 7.15. *Trustee's Application for Instructions from the Company.* Any application by the Trustee for written instructions from the Company (other than with regard to any action proposed to be taken or omitted to be taken by the Trustee that affects the rights of the Holders of the Notes under this Indenture) may, at the option of the Trustee, set forth in writing any action proposed to be taken or omitted by the Trustee under this Indenture and the date on and/or after which such action shall be taken or such omission shall be effective. The Trustee shall not be liable for any action taken by, or omission of, the Trustee in accordance with a proposal included in such application on or after the date specified in such application (which date shall not be less than three Business Days after the date any officer that the Company has indicated to the Trustee should receive such application actually receives such application, unless any such officer shall have consented in writing to any earlier date), unless, prior to taking any such action (or the effective date in the case of any omission), the Trustee shall have received written instructions in accordance with this Indenture in response to such application specifying the action to be taken or omitted.

ARTICLE 8
CONCERNING THE HOLDERS

Section 8.01. *Action by Holders.* Whenever in this Indenture it is provided that the Holders of a specified percentage of the aggregate principal amount of the Notes may take any action (including the making of any demand or request, the giving of any notice, consent or waiver or the taking of any other action), the fact that at the time of taking any such action, the Holders of such specified percentage have joined therein may be evidenced (a) by any instrument or any number of instruments of similar tenor executed by Holders in person or by agent or proxy appointed in writing, or (b) by the record of the Holders voting in favor thereof at any meeting of Holders duly called and held in accordance with the provisions of Article 9, or (c) by a combination of such instrument or instruments and any such record of such a meeting of Holders. Whenever the Company or the Trustee solicits the taking of any action by the Holders of the Notes, the Company or the Trustee may, but shall not be required to, fix in advance of such solicitation, a date as the record date for determining Holders entitled to take such action. The record date if one is selected shall be not more than fifteen days prior to the date of commencement of solicitation of such action.

Section 8.02. *Proof of Execution by Holders.* Subject to the provisions of Section 7.01, Section 7.02 and Section 9.05, proof of the execution of any instrument by a Holder or its agent or proxy shall be sufficient if made in accordance with such reasonable rules and regulations as may be prescribed by the Trustee or in such manner as shall be satisfactory to the Trustee. The holding of Notes shall be proved by the Note Register or by a certificate of the Note Registrar. The record of any Holders' meeting shall be proved in the manner provided in Section 9.06.

Section 8.03. *Who Are Deemed Absolute Owners.* The Company, the Trustee, any authenticating agent, any Paying Agent, any Conversion Agent and any Note Registrar may deem the Person in whose name a Note shall be registered upon the Note Register to be, and may treat it as, the absolute owner of such Note (whether or not such Note shall be overdue and notwithstanding any notation of ownership or other writing thereon made by any Person other than the Company or any Note Registrar) for the purpose of receiving payment of or on account of the principal of and (subject to Section 2.03) accrued and unpaid interest on such Note, for conversion of such Note and for all other purposes; and neither the Company nor the Trustee nor any Paying Agent nor any Conversion Agent nor any Note Registrar shall be affected by any notice to the contrary. All such payments or deliveries so made to any Holder for the time being, or upon its order, shall be valid, and, to the extent of the sums or shares of Common Shares so paid or delivered, effectual to satisfy and discharge the liability for monies payable or shares deliverable upon any such Note. Notwithstanding anything to the contrary in this Indenture or the Notes following an Event of Default, any Holder of a beneficial interest in a Global Note may directly enforce against the Company, without the consent, solicitation, proxy, authorization or any other action of the Depositary or any other Person, such Holder's right to exchange such beneficial interest for a Note in certificated form in accordance with the provisions of this Indenture.

Section 8.04. *Company-Owned Notes Disregarded.* In determining whether the Holders of the requisite aggregate principal amount of Notes have concurred in any direction, consent, waiver or other action under this Indenture, Notes that are owned by the Company or any Affiliate of the Company shall be disregarded and deemed not to be outstanding for the purpose of any such determination; *provided* that for the purposes of determining whether the Trustee shall be protected in relying on any such direction, consent, waiver or other action only Notes in respect of which a Responsible Officer has received written notice that such Notes are so owned shall be so disregarded. Notes so owned that have been pledged in good faith may be regarded as outstanding for the purposes of this Section 8.04 if the pledgee shall establish the pledgee's right to so act with respect to such Notes and that the pledgee is not the Company or any Affiliate of the Company. In the case of a dispute as to such right, any decision by the Trustee taken upon the advice of counsel shall be full protection to the Trustee. Upon request of the Trustee, the Company shall furnish to the Trustee promptly an Officers' Certificate listing and identifying all Notes, if any, known by the Company to be owned or held by or for the account of any of the above described Persons; and, subject to Section 7.01, the Trustee shall be entitled to conclusively rely on and accept such Officers' Certificate as conclusive evidence of the facts therein set forth and of the fact that all Notes not listed therein are outstanding for the purpose of any such determination.

Section 8.05. *Revocation of Consents; Future Holders Bound.* At any time prior to (but not after) the evidencing to the Trustee, as provided in Section 8.01, of the taking of any action by the Holders of the percentage of the aggregate principal amount of the Notes specified in this Indenture in connection with such action, any Holder of a Note that is shown by the evidence to be included in the Notes the Holders of which have consented to such action may, by filing written notice with the Trustee at its Corporate Trust Office and upon proof of holding as provided in Section 8.02, revoke such action so far as concerns such Note. Except as aforesaid, any such action taken by the Holder of any Note shall be conclusive and binding upon such Holder and upon all future Holders and owners of such Note and of any Notes issued in exchange or substitution therefor or upon registration of transfer thereof, irrespective of whether any notation in regard thereto is made upon such Note or any Note issued in exchange or substitution therefor or upon registration of transfer thereof.

ARTICLE 9
HOLDERS' MEETINGS

Section 9.01. *Purpose of Meetings.* A meeting of Holders may be called at any time and from time to time pursuant to the provisions of this Article 9 for any of the following purposes:

(a) to give any notice to the Company or to the Trustee or to give any directions to the Trustee permitted under this Indenture, or to consent to the waiving of any Default or Event of Default hereunder (in each case, as permitted under this Indenture) and its consequences, or to take any other action authorized to be taken by Holders pursuant to any of the provisions of Article 6;

(b) to remove the Trustee and nominate a successor trustee pursuant to the provisions of Article 7;

(c) to consent to the execution of an indenture or indentures supplemental hereto pursuant to the provisions of Section 10.02; or

(d) to take any other action authorized to be taken by or on behalf of the Holders of any specified aggregate principal amount of the Notes under any other provision of this Indenture or under applicable law.

Section 9.02. *Call of Meetings by Trustee.* The Trustee may at any time call a meeting of Holders to take any action specified in Section 9.01, to be held at such time and at such place as the Trustee shall determine. Notice of every meeting of the Holders, setting forth the time and the place of such meeting and in general terms the action proposed to be taken at such meeting and the establishment of any record date pursuant to Section 8.01, shall be mailed to Holders of such Notes at their addresses as they shall appear on the Note Register. Such notice shall also be mailed to the Company. Such notices shall be mailed not less than 20 nor more than 90 days prior to the date fixed for the meeting.

Any meeting of Holders shall be valid without notice if the Holders of all Notes then outstanding are present in person or by proxy or if notice is waived before or after the meeting by the Holders of all Notes then outstanding, and if the Company and the Trustee are either present by duly authorized representatives or have, before or after the meeting, waived notice.

Section 9.03. *Call of Meetings by Company or Holders.* In case at any time the Company, pursuant to a Board Resolution, or the Holders of at least 10% of the aggregate principal amount of the Notes then outstanding, shall have requested the Trustee to call a meeting of Holders, by written request setting forth in reasonable detail the action proposed to be taken at the meeting, and the Trustee shall not have mailed the notice of such meeting within 20 days after receipt of such request, then the Company or such Holders may determine the time and the place for such meeting and may call such meeting to take any action authorized in Section 9.01, by mailing notice thereof as provided in Section 9.02.

Section 9.04. *Qualifications for Voting.* To be entitled to vote at any meeting of Holders a Person shall (a) be a Holder of one or more Notes on the record date pertaining to such meeting or (b) be a Person appointed by an instrument in writing as proxy by a Holder of one or more Notes on the record date pertaining to such meeting. The only Persons who shall be entitled to be present or to speak at any meeting of Holders shall be the Persons entitled to vote at such meeting and their counsel and any representatives of the Trustee and its counsel and any representatives of the Company and its counsel.

Section 9.05. *Regulations.* Notwithstanding any other provisions of this Indenture, the Trustee may make such reasonable regulations as it may deem advisable for any meeting of Holders, in regard to proof of the holding of Notes and of the appointment of proxies, and in regard to the appointment and duties of inspectors of votes, the submission and examination of proxies, certificates and other evidence of the right to vote, and such other matters concerning the conduct of the meeting as it shall think fit.

The Trustee shall, by an instrument in writing, appoint a temporary chairman of the meeting, unless the meeting shall have been called by the Company or by Holders as provided in Section 9.03, in which case the Company or the Holders calling the meeting, as the case may be, shall in like manner appoint a temporary chairman. A permanent chairman and a permanent secretary of the meeting shall be elected by vote of the Holders of a majority in aggregate principal amount of the Notes represented at the meeting and entitled to vote at the meeting.

Subject to the provisions of Section 8.04, at any meeting of Holders each Holder or proxyholder shall be entitled to one vote for each $1,000 principal amount of Notes held or represented by him or her; *provided*, *however*, that no vote shall be cast or counted at any meeting in respect of any Note challenged as not outstanding and ruled by the chairman of the meeting to be not outstanding. The chairman of the meeting shall have no right to vote other than by virtue of Notes held by it or instruments in writing as aforesaid duly designating it as the proxy to vote on behalf of other Holders. Any meeting of Holders duly called pursuant to the provisions of Section 9.02 or Section 9.03 may be adjourned from time to time by the Holders of a majority of the aggregate principal amount of Notes represented at the meeting, whether or not constituting a quorum, and the meeting may be held as so adjourned without further notice.

Section 9.06. *Voting.* The vote upon any resolution submitted to any meeting of Holders shall be by written ballot on which shall be subscribed the signatures of the Holders or of their representatives by proxy and the outstanding aggregate principal amount of the Notes held or represented by them. The permanent chairman of the meeting shall appoint two inspectors of votes who shall count all votes cast at the meeting for or against any resolution and who shall make and file with the secretary of the meeting their verified written reports in duplicate of all votes cast at the meeting. A record in duplicate of the proceedings of each meeting of Holders shall be prepared by the secretary of the meeting and there shall be attached to said record the original reports of the inspectors of votes on any vote by ballot taken thereat and affidavits by one or more Persons having knowledge of the facts setting forth a copy of the notice of the meeting and showing that said notice was mailed as provided in Section 9.02. The record shall show the aggregate principal amount of the Notes voting in favor of or against any resolution. The record shall be signed and verified by the affidavits of the permanent chairman and secretary of the meeting and one of the duplicates shall be delivered to the Company and the other to the Trustee to be preserved by the Trustee, the latter to have attached thereto the ballots voted at the meeting.

Any record so signed and verified shall be conclusive evidence of the matters therein stated.

Section 9.07. *No Delay of Rights by Meeting.* Nothing contained in this Article 9 shall be deemed or construed to authorize or permit, by reason of any call of a meeting of Holders or any rights expressly or impliedly conferred hereunder to make such call, any hindrance or delay in the exercise of any right or rights conferred upon or reserved to the Trustee or to the Holders under any of the provisions of this Indenture or of the Notes.

Section 9.08. *Depositary Procedures.* For the avoidance of doubt, for as long as the Notes are in global form, consents may be obtained through applicable procedures of the Depositary.

ARTICLE 10
SUPPLEMENTAL INDENTURES

Section 10.01. *Supplemental Indentures Without Consent of Holders.* The Company, when authorized by the resolutions of the Board of Directors and the Trustee, at the Company's expense, may from time to time and at any time enter into an indenture or indentures supplemental hereto for one or more of the following purposes:

(a) to cure any ambiguity, omission, defect or inconsistency in a manner that does not individually or in the aggregate adversely affect the rights of any Holder of the Notes in any respect;

(b) to provide for the assumption by a Successor Company of the obligations of the Company under this Indenture pursuant to Article 11;

(c) to add guarantees with respect to the Notes;

(d) to secure the Notes;

(e) to add to the covenants or Events of Default of the Company for the benefit of the Holders or surrender any right or power conferred upon the Company;

(f) to make any change that does not adversely affect the rights of any Holder;

(g) in connection with any Merger Event, provide that the notes are convertible into Reference Property, subject to the provisions of Section 14.02, and make related changes to the terms of the Notes, in each case to the extent expressly required by Section 14.07; or

(h) to conform the provisions of this Indenture or the Notes to the "Description of Notes" section of the Offering Memorandum.

Upon the written request of the Company, the Trustee is hereby authorized to join with the Company in the execution of any such supplemental indenture, to make any further appropriate agreements and stipulations that may be therein contained, but the Trustee shall not be obligated to, but may in its discretion, enter into any supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Any supplemental indenture authorized by the provisions of this Section 10.01 may be executed by the Company and the Trustee without the consent of the Holders of any of the Notes at the time outstanding, notwithstanding any of the provisions of Section 10.02.

Section 10.02. *Supplemental Indentures with Consent of Holders.* With the consent (evidenced as provided in Article 8) of the Holders of at least a majority of the aggregate principal amount of the Notes then outstanding (determined in accordance with Article 8 and including, without limitation, consents obtained in connection with a repurchase of, or tender or exchange offer for, Notes), the Company, when authorized by the resolutions of the Board of Directors and the Trustee, at the Company's expense, may from time to time and at any time enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or any supplemental indenture or of modifying in any manner the rights of the Holders; *provided*, *however*, that, without the consent of each Holder of an outstanding Note affected, no such supplemental indenture shall:

(a) reduce the percentage in aggregate principal amount of Notes whose Holders must consent to an amendment of the Indenture or to waive any past Default;

(b) reduce the rate of or change the stated time for payment of interest on any Note;

(c) reduce the principal of or extend the Maturity Date of any Note;

(d) make any change that impairs or adversely affects the conversion rights of any Notes;

(e) reduce the Fundamental Change Repurchase Price of any Note or amend or modify in any manner adverse to the Holders the Company's obligation to make such payments, whether through an amendment or waiver of provisions in the covenants, definitions or otherwise;

(f) make any Note payable in a currency other than that stated in the Note;

(g) change the ranking of the Notes in a manner that is adverse to the Holders of the Notes;

(h) impair the right of any Holder to receive payment of principal of and interest on such Holder's Notes on or after the due dates therefor (including the Redemption Price, if applicable) or to institute suit for the enforcement of any payment on or with respect to such Holder's Notes;

(i) make any change to the provisions in Section 4.07; or

(j) make any change in this *proviso* or in the waiver provisions in Section 6.09.

Upon the written request of the Company, and upon the filing with the Trustee of evidence of the consent of Holders as aforesaid and subject to Section 10.05, the Trustee shall join with the Company in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion, but shall not be obligated to, enter into such supplemental indenture.

Holders do not need under this Section 10.02 to approve the particular form of any proposed supplemental indenture. It shall be sufficient if such Holders approve the substance thereof. After any such supplemental indenture becomes effective, the Company shall mail to the Holders a notice briefly describing such supplemental indenture. However, the failure to give such notice to all the Holders, or any defect in the notice, will not impair or affect the validity of the supplemental indenture.

Section 10.03. *Effect of Supplemental Indentures.* Upon the execution of any supplemental indenture pursuant to the provisions of this Article 10, this Indenture shall be and be deemed to be modified and amended in accordance therewith and the respective rights, limitation of rights, obligations, duties and immunities under this Indenture of the Trustee, the Company and the Holders shall thereafter be determined, exercised and enforced hereunder subject in all respects to such modifications and amendments and all the terms and conditions of any such supplemental indenture shall be and be deemed to be part of the terms and conditions of this Indenture for any and all purposes.

Section 10.04. *Notation on Notes.* Notes authenticated and delivered after the execution of any supplemental indenture pursuant to the provisions of this Article 10 may, at the Company's expense, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company or the Trustee shall so determine, new Notes so modified as to conform, in the opinion of the Trustee and the Board of Directors, to any modification of this Indenture contained in any such supplemental indenture may, at the Company's expense, be prepared and executed by the Company, authenticated by the Trustee (or an authenticating agent duly appointed by the Trustee pursuant to Section 18.07) and delivered in exchange for the Notes then outstanding, upon surrender of such Notes then outstanding.

Section 10.05. *Evidence of Compliance of Supplemental Indenture to Be Furnished Trustee.* In addition to the documents required bySection 18.07, the Trustee shall receive an Officers' Certificate and an Opinion of Counsel as conclusive evidence that any supplemental indenture executed pursuant hereto complies with the requirements of this Article 10, is legal, valid, binding and enforceable against the Company, that all conditions precedent for entering into a supplemental indenture have been satisfied and it is permitted or authorized by this Indenture.

ARTICLE 11
CONSOLIDATION, MERGER, SALE, CONVEYANCE AND LEASE

Section 11.01. *Company May Consolidate, Etc. on Certain Terms.* Subject to the provisions of Section 11.02, the Company shall not consolidate with or merge with or into, or sell, convey, transfer or lease all or substantially all of its properties and assets to another Person, unless:

(a) if the Company is not the resulting, surviving or transferee Person (the "**Successor Company**"), the Successor Company shall be a corporation or similar entity organized and existing under the laws of Canada or any province or territory thereof, the United States of America or any state thereof or the District of Columbia, or the Cayman Islands, and the Successor Company (if not the Company) shall expressly assume, by supplemental indenture all of the obligations of the Company under the Notes and this Indenture (including, for the avoidance of doubt, the obligation to pay Additional Amounts pursuant to Section 4.07); and

(b) immediately after giving effect to such transaction, no Default or Event of Default shall have occurred and be continuing under this Indenture.

For purposes of this Section 11.01, the sale, conveyance, transfer or lease of all or substantially all of the properties and assets of one or more Subsidiaries of the Company to another Person, which properties and assets, if held by the Company instead of such Subsidiaries, would constitute all or substantially all of the properties and assets of the Company on a consolidated basis, shall be deemed to be the sale, conveyance, transfer or lease of all or substantially all of the properties and assets of the Company to another Person.

Section 11.02. *Successor Corporation to Be Substituted.* In case of any such consolidation, merger, sale, conveyance, transfer or lease and upon the assumption by the Successor Company, by supplemental indenture, executed and delivered to the Trustee and satisfactory in form to the Trustee, of the due and punctual payment of the principal of and accrued and unpaid interest on all of the Notes, the due and punctual delivery of any consideration due upon conversion of the Notes and the due and punctual performance of all of the covenants and conditions of this Indenture to be performed by the Company, such Successor Company (if not the Company) shall succeed to and, except in the case of a lease of all or substantially all of the Company's properties and assets, shall be substituted for the Company, with the same effect as if it had been named herein as the party of the first part. Such Successor Company thereupon may cause to be signed, and may issue either in its own name or in the name of the Company any or all of the Notes issuable hereunder which theretofore shall not have been signed by the Company and delivered to the Trustee; and, upon the order of such Successor Company instead of the Company and subject to all the terms, conditions and limitations in this Indenture prescribed, the Trustee shall authenticate and shall deliver, or cause to be authenticated and delivered, any Notes that previously shall have been signed and delivered by the Officers of the Company to the Trustee for authentication, and any Notes that such Successor Company thereafter shall cause to be signed and delivered to the Trustee for that purpose. All the Notes so issued shall in all respects have the same legal rank and benefit under this Indenture as the Notes theretofore or thereafter issued in accordance with the terms of this Indenture as though all of such Notes had been issued at the date of the execution hereof. In the event of any such consolidation, merger, sale, conveyance or transfer (but not in the case of a lease), upon compliance with this Article 11 the Person named as the "Company" in the first paragraph of this Indenture (or any successor that shall thereafter have become such in the manner prescribed in this Article 11) may be dissolved, wound up and liquidated at any time thereafter and, except in the case of a lease, such Person shall be released from its liabilities as obligor and maker of the Notes and from its obligations under this Indenture and the Notes.

In case of any such consolidation, merger, sale, conveyance, transfer or lease, such changes in phraseology and form (but not in substance) may be made in the Notes thereafter to be issued as may be appropriate.

Section 11.03. *Opinion of Counsel to Be Given to Trustee.* No such consolidation, merger, sale, conveyance, transfer or lease shall be effective unless the Trustee shall receive an Officers' Certificate and an Opinion of Counsel as conclusive evidence that any such consolidation, merger, sale, conveyance, transfer or lease and any such assumption and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture, complies with the provisions of this Article 11.

ARTICLE 12
IMMUNITY OF INCORPORATORS, STOCKHOLDERS, OFFICERS AND DIRECTORS

Section 12.01. *Indenture and Notes Solely Corporate Obligations.* No recourse for the payment of the principal of or accrued and unpaid interest on any Note, nor for any claim based thereon or otherwise in respect thereof, and no recourse under or upon any obligation, covenant or agreement of the Company in this Indenture or in any supplemental indenture or in any Note, nor because of the creation of any indebtedness represented thereby, shall be had against any incorporator, stockholder, employee, agent, Officer or director or Subsidiary, as such, past, present or future, of the Company or of any successor corporation, either directly or through the Company or any successor corporation, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that all such liability is hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issue of the Notes.

ARTICLE 13
INTENTIONALLY OMITTED

ARTICLE 14
CONVERSION OF NOTES

Section 14.01. *Conversion Privilege.* Subject to and upon compliance with the provisions of this Article 14, each Holder of a Note shall have the right, at such Holder's option, to convert all or any portion (if the portion to be converted is $1,000 principal amount or an integral multiple thereof) of such Note at any time prior to the close of business on the second Business Day immediately preceding the Maturity Date at an initial conversion rate of 27.2707 Common Shares (subject to adjustment as provided in this Article 14, the "**Conversion Rate**") per $1,000 principal amount of Notes (subject to, and in accordance with, the settlement provisions of Section 14.02, the "**Conversion Obligation**").

Section 14.02. *Conversion Procedure; Settlement Upon Conversion.*

(a) Upon conversion of any Note, the Company shall deliver to the converting Holder, in respect of each $1,000 principal amount of Notes being converted, a number of Common Shares equal to the Conversion Rate as in effect on the Conversion Date, together with a cash payment, if applicable, in lieu of delivering any fractional Common Share in accordance with subsection (j) of this Section 14.02, on the second Business Day immediately following the relevant Conversion Date.

(b) Subject to Section 14.02(e), before any Holder of a Note shall be entitled to convert a Note as set forth above, such Holder shall (i) in the case of a Global Note, comply with the procedures of the Depositary in effect at that time and, if required, pay funds equal to interest payable on the next Interest Payment Date to which such Holder is not entitled as set forth in Section 14.02(h) and, if required, pay all documentary, stamp or similar issue or transfer tax, if any, and (ii) in the case of a Physical Note (1) complete, manually sign and deliver an irrevocable notice to the Conversion Agent as set forth in the Form of Notice of Conversion (or a facsimile thereof) (a "**Notice of Conversion**") at the office of the Conversion Agent and state in writing therein the principal amount of Notes to be converted and the name or names (with addresses) in which such Holder wishes the certificate or certificates for any Common Shares to be delivered upon settlement of the Conversion Obligation to be registered, (2) surrender such Notes, duly endorsed to the Company or in blank (and accompanied by appropriate endorsement and transfer documents), at the office of the Conversion Agent, (3) if required, furnish appropriate endorsements and transfer documents, (4) if required, pay all documentary, stamp or similar issue or transfer taxes and (5) if required, pay funds equal to interest payable on the next Interest Payment Date to which such Holder is not entitled as set forth in Section 14.02(h). The Trustee (and if different, the Conversion Agent) shall notify the Company of any conversion pursuant to this Article 14 on the Conversion Date for such conversion. No Notice of Conversion with respect to any Notes may be surrendered by a Holder thereof if such Holder has also delivered a Fundamental Change Repurchase Notice to the Company in respect of such Notes and has not validly withdrawn such Fundamental Change Repurchase Notice in accordance with Section 15.03. If a Holder submits Notes for repurchase, such Holder's rights to withdraw the Fundamental Change Repurchase Notice and convert the Notes subject to repurchase will terminate at the close of business on the second Business Day immediately preceding the relevant Fundamental Change Repurchase Date.

If more than one Note shall be surrendered for conversion at one time by the same Holder, the Conversion Obligation with respect to such Notes shall be computed on the basis of the aggregate principal amount of the Notes (or specified portions thereof to the extent permitted thereby) so surrendered.

(c) A Note shall be deemed to have been converted immediately prior to the close of business on the date (the "**Conversion Date**") that the Holder has complied with the requirements set forth in subsection (b) above. The Company shall issue or cause to be issued, and deliver to such Holder, or such Holder's nominee or nominees, certificates or a book-entry transfer through the Depositary for the full number of Common Shares to which such Holder shall be entitled in satisfaction of the Company's Conversion Obligation.

(d) In case any Note shall be surrendered for partial conversion, the Company shall execute and the Trustee shall authenticate and deliver to or upon the written order of the Holder of the Note so surrendered a new Note or Notes in authorized denominations in an aggregate principal amount equal to the unconverted portion of the surrendered Note, without payment of any service charge by the converting Holder but, if required by the Company or Trustee, with payment of a sum sufficient to cover any documentary, stamp or similar issue or transfer tax or similar governmental charge required by law or that may be imposed in connection therewith as a result of the name of the Holder of the new Notes issued upon such conversion being different from the name of the Holder of the old Notes surrendered for such conversion.

(e) If a Holder submits a Note for conversion, the Company shall pay any documentary, stamp or similar issue or transfer tax due on the issue of the Common Shares upon conversion, unless the tax is due because the Holder requests such shares to be issued in a name other than the Holder's name, in which case the Holder shall pay that tax. The Conversion Agent may refuse to deliver the certificates representing the Common Shares being issued in a name other than the Holder's name until the Trustee receives a sum sufficient to pay any tax that is due by such Holder in accordance with the immediately preceding sentence.

(f) Except as provided in Section 14.04, no adjustment shall be made for dividends on any Common Shares issued upon the conversion of any Note as provided in this Article 14.

(g) Upon the conversion of an interest in a Global Note, the Trustee, or the Custodian at the direction of the Trustee, shall make a notation on such Global Note as to the reduction in the principal amount represented thereby. The Company shall notify the Trustee in writing of any conversion of Notes effected through any Conversion Agent other than the Trustee.

(h) Upon conversion, a converting Holder shall not receive any additional cash payment or additional shares representing accrued and unpaid interest, if any, except as set forth below. The Company's settlement of the full Conversion Obligation shall be deemed to satisfy in full its obligation to pay the principal amount of the Note and accrued and unpaid interest, if any, to, but not including, the relevant Conversion Date. As a result, accrued and unpaid interest, if any, to, but not including, the relevant Conversion Date shall be deemed to be paid in full rather than cancelled, extinguished or forfeited. Notwithstanding the foregoing, if Notes are converted after the close of business on a Regular Record Date, Holders of such Notes as of the close of business on such Regular Record Date will receive the full amount of interest payable on such Notes on the corresponding Interest Payment Date notwithstanding the conversion. However, Notes surrendered for conversion during the period from the close of business on any Regular Record Date to the open of business on the immediately following Interest Payment Date must be accompanied by funds equal to the amount of interest payable on the Notes so converted; *provided* that no such payment shall be required (1) if the Notes are surrendered for conversion after 5:00 p.m., New York City time on the Regular Record Date immediately preceding the Maturity Date and before the close of business on the second Business Day immediately preceding the Maturity Date; (2) if the Company has delivered an Optional Redemption Notice pursuant to Article 16 and has specified therein an Optional Redemption Date that is after a Regular Record Date and on or prior to the Business Day immediately following the date on which the corresponding interest amount is paid; (3) if the Company has delivered a Tax Redemption Notice pursuant to Article 17 and has specified therein a Tax Redemption Date that is after a Regular Record Date and on or prior to the Business Day immediately following the date on which the corresponding interest amount is paid; (4) if the Company has specified a Fundamental Change Repurchase Date that is after a Regular Record Date and on or prior to the Business Day immediately following the date on which the corresponding interest amount is paid; or (5) to the extent of any Defaulted Amounts, if any Defaulted Amounts exists at the time of conversion with respect to such Note. Therefore, for the avoidance of doubt, all Holders of record on the Regular Record Date immediately preceding the Maturity Date shall receive the full interest payment due on the Maturity Date regardless of whether their Notes have been converted following such Regular Record Date.

(i) Any conversion of Notes shall be deemed to have been effected on the Conversion Date for such Notes. The Person in whose name the Common Shares shall be issuable upon conversion shall be treated as a stockholder of record as of the close of business on the relevant Conversion Date. Upon a conversion of Notes, such Person shall no longer be a Holder of such Notes surrendered for conversion other than for purposes of receiving the consideration due upon conversion and, if such Person was the record Holder as of a Regular Record Date, receiving the related interest payment.

(j) The Company shall not issue any fractional Common Share upon conversion of the Notes and shall instead pay cash in lieu of delivering any fractional Common Share issuable upon conversion based on the Last Reported Sale Price of the Common Shares on the relevant Conversion Date.

Section 14.03. *Increased Conversion Rate Applicable to Certain Notes Surrendered in Connection with Make-Whole Fundamental Changes or Notice of Redemption.* (a) If (i) a Make-Whole Fundamental Change occurs, (ii) the Company delivers an Optional Redemption Notice or (iii) the Company delivers a Tax Redemption Notice and, in each case, a Holder elects to convert its Notes in connection with such Make-Whole Fundamental Change or such Optional Redemption or such Tax Redemption, as the case may be, the Company shall, under the circumstances described below, increase the Conversion Rate for the Notes so surrendered for conversion by a number of additional Common Shares (the "**Additional Shares**"), as described below. A conversion of Notes shall be deemed for these purposes to be "in connection with" a Make-Whole Fundamental Change if the relevant Notice of Conversion is received by the Conversion Agent from, and including, the Effective Date of the Make-Whole Fundamental

Change up to, and including, the second Business Day immediately prior to the related Fundamental Change Repurchase Date (or, in the case of a Make-Whole Fundamental Change that would have been a Fundamental Change but for the *proviso* in clause (b) of the definition thereof, the 35th Trading Day immediately following the Effective Date of such Make-Whole Fundamental Change). A conversion of Notes will be deemed for these purposes to be "in connection with" an Optional Redemption or Tax Redemption, as the case may be, if the Notice of Conversion of the Notes (whether or not such Notes were called for redemption) is received by the Conversion Agent from, and including, the date the Company delivers an Optional Redemption Notice or a Tax Redemption Notice, as the case may be, to, and including, the second Business Date immediately prior to the related Optional Redemption Date or Tax Redemption Date, as the case may be.

(b) Upon surrender of Notes for conversion in connection with a Make-Whole Fundamental Change, an Optional Redemption or a Tax Redemption, the Company shall deliver Common Shares, including the Additional Shares, in accordance with Section 14.02; *provided, however*, that if the consideration for the Common Shares in any Make-Whole Fundamental Change described in clause (b) of the definition of Fundamental Change is comprised entirely of cash, for any conversion of Notes following the Effective Date of such Make-Whole Fundamental Change, the Conversion Obligation shall be calculated based solely on the Stock Price for the transaction and shall be deemed to be an amount of cash per $1,000 principal amount of converted Notes equal to the Conversion Rate (including any adjustment for Additional Shares), *multiplied by* such Stock Price. The Company shall notify the Holders of Notes of the Effective Date of any Make-Whole Fundamental Change and issue a press release announcing such Effective Date no later than five Business Days after such Effective Date.

(c) The number of Additional Shares, if any, by which the Conversion Rate shall be increased shall be determined by reference to the table below, based on the date on which the Make-Whole Fundamental Change occurs or becomes effective or, in the case of an Optional Redemption or a Tax Redemption, the date on which the Company delivers an Optional Redemption Notice or a Tax Redemption Notice (in each case, the "**Effective Date**") and the price paid (or deemed to be paid) per Common Share in the Make-Whole Fundamental Change or, in the case of either an Optional Redemption or a Tax Redemption, the average of the Last Reported Sale Prices of the Common Shares over the five Trading Day period ending on, and including, the Trading Day immediately preceding the date the Company delivers such Optional Redemption Notice or Tax Redemption Notice (in each case, the "**Stock Price**"). If the holders of the Common Shares receive in exchange for their Common Shares only cash in a MakeWhole Fundamental Change described in clause (b) of the definition of Fundamental Change, the Stock Price shall be the cash amount paid per share. In the case of any other Make-Whole Fundamental Change, the Stock Price shall be the average of the Last Reported Sale Prices of the Common Shares over the five Trading Day period ending on, and including, the Trading Day immediately preceding the Effective Date of the Make-Whole Fundamental Change.

(d) The Stock Prices set forth in the column headings of the table below shall be adjusted as of any date on which the Conversion Rate of the Notes is otherwise adjusted. The adjusted Stock Prices shall equal the Stock Prices applicable immediately prior to such adjustment, *multiplied by* a fraction, the numerator of which is the Conversion Rate immediately prior to such adjustment giving rise to the Stock Price adjustment and the denominator of which is the Conversion Rate as so adjusted. The number of Additional Shares set forth in the table below shall be adjusted in the same manner and at the same time as the Conversion Rate as set forth in Section 14.04.

(e) The following table sets forth the number of Additional Shares by which the Conversion Rate shall be increased per $1,000 principal amount of Notes pursuant to this Section 14.03 for each Stock Price and Effective Date set forth below:

	Stock Price									
Effective Date	**$27.675**	**$31.00**	**$36.67**	**$42.00**	**$47.67**	**$60.00**	**$75.00**	**$100.00**	**$150.00**	**$250.00**
September 15, 2020	8.8630	6.9945	4.8692	3.6043	2.7092	1.5997	0.9479	0.4594	0.1163	0.0000
October 1, 2021	8.8630	6.7932	4.5771	3.2931	2.4114	1.3663	0.7887	0.3775	0.0951	0.0000
October 1, 2022	8.8630	6.5052	4.1743	2.8755	2.0220	1.0782	0.6032	0.2875	0.0725	0.0000
October 1, 2023	8.8630	6.1006	3.6038	2.2983	1.5053	0.7300	0.3979	0.1939	0.0493	0.0000
October 1, 2024	8.8630	5.5223	2.7162	1.4410	0.8043	0.3382	0.1905	0.1001	0.0255	0.0000
October 1, 2025	8.8630	4.9874	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

The exact Stock Prices and Effective Dates may not be set forth in the table above, in which case:

(i) if the Stock Price is between two Stock Prices in the table above or the Effective Date is between two Effective Dates in the table, the number of Additional Shares shall be determined by a straight-line interpolation between the number of Additional Shares set forth for the higher and lower Stock Prices and the earlier and later Effective Dates based on a 365-day year, as applicable;

(ii) if the Stock Price is greater than $250.00 per share (subject to adjustment in the same manner as the Stock Prices set forth in the column headings of the table above pursuant to subsection (d) above), no Additional Shares shall be added to the Conversion Rate; and

(iii) if the Stock Price is less than $27.675 per share (subject to adjustment in the same manner as the Stock Prices set forth in the column headings of the table above pursuant to subsection (d) above), no Additional Shares shall be added to the Conversion Rate.

Notwithstanding the foregoing, in no event shall the total number of Common Shares issuable upon Conversion exceed 36.1337 per $1,000 principal amount of Notes, subject to adjustment in the same manner as the Conversion Rate pursuant to Section 14.04.

(f) Nothing in this Section 14.03 shall prevent an adjustment to the Conversion Rate pursuant to Section 14.04 in respect of a Make-Whole Fundamental Change.

Section 14.04. *Adjustment of Conversion Rate.* The Conversion Rate shall be adjusted from time to time by the Company if any of the following events occurs, except that the Company shall not make any adjustments to the Conversion Rate if Holders of the Notes participate (other than in the case of a share split or share combination), at the same time and upon the same terms as holders of the Common Shares and solely as a result of holding the Notes, in any of the transactions described in this Section 14.04, without having to convert their Notes, as if they held a number of Common Shares equal to the Conversion Rate, *multiplied by* the principal amount (expressed in thousands) of Notes held by such Holder.

(a) If the Record Date occurs in respect of an issuance by the Company of Common Shares as a dividend or distribution on Common Shares, or if the Company effects a share split or share combination, the Conversion Rate shall be adjusted based on the following formula:

$$CR_1 = CR_0 \times \frac{OS_1}{OS_0}$$

where,

CR_0 = the Conversion Rate in effect immediately prior to the close of business on the Record Date of such dividend or distribution, or immediately prior to the open of business on the Effective Date of such share split or share combination, as applicable;

CR_1 = the Conversion Rate in effect immediately after the close of business on such Record Date or immediately after the open of business on such Effective Date, as applicable;

OS_0 = the number of Common Shares outstanding immediately prior to the close of business on such Record Date or immediately prior to the open of business on such Effective Date, as applicable; and

OS_1 = the number of Common Shares outstanding immediately after giving effect to such dividend, distribution, share split or share combination.

Any adjustment made under this Section 14.04(a) shall become effective immediately after the close of business on the Record Date for such dividend or distribution, or immediately after the open of business on the Effective Date for such share split or share combination, as applicable. If any dividend or distribution of the type described in this Section 14.04(a) is declared but not so paid or made, the Conversion Rate shall be immediately readjusted, effective as of the date the Board of Directors determines not to pay such dividend or distribution, to the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

(b) If the Record Date occurs in respect of an issuance by the Company to all or substantially all holders of Common Shares of any rights, options or warrants entitling such holders for a period of not more than 45 calendar days after the announcement date of such issuance to subscribe for or purchase Common Shares at a price per share less than the average of the Last Reported Sale Prices of the Company's Common Shares for the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of such issuance, the Conversion Rate shall be increased based on the following formula:

$$CR_1 = CR_0 \times \frac{OS_0 + X}{OS_0 + Y}$$

where,

CR_0 = the Conversion Rate in effect immediately prior to the close of business on the Record Date for such issuance;

CR_1 = the Conversion Rate in effect immediately after the close of business on such Record Date;

OS_0 = the number of Common Shares outstanding immediately prior to the close of business on such Record Date;

X = the total number of Common Shares issuable pursuant to such rights, options or warrants; and

Y = the number of Common Shares equal to the aggregate price payable to exercise such rights, options or warrants, *divided by* the average of the Last Reported Sale Prices of the Common Shares over the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement of the issuance of such rights, options or warrants.

Any increase made under this Section 14.04(b) shall be made successively whenever any such rights, options or warrants are issued and shall become effective immediately after the close of business on the Record Date for such issuance. To the extent that Common Shares are not delivered after the expiration of such rights, options or warrants, the Conversion Rate shall be decreased, as of the date of such expiration, to the Conversion Rate that would then be in effect had the increase with respect to the issuance of such rights, options or warrants been made on the basis of delivery of only the number of Common Shares actually delivered. If such rights, options or warrants are not so issued, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect if such Record Date for such issuance had not occurred.

For purposes of this Section 14.04(b), in determining whether any rights, options or warrants entitle the holders to subscribe for or purchase Common Shares at less than such average of the Last Reported Sale Prices of the Common Shares for the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the date of announcement for such issuance, and in determining the aggregate offering price of such Common Shares, there shall be taken into account any consideration received by the Company for such rights, options or warrants and any amount payable on exercise or conversion thereof, the value of such consideration, if other than cash, to be determined by the Board of Directors.

(c) If the Record Date occurs in respect of a distribution by the Company of shares of its Capital Stock, evidences of its indebtedness, other assets or property of the Company or rights, options or warrants to acquire its Capital Stock or other securities, to all or substantially all holders of the Common Shares, excluding (i) dividends, distributions or issuances as to which an adjustment was effected pursuant to Section 14.04(a) or Section 14.04(b), (ii) dividends or distributions paid exclusively in cash as to which an adjustment was effected pursuant to Section 14.04(d), and (iii) Spin-Offs as to which the provisions set forth below in this Section 14.04(c) shall apply (any of such shares of Capital Stock, evidences of indebtedness, other assets or property or rights, options or warrants to acquire Capital Stock or other securities, the "**Distributed Property**"), then the Conversion Rate shall be increased based on the following formula:

$$CR_1 = CR_0 \times \frac{SP_0}{SP_0 - FMV}$$

where,

CR_0 = the Conversion Rate in effect immediately prior to the close of business on the Record Date for such distribution;

CR_1 = the Conversion Rate in effect immediately after the close of business on such Record Date;

SP_0 = the average of the Last Reported Sale Prices of the Common Shares over the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such distribution; and

FMV = the fair market value (as determined by the Board of Directors) of the Distributed Property with respect to each outstanding Common Share on the Ex-Dividend Date for such distribution.

Any increase made under the portion of this Section 14.04(c) above shall become effective immediately after the close of business on the Record Date for such distribution. If such distribution is not so paid or made, the Conversion Rate shall be decreased to the Conversion Rate that would then be in effect if such distribution had not been declared. Notwithstanding the foregoing, if "FMV" (as defined above) is equal to or greater than "SP_0" (as defined above), in lieu of the foregoing increase, each Holder of a Note shall receive, in respect of each $1,000 principal amount thereof, at the same time and upon the same terms as holders of the Common Shares receive the Distributed Property, the amount and kind of Distributed Property such Holder would have received if such Holder owned a number of Common Shares equal to the Conversion Rate in effect on the Record Date for the distribution. If the Board of Directors determines the "FMV" (as defined above) of any distribution for purposes of this Section 14.04(c) by reference to the actual or when-issued trading market for any securities, it shall in doing so consider the prices in such market over the 10 consecutive Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such distribution.

With respect to an adjustment pursuant to this Section 14.04(c) where the Record Date has occurred in respect of a dividend or other distribution on the Common Shares of shares of Capital Stock of any class or series, or similar equity interest, of or relating to a Subsidiary or other business unit of the Company, where such Capital Stock or similar equity interest is listed or quoted (or will be listed or quoted upon consummation of the Spin Off) on a U.S. national or regional securities exchange (a "**Spin-Off**"), the Conversion Rate shall be increased based on the following formula:

$$CR_1 = CR_0 \times \frac{FMV_0 + MP_0}{MP_0}$$

where,

CR_0 = the Conversion Rate in effect immediately prior to the end of the Valuation Period for such Spin-Off;

CR_1 = the Conversion Rate in effect immediately after the end of the Valuation Period;

FMV_0 = the average of the Last Reported Sale Prices of the Capital Stock or similar equity interest distributed to holders of the Common Shares applicable to one Common Share (determined by reference to the definition of Last Reported Sale Price as set forth in Section 1.01 as if references therein to Common Shares were to such Capital Stock or similar equity interest) over the first 10 consecutive Trading Day period beginning on, and including, the Ex-Dividend Date of the Spin-Off (the "**Valuation Period**"); and

MP_0 = the average of the Last Reported Sale Prices of the Common Shares over the Valuation Period.

The increase to the Conversion Rate under the preceding paragraph shall be determined on the last Trading Day of the Valuation Period; *provided* that in respect of any conversion of Notes during the Valuation Period, references in the portion of this Section 14.04(c) related to SpinOffs with respect to 10 Trading Days shall be deemed to be replaced with such lesser number of Trading Days as have elapsed from, and including, the Ex-Dividend Date of such Spin-Off to, and including, the Conversion Date in determining the applicable Conversion Rate.

For purposes of this Section 14.04(c) (and subject in all respect to Section 14.11), rights, options or warrants distributed by the Company to all holders of the Common Shares entitling them to subscribe for or purchase shares of the Company's Capital Stock, including Common Shares (either initially or under certain circumstances), which rights, options or warrants, until the occurrence of a specified event or events ("**Trigger Event**"): (i) are deemed to be transferred with such Common Shares; (ii) are not exercisable; and (iii) are also issued in respect of future issuances of the Common Shares, shall be deemed not to have been distributed for purposes of this Section 14.04(c) (and no adjustment to the Conversion Rate under this Section 14.04(c) will be required) until the occurrence of the earliest Trigger Event, whereupon such rights, options or warrants shall be deemed to have been distributed and an appropriate adjustment (if any is required) to the Conversion Rate shall be made under this Section 14.04(c). If any such right, option or warrant, including any such existing rights, options or warrants distributed prior to the date of this Indenture, are subject to events, upon the occurrence of which such rights, options or warrants become exercisable to purchase different securities, evidences of indebtedness or other assets, then the date of the occurrence of any and each such event shall be deemed to be the date of distribution and Record Date with respect to new rights, options or warrants with such rights (in which case the existing rights, options or warrants shall be deemed to terminate and expire on such date without exercise by any of the holders thereof). In addition, in the event of any distribution (or deemed distribution) of rights, options or warrants, or any Trigger Event or other event (of the type described in the immediately preceding sentence) with respect thereto that was counted for purposes of calculating a distribution amount for which an adjustment to the Conversion Rate under this Section 14.04(c) was made, (1) in the case of any such rights, options or warrants that shall all have been redeemed or purchased without exercise by any holders thereof, upon such final redemption or purchase (x) the Conversion Rate shall be readjusted as if such rights, options or warrants had not been issued and (y) the Conversion Rate shall then again be readjusted to give effect to such distribution, deemed distribution or Trigger Event, as the case may be, as though it were a cash distribution, equal to the per share redemption or purchase price received by a holder or holders of Common Shares with respect to such rights, options or warrants (assuming such holder had retained such rights, options or warrants), made to all holders of Common Shares as of the date of such redemption or purchase, and (2) in the case of such rights, options or warrants that shall have expired or been terminated without exercise by any holders thereof, the Conversion Rate shall be readjusted as if such rights, options and warrants had not been issued.

For purposes of Section 14.04(a), Section 14.04(b) and this Section 14.04(c), if any dividend or distribution to which this Section 14.04(c) is applicable also includes one or both of:

(A) a dividend or distribution of Common Shares to which Section 14.04(a) is applicable (the "**Clause A Distribution**"); or

(B) a dividend or distribution of rights, options or warrants to which Section 14.04(b) is applicable (the "**Clause B Distribution**"), then, in either case, (1) such dividend or distribution, other than the Clause A Distribution and the Clause B Distribution, shall be deemed to be a dividend or distribution to which this Section 14.04(c) is applicable (the "**Clause C Distribution**") and any Conversion Rate adjustment required by this Section 14.04(c) with respect to such Clause C Distribution shall then be made, and (2) the Clause A Distribution and Clause B Distribution shall be deemed to immediately follow the Clause C Distribution and any Conversion Rate adjustment required by Section 14.04(a) and Section 14.04(b) with respect thereto shall then be made, except that, if determined by the Company (I) the "Record Date" of the Clause A Distribution and the Clause B Distribution shall be deemed to be the Record Date of the Clause C Distribution and (II) any shares of Common Shares included in the Clause A Distribution or Clause B Distribution shall be deemed not to be "outstanding immediately prior to the close of business on such Record Date or immediately prior to the open of business on such Effective Date, as applicable" within the meaning of Section 14.04(a) or "outstanding immediately prior to the close of business on such Record Date" within the meaning of Section 14.04(b).

(d) If the Record Date occurs in respect of any cash dividend or distribution to all or substantially all holders of the Common Shares, the Conversion Rate shall be increased based on the following formula:

$$CR_1 = CR_0 \times \frac{SP_0}{SP_0 - C}$$

where,

CR_0 = the Conversion Rate in effect immediately prior to the close of business on the Record Date for such dividend or distribution;

CR_1 = the Conversion Rate in effect immediately after the close of business on the Record Date for such dividend or distribution;

SP_0 = the average of the Last Reported Sale Price of the Common Shares over the consecutive three Trading Day period ending on, and including, the Trading Day immediately preceding the Ex-Dividend Date for such dividend or distribution; and

C = the amount in cash per share the Company distributes to all or substantially all holders of the Common Shares.

Any increase pursuant to this Section 14.04(d) shall become effective immediately after the close of business on the Record Date for such dividend or distribution. If such dividend or distribution is not so paid, the Conversion Rate shall be decreased to be the Conversion Rate that would then be in effect if the Record Date for such dividend or distribution had not occurred. Notwithstanding the foregoing, if "C" (as defined above) is equal to or greater than "SP_0" (as defined above), in lieu of the foregoing increase, each Holder of a Note shall receive, for each $1,000 principal amount of Notes, at the same time and upon the same terms as holders of Common Shares, the amount of cash that such Holder would have received if such Holder owned a number of Common Shares equal to the Conversion Rate on the Record Date for such cash dividend or distribution.

(e) If the Company or any of its Subsidiaries make a payment in respect of a tender offer or exchange offer for the Common Shares, and the cash and value of any other consideration included in the payment per Common Share exceeds the average of the Last Reported Sale Prices of the Common Shares over the 10 consecutive Trading Day period commencing on, and including, the Trading Day next succeeding the last date on which tenders or exchanges may be made pursuant to such tender or exchange offer, the Conversion Rate shall be increased based on the following formula:

$$CR_1 = CR_0 \times \frac{AC + (SP_1 \times OS_1)}{OS_0 \times SP_1}$$

where,

CR_0 = the Conversion Rate in effect immediately prior to the close of business on the 10th Trading Day immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires;

CR_1 = the Conversion Rate in effect immediately after the close of business on the 10th Trading Day immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires;

AC = the aggregate value of all cash and any other consideration (as determined by the Board of Directors) paid or payable for shares purchased in such tender or exchange offer;

OS_0 = the number of Common Shares outstanding immediately prior to the date such tender or exchange offer expires (prior to giving effect to the purchase of all shares accepted for purchase or exchange in such tender or exchange offer);

OS_1 = the number of Common Shares outstanding immediately after the date such tender or exchange offer expires (after giving effect to the purchase of all shares accepted for purchase or exchange in such tender or exchange offer); and

SP_1 = the average of the Last Reported Sale Prices of the Common Shares over the 10 consecutive Trading Day period immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires.

The adjustment to the Conversion Rate under this Section 14.04(e) shall be determined at the close of business on the 10th Trading Day immediately following, and including, the Trading Day next succeeding the date such tender or exchange offer expires; *provided* that in respect of any conversion of Notes within the 10 Trading Days immediately following, and including, the Trading Day next succeeding the expiration date of any tender or exchange offer, references in this Section 14.04(e) with respect to 10 Trading Days shall be deemed replaced with such lesser number of Trading Days as have elapsed from, and including, the Trading Day next succeeding the expiration date of such tender or exchange offer to, and including, the Conversion Date in determining the applicable Conversion Rate.

(f) Except as stated herein, the Company shall not adjust the Conversion Rate for the issuance of Common Shares or any securities convertible into or exchangeable for Common Shares or the right to purchase Common Shares or such convertible or exchangeable securities. Notwithstanding anything to the contrary herein, if any Conversion Rate adjustment set forth in clauses (a), (b), (c), (d) and (e) of this Section 14.04 becomes effective as described above, and a Holder that has converted any Notes with a Conversion Date occurring on or after the date such Conversion Rate adjustment becomes effective will participate (other than in the case of a share split or combination), at the same time and upon the same terms as holders of the Common Shares and solely as a result of holding the Common Shares issuable upon conversion of such Notes, in the transaction or event giving rise to such Conversion Rate adjustment, then such Conversion Rate adjustment will not be made with respect to such Notes.

(g) In addition to those adjustments required by clauses (a), (b), (c), (d) and (e) of this Section 14.04, and to the extent permitted by applicable law and subject to the applicable rules of The Nasdaq Global Select Market or any other exchange on which any of the Company's securities are then listed, (i) the Company may increase the Conversion Rate by any amount for a period of at least 20 Business Days if the Board of Directors determines that such increase would be in the Company's best interest, which determination shall be conclusive, and (ii) the Company may (but is not required to) increase the Conversion Rate to avoid or diminish any income tax to holders of Common Shares or rights to purchase Common Shares in connection with a dividend or distribution of Common Shares (or rights to acquire Common Shares) or similar event. Whenever the Conversion Rate is increased pursuant to the preceding sentence, the Company shall mail to the Holder of each Note at its last address appearing on the Note Register a notice of the increase at least 15 days prior to the date the increased Conversion Rate takes effect, and such notice shall state the increased Conversion Rate and the period during which it will be in effect.

(h) Notwithstanding anything to the contrary in this Article 14, the Conversion Rate shall not be adjusted:

(i) upon the issuance of any Common Shares pursuant to any present or future plan providing for the reinvestment of dividends or interest payable on the Company's securities and the investment of additional optional amounts in Common
Shares under any plan;

(ii) upon the issuance of any Common Shares or options or rights to purchase those shares pursuant to any present or future employee, director or consultant benefit plan or program of or assumed by the Company or any of the Company's Subsidiaries;

(iii) upon the issuance of any Common Shares pursuant to any option, warrant, right or exercisable, exchangeable or convertible security not described in clause (ii) of this subsection and outstanding as of the date the Notes were first issued;

(iv) for a change solely in the par value (or lack of par value) of the Common
Shares; or

(v) for accrued and unpaid interest, if any.

(i) All calculations and other determinations under this Article 14 shall be made by the Company and shall be made to the nearest one-ten thousandth (1/10,000th) of a share. The Company shall not be required to make an adjustment to the Conversion Rate unless the adjustment (taken together with all carried forward adjustments) would require a change of at least 1% in the Conversion Rate. However, the Company shall carry forward any adjustments that are less than 1% of the Conversion Rate and make such carried-forward adjustments, regardless of whether the aggregate adjustment is less than 1%, on (x) December 31 of each calendar year and (y) the Conversion Date for any conversion of Notes.

(j) Whenever the Conversion Rate is adjusted as herein provided, the Company shall promptly file with the Trustee (and the Conversion Agent if not the Trustee) an Officers' Certificate setting forth the Conversion Rate after such adjustment and setting forth a brief statement of the facts requiring such adjustment. Unless and until a Responsible Officer of the Trustee shall have received such Officers' Certificate, the Trustee shall not be deemed to have knowledge of any adjustment of the Conversion Rate and may assume without inquiry that the last Conversion Rate of which it has knowledge is still in effect. Promptly after delivery of such certificate, the Company shall prepare a notice of such adjustment of the Conversion Rate setting forth the adjusted Conversion Rate and the date on which each adjustment becomes effective and shall mail such notice of such adjustment of the Conversion Rate to each Holder at its last address appearing on the Note Register of this Indenture. Failure to deliver such notice shall not affect the legality or validity of any such adjustment.

(k) For purposes of this Section 14.04, the number of Common Shares at any time outstanding shall not include Common Shares held in the treasury of the Company so long as the Company does not pay any dividend or make any distribution on Common Shares held in the treasury of the Company, but shall include Common Shares issuable in respect of scrip certificates issued in lieu of fractions of Common Shares.

Section 14.05. *Adjustments of Prices.* Whenever any provision of this Indenture requires the Company to calculate the Last Reported Sale Prices over a span of multiple days (including the period for calculating the Stock Price for purposes of a Make-Whole Fundamental Change), the Board of Directors shall make appropriate adjustments to each to account for any adjustment to the Conversion Rate that becomes effective, or any event requiring an adjustment to the Conversion Rate where the Ex-Dividend Date, Effective Date or expiration date of the event occurs, at any time during the period when the Last Reported Sale Prices are to be calculated.

Section 14.06. *Shares to Be Fully Paid.* The Company shall provide, free from preemptive rights, out of its authorized but unissued shares or shares held in treasury, sufficient Common Shares to provide for conversion of the Notes from time to time as such Notes are presented for conversion (assuming that at the time of computation of such number of shares, all such Notes would be converted by a single Holder, and including the maximum number of Additional Shares that would be issuable upon conversion in connection with a Make-Whole Fundamental Change, an Optional Redemption or a Tax Redemption).

Section 14.07. *Effect of Recapitalizations, Reclassifications and Changes of the Common Shares.*

(a) In the case of:

(i) any recapitalization, reclassification or change of the Common Shares (other than changes resulting from a subdivision or combination),

(ii) any consolidation, merger or combination involving the Company,

(iii) any sale, lease or other transfer to a third party of all or substantially all of the Company's property or assets; or

(iv) any statutory share exchange,

in each case, as a result of which the Common Shares would be converted into, or exchanged for, stock, other securities or other property or assets (including cash or any combination thereof) (any such event, a "**Merger Event**"), then, at and after the effective time of such Merger Event, the right to convert each $1,000 principal amount of Notes shall be changed into a right to convert such principal amount of Notes into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) that a holder of a number of Common Shares equal to the Conversion Rate immediately prior to such Merger Event would have owned or been entitled to receive (the "**Reference Property**," with each "**unit of Reference Property**" meaning the kind and amount of Reference Property that a holder of one Common Share is entitled to receive) upon such Merger Event and, prior to or at the effective time of such Merger Event, the Company or the successor or purchasing Person, as the case may be, shall execute with the Trustee a supplemental indenture permitted under Section 10.01(f) providing for such change in the right to convert each $1,000 principal amount of Notes.

If the Merger Event causes the Common Shares to be converted into, or exchanged for, the right to receive more than a single type of consideration (determined based in part upon any form of stockholder election), then (i) the Reference Property into which the Notes will be convertible shall be deemed to be the weighted average of the types and amounts of consideration actually received by the holders of Common Shares, and (ii) the unit of Reference Property for purposes of the immediately preceding paragraph shall refer to the consideration referred to in clause (i) attributable to one Common Share. The Company shall notify Holders, the Trustee and the Conversion Agent (if other than the Trustee) of such weighted average as soon as practicable after such determination is made.

Such supplemental indenture described in the second immediately preceding paragraph shall provide for anti-dilution and other adjustments that shall be as nearly equivalent as is possible to the adjustments provided for in this Article 14. If, in the case of any Merger Event, the Reference Property includes shares of stock, securities or other property or assets (including cash or any combination thereof) of a Person other than the successor or purchasing corporation, as the case may be, in such Merger Event, then such supplemental indenture shall also be executed by such other Person and shall contain such additional provisions to protect the interests of the Holders of the Notes as the Board of Directors shall reasonably consider necessary by reason of the foregoing, including the provisions providing for the purchase rights set forth in Article 15.

(b) When the Company executes a supplemental indenture pursuant to subsection (a) of this Section 14.07, the Company shall promptly file with the Trustee an Officers' Certificate briefly stating the reasons therefor, the kind or amount of cash, securities or property or asset that will comprise a unit of Reference Property after any such Merger Event, any adjustment to be made with respect thereto and that all conditions precedent have been complied with, and shall promptly mail notice thereof to all Holders. The Company shall cause notice of the execution of such supplemental indenture to be mailed to each Holder, at its address appearing on the Note Register provided for in this Indenture, within 20 days after execution thereof. Failure to deliver such notice shall not affect the legality or validity of such supplemental indenture.

(c) The Company shall not become a party to any Merger Event unless its terms are consistent with this Section 14.07. None of the foregoing provisions shall affect the right of a holder of Notes to convert its Notes into Common Shares as set forth in Section 14.01 and Section 14.02 prior to the effective date of such Merger Event.

(d) The above provisions of this Section shall similarly apply to successive Merger Events.

Section 14.08. *Certain Covenants.* (a) The Company covenants that all Common Shares issued upon conversion of Notes will be fully paid and non-assessable by the Company and free from all taxes, liens and charges with respect to the issue thereof.

(b) The Company covenants that, if any Common Shares to be provided for the purpose of conversion of Notes hereunder require registration with or approval of any governmental authority under any federal or state law before such Common Shares may be validly issued upon conversion, the Company will, to the extent then permitted by the rules and interpretations of the Commission, secure such registration or approval, as the case may be.

(c) The Company further covenants that if at any time the Common Shares shall be listed on any national securities exchange or automated quotation system the Company will list and keep listed, so long as the Common Shares shall be so listed on such exchange or automated quotation system, any Common Shares issuable upon conversion of the Notes.

Section 14.09. *Responsibility of Trustee*. The Trustee and any other Conversion Agent shall not at any time be under any duty or responsibility to any Holder to determine the Conversion Rate (or any adjustment thereto) or whether any facts exist that may require any adjustment (including any increase) of the Conversion Rate, or with respect to the nature or extent or calculation of any such adjustment when made, or with respect to the method employed, or herein or in any supplemental indenture provided to be employed, in making the same. The Trustee and any other Conversion Agent shall not be accountable with respect to the validity or value (or the kind or amount) of any Common Shares, or of any securities, property or cash that may at any time be issued or delivered upon the conversion of any Note; and the Trustee and any other Conversion Agent make no representations with respect thereto. Neither the Trustee nor any Conversion Agent shall be responsible for any failure of the Company to issue, transfer or deliver any Common Shares or stock certificates or other securities or property or cash upon the surrender of any Note for the purpose of conversion or to comply with any of the duties, responsibilities or covenants of the Company contained in this Article. Without limiting the generality of the foregoing, neither the Trustee nor any Conversion Agent shall be under any responsibility to determine the correctness of any provisions contained in any supplemental indenture entered into pursuant to Section 14.07 relating either to the kind or amount of shares of stock or securities or property (including cash) receivable by Holders upon the conversion of their Notes after any event referred to in such Section 14.07 or to any adjustment to be made with respect thereto, but, subject to the provisions of Section 7.01, may accept (without any independent investigation) as conclusive evidence of the correctness of any such provisions, and shall be protected in relying upon, the Officers' Certificate (which the Company shall be obligated to file with the Trustee prior to the execution of any such supplemental indenture) with respect thereto.

Section 14.10. *Notice to Holders Prior to Certain Actions.* In case of any:

(a) action by the Company or one of its Subsidiaries that would require an adjustment in the Conversion Rate pursuant to Section 14.04 or Section 14.11;

(b) Merger Event; or

(c) voluntary or involuntary dissolution, liquidation or winding-up of the Company or any of its Subsidiaries;

then, in each case (unless prior notice of such event is otherwise required pursuant to another provision of this Indenture), the Company shall cause to be filed with the Trustee and the Conversion Agent (if other than the Trustee) and to be mailed to each Holder at its address appearing on the Note Register, as promptly as possible but in any event at least 20 days prior to the applicable date hereinafter specified, a notice stating (i) the date on which a record is to be taken for the purpose of such action by the Company or one of its Subsidiaries or, if a record is not to be taken, the date as of which the holders of Common Shares of record are to be determined for the purposes of such action by the Company or one of its Subsidiaries, or (ii) the date on which such Merger Event, dissolution, liquidation or winding-up is expected to become effective or occur, and the date as of which it is expected that holders of Common Shares of record shall be entitled to exchange their Common Shares for securities or other property deliverable upon such Merger Event, dissolution, liquidation or winding-up. Failure to give such notice, or any defect therein, shall not affect the legality or validity of such action by the Company or one of its Subsidiaries, Merger Event, dissolution, liquidation or winding-up.

Section 14.11. *Stockholder Rights Plans.* If the Company has a stockholder rights plan in effect upon conversion of the Notes, Holders of the Notes shall be entitled to receive, in addition to the Common Share issued upon such conversion, the appropriate number of rights, if any, and the certificates representing the Common Shares issued upon such conversion shall bear such legends, if any, in each case as may be provided by the terms of any such stockholder rights plan, as the same may be amended from time to time. However, if, prior to any conversion of Notes, the rights have separated from the Common Shares in accordance with the provisions of the applicable stockholder rights plan so that the Holders would not be entitled to receive any rights in respect of Common Shares issuable upon conversion of the Notes, the Conversion Rate shall be adjusted at the time of separation as if the Company distributed to all or substantially all holders of the Common Share Distributed Property as provided in Section 14.04(c), subject to readjustment in the event of the expiration, termination or redemption of such rights.

ARTICLE 15
REPURCHASE OF NOTES AT OPTION OF HOLDERS

Section 15.01. *Intentionally Omitted.*

Section 15.02. *Repurchase at Option of Holders Upon a Fundamental Change.* (a) If a Fundamental Change occurs at any time, each Holder shall have the right, at such Holder's option, to require the Company to repurchase for cash all of such Holder's Notes, or any portion of the principal amount thereof that is equal to $1,000 or an integral multiple of $1,000, on the date (the "**Fundamental Change Repurchase Date**") specified by the Company that is not less than 20 calendar days or more than 35 calendar days following the date of the Fundamental Change Company Notice at a repurchase price equal to 100% of the principal amount thereof, *plus* accrued and unpaid interest thereon to, but excluding, the Fundamental Change Repurchase Date (the "**Fundamental Change Repurchase Price**"), unless the Fundamental Change Repurchase Date falls after a Regular Record Date but on or prior to the Interest Payment Date to which such Regular Record Date relates, in which case the Company shall instead pay the full amount of accrued and unpaid interest to Holders of record as of such Regular Record Date, and the Fundamental Change Repurchase Price shall be equal to 100% of the principal amount of Notes to be repurchased pursuant to this Article 15.

(b) Repurchases of Notes under this Section 15.02 shall be made, at the option of the Holder thereof, upon:

(i) delivery to the Paying Agent by a Holder of a duly completed notice (the "**Fundamental Change Repurchase Notice**") in the form set forth in Attachment 2 to the Form of Note attached hereto as Exhibit A, if the Notes are Physical Notes, or in compliance with the Depositary's procedures for surrendering interests in Global Notes, if the Notes are Global Notes, in each case on or before the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date; and

(ii) delivery of the Notes, if the Notes are Physical Notes, to the Paying Agent at any time after delivery of the Fundamental Change Repurchase Notice (together with all necessary endorsements for transfer) at the Corporate Trust Office of the Paying Agent, or book-entry transfer of the Notes, if the Notes are Global Notes, in compliance with the procedures of the Depositary, in each case such delivery being a condition to receipt by the Holder of the Fundamental Change Repurchase Price therefor.

The Fundamental Change Repurchase Notice in respect of any Notes to be repurchased shall state:

(i) in the case of Physical Notes, the certificate numbers of the Notes to be delivered for repurchase;

(ii) the portion of the principal amount of Notes to be repurchased, which must be $1,000 or an integral multiple thereof; and

(iii) that the Notes are to be repurchased by the Company pursuant to the applicable provisions of the Notes and this Indenture; *provided*, *however*, that if the Notes are Global Notes, the Fundamental Change Repurchase Notice must comply with appropriate Depositary procedures.

Notwithstanding anything herein to the contrary, any Holder delivering to the Paying Agent the Fundamental Change Repurchase Notice contemplated by this Section 15.02 shall have the right to withdraw, in whole or in part, such Fundamental Change Repurchase Notice at any time prior to the close of business on the second Business Day immediately preceding the Fundamental Change Repurchase Date by delivery of a written notice of withdrawal to the Paying Agent in accordance with Section 15.03.

The Paying Agent shall promptly notify the Company of the receipt by it of any Fundamental Change Repurchase Notice or written notice of withdrawal thereof.

(c) On or before the 20th calendar day after the occurrence of the effective date of a Fundamental Change, the Company shall provide to all Holders of Notes and the Trustee and the Paying Agent (in the case of a Paying Agent other than the Trustee) a notice (the "**Fundamental Change Company Notice**") of the occurrence of the effective date of the Fundamental Change and of the repurchase right at the option of the Holders arising as a result thereof. In the case of Physical Notes, such notice shall be by first class mail or, in the case of Global Notes, such notice shall be delivered in accordance with the applicable procedures of the Depositary. Simultaneously with providing such notice, the Company shall publish a notice containing the information set forth in the Fundamental Change Company Notice in a newspaper of general circulation in The City of New York or publish such information on the Company's website or through such other public medium as the Company may use at that time. Each Fundamental Change Company Notice shall specify:

(i) the events causing the Fundamental Change;

(ii) the effective date of the Fundamental Change;

(iii) the last date on which a Holder may exercise the repurchase right pursuant to this Article 15;

(iv) the Fundamental Change Repurchase Price;

(v) the Fundamental Change Repurchase Date;

(vi) if applicable, the name and address of the Paying Agent and the Conversion Agent;

(vii) if applicable, the Conversion Rate and any adjustments to the Conversion Rate;

(viii) if applicable, that the Notes with respect to which a Fundamental Change Repurchase Notice has been delivered by a Holder may be converted only if the Holder withdraws the Fundamental Change Repurchase Notice in accordance with the terms of this Indenture; and

(ix) the procedures that Holders must follow to require the Company to repurchase their Notes.

No failure of the Company to give the foregoing notices and no defect therein shall limit the Holders' repurchase rights or affect the validity of the proceedings for the repurchase of the Notes pursuant to this Section 15.02.

At the Company's request, the Trustee shall give such notice in the Company's name and at the Company's expense; *provided, however*, that, in all cases, the text of such Fundamental Change Company Notice shall be prepared by the Company.

(d) Notwithstanding the foregoing, no Notes may be repurchased by the Company on any date at the option of the Holders upon a Fundamental Change if the principal amount of the Notes has been accelerated, and such acceleration has not been rescinded, on or prior to such date (except in the case of an acceleration resulting from a Default by the Company in the payment of the Fundamental Change Repurchase Price with respect to such Notes). The Paying Agent will promptly return to the respective Holders thereof any Physical Notes held by it during the acceleration of the Notes (except in the case of an acceleration resulting from a Default by the Company in the payment of the Fundamental Change Repurchase Price with respect to such Notes), or any instructions for book-entry transfer of the Notes in compliance with the procedures of the Depositary shall be deemed to have been cancelled, and, upon such return or cancellation, as the case may be, the Fundamental Change Repurchase Notice with respect thereto shall be deemed to have been withdrawn.

Section 15.03. *Withdrawal of Fundamental Change Repurchase Notice.* (a) A Fundamental Change Repurchase Notice may be withdrawn (in whole or in part) by means of a written notice of withdrawal delivered to the Corporate Trust Office of the Paying Agent and the Trustee in accordance with this Section 15.03 at any time prior to the close of business on the Business Day immediately preceding the Fundamental Change Repurchase Date, specifying:

(i) the principal amount of the Notes with respect to which such notice of withdrawal is being submitted,

(ii) if Physical Notes have been issued, the certificate number of the Note in respect of which such notice of withdrawal is being submitted, and

(iii) the principal amount, if any, of such Note that remains subject to the original Fundamental Change Repurchase Notice, which portion must be in principal amounts of $1,000 or an integral multiple of $1,000; *provided, however*, that if the Notes are Global Notes, the notice must comply with appropriate procedures of the Depositary.

Section 15.04. *Deposit of Fundamental Change Repurchase Price*. (a) The Company will deposit with the Trustee (or other Paying Agent appointed by the Company, or if the Company is acting as its own Paying Agent, set aside, segregate and hold in trust as provided in Section 4.04) on or prior to 11:00 a.m., New York City time, on the Business Day immediately prior to the Fundamental Change Repurchase Date an amount of money sufficient to repurchase all of the Notes to be repurchased at the appropriate Fundamental Change Repurchase Price. Subject to receipt of funds and/or Notes by the Trustee (or other Paying Agent appointed by the Company), payment for Notes surrendered for repurchase (and not withdrawn prior to the close of business on the second Business Day immediately preceding the Fundamental Change Repurchase Date) will be made on the later of (i) the Fundamental Change Repurchase Date (*provided* the Holder has satisfied the conditions in Section 15.02) and (ii) the time of book-entry transfer or the delivery of such Note to the Trustee (or other Paying Agent appointed by the Company) by the Holder thereof in the manner required by Section 15.02 by mailing checks for the amount payable to the Holders of such Notes entitled thereto as they shall appear in the Note Register; *provided*, *however*, that payments to the Depositary shall be made by wire transfer of immediately available funds to the account of the Depositary or its nominee. The Trustee shall, promptly after such payment and upon written demand by the Company, return to the Company any funds in excess of the Fundamental Change Repurchase Price.

(b) If by 11:00 a.m. New York City time, on the Fundamental Change Repurchase Date, the Trustee (or other Paying Agent appointed by the Company) holds money sufficient to make payment on all the Notes or portions thereof that are to be repurchased on such Fundamental Change Repurchase Date, then, with respect to the Notes that have been properly surrendered for repurchase and have not been validly withdrawn, (i) such Notes will cease to be outstanding, (ii) interest will cease to accrue on such Notes (whether or not book-entry transfer of the Notes has been made or the Notes have been delivered to the Trustee or Paying Agent) and (iii) all other rights of the Holders of such Notes will terminate (other than the right to receive the Fundamental Change Repurchase Price upon delivery or transfer of the Notes and, if applicable, accrued and unpaid interest).

(c) Upon surrender of a Note that is to be repurchased in part pursuant to Section 15.02, the Company shall execute and the Trustee shall authenticate and deliver to the Holder a new Note in an authorized denomination equal in principal amount to the unrepurchased portion of the Note surrendered.

Section 15.05. *Covenant to Comply with Applicable Laws Upon Repurchase of Notes*. In connection with any repurchase offer, the Company will, if required:

(a) comply with the provisions of Rule 13e-4, Rule 14e-1 and any other tender offer rules under the Exchange Act;

(b) file a Schedule TO or any other required schedule under the Exchange Act; and

(c) otherwise comply with all federal and state securities laws in connection with any offer by the Company to repurchase the Notes; in each case, so as to permit the rights and obligations under this Article 15 to be exercised in the time and in the manner specified in this Article 15.

ARTICLE 16
OPTIONAL REDEMPTION

Section 16.01. *Optional Redemption*. No sinking fund is provided for the Notes. The Notes shall not be redeemable by the Company prior to October 6, 2023, except pursuant to Section 17.01. On or after October 6, 2023, the Company may redeem (an "**Optional Redemption**") for cash all or part of the Notes, at its option, at the Redemption Price, if the Last Reported Sale Price of the 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 the Optional Redemption Notice in accordance with Section 16.02.

Section 16.02. *Notice of Optional Redemption; Selection of Notes*. (a) In case the Company exercises its right to redeem all or any part of the Notes pursuant to Section 16.01, it shall fix a date for redemption (each, an "**Optional Redemption Date**") and it shall mail or cause to be mailed a written notice of such Optional Redemption (an "**Optional Redemption Notice**") not less than 45 nor more than 60 calendar days prior to the Optional Redemption Date to each Holder of Notes so to be redeemed as a whole or in part at its last address as the same appears on the Note Register; *provided* that the Company shall also give such written notice of the Optional Redemption Date to the Trustee and the Paying Agent. The Optional Redemption Date must be a Business Day. For the avoidance of doubt, if the Optional Redemption Date falls after a Regular Record Date but on or prior to the immediately succeeding Interest Payment Date, interest accrued to the Interest Payment Date will be paid to Holders of record of the Notes on such Regular Record Date.

(b) The Optional Redemption Notice, if mailed in the manner herein provided, shall be conclusively presumed to have been duly given, whether or not the Holder receives such notice. In any case, failure to give such Optional Redemption Notice by mail or any defect in the Optional Redemption Notice to the Holder of any Note designated for redemption as a whole or in part shall not affect the validity of the proceedings for the redemption of any other Note.

(c) Each Optional Redemption Notice shall specify:

(i) the Optional Redemption Date;

(ii) the Redemption Price;

(iii) that on the Optional Redemption Date, the Redemption Price will become due and payable upon each Note to be redeemed, and that interest thereon, if any, shall cease to accrue on and after the Optional Redemption Date;

(iv) the place or places where such Notes are to be surrendered for payment of the Redemption Price;

(v) that Holders may surrender their Notes for conversion at any time prior to the close of business on the second Business Day immediately preceding the Optional Redemption Date;

(vi) the procedures a converting Holder must follow to convert its Notes;

(vii) the Conversion Rate;

(viii) the CUSIP, ISIN or other similar numbers, if any, assigned to such Notes; and

(ix) in case any Note is to be redeemed in part only, the portion of the principal amount thereof to be redeemed and on and after the Optional Redemption Date, upon surrender of such Note, a new Note in principal amount equal to the unredeemed portion thereof shall be issued.

An Optional Redemption Notice shall be irrevocable.

(d) If fewer than all of the outstanding Notes are to be redeemed, the Notes to be redeemed (in principal amounts of $1,000 or multiples thereof) shall be selected by lot, on a *pro rata* basis or by another method the Trustee shall deem to be fair and appropriate in its sole and absolute discretion or as otherwise required by applicable law. In the case of a Global Note, the beneficial interests therein to be redeemed shall be selected in accordance with applicable procedures of the Depositary. If any Note selected for partial redemption is submitted for conversion in part after such selection, the portion of the Note submitted for conversion shall be deemed (so far as may be possible) to be the portion selected for redemption. In the case of an Optional Redemption, a Holder may convert its Notes at any time until the close of business on the second Business Day preceding the Optional Redemption Date.

Section 16.03. *Payment of Notes Called for Optional Redemption*. (a) If any Optional Redemption Notice has been given in respect of the Notes in accordance with Section 16.02, the Notes shall become due and payable on the Optional Redemption Date at the place or places stated in the Optional Redemption Notice and at the applicable Redemption Price. On presentation and surrender of the Notes at the place or places stated in the Optional Redemption Notice, the Notes shall be paid and redeemed by the Company at the applicable Redemption Price.

(b) Prior to the open of business on the Business Day immediately prior to the Optional Redemption Date, the Company shall deposit with the Paying Agent or, if the Company or a Subsidiary of the Company is acting as the Paying Agent, shall segregate and hold in trust as provided in Section 7.07 an amount of cash (in immediately available funds if deposited on the Optional Redemption Date), sufficient to pay the Redemption Price of all of the Notes to be redeemed on such Optional Redemption Date. Subject to receipt of funds by the Paying Agent, payment for the Notes to be redeemed shall be made on the Optional Redemption Date for such Notes. The Paying Agent shall, promptly after such payment and upon written demand by the Company, return to the Company any funds in excess of the Redemption Price.

Section 16.04. *Restrictions on Optional Redemption*. The Company may not redeem any Notes on any date if the principal amount of the Notes has been accelerated in accordance with the terms of this Indenture, and such acceleration has not been rescinded, on or prior to the Optional Redemption Date (except in the case of an acceleration resulting from a Default by the Company in the payment of the Redemption Price with respect to such Notes).

ARTICLE 17
REDEMPTION FOR TAXATION REASONS

Section 17.01. *Redemption for Taxation Reasons*.

The Notes may be redeemed, for cash, at the Company's option or at the option of any Successor Company, as a whole but not in part (a "**Tax Redemption**"), at the Redemption Price if, as a result of:

(i) any change in, or amendment to, the laws (or any regulations or rulings promulgated thereunder) of a Relevant Taxing Jurisdiction affecting taxation; or

(ii) any change in the interpretation, administration, practice, enforcement or application of such laws, rules or regulations, in each case having the force of law, by any legislative body, court, governmental agency, taxing authority or regulatory or administrative authority (including the enactment of any legislation and the announcement or publication of any judicial decision or official regulatory or administrative interpretation or determination),

which change or amendment becomes effective or, in the case of a change in the interpretation, administration, practice, enforcement or application of such laws, is announced (i) with respect the Company, on or after the date hereof, or (ii) with respect to any Successor Company, on or after the date such successor becomes a Successor Company, with respect to any payment due or to become due under the Notes or this Indenture, the Company or any Successor Company is, or on the next Interest Payment Date would be, required to pay Additional Amounts, and such requirement cannot be avoided by the taking of reasonable measures by the Company or any Successor Company.

Notwithstanding anything to the contrary in this Article 17, neither the Company nor any Successor Company may redeem any of the Notes in the case that Additional Amounts are payable in respect of People's Republic of China withholding tax at the Applicable PRC Rate or less solely as a result of the Company or its Successor Company being considered a People's Republic of China tax resident.

Section 17.02. *Notice of Tax Redemption.*

(a) In case the Company exercises its Tax Redemption right pursuant to Section 17.01, it shall fix a date for redemption (the "**Tax Redemption Date**") and it shall mail or cause to be mailed a written notice of such Tax Redemption (a "**Tax Redemption Notice**") not less than 45 nor more than 60 calendar days prior to the Tax Redemption Date to each Holder of Notes so to be redeemed at its last address as the same appears on the Note Register; *provided* that the Company shall also give such written notice of the Tax Redemption Date to the Trustee and the Paying Agent; *provided further* that no such Tax Redemption Notice shall be given earlier than 90 days prior to the earliest date on which the Company or any Successor Company would be obligated to pay such Additional Amounts if a payment in respect of the Notes were then due. The Tax Redemption Date must be a Business Day. For the avoidance of doubt, if the Tax Redemption Date falls after a Regular Record Date but on or prior to the immediately succeeding Interest Payment Date, interest accrued to the Interest Payment Date will be paid to Holders of record of the Notes on such Regular Record Date.

(b) Prior to the delivery of any Tax Redemption Notice, the Company shall deliver to the Trustee (i) a certificate signed by two of the Company's Officers stating that the requirement to pay Additional Amounts as provided in Section 17.01 cannot be avoided by the taking of reasonable measures by the Company or any Successor Company and (ii) an opinion of independent legal or tax advisors of recognized standing to the effect that such change or amendment has occurred (irrespective of whether such amendment or change is then effective). The Trustee shall accept and conclusively rely upon such certificate and opinion (without further investigation or enquiry) and it shall be conclusive and binding on the Holders.

(c) The Tax Redemption Notice, if mailed in the manner herein provided, shall be conclusively presumed to have been given duly, whether or not the Holder receives such notice. In any case, failure to give such Tax Redemption Notice by mail or any defect in the Tax Redemption Notice to the Holder of any Note designated for redemption shall not affect the validity of the proceedings for the redemption of any other Note.

(d) Each Tax Redemption Notice shall specify:

(i) the Tax Redemption Date;

(ii) the Redemption Price;

(iii) the place or places where such Notes are to be surrendered for payment of the Redemption Price;

(iv) that on the Tax Redemption Date, the Redemption Price will become due and payable upon each Note to be redeemed, and that the interest thereon, if any, shall cease to accrue on and after the Tax Redemption Date;

(v) that Holders may surrender their Notes for conversion at any time prior to the close of business on the second Business Day immediately preceding the Tax Redemption Date;

(vi) the procedures a converting Holder must follow to convert its Notes;

(vii) that Holders have the right to elect not to have their Notes redeemed by delivery to the Trustee written notice to that effect not later than the 15th calendar day prior to the Tax Redemption Date;

(viii) that Holders who wish to elect not to have their Notes redeemed must satisfy the requirements set forth herein and in the Indenture;

(ix) that, at and after the Tax Redemption Date, Holders who elect not to have their Notes redeemed will not receive any Additional Amounts on any payments with respect to such Notes solely as a result of the change or amendment in the tax laws of the Relevant Taxing Jurisdiction that caused such Additional Amounts to be paid (whether upon conversion, repurchase, maturity or otherwise, and whether in cash, Common Shares or otherwise), and all future payments with respect to the Notes will be subject to the deduction or withholding of such Relevant Taxing Jurisdiction taxes required by law to be deducted or withheld as a result of such change or amendment;

(x) the Conversion Rate and, if applicable, the number of Common Shares added to the Conversion Rate in accordance with Section 14.03; and

(xi) the CUSIP, ISIN or other similar numbers, if any, assigned to such Notes.

A Tax Redemption Notice shall be irrevocable. In the case of a Tax Redemption, a Holder may convert its Notes at any time until the close of business on the second Business Day preceding the Tax Redemption Date.

Section 17.03. *Payment of Notes Called for Tax Redemption for Taxation*.

(a) If any Tax Redemption Notice has been given in respect of the Notes in accordance with Section 17.02, the Notes shall become due and payable on the Tax Redemption Date at the place or places stated in the Tax Redemption Notice and at the applicable Redemption Price. On presentation and surrender of the Notes at the place or places stated in the Tax Redemption Notice, the Notes shall be paid and redeemed by the Company and the applicable Redemption Price.

(b) Prior to the open of business on the Business Day immediately prior to the Tax Redemption Date, the Company shall deposit with the Paying Agent or, if the Company or a Subsidiary of the Company is acting as the Paying Agent, shall segregate and hold in trust as provided in Section 7.07 an amount of cash (in immediately available funds if deposited on the Tax Redemption Date), sufficient to pay the Redemption Price of all of the Notes to be redeemed on such Tax Redemption Date. Subject to receipt of funds by the Paying Agent, payment for the Notes to be redeemed shall be made on the Tax Redemption Date for such Notes.

The Trustee (or other Paying Agent appointed by the Company) shall, promptly after such payment and upon written demand by the Company, return to Company any funds in excess of the Redemption Price.

Section 17.04. *Holders' Right to Avoid Redemption*. Notwithstanding anything to the contrary in this Article 17, if the Company or any Successor Company has given a Tax Redemption Notice as described in Section 17.02, each Holder of Notes will have the right to elect that such Holder's Notes will not be subject to Tax Redemption. If a Holder elects not to be subject to a Tax Redemption, the Company or any Successor Company will not be required to pay Additional Amounts with respect to payments made in respect of such Holder's Notes following the Tax Redemption Date, and all subsequent payments in respect of such Holder's Notes will be subject to any tax required to be withheld or deducted under the laws of a Relevant Taxing Jurisdiction, in each case, as a result of the change or amendment in the tax laws of the Relevant Taxing Jurisdiction that caused such Additional Amounts to be paid. The obligation to pay Additional Amounts to any electing Holder for periods up to the Tax Redemption Date shall remain subject to the exceptions set forth under Section 4.07. Holders must exercise their option to elect to avoid a Tax Redemption by written notice to the Trustee no later than the 15th calendar day prior to the Tax Redemption Date. If a Holder electing not to have its Notes redeemed pursuant to this Section 17.04 converts its Notes in connection with a Tax Redemption Notice as set forth under Section 14.03, the Company shall be obligated to pay Additional Amounts, if any, with respect to deliveries or payments pursuant to such conversion.

Section 17.05. *Restrictions on Tax Redemption*. The Company may not redeem any Notes on any date if the principal amount of the Notes has been accelerated in accordance with the terms of this Indenture, and such acceleration has not been rescinded, on or prior to the Tax Redemption Date (except in the case of an acceleration resulting from a Default by the Company in the payment of the Redemption Price with respect to such Notes).

ARTICLE 18
MISCELLANEOUS PROVISIONS

Section 18.01. *Provisions Binding on Company's Successors.* All the covenants, stipulations, promises and agreements of the Company contained in this Indenture shall bind its successors and assigns whether so expressed or not.

Section 18.02. *Official Acts by Successor Corporation.* Any act or proceeding by any provision of this Indenture authorized or required to be done or performed by any board, committee or Officer of the Company shall and may be done and performed with like force and effect by the like board, committee or officer of any corporation or other entity that shall at the time be the lawful sole successor of the Company.

Section 18.03. *Addresses for Notices, Etc.* Any notice or demand that by any provision of this Indenture is required or permitted to be given or served by the Trustee or by the Holders on the Company shall be deemed to have been sufficiently given or made, for all purposes if it is in writing, in the English language, given or served by electronic mail, or by being deposited postage prepaid by registered or certified mail in a post office letter box addressed (until another address is filed by the Company with the Trustee) to Canadian Solar Inc., No. 199 Lushan Road, Suzhou New District, Suzhou, Jiangsu 215129, People's Republic of China, Attention: Chief Financial Officer, email: Huifeng.Chang@canadiansolar.com. Any notice, direction, request or demand hereunder to or upon the Trustee shall be deemed to have been sufficiently given or made, for all purposes, if given or served by being deposited postage prepaid by registered or certified mail in a post office letter box addressed to 240 Greenwich Street, New York, NY 10286, USA; Facsimile No.: +1 212 815 5915, Attention: Global Corporate Trust – Canadian Solar Inc., e-mail: honctrmta@bnymellon.com, with a copy to The Bank of New York Mellon, Hong Kong Branch, Level 26, Three Pacific Place, 1 Queen's Road East, Hong Kong; Facsimile No.: +852-2295 3283; Attention: Corporate Trust – Canadian Solar Inc.

The Trustee, by notice to the Company, may designate additional or different addresses for subsequent notices or communications.

Any notice or communication delivered to a Holder shall be mailed to it by first class mail, postage prepaid, at its address as it appears on the Note Register or, in the case of a Global Note, transmitted in accordance with the Depositary's applicable procedures, and shall be sufficiently given to it if so mailed or so transmitted within the time prescribed. Notwithstanding any provision to the contrary herein, in any instance where notice is required to be mailed to Holders, in the case of a Global Note, such notice shall instead be delivered to the Depositary in accordance with its applicable procedures.

Failure to mail a notice or communication to a Holder or any defect in it shall not affect its sufficiency with respect to other Holders. If a notice or communication is mailed in the manner provided above, it is duly given, whether or not the addressee receives it.

In case by reason of the suspension of regular mail service or by reason of any other cause it shall be impracticable to give such notice to Holders by mail, then such notification as shall be made with the approval of the Trustee shall constitute a sufficient notification for every purpose hereunder.

The Trustee may rely upon and comply with instructions and directions sent by electronic mail, fax and other similar unsecured electronic methods (but excluding on-line communications systems covered by a separate agreement (such as the Inform or CA$H-Register Plus system)) ("**Electronic Methods**") by persons reasonably believed by it to be authorized to give instructions and directions on behalf of the Company.

The Trustee shall have no duty or obligation to verify or confirm that the person who sent such instructions or directions is, in fact, a person authorized to give instructions or directions on behalf of the Company (other than to verify that the signature on a fax is the signature of a person authorized to give instructions and directions on behalf of the Company) and shall have no liability for any losses, liabilities, costs or expenses incurred or sustained by the Company as a result of such reliance upon or compliance with such instructions or directions. The Company agrees to assume all risks arising out of the use of Electronic Methods to submit instructions and directions to the Trustee, including without limitation the risk of the Trustee acting on unauthorized instructions, and the risk of interception and misuse by third parties. The Company agrees that the indemnity set out in Section 7.08 shall apply in respect of any loss or liability suffered by the Trustee as a result of acting upon instructions and directions sent by Electronic Methods.

Section 18.04. *Conflict of Any Provision of Indenture With Trust Indenture Act of 1939.* If and to the extent that any provision of this Indenture limits, qualifies or conflicts with any provision of the Trust Indenture Act of 1939 incorporated in this Indenture pursuant to Section 7.02, such incorporated provision shall control.

Section 18.05. *Governing Law; Jurisdiction.* THIS INDENTURE AND EACH NOTE, AND ANY CLAIM, CONTROVERSY OR DISPUTE ARISING UNDER OR RELATED TO THIS INDENTURE AND EACH NOTE, SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

Each of the parties hereto hereby submits to the non-exclusive jurisdiction of the federal and state courts in the Borough of Manhattan in The City of New York in any suit or proceeding arising out of or relating to this Indenture or the Notes or any transaction contemplated hereby or thereby. The Company irrevocably and unconditionally waives, to the fullest extent permitted by law, any objection which it may now or hereafter have to the laying of venue of any of the aforesaid actions, suits or proceedings arising out of or in connection with this Indenture brought in the courts of the State of New York or the courts of the United States located in the Borough of Manhattan, New York City, New York and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such action, suit or proceeding brought in any such court has been brought in an inconvenient forum.

Section 18.06. *Submission to Jurisdiction; Service of Process.* The Company irrevocably appoints C T Corporation System as its authorized agent in the Borough of Manhattan in the City of New York upon which process may be served in any such suit or proceeding, and agrees that service of process upon such agent, and written notice of said service to the Company by the person serving the same to C T Corporation System at 28 Liberty Street, New York, New York 10011, United States of America, shall be deemed in every respect effective service of process upon the Company in any such suit or proceeding. The Company further agrees to take any and all action as may be necessary to maintain such designation and appointment of such agent in full force and effect for a period of five and a half years from the date of this Indenture. If for any reason such agent shall cease to be such agent for service of process, the Company shall forthwith appoint a new agent of recognized standing for service of process in the State of New York and deliver to the Trustee a copy of the new agent's acceptance of that appointment within 30 days of such acceptance. Nothing herein shall affect the right of the Trustee, any agent or any Holder to serve process in any other manner permitted by law or to commence legal proceedings or otherwise proceed against the Company in any other court of competent jurisdiction.

Section 18.07. *Evidence Of Compliance With Conditions Precedent; Certificates And Opinions Of Counsel To Trustee.* Upon any application or demand by the Company to the Trustee to take any action under any of the provisions of this Indenture, the Company shall, if requested by the Trustee, furnish to the Trustee an Officers' Certificate and/or Opinion of Counsel stating that such action is permitted by the terms of this Indenture.

Each Officers' Certificate or Opinion of Counsel provided for, by or on behalf of the Company in this Indenture and delivered to the Trustee with respect to compliance with this Indenture (other than the Officers' Certificates provided for in Section 4.09) shall include (a) a statement that the person signing such certificate is familiar with the requested action and the covenants and conditions in this Indenture, including definitions; (b) a brief statement as to the nature and scope of the examination or investigation upon which the statement contained in such certificate is based; (c) a statement that, in the judgment of such person, he or she has made such examination or investigation as is necessary to enable him or her to express an informed judgment as to whether or not such action is permitted by this Indenture and all conditions precedent have been satisfied; and (d) a statement as to whether or not, in the judgment of such person, such action is permitted by this Indenture and all conditions precedent have been satisfied.

Notwithstanding anything to the contrary in this Section 18.07, if any provision in this Indenture specifically provides that the Trustee shall or may receive an Opinion of Counsel in connection with any action to be taken by the Trustee or the Company hereunder, the Trustee shall be entitled to, or entitled to request, such Opinion of Counsel.

Section 18.08. *Legal Holidays.* In any case where any Interest Payment Date, Fundamental Change Repurchase Date, Conversion Date or Maturity Date is not a Business Day, then any action to be taken on such date need not be taken on such date, but may be taken on the next succeeding Business Day with the same force and effect as if taken on such date, and no interest shall accrue or other amounts shall be payable in respect of the delay.

Section 18.09. *No Security Interest Created.* Nothing in this Indenture or in the Notes, expressed or implied, shall be construed to constitute a security interest under the Uniform Commercial Code or similar legislation, as now or hereafter enacted and in effect, in any jurisdiction.

Section 18.10. *Benefits of Indenture.* Nothing in this Indenture or in the Notes, expressed or implied, shall give to any Person, other than the Holders (and to the extent specified in the last sentence of Section 8.03, beneficial owners of the Notes), the parties hereto, any Paying Agent, any Conversion Agent, any authenticating agent, any Note Registrar and their successors hereunder, any benefit or any legal or equitable right, remedy or claim under this Indenture.

Section 18.11. *Table of Contents, Headings, Etc.* The table of contents and the titles and headings of the articles and sections of this Indenture have been inserted for convenience of reference only, are not to be considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof.

Section 18.12. *Authenticating Agent.* The Trustee at the sole expense of the Company may appoint an authenticating agent that shall be authorized to act on its behalf and subject to its direction in the authentication and delivery of Notes in connection with the original issuance thereof and transfers and exchanges of Notes hereunder, as fully to all intents and purposes as though the authenticating agent had been expressly authorized by this Indenture to authenticate and deliver Notes. For all purposes of this Indenture, the authentication and delivery of Notes by the authenticating agent shall be deemed to be authentication and delivery of such Notes "by the Trustee" and a certificate of authentication executed on behalf of the Trustee by an authenticating agent shall be deemed to satisfy any requirement hereunder or in the Notes for the Trustee's certificate of authentication. Such authenticating agent shall at all times be a Person eligible to serve as trustee hereunder pursuant to Section 7.10.

Any corporation or other entity into which any authenticating agent may be merged or converted or with which it may be consolidated, or any corporation or other entity resulting from any merger, consolidation or conversion to which any authenticating agent shall be a party, or any corporation or other entity succeeding to the corporate trust business of any authenticating agent, shall be the successor of the authenticating agent hereunder, if such successor corporation or other entity is otherwise eligible under this Section 18.12, without the execution or filing of any paper or any further act on the part of the parties hereto or the authenticating agent or such successor corporation or other entity.

Any authenticating agent may at any time resign by giving written notice of resignation to the Trustee and to the Company. The Trustee may at any time terminate the agency of any authenticating agent by giving written notice of termination to such authenticating agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time any authenticating agent shall cease to be eligible under this Section, the Trustee may appoint a successor authenticating agent (which may be the Trustee), shall give written notice of such appointment to the Company and shall mail notice of such appointment to all Holders as the names and addresses of such Holders appear on the Note Register.

The Company agrees to pay to the authenticating agent from time to time reasonable compensation for its services although the Company may terminate the authenticating agent, if it determines such agent's fees to be unreasonable.

The provisions of Section 7.02, Section 7.03, Section 7.04, Section 8.03 and this Section 18.12 shall be applicable to any authenticating agent.

If an authenticating agent is appointed pursuant to this Section 18.12, the Notes may have endorsed thereon, in addition to the Trustee's certificate of authentication, an alternative certificate of authentication in the following form:

_____,
as Authenticating Agent, certifies that this is one of the Notes described
in the within-named Indenture.

By: _____
Authorized Officer

Section 18.13. *Execution in Counterparts.* This Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument. The exchange of copies of this Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Indenture as to the parties hereto and may be used in lieu of the original Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

Section 18.14. *Severability.* In the event any provision of this Indenture or in the Notes shall be invalid, illegal or unenforceable, then (to the extent permitted by law) the validity, legality or enforceability of the remaining provisions shall not in any way be affected or impaired.

Section 18.15. *Waiver of Jury Trial.* EACH OF THE COMPANY AND THE TRUSTEE HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS INDENTURE, THE NOTES OR THE TRANSACTIONS CONTEMPLATED HEREBY.

Section 18.16. *Force Majeure.* In no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Trustee shall use reasonable efforts that are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

Section 18.17. *Calculations*. Except as otherwise expressly provided herein, the Company shall be responsible for making all calculations called for under this Indenture and the Notes. These calculations include, but are not limited to, determinations of the Last Reported Sale Prices of the Common Shares, accrued interest payable on the Notes, the number of Additional Shares to be added to the Conversion Rate for conversions in connection with a Make-Whole Fundamental Change, an Optional Redemption or a Tax Redemption (if any) and the Conversion Rate of the Notes. The Company shall make all these calculations in good faith and, absent manifest error, the Company's calculations shall be final and binding on Holders of Notes, the Trustee and the Conversion Agent. The Company shall provide a schedule of its calculations to each of the Trustee, the Paying Agent and the Conversion Agent, and each of the Trustee, the Paying Agent and the Conversion Agent is entitled to rely conclusively upon the accuracy of the Company's calculations without independent verification. The Trustee will forward the Company's calculations to any Holder of Notes upon the written request of that Holder at the sole cost and expense of the Company.

Section 18.18. *USA PATRIOT Act.* The parties hereto acknowledge that in accordance with Section 326 of the USA PATRIOT Act, the Trustee, like all financial institutions and in order to help fight the funding of terrorism and money laundering, is required to obtain, verify, and record information that identifies each person or legal entity that establishes a relationship or opens an account with the Trustee. The parties to this Indenture agree that they will provide the Trustee with such information as it may request in order for the Trustee to satisfy the requirements of the USA PATRIOT Act.

Section 18.19. *Currency Indemnity.* U.S. dollars are the sole currency of account and payment for all sums payable by the Company under or in connection with the Notes or this Indenture, including damages. Any amount received or recovered in a currency other than U.S. dollars (whether as a result of, or through the enforcement of, a judgment or order of a court of any jurisdiction, in the Company's winding-up or dissolution or otherwise) by any Holder of a Note or the Trustee in respect of any sum expressed to be due to it from the Company will only constitute a discharge to the Company to the extent of the U.S. dollar amount that the recipient is able to purchase with the amount so received or recovered in that other currency on the date of that receipt or recovery (or, if it is not practicable to make that purchase on that date, on the first date on which it is practicable to do so.) If that U.S. dollar amount is less than the U.S. dollar amount expressed to be due to the recipient under any Note or this Indenture, the Company will indemnify such Holder and/or the Trustee against any loss sustained by it as a result; and if the amount of U.S. dollars so purchased is greater than the sum originally due to such Holder or the Trustee, such Holder or the Trustee will, by accepting a Note, be deemed to have agreed to repay such excess. In any event, the Company will indemnify the recipient against the cost of making any such purchase.

For the purposes of the preceding paragraph, it will be sufficient for the Holder of a Note or the Trustee to certify in a satisfactory manner (indicating the sources of information used) that it would have suffered a loss had an actual purchase of U.S. dollars been made with the amount so received in that other currency on the date of receipt or recovery (or, if a purchase of U.S. dollars on such date had not been practicable, on the first date on which it would have been practicable, it being required that the need for a change of date be certified in the manner mentioned above). These indemnities constitute a separate and independent obligation from the Company's other obligations, will give rise to a separate and independent cause of action, will apply irrespective of any indulgence granted by any Holder of a Note and will continue in full force and effect despite any other judgment, order, claim or proof for a liquidated amount in respect of any sum due under any Note.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed as of the date first written above.

CANADIAN SOLAR INC.

By: /s/ Shawn (Xiaohua) Qu
Name: Shawn (Xiaohua) Qu
Title: Chairman and Chief Executive Officer

[Signature Page – Indenture]

THE BANK OF NEW YORK MELLON, as Trustee

By: /s/ Ka Ying Grace Chow
Name: Ka Ying Grace Chow
Title: Vice President

[Signature Page – Indenture]

EXHIBIT A

[FORM OF FACE OF NOTE]

[INCLUDE FOLLOWING LEGEND IF A GLOBAL NOTE]

[UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION ("DTC"), TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE, OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT HEREUNDER IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE, OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.]

[INCLUDE FOLLOWING LEGEND IF A RULE 144A NOTE OR A REGULATION S NOTE]

[THIS SECURITY AND THE COMMON SHARES DELIVERABLE UPON CONVERSION OF THIS SECURITY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED EXCEPT IN ACCORDANCE WITH THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF OR OF A BENEFICIAL INTEREST HEREIN, THE ACQUIRER:

(1) REPRESENTS THAT IT AND ANY ACCOUNT FOR WHICH IT IS ACTING (A) IS A "QUALIFIED INSTITUTIONAL BUYER" (WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT) OR (B) IS NOT A U.S. PERSON (WITHIN THE MEANING OF REGULATION S UNDER THE SECURITIES ACT) AND THAT IT EXERCISES SOLE INVESTMENT DISCRETION WITH RESPECT TO EACH SUCH ACCOUNT AND THAT IT AND ANY SUCH ACCOUNT IS NOT AN AFFILIATE OF CANADIAN SOLAR INC. ("THE COMPANY"), AND

(2) AGREES FOR THE BENEFIT OF THE COMPANY THAT IT WILL NOT OFFER, SELL, PLEDGE OR OTHERWISE TRANSFER THIS SECURITY OR ANY BENEFICIAL INTEREST HEREIN PRIOR TO THE DATE THAT IS THE LATER OF (X) ONE YEAR AFTER THE LAST ORIGINAL ISSUE DATE HEREOF OR SUCH SHORTER PERIOD OF TIME AS PERMITTED BY RULE 144 UNDER THE SECURITIES ACT OR ANY SUCCESSOR PROVISION THERETO AND (Y) SUCH LATER DATE, IF ANY, AS MAY BE REQUIRED BY APPLICABLE LAW, EXCEPT:

(A) TO THE COMPANY OR ANY SUBSIDIARY THEREOF, OR

(B) PURSUANT TO A REGISTRATION STATEMENT THAT HAS BECOME EFFECTIVE UNDER THE SECURITIES ACT, OR

(C) TO A PERSON REASONABLY BELIEVED TO BE A QUALIFIED INSTITUTIONAL BUYER IN COMPLIANCE WITH RULE 144A UNDER THE SECURITIES ACT (A "QIB"), OR

(D) OUTSIDE THE UNITED STATES IN ACCORDANCE WITH REGULATION S UNDER THE SECURITIES ACT, OR

(E) PURSUANT TO AN EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE).

[PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(D) ABOVE, THE TRANSFEROR SHALL FIRST DELIVER TO THE TRANSFER AGENT A WRITTEN CERTIFICATE STATING THAT SUCH TRANSFER IS BEING MADE IN ACCORDANCE WITH RULE 903 OR 904 OF REGULATION S.][1]

[PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(C) ABOVE, THE TRANSFEROR SHALL FIRST DELIVER TO THE TRANSFER AGENT A WRITTEN CERTIFICATE STATING THAT THE NOTES ARE BEING TRANSFERRED TO A PERSON (1) WHO THE TRANSFEROR REASONABLY BELIEVES TO BE A QIB, (2) PURCHASING FOR ITS OWN ACCOUNT OR THE ACCOUNT OF A QIB IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A AND (3) IN ACCORDANCE WITH ALL APPLICABLE SECURITIES LAWS OF THE STATES OF THE UNITED STATES AND OTHER JURISDICTIONS.][2]

PRIOR TO THE REGISTRATION OF ANY TRANSFER IN ACCORDANCE WITH CLAUSE (2)(E) ABOVE, THE COMPANY AND THE TRANSFER AGENT RESERVE THE RIGHT TO REQUIRE THE DELIVERY OF SUCH LEGAL OPINIONS, CERTIFICATIONS OR OTHER EVIDENCE AS MAY REASONABLY BE REQUIRED IN ORDER TO DETERMINE THAT THE PROPOSED TRANSFER IS BEING MADE IN COMPLIANCE WITH THE SECURITIES ACT AND APPLICABLE STATE SECURITIES LAWS. NO REPRESENTATION IS MADE AS TO THE AVAILABILITY OF ANY EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT.

NO AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY OR PERSON THAT HAS BEEN AN AFFILIATE (AS DEFINED IN RULE 144 UNDER THE SECURITIES ACT) OF THE COMPANY DURING THE THREE IMMEDIATELY PRECEDING MONTHS MAY PURCHASE, OTHERWISE ACQUIRE OR OWN THIS NOTE OR A BENEFICIAL INTEREST HEREIN.]

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[1] To be included for a Rule 144A Note.

[2] To be included for a Regulation S Note.

CANADIAN SOLAR INC.

2.50% Convertible Senior Note due 2025

No. [_____] [Initially][3] $[_____]
CUSIP No. [_____][4] [_____][5]

CANADIAN SOLAR INC., a British Columbia Business Corporations Act corporation (the "**Company**," which term includes any successor corporation or other entity under the Indenture referred to on the reverse hereof), for value received hereby promises to pay to [CEDE & CO.][6] [_____][7], or registered assigns, the principal sum [as set forth in the "Schedule of Exchanges of Notes" attached hereto][8] [of $[_____]][9], which amount, taken together with the principal amounts of all other outstanding Notes, shall not, unless permitted by the Indenture, exceed $230,000,000 in aggregate at any time [, in accordance with the rules and procedures of the Depositary,][10] on October 1, 2025, and interest thereon as set forth below.

This Note shall bear interest at the rate of 2.50% per year from September 15, 2020, or from the most recent date to which interest had been paid or provided for to, but excluding, the next scheduled Interest Payment Date until October 1, 2025. Interest is payable semi-annually in arrears on each April 1 and October 1, commencing on April 1, 2021, to Holders of record at the close of business on the preceding March 15 and September 15 (whether or not such day is a Business Day), respectively. Additional Interest will be payable as set forth in the within mentioned Indenture, and any reference to interest on, or in respect of, any Note therein shall be deemed to include Additional Interest if, in such context, Additional Interest is, was or would be payable pursuant to any provision of the Indenture, and any express mention of the payment of Additional Interest in any provision therein shall not be construed as excluding Additional Interest in those provisions thereof where such express mention is not made.

Any Defaulted Amounts shall accrue interest per annum at the rate borne by the Notes *plus* 0.50%, subject to the enforceability thereof under applicable law, from, and including, the relevant payment date to, but excluding, the date on which such Defaulted Amounts shall have been paid by the Company, at its election, in accordance with the Indenture.

The Company shall pay the principal of and interest on this Note, if and so long as such Note is a Global Note, in immediately available funds to the Depositary or its nominee, as the case may be, as the registered Holder of such Note. As provided in and subject to the provisions of the Indenture, the Company shall pay the principal of any Notes (other than Notes that are Global Notes) at the office or agency designated by the Company for that purpose. The Company has initially designated The Bank of New York Mellon as its Paying Agent, Transfer Agent and Note Registrar in respect of the Notes and its agency in the Borough of Manhattan, The City of New York, as a place where Notes may be presented for payment or for registration of transfer and exchange.

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[3] Include if a global note.
[4] Include for Rule 144A Note.
[5] Include for Regulation S Note.
[6] Include if a global note.
[7] Include if a physical note.
[8] Include if a global note.
[9] Include if a physical note.
[10] Include if a global note.

Reference is made to the further provisions of this Note set forth on the reverse hereof, including, without limitation, provisions giving the Holder of this Note the right to convert this Note into Common Shares on the terms and subject to the limitations set forth in the Indenture. Such further provisions shall for all purposes have the same effect as though fully set forth at this place.

This Note, and any claim, controversy or dispute arising under or related to this Note, shall be construed in accordance with and governed by the laws of the State of New York.

In the case of any conflict between this Note and the Indenture, the provisions of the Indenture shall control and govern.

This Note shall not be valid or become obligatory for any purpose until the certificate of authentication hereon shall have been signed manually or by facsimile by the Trustee or a duly authorized authenticating agent under the Indenture.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the Company has caused this Note to be duly executed.

CANADIAN SOLAR INC.

By: _____
Name:
Title:

[Signature Page – Global Note]

Dated:

CERTIFICATE OF AUTHENTICATION

THE BANK OF NEW YORK MELLON
as Trustee, certifies that this is one of the Notes described
in the within-named Indenture.

By: _____
Name:
Title:

[Signature Page – Global Note]

[FORM OF REVERSE OF NOTE]

CANADIAN SOLAR INC.
2.50% Convertible Senior Note due 2025

This Note is one of a duly authorized issue of Notes of the Company, designated as its 2.50% Convertible Senior Notes due 2025 (the "**Notes**"), limited to the aggregate principal amount of $230,000,000 all issued or to be issued under and pursuant to an Indenture dated as of September 15, 2020 (the "**Indenture**"), between the Company and The Bank of New York Mellon (the "**Trustee**"), to which Indenture and all indentures supplemental thereto reference is hereby made for a description of the rights, limitations of rights, obligations, duties and immunities thereunder of the Trustee, the Company and the Holders of the Notes. Additional Notes may be issued in an unlimited aggregate principal amount, subject to certain conditions specified in the Indenture. Capitalized terms used in this Note and not defined in this Note shall have the respective meanings set forth in the Indenture.

In case certain Events of Default shall have occurred and be continuing, the principal of, premium, if any, and accrued and unpaid interest on, all Notes may be declared, by either the Trustee (subject to receiving indemnity and/or security to its reasonable satisfaction) or Holders of at least 25% in aggregate principal amount of Notes then outstanding, and upon said declaration shall become, due and payable, in the manner, with the effect and subject to the conditions and certain exceptions set forth in the Indenture. In the case of certain Events of Default relating to bankruptcy, insolvency or similar events with respect to the Company or any Significant Subsidiary, the principal of, premium, if any, and accrued and unpaid interest on, the Notes then outstanding shall automatically become and be immediately due and payable without any declaration or other act on the part of the Holders or the Trustee.

Subject to the terms and conditions of the Indenture, the Company will make all payments and deliveries in respect of the Fundamental Change Repurchase Price on the Fundamental Change Repurchase Date to the Holder who surrenders a Note to a Paying Agent to collect such payments in respect of the Note. The Company will pay cash amounts in money of the United States that at the time of payment is legal tender for payment of public and private debts.

The Indenture contains provisions permitting the Company and the Trustee in certain circumstances, without the consent of the Holders of the Notes, and in certain other circumstances, with the consent of the Holders of not less than a majority in aggregate principal amount of the Notes at the time outstanding, evidenced as in the Indenture provided, to execute supplemental indentures modifying the terms of the Indenture and the Notes as described therein. It is also provided in the Indenture that, subject to certain exceptions, the Holders of a majority in aggregate principal amount of the Notes at the time outstanding may, on behalf of the Holders of all of the Notes waive any past Default or Event of Default under the Indenture and its consequences.

No reference herein to the Indenture and no provision of this Note or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay or deliver, as the case may be, the principal (including the Fundamental Change Repurchase Price or the Redemption Price, in each case, if applicable) of, accrued and unpaid interest on, and the consideration due upon conversion of, this Note at the place, at the respective times, at the rate and in the lawful money herein prescribed.

The Notes are issuable in registered form without coupons in denominations of $1,000 principal amount and integral multiples thereof. At the office or agency of the Company referred to on the face hereof, and in the manner and subject to the limitations provided in the Indenture, Notes may be exchanged for a like aggregate principal amount of Notes of other authorized denominations, without payment of any service charge but, if required by the Company or Trustee, with payment of a sum sufficient to cover any transfer or similar tax that may be imposed in connection therewith as a result of the name of the Holder of the new Notes issued upon such exchange of Notes being different from the name of the Holder of the old Notes surrendered for such exchange.

No sinking fund is provided for the Notes. Under certain circumstances specified in the Indenture, the Notes will be subject to redemption by the Company at the Redemption Price.

Upon the occurrence of a Fundamental Change, the Holder has the right, at such Holder's option, to require the Company to repurchase for cash all of such Holder's Notes or any portion thereof (in principal amounts of $1,000 or integral multiples thereof) on the Fundamental Change Repurchase Date at a price equal to the Fundamental Change Repurchase Price.

Subject to the provisions of the Indenture, the Holder hereof has the right, at its option, during certain periods and upon the occurrence of certain conditions specified in the Indenture, prior to the close of business on the second Business Day immediately preceding the Maturity Date, to convert any Notes or portion thereof that is $1,000 or an integral multiple thereof, into Common Shares at the Conversion Rate specified in the Indenture, as adjusted from time to time as provided in the Indenture.

ABBREVIATIONS

The following abbreviations, when used in the inscription of the face of this Note, shall be construed as though they were written out in full according to applicable laws or regulations:

TEN COM = as tenants in common

UNIF GIFT MIN ACT = Uniform Gifts to Minors Act

CUST = Custodian

TEN ENT = as tenants by the entireties

JT TEN = joint tenants with right of survivorship and not as tenants in common

Additional abbreviations may also be used though not in the above list.

SCHEDULE A[11]

SCHEDULE OF EXCHANGES OF NOTES

CANADIAN SOLAR INC.
2.50% Convertible Senior Notes due 2025

The initial principal amount of this Global Note is _____ DOLLARS ($[_____]).
The following increases or decreases in this Global Note have been made:

Date of exchange	Amount of decrease in principal amount of this Global Note	Amount of increase in principal amount of this Global Note	Principal amount of this Global Note following such decrease or increase

[11] Include if a global note.

ATTACHMENT 1

[FORM OF NOTICE OF CONVERSION]

To: The Bank of New York Mellon
240 Greenwich Street
New York, NY 10286
Attention: Global Corporate Trust – Canadian Solar Inc.
Facsimile: +1 212 815 5915

With a copy to:

The Bank of New York Mellon, Hong Kong Branch
Level 26, Three Pacific Place
1 Queen's Road East
Hong Kong
Attention: Corporate Trust – Canadian Solar Inc.
Facsimile: +852 2295 3283

The undersigned registered owner of this Note hereby exercises the option to convert this Note, or the portion hereof (that is $1,000 principal amount or an integral multiple thereof) below designated, into Common Shares in accordance with the terms of the Indenture referred to in this Note, and directs that any Common Shares issuable and deliverable upon such conversion, together with any cash for any fractional share, and any Notes representing any unconverted principal amount hereof, be issued and delivered to the registered Holder hereof unless a different name has been indicated below. If any Common Shares or any portion of this Note not converted are to be issued in the name of a Person other than the undersigned, the undersigned will pay all documentary, stamp or similar issue or transfer taxes, if any in accordance with the Indenture. Any amount required to be paid to the undersigned on account of interest accompanies this Note. Capitalized terms used herein but not defined shall have the meanings ascribed to such terms in the Indenture.

In connection with the conversion of this Note, or the portion hereof below designated, the undersigned acknowledges, represents to and agrees with the Company that the undersigned is not an "affiliate" (as defined in Rule 144 under the Securities Act) of the Company and has not been an "affiliate" (as defined in Rule 144 under the Securities Act) during the three months immediately preceding the date hereof.

[The undersigned further certifies:

1. The undersigned acknowledges (and if the undersigned is acting for the account of another person, that person has confirmed that it acknowledges) that the Restricted Securities received upon conversion of this Note (or securities represented thereby) have not been and are not expected to be registered under the Securities Act.

2. The undersigned further certifies that either:

(a) The undersigned is, and at the time Common Shares are delivered upon conversion of its Notes will be, the holder of such Common Shares, and (i) the undersigned is not a U.S. person (as defined in Regulation S under the Securities Act) and is located outside the United States (within the meaning of Regulation S) and acquired, or has agreed to acquire and will acquire, the Notes being converted and the Common Shares being delivered upon conversion outside the United States and (ii) the undersigned is not in the business of buying and selling securities or, if the undersigned is in such business, the undersigned did not acquire the Notes being converted from the Company or any affiliate thereof in the initial distribution of the Notes.

OR

(b) The undersigned is a broker-dealer acting on behalf of its customer; its customer has confirmed to the undersigned that it is, and at the time Common Shares are delivered upon conversion of the Notes will be, the holder of such Common Shares, and (i) it is not a U.S. person (as defined in Regulation S under the Act) and it is located outside the United States (within the meaning of Regulation S and acquired, or have agreed to acquire and will have acquired, the Notes being converted and the Common Shares being delivered in the conversion outside the United States and (ii) it is not in the business of buying and selling securities or, if it is in such business, it did not acquire the Notes being converted from the Company or any affiliate thereof in the initial distribution of the Notes.

OR

(c) The undersigned is a qualified institutional buyer (as defined in Rule 144A under the Securities Act) acting for its own account or for the account of one or more qualified institutional buyers and the undersigned is (or such account or accounts are) the sole beneficial owner(s) of the Common Shares to be received upon conversion of the Notes.

3. The undersigned acknowledges that the undersigned (and any such other account) may not continue to hold or retain any interest in Restricted Securities received upon conversion of this Note if the undersigned (or such other account) becomes an Affiliate of the Company.

4. The undersigned agrees (and if the undersigned is acting for the account of another person, that person has confirmed that it agrees) that, unless and until the undersigned (or such other account) is notified by the Depositary that the restrictive legend on such Restricted Security has been removed from such security, the undersigned (and such other account) will not offer, sell, pledge or otherwise transfer the Restricted Security (or securities represented by such Restricted Security) except in accordance with the restrictions set forth in that legend and any applicable securities laws of the United States and any state thereof.][12]

[12] Include if a Restricted Security.

Dated: _____ _____

Signature(s)

_____

Signature Guarantee

Signature(s) must be guaranteed by an eligible Guarantor Institution (banks, stock brokers, savings and loan associations and credit unions) with membership in an approved signature guarantee medallion program pursuant to Securities and Exchange Commission Rule 17Ad-15 if Common Shares are to be issued, or Notes are to be delivered, other than to and in the name of the registered holder.

Fill in for registration of shares if to be issued, and Notes if to be delivered, other than to and in the name of the registered holder:

_____

(Name)

_____

(Street Address)

_____

(City, State and Zip Code)
Please print name and address

Principal amount to be converted (if less than all):
$_____,000

NOTICE: The above signature(s) of the Holder(s) hereof must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.

_____

Social Security or Other Taxpayer
Identification Number

ATTACHMENT 2

[FORM OF FUNDAMENTAL CHANGE REPURCHASE NOTICE]

To: The Bank of New York Mellon
240 Greenwich Street
New York, NY 10286
Attention: Global Corporate Trust – Canadian Solar Inc.
Facsimile: +1 212 815 5915

With a copy to:

The Bank of New York Mellon, Hong Kong Branch
Level 26, Three Pacific Place
1 Queen's Road East
Hong Kong
Attention: Corporate Trust – Canadian Solar Inc.
Facsimile: +852 2295 3283

The undersigned registered owner of this Note hereby acknowledges receipt of a notice from Canadian Solar Inc. (the "**Company**") as to the occurrence of a Fundamental Change with respect to the Company and specifying the Fundamental Change Repurchase Date and requests and instructs the Company to pay to the registered Holder hereof in accordance with the Indenture referred to in this Note (1) the entire principal amount of this Note, or the portion thereof (that is $1,000 principal amount or an integral multiple thereof) below designated, and (2) if such Fundamental Change Repurchase Date does not fall during the period after a Regular Record Date and on or prior to the corresponding Interest Payment Date, accrued and unpaid interest, if any, thereon to, but excluding, such Fundamental Change Repurchase Date. Capitalized terms used herein but not defined shall have the meanings ascribed to such terms in the Indenture.

In the case of Physical Notes, the certificate numbers of the Notes to be repurchased are as set forth below:

Dated: _____

_____
Signature(s)

_____
Social Security or Other Taxpayer
Identification Number

Principal amount to be repaid (if less than all):
$_____,000

NOTICE:The above signature(s) of the Holder(s) hereof must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.

ATTACHMENT 3

[FORM OF ASSIGNMENT AND TRANSFER]

For value received _____ hereby sell(s), assign(s) and transfer(s) unto _____ (Please insert social security or Taxpayer Identification Number of assignee) the within Note, and hereby irrevocably constitutes and appoints _____ attorney to transfer the said Note on the books of the Company, with full power of substitution in the premises.

In connection with any transfer of the within Note occurring prior to the Resale Restriction Termination Date, as defined in the Indenture governing such Note, the undersigned confirms that such Note is being transferred:

□ To Canadian Solar Inc. or a subsidiary thereof; or

□ Pursuant to a registration statement that has become or been declared effective under the Securities Act of 1933, as amended

□ To a transferee that the undersigned reasonably believes is a "qualified institutional buyer" (within the meaning of Rule 144A) that is purchasing for its own account or for the account of another qualified institutional buyer and the undersigned has provided such transferee notice that the transfer is being made in reliance on Rule 144A, all in compliance with Rule 144A; or

□ Outside the United States in accordance with Regulation S under the Securities Act of 1933, as amended; or

□ Pursuant to and in compliance with Rule 144 under the Securities Act of 1933, as amended (if available).

Dated: _____

_____
Signature(s)

_____
Signature Guarantee

Signature(s) must be guaranteed by an eligible Guarantor Institution (banks, stock brokers, savings and loan associations and credit unions) with membership in an approved signature guarantee medallion program pursuant to Securities and Exchange Commission Rule 17Ad-15 if Notes are to be delivered, other than to and in the name of the registered holder.

NOTICE: The signature on the assignment must correspond with the name as written upon the face of the Note in every particular without alteration or enlargement or any change whatever.

ATTACHMENT 4[13]

[FORM OF CERTIFICATE RE: EXCHANGE FOR REGULATION S NOTE]

To: The Bank of New York Mellon
240 Greenwich Street
New York, NY 10286
Attention: Global Corporate Trust – Canadian Solar Inc.
Facsimile: +1 212 815 5915

With a copy to:

The Bank of New York Mellon, Hong Kong Branch
Level 26, Three Pacific Place
1 Queen's Road East
Hong Kong
Attention: Corporate Trust – Canadian Solar Inc.
Facsimile: +852 2295 3283

In connection with the requested exchange of the within Note (or a portion thereof) for a Regulation S Note with like aggregate principal amount (or an increase in the aggregate principal amount represented by a Global Note that constitutes a Regulation S Note) prior to the Notes Fungibility Date, as defined in the Indenture governing such Note, the undersigned confirms that the Note (or a beneficial interest therein) has been transferred in accordance with Rule 903 or 904 of Regulation S under the U.S. Securities Act of 1933, as amended.

[13] To be included for Rule 144A Notes.

Dated: _____

_____

_____

Signature(s)

ATTACHMENT 5[14]

[FORM OF CERTIFICATE RE: EXCHANGE FOR RULE 144A NOTE]

To: The Bank of New York Mellon
240 Greenwich Street
New York, NY 10286
Attention: Global Corporate Trust – Canadian Solar Inc.
Facsimile: +1 212 815 5915

With a copy to:

The Bank of New York Mellon, Hong Kong Branch
Level 26, Three Pacific Place
1 Queen's Road East
Hong Kong
Attention: Corporate Trust – Canadian Solar Inc.
Facsimile: +852 2295 3283

In connection with the requested exchange of the within Note (or a portion thereof) for a Rule 144A Note with like aggregate principal amount (or an increase in the aggregate principal amount represented by a Global Note that constitutes a Rule 144A Note) prior to the Notes Fungibility Date, as defined in the Indenture governing such Note, the undersigned confirms that:

(1) such exchange occurs in connection with a transfer of such Note (or a beneficial interest therein) under Rule 144A (as defined in the Indenture); and

(2) such Note (or a beneficial interest therein) is being transferred to a Person:

(a) who the undersigned reasonably believes to be a QIB (as defined in the Indenture);

(b) purchasing for its own account or the account of a QIB in a transaction meeting the requirements of Rule 144A; and

(c) in accordance with all securities laws of the states of the United States and other jurisdictions.

[14] To be included for Regulation S Notes.

Dated: _____

_____

_____

Signature(s)

EXHIBIT 8.1

LIST OF MAJOR SUBSIDIARIES
(As of February 28, 2021)

Name of entity	Place of incorporation	Ownership interest
Canadian Solar Solutions Inc.	Canada	100%
Canadian Solar (Australia) Pty Limited	Australia	100%
Canadian Solar O and M (Ontario) Inc.	Canada	100%
Canadian Solar Projects K.K.	Japan	100%
Canadian Solar UK Projects Ltd.	United Kingdom	100%
Recurrent Energy, LLC	USA	100%
Canadian Solar Energy Singapore Pte. Ltd.	Singapore	100%
Canadian Solar Netherlands Cooperative U.A.	Netherlands	100%
Canadian Solar Construction (Australia) Pty Ltd	Australia	100%
CSUK Energy Systems Construction and Generation JSC	Turkey	100%
Canadian Solar Argentina Investment Holding Ltd.	United Kingdom	100%
Canadian Solar New Energy Holding Company Limited	Hong Kong	100%
Canadian Solar Energy Holding Singapore Pte. Ltd.	Singapore	100%
CSI Solar Co., Ltd. (formerly known as “CSI Solar Power Group Co., Ltd.”)	PRC	79.59%
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 EMEA GmbH	Germany	100%*
Canadian Solar International Limited	Hong Kong	100%*
Suzhou Sanysolar Materials Technology Co., Ltd.	PRC	100%*
Canadian Solar South East Asia Pte. Ltd.	Singapore	100%*
Canadian Solar Brazil Commerce, Import and Export of Solar Panels Ltd.	Brazil	100%*
Canadian Solar Construction (USA) LLC	USA	100%*
CSI Solar Manufacturing (Funing) Co., Ltd. (formerly known as “CSI&GCL Solar Manufacturing (Yancheng) Inc.”)	PRC	100%*
Changshu Tegu New Material Technology Co., Ltd.	PRC	100%*
Changshu Tlian Co., Ltd.	PRC	100%*
Canadian Solar Manufacturing Vietnam Co., Ltd.	Vietnam	100%*
Canadian Solar Energy Private Limited	India	100%*
Canadian Solar MSS (Australia) Pty Ltd.	Australia	100%*
Canadian Solar Manufacturing (Thailand) Co., Ltd.	Thailand	99.99992%*
Canadian Solar Sunenergy (Baotou) Co., Ltd.	PRC	100%*
Canadian Solar Middle East DMCC	United Arab Emirates	100%*
CSI Investment Management (Suzhou) Co., Ltd.	PRC	100%*
CSI New Energy Development (Suzhou) Co., Ltd. (formerly known as “Suzhou Gaochuangte New Energy Development Co., Ltd.”)	PRC	90%*
CSI Cells (Yancheng) Co., Ltd.	PRC	70%*
CSI Modules (Jiaxing) Co., Ltd.	PRC	100%*
CSI Wafer (Luoyang) Co., Ltd.	PRC	100%*
Canadian Solar SSES (Canada) Inc.	Canada	100%*
Canadian Solar SSES (UK) Ltd	United Kingdom	100%*

* Major subsidiaries within the scope of CSI Solar are held through CSI Solar Co., Ltd. of which CSI holds 79.59% equity rights of CSI Solar Co., Ltd.

EXHIBIT 12.1

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 19, 2021

By: /s/ Shawn (Xiaohua) Qu
Name: Shawn (Xiaohua) Qu
Title: Chief Executive Officer

EXHIBIT 12.2

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 19, 2021

By: /s/ Huifeng Chang
Name: Huifeng Chang
Title: Chief Financial Officer

EXHIBIT 13.1

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, 2019 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 19, 2021

By: /s/ Shawn (Xiaohua) Qu
Name: Shawn (Xiaohua) Qu
Title: Chief Executive Officer

EXHIBIT 13.2

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, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Huifeng 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 19, 2021

By: /s/ Huifeng Chang
Name: Huifeng Chang
Title: Chief Financial Officer

EXHIBIT 15.1

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 19, 2021, relating to the financial statements of Canadian Solar Inc. and the effectiveness of Canadian Solar Inc.'s internal control over financial reporting, appearing in this Annual Report on Form 20-F for the year ended December 31, 2020.

/s/ Deloitte Touche Tohmatsu Certified Public Accountants LLP

Shanghai, China
April 19, 2021