Hong Kong Exchanges and Clearing Limited and The Stock Exchange of Hong Kong Limited take no responsibility for the contents of this announcement, make no representation as to its accuracy or completeness and expressly disclaim any liability whatsoever for any loss howsoever arising from or in reliance upon the whole or any part of the contents of this announcement.

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

(Incorporated in the Cayman Islands with limited liability)

(Stock Code: 757)

ANNOUNCEMENT OF ANNUAL RESULTS FOR THE YEAR ENDED 31 DECEMBER 2019

FINANCIAL HIGHLIGHTS

— During the year, although the average selling price continued to decline comparing to the last year, the size of the customer base and the purchases by individual customers grew as a result of successful customer development. Shipment of major products for the year amounted to 4,134MW, a growth of 48% comparing to 2,797MW of the last year. The Group's revenue of RMB4,425.552 million represented an increase of 10% from RMB4,022.452 million of 2018.

— Due to the unit selling prices dropped rapidly and China's photovoltaic power subsidy policy introduced later than expected, industry players generally hold a wait-and-see attitude during the year, gross profit decreased to RMB341.368 million (2018: RMB397.55 million). Gross profit margin decreased from 9.9% for the year ended 31 December 2018 to 7.7% for the year ended 31 December 2019.

— During the year, earnings before interest, taxes, depreciation and amortization ("EBITDA") was RMB49.126 million (1.11% to revenue) (2018: RMB136.938 million, 3.4% to revenue).

— Due to the reasons above, net loss attributable to the equity shareholders of the Company for the year amounted to RMB355.492 million (2018: Net loss of RMB222.402 million).

— During the year, the net cash inflow from operating activities was decreased to RMB410.143 million from RMB921.479 million of last year.

— Basic loss per share amounted to RMB11.07 cents (2018: RMB6.92 cents loss per share).

— The board of directors of the Company does not recommend to declare a final dividend for the year ended 31 December 2019 (2018: Nil).

ANNUAL RESULTS

The directors (the "Directors") of Solargiga Energy Holdings Limited (the "Company") present herewith the results of the Company and its subsidiaries (collectively, the "Group") for the financial year ended 31 December 2019 and the comparative figures as follows.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS

for the year ended 31 December 2019

	Notes	2019 RMB'000	2018 RMB'000
Revenue	3	**4,425,552**	4,022,452
Cost of sales		**(4,084,184)**	(3,624,902)
Gross profit		**341,368**	397,550
Other income and gains, net	4	**15,970**	53,752
Selling and distribution expenses		**(84,583)**	(77,447)
Administrative expenses		**(409,458)**	(377,609)
Impairment losses on financial and contract assets, net		**(5,262)**	(44,497)
Impairment of property, plant and equipment		**(15,167)**	(47,020)
Impairment losses on prepayment		**(26,975)**	—
Loss from operations		**(184,107)**	(95,271)
Share of losses of associates		**(1,330)**	(1,461)
Impairment of associate		**(4,104)**	—
Other investment loss		**(379)**	—
Finance costs	6	**(123,130)**	(136,012)
Loss before tax	5	**(313,050)**	(232,744)
Income tax (expense)/credit	7	**(41,308)**	12,157
Loss for the year		**(354,358)**	(220,587)
Attributable to:			
Equity holders of the Company		**(355,492)**	(222,402)
Non-controlling interests		**1,134**	1,815
Loss for the year		**(354,358)**	(220,587)
Basic and diluted loss per share attributable to ordinary equity holders of the Company (RMB cents)	9	**(11.07)**	(6.92)

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
for the year ended 31 December 2019

	2019	2018
	RMB'000	*RMB'000*
Loss for the year	**(354,358)**	(220,587)
Other comprehensive loss for the year (after tax and reclassification adjustments):		
Items that may be reclassified subsequently to profit or loss:		
– Currency translation differences	**(83)**	(14,659)
Total comprehensive loss for the year, after tax	**(354,441)**	(235,246)
Attributable to:		
Equity holders of the Company	**(355,575)**	(237,061)
Non-controlling interests	**1,134**	1,815
Total comprehensive loss for the year	**(354,441)**	(235,246)

CONSOLIDATED STATEMENT OF FINANCIAL POSITION
at 31 December 2019

	Notes	2019 RMB'000	2018 RMB'000
Non-current assets			
Property, plant and equipment		**1,407,159**	1,517,027
Prepayments for acquisitions of property, plant and equipment		**29,447**	62,451
Right-of-use assets		**151,136**	—
Land lease prepayments		**—**	141,989
Prepayments for raw materials	*10*	**—**	33,557
Investments in associates		**157**	5,591
Equity investment designated at fair value through other comprehensive income	*11*	**1,800**	2,430
Deferred tax assets		**16,573**	48,009
Total non-current assets		**1,606,272**	1,811,054
Current assets			
Inventories		**394,110**	347,368
Trade and bills receivables	*12*	**1,274,604**	1,483,723
Contract assets	*13*	**313**	15,205
Prepayments, other receivables and other assets	*14*	**350,476**	240,935
Current tax recoverable		**3,360**	2,695
Pledged deposits		**403,191**	425,309
Cash and cash equivalents		**396,854**	239,712
Total current assets		**2,822,908**	2,754,947
Current liabilities			
Interest-bearing borrowings	*15*	**1,680,914**	1,773,140
Trade and bills payables	*16*	**1,502,624**	1,441,065
Other payables and accruals	*17*	**68,736**	104,025
Contract liabilities	*18*	**265,979**	64,466
Current tax payable		**10,476**	193
Provision for inventory purchase commitments		**49,687**	48,883
Current portion of lease payables		**376**	—
Total current liabilities		**3,578,792**	3,431,772
Net current liabilities		**(755,884)**	(676,825)
Total assets less current liabilities		**850,388**	1,134,229
Non-current liabilities			
Interest-bearing borrowings	*15*	**129,325**	17,317
Deferred tax liabilities		**2,564**	2,678
Deferred income		**134,509**	197,225
Lease liabilities		**1,012**	—
Other non-current liabilities		**127,412**	109,018
Total non-current liabilities		**394,822**	326,238
Net assets		**455,566**	807,991
Equity			
Equity attributable to equity holders of the Company			
Share capital		**276,727**	276,727
Reserves		**156,967**	438,999
		433,694	715,726
Non-controlling interests		**21,872**	92,265
Total equity		**455,566**	807,991

CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS
for the year ended 31 December 2019

	2019	2018
	RMB'000	*RMB'000*
Cash generated from operations	**410,513**	916,648
The PRC income tax (paid)/credited	**(370)**	4,831
Net cash generated from operating activities	**410,143**	921,479
Net cash used in investing activities	**(181,764)**	(275,932)
Net cash used in financing activities	**(80,649)**	(600,879)
Net increase in cash and cash equivalents	**147,730**	44,668
Effect of foreign exchange rate changes, net	**9,412**	3,859
Cash and cash equivalents at the beginning of the year	**239,712**	191,185
Cash and cash equivalents at the end of the year	**396,854**	239,712

NOTES TO THE FINANCIAL INFORMATION

1. BASIS OF PREPARATION

The annual results set out in the announcement do not constitute the Group's financial statements for the year ended 31 December 2019 but are extracted from those financial statements.

These financial statements have been prepared in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") (which include all Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards ("HKASs") and Interpretations) issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"), accounting principles generally accepted in Hong Kong and the disclosure requirements of the Hong Kong Companies Ordinance. They have been prepared under the historical cost convention, except for equity investments which have been measured at fair value. These financial statements are presented in Renminbi ("RMB") and all values are rounded to the nearest thousand except when otherwise indicated.

As at 31 December 2019, the Group's current liabilities exceeded its current assets by RMB755,884,000. The liquidity of the Group is primarily depending on its ability to maintain adequate cash flows from operations, to renew its short-term bank loans and to obtain adequate external financing to support its working capital and meet its obligations and commitments when they become due.

The Group has carried out a review of its cash flow forecast for the twelve months ending 31 December 2020. Based on such forecast, the directors believe that adequate sources of liquidity exist to fund the Group's working capital and capital expenditure requirements, and to meet its short term debt obligations and other liabilities and commitments as they become due in the twelve months ending 31 December 2020. In preparing the cash flow forecast, management has considered historical cash requirements of the Group, as well as other key factors, including anticipated sales in the twelve months ending 31 December 2020, unutilised banking facilities as at 31 December 2019 from the Group's major banks with an amount of RMB1,674,208,000 which will expire on 31 December 2020.

Based on the above factors, the directors are confident that the Group will have sufficient funding to enable the Group to operate as a going concern and meet its financial obligations as and when they fall due for at least 12 months from the reporting date. Accordingly, the financial statements have been prepared on a going concern basis.

2. CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

The Group has adopted the following new and revised HKFRSs for the first time for the current year's financial statements.

Amendments to HKFRS 9	*Prepayment Features with Negative Compensation*
HKFRS 16	*Leases*
Amendments to HKAS 19	*Plan Amendment, Curtailment or Settlement*
Amendments to HKAS 28	*Long-term Interests in Associates and Joint Ventures*
HK(IFRIC)-Int 23	*Uncertainty over Income Tax Treatments*
Annual Improvements 2015–2017 Cycle	Amendments to HKFRS 3, HKFRS 11, HKAS 12 and HKAS 23

Except for the amendments to HKFRS 9, HKAS 19 and 28, and Annual Improvements to HKFRSs 2015–2017 Cycle, which are not relevant to the preparation of the Group's financial statements, the nature and the impact of the new and revised HKFRSs are described below:

a. HKFRS 16 Leases

HKFRS 16 replaces HKAS 17 *Leases*, HK(IFRIC)-Int 4 *Determining whether an Arrangement contains a Lease*, HK(SIC)-Int 15 *Operating Leases — Incentives* and HK(SIC)-Int 27 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model to recognise and measure right-of-use assets and lease liabilities, except for certain recognition exemptions. Lessor accounting under HKFRS 16 is substantially unchanged from HKAS 17. Lessors continue to classify leases as either operating or finance leases using similar principles as in HKAS 17.

HKFRS 16 did not have any significant impact on leases where the Group is the lessor.

The Group has adopted HKFRS 16 using the modified retrospective method of adoption with the date of initial application of 1 January 2019. Under this method, the standard has been applied retrospectively with the cumulative effect of initial adoption as an adjustment to the opening balance of retained earnings at 1 January 2019, and the comparative information for 2018 was not restated and continues to be reported under HKAS 17.

New definition of a lease

Under HKFRS 16, a contract is, or contains a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration. Control is conveyed where the customer has both the right to obtain substantially all of the economic benefits from use of the identified asset and the right to direct the use of the identified asset. The Group elected to use the transition practical expedient allowing the standard to be applied only to contracts that were previously identified as leases applying HKAS 17 and HK(IFRIC)-Int 4 at the date of initial application. Contracts that were not identified as leases under HKAS 17 and HK(IFRIC)-Int 4 were not reassessed. Therefore, the definition of a lease under HKFRS 16 has been applied only to contracts entered into or changed on or after 1 January 2019.

At inception or on reassessment of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease and non-lease component on the basis of their stand-alone prices. A practical expedient is available to a lessee, which the Group has adopted, not to separate non-lease components and to account for the lease and the associated non-lease components (e.g., property management services for leases of properties) as a single lease component at the date of initial application.

As a lessee — Leases previously classified as operating leases

Nature of the effect of adoption of HKFRS 16

The Group has lease contracts for various items of property. As a lessee, the Group previously classified leases as either finance leases or operating leases based on the assessment of whether the lease transferred substantially all the rewards and risks of ownership of assets to the Group. Under HKFRS 16, the Group applies a single approach to recognise and measure right-of-use assets and lease liabilities for all leases, except for two elective exemptions for leases of low value assets (elected on a lease-by-lease basis) and short-term leases (elected by class of underlying asset). Instead of recognising rental expenses under operating leases on a straight-line basis over the lease term commencing from 1 January 2019, the Group recognises depreciation (and impairment, if any) of the right-of-use assets and interest accrued on the outstanding lease liabilities (as finance costs).

Impacts on transition

Lease liabilities at 1 January 2019 were recognised based on the present value of the remaining lease payments, discounted using the incremental borrowing rate at 1 January 2019 and included in interest-bearing bank and other borrowings. The right-of-use assets were measured at the amount of the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to the lease recognised in the statement of financial position immediately before 1 January 2019.

All these assets were assessed for any impairment based on HKAS 36 on that date. The Group elected to present the right-of-use assets separately in the statement of financial position. This includes the lease assets recognised previously under land leases prepayments of RMB141,989,000.

The Group has used the following elective practical expedients when applying HKFRS 16 at 1 January 2019:

- Applying the short-term lease exemptions to leases with a lease term that ends within 12 months from the date of initial application;

- Using hindsight in determining the lease term where the contract contains options to extend/terminate the lease.

The impacts arising from the adoption of HKFRS 16 as at 1 January 2019 are as follows:

	Increase/ (decrease) *RMB'000*
Assets	
Increase in right-of-use assets	144,399
Decrease in prepaid land lease payments	(141,989)
Increase in total assets	2,410
Liabilities	
Increase in lease liabilities	1,261
Increase in current portion of lease liabilities	1,149
Increase in total liabilities	2,410
Decrease in retained earnings	—

The lease liabilities as at 1 January 2019 reconciled to the operating lease commitments as at 31 December 2018 are as follows:

	RMB'000
Operating lease commitments as at 31 December 2018	3,354
Less: Commitments relating to short-term leases and those leases with a remaining lease term ended on or before 31 December 2019	(596)
	2,758
Weighted average incremental borrowing rate as at 1 January 2019	5.32%
Lease liabilities as at 1 January 2019	2,410

b. Amendments to HKAS 28 clarify that the scope exclusion of HKFRS 9 only includes interests in an associate or joint venture to which the equity method is applied and does not include long-term interests that in substance form part of the net investment in the associate or joint venture, to which the equity method has not been applied. Therefore, an entity applies HKFRS 9, rather than HKAS 28, including the impairment requirements under HKFRS 9, in accounting for such long-term interests. HKAS 28 is then applied to the net investment, which includes the long-term interests, only in the context of recognising losses of an associate or joint venture and impairment of the net investment in the associate or joint venture. The Group assessed its business model for its long-term interests in associates and joint ventures upon adoption of the amendments on 1 January 2019 and concluded that the long-term interests in associates and joint ventures continued to be measured at amortised cost in accordance with HKFRS 9. Accordingly, the amendments did not have any impact on the financial position or performance of the Group.

c. HK(IFRIC)-Int 23 addresses the accounting for income taxes (current and deferred) when tax treatments involve uncertainty that affects the application of HKAS 12 (often referred to as "uncertain tax positions"). The interpretation does not apply to taxes or levies outside the scope of HKAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments. The interpretation specifically addresses (i) whether an entity considers uncertain tax treatments separately; (ii) the assumptions an entity makes about the examination of tax treatments by taxation authorities; (iii) how an entity determines taxable profits or tax losses, tax bases, unused tax losses, unused tax credits and tax rates; and (iv) how an entity considers changes in facts and circumstances. Upon adoption of the interpretation, the Group considered whether it has any uncertain tax positions arising from the transfer pricing on its intergroup sales. Based on the Group's tax compliance and transfer pricing study, the Group determined that it is probable that its transfer pricing policy will be accepted by the tax authorities. Accordingly, the interpretation did not have any impact on the financial position or performance of the Group.

3. OPERATING SEGMENT INFORMATION

In a manner consistent with the way in which information is reported internally to the Group's most senior executive management for the purposes of resource allocation and performance assessment, the Group has identified four reportable segments: (i) the manufacture of, trading of, and provision of processing services for polysilicon and monocrystalline silicon solar ingots/wafers ("Segment A"); (ii) the manufacture and trading of photovoltaic modules ("Segment B"); (iii) the manufacture and trading of monocrystalline silicon solar cells ("Segment C"); and (iv) the construction and operating of photovoltaic power plants ("Segment D"). No operating segments have been aggregated to form these reportable segments. Comparative figures have been provided on a basis consistent with the current year's segment analysis. Revenue, costs and expenses are allocated to those reportable segments with reference to sales generated by those segments and the costs and expenses incurred by those segments.

(a) Segment results, assets and liabilities

For the purpose of assessing segment performance and allocating resources between segments, the Group's most senior executive management monitors the results, assets and liabilities attributable to each reportable segment on the basis as they are presented in the Group's financial statements.

Intersegment sales and transfers are transacted with reference to the selling prices used for sales made to third parties at the then prevailing market prices.

Information regarding the Group's reportable segments as provided to the Group's most senior executive management for the years ended 31 December 2019 and 2018 is set out below:

	Segment A		Segment B		Segment C		Segment D		Total	
	2019	2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018
	RMB'000	*RMB'000*	***RMB'000***	*RMB'000*	***RMB'000***	*RMB'000*	***RMB'000***	*RMB'000*	***RMB'000***	*RMB'000*
Revenue from external customers	**1,154,836**	808,499	**3,199,102**	3,070,648	**45,173**	85,123	**26,441**	58,182	**4,425,552**	4,022,452
Intersegment revenue	**297,787**	1,070,901	**1,227,628**	2,241,010	**383,001**	340,326	**2,827**	849	**1,911,243**	3,653,086
Reportable segment revenue	**1,452,623**	1,879,400	**4,426,730**	5,311,658	**428,174**	425,449	**29,268**	59,031	**6,336,795**	7,675,538
Reportable segment (loss)/ profit	**(324,732)**	(221,124)	**21,434**	70,488	**(39,139)**	(52,893)	**(11,921)**	(17,058)	**(354,358)**	(220,587)
Reportable segment assets	**1,697,870**	3,159,913	**2,019,642**	544,437	**521,575**	672,223	**190,093**	189,428	**4,429,180**	4,566,001
Reportable segment liabilities	**1,712,727**	2,649,294	**1,885,913**	636,327	**270,664**	373,507	**104,310**	98,882	**3,973,614**	3,758,010
Other segment information:										
Interest income from bank deposits	**6,516**	1,293	**5,172**	3,354	**6**	927	**46**	42	**11,740**	5,616
Finance costs	**(64,816)**	(55,191)	**(39,166)**	(57,816)	**(13,396)**	(16,501)	**(5,752)**	(6,504)	**(123,130)**	(136,012)
Depreciation and amortisation	**(134,172)**	(179,872)	**(73,726)**	(44,512)	**(30,755)**	(9,040)	**(393)**	(246)	**(239,046)**	(233,670)
Impairment of property, plant and equipment	**(15,167)**	(35,100)	**—**	—	**—**	(11,920)	**—**	—	**(15,167)**	(47,020)
Share of losses of associates	**—**	(1,461)	**(1,330)**	—	**—**	—	**—**	—	**(1,330)**	(1,461)
Impairment losses on financial and contract assets, net	**(11,918)**	(17,577)	**5,776**	(14,887)	**2,016**	(2,321)	**(1,136)**	(9,712)	**(5,262)**	(44,497)
Impairment losses on prepayment	**(26,975)**	—	**—**	—	**—**	—	**—**	—	**(26,975)**	—
Reversal of write-down of inventories	**13,520**	(21,771)	**15,019**	(7,803)	**(1,534)**	1,973	**—**	(20)	**27,005**	(27,621)
Capital expenditure*	**335,591**	166,431	**71,391**	164,605	**1,024**	5,623	**2**	5	**408,008**	336,664
Investments in associates	**—**	5,591	**157**	—	**—**	—	**—**	—	**157**	5,591

* Capital expenditure consists of additions to property, plant and equipment and intangible assets.

(b) Geographic information

Substantially all of the Group's property, plant and equipment, lease prepayments, goodwill, intangible assets and interests in associates are located or operated in Mainland China. The following table sets out information about the Group's revenue from external customers and the Group's non-current prepayments by geographical location. The geographical location of a customer is based on the location to which the goods were delivered or the services were provided.

(i) Revenue from external customers

	2019	2018
	RMB'000	*RMB'000*
Mainland China	**3,273,758**	2,963,496
Export sales		
– Japan	**783,353**	662,962
– Taiwan	**—**	6,621
– Other Asian Regions	**349,266**	377,267
– Europe	**17,060**	12,106
– Mexico	**2,115**	—
Sub-total	**1,151,794**	1,058,956
Total	**4,425,552**	4,022,452

(ii) Non-current prepayments

	2019	2018
	RMB'000	*RMB'000*
Mainland China	**29,447**	62,451
Overseas		
– Taiwan	**—**	33,557
Sub-total	**—**	33,557
Total	**29,447**	96,008

4. OTHER INCOME AND GAINS, NET

	2019	2018
	RMB'000	*RMB'000*
Other income		
Government grants	**166,152**	46,184
Interest income from bank deposits	**11,740**	5,616
	177,892	51,800
Other gains/(losses), net		
Net foreign exchange gain	**9,412**	787
Net loss on disposal of property, plant and equipment	**(128,879)**	(2,774)
Gain from sales of other materials	**216**	1,021
Others	**(42,671)**	2,918
	(161,922)	1,952

5. LOSS BEFORE TAX

The Group's loss before tax is arrived at after charging/(crediting):

	2019	2018
	RMB'000	*RMB'000*
(a) Staff costs# (including directors' and chief executive's remuneration)		
Salaries, wages and other benefits	**256,061**	201,374
Contributions to retirement schemes	**27,663**	20,273
	283,724	221,647

	2019	2018
	RMB'000	*RMB'000*
(b) Auditor's remuneration		
Audit services	**3,070**	2,791
Tax services	**23**	—
Other services	**272**	272
	3,365	3,063

	2019	2018
	RMB'000	*RMB'000*
(c) Other items		
Depreciation of right-of-use assets/amortisation of land lease payments	**5,715**	4,244
Depreciation of property, plant and equipment#	**233,331**	229,426
Provision/(reversal) for warranties#	**18,394**	(3,621)
Operating lease charges — properties	**—**	1,914
Research and development costs	**230,289**	210,252
Impairment losses on financial and contract assets, net	**5,262**	44,497
Impairment of property, plant and equipment	**15,167**	47,020
Impairment losses on prepayment	**26,975**	—
Net loss on disposal of property, plant and equipment	**128,879**	2,774
Cost of inventories sold#	**3,747,724**	2,953,556
Cost of services rendered#	**336,460**	671,346

Cost of inventories sold and cost of services rendered include, in aggregate, RMB457,668,000 (2018: RMB364,086,000) for the year ended 31 December 2019, relating to staff costs, depreciation and provision for warranties which amounts are also included in the respective total amounts disclosed separately above.

6. FINANCE COSTS

	2019	2018
	RMB'000	*RMB'000*
Interest on bank and other loans wholly repayable within five years	**123,003**	135,469
Interest on lease liabilities	**127**	—
Interest on finance leases	**—**	543
Total interest expenses on financial liabilities not at fair value through profit or loss	**123,130**	136,012

7. INCOME TAX

Income tax in the consolidated statement of profit or loss represents:

	2019	2018
	RMB'000	*RMB'000*
Current tax − the PRC		
Provision for the year	**9,104**	177
Under-provision in respect of prior years	**882**	1,015
	9,986	1,192
Deferred tax	**31,322**	(13,349)
Income tax expense/(credit) for the year	**41,308**	(12,157)

8. DIVIDENDS

The board does not recommend to declare a final dividend for the year ended 31 December 2019 (2018: Nil).

9. LOSS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE COMPANY

(a) Basic loss per share

The calculation of basic loss per share is based on the loss attributable to the ordinary equity holders of the Company of RMB355,492,000 (2018: loss of RMB222,402,000) and the weighted average of 3,211,780,566 (2018: 3,211,780,566) ordinary shares of the Company in issue during the year.

(b) Diluted loss per share

No adjustment has been made to the basic loss per share amounts presented for the years ended 31 December 2019 and 2018 in respect of a dilution as the Group had no dilutive potential ordinary shares in issue during the years ended 31 December 2019 and 2018.

10. PREPAYMENTS FOR RAW MATERIALS

In order to secure a stable supply of polysilicon materials, the Group entered into short-term and long-term contracts with certain raw material suppliers and made advance payments to these suppliers which are to be offset against future purchases. Prepayments for raw materials where the Group expects to receive the raw materials more than twelve months after the end of the reporting period are classified as non-current assets and to receive within one year are classified as current assets. There was no prepayment for raw materials made to a related party as at 31 December 2019 (31 December 2018: Nil).

As at 31 December 2014, management reassessed the prepayments for potential impairment and identified one of the suppliers, from which the Group allegedly failed to purchase the quantities of polysilicon under the long-term supply contract, and therefore made a full impairment provision of US$11,500,000. As at 31 December 2019, the amount of impairment provision remained the same which was equivalent to RMB80,266,000.

Based on the updated assessment by management for the year ended 31 December 2019, no further impairment or reversal of impairment was made during the year ended 31 December 2019. The movement in the impairment provision during the year merely represented exchange adjustments.

11. EQUITY INVESTMENTS DESIGNATED AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	2019	2018
	RMB'000	*RMB'000*
Equity investments designated at fair value through other comprehensive income		
Unlisted equity investments, at fair value		
Jinzhou Xincheng Yangguang Power Plants Co., Ltd.	**—**	2,430
Jiangsu Yueyang Photovoltaic Technology Co., Ltd.	**1,800**	—

In February 2019, The Group withdraw its investment in 19% equity interest of Jinzhou Xincheng Yangguang Power Plants Co., Ltd. ("Xincheng Power Plant") as this investment no longer coincide with the Group's investment strategy. Xincheng Power Plant was deregistered with Jinzhou Municipal Administration of Industry and Commerce according to common decision of the Group and other shareholders of Xincheng Power Plant. The Group had proceeds of RMB2,051,000 in cash from this investment withdrawal.

In July 2019, the Group invested RMB1,800,000 in cash for 15% equity interest of Jiangsu Yueyang Photovoltaic Technology Co., Ltd., a photovoltaic product manufacturer which commenced production in November of 2019.

12. TRADE AND BILLS RECEIVABLES

	2019	2018
	RMB'000	*RMB'000*
Trade receivables	**1,286,963**	1,387,746
Bills receivable	**80,310**	213,893
Less: Impairment	**(92,669)**	(117,916)
	1,274,604	1,483,723

An ageing analysis of the trade and bills receivables as at the end of the reporting period, based on the invoice date and net of loss allowance, is as follows:

	2019	2018
	RMB'000	*RMB'000*
Within 1 month	**410,124**	546,396
1 to 3 months	**109,485**	349,844
4 to 6 months	**73,823**	164,867
7 to 12 months	**377,952**	339,784
Over 1 year	**303,220**	82,832
	1,274,604	1,483,723

The Group normally allows a credit period of 30-90 days to its customers. However, regarding domestic photovoltaic module sales, some trade receivables are granted longer credit periods of up to 180 days depending on the construction period of photovoltaic power plants. In addition, 10% of the total amount of receivables are retained as deposits in some domestic contracts, and will generally be recovered in approximately one year. As a result, the trade receivable turnover days of module sales are generally longer.

The movements in the allowance for impairment of trade receivables are as follows:

	2019	2018
	RMB'000	*RMB'000*
At beginning of year	**117,916**	73,350
Exchange adjustments	**—**	1,248
Impairment losses *(note 5)*	**5,213**	44,211
Amount written off as uncollectible	**(30,460)**	(893)
At end of year	**92,669**	117,916

Set out below is the information about the credit risk exposure on the Group's trade receivables using a provision matrix:

As at 31 December 2019

	Large-scale Chinese state-owned and multinational composite enterprises	**Within 1 year**	**Between 1 and 2 years**	**Between 2 and 3 years**	**Between 3 and 4 years**	**Over 4 years**	**Total**
Expected credit loss rates	—	13.98%	45.37%	61.43%	68.37%	100%	
Gross carrying amount *(RMB'000)*	1,029,665	154,455	24,918	6,634	49,313	21,978	1,286,963
Expected credit losses *(RMB'000)*	—	21,595	11,304	4,076	33,716	21,978	92,669

As at 31 December 2018

	Large-scale Chinese state-owned and multinational composite enterprises	**Within 1 year**	**Between 1 and 2 years**	**Between 2 and 3 years**	**Between 3 and 4 years**	**Over 4 years**	**Total**
Expected credit loss rates	—	13.46%	44.03%	64.12%	89.76%	100%	
Gross carrying amount *(RMB'000)*	1,122,979	152,140	5,663	24,567	30,410	51,987	1,387,746
Expected credit losses *(RMB'000)*	—	20,478	2,493	15,752	27,296	51,897	117,916

As at 31 December 2019, bills receivable amounting to RMB52,828,000 (31 December 2018: RMB141,283,000), together with pledged deposits amounting to RMB298,489,000 (31 December 2018: RMB196,300,000) had been pledged as security to banks for issuing bills payable to suppliers amounting to RMB377,194,000 (31 December 2018: RMB661,518,000).

13. CONTRACT ASSETS

	31 December 2019 ***RMB'000***	31 December 2018 *RMB'000*	1 January 2018 *RMB'000*
Contract assets arising from:			
Processing services	**351**	13,364	35,125
Construction services	**11**	2,127	—
Impairment	**(49)**	(286)	—
	313	15,205	35,125

14. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS

	2019	2018
	RMB'000	*RMB'000*
Prepayments for raw materials	**262,112**	174,486
Deductible value-added tax	**61,198**	53,146
Other receivables	**33,966**	20,103
Less: Impairment allowance	**(6,800)**	(6,800)
	350,476	240,935

The other receivables mainly represent deposits and staff advances, and an impairment analysis is performed at each reporting date by considering the probability of default. Except the separate item of prepayments already impaired, as the financial assets included in the above balances relate to receivables for which there was no recent history of default, no impairment was provided during the year.

15. INTEREST-BEARING BORROWINGS

		2019			2018		
	Notes	**Effective interest rate** ***(%)***	**Maturity**	***RMB'000***	Effective interest rate *(%)*	Maturity	*RMB'000*
Current:							
Bank loans — secured	(a)	**5.655–9.000**	**2020**	**862,881**	7.14–8.3075	2019	794,500
Bank loans — guaranteed	(b)	**4.440–7.140**	**2020**	**799,615**	5.02–8.3075	2019	851,630
Other loans — guaranteed		**5.475**	**2020**	**10,464**	—	—	—
Current portion of long-term borrowings:							
Other loans — guaranteed	(b)	**1.6–7.5**	**2020**	**7,954**	1.6–7.5	2019	127,010
Total				**1,680,914**			1,773,140
Non-current:							
Other loans — guaranteed	(b)	**1.6–7.5**	**2021–2023**	**129,325**	1.6–7.5	2020–2023	17,317
Total				**129,325**			17,317

(a) The bank borrowings are secured by:

(i) The Group's property, plant and equipment with the net book value of RMB749,463,000 (2018: RMB454,831,000).

(ii) The Group's leasehold lands amounting to RMB69,843,000 (2018: RMB51,809,000).

(iii) The Group's deposits amounting to RMB63,426,000 (2018: RMB182,025,000).

(b) Certain subsidiaries' borrowings are guaranteed by the other subsidiaries of the Group.

	2019	2018
	RMB'000	*RMB'000*
Analysed into:		
Bank loans repayable:		
Within one year or on demand	**1,662,496**	1,646,130
Other borrowings repayable:		
Within one year	**18,418**	127,010
In the second year	**126,689**	4,700
In the third to fifth years, inclusive	**2,636**	12,617
	147,743	144,327
	1,810,239	1,790,457

16. TRADE AND BILLS PAYABLES

	2019	2018
	RMB'000	*RMB'000*
Trade payables	**694,660**	546,547
Bills payable	**807,964**	894,518
	1,502,624	1,441,065

(a) The ageing analysis of trade and bills payables at the end of the reporting period, based on the invoice date, is as follows:

	2019	2018
	RMB'000	*RMB'000*
Within 1 month	**263,656**	449,254
1 to 3 months	**470,864**	319,128
4 to 6 months	**604,466**	267,889
7 to 12 months	**137,950**	365,662
Over 1 year	**25,688**	39,132
	1,502,624	1,441,065

(b) As at 31 December 2019, the Group's bills payable of RMB377,194,000 (31 December 2018: RMB661,518,000) were secured by Group's bills receivable of RMB52,828,000 (31 December 2018: RMB141,283,000) and by Group's pledged deposits of RMB298,489,000 (31 December 2018: RMB196,300,000).

17. OTHER PAYABLES AND ACCRUALS

	2019	2018
	RMB'000	*RMB'000*
Other payables and accrued expenses	**38,548**	82,730
Other tax payables	**30,036**	21,147
Dividends payable	**152**	148
	68,736	104,025

18. CONTRACT LIABILITIES

Details of contract liabilities are as follows:

	31 December 2019	31 December 2018	1 January 2018
	RMB'000	*RMB'000*	*RMB'000*
Sale of industrial products	**265,979**	64,466	43,850

MANAGEMENT DISCUSSION AND ANALYSIS

Market Overview

2019 was the first year for the new photovoltaics subsidy bidding mechanism in China's photovoltaics market. It was also the first year of parallel development of grid parity and bidding projects. The industry was gradually shifting from bidding photovoltaics to grid parity. The market is undergoing a structural transformation, improving production capacity and product quality, encouraging high-end and high-efficiency products, promoting technological progress, reducing power generation costs, reducing subsidy dependence, promoting the industry to high-quality development, and accelerating the achievement of comprehensive affordable grid parity.

However, the bidding policy has led to a temporary slowdown in the deployment of the photovoltaic market. Looking back at 2019, the cumulative installed capacity of photovoltaic power generation in China was 204.3GW, which continues to maintain its number one position in the world. However, due to the above market policies, China's photovoltaic market had fallen rapidly and product prices had fallen. The industry had gradually pursued the development of scale and refinement, pursued of quality transformation, and continued steady development trend. IHS Markit said that despite the decline in installations in China in 2019, other international markets such as Netherlands, Spain, Germany, Italy, Turkey or Ukraine are growing faster than expected. It is initially estimated that global solar installations will reach 129GW in 2019 (a 25% increase from 103.3GW in 2018).

According to the latest data from the China Photovoltaic Industry Association (CPIA), the newly installed capacity of China's photovoltaic industry in 2019 was 30.1GW (a decrease of 32% compared to 44.26GW in 2018), of which the newly-installed capacity of centralised photovoltaic was 17.9GW (down 23% year-on-year), and the newly-installed capacity of distributed photovoltaic was 12.2GW (down 41% year-on-year). In 2019, with the significant decrease in newly-installed capacity, the production scale of photovoltaic manufacturing has increased significantly. Polysilicon production was 342,000 tonnes (up 32% year-on-year), wafer production was 134.6GW (up 25.7% year-on-year), which mono-crystalline wafers accounted for about 65%, cell production reached 108.6GW (up 27.8% year-on-year), module production 98.6GW (17% year-on-year increase). In 2019, China's total export of photovoltaic products (wafers, cells, modules) reached USD20.78 billion, the second highest in history.

In 2019, the energy poverty alleviation work was carried out steadily and effectively. According to the report of the National Energy Administration, 4.07 million poverty-stricken households across the country obtained stable income through photovoltaic poverty alleviation projects, with a cumulative scale of 19.1GW. "The First Batch of Photovoltaic Poverty Alleviation Projects of the "13th Five-Year Plan"" (《"十三五"第一批光伏扶貧項目計劃》) with a total installed capacity of 4.186GW (3.85GW after revision), and "The Second Batch of Photovoltaic Poverty Alleviation Projects of the "13th Five-Year Plan"" (《"十三五"第二批光伏扶貧項目計劃》) with a total of 1.67GW, jointly issued and distributed by The National Energy Administration and The State Council Leading Group Office of Poverty Alleviation and Development* (國家能源局及國務院扶貧開發領導小組辦公室), should be completed and connected to the grid by the end of 2019. The National Energy Administration expected to establish the "14th Five-Year Plan" and subsequent energy development plans as soon as possible in 2020.

According to the U.S. Solar Market Insight Report jointly issued by Wood Mackenzie Power & Renewables and the Solar Energy Industries Association, in the third quarter of 2019, the United States solar market installed 2.6GW of photovoltaic capacity (up 45% year-on-year), the cumulative installed capacity increased to 71.3GW. The U.S. residential solar market reached record high in the third quarter of 2019 with an installation of 712MW, of which California, the largest residential solar market, installed nearly 300MW, breaking its quarterly record. The total installed photovoltaic capacity in the United States in 2019 is expected to reach 13GW, an increase of 23% over 10.6GW in 2018. Although the United States finally decided to waive the 201 tariff on bifacial solar modules at the end of 2019, due to sensitive China-US trade relationship and strong opposition from American domestic manufacturing companies, uncertainty hovers over the waiver decision. With the declining cost and gradual reduction of the investment tax credit policy ("ITC policy") for residential systems, the total installed capacity of photovoltaics in the United States will more than double in the next five years. By 2021, the installed capacity will reach 20.1GW before the expiration of the ITC policy.

2019 was a challenging year for India, with the Prime Minister election in the first half and religious riots in the second half. In addition to the impact of political instability on the Indian photovoltaic market, factors such as falling power demand, financing difficulties, tax ceilings, land acquisition issues, weak power infrastructure, rising solar module prices, and high bidding costs leading to reduction in the number of bids, have affected the growth of the photovoltaic market in 2019. According to the Indian photovoltaic market report released by Mercom India Research, India's new photovoltaic installed capacity in 2019 was 7.3GW (a 12% decrease from 8.3GW in 2018), and the cumulative photovoltaic installed capacity reached 35.7GW. To expedite the completion of the 100GW installation target by 2022, the Indian government has vigorously promoted the development of the solar manufacturing industry by putting on place a more investor-friendly mechanism and also adjusting the bidding prices. The Indian government has also launched several large flagship projects that require the use of

domestic solar photovoltaic modules. In addition, the government has approved a grid-connecting photovoltaic plan proposed by the Ministry of New and Renewable Energy to complete photovoltaic power generation projects of 12GW between 2019 and 2023.

2019 was the strongest year for solar energy growth in the European Union. According to data from SolarPower Europe, the newly-installed capacity reached 16.7GW, a 104% increase from 8.2GW in 2018. The main markets include Spain 4.7GW, Germany 4GW, Netherlands 2.5GW, France 1.1GW and Poland 784MW. It is expected that the overall newly-installed capacity in the European Union will continue to grow, reaching 21GW in 2020, 21.9GW in 2021, 24.3GW in 2022, and 26.8GW in 2023.

Looking ahead to 2020, according to the PV-Magazine, due to the impact of a new Coronavirus outbreak in China, the Chinese government has adopted measures in extending the New Year holidays in some affected provinces and shutting down major global solar production areas in order to control the spread of the epidemic. The epidemic has severely affected productivity, resulting in a shortage of solar wafers and glass for modules. Solar prices, including the cost of photovoltaic modules, may rise in the short term. The Chinese Photovoltaic Industry Association (CPIA) has urged the government to delay the deadline for large-scale solar projects to 31 March and 30 June 2020. If the virus is brought under control in the first half of 2020, recovery may begin in the third quarter. At present, the Chinese market is in the transitional stage to the development of unsubsidised solar energy, compounding the impact of the virus epidemic, the CPIA estimates that China's new photovoltaic installations in 2020 will be between 35 and 45GW, lower than the 40–50GW forecast in early 2019.

According to EnergyTrend analysis, although the domestic demand is weaker than before, overseas demand has grown steadily. Domestic companies have accelerated their overseas deployment. With the recovery of the European market, and the rise of emerging photovoltaic markets in Southeast Asia, the global market will become more decentralized, which may help upturn the demand of the entire photovoltaic industry in 2020, driving a significant increase in the export volume of Chinese photovoltaic manufacturing enterprises. It is estimated that the global newly-installed capacity will reach 125GW in 2020. The top five global photovoltaic markets are: China continues to rank first, followed by the United States, India, Japan and the Netherlands. The global photovoltaic market will show a slight growth from 2020 to 2025, with an annual growth rate of about 7%.

Operations review

The Group focuses on the vertical integration for photovoltaic mono-crystalline products, providing one-stop solutions for the photovoltaic industry ranging from the manufacturing and sales of silicon ingots and wafers, photovoltaic cells and photovoltaic modules, the installation of photovoltaic system and the development, design, construction, operation and maintenance of photovoltaic generation plants. Apart from not self-manufacturing polysilicon, the scope of its business covers the whole industry chain of the photovoltaic industry.

Although the Group possesses the capacities to manufacture the aforementioned mono-crystalline silicon ingots, mono-crystalline silicon wafers, solar cells and modules, the production capacity of each is not exactly the same.

After the continuous adjustment of new capacity during the year and the technical transformation of existing capacity, from 2020, the Group has increased its annual production capacity of mono-crystalline silicon ingots and mono-crystalline wafers to 3.6GW. The annual production capacity of photovoltaic modules has also been increased to 3.5GW through an equity cooperation in 2020. Under the consideration of limited resources that need to be coordinated and allocated, the annual production capacity of mono-crystalline silicon solar cells remains unchanged at 400MW. However, through the strategies of focusing on upstream mono-crystalline silicon ingots and wafers and increasing downstream module production capacity, the Group forms strategic partnership between the Group and large manufacturers focusing on the production of mid-stream solar cells. These external solar cell manufacturers purchase mono-crystalline silicon wafers from the Group and in turn sell the solar cells they manufactured to the Group for the Group's manufactures the downstream modules for external customers. This will drive the demand for upstream niche self-produced mono-crystalline silicon ingots and wafers.

Secondly, the Group's vertical integration of upstream and downstream capacities, by adopting a dual-track strategy of continuous development of upstream mono-crystalline silicon ingots, silicon wafer niche products and downstream module products, while not proactively expanding the capacity for the mid-stream solar cell, effectively focuses the Group's resources and withstands the fluctuations in upstream mono-crystalline silicon wafer market or mitigate any instability in the supply of mid-stream solar cells. For example, strategic partnership formed between the Group and external manufacturers focusing on the production of mid-stream solar cells, where in the event of a poor sales market for mono-crystalline silicon wafers, the Group can outsource these mono-crystalline silicon wafers to these strategic partners and work them into solar cells, which is then returned to the Group for continued production into modules, and then sold to downstream third-party large module customers. On the other hand, if the sales market for mono-crystalline silicon wafers is good, the Group can directly sell the mono-crystalline silicon wafers to these strategic partners, and then purchase solar cells from these strategic partners in order to meet the production needs of the downstream modules of the Group. Therefore, in the market situation where the industry is changing drastically, the Group can properly arrange the use of self-produced mono-crystalline silicon wafers, and the solar cells required for the Group's module production can also be fully guaranteed. In summary, the Group can not only give full demonstrate to the existing manufacturing advantages of upstream mono-crystalline silicon ingots and silicon wafers niche products, but also establish a stable sales channel for the terminal module market, so that the advantages of vertical integration of mono-crystalline products can be fully realised.

Regarding the production of upstream mono-crystalline silicon ingot and wafer products, the Group's low-cost high-efficiency production capacity located in Yunnan Qujing has completed its adjustment phase in 2019. Its results are now showing gradually. With the lower local electricity cost in Yunnan Qujing, its gross profit margins are recorded at 15% and is expected to reach improved levels. After the Group's transformation and upgrading work performed on the original production bases in Jinzhou, Liaoning and Xining, Qinghai during the year, they are expected to demonstrate their advantages in production capacity increase and cost reduction from 2020 onwards, which can further improve the Group's overall gross profit margin.

Since our photovoltaic module customers are mostly domestic state-owned enterprises or large multinational corporations, the market position and strength possessed by these module customers are the most powerful in the overall photovoltaic industry chain. Therefore, the Group has established a direct supply relationship with large module customers through significant module production capacity, which not only maintains a more stable terminal product estuary, but also drives the utilisation rate of each production segment of the Group from the bottom up. As such, in order to meet the needs of module customers, in addition to the 2.3GW module capacity owned by its wholly-owned subsidiaries, the Group has participated in a newly-established module manufacturing base of 1.2GW in Yancheng, Jiangsu. It only invested a small amount of cash for a direct equity investment of 15%, however, through strategic alliances among strategic investors and employees of the Group, the 1.2GW module capacity will co-ordinate with the manufacturing needs of the Group and it has already begun production in 2020. The Group's effective module production capacity has been increased to 3.5GW in 2020, which can greatly increase the economic scale advantage of module products.

In terms of operating results, reaping the benefits of the results from strengthening the customer relationship of downstream module products over the years, the Group's high-end photovoltaic products continued to be welcomed by domestic state-owned enterprises and multinational corporations. Total shipment increased from 2,797MW in 2018 to 4,134MW in 2019, a growth reaching 48%. However, unit selling prices has dropped rapidly during 2019 and China's photovoltaic power subsidy policy was introduced later than expected, industry players generally hold a wait-and-see attitude, resulting in a year-on-year decrease in Chinese domestic photovoltaic installation. Further, since the production capacity of the Group's new low-cost high-efficiency mono-crystalline silicon ingots and wafers was in adjustment phase most time during the year, production capacity has not been fully utilised, the advantages of its economy of scale has not yet been displayed. This forced the Group to continue to rely heavily on the monocrystalline ingot and wafer products from its production base in Liaoning Jinzhou. While the local electricity cost in Liaoning Jinzhou is more than double that of Yunnan Qujing, it has directly and indirectly contributed to higher production cost of monocrystalline silicon ingots and wafers. As such, the Group's overall gross profit was greatly compressed. Further, although external shipments of the main products of mono-crystalline silicon wafers and photovoltaic modules of the year increased by 137% and 27% respectively

compared to last year, the Group was committed to the technical transformation and upgrading of the existing production equipment for mono-crystalline silicon ingots and mono-crystalline silicon wafers and also modules in Jinzhou, Liaoning. It affected the utilisation rate of production capacity during the year and hence led to the benefits of economy of scale not being fully demonstrated. In summary, the gross profit margin was therefore reduced from 9.9% in 2018 to 7.7% in 2019, which resulted in an operating loss of RMB184.107 million in 2019, compared to an operating loss of RMB95.271 million in 2018.

As a clean energy source, photovoltaic power generation replacing traditional petrochemical energy sources has become a global trend. Even though the current coronavirus epidemic has delayed demands temporarily, the trend of rapid growth in the demand for photovoltaic products is unwavering. During the year, due to the comprehensive upgrade of existing production capacity and the efficient adjustment of new equipment in 2019, benefits of production efficiencies could not be fully displayed, resulting in an increased operating losses. In 2020, relying on (1) the new production base having low external electricity costs, which directly and indirectly reduces the production costs; (2) the commencement of mass production by the new equipment and the completion of upgrades to the old equipment; (3) technological integration advantages of its various product lines; and (4) strong client base in China and overseas, the Group expects its gross profits to return to a normal level.

While maintaining its own leading technological advantage in mono-crystalline products, and adhering to the vertical integration strategy, through external customer demand for the Group's downstream modules driving the internal demand of its upstream mono-crystalline wafers, also through further strengthening its strategic partnerships with third party mid-stream solar cell manufacturers, the Group and its partners will be able to leverage their respective strengths and experiences in laying a solid foundation for broader co-operation in the future.

Silicon ingot and wafer business

Apart from not producing its own polysilicon, a chemical product, in the scope of its business, the Group covers an all-rounded photovoltaic industry production chain under its vertically integrated business model. Among this model, mono-crystalline silicon ingot products are mostly used for the internal production of mono-crystalline silicon wafers within the Group, and are less engaged in external sales. In addition, due to insufficient production capacity of the Group's midstream solar cell production, mono-crystalline silicon wafer products of the Group are mostly sold to third-party professional solar cell manufacturers. During the year, with the advantages in application of mono-crystalline products over multi-crystalline products in photovoltaic power generation, the market share of mono-crystalline products has continued to increase rapidly. As such, demand for what the Group has been focusing on all along, mono-crystalline products, has continued to increase. Its market share is fast growing. Further, in addition to the traditional mono-crystalline P-type products, shipment volume of mono-crystalline N-type

products with higher conversion efficiencies are also increasing. With the continued realisation of advantages in better improvement in conversion efficiency, more stable decay rate in its photovoltaic systems, continued reduction in unit costs, etc. of mono-crystalline products, it is expected that the advantages of mono-crystalline products will become more obvious in the field of photovoltaic power generation. Guided by this advantageous environment in the industry, through its long-term strategic partnerships with well-known solar cell-focused manufacturers, not only enjoys priority distribution channels for the sales of its mono-crystalline wafers, but also ensures the long-term stable utilisation of the Group's capacity and shipment volume. The benefits of the Group's upstream and downstream vertical integration are fully realised.

The Group have consolidated its leading position in the mono-crystalline silicon solar ingot and wafer manufacture industry in terms of technology and product quality. The quality stability of its mono-crystalline silicon products is amongst those of the industry leaders. During the year, since most of the ingot products have been reserved for internal use, the external shipment volume of mono-crystalline silicon ingots has dropped to 204.2MW (413.8MW in 2018). Conversely, external shipment volume of mono-crystalline silicon wafers has rised significantly to 2,014.6MW (850.3MW in 2018). Major customers of external sales included Aikosolar Group (愛旭太陽能集團), TW Solar Group (通威太陽能集團), Sumin New Energy Group (蘇民新能源集团) and huge state-owned enterprises in China, such as State Power Investment Corporation (中國國家電力投資集團公司) ("SPIC").

In addition, the Group has completed the testing and adjustments of its newly invested low-cost high-efficiency mono-crystalline silicon solar ingot and wafer project, located in Qujing City, Yunnan Province, China. It has not only enabled manufacturing in scale from 2020 onwards. With the lower local electricity costs, being lower than that at previous major production base in Jinzhou, Liaoning, by more than 50%, it will lift the Group's overall gross profit and gross profit margin. Therefore, The Group is currently actively planning the expansion of the mono-crystalline silicon solar ingot and wafer capacities in Yunnan, Qujing, in order to take advantage of the local external production environment, and enable the Group to fully demonstrate its current technological advantages in production.

Solar cell and module businesses

The Group's production lines of solar cells are located at the Group's manufacturing base in Jinzhou, Liaoning. During the year, the annual production capacity of solar cells was maintained at 400MW (2018: 400MW). Apart from providing internally to the downstream module manufacturing subsidiaries of the Group, the solar cells are also sold to our selected customers in China and Japan. In order to keep abreast of the latest trends in the photovoltaic industry, the Group has also been collaborating with university teams of the highest levels in the field of global perovskite (鈣鈦礦) research in projects to jointly develop perovskite solar cells, paving the way for the development of upstream and downstream products in the next decade.

Regarding photovoltaic module business, during the year, the Group recorded external shipments of photovoltaic modules of 1,855.7MW, which grew by 27% when compared to external shipments of 1,466.2MW in 2018. Although the market prices has continued to drop from that of previous years, the Group's module sales of the year still increased from RMB3,070.65 million last year to RMB3,199.10 million in 2019. Even with this significant increase in shipments of photovoltaic modules, the production has been in fact been hindered by the technical transformation and equipment upgrades on the existing module manufacturing capacity during the year, the advantages of economy of scale have hence not been fully realised. However, after the completion of the comprehensive technical upgrade, with the excellent product quality and price competitiveness, the Group is expected to continue to record rapid growth in external shipments and total sales, and to make full use of the expected economies of scale. External sales was mainly made to huge Chinese state-owned enterprises and Japanese multinational enterprises, such as SPIC, China Huadian Corporation (中國華電集團公司) ("Huadian"), Beijing Enterprises Holdings Limited (北京控股集團有限公司) ("BEGCL"), SHARP Corporation ("SHARP") and SANSHIN ELECTRONICS CO., LTD., etc.

On the other hand, following the increasing awareness of the benefits of higher conversion efficiency and more competitive costs offered by the Group's focused monocrystalline photovoltaic modules, and responding to the opportunity offered by grid parity, market share of monocrystalline module products continues to grow quickly. Demand for N-type mono-crystalline and P-type PERC photovoltaic modules have surged. In addition to flexibly supporting the manufacturing of mono- and multi-crystalline photovoltaic modules, the Group will continue to expand and strengthen the development and sales of monocrystalline silicon high-efficiency module products such as N-type double-sized glass photovoltaic modules, half-cell photovoltaic modules, P-type monocrystalline solar cell Passivate Emitter and Rear Cell (PERC), smart photovoltaic modules, and related high-end products. Among them, installation of the new production lines of our BS modules of N-type monocrystalline IBC solar cell, which produces higher current output, open circuit voltage, fill factor and other electrical performance advantages, have been completed. Product quality and conversion has been stable. External sales has been recorded since the first half of 2019. BS modules utilises, first in the country, this internationally-leading FPC manufacturing technique, with SHARP, the Group's key strategic partner, being its major sales customer.

As a company focusing on monocrystalline silicon photovoltaic products, equipped with high-quality, self-produced upstream mono-crystalline silicon ingots and mono-crystalline silicon wafers, customers' demand for the Group's mono-crystalline modules has always remained high. Currently, proportion of sales of the Group's mono-to-multi-crystalline silicon photovoltaic modules has remained at 85:15 and the market share of mono-crystalline silicon photovoltaic products is expected to rise continuously.

In summary, through customer demand for the Group's downstream modules, it has not only driven the demand for the Group's upstream mono-crystalline ingots and mono-crystalline wafers, but also helps to realise the benefits arising from the Group's vertical integration strategy, and to better mitigate the market risks arising from fluctuant sales of upstream silicon wafers or unstable supply of mid-stream solar cells.

Construction and operation of photovoltaic system business

To consolidate its advantages of the business model of vertical integration, the Group actively expanded the business of end-user market apart from its efforts in stabilising its upstream and midstream business development, thereby driving demand for products from downstream to upstream. As such, in respect of the business opportunity derived from the construction of distributed power plants, apart from establishing internal photovoltaic power plant system companies of the Group, the Group also plans to establish joint venture companies with companies from other industries in order to share the profits and also provide extra distribution channels for the Group's module sales.

Financial Review

Revenue

The cost of photovoltaic power generation must continue to decline as technology continues to improve in order to replace traditional petrochemical energy in a larger scale and to effectively achieve the goal of green and clean energy. As such, although the average selling price during the year declined substantially over last year, as a result of successful customer development, the size of the customer base and the purchases by individual customers are showing continuous growing trends. The external shipment volume increased significantly by 48% compared to last year. The Group has also continued to maintain its growing trend and recorded revenue of RMB4,425.552 million for the year ended 31 December 2019, a 10% increase from RMB4,022.452 million in 2018.

Cost of sales

Up to 31 December 2019, cost of sales increased from RMB3,624.902 million last year to RMB4,084.184 million, representing an increase of 12.7%, which was mainly resulted from the increase in shipment volume. Cost of sales represented 92.3% of total revenue, representing an increase of 2.2 percentage points from 2018. The increase in this ratio was mainly due to the continuous decline in market prices during the year compared to last year, and the failure to mass-produce as a result of the testing and adjustment of new production capacity, and the fact that the existing production capacity was upgraded, which affected the actual output, hindering the demonstration of the Group's advantages of economy of scale.

Gross profit and gross profit margin

The Group recorded a gross profit of RMB341.368 million and a gross profit margin of 7.7% in 2019, as compared to a gross profit of RMB397.55 million and a gross profit margin of 9.9% in 2018. Both gross profit and the gross profit margin recorded declines. The main reason was unit selling prices has dropped rapidly during 2019 and China's photovoltaic power subsidy policy was introduced later than expected, industry players generally hold a wait-and-see attitude, resulting in a year-on-year decrease in Chinese domestic photovoltaic installation. Further, despite the significant increase in module external shipment, the Group's low-cost and high-efficiency production capacity located in Yunnan Qujing was still in adjustment phase during the year, production capacity was not fully utilised. This forced the Group to continue to rely heavily on the mono-crystalline ingot and wafer products from its production base in Liaoning Jinzhou. While the local electricity cost in Liaoning Jinzhou is more than double that of Yunnan Qujing, it has directly and indirectly contributed to higher production cost of monocrystalline silicon ingots and wafers. As such, the Group's overall gross profit was being affected. Further, although the main products shipment of mono-crystalline silicon wafers and photovoltaic modules during the year increased by 137% and 27% respectively compared with last year, the Group was committed to the technological upgrading and transformation of production equipment has affected production efficiency and led to gross profit performance to be below expectation.

Selling and distribution expenses

Selling and distribution expenses mainly comprised packaging expenses, freight charges and insurance expenses. Selling and distribution expenses increased to RMB84.583 million in 2019 from RMB77.447 million in 2018. The increase in selling and distribution expense was mainly due to the increase in volume of external shipment in 2019.

Administrative expenses

Administrative expenses mainly comprised staff costs and research and development expenses. The administrative expenses in 2019 amounted to RMB409.458 million, as compared to RMB377.609 million in 2018. The increase was mainly due to the commissioning of the new Yunnan Qujing project in 2019 and continued investment in related research and development expenses.

Finance costs

Finance costs represented mainly bank loan interests. The Group's finance costs decreased from RMB136.012 million in 2018 to RMB123.13 million in 2019, a decrease of 9.5%. As mentioned above, external shipment of the Group has grown significantly by 48%. With an increase in amount of relevant purchases, the Group's finance cost, however, did not increase correspondingly. This was due to the Group's continued better

financial control on the use of funds during the year. Our banks were also showing greater confidence in the Group and have increased their facilities during the year respectively, which included China Zheshang Bank increasing its facilities of pledged borrowings for the Group to RMB800 million. The Group expects to control its finance costs effectively, and will obtain various different financing channels in the future.

Income tax

Income tax expense was RMB41.308 million in 2019, while an income tax credit amounted to RMB12.157 million was recorded in 2018. The income tax expense recorded in 2019 was mainly due to the Group reversing the recognition of deferred tax assets in previous years.

Loss attributable to the equity holders

In 2019, the Group recorded a loss attributable to the equity shareholders of RMB355.492 million, as compared to a loss attributable to the equity shareholders of RMB222.402 million in 2018.

Inventory turnover days

In order to replace traditional petrochemical energy in a larger scale and to effectively achieve the ultimate goal of green and clean energy, continuous technological advancement has driven down the prices of photovoltaic products over the years. This led to declining trends in prices of many related raw and auxiliary materials for production and finished products. Hence, in terms of inventory reserve strategy, the Group has been focusing its efforts in raising inventory turnover and lowering the inventory turnover days in order to mitigate the risk of a sudden decline in inventory prices, help reduce committed capital and, at the same time, further strengthen the Group's operation working capital. As a result, the Group's inventory turnover days has been lowered to 33 days during the year (31 December 2018: 37 days).

Trade receivable turnover days

The Group completed the vertical integration of upstream and downstream mono-crystalline silicon products since 2011. Apart from not producing polysilicon in-house, the scope of the Group's business covers self-production of mono-crystalline silicon ingots, mono-crystalline silicon wafers, solar cells and solar modules. However, due to the large capacity of upstream products in earlier years, external sales were at the time dominated by mono-crystalline silicon wafers. Hence, to get closer to the customer needs of the module end-user market, the capacity of module production rapidly increased from 400MW in 2013 to 2.3GW in 2019. Under the rapid growth of the capacity of module production, the solar modules sales accounted for over 70% of the Group's overall sales.

According to the terms of the industry's general module sales contract, the recovery of module receivable depends on the construction progress of the photovoltaic power plant. For instance, some trade receivables can only be recovered after the customer's photovoltaic power plant is connected to the grid. In addition, 10% of the total amount of receivables are retained as warranties. These warranties will generally be recovered in around one year. As a result, the trade receivables turnover days of module business are generally longer. Even so, due to the continuously effective management of accounts receivable, the collection has been improved, resulting in the Group's trade receivables turnover days being reduced to 113 days in 2019 (2018: 141 days).

Trade payable turnover days

The trade payables turnover day was 130 days, which rose comparing to 124 days of last year, was mainly due to the strategic partnerships established with our major suppliers, under stable and frequent co-operations, and the suppliers have gradually increased our lines of credits and payment terms.

Liquidity and financial resources

The principal sources of working capital of the Group during the year were cash flows from bank borrowings. As at 31 December 2019, the current ratio (current assets divided by current liabilities) of the Group was 0.79 (31 December 2018: 0.80). The Group had net borrowings of RMB1,010.194 million as at 31 December 2019 (31 December 2018: RMB1,125.436 million), including cash in bank and on hand of RMB396.854 million (31 December 2018: RMB239.712 million), pledged deposits of RMB403.191 million (31 December 2018: RMB425.309 million), bank loans due within one year of RMB1,680.914 million (31 December 2018: RMB1,773.140 million) and non-current bank and other loans of RMB129.325 million (31 December 2018: RMB17.317 million). The net debt to equity ratio (net debt divided by total equity) was 221.7% (31 December 2018: 139.3%).

Earnings before interest, taxes, depreciation and amortisation ("EBITDA")

During the period, earnings before interest, taxes, depreciation and amortisation ("EBITDA") was RMB49.126 million (1.11% to revenue) (2018: RMB136.938 million, 3.4% to revenue). The main reason for the decrease in EBITDA was due to the Group's net loss during the year.

Foreign currency risk

The Group is exposed to foreign currency risk primarily through sales and purchases, cash, bank deposits and bank loans that are denominated in a currency other than the functional currency, Renminbi, of the operations to which they relate. The currencies giving rise to this risk are primarily the US Dollar and Euro. The Directors do not expect any significant impact from the change in exchange rates since the Group uses foreign currencies received from customers to settle the amounts due to suppliers which naturally mitigates the exchange rate risk. In addition, the Group will consider the difference in interest rates and fluctuations in the exchange rates of foreign currency denominated and local currency-denominated loan balance, and the need to mitigate the risk through low-risk forward contracts, in order to strike a balance between the exposure to the variations in interest costs and fluctuations in foreign exchange rates.

Human resources

As at 31 December 2019, the Group had 4,036 (31 December 2018: 3,669) employees.

Future prospects and strategies

As a clean energy source, photovoltaic power generation replacing traditional petrochemical energy sources has become a global trend. The market is now undergoing a structural transformation. In addition to the technological advantages of mono-crystalline silicon products, which has been the Group's focus, being proven to be superior to multi-crystalline products, through the continued reduction of government subsidies, or even without subsidies, it is also advancing technological progress and reducing power generation costs, to promote the acceleration of the industry in the achievement of comprehensive grid parity.

After years of rapid development, the Chinese photovoltaic industry is leading its peers in the world. Its annual output in China has exceeded RMB400 billion, and it has provided millions of jobs. It has made a significant contribution to China's economic growth. It is expected that the Chinese government will continues its long-term support to the photovoltaic industry. Year 2019 is the first year of implementing a new mechanism for photovoltaic subsidy bidding, and it is also the first year of parallel development of grid parity and bidding projects. Compounded with the effect of the later-than-expected introduction of China's photovoltaic power subsidy policy during the year, industry players generally hold a wait-and-see attitude, resulting in a year-on-year decrease in domestic photovoltaic installation of 30.1GW in China compared with last year. This is expected to be a short term response. Demands in 2019 is expected to be deferred to 2020. However, due to epidemic of the new coronavirus, this deferred demand may not be immediately apparent in early 2020, but it is estimated that the global new photovoltaic installation in 2020 may still reach 140 to 150GW. Among them, China is expected to account for around 40GW. It is judged that the impact of the short-term deferral caused by the new coronavirus should be limited.

As for the technology of photovoltaic products, due to the advantages of high conversion ratios, stable decay rate in its photovoltaic systems, continued reduction in unit cost, etc. of mono-crystalline products are highlighted, market share of monocrystalline products will continue to rise. Therefore, monocrystalline products has become the popular choice in solar project. Hence, the proportion of solar plants installing mono-crystalline photovoltaic systems and the mono-crystalline products used by distributed power plants have been increasing as a result.

The Group focuses on mono-crystalline silicon products in photovoltaic products and has industry-leading production technology of mono-crystalline products. In the upstream and downstream of the vertical integration of the photovoltaic industry, while not producing chemical raw material polysilicon, its business form covers the entire photovoltaic industry. The chain can fully leverage the synergies between the Group's businesses. The focus is on the production of upstream mono-crystalline silicon ingots and silicon wafers, and planning the downstream module production capacity, in order to focus on the production of upstream niche products, mono-crystalline silicon ingots and wafers, retaining only a small scale solar cell manufacturing capacity, and through significant module production capacity, the Group not only maintains direct contact with downstream module customers with huge market power, establishes stable supply and demand relations but also keeps a finger on the pulse of the end-user market, and can also bring out the upstream high-end mono-crystalline silicon ingot and wafer products. Through the potential of continuous improvement in production costs of the upstream high-end mono-crystalline ingot and wafer products, the Group's innate advantage will be demonstrated. As such, in order to meet the needs of module customers, in addition to the 2.3GW module capacity owned by its wholly-owned subsidiaries, the Group has participated in a newly-established module manufacturing base of 1.2GW in Yancheng, Jiangsu. It only invested a small amount of cash for a direct equity investment of 15%, however, through strategic alliances among strategic investors and employees of the Group, the 1.2GW module capacity will co-ordinate with the manufacturing needs of the Group and it has already begun production in 2020. The Group's effective module production capacity has been increased to 3.5GW in 2020, which can greatly increase the economic scale advantage of module products, and also provide a more stable outlet of the Group's 3.6GW upstream mono-crystalline silicon ingots and wafers production capacity.

Although the average unit selling price of the product in the future is still expected to gradually decline with the advent of grid parity, the Group can rely on (1) the new production base having low external electricity costs, which directly and indirectly reduces the production costs; (2) the commencement of mass production by the new equipment and the completion of upgrades to the old equipment; (3) technological integration advantages of its various product lines; and (4) strong client base in China and overseas. It is expected to lead to continuous growth in the Group's future external shipment volume and revenue, it is also expected that the magnitude of decrease in cost of the Group's products will be greater than that of the decrease in unit selling price, hence driving the Group's gross profit ratios to return to a normal level.

The road to grid parity may be a painful change, but the expected explosive growth in the market after reaching grid parity will provide an opportunity for the industry. The Group is fully prepared and will do its utmost, to embrace the growth and development in the photovoltaic industry in the good times after reaching grid parity.

EVENT AFTER REPORTING PERIOD

Given the dynamic circumstances and uncertainties across the global markets to be recovered from the outbreak of the coronavirus disease 2019 ("COVID-19"), as of the reporting date, there was no material adverse effect on the financial statement as a result of the outbreak. However, the Group will continue to closely monitor the development of the situation and accordingly evaluate the impact on the financial position and performance, which will be reflected in the Group's 2020 interim and annual financial statements.

AUDIT COMMITTEE

The Company's Audit Committee has reviewed the accounting principles and practices adopted by the Group and the Group's consolidated financial results for the year ended 31 December 2019, and has discussed and reviewed the risk management, internal control and reporting matters.

DIVIDEND

No final dividend was paid in 2019 (2018: Nil). The Directors do not recommend the payment of a final dividend for 2019 (2018: Nil).

DELISTING OF TAIWAN DEPOSITARY RECEIPTS

The Company received a notice from the Taiwan Stock Exchange on 2 October 2019, whereby the Taiwan Stock Exchange indicated that it shall require the TDRs to be delisted with effect from 12 November 2019 pursuant to the relevant rules of the Taiwan Stock Exchange as the net assets value of the Group fell below one-third of the sum of the share capital and the share premium of the Company as set out in the unaudited consolidated interim financial results of the Company for the six months ended 30 June 2019. As such, the last trading day of the TDRs shall fall on 11 November 2019.

CLOSURE OF REGISTER OF MEMBERS

The register of members of the Company will be closed from 23 June 2020 to 30 June 2020, both days inclusive, during which period no transfer of shares will be effected. In order to be eligible to attend and vote at the forthcoming annual general meeting of the Company, all transfers accompanied by the relevant share certificates must be lodged with the branch share registrar of the Company in Hong Kong, Computershare Hong Kong Investor Services Limited at Rooms 1712–16, 17th Floor, Hopewell Centre, 183 Queen's Road East, Wanchai, Hong Kong not later than 4:30 p.m. on 22 June 2020.

PURCHASE, SALE OR REDEMPTION OF THE COMPANY'S LISTED SECURITIES

During the year, neither the Company nor any of its subsidiaries purchased, sold or redeemed any of its listed securities.

MODEL CODE FOR SECURITIES TRANSACTIONS BY DIRECTORS

The Company has adopted the Model Code for Securities Transactions as set out in Appendix 10 to the Listing Rules as the code of conduct regarding securities transactions by the Directors. Specific enquiries have been made by the Company to confirm that all Directors have been complied with the Model Code throughout the financial year ended 31 December 2019.

CORPORATE GOVERNANCE

The Company reviews and enhances its corporate governance practices continuously and is committed to a high standard of corporate governance. The Company has complied with the Corporate Governance Code and Corporate Governance Report (the "Corporate Governance Code") set out in Appendix 14 to the Listing Rules throughout the year ended 31 December 2019.

PUBLICATION OF FINANCIAL INFORMATION

The 2019 annual report containing all the detailed information will be dispatched to the shareholders of the Company and published on the respective websites of the Stock Exchange (http://www.hkexnews.hk) and the Company (http://www.solargiga.com) in due course.

SCOPE OF WORK OF AUDITOR

The figures in respect of the consolidated statement of profit or loss, consolidated statement comprehensive income, consolidated statement of financial position of the Group, and the related notes thereto for the year as set out in this announcement have been agreed by our auditors, Messrs. Ernst & Young, to the amounts set out in the Group's audited consolidated financial statements for the year.

The work performed by the Group's auditor, Ernst & Young, in this respect did not constitute audits, reviews and other assurance engagement in accordance with Hong Kong Standards on Auditing, Hong Kong Standards on Review Engagements or Hong Kong Standards on Assurance Engagements issued by the Hong Kong Institute of Certified Public Accountants and consequently no assurance has been expressed by the Group's auditor on the preliminary results announcement.

ANNUAL GENERAL MEETING

It is proposed that the annual general meeting of the Company be held on 30 June 2020. Notice of the annual general meeting will be published and issued to shareholders in due course.

By Order of the Board
Solargiga Energy Holdings Limited
Wang Junze
Executive Director

Hong Kong, 31 March 2020

As at the date of this announcement, Mr. Tan Wenhua (Chairman), Mr. Tan Xin and Mr. Wang Junze are executive Directors of the Company, Mr. Hsu You Yuan is a non-executive Director of the Company, and Dr. Wong Wing Kuen, Albert, Ms. Fu Shuangye and Ms. Feng Wenli are independent non-executive Directors of the Company.