GCL-Poly Energy Holdings Limited
保利協鑫能源控股有限公司

(Incorporated in the Cayman Islands with limited liability)
(Stock Code: 3800)

ANNUAL REPORT 2019

Bringing Green Power to Life

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FIVE-YEAR FINANCIAL SUMMARY

	For the year ended 31 December				
	2015 RMB'000 (Restated)	2016 RMB'000	2017 RMB'000	2018 RMB'000	**2019** **RMB'000**
Continuing operations					
Revenue	20,484,445	22,024,537	23,794,455	20,565,435	**19,249,621**
Profit (loss) before taxation	2,775,422	2,844,124	2,912,002	(510,795)	**317,683**
Income tax (expense) credit	(484,299)	(537,172)	(637,880)	52,361	**(206,848)**
Profit (loss) for the year from continuing operations	2,291,123	2,306,952	2,274,122	(458,434)	**110,835**
Discontinued operations					
Profit (loss) for the year from discontinued operations	435,601	(112,208)	77,112	—	**—**
Profit (loss) for the year	2,726,724	2,194,744	2,351,234	(458,434)	**110,835**
Profit (loss) for the year attributable to:					
Owners of the Company	2,425,220	2,029,412	1,974,398	(693,399)	**(197,207)**
Non-controlling interests	301,504	165,332	376,836	234,965	**308,042**
	2,726,724	2,194,744	2,351,234	(458,434)	**110,835**

	At 31 December				
	2015 RMB'000 (Restated)	2016 RMB'000	2017 RMB'000	2018 RMB'000	**2019** **RMB'000**
Total assets	79,691,490	87,019,313	107,279,898	112,493,764	**100,436,959**
Total liabilities	62,132,006	63,625,371	79,972,319	85,661,257	**73,715,551**
	17,559,484	23,393,942	27,307,579	26,832,507	**26,721,408**
Equity attributable to owners of the Company	15,854,172	20,820,816	22,775,217	21,865,556	**22,250,159**
Non-controlling interests	1,705,312	2,573,126	4,532,362	4,966,951	**4,471,249**
	17,559,484	23,393,942	27,307,579	26,832,507	**26,721,408**

PERFORMANCE HIGHLIGHTS

	For the year ended 31 December			
	2019 RMB'000	2018 RMB'000	Change RMB'000	% of change
Revenue				
Sales of wafer	**8,787,186**	11,679,412	(2,892,226)	(24.8%)
Sales of electricity	**6,541,503**	6,117,249	424,254	6.9%
Sales of polysilicon	**2,324,761**	1,579,383	745,378	47.2%
Processing fees	**811,472**	629,228	182,244	29.0%
Others (comprising the sales of ingots and modules)	**784,699**	560,163	224,536	40.1%
	19,249,621	20,565,435	(1,315,814)	(6.4%)
Loss for the year attributable to owners of the Company	**(197,207)**	(693,399)	496,192	(71.6%)

	RMB Cents	RMB Cents	Change RMB Cents	% of change
Loss per share				
— Basic	**(1.05)**	(3.81)	2.76	(72.4%)
— Diluted	**(1.05)**	(3.84)	2.79	(72.7%)

	RMB million	RMB million	Change RMB million	% of change
Adjusted EBITDA*	**7,180**	8,003	(823)	(10.3%)

* Definition of adjusted EBITDA is disclosed in the "Management Discussion and Analysis" Section.

	As at 31 December			
	2019 RMB'000	2018 RMB'000	Change RMB'000	% of change
Extracts of consolidated statement of financial position				
Equity attributable to owners of the Company	**22,250,159**	21,865,556	384,603	1.8%
Total assets	**100,436,959**	112,493,764	(12,056,805)	(10.7%)
Bank balances and cash, pledged and restricted bank and other deposits*	**8,515,445**	10,836,690	(2,321,245)	(21.4%)
Indebtedness**	**55,372,519**	62,588,163	(7,215,644)	(11.5%)
Key financial ratios				
Current ratio	**0.53**	0.54	(0.01)	(1.9%)
Quick ratio	**0.51**	0.52	(0.01)	(1.9%)
Net debt to equity attributable to owners of the Company	**210.6%**	236.7%	(0.26)	(10.9%)

* Amount includes pledged deposit at related companies of RMB38,000,000 (2018: RMB142,194,000) and bank balances and cash classified as assets held for sale of nil (2018: RMB44,873,000).

** Indebtedness includes loans from related companies, bank and other borrowings, lease liabilities/obligations under finance leases, notes and bonds payables.

OTHER FINANCIAL ANALYSIS

Profit or Loss Analysis (De-consolidation of GNE Group)

For illustrative purpose, if deconsolidating GCL New Energy Holdings Limited ("GNE") and its subsidiaries ("GNE Group"), the financial results of the Group, GNE Group and the Group (De-consolidated GNE Group) would be as follows:

	The Group (A) RMB million	GNE Group (B) RMB million	Deconsolidation adjustments (Note) (C) RMB million	The Group (De-consolidated GNE Group) (D)=(A)-(B)-(C) RMB million
Revenue	19,250	6,052	—	13,198
Cost of sales	(14,572)	(2,098)	34	(12,508)
Gross profit	4,678	3,954	34	690
Other income	819	307	(264)	776
Distribution and selling expenses	(126)	—	—	(126)
Administrative expenses	(2,051)	(694)	(4)	(1,353)
Finance costs	(3,947)	(2,882)	38	(1,103)
Impairment losses under expected credit loss model, net of reversal	(463)	—	—	(463)
Other expenses, gains and losses, net	1,058	25	—	1,033
Share of profits of associates	401	49	—	352
Share of (losses)/profits of joint ventures	(51)	24	—	(75)
Profit/(loss) before tax	318	783	(196)	(269)
Income tax expense	(207)	(178)	—	(29)
Profit/(loss) for the year	111	605	(196)	(298)
(Loss)/Profit for the year attributable to:				
Owners of the Company	(197)	295	(134)	(358)
Non-controlling interests	308	310	(62)	60
	111	605	(196)	(298)

Note: The deconsolidation adjustments mainly include allocation of corporate expenses of RMB35 million, elimination of interest of GNE Group's perpetual notes subscribed by the subsidiaries of the Group of RMB162 million, and elimination of inter-segment profit of RMB1 million.

	The Group (A) RMB million	GNE Group (B) RMB million	Deconsolidation adjustments (C) RMB million	Notes	The Group (De-consolidated GNE Group) (D)=(A)-(B)-(C) RMB million
Non-current assets					
Property, plant and equipment	52,413	35,400	(25)	1	17,038
Interests in joint ventures	706	4	—		702
Interests in associates	7,539	1,013	—		6,526
Investment in perpetual notes of GNE Group	—	—	(1,800)	2	1,800
Investment in subsidiaries	—	—	(2,365)	3	2,365
Pledged and restricted bank and other deposits	1,132	878	—		254
Deposits, prepayments and other non-current assets and contract assets	8,036	7,413	—		623
Other non-current assets	6,463	1,874	—		4,589
Total non-current assets	76,289	46,582	(4,190)		33,897
Current assets					
Inventories	751	—	—		751
Trade and other receivables	13,857	4,973	—	4	8,884
Pledged and restricted bank and other deposits	5,797	823	—		4,974
Bank balances and cash	1,548	1,073	—		475
Other current assets	2,195	965	(710)	4	1,940
Total current assets	24,148	7,834	(710)		17,024
Current liabilities					
Trade and other payables	15,019	5,968	—	4	9,051
Loans from related companies	744	646	—		98
Bank and other borrowings — due within one year	26,977	11,523	—		15,454
Lease liabilities — due within one year	531	66	—		465
Notes and bonds payables — due within one year	422	272	(272)		422
Other current liabilities	2,361	626	(80)	4	1,815
Total current liabilities	46,054	19,101	(352)		27,305
Non-current liabilities					
Loans from related companies	1,032	918	—		114
Bank and other borrowings — due after one year	20,286	19,410	—		876
Lease liabilities — due after one year	1,911	1,095	—		816
Notes and bonds payables — due after one year	3,471	3,471	—		—
Other non-current liabilities	962	452	—		510
Total non-current liabilities	27,662	25,346	—		2,316
Net current liabilities	(21,906)	(11,267)	(358)		(10,281)
Net assets	26,721	9,969	(4,548)		21,300

Notes:
1. Amount represent adjustment for disposal of subsidiaries to GNE Group, and related inter-segment profit.
2. Amounts represent the GNE's Group perpetual notes of RMB1,800,000,000 subscribed by the subsidiaries of the Group.
3. Amounts represent adjustment for investment costs in GNE Group.
4. Amounts represent the eliminations of intercompany balances.

COMPANY PROFILE

GCL-Poly Energy Holdings Limited is the world's largest polysilicon producer and leading wafer supplier globally. At the end of 2019, the annual production capacity of polysilicon of the Group's Xuzhou base remained at 70,000 MT, the production capacity of polysilicon of Xinjiang base ramped up to 48,000 MT and the Group's wafer annual production capacity remained at 35 GW. Regarding the Group's new energy business, which is mainly operated through the subsidiary GCL New Energy, has a total installed capacity of 7.1 GW at the end of 2019.


ringing Green Power to Life

MAJOR EVENTS 2019

Jan

On 8 January, Jurong Wafer Cutting Plant commenced production, which is the second production base for mono wafer products of GCL-Poly wafer crystal and wafer cutting business segments after Funing Project. The production base also addressed to the advocate of Zhu Gongshan, our Chairman, who believed in the business driver with mono wafer and polysilicon ("double engines") approach, creating a new landscape for the industry.

On 9 January, the 4th PV Industrial Chain Innovation & Cooperation Summit jointly organised by the Asian Photovoltaic Industry Association and GCL-Poly Energy Holdings Limited was successfully held in Suzhou. The Summit was themed "Technical Innovation for Mutual Benefits" and more than 100 companies from the industry attended the Summit.

On 12 January, NENGapp (能見科技), a company committed to energy innovation, held the press conference for the announcement of the List of Innovative Energy Enterprises of China and the Energy Innovation Summit 2018 in Beijing. The committee for the List of Innovative Energy Enterprises of China and NENGapp jointly announced the List of Innovative Energy Enterprises of China 2018 on the Summit, and GCL-Poly was selected into the List of Innovative Energy Enterprises of China 2018 — New Energy Production. The award was granted to GCL-Poly by Peng Suping, Academician of China Engineering Academy.

On 16 January, an important event for Hong Kong stocks investment, which is the Awarding Ceremony of the 2018 Golden Hong Kong Stock Awards was held in Shenzhen. With outstanding market performance and substantial investment potential, GCL-Poly was granted the "Most Valuable Energy and Resources Company" in this year Golden Hong Kong Stock Awards among more than 800 listed companies participating in the event.

Feb

On 13 February, Xuzhou Solar was honoured the 2018 Outstanding Management Unit of Special Equipment presented by Xuzhou City.

Apr

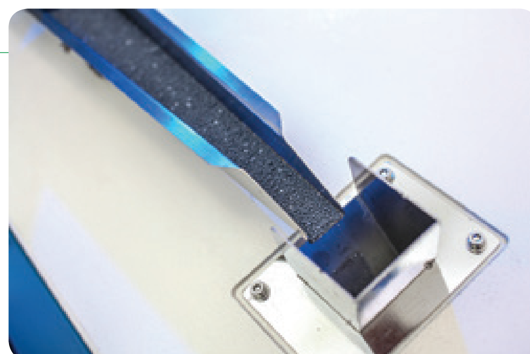
In the afternoon of 22 April, the unveiling ceremony of the work station for corporate academician of Xuzhou Solar was held in the provincial key research laboratory of Jiangsu GCL Silicon Material Technology Development Co., Ltd.. Experts and professionals such as Yang Deren, academician from the Material Science and Engineering School- National Key Laboratory for Silicon materials, Zhejiang University and relevant government officials such as Chen Ming, deputy party chief of party working committee of Xuzhou Economic and Technological Development Zone and Xie Deming, deputy head of the Science and Technology Bureau of Xuzhou City, all attended the unveiling ceremony.

On 23 April, list of the 2018 Top 100 Innovative Enterprises of Jiangsu Province was announced, of which Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd. was ranked 17th and Jiangsu GCL Silicon Material Technology Development Co., Ltd. was ranked 40th.

On 23 April, the celebration of the 1st of May 2019 International Labour Day cum the award presenting ceremony of the National 1st of May Labour Award and National Pioneer Worker was held in Beijing. The C team of a wafer cutting plant from Suzhou GCL Photovoltaic Technology Co., Ltd. ("Suzhou Photovoltaic") was honoured as the National Pioneer Worker. This is another national honour after Yangzhou Photovoltaic was awarded the National Pioneer Worker last year and the second project unit of GCL Group being awarded the same honour.

On 26 April, the operation and management team of the production department of Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd. ("Zhongneng Polysilicon") was honoured as the 2017–2018 Youth Civilization in Jiangsu Province presented by Communist Youth League of Jiangsu Province. This is another award of the Group after the DCS team of the inspection and maintenance plant being honoured as the Youth Civilization in provincial level.

On 7 May, the comprehensive assessment results of the 2018 Science and Technology Award of Jiangsu Province was announced, the project on the key equipment of Fluidized bed reactor (FBR) granular silicon and the development and industrialization of efficient deposition process by Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd. won the second prize of the Science and Technology Award of Jiangsu Province, which was the highest honour of the Science and Technology Award in provincial level.



May

Jun

On 3 June, GCL-Poly was awarded the "Contribution Award in Asian Photovoltaic Industry" by Asian Photovoltaic Industry Association (APVIA) on the SNEC Meeting. This Award aims to recognize photovoltaic companies and industry leader which led the development and progress of the photovoltaic industry and contributed much to the photovoltaic industry chain.

In the afternoon of 4 June, during the SNEC exhibition in Shanghai, the signing ceremony of the 6GW quasi-mono wafer strategic cooperation of GCL-Poly was held in the exhibition counter of GCL-Poly in E1 hall. The Chief Executive Officer of GCL-Poly, Zhu Zhanjun, the Chief Technical Officer, Dr. Wan Yuepeng and the General Manager of Jiangsu GCL Silicon Material, Dr. You da attended the signing ceremony.

On 6 June, in the press conference of "Top 10 Highlights" of 2019 SNEC, "quasi-mono wafer G3", the ingot monosilicon products of GCL-Poly won the Terawatt Diamond Award, the highest level award of the "Top 10 Highlights" of this Expo on the back of its outstanding technical parameters, the reputation among customers and its future potentials.

Jul

On 6 July, heads of All-China Federation of Labour Unions visited and inspected the "Model Work Innovation Workshop" of the "National Pioneer Worker Award".

Aug

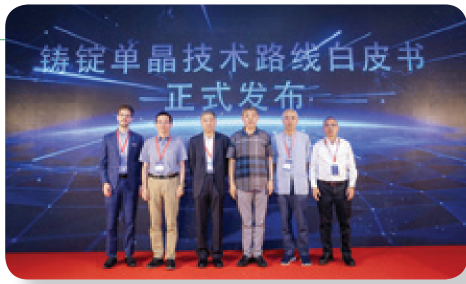
附件：2019年苏州市[illegible]企业名单

序号	企业名称	地区
1	江苏吴江中国东方丝绸市场股份有限公司	吴江区
2	[illegible]（吴江）有限公司	吴江区
3	[illegible]股份有限公司	吴中区
4	科沃斯机器人股份有限公司	吴中区
5	同程网络科技股份有限公司	工业园区
6	[illegible]有限公司	工业园区
7	卫材（中国）药业有限公司	工业园区
8	保利协鑫（苏州）新能源有限公司	工业园区
9	日立工程建设（中国）有限公司	工业园区
10	SEW-传动设备（苏州）有限公司	工业园区
11	亚翔系统集成科技（苏州）股份有限公司	工业园区
12	苏州[illegible]认证有限公司	工业园区
13	[illegible]科技（苏州）有限公司	工业园区

On 15 August, the Development and Reform Commission of Suzhou Municipal announced the list of companies to be rewarded for the local economic contribution to Suzhou Municipal in 2019. Among the 17 companies announced in the list, GCL-Poly (Suzhou) New Energy Co., Ltd was on list. So far, that company has been on list for three consecutive years.

22 August, "the 2nd Seminar on Double-sided Power Generation and Affordable Internet Technology Route" organized by a well-known media of the industry, Mole Photovoltaic was held in Suzhou. The ingot monosilicon technology of GCL-Poly was awarded the "Annual Affordable Internet Technology Contribution Award".

Sep



In the morning of 5 September, GCL-Poly announced the "White Book on Ingot Monosilicon Technology Route" in 2019 Clean Energy Expo China. Since then, GCL-Poly created the third direction for the industry apart from czochralski monosilicon and polysilicon technology, facilitating the rapid drop of PV unit generation cost.

On 17 September, the Ministry of Industry and Information Technology published the register of the fourth batch of Green Manufacturing, Funing GCL Photovoltaic Technology Co., Ltd. was successfully honoured as a national-level green factory, which was one of the only two enterprises in Yancheng City shortlisted in the register.

Oct

On 5 October, the single day production volume of Funing Photovoltaic exceeded 2.1 million for the first time and reached a record high of 2.122 million on 12 October.

On 23 October, the safety equipment of Phase I project with annual production volume over 0.1 million tonnes of polysilicon by Xinjiang GCL New Energy Materials Technology Co., Limited attained project completion and qualified acceptance.

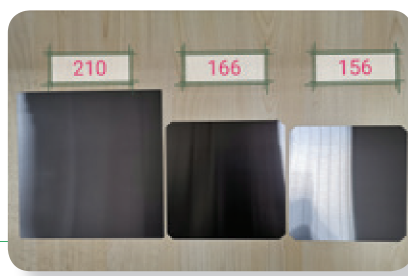
Nov

On 7 November, the 2nd Ingot Monosilicon Product Mass Production and Application forum organised by GCL-Poly Energy Holdings Limited was held in Taihu Pearl, Wuxi. More than 100 people, including technical experts and business personnel from ten or more major companies and various enterprises investing in power station, participated in the forum.

On 7 November, GCL-Poly officially announced its ingot monosilicon 4th generation wafer (G4) products on the 2nd Ingot Monosilicon Product Mass Production and Application forum.

Dec

On 17 December, 12-inch super huge wafer was successfully produced by the production lines of Suzhou Photovoltaic, making it the leading operator in large-size wafer cutting technology.



CHAIRMAN'S STATEMENT

Zhu Gongshan
Chairman

Dear Shareholders,

In 2019, the PV industry chain witnessed technological progress, quality and efficiency enhancement and cost reduction along all sections, as the industry welcomed the first year of the era of grid parity. Globally, demand was growing steadily with total installed capacity growing 16.8%, year-on-year, to 121.35GW. Not only the traditional PV markets in China, the United States, India and a number of other European, American and Asian countries, but the emerging markets demonstrated robust growth. Nations covered by the "Belt and Road" initiative become hotly contested markets, while South American and Middle Eastern countries could provide a major driver for the future growth of the PV market, offering strong support for the sustained development of China's PV sector. Despite the decline in installed capacity in the domestic PV market owing to policy changes, China's PV manufacturers industry continued to report steady expansion, ongoing technological innovation and accelerating export growth in 2019 thanks to the growth of overseas markets. Meanwhile, a number of policies in China were carried out by the central government and local governments, accelerating the upgrade of the PV manufacturers industry from quantitative to qualitative growth. First of all, the government stipulated that "the installed capacity shall be determined by the amount of subsidy", aiming to optimise the allocation of resources through the adoption of market-oriented approaches such as competitive bidding. Second, the "quota system" was implemented and the "Notice on the Development and Perfection of a Mechanism for Assuring Consumption of Electricity from Renewable Energy" was announced to specify the target percentage of electricity consumption to be accounted for by electricity generated by renewable energy in each provincial region, aiming to develop and perfect the mechanism for assuring consumption of electricity from renewable energy. **Such policy assurances and transformation have provided GCL-Poly with opportunities for transformation. We will spare no effort in exploring approaches for implementing changes and adjust its strategic business presence in a proactive and timely fashion, in fulfilment of the social responsibility required of a leading PV enterprise in the attainment of the ultimate goal of general grid parity.**

Business Review for 2019

During 2019, GCL-Poly's total production of polysilicon and wafers were 60,273 MT and 31,852 MW, respectively. For the year ended 31 December 2019, GCL-Poly recorded revenue of RMB19,250 million, representing a decrease of 6.4% as compared with 2018; gross profit was approximately RMB4,678 million, representing a decrease of 7% as compared with 2018. Loss attributable to shareholders of the Company amounted to approximately RMB197 million and basic loss per share was approximately RMB1.05 cents.

GNE's total installed PV capacity was 7,145 MW for the period, representing a decrease of 2.2% as compared with 2018. Total revenue from PV power generation business was approximately RMB6,052 million, representing an increase of 7.5% as compared with 2018. Profit attributable to shareholders of the GNE Group amounted to approximately RMB295 million and basic earnings per share were approximately RMB1.54 cents.

Strategic Transformation Starting to Pay Dividends with Advantages Restored

GCL-Poly was ready to overcome challenges and embrace innovation with firm belief and commitment in 2019. Guided by technologies and driven by innovation and delicacy management, we explored new business models, opened up new channels, snatched up new market shares and engaged ourselves in new endeavours. During the reporting period, the polysilicon project in Xinjiang started to operate at full capacity and attained the most advanced standard in the industry in terms of cost. The Company persisted in the strategy of producing both mono wafers and multi-wafers and achieved mass production and application of quasi-mono wafer, a product well received by the market. In the meantime, our new granular silicon process, the first of its kind in the domestic market, became fully ready and provided a new driving force for grid parity in PV power generation. **GCL-Poly has completed adaptive preparations and transformative business presence for the Company's next cycle of stable development.**

Leveraging existing strengths with a strong focus on the principal business

In polysilicon materials, the 48,000-ton phase-one polysilicon project in Xinjiang started to operate at full capacity in 2019 and reported the highest level of materials for mono wafer in the industry, while delivering top-notch quality by foreign as well as domestic standards. The Xinjiang Project will maintain its position as a first-tier silicon materials manufacturer with a distinct competitive edge. In addition, our proprietary silicon materials technology was fully ready for planned production after we had reported continuous stable run and mass production with sound quality using this technology. **We are convinced that we can operate our principal business of polysilicon materials in a more refined and industrialised manner at lower costs. We will resort to our principal business and continue to build a world-class polysilicon base.**

In ingot and wafer cutting, GCL-Poly maintained stable market shares by supplying downstream customers with products featuring superior cost efficiency through a diversified product portfolio comprising multi-wafers, quasi-mono wafers and mono wafers. In particular, **we have achieved a significant breakthrough in our quasi-mono wafer technology, meaning that the approach of making mono products with ingot technologies is officially ready for mass production.** Quasi-mono wafer does not only share the merits of multi-wafers products in size flexibility, low energy consumption in process, low cost and low LID (light induced degradation), but is also at par with mono wafers plus PERC module in terms of output performance, positioning itself as a widely acclaimed dark horse in the PV market in 2019 offering robust cost efficiency. The Company has entered into supply agreements with a number of downstream module manufacturers, forming a stable customer base to which deliveries are made in mass volumes. The outstanding cost efficiency of quasi-mono wafer has been widely acknowledged by solar farm customers. **It is also worth mentioning that the size flexibility of quasi-mono wafer allows it to align seamlessly with the trend of large-size wafers without the need for machine-processed adaptation — enhancing performance of the module, lowering manufacturing costs of the industry chain and highlighting superior cell conversion efficiency. This unique advantage is set to make quasi-mono wafer a much sought after product for grid parity in the coming era of large sizes.**

Optimising our assets liabilities structure to facilitate industrial upgrade

GCL-Poly has also set the optimisation of its assets liabilities structure and the lowering of its gearing ratio of the listed company as a main objective of the holding company for the year. During the year, we successfully completed the disposal of 31.5% equity interests in Xinjiang GCL. Upon completion of the transaction, the Company received an RMB4.4 billion one-off gain from disposal and net cash inflow of RMB1.33 billion, improving significantly its profitability and liquidity while lowering the gearing ratio of its PV materials business to help facilitate the transformation and upgrade of the business. During the year, we announced the "Joint Establishment of Investment Fund with Leshan Government" and "Joint Establishment of Investment Funds with Xuzhou City Industrial Development Guidance Fund Co., Ltd.* (徐州市產業發展引導基金有限公司) and Xuzhou Economic and Technological Development Zone Jinlong Lake City Investment Co., Ltd.* (徐州經濟技術開發區金龍湖城市投資有限公司)", through which we sought to realise the value of existing assets in reuse and achieve value preservation by channeling premium capital, thereby further optimising our asset structure. During the year, we received the recognition and strong support of major financial institutions, as evidenced by the RMB2.5 billion syndicate loan for the GCL-Poly Xinjiang Polysilicon Project, which has facilitated the further optimisation of GCL-Poly's debt structure and provided financial assurance and buffer for the Company's future business expansion and transformation.

GNE, the subsidiary of GCL-Poly, dispose of its subsidiary solar farms to recoup capital and lower its debt, so as to alleviate the pressure of project financing and further increase its rate of return on capital. During the year, the disposal of assets with an aggregate capacity of approximately 1.6 GW was completed to cash in funds amounting to approximately RMB2.95 billion, while providing a model for cooperation with China Huaneng Group. On 21 January 2020, the Group announced that it had entered into the first batch of share purchase agreements with Huaneng, upon the completion of which, further disposals will be actively carried forward and more cooperation opportunities could be discussed. These foresaid achievements have not only allowed the Group overcome cash flow pressure, but has also marked a huge step in GNE's future move towards an asset-light approach.

Outlook

Surprisingly the COVID-19 outbreak in early 2020, but fortunately PV enterprises seems not to be heavily affected in a negative way. With the epidemic generally coming under control in China, various industries have been speeding up to resume production. Globally, increasingly more efforts in lots of nations have been put to combat the epidemic. If it comes under effective control in 1–2 months' time, there will be sufficient time in the second half of the year to make up for the delays in the early months, and the global demand for installed capacity in 2020 is not expected to decrease.

In connection with government policies, the "Circular on the Construction of Wind and PV Power Generation Projects in 2020" was officially promulgated by the NEA on 10 March, a much earlier date compared to its 2019 counterpart, and the details of the announcement were largely in line with market expectations. Coupled with the series of heavy-weight policies announced at the beginning of the year, this has indicated the underlying principle, direction and resolve of the State to support the stable, orderly and qualitative development of the PV industry. Elsewhere in the world, the growth trend of the PV industry will remain unchanged in the medium to long term. Traditional overseas markets such as the United States and Europe will rebound once the epidemic comes under effective control. Emerging markets, especially nations covered by the "Belt and Road" initiative, are set to become hotly contested markets, while South American and Middle Eastern countries could provide a major driver for the future growth of the PV market.

As the PV industry continues to benefit from rapid technological upgrades, substantial cost reductions and an expanding market for applications, PV is assuming increasing importance in the global energy regime and is set to become a major form of alternative energy in the not too distant future. Capitalising on this historic opportunity, GCL-Poly will leverage its existing strengths and focus on the solar material business. We will address market demands and work in tandem with developments in the industry, in a bid to enhance our competitiveness on the back of our core products in silicon materials and wafers. In the meantime, we will facilitate the disposal of assets, introduction of new businesses and optimisation of existing business by reusing existing assets and developing assets at the incubation period, with a view to enhancing asset value. We firmly believe that, following the technological progress, industrial upgrade, market optimisation and reshaping of business landscape in the future, GCL-Poly will embrace the new era of development in a stronger, healthier and more orderly fashion.

Finally, I wish to express sincere appreciation to the Company's Board of Directors, management team and all staff for their hard work and dedication in 2019. I am also deeply grateful to the Company's shareholders and partners for their ardent support.

Zhu Gongshan
Chairman

CEO'S REVIEW OF OPERATIONS AND OUTLOOK

On behalf of the management of the Company, I hereby announce the following results achieved by GCL-Poly for the full year of 2019: as of 31 December 2019, GCL-Poly recorded revenue of RMB19,250 million, representing a 6.4% decrease as compared with the same period in 2018. Gross profit was approximately RMB4,678 million, representing a 7.0% decrease as compared with the same period in 2018. Loss attributable to shareholders of the Company amounted to approximately RMB197 million and basic loss per share was approximately RMB1.05 cents. In 2019, the Company completed a total production of 60,273 MT of polysilicon, and a total production of 31,852 MW of silicon wafer.

As of 31 December 2019, GNE's total grid-connected installed capacity was 7,145 MW, a decrease of 7.5% as compared with the same period of last year. In terms of results, GNE's total revenue for 2019 was approximately RMB6,052 million, up by 7.5% as compared with the same period of last year. Profit attributable to shareholders of the GNE Group amounted to approximately RMB295 million and basic earnings per share were approximately RMB1.54 cents.

The mechanism of bidding introduced for subsidised PV projects in 2019 has signified a new development cycle for the PV industry. Following multiple rounds of reshuffling in the major sections along the industry chain, there was an increasing level of industry consolidation under the Matthew effect. GCL-Poly is fully aware that the company must foster strengths in technology, cost, management and scale if it intends to cement its leading position in the industry and energise itself for long-term development. During the year, the Company continued to optimise and expedite reforms, making persistent efforts to introduce new growing drivers and leverage existing assets in an active move to address the complicated landscape of market competition, as we explored new business models, launched new products, opened up new channels and snatched up new market shares.

The Xinjiang polysilicon base operating at full capacity; increasing industry consolidation; the fluidized bed reactor (FBR) technology is ready for commercialisation

GCL-Poly's Xinjiang polysilicon base started to operate at full capacity in 2019 to provide 48,000T in output. Entirely delivered by high-quality constructing process employing the best-in-class proprietary GCL technology for ultra-large scale clean polysilicon production, coupled with the benefit of low power costs in Zhundong region, Xinjiang, the project is an industry leader in terms of human resources, technology, cost and quality. Guided by technologies and driven by innovation and delicacy management, the Xinjiang project will continue to seek further reductions in the consolidated cost of polysilicon production and enhance its competitiveness in the global market in pursuit of the goal of domestication of high-quality polysilicon manufacturing. By then, the project will provide a stable source of profitability for GCL-Poly.

In 2019, GCL made a major technological breakthrough in its exclusively-owned and patented granular silicon technology, which is now ready for commercial production. Granular silicon boast a number of inherent competitive advantages, such as high product adaptability, which allows it to better fulfill the demand of downstream mono wafer manufacturers for silicon materials. Moreover, unlike the traditional Siemens process for polysilicon production, the unit cost of the production process for granular silicon is significantly lower than that for silicon rod. The Company is confident that this proprietary, innovative new granular silicon production process, which is the first of its kind in China, will provide a new driving force for the grid parity of PV power generation, as well as a new niche for profit growth for the Company.

New generations of wafer products coming on stream as quasi-mono wafer claims advantage in compatibility with large-size wafers

In 2019, we completed the entire process of new product marketing, comprising mass production, downstream client testing and certification, large-scale application and sole pricing discretion, in respect of quasi-mono wafer, providing customers with a third alternative other than multi-wafers and mono wafers. Aiming always to enhance efficiency and adhere to the customer-centric principle, we officially launched the fourth-generation (G4) quasi-mono wafer in November 2019 through secondary innovation. On the basis of G3, the gap with mono cells was further reduced while the advantage afforded by the full-wafer size was extended with significant improvements in efficiency distribution in a further enhancement of cost efficiency.

As it has become a consensus of the industry that large-size wafers will become a dominant trend, the economic benefits of quasi-mono wafer products with flexible scalability has become increasingly attractive with its evident advantage, as it could be used to produce 166mm or 210mm large size wafers without any need for machine-processed adaptation. Moreover, the further decline in the prices of polysilicon means that wafers will be able to maintain its cost competitiveness in the longer term, such that a favourable gross profit margin for cell and module could be achieved even if the unit per watt selling price trends lower. With the age of large sizes, superior efficiency and grid parity dawning, we can anticipate broader prospects for quasi-mono wafer products in the global PV market.

Adjusting the asset structure to lower the gearing ratio

Against the backdrop of instability in the international arena coupled with curbed economic growth and looming structural corrections for industries in China, the Company opted to pursue "stability" in its operations, seeking to stabilise fundamental management and bring the strengths of its business into play. In the meantime, we stepped up with our efforts in asset consolidation, treasury operation and equity optimisation in a bid to increase efficiency by unloading, make progress by taking steps back and convert inventories into growth drivers. In September 2019, the Company completed the disposal of 31.5% equity interests in Xinjiang GCL to Xuzhou Zhongping GCL Industrial Upgrading Equity Investment Fund LLP ("Xuzhou Fund"). While ensuring the retention of a controlling stake in the Xinjiang project, the deal has brought an RMB4.4 billion one-off gain from disposal and net cash inflow of RMB1.33 billion in a significant improvement to its profitability and liquidity, while lowering the gearing ratio of its PV materials business to help facilitate the transformation and upgrade of the business. Meanwhile, steady progress has been made in the cooperative fund launched in joint venture with the Leshan Government and Shanghai Zhongping Capital Co. Ltd. By delivering value through the reuse of assets on the back of the unique strengths of the company, the government and the financial institution, we have facilitated the upgrade of polysilicon production while preserving and enhancing our asset value.

Debt reduction coupled with an asset-light approach: GNE seizing market opportunities through diversified developments

During the reporting period, GNE Group, subsidiary of GCL-Poly continued to make progress towards an asset-light operation. At the holding company as well as the regional companies, a diverse range of innovative funding methods were adopted, as we explored approaches such as the high-turnover model and equity cooperation, while expanding into O&M services with a view to improving our asset mix and financial structure. During the period, GNE completed the disposal of solar farms at the levels of the domestic holding company and of the project companies, with the both controlling stakes in solar farms totally over 1GW PV were disposal to Wuling Electric and Shanghai Rongyao New Energy, respectively. In addition to generating cash flow, the disposal has also moved certain debt off the balance sheet to reduce our indebtedness and alleviate the pressure of project financing.

The Company continued to explore possibilities for cooperation with Huaneng Group. To accomplish the objective of combining strengths and reaping mutual benefits through cooperation, an asset acquisition scheme was announced in November 2019, followed by the first 294 MW PV solar farm share purchase agreements in early 2020. Pursuant to the first batch of share purchase agreements, two indirect subsidiaries of GNE agreed to dispose of 60% and 40% of the sales shares to Huaneng Fund I and Huaneng Fund II, respectively, for a total consideration of approximately RMB850 million. The modification of the cooperation plan has expedited the process of facilitating strategic complementary synergies and resource sharing. While effectively helping GNE to optimise its asset structure and lower its financial risks, the deal has also bolstered the influence of both parties in the energy sector to provide a solid foundation on which to develop an amiable long-term partnership.

Outlook

Year 2019 was a crucial year for the PV industry to strive for cost reduction and efficiency enhancement, while in 2020 the industry is expected to welcome a major resurgence in demand. According to the "Circular on the Construction of Wind and PV Power Generation Projects in 2020" officially promulgated by the NEA on 10 March 2020, the total budget amount of subsidies for new PV power generation projects in 2020 has been set at RMB1.5 billion, out of which RMB1.0 billion will be allocated to price bidding projects, while RMB500 million will be allocated to residential power projects. In this connection, the deadline for bidding projects submitting applications has been extended to 15 June. According to market estimates, the aggregate installed capacity of bidding projects in 2020 could reach 30 GW, while the total installed capacity of residential projects and grid parity projects is estimated at 6.25 GW and 1 GW, respectively. Adding approximately 15 GW from projects brought forward from 2019 and taking into consideration the impact of the epidemic, a conservative estimate would put new installed capacity in China in 2020 at approximately 35–45 GW. Elsewhere in the overseas market, the growth trend for the medium to long term is not likely to change, despite near-term uncertainties in the development of the epidemic. Once the epidemic comes effectively under control, traditional overseas markets such as the United States and Europe will rebound, while emerging economies, especially nations covered by the "Belt and Road" initiative, will become hotly contested markets, as South American and Middle Eastern countries could provide a major driver for the future growth of the PV market. On a global basis, new installed capacity in 2020 is conservatively estimated at 108–143 GW.

Year 2020 is destined to be a most extraordinary year. The year started with an unexpected epidemic that brought the entire society to an abrupt standstill. While the whole PV industry has inevitably been subject to the impact of the epidemic, the path of growth for competitive PV enterprises will not be altered, and neither will the trajectory of China's economic growth. Year 2020 is the concluding year for the general accomplishment of moderate prosperity and the 13th FYP, as well as the year of the fulfilment of our nation's goals in its first 100 years of hard-fought endeavours. The attainment of the nation's goals as scheduled has revealed a simple truth: the path of the great way is a long one, but the destination can surely be reached if one perseveres. GCL-Poly will continue to deepen its management reforms to ensure the effective implementation of its strategies. New products with superior cost efficiency will be launched to win over market shares by virtue of differentiation. We will drive technological development in an ongoing effort to enhance our competitive edge. As we embrace the year of the Rat, the first year of the Chinese zodiac that signifies a new beginning with new hope for everything in the universe, let us steer through the storm and strive forward with pure courage.

Finally, I would like to express sincere gratitude to the Directors, management team and all staff members of the Company for their hard work and dedication during 2019. I also wish to extend my gratitude to our shareholders and business partners for their strong support.

MANAGEMENT DISCUSSION AND ANALYSIS

Overview

2019 is a year to rectify. Solar product was affected by the issuance of Notice on Matters Related to Photovoltaic Power Generation ("531 PV New Policy") issued by the PRC government in 2018, its selling price in 2019 is still under pressure, hence the performance from operation of the Group was greatly impacted.

Results of the Group

For the year ended 31 December 2019, the revenue and gross profit of the Group were approximately RMB19,250 million and RMB4,678 million, respectively, representing an decrease of 6.4% and 7.0% respectively as compared with approximately RMB20,565 million and RMB5,033 million in the corresponding period in 2018.

The Group recorded a loss attributable to the owners of the Company of approximately RMB197 million as compared to loss attributable to owners of the Company of approximately RMB693 million in 2018.

Material Disposals

Solar Material Business

1) On 26 June 2019, Jiangsu Zhongneng, entered into a share purchase agreement with Xuzhou Zhongping GCL Industrial Upgrading Equity Investment Fund LLP* (徐州中平協鑫產業升級股權投資基金(有限合夥)) ("Zhongping GCL") and Xinjiang GCL New Energy Materials Technology Co., Ltd.* (新疆協鑫新能源材料科技有限公司) ("Xinjiang GCL") in relation to the sale of 31.5% of the equity interests in Xinjiang GCL (the "Sale Shares") for a consideration of RMB2,490,850,000 (equivalent to approximately HK$2,831,058,159). The disposal was completed during the year.

   After the transaction, Xinjiang GCL will cease to be a subsidiary of the Company, and the profits and loss as well as assets and liabilities of Xinjiang GCL will then be derecognised from the consolidated statement of financial position of the Group. Upon completion of the transaction, the Company recognised an RMB4.4 billion one-off gain from disposal.

GNE Group

1) On 24 October 2018, Suzhou GCL New Energy entered into share transfer agreements with CGN Solar Energy Development Co., Ltd.* (中廣核太陽能開發有限公司), an independent third party, to sell 80% equity interests in Linzhou City Xinchuang Solar Company Limited* (林州市新創太陽能有限公司). Besides, on 30 December 2018, the GNE Group entered into share transfer agreements with China Three Gorges New Energy Company Limited* (中國三峽新能源有限公司), an independent third party, to sell 100% equity interest of several wholly-owned subsidiaries.

   During the year, the disposals of the above subsidiaries are completed.

* *English name for identification only*

2) On 28 March 2019, the GNE Group announced that it has entered into share transfer agreements with Wuling Power Corporation Ltd.* (五凌電力有限公司), a subsidiary of China Power Investment Corporation, for the disposal of 55% equity interest in Ruzhou GCL Photovoltaic Power Co. Ltd.* (汝州協鑫光伏電力有限公司), Jiangling Xian GCL Solar Power Co., Ltd.* (江陵縣協鑫光伏電力有限公司) and Xinan Xian GCL Solar Power Co., Ltd. (新安縣協鑫光伏電力有限公司)* for consideration in aggregate of approximately RMB328 million. Ruzhou, Jiangling and Xinan operates a number of solar power plants with a capacity of approximately 280MW in the PRC. The disposals are completed during the year.

3) Reference is made to the announcement on 23 May 2019 and the circular dated 28 June 2019 in relation to the disposal of 70% equity interest in a number of subsidiaries of the GNE Group of which these subsidiaries own 23 operational solar power plants in the PRC with an aggregate installed capacity of approximately 977MW. This transaction is approved by the shareholders of the Company in the special general meeting, and also the shareholders of GCL-Poly in the extraordinary meeting, respectively, on 19 July 2019. The Disposal is completed during the year.

Material Investment

On 12 April 2019, the Group entered into a partnership agreement with independent investors for 40.27% equity interest in Zhongping GCL for a consideration of RMB1,350 million and is fully injected. The Group can exercise significant influence over Zhongping GCL and it is therefore classified as an associate of the Group.

Placing of new shares

During the year under review, the Company placed 1,511,000,000 shares at a price of HK$0.45 per share, raising approximately RMB588 million after deducting placing commission and related expenses. The net proceeds have been used for repayment of borrowings.

Segment Information

The Group are reported on the three operating segments as follows:

Solar Material business — mainly manufactures and sales of polysilicon and wafer to companies operating in the solar industry.

Solar Farm business — manages and operates 371 MW Solar Farms, of which 18 MW is located in the United States and 353 MW is located in the PRC. These solar farms were constructed or acquired by the Group prior to obtaining a controlling stake in GCL New Energy Holdings Limited ("GNE Group or GNE").

New Energy business — represents the business operations of GNE, which is principally engaged in the development, construction, operation and management of solar farms.

* *English name for identification only*

The following table sets forth the Group's operating results from operations by business segments:

	2019 Revenue RMB million	2019 Segment (loss) profit RMB million	2019 Adjusted EBITDA[3] RMB million	2018 Revenue RMB million	2018 Segment (loss) profit RMB million	2018 Adjusted EBITDA[3] RMB million
Solar Material Business	**12,708**	**(419)**	**1,320**	14,436	(1,011)	2,648
Solar Farm Business	**490**	**116**	**431**	497	115	423
Corporate/intersegment transactions[1]	**N/A**	**N/A**	**24**	N/A	N/A	34
Sub-total	**13,198**	**(303)**	**1,775**	14,933	(896)	3,105
New Energy Business[2]	**6,052**	**570**	**5,405**	5,632	708	4,898
Total	**19,250**	**267**	**7,180**	20,565	(188)	8,003

1. The corporate items that are not a reportable segment primarily included unallocated income, unallocated expenses and intersegment transactions.

2. The segment profit of the New Energy business includes reported net profit of GNE Group of approximately RMB605 million (2018: RMB749 million) and allocated corporate expenses of approximately RMB35 million (2018: RMB41 million).

3. Calculation of the adjusted EBITDA is detailed in the Business Review Section in this report.

Business Structure

The Group is principally engaged in: (i) manufacturing and sales of polysilicon and wafers for solar industry and (ii) the development, construction, operation and management of solar farms.

GCL New Energy Holdings Limited is a listed company in HK (Stock code: 0451). Except for 371 MW solar farm that were constructed or acquired by the Group prior to obtaining a controlling stake in GNE, the Group primarily develops, constructs, operates and manages downstream solar farms through the platform of GNE.

For illustrative purpose, if excluding GNE Group and recognising the costs of investment in GNE and the perpetual notes receivable from GNE as non-current assets, the effect of de-consolidated GNE Group as at 31 December 2019 would be as follows:

	The Group RMB million	GNE Group RMB million	Deconsolidation adjustment (note) RMB million	The effect of de-consolidated GNE Group RMB million
Total assets	100,437	54,416	(4,900)	50,921
Total liabilities	73,716	44,447	(352)	29,621
Bank balances and cash, pledged and restricted bank and other deposits	8,477	2,774	—	5,703
Pledged deposits at a related company	38	8	—	30
Subtotal	8,515	2,782	—	5,733
Indebtedness				
Bank and other borrowings	47,263	30,933	—	16,330
Lease liabilities	2,442	1,161	—	1,281
Notes and bonds payables	3,892	3,743	(272)	421
Loans from related parties	1,776	1,564	—	212
Subtotal	55,373	37,401	(272)	18,244
Net Indebtedness	46,858	34,619	(272)	12,511

Note:

Deconsolidation adjustments mainly included:

— The Group's cost of investment in GNE amounted to be RMB2,365,304,000.

— The GNE's perpetual notes of RMB1,800,000,000 subscribed by the subsidiaries of the Group and its relevant interest accrual.

— The transaction balances with GNE Group and other eliminations.

Business Review

Solar Material Business

Production

The Group's solar material business belongs to the upstream of the solar supply chain, which supplies polysilicon and wafer to companies operating in the solar industry. Polysilicon is the primary raw material used in the solar wafer production. In addition, the Group also produces wafer by using polysilicon that are produced by the Group. In the solar industry supply chain, wafers are further processed by downstream manufacturers to produce solar cells and modules.

Polysilicon

As at 31 December 2019, the annual production capacity of polysilicon of the Group's Xuzhou base remained at 70,000 MT. The group has disposed 31.5% of equity interest in Xinjiang GCL during the year and remained 38.5% equity interest on hand to promote the industrial transformation and upgrade of Jiangsu Zhongneng and the competitiveness of Xuzhou subsidiaries in the photovoltaic and other clean energy industries.

During the year ended 31 December 2019, the Group produced approximately 60,273 MT of polysilicon, representing a decrease of 2.4% as compared to 61,785 MT for the corresponding period in 2018.

Commercialisation of Fluidized bed reactor (FBR) Technology

Utilizing the accumulated silicon material technology with independent intellectual property rights, together with the acquisition of FBR technology patent owned by SunEdison of the United States in 2017, the Xuzhou production base will expand production according to market demand and production and operation conditions and gradually upgrade itself as the FBR silicon base. Granular silicon has many natural competitive advantages. The first is its high product applicability, which can better meet the needs of downstream monocrystalline silicon manufacturers for silicon materials, and 100% meet the RCZ and CCZ materials. Second, the granular silicon cost index per unit is significantly lower than that of rod silicon. GCL-Poly is confident that this new particle silicon process, which is entirely dependent on independent innovation, can fills in the domestic blanks and will provide brand-new technology boost for photovoltaic generation, and also bring new profit growth points to the Group.

Wafer

As at 31 December 2019, the Group's annual wafer production capacity maintains 35 GW. During the twelve months ended 31 December 2019, the Group produced approximately 31,852 MW of wafers, representing an increase of 31.7% from 24,189 MW for the corresponding period in 2018.

Ingot Monosilicon ("quasi-mono wafer")

The Group has firmly implemented the strategy of developing both mono wafers and multi-wafers. At present, quasi-mono wafer is widely recognised in the market and large-scale applications of quasi-mono wafer are available. The launch of the new generation of "quasi-mono wafer G4" product is expected in the year. With numerous outstanding advantages of quasi-mono wafer, including low production cost, high conversion rate, low lumen depreciation, flexible size, great fulfilment of the requirement for customisation, more concentrated distribution of resistivity as well as production techniques of highly adaptable PERC solar cells, the quasi-mono wafer is widely recognised and highly recommended. Given the increase in production volume of ingot monosilicon, there is still an enormous room for cost reduction. As production cost will further decline significantly, such cost advantage will be more noticeable.

In addition, on-going scale expansion of production capacity of mono wafer and closer strategic alliance and cooperation with upstream and downstream manufacturers allow the Group to establish the largest production base of highly effective mono wafer for the solar energy in the world.

During the year ended 31 December 2019, the Group's monosilicon entered mass production and a capacity expansion was underway, making monosilicon a new profit driver.

Sales Volume and Revenue

During the twelve months ended 31 December 2019, the Group sold 38,789 MT of polysilicon and 31,969 MW of wafers, representing an increase of 93.5% and 29.1% respectively, as compared with 20,041 MT of polysilicon and 24,761 MW of wafers for the corresponding period in 2018.

The average selling prices (excluding tax) of polysilicon and wafer were approximately RMB59.9 (equivalent to US$8.7) per kilogram and RMB0.422 (equivalent to US$0.061) per W respectively for the twelve months ended 31 December 2019. The corresponding average selling prices of polysilicon and wafer for the twelve months ended 31 December 2018 were approximately RMB78.8 (equivalent to US$11.73) per kilogram and RMB0.570 (equivalent to US$0.087) per W respectively.

Revenue from external customers of the solar materials business amounted to approximately RMB12,708 million for the year ended 31 December 2019, representing a decrease of 11.9% from RMB14,436 million in 2018. Despite the increase in the sales volume of both polysilicon and wafers during the year, the drop in average selling prices following the implementation of the 531 PV New Policy in 2018 led to the decrease in revenue.

Cost and Segment Gross Profit

The Group's polysilicon and wafer production costs mainly depend on its ability to control raw material costs, lower energy consumption, achieve economies of scale in its operations and streamline production processes. Benefited from the decrease in cost of raw material, the commencement in production from Xinjiang factory and further increase in production volume, the overall manufacturing cost decreased. The Group will continue to push forward cost reduction and control measures.

Despite the increase in sales volume of polysilicon and wafer, and the decrease in manufacturing cost, average selling prices of polysilicon and wafers dropped following the implementation of the 531 PV New Policy, Solar Material business recorded segment gross profit of RMB423 million for the year ended 31 December 2019, as compared with a profit of RMB995 million for the year ended 31 December 2018 which indicate a significant decrease in performance of Solar Material business.

Solar Farm Business

Overseas Solar Farms

As at 31 December 2019, the solar farm business includes 18 MW of solar farms in the United States. Besides, 150 MW solar farms in South Africa, which was partnered with CAD Fund and with the total effective ownership of 9.7% owned by the Group.

PRC Solar Farms

As at 31 December 2019, the solar farm business also includes 10 solar farms in the PRC and its installed capacity and attributable installed capacity were remained unchanged at 353.0 MW and 289.3 MW, respectively.

Sales Volume and Revenue

For the year ended 31 December 2019, the electricity sales volume of the solar farm business in overseas and the PRC were 27,931 MWh and 488,869 MWh respectively (2018: 30,473 MWh and 492,950 MWh, respectively).

For the year ended 31 December 2019, revenue for the solar farm business was approximately RMB490 million (2018: RMB497 million).

New Energy Business

As at 31 December 2019, the Group owns 11,880 million shares of GNE (approximately 62.28% of GNE's issued capital). As at 31 December 2019, the aggregated installed capacity of grid-connected solar farms of the GNE Group decreased by 2.2% to 7,145 MW (31 December 2018: 7,309 MW). Details of capacity, electricity sales volume and revenue for the year ended 31 December 2019 are set out below.

Places	Tariff Zones	Number of solar power plant	Aggregate Installed Capacity[1] (MW)	Grid-connected Capacity[1] (MW)	Electricity Sales Volume (million kWh)	Average Tariff (Net of Tax) (RMB/kWh)	Revenue (RMB million)
Inner Mongolia	1	11	358	358	606	0.75	452
Ningxia	1	6	233	233	248	0.94	232
Qinghai	1	3	107	107	150	0.83	125
Xinjiang	1	2	81	81	124	0.69	85
	Zone 1	22	779	779	1,128	0.79	894
Shaanxi	2	18	1,018	1,018	1,166	0.78	912
Qinghai	2	6	179	179	239	0.69	165
Yunnan	2	8	279	279	378	0.62	235
Sichuan	2	2	85	85	132	0.75	99
Jilin	2	4	51	51	77	0.75	58
Xinjiang	2	2	47	47	62	0.73	45
Liaoning	2	3	47	47	60	0.72	43
Gansu	2	2	39	39	49	0.69	34
Hebei[4]	2	—	—	—	241	0.74	178
Shanxi[4]	2	—	—	—	127	0.87	110
Inner Mongolia[4]	2	—	—	—	46	0.65	30
	Zone 2	45	1,745	1,745	2,577	0.74	1,909

Places	Tariff Zones	Number of solar power plant	Aggregate Installed Capacity[1] (MW)	Grid-connected Capacity[1] (MW)	Electricity Sales Volume (million kWh)	Average Tariff (Net of Tax) (RMB/kWh)	Revenue (RMB million)
Henan	3	14	584	584	751	0.74	557
Jiangsu	3	41	565	565	660	0.81	536
Anhui	3	12	410	410	501	0.84	423
Guizhou	3	6	235	235	226	0.81	182
Guangdong	3	8	219	133	139	0.81	113
Jiangxi	3	5	192	192	203	0.97	197
Shandong	3	6	190	190	260	0.77	201
Hubei	3	4	165	165	201	0.85	171
Guangxi	3	3	160	160	157	0.77	121
Hunan	3	5	101	101	96	0.95	91
Hainan	3	3	80	80	101	0.84	85
Zhejiang	3	3	62	62	59	1.07	63
Fujian	3	3	55	55	53	0.81	43
Hebei	3	1	21	21	223	0.87	193
Shanghai	3	1	7	7	7	1.14	8
Shaanxi	3	1	6	6	6	0.67	4
Shanxi[4]	3	—	—	—	465	0.69	320
	Zone 3	116	3,052	2,966	4,108	0.81	3,308
Subtotal		183	5,576	5,490	7,813	0.78	6,111
Japan		—	—	—	4	2.25	9
US		2	134	134	217	0.38	83
Total of Subsidiaries		185	5,710	5,624	8,034	0.77	6,203
Joint ventures and associates[2]							
PRC		28	1,435	1,435	724	0.84	606
Japan		—	—	—	4	2.00	8
Total		213	7,145	7,059	8,762	0.78	6,817

	Revenue (RMB million)
Representing:	
Electricity sales	**2,429**
Tariff adjustment — government subsidies received and receivables	**3,774**
Total of subsidiaries	**6,203**
Less: effect of discounting tariff adjustment to present value(3)	**(151)**
Total revenue of the GNE Group	**6,052**

(1) Aggregate installed capacity represents the maximum capacity that were approved by the local government authorities while grid-connected capacity represents that the actual capacity connected to the State Grid.

(2) Revenue from joint ventures and associates was accounted for under "Share of profits of joint ventures" and "Share of losses of associates" in the consolidated statement of profit or loss and other comprehensive income.

(3) Certain portion of the tariff adjustment (government subsidies) will be recovered after twelve months from the reporting date. The tariff adjustment is discounted at an effective interest rate ranging from 2.55% to 3.01% per annum.

(4) The subsidiaries were disposed during the year ended 31 December 2019.

Most of the solar farms of the GNE Group are located in China and almost all of the revenue is contributed by the subsidiaries of State Grid. The State Grid is a State-owned enterprise in China, which possesses low default risk. Therefore, the directors of the GNE Group considered that the credit risk of trade receivables was minimal and no provision for credit losses were considered necessary for the years ended 31 December 2019 and 31 December 2018.

Revenue

During the year ended 31 December 2019, the revenue of the GNE Group mainly comprised sales of electricity and related tariff adjustment (i.e. government subsidies) amounting to approximately RMB6,052 million (2018: RMB5,632 million), net of effect of discounting the tariff adjustment to its present value of approximately RMB151 million (2018: RMB152 million). The increase in revenue was mainly attributable to the increase in sales of electricity of the solar farms by 9% as a result of intensive developments of solar farms in 2018 and full grid-connected capacity in 2019. The average tariff (net of tax) for the PRC was approximately RMB0.77/kWh (2018: RMB0.76/kWh).

In terms of revenue generated by tariff zone from the PRC, for the year ended 31 December 2019, approximately 10%, 21% and 69% of revenue were generated from zone 1, zone 2 and zone 3 respectively (2018: 16% for zone 1, 29% for zone 2 and 55% for zone 3). In consistent with our prevailing strategy, the GNE Group focused more on developing solar farms in well-developed areas with strong domestic power demand (i.e. zone 2 and zone 3) to minimise the grid curtailment risk in zone 1 area.

Gross Profit

The GNE Group's gross margin for the year ended 31 December 2019 was 65.3%, as compared to 66.5% for the year ended 31 December 2018. The cost of sales mainly consisted of depreciation, which accounted for 80.6% (2018: 79.2%) of cost of sales, with the remaining costs being operation and maintenance costs of solar farms.

Outlook

The Group's outlook and likely future developments of the Group's business, is set out in the CEO's Review of Operations and Outlook section of this report.

Financial Review

Revenue

Revenue for the year ended 31 December 2019 amounted to approximately RMB19,250 million, representing a decrease of 6.4% as compared with approximately RMB20,565 million for the corresponding period in 2018. The decrease was mainly due to the drop in revenue in solar material business as a result of the downward average selling price for wafer and polysilicon products, partially offset by the combined effect of increase in sales volume of both polysilicon and wafer and growth in revenue from the GNE Group.

Gross Profit Margin

The Group's overall gross profit margin for the year ended 31 December 2019 was 24.3%, as compared with 24.5% for the corresponding period in 2018.

Gross profit margin for the Solar Material Business decreased from 6.9% for the year ended 31 December 2018 to 3.3% for the year ended 31 December 2019. The decrease was mainly attributable to the decrease in the average selling price of wafer, partially offset by the reduction of production costs.

The gross profit margin for the Solar Farm Business slightly increased from 52.4% for the year ended 31 December 2018 to 53.0% for the year ended 31 December 2019.

The gross profit margin for the New Energy Business was 65.3% for the year ended 31 December 2019 and 66.5% for the corresponding period in 2018.

Distribution and Selling Expenses

Distribution and selling expenses increased from approximately RMB113 million for the year ended 31 December 2018 to approximately RMB126 million for the year ended 31 December 2019.

Administrative Expenses

Administrative expenses amounted to approximately RMB2,051 million for the year ended 31 December 2019, representing a increase of 1.5% from approximately RMB2,020 million for the corresponding period in 2018.

Impairment losses under expected credit loss model, net of reversal

The Group recognized the amount of approximately RMB463 million impairment loss under expected credit loss model for the year ended 31 December 2019, mainly included the amounts due from related companies of approximately RMB275 million, trade receivables (net of reversal) of approximately RMB48 million and consideration receivables of approximately RMB140 million.

Other Expenses, Gains and Losses, Net

For the year ended 31 December 2019, net gains of approximately RMB1,058 million in other expenses, gains and losses were recorded as compared to net losses of approximately RMB1,290 million for the year ended 31 December 2018. The changes were mainly due to:

Gain on disposal of subsidiaries of RMB4.4 billion, which is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of the 38.5% retained interest of Xinjiang GCL and (ii) the carrying amount of the assets, and liabilities of Xinjiang GCL attributable to the owners of the Company, comprises:

— The amount of approximately RMB1,982 million realised gain on disposal of 31.5% equity interest in a Xinjiang GCL;

— Gain on fair value uplift on an associate of approximately RMB2,424 million as the fair value of the 38.5% equity interest in Xinjiang GCL at the date when control is lost is regarded as the cost on initial recognition of an investment in an associate.

Decreased in exchange losses from approximately RMB480 million to approximately RMB127 million.

There were partially offset by:

— Increased in an impairment loss on property, plant and equipment and other intangible assets from approximately RMB526 million to approximately RMB2,610 million. It was mainly due to the continuing unfavourable market conditions during the year, the products of Solar Material Business faced a stronger than expected price pressure, and as a result, Solar Material Business recognised an impairment loss of approximately RMB2,074 million and RMB479 million on property an plant and equipment and other intangible assets respectively. In addition, in August 2019, the power generator and related equipment of a solar power plant of the GNE Group located in Shandong Province, the PRC, was damaged during typhoon. Accordingly, an impairment loss of RMB57,235,000 was recognised for the respective property, plant and equipment for the year ended 31 December 2019. The Group has insurance policies in place to cover damages to property, plant and equipment incidental to typhoon and received RMB6,615,000 from insurance claim as of 31 December 2019 which was recognised as compensation income. The Group has an insurance claim for the remaining loss as at 31 December 2019. Based on the insurance policies, the directors believe that it is probable that their claim will be successful.

— Increased in research and development cost by RMB215 million.

Finance Costs

Finance costs for the year ended 31 December 2019 were approximately RMB3,947 million, which increased by 15.4% as compared to approximately RMB3,419 million for the corresponding period in 2018. The increase was mainly related to less finance costs being capitalized and the increase of average bank and other borrowings from the GNE Group during the year.

Share of Profits of Associates

The Group's share of profits of associates for the year ended 31 December 2019 was approximately RMB401 million, mainly contributed by associates, Inner Mongolia Zhonghuan — GCL Solar Material Co., Ltd.* (內蒙古中環協鑫光伏材料有限公司), Xinxin Finance Leasing Company Limited* (芯鑫融資租賃有限責任公司), Xinjiang GCL and associates of the GNE Group.

Share of losses of Joint Ventures

The Group's share of losses of joint ventures for the year ended 31 December 2019 was approximately RMB51 million, mainly contributed by the share of loss from Jiangsu Xinhua Semiconductor Material Technology Co., Ltd. (江蘇鑫華半導體材料科技有限公司), partially offset by the contribution of joint venture in South Africa.

Income Tax Expense

Income tax expense for the year ended 31 December 2019 was approximately RMB207 million as compared with approximately RMB52 million of income tax credit for the corresponding period in 2018. There is a increase in income tax expenses mainly because some of the solar farms in GNE Group had passed the three year's exemption period for the PRC income tax, partially offset by the income tax credit from Solar Material Business recorded during the year.

Loss attributable to Owners of the Company

As a result of the above factors, loss attributable to owners of the Company amounted to approximately RMB197 million for the year ended 31 December 2019 as compared with a loss of approximately RMB693 million for the corresponding period in 2018.

* *English name for identification only*

Adjusted EBITDA and Adjusted EBITDA Margin

	2019 RMB million	2018 RMB million
For the year ended 31 December:		
Profit (loss) for the year	**111**	(458)
Adjust: non-operating or non-recurring items:		
Impairment loss of property, plant and equipment and other intangible assets	**2,610**	526
(Gain) loss on fair value change of convertible bonds receivable	**(30)**	2
Loss on fair value change of convertible bonds payables	**—**	46
Loss on fair value change of held for trading investments	**28**	15
Loss on deemed disposal of an associate	**—**	78
Impairment loss on goodwill	**—**	177
Gain on disposal of subsidiaries	**(1,982)**	(445)
Gain on fair value change for an associate	**(2,424)**	—
Gain on disposal of joint ventures of the GNE Group	**(35)**	—
Gain on fair value change of other financial assets at fair value through profit or loss	**(42)**	(84)
Loss on fair value change of derivative financial instruments	**107**	10
Bargain purchase	**(74)**	—
Exchange losses, net	**127**	480
	(1,604)	347
Add:		
Finance costs	**3,947**	3,419
Income tax expense (credit)	**207**	(52)
Depreciation and amortisation	**4,630**	4,289
Adjusted EBITDA	**7,180**	8,003
Adjusted EBITDA Margin	**37.3%**	38.9%

Property, Plant and Equipment

Property, plant and equipment decreased from approximately RMB71,000 million as at 31 December 2018 to approximately RMB52,413 million as at 31 December 2019. Decrease in property, plant and equipment was mainly attributable to disposal of subsidiaries and increase in depreciation and impairment during the period. In addition, certain property, plant and equipment was reclassified to right-of-use assets after the adoption of IFRS 16.

Deposits, Prepayments and Other Non-current Assets

Non-current portion for deposits, prepayments and other non-current assets decreased from approximately RMB3,728 million as at 31 December 2018 to approximately RMB2,396 million as at 31 December 2019. The is due to decrease in refundable value-added tax and decrease in prepayments for EPC contracts and constructions.

Right-of-use Assets

The Group has applied IFRS 16 and recognised right-of-use assets since 1 January 2019. As at 31 December 2019, the right-of-use assets amounted to approximately RMB4,529 million (31 December 2018: nil).

Contract Assets

Contract assets primarily relate to the portion of tariff adjustments for the electricity sold to the local state grid companies in the PRC in which the relevant on-grid solar power plants are still pending for registration to the Catalogue. Any amount previously recognized as contract assets is reclassified to trade receivables at the point at which it is registered in the Subsidy Catalogue.

Contract assets increased from approximately RMB4,236 million as at 31 December 2018 to approximately RMB5,640 million as at 31 December 2019, because some solar farms were waiting for registration in the coming batches of Subsidy Catalogue.

Interests in Associates

Interests in associates increased from approximately RMB1,815 million as at 31 December 2018 to approximately RMB7,539 million as at 31 December 2019. The increase was mainly due to:

1. The Group retained 38.5% equity interest in Xinjiang GCL and recognised interest in an associate of approximately RMB3,061 million after completion of disposal of its 31.5% equity interest in Xinjiang GCL.

2. The Group invested the amount of RMB1,350 million for 40.26% equity interest in Zhongping GCL.

3. During the year, the GNE Group recognised several interests in associates resulting from completion of partial disposal of subsidiaries while the GNE Group retained certain percentage of equity interests.

Trade and Other Receivables

Trade and other receivables increased from approximately RMB13,857 million as at 31 December 2018 to approximately RMB14,950 million as at 31 December 2019. The increase was mainly due to increase in bills recovered held by the Group for future settlement of trade receivables, from Solar Material Business and increase in tariff receivables of GNE Group.

Trade and Other Payables

Trade and other payables decreased from approximately RMB20,959 million as at 31 December 2018 to approximately RMB15,019 million as at 31 December 2019. The decrease was mainly due to significant decrease in construction payables during the year, partly offset by an increase in trade payables.

Balances with related companies

The related companies included associates and joint ventures of the Group and companies controlled by Mr. Zhu Gongshan and his family members which hold in aggregate approximately 32% (2018: 34%) of the Company's share capital as at 31 December 2019 and exercise significant influence over the Company.

Amounts due from related companies increased from approximately RMB1,237 million as at 31 December 2018 to approximately RMB2,533 million as at 31 December 2019. The increase was mainly due to loans to Xinjiang GCL. These loans to Xinjiang GCL were reclassified to amounts due from associates as a result of the disposal of 31.5% equity interests in Xingjiang GCL.

Amounts due to related companies increased from approximately RMB578 million as at 31 December 2018 to approximately RMB1,816 million as at 31 December 2019. The increase was mainly due to significant increase in balances with associates during the year. Save as above, the balances were mainly due to the reclassification of balances as a result of the disposal of 31.5% equity interests in Xingjiang GCL.

Loans from related companies

Loan from related companies decreased from approximately RMB3,600 million as at 31 December 2018 to approximately RMB1,776 million as at 31 December 2019. The decrease was mainly due to repayment of loans during the year.

Liquidity and Financial Resources

As at 31 December 2019, the total assets of the Group were about RMB100.4 billion, of which the aggregate restricted and unrestricted cash and bank balances and other deposits amounted to approximately RMB8.5 billion.

For the year ended 31 December 2019, the Group's main source of funding was cash generated from operating activities. The net cash from operating activities was RMB7.2 billion, compared with RMB6.4 billion in the corresponding period in 2018. The increase is mainly attributable to the increase in operating cash flow from solar material business and GNE group.

For the year ended 31 December 2019, the net cash used in investing activities was approximately RMB5.7 billion (2018: RMB12.7 billion), primarily related to purchase of property, plant and equipment of approximately RMB5.0 billion, which was mainly attributable to GNE Group of approximately RMB3.6 billion, contribution to investments in associates of approximately RMB1.35 billion, net placement of pledged and restricted bank and other deposits of approximately RMB1.54 billion, partially offset by net cash inflow from disposal of subsidiaries of approximately RMB2.5 billion.

For the year ended 31 December 2019, the net cash used in financing activities was approximately RMB4.1 billion (2018: RMB0.4 billion). This was mainly due to repayment of notes and payables RMB1.6 billion, interest paid of RMB3.0 billion and the net reduction of bank and other borrowings of RMB0.5 billion.

The Directors have given careful consideration to the going concern status of the Group in light of the fact that the Group's current liabilities exceeded its current assets by approximately RMB21,906 million as at 31 December 2019 and the Group had cash and cash equivalents of approximately RMB1,548 million against the Group's total borrowings (comprising bank and other borrowings, lease liabilities, notes and bonds payables, loans from related companies) amounted to approximately RMB55,373 million. For the remaining balance of the Group's total borrowings, approximately RMB28,674 million will be due in the coming twelve months.

In order to improve liquidity, the Group continues to pay close attention in managing the Group's cash position and conducts on-going negotiations with banks to ensure that the existing facilities will be successfully renewed and additional banking facilities are obtained when necessary. The Directors are of the opinion that, taking into account undrawn banking, renewal of existing banking facilities, the Group's cash flow projection for the coming year, and the successful implementation of measures of the GNE Group as described in Note 2 "Basis of Preparation" to the consolidated financial statements, the Group will have sufficient working capital to meet its cashflow requirements in the next twelve months. The Directors are satisfied that it is appropriate to prepare these consolidated financial statements on a going concern basis.

For detailed information, please refer to "Basis of Preparation" section of this report.

Indebtedness

Details of the Group's indebtedness are as follows:

	As at 31 December 2019 RMB Million	As at 31 December 2018 RMB Million
Current liabilities		
Bank and other borrowings — due within one year	**26,977**	25,289
Lease liabilities/obligations under finance leases — due within one year	**531**	277
Notes and bonds payables — due within one year	**422**	984
Loans from related parties — due within one year	**744**	508
Indebtedness associated with assets classified as held for sale	**—**	873
	28,674	27,931
Non-current liabilities		
Bank and other borrowings — due after one year	**20,286**	26,477
Lease liabilities/obligations under finance leases — due after one year	**1,911**	951
Notes and bonds payables — due after one year	**3,470**	4,137
Loans from related parties — due after one year	**1,032**	3,092
	26,699	34,657
Total indebtedness	**55,373**	62,588
Less: Pledged and restricted bank and other deposits and bank balances and cash (including pledged deposits at a related company and cash classified as assets held for sale)	**(8,515)**	(10,837)
Net indebtedness	**46,858**	51,751

Below is a table showing the bank and other borrowing structure and maturity profile of the Group.

	2019 RMB million	2018 RMB million
Secured	**40,668**	40,331
Unsecured	**6,595**	11,435
	47,263	51,766
Maturity profile of bank and other borrowings		
On demand or within one year	**26,977**	25,289
After one year but within two years	**3,383**	4,617
After two years but within five years	**10,766**	10,724
After five years	**6,137**	11,136
Group's total bank and other borrowings	**47,263**	51,766

As at 31 December 2019, RMB bank and other borrowings carried floating interest rates with reference to the Benchmark Borrowing Rate of The People's Bank of China. USD bank and other borrowings carried interest rates with reference to the London Interbank Offer Rate.

Key Financial Ratios of the Group

	As at 31 December 2019	As at 31 December 2018
Current ratio	**0.53**	0.54
Quick ratio	**0.51**	0.52
Net debt to equity attributable to owners of the Company	**210.6%**	236.7%

Current ratio	=	Balance of current assets at the end of the year/balance of current liabilities at the end of the year
Quick ratio	=	(Balance of current assets at the end of the year – balance of inventories at the end of the year)/balance of current liabilities at the end of the year
Net debt to total equity attributable to owners of the Company	=	(Balance of total indebtedness at the end of the year – balance of bank balances and cash and pledged and restricted bank and other deposits at the end of the year)/balance of equity attributable to owners of the Company at the end of the year

Policy risk

Policies made by the Government have a pivotal role in the solar power industry. Any alternation in the preferential tax policies, on-grid tariff subsidies, generation dispatch priority, incentives, upcoming issuance of green certificates, laws and regulations would cause substantial impact on the solar power industry. Although the Chinese Government has been supportive in aiding the growth of the renewable industry by carrying out a series of favorable measures, it is possible that these measures will be modified abruptly. In order to minimize risks, the Group will follow rules set out by the government strictly, and will pay close attention to policy makers in order to foresee any disadvantageous movements.

Credit Risk

Each major operating business of the Group has a policy of credit control in place under which credit evaluations of customers are performed on all customers requiring credit.

In order to minimize the credit risk on sales of polysilicon and wafer products, the Group reviews the recoverable amount of each individual trade receivables periodically to ensure that adequate expected credit losses are made. Credit risk of sales of electricity is not significant as most of the revenue is recognised from the subsidiaries of State Grid Corporation of China (the "State Grid"). The State Grid is a state-owned enterprise in China, which possesses low default risk.

Grid curtailment risk

With the growth in power generating capacity outpaced electricity consumption growth, it has led to utilization decline for power generating capacity across the country since 2014. Although solar power has a higher dispatch priority over conventional power generation in China, given electricity generated from areas with rich solar energy resources cannot be fully consumed in the provinces, and the excess electricity cannot be transmitted to other regions with higher power demand given limited power transmission capacity, grid curtailment has become an issue with high degree of concern for solar power. In this regard, GNE mainly focuses on developing solar power projects in regions with well-developed inter-province power transmission network or with strong domestic power demand such as zone 2 and 3, hence, minimizing grid curtailment risk.

Risk associated with tariff

Power tariff is one of the key earning drivers for GNE. Any adjustment in tariff might have an impact on the profitability of new solar power projects. Given China's National Development and Reform Commission (NDRC) targets to accelerate the technology development for solar power industry in order to bring down development costs, hence, lowering solar power tariff to the level of coal-fired power by near future, the government subsidy for solar power industry will finally be faded out. To minimize this risk, GNE will continue to fasten technology development and implement cost control measures in order to lower development cost for new projects.

Risk related to high gearing ratio

The business under the Group is a capital intensive industry, which highly relies on external financing in order to fund for the construction of property, plant and equipment and solar farms while the recovery of capital investment takes a long period of time. To cope with the gearing risk, the Group and the GNE Group will pay close attention to the market dynamics, and to avoid any unfavorable changes to the Group. Additionally, the GNE Group is constantly seeking alternative financing tools and pursing asset-light model to optimize the finance structure and lower its gearing ratio.

Risk related to interest rate

Interest risk may result from fluctuations in bank loan rates. Given the Group highly relies on external financing in order to obtain investment capital for new solar power project development and plants and equipment, any interest rate changes will have impact on the capital expenditure and finance costs of the Group, hence, affecting our operating results.

Foreign Currency Risk

Most of the Group's businesses are located in the PRC and the presentation currency of the consolidated financial statements of the Company is RMB. Substantially all of the Group's revenue, cost of sales and operating expenses are denominated in RMB, and the majority of the Group's assets and liabilities are denominated in RMB, while the rest are mainly denominated in US dollar and Hong Kong dollar. Any depreciation/appreciation of RMB against US dollar or any other foreign currencies may result in a change in value of the monetary assets and liabilities that are denominated in foreign currencies and affect the earnings and value of the net assets of the Group.

The Group continues to adopt a conservative approach on foreign exchange exposure management and ensure that its exposure to fluctuations in foreign exchange rates is minimised. The majority of the Group's borrowings are denominated in RMB. Foreign currency forward contracts will be utilised when it is considered as appropriate to hedge against foreign currency risk exposure.

Risk related to disputes with joint venture partners

Our joint venture partners may involve risks associated with the possibility that our joint venture partners may have financial difficulties or have disputes with us as to the scope of their responsibilities and obligations. We may encounter problems with respect to our joint venture partners which may have an adverse effect on our business operations, profitability and prospects.

Pledge of or restrictions on assets

As at 31 December 2019, the following assets were pledged for certain bank and other borrowings, loans from a related company, lease liabilities (2018: obligations under finance leases) or restrictions on assets, issuance of bills, short-term letters of credit for trade and other payables granted to the Group and bank and other borrowings of an associate and a joint venture of the Group:

— Property, plant and equipment of RMB29.0 billion (31 December 2018: RMB40.6 billion)

— Right-of-use assets of approximately RMB0.6 billion (31 December 2018: nil)

— Investment properties of approximately RMB0.07 billion (31 December 2018: nil)

— Aircraft reclassified to right-of-use assets (31 December 2018: RMB0.2 billion)

— Prepaid lease payments reclassified to right-of-use assets (31 December 2018: RMB0.4 billion)

— Trade receivables and contract assets of approximately RMB7.8 billion (31 December 2018: RMB9.8 billion)

— Pledged and restricted bank and other deposits of approximately RMB6.9 billion (31 December 2018: RMB6.6 billion)

— Deposit paid to a related company of approximately RMB0.04 billion (31 December 2018: RMB0.1 billion)

In addition, lease liabilities of approximately RMB2.4 billion are recognised with related right-of-use assets of approximately RMB3.4 billion as at 31 December 2019.

Capital and other Commitments

As at 31 December 2019, the Group's capital commitments in respect of purchase of property, plant and equipment contracted for but not provided amounted to approximately RMB663 million respectively (2018: RMB2,893 million) and other commitments to contribute share capital to investments of approximately RMB2,270 million (2018: RMB489 million).

Contingencies

Financial guarantees contracts

As at 31 December 2019 and 2018, the Company and certain of its subsidiaries guaranteed bank and other borrowings of certain subsidiaries of GNE which amounted to approximately RMB2,770 million and approximately RMB2,971 million, respectively.

At 31 December 2019, the Group provided a total guarantee with maximum amount of approximately RMB4,578,397,000 (2018: nil) to several banks and financial institutions in respect of banking and other facilities of 新疆協鑫新能源材料科技有限公司 Xinjiang GCL New Energy Materials Technology Co., Limited*, an associate of the Group. The Directors consider that the fair value of the guarantee at the date of inception is insignificant.

As at 31 December 2019, GNE Group provided guarantee to its several associates, including 河北協鑫新能源有限公司 Hebei GCL New Energy Co., Ltd.* ("Hebei GNE"), and their subsidiaries, for certain of their bank and other borrowings with maximum amount of RMB5,369,119,000, out of which a joint guarantee of RMB520,000,000 was provided by the Group with GNE Group to Hebei GNE and one of its subsidiaries for their bank borrowings. Since these bank and other borrowings are secured by the borrowers' (i) property, plant and equipment, (ii) trade receivables, contract assets and fee collection right in relation to sales of electricity, in the opinion of the directors of GNE, the fair value of the guarantee is considered insignificant at initial recognition and as at 31 December 2019.

Contingent liability

During the year ended 31 December 2019, the GNE Group discounted certain non-trade bills receivables to banks, which were endorsed from independent third parties to the GNE Group, with a total face value of RMB1,136,390,000 for short-term financing. The funds received from the non-trade discounted bills arrangement has been fully settled to the independent third parties during the year. As the GNE Group is the last endorser when the relevant non-trade bills were discounted to the banks, the GNE Group might be required to reimburse the bank if the relevant bills are not settled by the issuer upon maturity.

Events After the End of The Reporting Period

(a) Reference is made to the announcement on 21 January 2020 and the circular dated on 28 June 2019 in relation to the disposal of 100% equity interest in a number of subsidiaries of the GNE Group, of which these subsidiaries owning 7 operational solar power plants in the PRC with an aggregate installed capacity of approximately 294MW. This transaction was pending the approval by the shareholders of the Company in special general meetings, and also the shareholders of GCL-Poly in extraordinary general meeting, respectively. The Disposal is expected to be completed in 2020.

(b) The outbreak of coronavirus disease ("COVID-19") in the PRC, which subsequently spread throughout other regions, has affected many businesses to different extent in early 2020. The respective governments in the PRC and other regions had implemented different types and levels of precautionary measures in an attempt to curb the spread of the pandemic. Hence, the Group's ability to serve customers will largely depend on (i) the effectiveness of the government measures that have been implemented, (ii) continuous availability of workforce which may be affected by the temporary travel restrictions and home quarantine requirements, and (iii) customers' confidence and demand which may be influenced by the market sentiments and economic performances in different jurisdictions.

    Based on available information up to this date, the management of the Group considers that COVID-19 has limited impact on the Group's solar farm business and new energy business, while the Group's solar material business in the PRC and operations of its associates and joint ventures engaged in solar material business are negatively affected, which may affect the carrying amounts of the Group's assets relating to solar material business, including investments in associates and joint ventures, the long-lived assets and ECL on trade receivables. Given the dynamic nature of these circumstances, the related impact on our Group's consolidated results of operations, cash flows and financial condition could not be reasonably estimated at this stage and will be reflected in the Group's 2020 interim and annual financial statements.

Employees

We consider our employees to be our most important resource. Employees are remunerated with reference to individual performance, working experience, qualification and the prevailing industry practice. Apart from basic remuneration and the statutory retirement benefit scheme, employee benefits including but not limited to discretionary bonuses, with share options granted to eligible employees.

MAJOR INVESTOR RELATIONS ACTIVITIES

The Board and management of the Company believe that effective investor relations is instrumental in enhancing investors' understanding to the Company, improving the quality of corporate governance and creating shareholders' value. Last year, we, together with various investor relations intermediaries and securities brokers, organized a series of investor relations activities to promote the Company in the capital markets.

In 2019, we organised a reverse road show on quasi-mono wafer. Over 50 financial institutions from Beijing, Shanghai, Shenzhen, Hong Kong and the USA participated in this activity at our quasi-mono wafer production base in Xuzhou. We hope that capital market could get a closer look at the competitive advantages for the quasi-mono wafer products of the Company, as well as fully understand the products with respect to its cost reduction route, capacity planning, pricing strategy, product positioning and the promotional landscape for downstream customers.

Conventionally, we launched various non-deal roadshows in Hong Kong and the Mainland China (such as Beijing, Shanghai and Shenzhen). We always made proactive actions in contacting and communicating with the investors community, so that they keep abreast of the overall environment of solar industry and various active measures of the Company taken to respond to market changes and effects of those on the industry as a whole to maintain confidence in the future growth of the Company.

Throughout last year, we participated in over 200 investor relations activities including non-deal and deal road-shows, investor seminars and one-on-one meetings. We met over 1,000 investors from more than 100 international institutions by participating in respective road-shows activities arranged by investment banks such as UBS, Credit Suisse and Citi, and through domestic and overseas investment conferences organized by Citic, JP Morgan, HSBC, CICC, China Merchants, Sinolink Securities, Guotai Junan, Goldman Sachs and etc.

Furthermore, we update the information on our website on a timely manner and participate in interactions among social networking platforms, and through various new methods, we communicate responsively with a number of investors on the latest business developments of the Company.

CORPORATE ENVIRONMENTAL POLICIES AND PERFORMANCE

While striving to achieve a win-win situation for the Company, shareholders and business partners, the Company also actively assumes the responsibility to protect the environment. The Company has been adhering to the philosophy of "Bringing Green Power to Life" with its mission to provide effective clean energy and continuously improve our living environment. By continuous reinforcing the environmental protection concept, the improvement of production efficiency and the development of energy-and-water-saving solutions, the Company is committed to achieving the aim of reducing resource consumption and waste generation.

The Company has devoted considerable resources into the upgrading and reforming of environmental protection, environment surveillance and management so as to enhance its environmental performance, including constantly improving the environmental management systems, formulating and updating the environmental policies, actively integrating the environmental objectives into life cycle and every parts of the production and operation of products, taking advantage of the technology to recover the emission and by-products generated during production in an effective manner, encouraging our staff to take joint action,strengthening supply chain management, as well as conducting environmental and social risks assessment on suppliers, with the aim of promoting the improvement on the level of environmental management of the industrial chain as a whole.

The Company has always been in stringent compliance with national and local laws and regulations, and will continue its efforts to actively response to and perfect the deficiencies in our projects and footprints, so as to enhance the level and performance of environmental management of our Company. Furthermore, the Company will also abide by relevant laws and regulations in relation to the Group's operations, including the labor laws, occupation disease prevention laws, company laws and pollution prevention laws, etc. The Company has human resource department and safety department in place to establish various management, welfare and safety policies. In respect of the prevention of pollution, the Company has installed a lot of surveillance devices and enhanced its production techniques to achieve real time monitoring and minimal pollution at the sources. Our average emission is always lower than the standard emission rate.

The Company actively takes participation in various charity events. For years, the Company has initiated and participated in over 100 charitable events. In 2019, the Company expressed its deepest care to the underprivileged, eagerly supported the local education and proactively launched poverty alleviation campaigns, contributing to the harmonious development of the society. In January 2019, Jiangsu Zhongneng organized the "Youth Civilization Unit" at the municipal level where more than 30 youth volunteers visited the Qihang Children Rehabilitation Centre with consolatory supplies amounted to RMB10,000, providing care and warmth for 60 mentally handicapped children in winter. In June 2019, Henan GCL Photovoltaic held a 4 kilometers cycling activity with the theme of "Taking Action in Safeguarding the Blue Sky", with the aim of advocating an eco-friendly lifestyle by means of a green way of commuting and arousing the environmental protection awareness of the public. The volunteer team of Jiangsu Zhongneng cooperated with the street volunteers of Da Huangshan and initiated the "GCL Youths Taking Action in Safeguarding the Blue Sky" charitable campaign. Volunteers led the students from Da Huangshan Experimental Primary School to make handicrafts with natural materials like leaves and branches and household wastes like used papers and plastic bottles, teaching the children an "environmental practical lesson" and to pass on the concept of environmental protection to the next generation.

The Company believes that, a bilateral, transparent and regular communication is conducive to maintaining harmonious relationship among parties, enhancing mutual trust and respect and laying a solid foundation for the Company's sustainable development. Therefore, the Company has committed to communicating with stakeholders in multi channels and attaching great importance to their views. Regular and ad-hoc communications with various stakeholders, including government authorities/regulatory bodies, shareholders/investors, customers, the staff, partners, community personnel/organizations/non-governmental organisation and media etc., were also held in an active manner to understand their concerns and regularly reviews the effectiveness of such efforts, so as to optimize the ways of communication and give a comprehensive reflection of the opinions from stakeholders.

Besides, talents are the most precious resources of the Company. By adhering to the principle of people-oriented management, the Company safeguards the basic rights of the staff and actively implements local and diversified employment, while constructing a scientific training system and formulating a highly effective talent motivation mechanism. The Company strives to create a healthy and safe working environment and is committed to promoting the common development of employees and the Company.

ABOUT THE REPORT

Overview

This report is the seventh Environmental, Social and Governance Report of GCL-Poly Energy Holdings Limited delivered to all stakeholders of the Company, focusing mainly on the Company's management, practice, and performance in environmental protection, society, and governance.

Scope of the Report

This report covers the period between 1 January 2019 and 31 December 2019, with occasional retrospective discussions of previous years or coverage of the first quarter of 2020.

Publication Cycle of the Report

Since 2013, GCL-Poly Energy Holdings Limited has been publishing its annual Environmental, Social and Governance report, with the last one being released in July 2019.

Coverage and Boundary of the Report

The report covers GCL-Poly Energy Holdings Limited and its subsidiaries. For ease of reading, the report uses "GCL-Poly", "the Company" or "we" to represent GCL-Poly Energy Holdings Limited and its subsidiaries.

Basis of Preparation

The report has been prepared in accordance with Appendix 27 in the Listing Rules "Environmental, Social, and Governance Reporting Guide (December 2015)" issued by the Stock Exchange of Hong Kong Limited ("SEHK"). This report has also been prepared with reference to the conclusions to its consultation on the "Review of the Environmental, Social and Governance Reporting Guide and Related Listing Rules" published by the SEHK in December 2019.

Source of Information and Reliability Assurance

The information and data disclosed in this report originate from statistic reports and formal documents of GCL-Poly Energy Holdings Limited and have been validated by related departments. The Company adopts consistent disclosure approach for statistics to quantify key performance indices and ensure meaningful comparisons among them. The Company undertakes that the report does not contain any false representation or misleading statement and takes responsibility for the truthfulness, accuracy, and completeness of the contents of the report.

Language and Form of the Report

There are Traditional Chinese and English versions for this report, both electronic editions. For more details about the background, business development and sustainability vision of GCL-Poly, please visit our website (www.gcl-poly.com.hk).

Preparation Procedure of the Report

The report has been prepared following the formation of the working group, collection of information, confirmation of the framework, write-up of the report, artwork design and validation by related departments and the management.

Endorsement and Approval

Upon the endorsement of the management, this report was approved by the Board of Directors on 24 April 2020.

RESPONSIBILITY AND GOVERNANCE: FULFILLING THE GCL MISSION

As a world-class developer and manufacturer of high-efficiency photovoltaic ("PV") materials, GCL-Poly undertakes the mission of "bringing green energy to life". With a profound awareness of our social responsibility, we are committed to forging a responsible and trustworthy green enterprise through efficient environmental, social and governance (ESG) management and operational compliance.

ESG Governance

As a company that assumes the mission of "manufacturing energy-saving and eco-friendly polysilicon and producing solar energy affordable by all", we have persisted in the philosophy of "creating and utilising green energy", adhering to low carbon emission, energy conservation and emission reduction. As well as delivering economic value, we also honor our social responsibility, as we are actively involved in community welfare initiatives to deliver long-term value for shareholders and investors.

The Company regards the fulfillment of responsibilities towards the community, the environment and the stakeholders as the cornerstone of sustainable development. We establish and continuously improve corporate responsibility framework, identify stakeholders who are closely associated with our development, and correctively identify and effectively respond selected stakeholders' concerns in order to facilitate our ESG working group comprising staff members from functional departments including the Operations Management Department, HR Department, General Management Department, Technical Services Department, Chief Engineer's Office, Internal Control Department, Investment Management Department and Supply Chain Management Department. The working group monitors closely the ESG performance of the Company and reports to the Board of Directors on the implementation of our ESG policy across the departments.

Materiality Analysis

To identify material ESG issues for the Company, we maintain smooth communication with our stakeholders and identify ESG issues with a material impact on the Company by taking into consideration our own conditions, the external environment, media analyses and peer comparisons. Such issues will provide the focus for the Company's ESG agenda. We seek continuous improvements in our ESG performance to meet the ever-changing requirements of stakeholders.

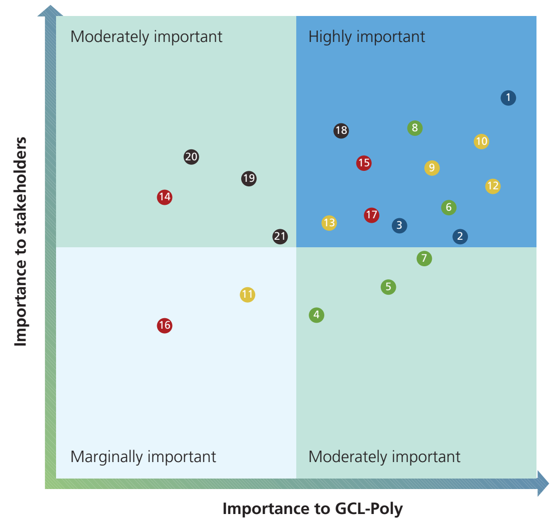
We believe that two-way, transparent and regular communication helps the Company maintain harmonious relationships with all stakeholders and strengthens mutual trust and respect, which lays a stable foundation for the Company's sustainable development. In identifying stakeholders for the materiality analysis, we have taken into consideration the stakeholders' influence on GCL-Poly, closeness of relationship with GCL-Poly and the extent to which they are affected by decisions or actions of GCL-Poly, so as to ensure the scientific soundness and effectiveness of the materiality analysis. During the reporting period, we mainly communicated with 7 stakeholder groups identified through the following channels:

Stakeholder Group	Concerns	Channels for communication/feedback	Frequency
Government Departments/ Regulators	• Business performance • Environmental compliance performance • Employee occupational health and safety • Community contribution and charity • Corporate governance and risk management • Business ethics and anti-corruption	• On-site visits • Meetings • Phone	• Periodic
Shareholders/ Investors	• Business performance • Corporate governance and risk management	• General meetings • Special general meetings • Investor's meetings • Result announcement presentations • Press releases/ announcements • On-site visits	• General meetings are held annually, and special general meetings are held where required by a material event • Other meetings are held from time to time as and when necessary

Stakeholder Group	Concerns	Channels for communication/feedback	Frequency
Customers	• Product quality management • Technological R&D and innovation • Customer service	• On-site visits • Meetings • Client appreciation and communication meetings	• Periodic
Employees	• Guarantee of employee rights and benefits • Employee occupational health and safety • Diversity and equal opportunities • Career development and training	• Regular meetings • Employee meetings • Performance reviews • Internal publications (GCL magazine, GCLer newspaper, GCL's WeChat Public Platform)	• Annual (performance review, employee meetings) • Quarterly (GCL magazine) • Monthly (GCLer newspaper)
Partners	• Technological R&D and innovation • Supply chain management • Sector synergy and innovation • Business performance • Product quality management	• On-site visits • Meetings • Suppliers' conferences • Industry exhibitions	• Periodic

Stakeholder Group	Concerns	Channels for communication/feedback	Frequency
Community individuals/groups/ NGOs	• Environmental compliance performance • Management of materials and water resources • Energy management and conservation • Discharge of sewage, exhaust gas and solid waste • Greenhouse gas emission • Community contribution and charity • Impact on community	• On-site visits • Meetings • Press releases/ public reports	• Periodic
Media	• Business performance • Sector synergy and innovation • Community contribution and charity	• Press releases/ announcements • Meetings • Exhibitions • Luncheon meetings • Appreciation meetings • Interview invitations	• Periodic

During the reporting period, there was no significant changes to the external environment, the Company's principal operations for the year and the strategic adjustments thereto, and the key concerns of major stakeholders. Accordingly, we have continued to adopt the outcome of the materiality analysis for 2018, whereby 12 highly material issues identified therein have formed the key focus of this report, the details of which shall be set out herein.



Governance issues

1 Business performance
2 Corporate governance and risk management
3 Government support

Environmental issues

4 **Materials and water resources management**
5 **Energy management and conservation**
6 Environmental compliance performance
7 **Sewage, exhaust and waste discharge management**
8 GHG emission

Product and Services

9 Product quality control
10 Technology R&D and innovation
11 **Customer services**
12 Supply chain management
13 Business synergy and innovation

Labour issues

14 **Protection of employees' interests**
15 Occupational health and safety for employees
16 **Diversity and equal opportunities**
17 Career development and training

Social issues

18 Contribution to the community and charity
19 **Impact of Business on the Community**
20 **Business ethics and anti-corruption**
21 **Contribution to ethnic unity**

Operational compliance

• Risk management and internal control

The Company has established a three-level risk management system, i.e., the Board of Directors and the Audit Committee — management and the internal control department — internal risk control departments at all levels. It defines the primary responsibilities of all parties to enhance the Company's risk management capabilities. To effectively control the risks, the Company has further developed and improved its risk management system on top of the red/yellow/green risk warning mechanism, in an effort to transform risk into opportunities and provide a solid foundation for the sustainable development of GCL-Poly.

Risk measurement	Risk warning	Risk assessment	Risk management	Risk review
198 risk measurement indicators involving operating strategy, capital, compliance and other.	Double warning mechanism featuring red/yellow/green risk warnings and boundary alarm	Risk assessment results are visualised through the risk measurement system to facilitate tracking of risk trend analysis at any time	Based on the visualised risk assessment results, specific risk management response plans may be proposed and implemented	Reflecting on inadequacies in risk management to procure and improve risk management, as well as to conduct relevant filing

Based on its comprehensive risk management system, the Company has provided staff with risk management and internal control-related training, such as training courses in procurement risk management, audit risks, and company seal and contract risks, in order to enhance the risk management awareness and standard of all employees. During the reporting period, we conducted corporate governance and risk-related courses for intermediary and senior management personnel with a total enrolment of 50 participants.

- **Business Ethics and Anti-corruption**

  The Company observes strict compliance with all anti-corruption laws and regulations of Mainland China and Hong Kong and no incidents of violation of pertinent laws and regulations have been identified during the reporting period. With a view to practicing anti-corruption through rules and regulations, we have formulated the GCL-Poly *Management Standards for Anti-Fraud* and *Whistleblowing* to define various types of fraud, the duties of various organisations and institutions in the course of fraud handling, and the process of dealing with fraud and whistleblowing. We have also conducted assessment of the effectiveness of internal control to minimise the possibility of fraudulent acts.

  We advocate a corporate culture of honesty and integrity. We encourage our staff and other parties to report any suspicious acts through our whistleblowing mailbox, staff feedback portals and other channels, and we are committed to the protection of the personal information of informers. Any suspicious acts reported will be thoroughly investigated and no probable act of corruption will be let off. At the same time, we also provide anti-corruption training for all employees on the "GCL Sea of Knowledge" ("鑫知海") platform to enhance the fostering of a corruption-free culture. During the reporting period, a total of 10,977 employees of the Company have received relevant training.

INNOVATIVE DEVELOPMENT: FORGING THE GCL QUALITY

GCL-Poly firmly believes that technological innovation is an essential factor driving the sustainable growth of an enterprise. We maintain consistent growth in R&D investment to advance the development of intelligent manufacturing and contribute to the technological upgrade of the PV industry. Meanwhile, we persist in stringent control over product quality. While upgrading the quality and performance of our products, we also seek improvements in our customer services to enhance customers' experience, controlling and guiding the direction of the development of high-efficiency PV materials technology to remould the landscape of the PV industry.

The priority of quality

In strict accordance with law and regulations on product responsibility including the *Product Quality Law of the People's Republic of China, Standardisation Law of the People's Republic of China* and *Implementing Rules for the Manufacturing License for Industrial Products* and in compliance with internally formulated policies including the GCL-Poly *Corporate Standards System*, *Standard Development Rules*, *Silane Gas Standards* and *Solar Grade Polysilicon*, the Company ensures and enhances product quality through procurement at source and production process control. During the reporting period, the Company did not experience any material product recalls owing to safety or health reasons. The return/replacement ratio was less than 0.3% for quasi-multi wafer products and less than 0.4% for quasi-mono wafer products.

Procurement at source	We require our suppliers to hold relevant licenses, such as: certificates for standardisation systems (quality management system certificate, environmental management system certificate and others), specialised manufacturing certificates (permit for the manufacturing of pressure containers, PRC mandatory product certification, radiation safety permit and others). We do not purchase products that do not meet relevant quality requirements or are not endorsed by relevant certificates.
Production process	We conduct feasibility assessment in respect of the quality requirements and technical features of silicon wafers to ensure that they meet or exceed market and customer expectations.

- ## Intelligent manufacturing

  GCL-Poly firmly believes that the advancing of grid parity in the future will be dependent not only on the extent of price reduction for raw materials, but also on the pace at which intelligent manufacturing will be promoted. During the reporting period, we facilitated steady improvements in product quality with the employment of intelligent information technology, in addition to reducing labor costs and increasing production efficiency. Many of our subsidiaries have made strong efforts to advance intelligent manufacturing in active response to the trend of transformation through digitalisation.

Suzhou GCL Photovoltaic: "Jiangsu Province Exemplary Intelligent Manufacturing Workshop"

Suzhou GCL Photovoltaic has attained a seamless connection of its equipment to an IT-based management system in the intelligent wafer cutting plant built in association with Ali Cloud. Horizontally speaking, we have achieved intelligent slicing through the intelligentisation of the production system, logistics system and information system. Vertically speaking, we classified the intelligent manufacturing system into physical execution layer, information deployment layer, information control layer, constructing a large production closed-circuit, realising a whole-process information management from customers' product demand to intelligent manufacturing.

As of 31 December 2019, our Workshop No. 10 and Workshop 12 had both been honoured with the title "Jiangsu Province Exemplary Intelligent Manufacturing Workshop".

Yangzhou GCL Photovoltaic: end-to-end visualised production data management

During the reporting period, Yangzhou GCL Photovoltaic's intelligent plant project achieved end-to-end visualised production data management through the integration of data relating to the intelligent sensor system, production equipment, materials, work-in-progress and finished products via a production process data collection and analysis system based on the integration of novel information technology and advanced automated manufacturing technology. Precise production process control had also been enabled through the construction of an Internet platform via the system.

Yangzhou GCL Photovoltaic Intelligent Control Centre

Funing GCL Photovoltaic: optimisation of intelligent dashboard information

During the reporting period, Funing GCL Photovoltaic further enhanced intelligent production, production efficiency and product quality through upgrades in production processes and management system visualisation.

Intelligentisation of production processes	Intelligentisation of management system
• Faster speed at stereoscopic solidified warehouses: upgrade of the horizontal mechanical arm of the stereoscopic warehouse to increase its speed in the pick-up of materials, resulting in an increase in capacity from 800 cuts / day to 870 cuts / day to meet the requirements of a higher slicing capacity. • A new automated scan intake function is added to the gluing line: automatic scanning by the new code reader increases the automation rate of the gluing zone. • Upgrade of the rod dispatch dashboard system: with an optimised rod dispatch dashboard system, information matching between the slicing machine and silicon rods has been enhanced and the return / replacement ratio for silicon rods has been reduced from 5.8% to 1.7%.	• The newly developed information dashboard for silicon rod pending distribution, visualised dashboard for workshop overtime rod information module, silicon rod distribution information dashboard, and visualised dashboard for monthly key performance indicators (KPI) of Funing GCL Photovoltaic's principal operations have provided assurance for swift and accurate decision making on the part of management personnel.

Product innovation

GCL-Poly has consistently assured stable corporate development with the benefit of its formidable strengths in R&D and innovation. We have not only built a comprehensive deliverable management regime, but have also persisted in product quality enhancement through technological innovation.

- ### Management of technological innovation

  We have formulated GCL-Poly policies on technology management, including *Science and Technology Work Management Standards*, *Scientific Research Projects Management Standards*, *Technological Transformation Management Standards* and *Technological Achievements Incentive Management Measures* to conduct regulated management over the Company's technology R&D, conversion and application of R&D achievements and the reward and evaluation of R&D achievements.

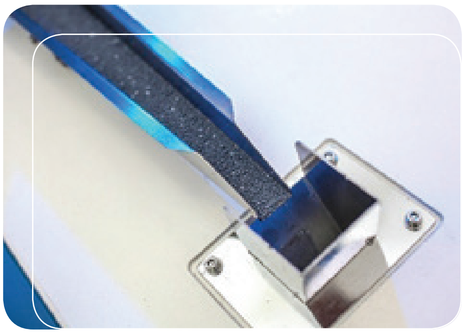
Meanwhile, we also attach great importance to the protection of intellectual properties in the course of technology R&D. We observe strict compliance with pertinent laws and regulations including the *Patent Law of the People's Republic of China*, *Copyright Law of the People's Republic of China* and *Detailed Rules for the Implementation of the Patent Law of the People's Republic of China* and have formulated GCL-Poly policies such as the *Intellectual Property Management Standards*, *Trademark Management Standards*, *Patent Management Measures*, *Trade Secret Management Measures* and *Intellectual Property Incentive and Accountability Management Measures*. We have also developed effective intellectual property management processes in an active effort to implement standardised corporate intellectual property management. During the reporting period, the GCL-Poly *Patent Management Measures* were revised, whereby the previous approving process was modified such that submission was processed in the GCL intellectual property management system and the approving process was simplified and revised accordingly, in active integration and realisation of the controlling, supervising and approving functions of the GCL Group intellectual property management system. During the reporting period, the Company applied for a total of 105 patents and was granted 83 patents. As of 31 December 2019, the Company had applied for 1,251 patents worldwide and been granted 729 patents, representing year-on-year growth of 9.16% and 12.85%, respectively, as compared to 2018.

- ## Achievements in innovative R&D

GCL-Poly persists in the strategy of producing both mono wafers and multi-wafers. During the reporting period, we achieved mass production and application of ingot monosilicon, a product well received by the market. In the meantime, our proprietary innovative granular silicon process, the first of its kind in the domestic market, provided a new driving force for accelerating grid parity in PV power generation. The Company's R&D expenses for the reporting period amounted to approximately RMB737 million, which was primarily applied in the following R&D innovation projects.

Granular silicon fluidized bed

The Company has developed the GCL technology for the production of high-purity granular silicon with an effective capacity of 6,000 tonnes per annum, and granular silicon have been approved by downstream mono-wafer customers as a substitute for silicon mass. While engaged in mass production of granular silicon, we have also made a strong effort to enhance the quality of our granular silicon products with the following achievements:

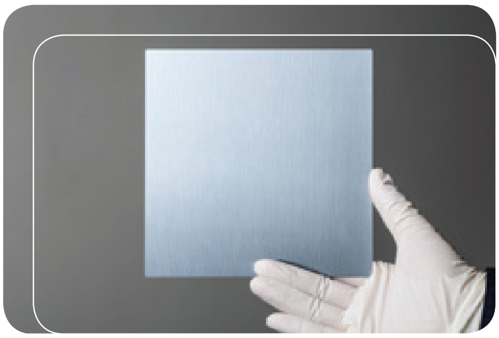


Granular silicon fluidized bed

- Significant improvement in the quality of granular silicon with total metal contents less than 10 ppbw[1] and carbon contents less than 1 ppma[2];
- The quality of selected granular silicon products had reached the level of special-grade PV materials and level-three electronic grading, which means that our granular silicon technology is capable of producing particle materials with special-grade PV quality.

Ingot monosilicon: the fourth generation(G4) quasi-mono wafer

During the reporting period, we continued to step up with our R&D in ingot monosilicon and recorded sales of 240 million units. We have not only launched the new generation ingot monosilicon product, but have also conducted testing and verification on the utilisation of our ingot monosilicon product: G4 ingot monosilicon products have shown a 0.10~0.15% improvement in efficiency compared to the previous generation of G3 products. The average power output of 166-mm 72-slice multi-busbar (MBB) board half-cut ingot monosilicon components can reach 430–435 watts or above, significantly reducing the possibility of dislocation and enhancing battery efficiency to rectify the problem of low efficiency and tailing.



G4 quasi-mono wafer

1 ppbw: Number of impurity atoms per billion silicon atoms

2 ppma: Number of impurity atoms per million silicon atoms

Customer-centric

Customer satisfaction is a constant driving force behind the development of a company. GCL-Poly follows a service policy of "embracing the customers", seeking to enhance its product quality and customer service standard on an ongoing basis and reward customers with sound quality and service for their trust. Meanwhile, we persist in the protection of customer privacy, and have developed a mechanism for tracking customer satisfaction and organised customer visits in a bid to maximise value for customers through a diverse range of approaches and channels.

- ### Communication with customers

  We communicate and engage with customers primarily through mails, telephone calls, visits to customers and customers' audit visits to the Company. On average, we pay visits to two to three customers each week and invite one to two customers each month for on-site inspection at the Company, as well as organise collective visits towards the end of the year. We also conduct breakdowns of customer analysis and overall demand analysis, to provide practical feedback to customers and facilitate product optimisation.

  To address customer demands and feedback received during the reporting period, we assigned dedicated personnel to discuss with customers and investigate relevant problems on-site, providing customer services in a professional and accountable manner. We conduct tailored customer training to accommodate operational differences among different customers and provide customised product commissioning services in respect of the processes adopted by different customers. We handle customer feedback with outstanding efficiency to ensure constant improvements in customer experience. During the reporting period, we also optimised our customer complaint and feedback mechanism and further enhanced tracking of the implementation of rectification measures by instituting a tracking and verification procedure to ensure proper improvements and upgrades in response to customer feedbacks.

  During the reporting period, the Company received 35 counts of customer complaints. After-sales issues have been 100% solved with a customer satisfaction score of 91.2.

- ### Privacy protection

  While providing quality services and enhancing its customer service standards, the Company also stresses the importance of protecting customer privacy. During the reporting period, we continued to adopt the following measures to protect customer privacy. No account of leakage of customer information was reported.

All after-sales data are submitted on the SAP Enterprise Controlling (EC) system;

To protect the confidentiality of our office computers, each computer at the Company is accessible by one specific personnel only and USB retrieval of information stored in the computers is disabled. Hence, people other than the relevant staff will not be able to access customer information;

Designations such as "Customer A/B/C" are used in place of the actual titles of customers when providing data comparisons to customers to avoid the disclosure of customer information.

PROTECTING OUR ENVIRONMENT: NOURISHING THE GCL HOPE

Always mindful of its mission of "bringing green energy to life", GCL-Poly does not only strive to become a proponent of green energy; it is also committed to the practice and implementation of green development, persistent in facilitating harmony between its operations and the environment through ongoing innovation.

Green Management

In continuous improvement of its environmental management regime, GCL-Poly strives to lower the impact of its operations on the environment by applying energy-saving and environment-friendly technologies in its operations and making ongoing improvements to the properties of its products. In the meantime, the Company enhances the environmental awareness and standards of its staff through education, training, media promotion and other means, striving to practice environmental protection at every segment of its operations and turn the environmental awareness of staff into a habit.

- **Our environmental management system**

  In strict compliance with the requirements under the *Environmental Protection Law of the People's Republic of China*, *Law of the People's Republic of China on Environmental Impact Assessment* and other pertinent laws and regulations, GCL-Poly has established an environmental protection and safety department to strengthen the management and supervision of the environmental issues in its production operations. During the reporting period, we enhanced the execution and implementation of our policies which had been revised in the previous year, while our subsidiaries continued to develop their environmental management regimes each according to its specific conditions.

Xinjiang GCL: improvements to the environmental management regime

During the reporting period, Xinjiang GCL adjusted and revised the organisational structure and internal institutions for environmental governance to further enhance its environment, health and safety ("EHS") management.

- The environmental protection department was split into two departments: the safety management department and the environmental protection management department: the safety committee, environmental protection committee, occupational health management committee, fire prevention and safety committee and radiation safety committee were set up and the aforesaid functions were adjusted accordingly to provide EHS assurance at the organisational level for the company's production operations;

- The *Safety, Environmental protection, Fire prevention and Occupational health responsibility system* was formulated and implemented, whereby each job position was required to undertake responsibilities in these four aspects and subject to appraisal on a regular basis. Meanwhile, all employees were asked to sign an environmental protection responsibility statement to enhance environmental awareness on the part of frontline production workers.

- ### Training in environmental awareness

We require all subsidiaries to implement "accountable environment protection" in their production operations and encourage the launch of training in environmental protection to raise environmental awareness on the part of frontline staff and enhance their ability to put environmental protection into practice. During the reporting period, we invested RMB135,500 in environmental training and provided a total of 7,737 hours of training to 9,695 employees, representing a 5% increase in training coverage versus 2018.

Xuzhou GCL Photovoltaic: environmental training

In 2019, Xuzhou GCL Photovoltaic augmented the scope of its environmental training taking into account the environmental requirements of the local government. The revised training program covered hazardous waste management, key points for environmental management, and interpretations of the latest environmental laws and regulations, among others. Meanwhile, training program tailored for staff at different grades were designed and an online environmental know-how appraisal was set up to reinforce the effect of environmental training.

Green production

As an advocate and performer of environment protection, we practice total environmental protection throughout the process of product design, manufacturing and operations management. GCL-Poly practices standardised management over the processes of its production operations in accordance with the *Three Waste' Management Regulations*, *6S Management Standards for Office Areas* and other internal policies and regulations, in a bid to continuously enhance the Company's ability in green production.

- ### Water resources and wastewater management

  In strict compliance with the provisions under the *Water Law of the People's Republic of China*, *Water Resources Protection Law of the People's Republic of China* and *Water Pollution Prevention and Control Law of the People's Republic of China* and with the implementation of GCL-Poly internal policies such as the *Control Procedures of Wastewater Discharge*, *Control Procedures of Wastewater Discharge in the Plant*, *Regulation on Energy and Water Conservation* and *Comprehensive Wastewater Discharge Standard*, we strive to reduce per unit consumption of water resources through sustainable utilisation of water resources.

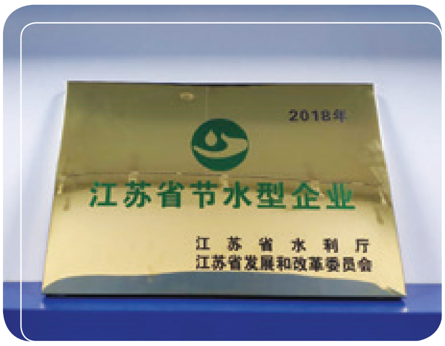
Sewage discharge management

Suzhou GCL Photovoltaic: reducing discharge risk through separation of rainwater and sewage

At Suzhou GCL Photovoltaic, toilet sewage and kitchen sewage with grease were previously discharged together with rainwater instead of separately collected and processed. During the reporting period, Suzhou GCL Photovoltaic built a new sewage pool to facilitate the separation of rainwater and sewage, such that sewage would be processed at the sewage collection point before discharge to reduce environmental risks.

Conservation of water resources

Funing GCL Photovoltaic: Reduction of water resource consumption through process optimisation



The "Jiangsu Province Water Conservation Enterprise" award

In 2019, Funing GCL Photovoltaic formed a water conservation task force and succeeded in reducing water consumption for production by a significant margin through the ongoing optimisation of water consumption during the production process, including the employment of water conservation techniques, such as the use of reclaimed water in place of tap water, the recycling of water discharged from the slice insertion process and reuse of waste water from ceramic film group processing. During the reporting period, water consumption at Funing GCL Photovoltaic reduced from 6.9 tonnes/10,000 units in January 2019 to 5.3 tonnes/10,000 units in December 2019, as the enterprise was awarded the title of "Jiangsu Province Water Conservation Enterprise".

Data on the Company's consumption of water resources during 2017–2019 are set out in the following:

Water resources	Unit	2017	2018	2019
Tap water consumption	10,000-tonne	711.55	648.96	666.71
Surface water consumption	10,000-tonne	559.99	433.59	192.18
Other water sources[3]	10,000-tonne	/	/	641.77
Recycled water consumption	10,000-tonne	34,474.77	133,336.16	55,520.73
Wastewater discharge	10,000-tonne	879.58	830.78	908.24
Total water consumption intensity per megawatt silicon wafer production	10,000-tonne/MW	0.0532	0.0448	0.0471

3 The volume of other water sources for the reporting period includes reclaimed water purchased by Jiangsu Zhongneng and raw water and desalted water purchased by Xinjiang GCL from external sources.

- ## Materials management

Each of the dozens of materials used in the Company's production process, such as silicon powder, silicon carbide and steel wire, among others, has been thoroughly experimented on and verified, and eco-friendly materials with low consumption levels are selected for use wherever possible. We are engaged in vigorous application of the materials recycling process. Through the application of our proprietary GCL technology for ultra-large scale clean polysilicon production, our materials recycling rate has been raised from 50% to 100%, representing zero discharge of materials as waste.

Data on the Company's consumption of materials during 2017–2019 are set out in the following:

Materials	Unit	2017	2018	2019
Packaging materials	Tonne	674.64	4,361.19	6,520.14

- ## Waste management

The Company categorises its general waste and hazardous waste in strict compliance with the requirements under the *Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste* and in accordance with GCL-Poly's *Three Waste' Management Regulations* and *Management and Control Procedures for Waste and Hazardous Waste*. We regard waste as resources in our management and our sorting, collection and storage procedures are conducted in strict adherence to the principle of volume reduction and recycling in. Qualified recyclers are invited to conduct waste recycling and integrated utilisation. Moreover, the Company strictly requires all project contractors to take the responsibility to sort and recycle flammable materials and construction waste in their operation areas and clear the waste in a centralised manner to reduce the negative impact of waste on the environment.

Suzhou GCL Photovoltaic: improvements to the sludge and hazardous waste processing equipment

The previous horizontal screw centrifuge of Suzhou GCL Photovoltaic had left behind a high level of water content in the sludge filtered by the machine, while the capacity of the standalone filter had been limited. During the reporting period, Suzhou GCL Photovoltaic purchased a board-framed filter which afforded a lower level of water content in filtered sludge for better results in subsequent sludge processing.

Data on the Company's waste discharge during 2017–2019 are set out in the following:

Waste	Unit	2017	2018	2019
Hazardous waste	Tonne	15,882.62	946.83	1,203.18
Hazardous waste intensity per megawatt silicon wafer production	Tonne/MW	0.6645	0.0391	0.0378
General waste	Tonne	43,834.10	28,549.69	44,807.10
Recyclable waste	Tonne	/	42,550.94	42,427.86
Non-hazardous waste	Tonne	43,834.10	71,100.63	87,234.96
Non-hazardous waste intensity per megawatt silicon wafer production	Tonne/MW	1.8339	2.9394	2.7388

- ## Exhaust gas management

The Company conducts exhaust gas management in strict accordance with the requirements under pertinent laws and regulations such as the *Air Pollution Prevention and Control Law of the People's Republic of China*, *Integrated Emission Standard of Air Pollutants*, *Emission Standard of Air Pollutants for Boilers* and GCL-Poly internal policies such as the *Procedures for Controlling the Production Exhaust Emissions*. During the reporting period, we primarily recycled tail gas through the exhaust absorption device and spraying tower process to reduce tail gas pollution of the atmospheric environment. Dust generated in the production process was reduced with the employment of the new environmental ventilation and dust removal system and the dust removal and purification device to minimise damage to staff health.

Xinjiang GCL: diversified means for exhaust gas processing

During the reporting period, Xinjiang GCL classified exhaust gas from different sources and adopted different methods of processing to ensure compliance with exhaust emission standards.

- Exhaust gas with dust: after processing through 4 dust removal bags, tail gas is emitted through a 48-m exhaust cylinder in compliance with relevant standards;
- Exhaust gas from production processes: 3 sets calcium hydroxide column washers are applied in circulatory spray, wash and absorption. Tail gas is emitted through the water seal from an auxiliary 25-m exhaust cylinder in compliance with relevant standards. Protective gas from the hydrogen compressor is absorbed by the calcium hydroxide column sprayer, while tail gas is emitted through the production process exhaust cylinder in compliance with relevant standards;
- Exhaust gas from sludge processing: processed through a three-tier calcium hydroxide column sprayer while tail gas is emitted through a 25-m exhaust cylinder in compliance with relevant standards;
- Exhaust lab gas: collected by gas hood and washed by sprayer and further by column washer before emission through a 23-m exhaust cylinder in compliance with relevant standards;
- Exhaust gas from equipment cleaning and repair: collected by the acid mist tower for spraying before emission through a 15-m exhaust cylinder in compliance with relevant standards.

Data on the Company's major exhaust gas emission during 2017–2019 are set out in the following:

Emission	Unit	2017	2018	2019
Nitrogen oxides	Tonne	94.97	126.00	42.23
Sulphur oxides/sulfur dioxide	Tonne	2.70	1.44	2.06
Dust	Tonne	16.07	24.03	17.57

Low-carbon Emission and Reduction in Discharge

In strict compliance with the requirements under the *Energy Conservation Law of the People's Republic of China on Energy Conservation*, *Electric Power Law of the People's Republic of China*, *Law of the People's Republic of China on Promoting Clean Production*, *Renewable Energy Law of the People's Republic of China* and other pertinent laws and regulations, and in response to the *Decision of the State Council on Strengthening Energy Conservation*, *Notice of the State Council on Further Enhancing the Efforts to Phase out Outdated Production Capacities*, *Energy Conservation Measures and Electric Power Conservation Measures for Key Energy-Consuming Units*, the Company has formulated and implemented internal policies such as the *Regulations on Energy and Water Conservation* and *Manual of Energy Regulation* to exercise standardised and effective management over energy consumption and to reduce energy consumption and improve energy efficiency by enhancing conservation awareness.

Meanwhile, the Company has formulated its policies in compliance with the *United Nations Framework Convention on Climate Change* and the *Paris Agreement* and is committed to enhancing the green properties of its products, with the aim of reducing carbon footprint. When producing solar materials, we adopted the Ingot Monosilicon Technology. The production of one kilogram of ingot monosilicon can save about 25 kWh of electricity compared with czochralski monosilicon. Ingot monosilicon can save about 100 million kWh of electricity when producing 10 GW wafers, equivalent to reducing the emission of carbon dioxide of 82,100 tonnes or 30,800 tonnes of standard coal. (The average standard coal consumption for thermal power supply and the carbon dioxide emission factor per unit of thermal power generation are derived from the China Electricity Council's *China Power Industry Annual Development Report 2019*)

During the reporting period, the Group's silicon wafer production was approximately 32 GW, and it is estimated to generate approximately 960 billion kWh of electricity during the entire product life cycle, which is equivalent to a reduction of carbon dioxide emissions of 807.36 million tonnes, or 295.30 million tonnes of standard coal. (Equivalent amount of electricity generation is estimated based on the product life cycle of 25 years, with an average annual power generation hours of 1,200)

Xuzhou GCL Photovoltaic: Energy conservation and discharge reduction at source

During the reporting period, Xuzhou GCL Photovoltaic introduced improvements to the ingot furnace process on an ongoing basis to shorten the process duration and reduce power consumption. In 2019, the carbon dioxide generation of Xuzhou GCL Photovoltaic was 6% less compared to 2018. In addition, Xuzhou GCL Photovoltaic attained a series of energy conservation benchmarks in 2019 in accordance with the "double control" benchmarks for key energy consuming units under the "Hundred/Thousand/Ten Thousand" action plan of Jiangsu Province:

- Annual consumption of 94,100 tonnes of standard coal, which was significantly lower than the benchmark of 135,000 tonnes of standard coal;
- Unit consumption by ingot production was 7.59 kWh/kg (versus the industry standard of 9.0 kWh/kg), reducing by 3.44% as compared to 2018;
- Unit consumption in slicing production was 92,300 kWh/million pieces (versus the industry standard of 450,000 kWh/million pieces), reducing by 9.32% as compared to 2018.

Data on the Company's energy consumption and greenhouse gas emission[4] during 2017–2019 are set out as follows:

Energy and GHG	Unit	2017	2018	2019
Coal	10,000-tonne	1.78	1.47	/
Natural gas	10,000-cubic meter	7,286.78	4,575.82	2,851.88
Diesel	Tonne	35.10	15.77	75.30
Purchased electricity	10,000 kWh	423,186.21	287,344.48	442,259.42
Self-generating electricity	10,000 kWh	270,001.00	287,479.66	217,373.08
Steam	Tonne	4,052,168.80	3,220,137.00	1,754,694.88
Direct energy consumption	Tonne of standard coal	622,836.71	480,219.30	34,332.29
Indirect energy consumption	Tonne of standard coal	520,095.86	353,146.40	543,536.83
Comprehensive energy consumption[5]	Tonne of standard coal	1,142,932.57	833,365.70	577,869.11
Comprehensive energy consumption intensity per megawatt silicon wafer production[6]	Tonne of standard coal/MW	47.82	34.45	18.14
Scope 1 greenhouse gas emissions[7]	10,000-tonne CO_2 equivalent	15.77	9.90	6.19
Scope 2 greenhouse gas emissions	10,000-tonne CO_2 equivalent	294.44	197.50	300.93
Total greenhouse gas emissions[8]	10,000-tonne CO_2 equivalent	310.21	207.4	307.12
Total greenhouse gas emissions intensity per megawatt silicon wafer production	10,000-tonne CO_2 equivalent/MW	0.0130	0.0086	0.0096

4 The data on energy consumption and GHG emission include data relating to the production processes of Jiangsu Zhongneng, Funing GCL Photovoltaic, Henan GCL, Suzhou GCL Photovoltaic, Wuxi Konca, Yangzhou GCL Photovoltaic, Xuzhou GCL Photovoltaic, Ningxia GCL Monocrystalline, GCL PV Materials (Xuzhou), Xuzhou Software Control, Xinjiang GCL and High-tech Nano, but exclude data relating to the office area of GCL-Poly headquarters.

5 Direct energy types include coal, natural gas and diesel; indirect energy types include purchased electricity and steam. The volume of energy consumption has been calculated by reference to the national standards *GB2589–2008T General Principles for the Calculation of Total Energy Consumption* of the People's Republic of China.

6 In this year, the Company made a revision to the comprehensive energy consumption intensity in 2018.

7 In 2019, calculations on GHG (Scope I) for 2017 and 2018 have been collectively revised for the year by adding CO_2 equivalent generated by the use of natural gas by Jiangsu Zhongneng, resulting in changes in the data relating to GHG (Scope I), total GHG and GHG intensity for 2017 and 2018.

8 The major sources of GHG (Scope I) include coal, natural gas and diesel; GHG (Scope II) relates to purchased electricity. The volume of GHG has been calculated by reference to *GHG Calculation Methods and Reporting Guide (trial) for Industrial Enterprises* published by the National Development and Reform Commission of the People's Republic of China.

A TEAM OF UNITY: UNLEASHING THE GCL ENERGY

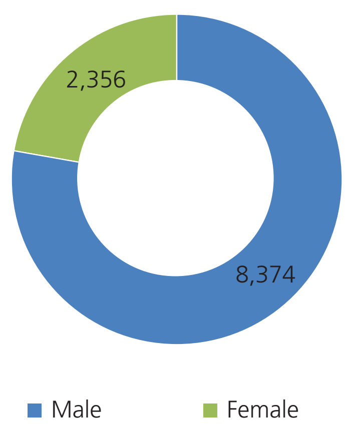
GCL-Poly regards its staff as the most valuable assets of the Company. In accordance with a "people-oriented" staff management philosophy, we have taken actions to effectively protect the fundamental rights and interests of employees, adopted employment policies underpinned by diversity and equality, developed a scientific training system, formulated an efficient staff incentive mechanism and provided a safe and healthy work environment, in an effort to attain co-development and mutual success for staff and the Company.

Overview of Employees

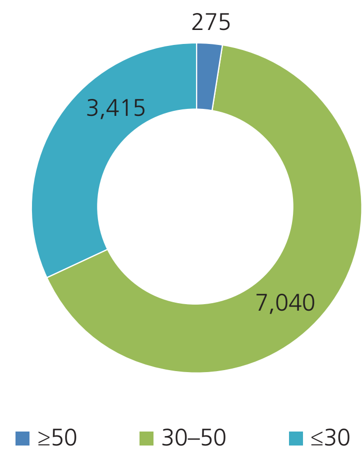
In strict accordance with the *Labour Law of the People's Republic of China*, *Labour Contract of the People's Republic of China*, *Law of the People's Republic of China on the Protection of Rights and Interests of Women*, *Regulations on the Prohibition of Child Labour* and other pertinent laws and regulations, the Company strictly prohibits the employment of child labour or forced or coerced labour. We ensure fair and equal treatment of all job applicants and employees focusing on their qualifications and abilities and prohibit any form of discrimination. We will respond to any illegal employment of child or forced labour and acts of discrimination by imposing disciplinary sanctions in accordance with pertinent regulations.

The Company has formulated a range of GCL-Poly internal policies for recruitment management, including the *Recruitment Management Standards* and the *Internal Recommendation Management Standards*, aiming to ensure equal treatment for each job applicant and protect the legal rights of staff in accordance with the law. As at 31 December 2019, GCL-Poly had a total of 10,730 employees. Our staff mix is illustrated as follows:

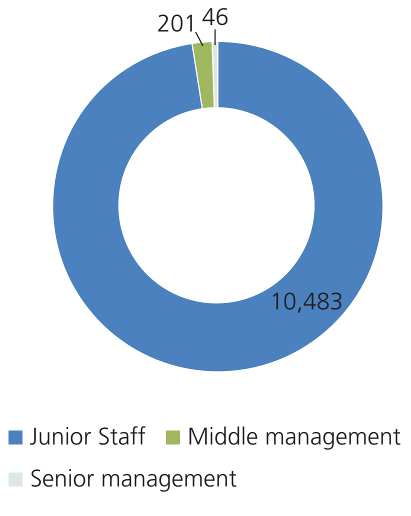
Number of Employees by Gender (Person)

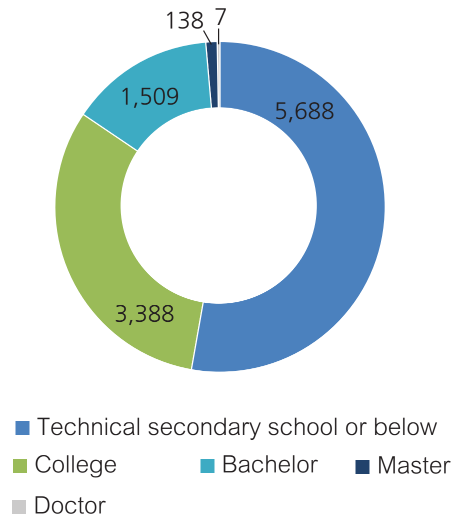


Number of Employees by Age Group (Person)



Number of Staff by Position Levels (Person)	Number of Employees by Educational Background (Person)



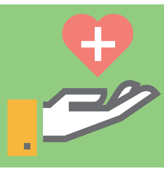


On top of providing equal opportunity for employment, GCL-Poly is also engaged in active efforts to drive staff localisation in accordance with the principle of "fulfilling group objectives and maintaining staff stability". We have commenced a staff localisation plan at Xinjiang GCL since July 2019 on the back of in-depth cooperation with Xinjiang Karamay College for Vocational Technology, Xinjiang Engineering College and Xinjiang College for Applied Vocational Technology. A total of 208 students had been recruited throughout the year, resulting in a 49.5% staff localisation ratio. As at 31 December 2019, we had 121 employees from ethnic minority groups.

Compensation and Benefits

The Company believes that a competitive remuneration system and an efficient staff incentive policy are among the important factors that attract and retain outstanding talents. In strict accordance with the *Social Insurance Law of the People's Republic of China* and *Trade Union Law of the People's Republic of China*, the Company has formulated GCL-Poly internal management systems such as the *Salary Management Standards for PV Enterprises*, *Benefits Management Standards*, *Employee Reward and Punishment Management Standards* and *Employee Attendance and Vacation Management Standards*, to facilitate open, transparent, systemic and standardised management of remuneration and benefits for the protection of the lawful rights of employees. To retain and attract talents, we also procure check staff welfare through the provision of allowances, insurance covers, provident funds, holiday leaves and care for female staff, in addition to statutory benefits.

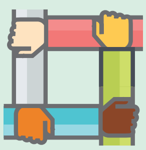
- Communication
- Meals
- Transport
- Extreme weather
- Marriage and maternity
- Bereavement
- Posting to regional projects



- Retirement insurance
- Medical Insurance
- Work injury insurance
- Unemployment insurance
- Housing provident fund
- Medical insurance for major work-related illness
- Employers' liability insurance

- Statutory holidays
- Paternity leave

- Baby care room
- Breastfeeding leave and maternity leave
- Exemption from night shifts
- No-pay leaves for female staff in pregnancy



- Opening of Muslim eateries
- One-on-one counselling system
- Holidays for ethnic minority festivals

GCL-Poly Employee Benefits of 2019

The Xinjiang base plays an important part in GCL-Poly's drive for corporate development. To encourage staff support for the construction of the Xinjiang base, we have devised a personalised benefit system for staff posted to Xinjiang. In addition to an allowance amount ranging from RMB6,800 to RMB20,000, we have implemented a holiday policy of "45 days of leave after 45 days of attendance" as well as provided family visit leaves with reimbursements for travel expenses incurred for family visits. Moreover, we also encourage the family of a Xinjiang-posted personnel to work in Xinjiang as well, offering primary and secondary school educational grants to the children of such staff.

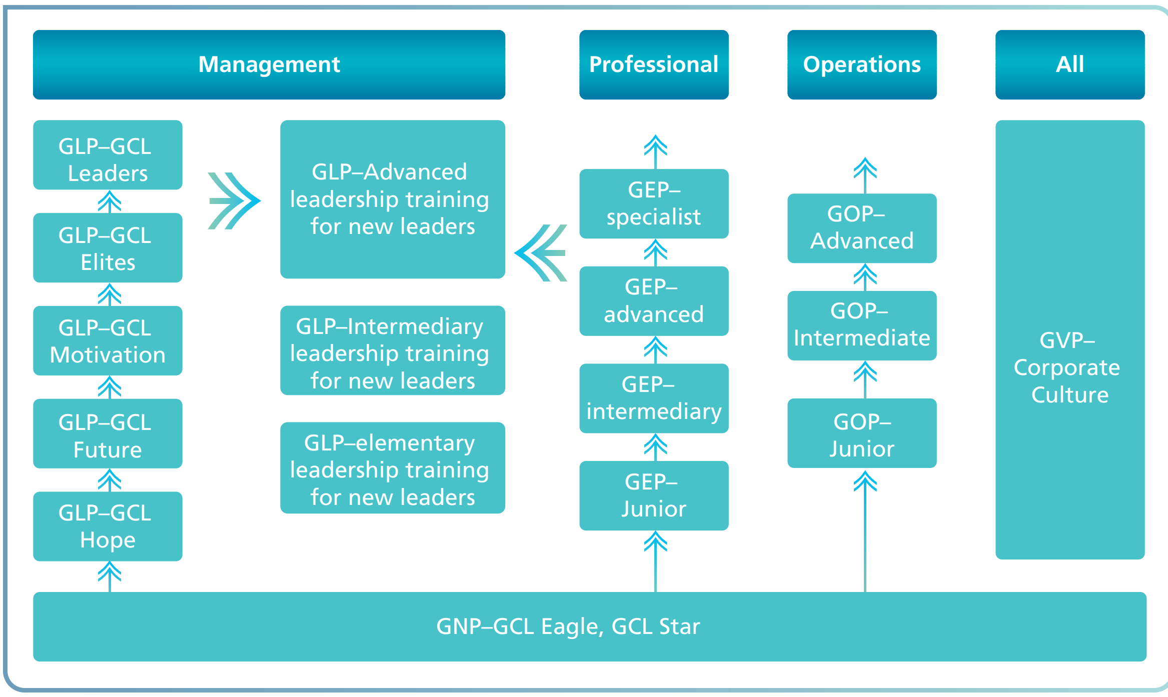
Meanwhile, to further incentivise staff motivation, initiative and creativity, we revised the GCL-Poly *Performance Assessment Management Standards for Functional Personnel* during the reporting period to put an end to equalitarianism in the distribution of resources by introducing a system of contract-based operations, with the aim of fixing remuneration packages that provide assurances for staff income while instituting a more reasonable remuneration and incentive system. Meanwhile, performance appraisal has been strengthened with the introduction of quarterly appraisal in a bid to invigorate the Company's operating mechanisms.

Training and development

While attracting various types of high-calibre talents to help facilitate the rapid development of GCL-Poly, we also place a strong emphasis on talent training and development. As part of our effort to create an excellent platform for staff development, we have built a scientific and reasonable system for staff training and promotion, as well as established the GCL University.

- ### Staff training

  With the aim of building a "learning-oriented" enterprise, we have developed and continued to improve a training system focused on staff duties and development prospects in accordance with the GCL-Poly *Training Management Standards*, seeking to drive staff enhancement in terms of three aspects: management competence, specialised capabilities and professional aptitude, such that every employee will be able to identify his/her potential and scope of creativity, as well as to work in close tandem with the rapid development of the industry.



GCL-Poly Staff Training System

During the reporting period, we further focused on key groups and provided a diverse range of internal and external target-specific training courses for staff at all grades, helping our employees to enrich their expertise, skills and experience. Our training was provided through both online and offline resources in a further broadening of staff access to learning and enhancement of training efficiency.

To better meet the demands of our staff as well as the market, we have launched the following training programmes for the senior management, middle management and new employees, respectively:

Training Model

Senior Management

- Training under the "GCL Elite" programme at GCL University
- Specialised training at individual subsidiaries as required and benchmarks against external enterprises

Key contents:

- Strategic Corporate Management
- Brand Management and Emergency Response
- Win-Win Leadership
- Application of Capital
- Cross-Cultural Communication

Middle Management

- "GCL Motivation" and "GCL Future" programmes at GCL University
- Specialised training at individual subsidiaries as required and benchmarks against external enterprises

Key contents:

- Big Data Thinking and Business Model Innovation
- Financial Management for Leaders
- Strategic Human Resources Management
- Five-Dimensional Leadership Development

New Employees

All new employees receive induction training on the corporate culture, organisational structure, rules and regulations on work safety and other induction training as required by the management

New graduates receive an additional "GCL Star" training at GCL University to have a better understanding of our corporate culture and their career development

New hires whose rank is higher than Grade 6 receive an additional "GCL Eagle" training to understand the GCL culture so that they could fit in sooner

Offline training | **Online training**

GCL-Poly Model of Staff Training at All Levels

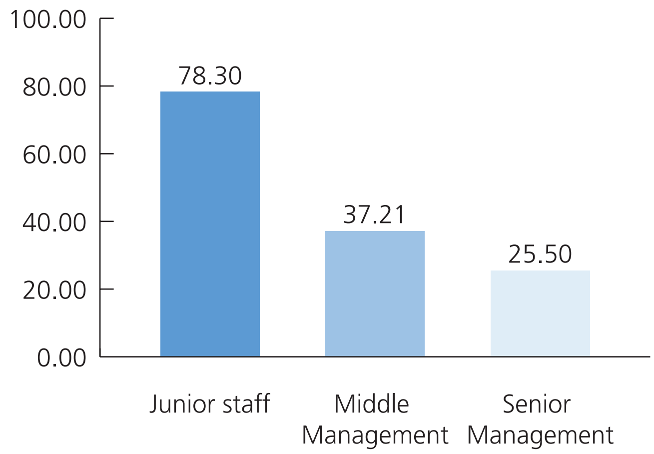
GCL University "Northwestern Campus" providing lessons at Xinjiang GCL

To facilitate technological exchange among different production bases across the country, GCL University "Northwestern Campus" provided education to Xinjiang GCL and conducted its first lecture in May 2019. The training courses included "High-quality Decision-making", "On-site Delicacy Management", "Group Building and Knowledge Review" and "Communication Skills for Successful Leaders". The training and exchange session was attended by 29 middle management officers at assistant level or above from various departments and production branches of Xinjiang GCL.

First on-site teaching by the "Northwestern Campus" of GCL University

The Company's staff training headcount for the reporting period was 92,752 and the average length of training time per employee was 77.3 hours, an increase by 11.35% and 7.36%, respectively, as compared to 2018.

Average training hours per employee by staff grade (hours)



- ## Staff promotion

GCL-Poly is committed to training management personnel for executive capacities and specialists for professional capacities through the development of a three-dimensional talent development pathway. We have designated four main ranks according to the job nature of staff: the "operational rank", "professional rank", "technical sequence" and "management rank" based on training evaluation for promotion. Staff may move along different ranks according to their personal career aspirations. In addition, we incorporate specialised training for the next level in the training process for different succession teams, so as to ensure the availability of talents.

The training and promotion of outstanding young officers represent a top priority for us. During the reporting period, we conducted two sessions of recommendation and selection of succession teams and young officers. Based on qualifications for the positions concerned and the five major appraisal benchmarks comprising primarily "performance and competence" and, to a lesser extent, "age, tenure and academic qualifications", more than 200 outstanding young personnel at all grades were assessed and the talent database was updated accordingly, earmarking more than 150 talents for the fourth GCL succession team. Furthermore, under the coordinated arrangement of GCL Group, 17 young, intermediary-level officers were exempted from the pre-qualifying examination and selected to join the officer training programme of 2020, providing them with a broadened pathway for career development.

Health and Safety

GCL-Poly has consistently managed staff safety and health as an integrated part of its business operation. In accordance with the principles of "safe development with a people-oriented approach; safety as a priority concern and the emphasis on preventive actions; comprehensive governance and full coverage; delicacy management and ongoing improvement; and proactive and advanced actions for efficient outcomes", we have continued to drive the development of the OHSAS 18001 occupational health and safety management system and facilitated solid progress in safe production in a disciplined manner by improving the production safety management system, implementing the safe production responsibility system, advancing the development of the dual preventive mechanism of multi-tier risk control and hazard inspection and treatment, enhancing safe production training and running safety incident drills, in a full effort to protect the physical safety and occupational health of staff.

- ### Production safety management system

  In strict accordance with the *Production Safety Law of the People's Republic of China* and taking the actual conditions of its production operations into account, the Company has formulated the GCL-Poly *Responsibility System for Safety, Occupational Health and Environment Management* and developed a three-tier safety management network comprising the corporate level, plant/department level and duty shift level, regulating and breaking down the goals for safe production into responsibilities for each individual worker. The Company's work-related injury rate for the reporting period was 0.33% per 200,000 work hours.

- ### Training and drills in safe production

  GCL-Poly places a strong emphasis on enhancing safety awareness and operational safety on the part of its staff. Great efforts have been made in safety training and education for all employees, while all new employees are specifically required to receive a three-tier (corporate, functional/workshop and job position) education on environment and safety, and pass the relevant assessment prior to officially reporting to duty. During the reporting period, we organised a total of 109,321.5 hours of safe production training with a total staff enrolment of 96,426.

Henan GCL: EHS training and promotion

During the reporting period, Henan GCL was actively engaged in EHS training: safety experts from Leihe authorities were invited to deliver talks on safety issues; 50 members of the Company's management and first aid team participated in a first aid rescue training coached by experts from the Red Cross of Leihe to enhance their ability to respond to contingencies; management personnel and safety officers in part-time workshop and shift team visited an exemplary enterprise in Henan for the double prevention mechanism to learn from advanced experience in production safety management.

Moreover, Henan GCL also attached great importance to the promotion of safety awareness, as it actively organised promotional and educational campaigns including the *Occupational Disease Prevention and Control Law* Promotion Week, "June 5th World Environment Festival", "Safe Production Month" in June, "Fire Safety Promotion Month" in November and safety production quiz, among others. Through a variety of means such as media networks, TV promotion on TV, display boards and WeChat, staff have been afforded a broader exposure to EHS-related knowledge and information.



Henan GCL: EHS training and promotion

To ensure effective control of related risks in the event of emergencies, we have formulated a general emergency plan, a specific emergency plan and an on-site tackling plan, standardised reporting procedures and specific rescue methods, on the basis of a safety hazard inspection system. Emergency drill activities were organised to enhance staff awareness of safety and accident prevention as well as their ability in emergency response. Risk evaluation reports and emergency resource inspection reports were prepared in an ongoing effort to enhance our long-term mechanism for safe production.

Jiangsu Zhongneng: emergency drill

During the reporting period, Jiangsu Zhongneng conducted 2 emergency drills at the corporate level and 26 drills at the section level. Emergency drills for shift teams were organised on a regular basis each month according to the emergency plans for various units. In June 2019, Jiangsu Zhongneng conducted an emergency drill in respect of hazardous chemicals at the high-temperature sludge-boiling section. Heads of government authorities, including the Xuzhou Municipal Emergency Management Bureau, Economic Zone Management Committee, Economic Zone Emergency Management Bureau, Economic Zone Ecological Environment Bureau and Fire Brigade, were invited to give guidance and instructions, while safety experts were engaged to provide review comments on the drill. More than 400 people participated and attended the drill on the day.

Emergency drill for leakage of hazardous chemicals

• Occupational health of staff

The occupational health of staff is a matter of equal importance as staff safety for the Company. We have been engaged in consistent enhancement and regulation of its occupational health management in strict compliance with laws, regulations and standards such as the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, *Regulations on the Prevention and Control of Pneumoconiosis*, *Regulations on Labor Protection in Workplaces Where Toxic Substances Are Used* and *Measures for the Supervision and Administration of Occupational Health Surveillance at Entities hiring Employees* and in active implementation of GCL-Poly internal policies and systems including *Management System of Articles (Appliances) for Labor Protection*, *Regulations on Management of Work Subject to High Temperature and Heatstroke Prevention and Cooling*, *Regulations on Occupational Health Management of Radioactive Sources*, *Occupational Disease Prevention and Control Plans and Implementation Program*, *Responsibility System for Occupational Disease Prevention and Control*, *Occupational Disease Hazard Warning* *and Notification System, Occupational Disease Prevention and Control Publicity Education and Training System, Implementing Maintenance and Repair System for Protection Against Occupational Hazards* and *Management System for the Monitoring and Evaluation of Workplace Occupational Hazards.*

During the reporting period, we enhanced management over staff occupational health by highlighting the principles of "localised management" and "specialised management". We conducted sessions to identify occupational hazards at workplaces and improve the conditions under which we operate. Protective gears were provided to staff to avoid occupational hazards. Staff health check was organised on a regular basis and occupational health files were kept in a full effort to ensure staff occupational health and safety.

Xinjiang GCL: initiatives for the protection of staff occupational health

During the reporting period, Xinjiang GCL provided comprehensive assurances for staff occupational health by improving the working conditions, providing labour protection supplies and offering basic medical protection. Xinjiang Mingjia Zhonghui Health Examination Centre was appointed to complete occupational health check for 810 employees, health check for 77 employees and departure health check for 35 employees. No cases of suspected occupational diseases or occupational contraindications were reported.

Improvements to working conditions

- Tests on occupational disease factors at workplaces subject to noise and dust and announcement of test results on a quarterly basis
- Completion and delivery of stage one facilities for occupational disease prevention of the Company's phase one project

Provision of labour protection supplies

- Purchase and timely distribution of 37 types of labour protection items such as toxicant filtration box, protective face shield, gloves for welding work, semi-plastic gloves, acid / alkaline proof gloves with a total value of RMB3,549,200
- Regulated process for distribution and collection of labour protection supplies requiring staff to surrender old items in exchange of new ones
- Adjustments to the frequency of giving out filter cotton for use at production processes from 2 sets per week to 1 set every 2 days to reduce the possibility of staff contracting occupational disease as a result of exposure to dust.

Basic medical protection

- A personal medical file on occupational health is opened for each employee and staff health inspection is provided
- A medical room equipped with 2 medical staff provides 24-hour services to staff
- First-aid boxes equipped with medicines for acute illnesses have been distributed to all business units
- Measures in place to prevent heatstroke in summer, such as the distribution of medicines for heatstroke to employees

Xinjiang GCL measures for the protection of staff occupational health

Staff care

We treat our staff as family and extend meticulous care for their work and life by listening and responding to their needs in a timely manner and organising a diverse range of staff activities, in a bid to foster a "GCL Home" culture.

During the reporting period, the modulation team at the production operations department of Jiangsu Zhongneng was honoured with the title of "Jiangsu Youth of Civility 2017–2018", while Slicing Team C of Workshop I at Suzhou GCL Photovoltaic won the title of "National Workers' Vanguard".

Modulation team at the production operations department of Jiangsu Zhongneng was honoured with the title of "Jiangsu Youth of Civility"

Slicing Team C of Workshop I at Suzhou GCL Photovoltaic won the title of "National Workers' Vanguard"

- ### Communication with staff

  We value the views and opinions of our staff and respond to issues of their concern in a timely manner via the monthly staff forum, our WeChat public account and Lanxin. We have also set up a dedicated staff communication hotline and email box to collect staff's opinions and suggestions which would provide the foundation for the drafting of the Company's various systems and regulations. During the reporting period, the Company organised 42 staff forums with 2,600 employees attending.

Staff representative forum

Moreover, the Company conducts a staff satisfaction poll on a regular annual basis and seriously review any inadequacies in management. Reasonable suggestions are adopted to facilitate ongoing improvements in management and earn the trust and support of staff.

Xinjiang GCL: staff satisfaction poll

During the reporting period, Xinjiang GCL conducted a staff satisfaction poll for 2019. Each department selected 30% of its personnel to award scores in response to questions on "growth and development", "training and learning", "remuneration and benefit", "staff relations" and "support services". The outcomes of the poll were duly analysed and enhancement measures were then formulated. The average score of the poll was 86.57%, underpinned by scores of 93.42% and 92.10% for "staff relations" and "training and learning", respectively.

Enhancements

Growth and development

- Enhanced communication on the relevant platform
- Corporate culture promotion
- Enhanced training for promising staff

Training and learning

- Training for all
- A diverse range of training programmes on job know-how, skills and aptitude tailored for junior staff and middle management

Remuneration and benefits

- Reasonable arrangement for annual promotion
- Optimisation of staff benefits
- Enhancement of performance appraisal

Enhancements

Staff relations

- Promotion of company systems and institutions and review execution through staff communication platform
- Launch of General manager's mailbox and "general manager's reception day" to reward staff who have furnished constructive opinions
- Staff relations and communication initiatives conducted on a regular basis
- Effective training in communication

Support services

- Increased investment in corporate culture facilities
- Office environment improved with higher green landscape ratio
- Improvements to the construction of supporting facilities

Contents of staff satisfaction poll and enhancement initiatives

- **Staff activities**

  GCL-Poly advocates the balance of work efficiency and personal life and encourages active participation in various staff activities. During the reporting period, we organised a diverse range of cultural and sporting activities, such as the table tennis tournament, basketball tournament, badminton tournament, March 8th movie viewing and October 1st flash mob, with a view to fostering interaction among staff and enhancing team solidarity.

"Pledge Youthful Loyalty to the Party and Make Contributions to the New Era" — Poetry recital session in commemoration of the 100th anniversary of the May Fourth Movement

"In the company of GCL" staff birthday party

"A Warm Mid-Autumn Festival of GCL Dreams at the GCL Home" — Mid-Autumn Festival gala

"Living up to the mission and the commitment with the vigor and passion of GCL" — the basketball tournament

OPEN TO SHARING: DELIVERING THE GCL VALUE

We persist in cooperation with an open-minded approach and the pursuit of mutual success, in a bid to build a sustainable business chain and ecology for PV innovation. We have developed stable partnerships with suppliers to ensure the provision of quality-compliant products and services. Efforts in enhancing interaction and engagement with peers have been made to facilitate transformation and upgrade of the industry. We have also been working with community welfare groups for involvements in various community welfare campaigns to promote social harmony.

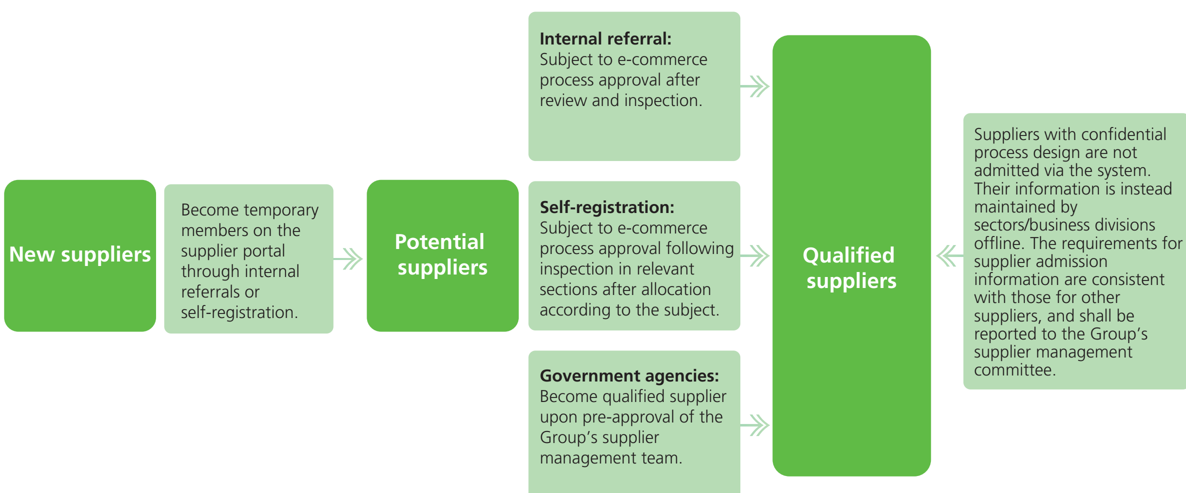
Responsible Supply

A stable supply chain system is the primary condition for the supply of quality products and services by GCL-Poly. The regulated management of suppliers is a matter of paramount importance for us. In this connection, we have revised and published a series of GCL-Poly internal policies during the reporting period, including revised versions of the *Supplier Management Measures* and the *Procurement Management Measures,* and new GCL-Poly policies such as the *Supply Chain Management System*, *Procurement Management System*, *Warehouse Management*, *Logistics Management* and *Materials Coding Management Standards*. Such policies have further specified the principles and details of supply chain management at all sections to ensure the regulated and efficient operation of the procurement process.

- ### Admission and assessment of suppliers

  GCL-Poly has established a rigorous and standardised process for the admission of suppliers and system for the assessment of suppliers. After admission into the Company's supplier membership system, new suppliers are classified into three groups by source: internal recommendation, self-registration and government entities. Tailored review processes are being conducted in respect of each group, and suppliers need to fulfill requirements in quality, cost, delivery and service before becoming qualified suppliers for GCL-Poly.

  During the reporting period, the supplier admission approval process was optimised, whereby the four-tier approval process was streamlined into a two-tier one, namely, co-signature by the functional departments and approval by delegated managers. Approvals by functional departments at the same level shall be conducted simultaneously in a notable improvement in approval efficiency. In the meantime, supplier admission shall be managed by level according to the amount of procurement. Suppliers for small-amount procurement shall be autonomously managed by the project companies and checked on a random basis. For standalone purchases each with an amount of over RMB200,000, the project company should contact the relevant supplier and request for admission information. An on-site inspection will then be conducted before submission for segment vetting according to its classification. The supplier shall be admitted only after it has passed vetting in terms of compliance in credentials, accuracy in classification and accuracy in the designation of supplier level.



GCL-Poly process for suppliers' admission

Moreover, we revamped our database for qualified suppliers twice with the aid of IT tools during the reporting period. We inspected and removed suppliers that might potentially give rise to connected transactions under the same subject to ensure the fairness of any purchases. We also conducted a statistical check on cases where the purchase amount was above RMB200,000 but where no application for the admission of non-current suppliers was made as required. Case-by-case investigations were made to identify the reasons and actions were taken accordingly.

To exercise further control over the quality of suppliers, the Company has developed a multi-tier comprehensive assessment mechanism in respect of different types of suppliers. Contract performance assessment and strategic assessment are conducted in respect of suppliers for various types of materials. Based on the outcome of such strategic assessment, suppliers are classified into different groups for management purposes. Dynamic assessment is conducted, whereby outstanding suppliers are rewarded and the underperforming ones are removed. During the reporting period, we conducted quarterly and annual performance reviews on 1,007 suppliers, whereby 989 suppliers were assessed as qualified suppliers, while the remaining 18 were required to conduct certain rectifications. We will track the outcome of such rectifications to determine our final assessment on them.

Supplier Investigation Process

Project, Material and Facility Suppliers:

Before the approval submission, access inspection must be conducted. Return visits to strategic partners or suppliers considered material to the Company's development are arranged from time to time.

Agency and Consulting Service Suppliers:

On-site or off-site inspection based on specific situations.

Admission inspection:

During the period of verification for access, suppliers' principal products under the cooperation are inspected and inspection reports are generated.

Return visits:

During the period of cooperation, return visits may be arranged from time to time in order to inform ourselves of the operating status of material suppliers and understand problems existing in the process of cooperation and suggestions for future business development, regular return visits are carried out.

Off-site inspection:

To increase the efficiency of supplier admission, selected suppliers may be admitted following a simple survey or directly after examination by relevant departments. The survey may be carried out by way of data collection, website inquiry, telephone consultation and other means.

GCL-Poly supplier investigation process

Strategic Suppliers	Preferred Suppliers	General Suppliers	Rectification Suppliers
Suppliers of strategic significance to the Company, such as suppliers of products with complex technology and long production cycle with whom we aim to foster long-term partnerships.	Suppliers whose products or services are not irreplaceable but are nevertheless given preference considering their overall KPI, such as price, quality, delivery, technology, service, asset management, process management and personnel management.	Suppliers whose overall performance are average with opportunities for improvement in terms of product, service and daily performance.	Suppliers whose quality and service fall short of our requirements, but who might become compliant after rectification. Those suppliers who continue to fall short of our requirements after rectification will be deemed as unqualified and subject to the supplier exit mechanism.

GCL-Poly supplier management by level

During the reporting period, GCL-Poly cooperated with a total of 1,439 suppliers, an increase by 21.64% compared to 2018, comprising 1,432 domestic PRC (People's Republic of China) suppliers and 7 overseas suppliers with 907 of them each supplying annual purchases with an amount of more than RMB200,000.

- **Driving fulfilment of responsibility on the part of suppliers**

GCL-Poly has been actively driving the development of a sunshine procurement system. To ensure the openness, transparency, efficiency and traceability of the procurement process, we have, on top of the execution of legally compliant agreements with suppliers, created a centralised supplier management system with "one entry, one platform and one mechanism" via the supplier portal management system with the aid of advanced information technologies, allowing us to conduct dynamic control over the full supply chain cycle with functions such as source identification management, information dispatch, supplier management and supply service centre. In addition, we have opened a whistleblowing mailbox which has been indicated in the tender document, in a bid to encourage suppliers to report irregularities in the procurement tender process and ensure high-standard business ethics on the part of both parties.

Management assessment

Complete supplier management and evaluation regime developed through a diverse range of supply model such as supporting group guidance, decentralised execution, partial centralisation, partial decentralisation and centralised management system. Suppliers can communicate their demands to GCL-Poly through the self-management function in the portal system, thus facilitating two-way interaction between GCL-Poly and suppliers.

Procurement tender

Self-service registration and quotation by suppliers through self-registration and access to the approval process. Tender evaluation, sourcing, quotation soliciting and supplier collaboration are digitalised to render supplier sources open and transparent and provide more transparent publication of information on procurement tenders.

Information basis

Provision of uniform and standardised primary data such as material coding and supplier coding with the aid of IT with a solid foundation for finance - business integration and a high degree of integration, improving standardisation and visualisation of supply chain management.

GCL-Poly supplier portal management system

During the reporting period, we further improved the supervisory system for different purchase amounts, with a view to enhancing the efficiency of control over corruption-free procurement. One-off procurement involving an amount of more than RMB500,000 shall be subject to tendering organised by tender agencies and monitored by our supervisory officers. Procurements with an amount of less than RMB500,000 may be conducted by the enterprise and monitored by supervisory departments such as internal control and finance or supervisory officers. Urgent purchases may be made by seeking quotations via a dedicated mailbox, which is managed by non-procurement staff to ensure the confidentiality of the quotations.

GCL-Poly is also committed to the green and sustainable development of the entire value chain, as green procurement concepts are being incorporated in the screening selection and assessment of suppliers. During the reporting period, the Company maintained 100% vetting of suppliers' environmental and social risks and consistently procured suppliers to enhance their fulfilment. We have adopted the following control measures to avert any material impact on our production and operations as a result of suppliers' EHS risks:

Procurement process

- Preference given to energy-saving equipment and materials with low consumption under the same conditions

Production process

- Eco-friendly used wherever possible supported by ongoing development and test
- Trial use of cleaning agents with low nitrogen and phosphorus contents
- Development and trial of low-COD cooling liquid

Management of chemicals

- Examination of suppliers' production / operation qualifications
- Examination of eligibility of transportation vehicles
- Examination of qualifications of transportation personnel
- Check of vehicles and personnel involved in each transportation

EHS risk control in relation to suppliers

Contribution to the Industry

As a world-leading provider of PV system solutions, we believe it is our duty to contribute to the ongoing progress of the technological standards of the industry. We have forged different types of partnerships with domestic and international colleges, scientific research institutes, industry partners with vigorous involvement in the development of the PV community in an ongoing effort to herald changes and reforms in the industry.

During the reporting period, we hosted three industry forums, as well as co-organised, sponsored or participated in 9 conferences for the PV industry. We have also issued the *Ingot Monosilicon Technology White Paper* as part of our endeavor to work with our peers in search of qualitative development for the PV industry.

First Ingot Monosilicon Mass Production and Application Forum

International Clean Energy Exhibition International PV Technology Forum, China 2019

SEMI China PV Standards and Technology Committee Spring Meeting 2019

GCL-Poly has been actively involved in driving standardisation of the PV industry. During the reporting period, we hosted, directed or took part in the revision and formulation of 13 industry standards, including 2 international standards and 4 national standards. We have helped to enhance the quality standards of the industry and won recognition for our outstanding contributions.

International standards

- Application guide for materials used in internal feed of monosilicon boiler
- Quality standards for trichlorosilane used on polysilicon

National standards

- Ingot polysilicon chunk for solar battery
- Polysilicon wafer for solar battery
- Ion chromatography for test of chloride ion contents in silicon

Group standards

- Carbonised silicon coating under vapor deposition
- Graphite products for polysilicon production
- Ceramic ring for polysilicon production
- Test of silicon dust content in tail gas from granular silicon production
- Technical standards for assessment of green design products — polysilicon

Revision and formulation of industry standards (published) hosted, directed or participated in by GCL-Poly in 2019

"Award for Contributions in Grid Parity Technology 2019" at Second Mole PV Seminar on Bifacial Power Generation and Grid Parity Technology

"PV Materials Supplier of Excellence 2019" at Ofweek Solar Energy and PV Net

"Top 10 Listed Technology Vanguard Enterprises 2019" at 11th PRC Energy Summit

Selected industry awards received by GCL-Poly in 2019

Charity initiatives for the community

GCL-Poly seeks to reward the society with gratitude and is committed to responsible corporate citizenship. We have incorporated social responsibility fulfillment as a long-term strategic objective and have drafted the *White Paper on Corporate Citizenship of GCL-Poly* and *Guidelines for Corporate Citizenship Development of GCL-Poly* to integrate essential social values with day-to-day business practices and policies.

During the reporting period, we were involved in various community welfare initiatives, reaching out to underprivileged groups and offering enthusiastic support for local education in an active bid to facilitate poverty aid and contribute to the cause of social harmony.

The Winter Sunshine Initiative

In adherence to its community welfare notion of "Sunshine and Care" and in active response to the "Winter Warmth Action" promoted by Xuzhou CCP (Chinese Communist Party) Youth League Committee, Jiangsu Zhongneng launched a "Winter Sunshine Social Care Initiative" and supported the Pei County Qihang and Xuzhou Qicong Deaf Children Rehab Centre for the ninth year in a row. On 25 January 2019, Jiangsu Zhongneng organised more than 30 members of the municipal "Youth of Civility" and young volunteers for a visit to Qihang Child Rehab Centre, bringing with them RMB10,000 worth of supplies to offer some warmth in winter for the 60 mentally impaired members of the centre.


Visit Qihang Deaf Children Rehabilitation Centre

"Charity and Growth: GCL for the Future" Football Charity Initiative

Yangzhou GCL Photovoltaic organised a "Charity and Growth: GCL for the Future" football charity initiative for the donation of approximately RMB20,000 worth of supplies to the Bali Primary School Football Team in Yangzhou Economic and Technological Development Zone. In addition, Yangzhou GCL Photovoltaic will be involved in in-depth cooperation with schools in extended implementation of the "GCL Future" initiative. Through training and summer camp activities, we endeavour to improve the standard of school football and the overall abilities of football coaches, while inspiring a passion for football as well as the drive for excellence in students.



"Charity and Growth: GCL for the Future" Football Charity Initiative

To fulfill the vision of building a "environmental-friendly enterprise", we have not only incorporated the principles of "low carbon, emission reduction and energy conservation" into our own production operation, but have also vigorously launched voluntary service campaigns for "green and environmental" objectives. During the reporting period, we organised 15 outings of staff volunteer service with a total attendance of 600 contributing 1,200 hours in services.

Henan GCL Photovoltaic: green travelling

Xinjiang GCL: clear-up of waste

Jiangsu Zhongneng: lessons on the practice of environmental protection

Funing GCL Photovoltaic: tree planting

At the end of 2019, the unforeseen onslaught of the COVID-19 epidemic plunged the nation into a war without guns. GCL-Poly has been closely monitoring the situation, provisioning for epidemic prevention efforts in swift response and rendering strong support to frontline operations, while implementing epidemic prevention measures within the enterprise to ensure staff health and safety.

Jiangsu Zhongneng teamed up with GCL Nano in aid of battle against epidemic[8]

On learning about the shortage of supplies for frontline epidemic control workers in Xuzhou, Jiangsu Zhongneng swiftly teamed up with GCL Nano to re-designate 50 tonnes sodium hypochlorite (concentrated disinfectant) for donation to locations including various districts in Xuzhou, Xinyi and Peizhou. Meanwhile, the emergency response mechanism was activated, whereby production plants were operated at full capacity to manufacture and ship out sodium hypochlorite (concentrated disinfectant), in order to render full support to frontline workers fighting to contain the virus and help win the battle against the epidemic.

Jiangsu Zhongneng and GCL Nano donates 50 tonnes of disinfectant

8 The case happened in February 2020.

APPENDIX I: LIST OF LAWS AND REGULATIONS AND INTERNAL POLICIES

Major Applicable Laws and Regulations:

Product Quality Law of the People's Republic of China
Standardisation Law of the People's Republic of China
Detailed Rules for the Implementation of Production Licenses for Industrial Products
Patent Law of the People's Republic of China
Copyright Law of the People's Republic of China
Detailed Rules for the Implementation of the Patent Law of the People's Republic of China
Environmental Protection Law of the People's Republic of China
Law of the People's Republic of China on Environment Impact Assessment
Water Law of the People's Republic of China
Water Resources Protection Law of the People's Republic of China
Water Pollution Prevention and Control Law of the People's Republic of China
Law of the People's Republic of China on the Prevention and Control of Environmental Pollution by Solid Waste
Air Pollution Prevention and Control Law of the People's Republic of China
Integrated Emission Standards of Air Pollutants
Emission Standard of Air Pollutants for Boiler
Energy Conservation Law of the People's Republic of China
Electric Power Law of the People's Republic of China
Law of the People's Republic of China on Promoting Clean Production
Renewable Energy Law of the People's Republic of China
Labor Law of the People's Republic of China
Labour Contract of the People's Republic of China
Law of the People's Republic of China on the Protection of Rights and Interest of Women
Regulations on the Prohibition of Child Labour
Social Insurance Law of the People's Republic of China
Trade Union Law of the People's Republic of China
Production Safety Law of the People's Republic of China
Law of the People's Republic of China on the Prevention and Control of Occupational Diseases

Major Applicable Internal Policies of the Company:

Management Standards for Anti-Fraud and Whistleblowing
Corporate Standards System
Standard Development Rules
Silane Gas Standards
Solar Grade Polysilicon
Science and Technology Work Management Standards
Scientific Research Projects Management Standards
Technological Upgrade Management Standards
Technological Achievements Incentive Management Measures
Intellectual Property Management Standards
Trademark Management Standards
Patent Management Measures
Trade Secret Management Measures
Intellectual Property Incentive and Accountability Management Measures
Management Regulation for Three Wastes
6S Management Standard for Office Areas
Control Procedures of Wastewater Discharge
Control Procedures of Wastewater Discharge in the Plant
Regulation on Energy and Water Conservation
Comprehensive Wastewater Discharge Standard
Management and Control Procedures for Waste and Hazardous Waste
Procedures for Controlling Production Exhaust Emissions
Regulation on Energy and Water Conservation
Manual of Energy Regulation
Recruitment Management Standards
Internal Recommendation Management Standards
Salary Management Standards for PV Enterprises
Benefits Management Standards
Employee Reward and Punishment Management Standards
Employee Attendance and Vacation Management Standards
Performance Assessment Management Standards for Functional Personnel
Training Management Standards
Responsibility System for Safety, Occupational Health and Environment Management
Management System of Articles (Appliances) for Labor Protection
Regulations on Management of Work Subject to High Temperature and Heatstroke Prevention and Cooling
Regulations on Occupational Health Management of Radioactive Sources
Occupational Disease Prevention and Control Plan and Implementation Program
Responsibility System for Occupational Disease Prevention and Control
Occupational Disease Hazard Warning and Notification System
Occupational Disease Prevention and Control Publicity Education and Training System

Implementing Maintenance and Repair System for Protection Against Occupational Hazards
Management System for the Monitoring and Evaluation of Workplace Occupational Hazards
Supplier Management Measures
Procurement Management Measures
Supply Chain Management System
Procurement Management System
Warehouse Management
Logistics Management
Materials Coding Management Standards
White Paper on Corporate Citizenship of GCL-Poly
Guidelines for Corporate Citizenship Construction of GCL-Poly

APPENDIX 2: SEHK ESG REPORTING GUIDE CONTENT INDEX

Subject Areas, Aspects, General Disclosures and KPIs Index		Index
A. Environmental		
Aspect A1 Emissions		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Protecting Our Environment: Nourishing the GCL Hope
KPI A1.1	The types of emissions and respective emissions data.	Protecting Our Environment: Nourishing the GCL Hope — Green Production
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Protecting Our Environment: Nourishing the GCL Hope — Low-carbon Emission and Reduction in Discharge
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Protecting Our Environment: Nourishing the GCL Hope — Green Production
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Protecting Our Environment: Nourishing the GCL Hope — Green Production
KPI A1.5	Description of measures to mitigate emissions and results achieved.	Protecting Our Environment: Nourishing the GCL Hope — Green Production Protecting Our Environment: Nourishing the GCL Hope — Low-carbon Emission and Reduction in Discharge
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Protecting Our Environment: Nourishing the GCL Hope — Green Production

Subject Areas, Aspects, General Disclosures and KPIs Index		Index
Aspect A2 Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Protecting Our Environment: Nourishing the GCL Hope — Green Production
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in'000s) and intensity (e.g. per unit of production volume, per facility).	Protecting Our Environment: Nourishing the GCL Hope — Low-carbon Emission and Reduction in Discharge
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Protecting Our Environment: Nourishing the GCL Hope — Green Production
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	Protecting Our Environment: Nourishing the GCL Hope — Low-carbon Emission and Reduction in Discharge
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Protecting Our Environment: Nourishing the GCL Hope — Green Production
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Protecting Our Environment: Nourishing the GCL Hope — Green Production
Aspect A3 The Environment and Natural Resources		
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Protecting Our Environment: Nourishing the GCL Hope
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Protecting Our Environment: Nourishing the GCL Hope

Subject Areas, Aspects, General Disclosures and KPIs Index		Index
B. Society		
Employment and Labor Practices		
Aspect B1 Employment		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination and other benefits and welfare.	A Team of Unity: Unleashing the GCL Energy — Overview of Employees A Team of Unity: Unleashing the GCL Energy — Compensation and Benefits
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	A Team of Unity: Unleashing the GCL Energy — Overview of Employees
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	The Company's staff turnover rate by age group for the reporting period is as follows: Aged 18–30: 15.50%; Aged 31–50: 14.04%; Aged 51 or above; 0.28%.
Aspect B2 Health and Safety		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	A Team of Unity: Unleashing the GCL Energy — Health and Safety
KPI B2.1	Number and rate of work-related fatalities.	Plans for disclosure following implementation of delicacy management in the future
KPI B2.2	Lost days due to work injury.	The Company's lost 2,097.5 days due to work injury for the reporting period.
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	A Team of Unity: Unleashing the GCL Energy — Health and Safety

Subject Areas, Aspects, General Disclosures and KPIs Index		Index
Aspect B3 Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	A Team of Unity: Unleashing the GCL Energy — Training and Development
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Plans for disclosure following implementation of delicacy management in the future
KPI B3.2	The average training hours completed per employee by gender and employee category.	A Team of Unity: Unleashing the GCL Energy — Training and Development
Aspect B4 Labor Standards		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labor.	A Team of Unity: Unleashing the GCL Energy — Overview of Employees
KPI B4.1	Description of measures to review employment practices to avoid child and forced labor.	A Team of Unity: Unleashing the GCL Energy — Overview of Employees
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	A Team of Unity: Unleashing the GCL Energy — Overview of Employees
Operating Practices		
Aspect B5 Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Open to Sharing: Delivering the GCL Value — Responsible Supply
KPI B5.1	Number of suppliers by geographical region.	Open to Sharing: Delivering the GCL Value — Responsible Supply
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Open to Sharing: Delivering the GCL Value — Responsible Supply

Subject Areas, Aspects, General Disclosures and KPIs Index		Index
Aspect B6 Product Responsibility		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Innovative Development: Forging the GCL Quality
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Innovative Development: Forging the GCL Quality — The priority of quality
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	Innovative Development: Forging the GCL Quality — Customer-centric
KPI B6.3	Description of methods relating to observing and protecting intellectual property rights.	Innovative Development: Forging the GCL Quality — Product innovation
KPI B6.4	Description of quality assurance process and recall procedures.	Innovative Development: Forging the GCL Quality — The priority of quality
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Innovative Development: Forging the GCL Quality — Customer-centric
Aspect B7 Anti-corruption		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	Responsibility and Governance: Fulfilling the GCL Mission — Operational compliance
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	During the reporting period, the Company found no legal cases regarding corrupt practices.
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Responsibility and Governance: Fulfilling the GCL Mission — Operational compliance

Subject Areas, Aspects, General Disclosures and KPIs Index		Index
Community		
Aspect B8 Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Open to Sharing: Delivering the GCL Value: Charity initiatives for the community
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	Open to Sharing: Delivering the GCL Value: Charity initiatives for the community
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Open to Sharing: Delivering the GCL Value: Charity initiatives for the community

BIOGRAPHICAL DETAILS OF DIRECTORS AND SENIOR MANAGEMENT

Executive Directors

ZHU Gongshan (Chairman), aged 62, is the founder of the Company. He has been an Executive Director and the Chairman of the Company since July 2006. Mr. Zhu is also a member of the Strategy and Investment Committee of the Company. Mr. Zhu and his family (including his son, Mr. Zhu Yufeng, who is also a Director of the Company) are the beneficiaries of a discretionary trust which was interested in about 32.11% issued share capital of the Company as at the date of this Report. Mr. Zhu Gongshan is currently a member of the 12th National Committee of the Chinese People's Political Consultative Conference (the "CPPCC"), a member of the 12th Jiangsu Province Committee of the CPPCC, the Chairman of Global Green Energy Industry Council, the chairman of Global Solar Council, the vice chairman of Global Innovation Centre, the vice president of the China Electricity Council. He concurrently serves as the executive chairman of ICC China Environment and Energy Committee, the vice chairman of China Overseas Chinese Entrepreneurs Association, the vice chairman of China Fortune Foundation Limited, the vice chairman of China Industrial Overseas Development & Planning Association, the vice president of Jiangsu Federation of Industry and Commerce, the honorary chairman of Jiangsu Residents Association in Hong Kong, an executive vice chairman of the Federation of HK Jiangsu Community Organisations. Mr. Zhu Gongshan has been given the "New China 70th New Energy Industry 10 Outstanding Contributors" award and the medals of "Chinese Enterprise Reform, Figure of Energy Revolution and Leading Energy Entrepreneur of 40 Years Reform and Opening". Mr. Zhu Gongshan graduated from Nanjing Electric Power College (南京電力專科學校) in July 1981 and obtained a diploma in electrical automation. Mr. Zhu Gongshan is also the director of GCL System Integration Technology Co., Ltd., a company with its shares listed on the Shenzhen Stock Exchange (Stock Code: 002506).

ZHU Zhanjun (CEO), aged 50, has been an Executive Director and Executive President of the Company since January 2015. He has been appointed as the Chief Executive Officer ("CEO") of the Company since April 2016. Mr. Zhu is a member of the Strategy and Investment Committee of the Company and also a director of several subsidiaries of the Company. He has vast experience in the polysilicon and wafer business. He joined the Company in 2004 as a plant manager of one of our power plants and became a general manager in 2006. He was transferred to Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd.* (江蘇中能硅業發展有限公司) ("Jiangsu Zhongneng"), a subsidiary of the Company which manufactures polysilicon, as Deputy Director-Infrastructure in 2008. Mr. Zhu was promoted as the General Manager of Jiangsu GCL Silicon Material Technology Development Co., Ltd. (江蘇協鑫硅材料科技發展有限公司) ("Jiangsu GCL"), a subsidiary of the Company in 2009 and was appointed as a vice president of the Company in 2013, overseeing the Company's ingot business and Jiangsu GCL's wafer business. Mr. Zhu is an engineer and obtained a Master's degree in Business Administration from China Europe International Business School (中歐國際工商學院) in 2013. Mr. Zhu is currently responsible for the overall operation and management of the Group.

ZHU Yufeng, aged 38, has been an Executive Director of the Company since September 2009 and is a member of the Remuneration Committee of the Company. Mr. Zhu is also a director of several subsidiaries of the Company. He graduated from George Brown College (Business Administration Faculty) in 2005. Mr. Zhu and his family (including his father, Mr. Zhu Gongshan, who is also a Director of the Company) are the beneficiaries of a discretionary trust which owns about 32.11% issued share capital of the Company as at the date of this Report. Mr. Zhu joined a subsidiary of the Company in 2006. He is responsible for human resources, administration and project tender of the Company. Mr. Zhu is also the chairman and an executive director of GCL New Energy Holdings Limited ("GNE"), a subsidiary of the Company with its shares listed on the Hong Kong Stock Exchange Main Board (Stock Code: 451).

SUN Wei, aged 48, has been an Executive Director of the Company since September 2016. Prior to the appointment, Ms. Sun was an Executive Director of the Company for the periods from November 2006 to July 2007 and from October 2007 until January 2015, she has also served the Company as the Honorary Chairman of Finance and Strategy Function. She is also a director of several subsidiaries of the Company. Ms. Sun currently is responsible for the corporate finance, financial strategy and management of the Group. Ms. Sun is the non-executive director of GNE and the vice chairman of Golden Concord Holdings Limited, a company controlled by Mr. Zhu Gongshan, ("Golden Concord"). Ms. Sun has over 20 years' experience in corporate finance, financial strategy and management experience. Ms. Sun was awarded a Doctorate degree in Business Administration in 2005.

YEUNG Man Chung, Charles (CFO and Company Secretary), aged 52, has been an Executive Director of the Company since September 2014. He is also a member of the Nomination Committee, Corporate Governance Committee and Strategy and Investment Committee of the Company. Mr. Yeung was appointed as the Chief Financial Officer ("CFO") of the Company on 30 April 2014 and Company Secretary of the Company on 20 March 2017. He is also a director of several subsidiaries of the Company. Prior to joining the Company in April 2014, he served as a partner of Deloitte Touche Tohmatsu and was a part-time member of the Central Policy Unit of the Government of Hong Kong Special Administrative Region. When he left Deloitte Touche Tohmatsu in March 2014, he was the Head of Corporate Finance Advisory Services, Southern China. Mr. Yeung has a Bachelor of Business degree with a major in accounting and he is also a member of The Hong Kong Institute of Certified Public Accountants and The Australian Society of Certified Practising Accountants. Mr. Yeung has over 25 years of experience in accounting, auditing and financial management. Mr. Yeung is responsible for the financial control and reporting, corporate finance, tax and risk management of the Company and its subsidiaries. Mr. Yeung is also a non-executive director of GNE and the vice president of Golden Concord. Mr. Yeung is an independent non-executive director of Tree Holdings Limited, a company with its shares listed on the Hong Kong Stock Exchange GEM Board (Stock code: 8395) and a director of Millennial Lithium Corp., a company with its shares listed on the TSX Venture Exchange in Canada.

JIANG Wenwu, aged 56, has been an Executive Director of the Company since April 2016. He was the deputy general manager of Jiangsu Zhongneng in 2007 and was promoted as the general manager in 2010. In 2015, Mr. Jiang was further promoted as senior vice president (solar business) of the Company. In 2017, Mr. Jiang was promoted as the chairman of Jiangsu Zhongneng. He is also a director of several subsidiaries of the Company. Mr. Jiang is a senior engineer. He obtained an executive master's degree in business administration in 2014 from

Cheung Kong Graduate School of Business and a master's degree in engineering in 2003 from Liaoning Shihua University (遼寧石油化工大學), the PRC. Mr. Jiang is responsible for the operation and management of the business of polysilicon materials.

ZHENG Xiongjiu, aged 51, has been an Executive Director of the Company since April 2016. He was the general manager of the Company's two wafer plants in 2010. Since 2013, Mr. Zheng has managed the wafer business of five wafer plants including the two original wafer plants. In 2015, Mr. Zheng was promoted as senior vice president (solar business) of the Company. Mr. Zheng is also a director of several subsidiaries of the Company. He graduated from Xian Jiaotong University in 1991, major in mechanical engineering. Mr. Zheng obtained a Master's degree in Business Administration from China Europe International Business School (中歐國際工商學院) in 2016. Mr. Zheng is currently responsible for the daily operation and management of the five wafer plants of the Company, the principal business of which is production and sale of wafer.

Independent Non-Executive Directors

HO Chung Tai, Raymond *SBS, MBE, S.B.St.J., JP*, aged 81, has been an Independent Non-Executive Director of the Company since September 2007. He is the chairman of the Remuneration Committee, the Strategy and Investment Committee and the Corporate Governance Committee of the Company, and also a member of the Audit Committee and the Nomination Committee of the Company. Dr. Ho has 57 years of experience in the fields of civil, structural, environmental and geotechnical engineering and direct project management of mega-size engineering projects including 47 years in Hong Kong and 10 years in the United Kingdom. As Project Director, he had direct management responsibility for the HK$3.0 billion (cost at the time) project of Electrification and Modernisation of Kowloon-Canton Railway (East Rail line) from the mid-70's till early 80's; and also as Project Director for all the government-funded infrastructure works for Shatin New Town and Tseung Kwan O New Town from early 1982 till the end of 1993, as well as professionally responsible experience in the construction of tunnels, bridges, flyovers, roads, dockyards, wharves, jetties, hospitals, hotels, incinerators, high-rise commercial/residential buildings, Ocean Park, slope, reclamation, environmental studies and environmental protection projects. Dr. Ho is currently the Honorary Chairman and Past Chairman of Guangdong Daya Bay Nuclear Power Station and Ling Ao Nuclear Power Station Nuclear Safety Consultative Committee and professional advisor to The Ombudsman of Hong Kong (Architecture, Engineering and Surveying). He also participates in the promotion of innovation and technology such as Graphene. Dr. Ho is the Chairman and Non-executive Director of SCUD Group Limited. Dr. Ho also is currently an independent non-executive director of the following listed companies in Hong Kong, namely, Deson Development International Holdings Limited, Chinlink International Holdings Limited, AP Rentals Holdings Limited and Fu Shek Financial Holdings Limited.

YIP Tai Him, aged 49, has been an Independent Non-Executive Director of the Company since March 2009. He is the chairman of the Audit Committee and the Nomination Committee and is also a member of the Remuneration Committee, the Strategy and Investment Committee and the Corporate Governance Committee of the Company. Mr. Yip is a practising accountant in Hong Kong. He is also a member of the Institute of Chartered Accountants in England and Wales and the Association of Chartered Certified Accountants in the United Kingdom. He has over 25 years of experience in accounting, auditing and financial management. Mr. Yip is currently an independent non-executive director of the following listed companies in Hong Kong, namely, Shentong Robot Education Group Company Limited and Redco Properties Group Limited.

SHEN Wenzhong, aged 51, Dr. Shen has been an Independent Non-Executive Director of the Company since July 2015. He is a member of the Audit Committee and the Strategy and Investment Committee of the Company. Dr. Shen has been a Professor and PhD Supervisor in the School of Physics and Astronomy, Shanghai Jiao Tong University since 1999 as well as a Changjiang Chair Professor of Shanghai Jiao Tong University since 2000. He became the Director of the Solar Power Research Institute of Shanghai Jiao Tong University since 2007. Dr. Shen has participated in various science and technology research programmes in the PRC, published scientific papers in international journals and books on photovoltaic subjects. He graduated from the Shanghai Institute of Technical Physics, Chinese Academy of Sciences with a doctorate degree in 1995. During the period from 1996–1999, he joined Georgia State University in the U.S. as a postdoctoral fellow. Dr. Shen is currently an executive council member of China Renewable Energy Society, the honorable chairman of the Committee of Shanghai Solar Energy Society, an advisory committee member of the International Photovoltaic Science and Engineering Conference and the chief editor of an academic journal "Solar PV of China". He is an independent non-executive director of Shanghai Aerospace Automobile Electromechanical Co., Ltd. (上海航天汽車機電股份有限公司), a company with its shares listed on The Shanghai Stock Exchange, and Jolywood (Suzhou) Sunwatt Co., Ltd. (蘇州中來光伏新材股份有限公 司), a company with its shares listed on The Shenzhen Stock Exchange.

WONG Man Chung, Francis, aged 55, has been an Independent Non-Executive Director of the Company since April 2016. He is a member of the Audit Committee and the Strategy and Investment Committee of the Company. He is a Certified Public Accountant (Practising). Mr. Wong is a fellow member in respect of The Chartered Association of Certified Accountants, The Institute of Chartered Accountants in England and Wales, The Society of Chinese Accountants & Auditors and The Hong Kong Institute of Certified Public Accountants and a certified tax adviser of the Taxation Institute of Hong Kong. Previously, Mr. Wong has worked for KPMG, an international accounting firm for 6 years and the Compliance Department of Hong Kong Securities Clearing Company Limited for about 2 years. He has over 28 years of experience in auditing, taxation, corporate internal control & governance, acquisition & financial advisory, corporate restructuring & liquidation, family trust & wealth management. Mr. Wong is currently an independent non-executive director of China Oriental Group Company Limited, Digital China Holdings Limited, Wai Kee Holdings Limited, Integrated Waste Solutions Group Holdings Limited, Greenheart Group Limited, Hilong Holding Limited, Qeeka Home (Cayman) Inc., Shanghai Dongzheng Automotive Finance Co., Ltd. and Intellicentrics Global Holdings Ltd., the shares of all these companies are listed on the Main Board of the Stock Exchange of Hong Kong Limited. Mr. Wong holds a master's degree in management from Guangzhou Jinan University (廣州暨南大學), the PRC.

Senior Management

At the date of this report, the senior management of the Group comprises the above executive Directors, namely, Mr. Zhu Gongshan, Mr. Zhu Zhanjun, Mr. Zhu Yufeng, Ms. Sun Wei, Mr. Yeung Man Chung, Charles, Mr. Jiang Wenwu and Mr. Zheng Xiongjiu.

CORPORATE GOVERNANCE REPORT

The Company is dedicated to achieve and maintain a high standard of corporate governance to maximize the Company's and the stakeholders' value, with continuous review and evaluation of the various systems and procedures are carried out to ensure their effectiveness. During 2019, the Company had organised an in-house Directors' training in corporate governance for the Directors and senior management of the Company. The Strategy and Investment Committee has reviewed and assessed its responsibility to cover evaluation of significant investment and disposal proposals. Other work done in relation to corporate governance during 2019 is delineated in this report.

The Company has complied with all the code provisions as stipulated in the Corporate Governance Code (the "Code") under Appendix 14 in the Listing Rules throughout the year ended 31 December 2019 save for the deviation from the following code provisions of the Code:

Code provision E.1.2

Code provision E.1.2 stipulates that the chairman of the board should attend the annual general meeting. Mr. Zhu Gongshan, the Chairman of the Board, was unable to attend the annual general meeting of the Company held on 12 June 2019 as he had to attend certain business abroad. Mr. Zhu had invited Mr. Yeung Man Chung, Charles, an executive Director, Chief Financial Officer and Company Secretary of the Company to attend and act as the chairman of such meeting.

The Board

Board Composition

During the year, the Board comprised twelve Directors with professional background and/or extensive expertise and experience in the Group's business related industries. Mr. Ji Jun resigned as an executive director and a member of the strategy and investment committee of the Company with effect from 1 February 2019.

The Directors who served the Board during the year ended 31 December 2019 and up to the date of this report are as follows:

Executive Directors	**Gender**	**Age**	**Length of service as director**	**Ethnicity**
Zhu Gongshan *(Chairman)*	Male	62	14 years	Chinese
Zhu Zhanjun *(CEO)*	Male	50	5 years	Chinese
Zhu Yufeng	Male	38	11 years	Chinese
Sun Wei	Female	48	11 years	Chinese
Yeung Man Chung, Charles *(CFO and Company Secretary)*	Male	52	6 years	Chinese
Jiang Wenwu	Male	56	4 years	Chinese
Zheng Xiongjiu	Male	51	4 years	Chinese

Independent Non-executive Directors	Gender	Age	Length of service	Ethnicity
Ho Chung Tai, Raymond	Male	81	13 years	Chinese
Yip Tai Him	Male	49	11 years	Chinese
Shen Wenzhong	Male	51	5 years	Chinese
Wong Man Chung, Francis	Male	55	4 years	Chinese

Biographical details of the Directors are set out under the section headed "Biographical details of Directors and Senior Management" of this annual report on pages 97 to 100.

Mr. Zhu Gongshan and Mr. Zhu Yufeng are members of the Zhu Family Trust which is a controlling shareholder of the Company. Mr. Zhu Yufeng is the son of Mr. Zhu Gongshan. Ms. Sun is a vice chairman of Golden Concord Holdings Limited, a company controlled by Mr. Zhu Gongshan. Mr. Yeung Man Chung, Charles is the vice president of Golden Concord Group Limited, a company controlled by the Zhu Family Trust.

Save for the above and to the best knowledge of the Company, there is no financial, business, family or other material or relevant relationships among members of the Board and the substantial shareholders of the Company.

Each of the four INEDs has made a written confirmation to the Company of his independence with reference to the criteria and guidelines as set out in Rule 3.13 of the Listing Rules. Each Director has declared to the Company of his/her interests in any material contracts or other interest in the business of the Group or in any competing business with the Group. During the year ended 31 December 2019, the Company complied with Rules 3.10(1), 3.10(2) and 3.10A of the Listing Rules which require the minimum number of INEDs and at least one of the INEDs has appropriate professional qualifications or accounting or related financial management expertise.

Appropriate insurance to cover against liability of the Directors and officers of the Company has been arranged and renewed annually.

Board Process and Effectiveness

The Board is responsible for leading the Group's activities by determining strategic directions and business plan, exercising a number of reserved powers to oversee the operations and monitor the financial performance of the Group by determination of the annual budget, approving significant capital investment, ensuring the integrity of the Group's accounting and financial reporting system and to oversee management in the design, implementation and monitoring of the risk management and internal control systems of the Group.

The management is responsible to implement the Board's decision within the delegated authority, to make investment proposal, report their performance regularly to the Board and ensure by continuous monitoring that the Group's risk management and internal control systems are effective. Key features of Board process:

- at least four regular Board meetings will be held each year, with additional meetings to be held as and when required. All Directors will be informed of the tentative dates of the regular board meetings to be held at the beginning of each year. In 2019, there were four regular meetings and nineteen non-regular meetings held by the Board;

- in respect of regular meetings, at least 14 days' notice is given to all Directors to give them an opportunity to attend. For all other meetings, reasonable notice is given;
- proposed agenda will be given to all Directors at least 14 days prior to the regular meetings to give them an opportunity to include matters in the agenda and the board papers were sent to all Directors at least 3 days before the meetings;
- all Directors are able to access to the advice and services of the Company Secretary, management and external professionals with a view to ensuring that board procedures, all applicable rules and regulations, are followed;
- minutes of all board meetings and committee meetings have been sent to all Directors for their comments and records respectively, within a reasonable time after the meetings are held; and
- a procedure has been adopted by the Company to enable the Directors, upon reasonable request, to seek independent professional advice in appropriate circumstances, at the Company's expense.

Appointment and Re-election of Directors

The INEDs are appointed for a specific term of office for three years. All Directors, including the INEDs, are subject to retirement by rotation and eligible for re-election at annual general meetings in accordance with the Company's Articles of Association, provided that every Director shall be retired at least once every three years. At the annual general meeting held on 12 June 2019. Mr. Zhu Gongshan, Mr. Zhu Yufeng, Mr. Zheng Xiongjiu and Mr. Yip Tai Him, had been retired and re-elected as Directors at such meeting.

Nomination of Director

Where vacancies arise at the Board or whenever any qualified professionals or individuals with relevant expertise and experience is likely to be invited to join the Board, the qualifications, experience and awards (if any) of the proposed candidate(s) will be put forward to the Nomination Committee for its consideration and decision whether to make recommendation to the Board. During the year, a nomination policy has been adopted by the Company.

Responsibilities of Directors

During the year, the Directors had performed their responsibilities by attending and participating in various committees meetings, board meetings and general meetings. In order to encourage the Director's active participation in the meetings, meeting materials will be and had been dispatched to the Directors in advance of the meetings (for all regular meetings, at least three days in advance) to allow them to have the chance to read and understand the issues to be discussed at the meetings. The Company will also circulate a monthly report to the Directors to keep them up-to-date of the status and position of the Group.

At the beginning of each year, the Directors are provided with the tentative schedule of regular meetings so that they can mark their calendar as early as possible to avoid conflict of meetings. There were twenty-three Board meetings held during the year and the average attendance rate is 83%. An annual general meeting and two extraordinary general meeting were held during the year of 2019. The attendance of such meetings is shown in the table below:

Members of the Board	Number of Board meetings attended/held	Number of general meetings attended/held
Executive Directors		
Zhu Gongshan *(Chairman)*	11/23	0/3
Zhu Zhanjun	19/23	0/3
Ji Jun	1/1	N/A
Zhu Yufeng	17/23	1/3
Sun Wei	21/23	2/3
Yeung Man Chung, Charles	23/23	3/3
Jiang Wenwu	19/23	2/3
Zheng Xiongjiu	16/23	2/3
Independent Non-executive Directors		
Ho Chung Tai, Raymond	22/23	3/3
Yip Tai Him	19/23	3/3
Shen Wenzhong	23/23	3/3
Wong Man Chung, Francis	22/23	3/3

Directors' Induction and Continuous Professional Development

Upon the appointment of new Directors, a comprehensive directors' handbook, which sets out the Company's business and a summary of the applicable laws, rules and regulations and key governance issues, will be and had been provided to each newly appointed Directors. A training regarding the rules and regulations applicable to directors of listed companies to observe during their services on Board will also be provided to each of the newly appointed Directors. During the year, the Company had organised an in-house Directors' training for the Directors and the senior management of the Company to attend.

Ongoing updating the Directors and senior management of the Company on further developments and requirements of any applicable rules, regulations and laws or refreshing their knowledge and skills by providing briefings or arrangement of seminars had been adopted by the Company during the year. In addition, understanding the business and operations of the Group is also important for the Directors to discharge their responsibilities.

The Directors acknowledged the importance of updating their professional development and refreshing their knowledge and skills. The Company encouraged the Directors to participate in any seminar or forum organised by professional bodies, independent auditors, solicitors, chambers and business organisations as well as reading relevant articles. Below is a table in accordance with the records maintained by the Company indicating the Directors had received the following training in compliance with code provision A.6.5 of the Code during the year:

	Corporate Governance/ Updates on Laws, Rules & Regulations/ Accounting/Financial/Management or Other Professional Skills	
Directors	**Read Materials**	**Attend Seminars/ Briefings**
Executive Directors		
Zhu Gongshan *(Chairman)*	√	√
Zhu Zhanjun *(CEO)*	√	√
Ji Jun	N/A	N/A
Zhu Yufeng	√	√
Sun Wei	√	√
Yeung Man Chung, Charles	√	√
Jiang Wenwu	√	√
Zheng Xiongjiu	√	√
Independent Non-executive Directors		
Ho Chung Tai, Raymond	√	√
Yip Tai Him	√	√
Shen Wenzhong	√	√
Wong Man Chung, Francis	√	√

Chairman and Chief Executive Officer

Mr. Zhu Gongshan had been the Chairman of the Board since September 2009, and since 1 April 2016, Mr. Zhu Zhanjun was appointed as CEO of the Company. The primary responsibilities of the Chairman are to provide leadership to the Board in setting corporate goals of the Company, overseeing the performance and effectiveness of the Board, ensuring the compliance of rules and regulations and taking a lead to ensure that the Board acts in the best interest of the Company and shareholders as a whole. In particular, the Chairman should ensure that Board meetings are effectively conducted, including all Directors to receive timely, adequate, accurate, complete and reliable information. The Chairman also takes the primary responsibility for ensuring that good corporate governance practices and procedures are established.

The primary responsibilities of the Chief Executive Officer of the Company are to provide leadership for the management of the Company, taking a lead to implement the Company's business strategies and oversee the performance of the management in achieving corporate goals.

The Chairman will meet with the non-executive Directors to discuss openly with them of any issues concerning the Company, without the presence of the executive Directors. During the year, a meeting had been held among the Chairman and the INEDs.

Delegation by the Board

The Board delegates certain responsibilities to various committees which are discussed below. Each of these committees has its respective terms of reference, all of them are posted on the Stock Exchange's and the Company's websites.

Accountability and Audit

The Directors acknowledge their responsibility for preparing the financial statements for each financial year, which give a true and fair view of the state of affairs of the Group and of the profits and cash flows of the Group in accordance with International Financial Reporting Standards, disclosure requirements of the Hong Kong Companies Ordinance and the Listing Rules. In preparing the financial statements for the year ended 31 December 2019, the Directors have selected suitable accounting policies and applied them consistently; made judgements and estimates which are reasonable and have prepared the financial statements on a going concern basis. The Directors are responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position, results of operations, cash flows and changes in equity of the Group. The Independent Auditor's Report relating to their reporting responsibilities on the financial statements of the Company is set out on pages 160 and 161 of this annual report.

Audit Committee

The Audit Committee comprises four INEDs, namely Mr. Yip Tai Him, Ir. Dr. Ho Chung Tai, Raymond, Dr. Shen Wenzhong and Mr. Wong Man Chung, Francis. Mr. Yip Tai Him, who is a practicing accountant in Hong Kong and a member of the Institute of Chartered Accountants in England and Wales and the Association of Chartered Certified Accountants in the United Kingdom, possesses extensive accounting experience and serves as the chairman of the committee.

The terms of reference of the Audit Committee, which has been updated on 4 January 2016, setting out the operation, authorities and responsibilities of the committee is available on the websites of the Company and the Stock Exchange. The major responsibilities of the Audit Committee includes:

- monitoring integrity of the financial statements, annual report and interim report;
- monitoring and assessing the risk management and internal control systems (including the adequacy of resources, qualifications and experience of accounting and financial reporting staff);
- discussing the risk management and internal control systems with management to ensure that management has performed its duty to have effective systems;
- considering any major investigation findings on risk management and internal control matters as delegated by the Board or on its own initiative and management's response to these findings;
- monitoring the independence of an external auditor;

- monitoring and assessing the performance of the external auditor, proposing to the Board the appointment or removal of the external auditor, and facilitating the communication between external auditor and internal audit function;
- reviewing any material queries raised by the external auditor to management about accounting records, financial accounts or systems of control, management's response and the Board's timely response; and
- acting as key representative body for overseeing the Company's relations with the external auditor.

Three Audit Committee meetings were held in 2019 and the attendance is set out in the following table:

Members of Audit Committee	**Number of meetings attended/eligible to attend**
Yip Tai Him *(Chairman)*	3/3
Ho Chung Tai, Raymond	3/3
Shen Wenzhong	3/3
Wong Man Chung, Francis (appointed on 30 November 2018)	3/3

The following work was performed by the Audit Committee during the year ended 31 December 2019 and up to the date of this report:

i. reviewed and approved the audit fees;
ii. assessed the independence of the external auditors;
iii. approved the scope of audit for the year ended 31 December 2019;
iv. reviewed the reports from Deloitte Touche Tohmatsu ("Deloitte") for the interim and year end of 2019;
v. reviewed the 2019 audited financial statements and the results announcement (including the unaudited financial statements and the results announcement for the 1st half of 2019);
vi. reviewed the report on the continuing connected transactions for the financial year ended 31 December 2019;
vii. reviewed the interim and year end internal audit reports and concluded that the Group has effective risk management and internal control systems and the qualifications and experience of the Company's accounting staff and resources for financial reporting function are adequate;
viii. reviewed the corporate governance review report (including the compliance status of provisions in relation to risk management and internal audit under Appendix 14 of the Listing Rules) prepared by Protiviti Shanghai Co., Limited and reported to the Board of its conclusion and recommendation;
ix. recommended the election of the proposed external auditors at the forthcoming annual general meeting; and
x. reviewed and approved certain non-audit services provided by Deloitte.

The Audit Committee monitors the audit and non-audit services rendered to the Group by its external auditors and ensures that their engagement in other non-audit services will not impair their audit independence.

For the year ended 31 December 2019, the total remuneration in respect of services provided by Deloitte is analysed as follows:

Nature of Service	**Fees** (RMB'000)
Audit services	
— 2019 Annual audit	13,833
Non-audit services	
— 2019 Interim review	4,632
— Others	7,015

Risk Management and Internal Controls

Assisted by the Corporate Governance Committee and the Audit Committee, the Board monitors the risk management and internal control systems of the Company and its subsidiaries on an ongoing basis. The risk management and internal control systems (the "Systems") implemented by the Board, management and relevant parties aims to manage rather than eliminate risks of failure to achieve the following objectives, and to only provide reasonable, but not absolute, assurance against material misstatement or loss:

- efficiency and effectiveness of operation
- reliability of financial reporting
- compliance with applicable laws and regulations
- effectiveness of risk management

Members of the Board and the management of the Company actively engage in the risks assessment of the Company and the review of its response measures and conduct discussion with respect to major issues.

The Company has an internal control department in place to be responsible for the implementation of risk management and internal control policies. In performing its responsibilities, the internal control department must organise and coordinate management to identify and assess the risks exposed to the Company for the Board's consideration and motivate the management to design, implement and manage a suitable internal control and risk management system to facilitate policies adopted by the Board. In addition to the internal control department, all employees are accountable for the risk management and internal control under each of their scope of responsibilities.

Systems Overview

Each business units of the Company adopts the risk management and internal control structure of the Company during the ordinary course of business. The risk management portion within the structure provides clear and effective management procedures for each business units to identify and review risks and set risk priorities for the purpose of resource allocation and corresponding risk management. The management can also has a clear understanding of the significant risks exposed to the Company through such System and make and implement decisions accordingly, enabling its business to achieve a better performance. Further, the internal control portion within the structure offers a clear guideline to each business units by clarifying the internal control objective of each key line of business and conducting regular review of the effectiveness of control activities adopted for the purpose of control.

Systems Structure and Communication Mechanism

The Board of the Company has established the Audit Committee, which is currently comprised of 4 independent non-executive directors. Members of the Audit Committee have extensive experiences in the industry and ensure their full independence. The Company has established and published the Terms of Reference for the Audit Committee, which expressly specifies the authorities and responsibilities of the Audit Committee, in accordance with the Listing Rules.

Business units established under the headquarter of the Company include polysilicon unit, ingot unit and wafer unit. The internal control department is responsible for the overall management of internal control and risk management works within both of the headquarter and each business units thereunder. Each business units (including direct subsidiaries) has established its own legal and internal control department for the conducting of specific internal control and risk management works.

For the purpose of continuous monitoring of risk management and internal controls by the Board and management, the Company has established various communication channels, ensuring that information are communicated and implemented in a timely and accurate manner, and providing the Board with relevant confirmation from management:

- The internal control department collects risk information monthly. Each business unit shall complete a form regarding progress made in risk controls on a monthly basis and submit it to the internal control department for preparation of monthly risk report, and remind the management of such matters like significant risk warning; and
- The internal control department reports regularly to the management, the Audit Committee and the Board with respect to risk management and internal controls, ensuring the Board having known sufficient information for the fulfillment of continuous supervision responsibility.

Review Procedure for Systems Effectiveness

The Audit Committee of the Company, on behalf of the Board, makes a comprehensive assessment of the effectiveness of risk management and internal control system at least semi-annually. The Audit Committee has strictly implemented the supervision function of risk management and internal control during the year in the following specific procedures:

- to discuss the risk management and internal control systems with management to ensure that management has performed its duty to have effective internal control and risk management systems; discussion shall include whether the resources of the Company in accounting and financial reporting functions, qualification and experience of employees, employee training and relevant budget is sufficient or not;
- to consider major investigation findings on risk management and internal control matters on its own initiative or as delegated by the Board and research on management's response to these findings;
- to ensure coordination between the internal and external auditors, and also ensure the internal audit function entitles sufficient resource and proper place inside the Company, and review and supervise its effectiveness;
- to report to the Board in relation to matters regarding code provision C.3 of the Code.

Three meetings were held by the Audit Committee during the year, mainly discussing on the work processes of risk controls, follow-up of corporate governance and external audit, as well as reviewing the internal control reports in relation to corporate governance and risk management scope.

It is the responsibility of the management of the Company to implement risk management and internal control systems on an on-going basis and report the implementation position at least semi-annually to the Audit Committee and the Board. Management has primarily conducted the following works in relation to risk management and internal control during the year:

- The Company has established a unified risk framework and complete risk pool, and carried out internal risk examination and risk assessments on a regular basis;
- The Company carried out activities in response to major risks, and has analyzed and formulated strategic, operational, financial, and technological responses to the recent changes in the policies of the PV industry in mainland China;
- The Company has carried out quantitative risk management regularly with the aim of optimising quantitative risk measurement indexes to support the risk assessment and risk monitoring procedures;
- The Company has commenced internal control assessment through quantitative self-inspection of business units, combined with the qualitative evaluation of the internal control department, continuously monitored the operation of the internal control system;
- The Company has established risk-oriented internal audit, effectively carried out the annual audit in accordance with the annual audit plan, and regularly communicated with, and reported to, the management and the Audit Committee about significant audit findings.

Significant Risks and Management Program

In the middle of the year and at the end of the year, the Company has identified risk updates, performed overall risk assessment, reviewed risk changes and selected significant risks which need constant attention. During the year, part of the measures adopted by the Group in relation to significant risks are set forth below:

- To cope with potential market competition in the photovoltaic industry, the Company continuously engaged in the strategic transformation of its products, focusing on the adjustment and optimization of the industry structure;
- To cope with the capital risk brought by factors such as the macro economy, relevant departments of the Company actively keep track of the latest policies, obtain financial assistance and closely monitor expenses; and
- To cope with the sales risks brought by market demand and fluctuations on the price of products, the Company continuously strengthen its measures on cost reduction in relation to the launch of new products to the market, optimize customer base, identify key customers and expand to overseas markets.

Inside Information Internal Control

An inside information committee has been set up since November 2012, which is currently comprises four executive Directors. The committee's principal function is to determine whether any confidential information arises from time to time is inside information or not. If the committee recognizes that the information constitutes inside information, it will report to the Board and recommend timely disclosure of such information pursuant to the relevant provisions under the Securities and Futures Ordinance and the Listing Rules. A monthly report of potential inside information, which if further develops, may become inside information will be provided to the committee for continuous monitoring. A policy of inside information has been provided to the senior managers of the Group. They are encouraged to report any incidence or information they believe as inside information when performing their duties to their senior managers or the committee directly.

Apart from the aforesaid and based on the efforts devoted by the Group, external reviews carried out by external advisor, the auditor's report from Deloitte, the Audit Committee and the management had concluded that there is neither material irregularities nor areas of material concerns that would have the significant adverse impact on the Company's financial position or results of operations, and that the risk management and internal control systems are adequate and effective and the Company's staff and resources for the accounting, internal audit and financial reporting functions are adequate. The above conclusion has been reported and confirmed to the Board, and the Board is of the view that the risk management and internal control systems of the Group are effective.

Remuneration of Directors and Senior Management

Remuneration Committee

The Remuneration Committee comprises two INEDs and one executive Director, namely Ir. Dr. Ho Chung Tai, Raymond (chairman of the committee), Mr. Yip Tai Him and Mr. Zhu Yufeng. The Board resolved to adopt that the Remuneration Committee has the duty to determine, with delegated responsibility, the remuneration packages of individual executive Directors and senior management. A copy of the terms of reference setting out the operation, authorities and responsibilities of the Remuneration Committee is available at the Company's and the Stock Exchange's websites.

The primary responsibilities of the Remuneration Committee include:

- determining, with delegated responsibility, the remuneration packages of individual executive Directors and senior management;
- making remuneration recommendations of non-executive Directors to the Board;
- recommending the remuneration policy and structure for all Directors and senior management to the Board for approval; and
- reviewing and approving the compensation arrangement to executive Directors and senior management for any loss or termination of officer appointment to ensure that it is consistent with contractual terms and is fair and not excessive.

A meeting was held by the Remuneration Committee during the year 2019 and the attendance is set out in the following table:

Members of Remuneration Committee	**Number of meetings attended/held**
Ho Chung Tai, Raymond *(Chairman)*	1/1
Yip Tai Him	1/1
Zhu Yufeng	1/1

The Remuneration Committee had performed the following work during the year ended 31 December 2019 and up to the date of this report:

i. reviewed and recommended the Board on the remuneration policy of the executive Directors and senior management of the Company;
ii. reviewed, considered and approved the remuneration package of the existing executive Directors; and
iii. approved the adjustment of remuneration of the executive Directors.

Other Committee

Strategy and Investment Committee

During the year, the Strategic and Investment Committee comprised eight members, four INEDs (Ir. Dr. Ho Chung Tai, Raymond (who is also the chairman of the committee), Mr. Yip Tai Him, Dr. Shen Wenzhong and Mr. Wong Man Chung, Francis) and four executive Directors (Mr. Zhu Gongshan, Mr. Zhu Zhanjun, Mr. Ji Jun and Mr. Yeung Man Chung, Charles). Mr. Ji Jun resigned as a member of the Strategic and Investment Committee on 1 February 2019. A copy of the terms of reference setting out the operation, authorities and responsibilities of such committee is available at the Company's and the Stock Exchange's websites.

The primary responsibilities of the Strategy and Investment Committee include:

- reviewing long-term strategic development plans;
- reviewing the annual performance of the Company and assessing implementation and progress of the long term strategic development plans;
- reviewing and recommending to the Board on opportunities of upgrading the facilities, expansion, mergers and acquisitions;
- reviewing and recommending to the Board with regard to the political, social and economic development in the PRC affecting or potentially affecting the business activities of the Group;
- reviewing and monitoring the relationship of the Company with its key strategic joint-venture partners or the relationship building with these partners; and
- reviewing, evaluation and recommendation to the Board of any significant investment and disposal proposals.

A meeting was held by the Strategy and Investment Committee during the year 2019 and the attendance is set out in the following table:

Members of Strategy and Investment Committee	**Number of meetings attended/held**
Ho Chung Tai, Raymond	1/1
Zhu Gongshan	1/1
Zhu Zhanjun	1/1
Ji Jun	N/A
Yeung Man Chung, Charles	1/1
Yip Tai Him	1/1
Shen Wenzhong	1/1
Wong Man Chung, Francis	0/1

The Strategy and Investment Committee had carried out the following work during the year:

- Reviewed the long-term strategic development plan of the Group; and
- Reviewed certain investment proposals and reported to the Board of its conclusion.

Subsequent to the year ended 31 December 2019 and up to the date of this report, Mr. Ji Jun resigned as a member of the strategy and investment committee of the Company with effect from 1 February 2019.

Nomination Committee

The Nomination Committee comprises two INEDs, namely Mr. Yip Tai Him (chairman of the committee) and Ir. Dr. Ho Chung Tai, Raymond, and an executive Director, namely Mr. Yeung Man Chung, Charles. A copy of the terms of reference setting out the operation, authorities and responsibilities of the Nomination Committee is available at the Company's and the Stock Exchange's websites.

The duties of the Nomination Committee include reviewing the structure, size and composition of the Board at least annually and make recommendations on any proposed changes to the Board, identifying and making recommendations to the Board on the selection of individual nominated for directorships, assessing the independence of INEDs, and making recommendations to the Board on the appointment or re-appointment of Directors and succession planning for Directors.

A meeting was held by the Nomination Committee during the year 2019 and up to the date of this report, the attendance is set out in the following table:

Members of Nomination Committee	Number of meetings attended/held
Yip Tai Him	1/1
Ho Chung Tai, Raymond	1/1
Yeung Man Chung, Charles	1/1

During the meeting, the committee had reviewed, assessed or made recommendations to the Board (where suitable) on (i) the independence of the INEDs against the criteria and guidelines as set out in Rule 3.13 of the Listing Rules and concluded that all INEDs had complied with the criteria; (ii) the composition of the existing Board members with reference to their age, sex, experience, qualification and expertise against the business scope of the Company and (iii) succession plan.

Nomination policy

The Company adopted a nomination policy (the "Nomination Policy") and board diversity policy ("Board Diversity Policy") with effect from 1 January 2019. A summary of the Nomination Policy is set out as follows:

1. Selection Criteria

The factors listed below would be used as reference by the Nomination Committee in assessing the suitability of a proposed candidate:

- Reputation for integrity
- Accomplishment and experience relevant in the principal activities of the group or photovoltaic and related industry
- Commitment in respect of available time and relevant interest
- Diversity in all its aspects, including but not limited to gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service

These factors are for reference only, and not meant to be exhaustive and decisive. The Nomination Committee has the discretion to nominate any person, as it considers appropriate.

2. Nomination Procedures

1 The Secretary of the Nomination Committee shall call a meeting of the Nomination Committee, and invite nominations of candidates from Board members if any, for consideration by the Nomination Committee prior to its meeting. The Nomination Committee may also put forward candidates who are not nominated by Board members.

2 For filling a casual vacancy, the Nomination Committee shall make recommendations for the Board's consideration and approval.

3 Until the issue of the Members' circular, the nominated persons shall not assume that they have been proposed by the Board to stand for election at the general meeting.

Board Diversity Policy

With a view to achieving a sustainable and balanced development, the Company sees increasing diversity at the Board level as an essential element in supporting the attainment of its strategic objectives and its sustainable development. In designing the Board's composition, Board diversity has been considered from a number of aspects, including but not limited to gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service. All Board appointments will be based on meritocracy, and candidates will be considered against objective criteria, having due regard for the benefits of diversity on the Board.

A summary of the board diversity policy is set out as follows:

Selection of candidates will be based on a range of diversity perspectives, including but not limited to gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service. The ultimate decision will be based on merit and contribution that the selected candidates will bring to the Board. The Board's composition (including gender, ethnicity, age, length of service) will be disclosed in the Corporate Governance Report annually.

The Nomination Committee will review this Policy, as appropriate, to ensure the effectiveness of this Policy. The Nomination Committee will discuss any revisions that may be required, and recommend any such revisions to the Board for consideration and approval.

Corporate Governance Committee

The Corporate Governance Committee comprises two INEDs, namely Ir. Dr. Ho Chung Tai, Raymond (chairman of the committee), Mr. Yip Tai Him and an executive Director, namely Mr. Yeung Man Chung, Charles. A copy of the terms of reference setting out the operation, authorities and responsibilities of the Corporate Governance Committee is available at the Company's website.

The duties of the Corporate Governance Committee includes:

i. developing and reviewing the Company's policies and practices on corporate governance and make recommendations to the Board;
ii. reviewing and monitoring the training and continuous professional development of Directors and senior management;
iii. reviewing and monitoring the Company's policies and practices on compliance with legal and regulatory requirements;
iv. developing, reviewing and monitoring the code of conduct applicable to employees and Directors; and
v. reviewing the Company's compliance with the Code and disclosure in the Corporate Governance Report.

Two meetings were held by the committee during the year 2019 and up to the date of this report, the attendance is set out in the following table:

Members of Corporate Governance Committee	Number of meetings attended/held
Ho Chung Tai, Raymond	2/2
Yip Tai Him	2/2
Yeung Man Chung, Charles	2/2

The committee had reviewed and evaluated the effectiveness of (i) the performance of certain policies and practices adopted by the Company, including the whistle-blowing policy, the inside information policy and discloseable transaction policy and connected transaction policy; and (ii) the Board committees, including the Audit Committee, Remuneration Committee, Nomination Committee and Strategy and Investment Committee; (iii) the policy in relation to the training and continuous professional development of Directors and senior management; (iv) the constitution, authority and responsibilities of the Strategy and Investment Committee which mainly deals with the investment proposals and make recommendations to the Board; and (v) the report on whistle-blowing policy. The committee concluded the adopted policies are effective.

Dividend Policy

The Company has adopted a dividend policy (the "Dividend Policy"). The Board would consider the following factors before declaring or recommending dividend to the Shareholders from time to time:-

(a) financial results of the Company;

(b) Shareholders' interests;

(c) general business conditions, strategies and future expansion needs;

(d) the Company's capital requirements;

(e) the payment of cash dividends to the Company from its subsidiaries;

(f) possible effects on liquidity and financial position of the Company; and

(g) the amount of profit can be distributed under applicable accounting standards and other factors that the Board may deem relevant and appropriate.

Any dividend declared by the Company shall be conducted in accordance with the Cayman Islands Companies Law, the Memorandum and Articles of the Company and other applicable laws and regulations, and shall not affect the normal operation of the Company and its subsidiaries.

The Board will review the Dividend Policy, as appropriate, which will include an assessment of the effectiveness of the Dividend Policy and approve any amendments thereto if necessary.

Compliance with Model Code

The Board has adopted the model code with terms no less exacting than the required standard as set out in Appendix 10 of the Listing Rules as its own model code of conduct regarding Directors' securities transactions (the "Model Code"). Having made specific enquiry of all Directors, all Directors confirmed that they have complied with the required standard of dealings as set out in the Model Code throughout the year ended 31 December 2019.

Investor Relations and Communication with Shareholders

The Board recognizes the importance of communication with shareholders and has adhered to its established communication policy. The general communication policy includes timely dispatch full and accurate information to shareholders and investment public by announcement, financial reports and circulars through the website of the Stock Exchange and the Company's website; maintain dialogue with shareholders by disclosing the way of communication to the Board and in relation to share registration matters, the contact of the share registrar in Hong Kong; and by convening the general meetings (if any) and annual general meeting. On 12 June 2019, the Company convened an annual general meeting. At the meeting, the Directors, members and/or chairman of the Board committees had attended and answer questions raised by the shareholders.

Directors and our Investor Relations team also communicated from time to time with analysts, fund managers, institutional shareholders and media while keeping the stringent standard of not disclosing inside information to any selective group. The Directors, executives together with our Investor Relations team held/participated in meetings, presentations and conference with them. Details of investor relations activities were further described under the section headed "Major Investor Relations Activities" of this report.

There is no change in the Company's Memorandum and Articles of Association during the year. A copy of the Memorandum and Articles of Association is available at the websites of the Stock Exchange and the Company.

Shareholders' Rights

Procedures for members to convene extraordinary general meeting ("EGM")

The following procedures are subject to the Company's Articles of Association and applicable legislation and regulation.

1. Pursuant to Article 58 of the Articles of Association of the Company, any one or more members of the Company holding at the date of deposit of the requisition not less than one-tenth of the paid up capital of the Company carrying the right of voting at general meetings of the Company shall at all times have the right, by written requisition to the Board or the Company Secretary, to require an EGM to be called by the Board for the transaction of any business specified in such requisition; and such meeting shall be held within two months after the deposit of such requisition. If within twenty-one days of such deposit the Board fails to proceed to convene such meeting, the requisitionist(s) himself (themselves) may do so in the same manner, and all reasonable expenses incurred by the requisitionist(s) as a result of the failure of the Board shall be reimbursed to the requisitionist(s) by the Company.

2. The requisitionist(s) shall deposit his/their requisition together with the proposals to be considered at such meeting at the principal place of business of the Company at Unit 1703B-1706, Level 17, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong or at any address notified by the Company from time to time and for the attention of the Chairman of the Board and the Company Secretary.

3. If the requisition is in order, the Company Secretary will ask the Board to convene an EGM by serving sufficient notice in accordance with the requirements under the Articles of Association to all the registered members. On the contrary, if the requisition is invalid, the members concerned will be advised of this outcome and accordingly, an EGM will not be convened as requested.

4. The notice period to be given to all the registered members for consideration of the proposal raised by the member(s) concerned at an EGM varies according to the nature of the proposal, as follows:

   — at least twenty-one (21) clear days' notice in writing if the proposal constitutes a special resolution of the Company, which cannot be amended other than to a mere clerical amendment to correct a patent error; and

   — at least fourteen (14) clear days' and not less than ten (10) clear business days' notice in writing if the proposal constitutes an ordinary resolution of the Company.

Members who have enquiries about the above procedures may write to the Company Secretary at Unit 1703B—1706, Level 17, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong or at any address notified by the Company from time to time.

Procedures for a Member to Propose a Person for Election as a Director

The following procedures are subject to the Company's Articles of Association and applicable legislation and regulation.

1. If a member, who is duly qualified to attend and vote at the general meeting convened to deal with appointment/election of director(s), wishes to propose a person (other than the member himself/herself) for election as a director at that meeting, he/she can deposit a written notice at the Company's principal office at Unit 1703B-1706, Level 17, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong, or at any address notified by the Company from time to time for the attention of the Company Secretary of the Company.

2. In order for the Company to inform all members of that proposal, the written notice must state the full name of the person proposed for election as a director, his/her biographical details as required by Rule 13.51(2) of the Listing Rules, and be signed by the member concerned and that person indicating his/her willingness to be elected.

3. The period for lodgment of such a written notice will commence on the day after the despatch of the notice of the general meeting and end no later than seven (7) clear days prior to the date of such general meeting. If the notice is received less than fifteen (15) business days prior to that general meeting (twenty (20) business days in case of annual general meeting), the Company will need to consider adjournment of the general meeting in order to (i) assess the suitability of the proposed candidate; and (ii) publish an announcement or circulate a supplementary circular in relation to the proposal to the members at least fourteen (14) clear days and not less than ten (10) business days prior to the general meeting (twenty (20) business days in case of annual general meeting).

Members who have enquiries about the above procedures may write to the Company Secretary at Unit 1703B—1706, Level 17, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong or at any address notified by the Company from time to time.

Enquiries to the Board

No procedure set in the Articles of Association of the Company is available for any member to put forward an enquiry to the Board. A member may, of course, at any time write to the board of directors of the Company at the Company's principal office at Unit 1703B-1706, Level 17, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong or at any address notified by the Company from time to time. In relation to share registration matters in Hong Kong, a member shall contact the branch share registrar in Hong Kong, namely Tricor Investor Services Limited at Level 54, Hopewell Centre, 183 Queen's Road East, Hong Kong.

REPORT OF THE DIRECTORS

The directors of the Company (the "Directors" or the "Board") submit their report together with the audited consolidated financial statements of GCL-Poly Energy Holdings Limited (the "Company") and its subsidiaries (collectively the "Group") for the year ended 31 December 2019.

Principal Activities

The principal activities of the Group during the year 2019 are principally engaged in the manufacturing and sale of polysilicon and wafers products, and developing, owning and operation of solar farms.

The particulars of the Group's principal subsidiaries, interests in associates and interests in joint ventures are set out in notes 57, note 19 and 20 of the consolidated financial statements, respectively.

Business Review

The Group's revenue is derived principally from the sales of polysilicon, wafer and electricity, which is primarily conducted in the PRC. An analysis of the Group's performance for the year by operating segment is set out in note 6 to the consolidated financial statements.

A fair review of the Group's business, including the important events affecting the Group that have occurred since the end of 2019 and the likely future developments of the Group's business, is set out in the Chairman's Statement, CEO's Review of Operations and Outlook, and the Management Discussion and Analysis sections on pages 12 to 41 of this report. Potential risks and uncertainties were reviewed and assessed by the Board, which was set out in the Corporate Governance Report under the Risk Management and Internal Controls section on pages 108 to page 111. Details about the Group's financial risk management are set out in note 45b to the consolidated financial statements.

There was no incidence of non-compliance with the relevant laws and regulations in relation to the operations that have a significant impact on the Group's business.

A description of the Group's environmental policies and performance, compliance with relevant laws and regulations and relationships with major stakeholders are set out on pages 45 and 96 of this report, details of which will be included in the environmental, social and governance report to be published by the Company.

Results and Appropriations

The results of the Group for the year ended 31 December 2019 are set out in the consolidated statement of profit or loss and other comprehensive income from pages 162 to 163. The Directors do not recommend the payment of any final dividend for the year ended 31 December 2019 (2018: nil).

Financial Summary

A summary of the consolidated results and of the assets and liabilities of the Group for the last five financial years is set out on pages 2 to 3.

Property, Plant and Equipment

Movements in the property, plant and equipment of the Group during the year are set out in note 15 to the consolidated financial statements.

Share Capital

Details of movements in the issued share capital of the Company during the year are set out in note 41 to the consolidated financial statements.

Distributable Reserves

The distributable reserves of the Company as at 31 December 2019 amounted to RMB24,272.3 million (2018: RMB27,730.2 million).

Movements in the reserves of the Group during the year are set out in the consolidated statement of changes in equity.

Bank and Other Borrowings

Particulars of the Group's bank and other borrowings are set out in note 36 to the consolidated financial statements.

Donations

Donations by the Group for charitable and other purposes as at 31 December 2019 amounted to RMB307,000 (2018: RMB5.9 million).

Equity-linked Agreements

Save for the share option schemes, the share award scheme and the US subsidiary's equity incentive plan described below with details of movements set out in note 51 to the consolidated financial statements, no equity-linked agreements were entered into by the Group during the year ended 31 December 2019, or subsisted at the end of the year 2019.

Directors

The directors of the Company during the year and up to the date of this report are:

Executive Directors

Mr. Zhu Gongshan *(Chairman)*
Mr. Zhu Zhanjun *(Chief Executive Officer)*
Mr. Zhu Yufeng
Ms. Sun Wei
Mr. Yeung Man Chung, Charles *(Chief Financial Officer and Company Secretary)*
Mr. Jiang Wenwu
Mr. Zheng Xiongjiu
Mr. Ji Jun (resigned on 1 February 2019)

Independent Non-executive Directors

Ir. Dr. Ho Chung Tai, Raymond
Mr. Yip Tai Him
Dr. Shen Wenzhong
Mr. Wong Man Chung, Francis

In accordance with Articles 87(1) and (2) of the Articles of Association of the Company, Mr. Zhu Zhanjun, Ms. Sun Wei, Mr. Yeung Man Chung, Charles and Dr. Shen Wenzhong will retire at the forthcoming annual general meeting and, being eligible, offer themselves for re-election.

The Company has received from each of its independent non-executive Directors an annual confirmation of his independence pursuant to Rule 3.13 of the Listing Rules. The Company has assessed their independence and considers that all the independent non-executive directors are independent in accordance with guidelines set out in the Listing Rules.

Directors' Services Contracts

Each of the non-executive directors has entered into a service contract with the Company for a fixed term of three years and will be terminated by not less than three months' notice in writing served by either party on the other. Upon the expiry of the notice period, the appointment will be terminated.

No Director proposed for re-election at the forthcoming annual general meeting has entered into any service agreements with any member of the Group which is not determinable within one year without payment of compensation, other than statutory compensation.

Directors' Interest in Contracts

Save as disclosed under the section headed "Connected Transactions and Continuing Connected Transactions" in this report of the Directors, no Director had a material interest, either directly or indirectly, in any contract of significance to the business of the Group to which the Company or any of its subsidiaries was a party, and which subsisted at the end of the year or at any time during the year.

Permitted Indemnity Provision

Subject to the applicable laws, every Directors, Company Secretary and other officers of the Company shall be indemnified out of the assets and profits of the Company against all actions, costs, charges, losses, damages and expenses incurred by him or her in the execution of his or her duties or in relation thereto pursuant to the Company's Articles of Associations, provided that this indemnity shall not extend to any matter in respect of any fraud or dishonesty which may attach to any of said persons. Such provisions were in force during the course of the financial year ended 31 December 2019 and remained in force as of the date of this report.

Directors' and Chief Executive's Interests and Short Positions in Shares, Underlying Shares and Debentures of the Company and Associated Company

As at 31 December 2019, the Directors and chief executive of the Company had the following interests and short positions in the shares, underlying shares and debentures of the Company or any of its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (the "SFO"), which were required (a) to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which they are taken or deemed to have under such provisions of the SFO); or (b) to be and were entered into the register required to be kept by the Company pursuant to Section 352 of the SFO; or (c) as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (the "Model Code") of the Listing Rules:

(A) Long position in the shares and underlying shares of the Company:

	Number of ordinary shares held					
Name of Director/ chief executive	Beneficiary of a trust	Corporate interests	Personal/ Family interests	Number of underlying Shares held	Total	Approximate percentage of issued share capital (note 3)
Zhu Gongshan	6,370,388,156 (note 1)	—	—	—	6,370,388,156	32.11%
Zhu Zhanjun	—	—	3,400,000	2,719,359 (note 2)	6,119,359	0.03%
Zhu Yufeng	6,370,388,156 (note 1)	—	—	1,510,755 (note 2)	6,371,898,911	32.11%
Sun Wei	—	—	5,723,000	1,712,189 (note 2)	7,435,189	0.04%
Yeung Man Chung, Charles	—	—	—	1,700,000 (note 2)	1,700,000	0.01%
Jiang Wenwu	—	—	9,600,000	1,712,189 (note 2)	11,312,189	0.06%
Zheng Xiongjiu	—	—	250,000	2,517,924 (note 2)	2,767,924	0.01%
Ho Chung Tai, Raymond	—	—	—	1,007,170 (note 2)	1,007,170	0.01%
Yip Tai Him	—	—	—	1,007,170 (note 2)	1,007,170	0.01%

Notes:

(1) An aggregate of 6,370,388,156 shares of the Company are collectively held by Highexcel Investments Limited, Happy Genius Holdings Limited and Get Famous Investments Limited, which are wholly-owned by Golden Concord Group Limited, which in turn is wholly-owned by Asia Pacific Energy Holdings Limited. Asia Pacific Energy Holdings Limited is in turn wholly-owned by Asia Pacific Energy Fund Limited. Asia Pacific Energy Fund Limited is ultimately held under a discretionary trust with Credit Suisse Trust Limited as trustee and Mr. Zhu Gongshan and his family (including Mr. Zhu Yufeng, a Director and the son of Mr. Zhu Gongshan) as beneficiaries.

(2) These are share options granted by the Company to the Directors, pursuant to the share option scheme adopted by the shareholders of the Company on 22 October 2007. Such granted share options can be exercised by the Directors at various intervals during the period from 15 March 2016 to 28 March 2026 at an exercise price of HK$1.160 or HK$1.324.

(3) The total number of ordinary shares of the Company in issue as at 31 December 2019 is 19,841,049,207.

(B) Long position in the shares and underlying shares of the Company's associated corporation, namely GCL New Energy Holdings Limited ("GNE"), in which the Company indirectly holds approximately 62.28% issued shares:

	Number of ordinary shares of GNE held					
Name of Director/ chief executive	**Beneficiary of a trust**	**Corporate interests**	**Personal interests**	**Number of underlying shares held**	**Total**	**Approximate percentage of issued share capital of GNE (note 3)**
Zhu Gongshan	1,905,978,301 (Note 1)	—	—	—	1,905,978,301	9.99%
Zhu Yufeng	1,905,978,301 (Note 1)	—	—	3,523,100 (Note 2)	1,909,501,401	10.01%
Sun Wei	—	—	—	27,178,200 (Note 2)	27,178,200	0.14%
Yeung Man Chung, Charles	—	—	—	15,099,000 (Note 2)	15,099,000	0.08%

Notes:

1. 1,905,978,301 shares in GNE are beneficially owned by Dongsheng Photovoltaic Technology (Hong Kong) Limited ("Dongsheng PV"). Dongsheng PV is indirectly wholly-owned by GCL System Integration Technology Co., Ltd. and an aggregate of over 40% of the issued shares in GCL System Integration, is indirectly held by the Zhu Family Trust and Mr. Zhu Yufeng, an executive director of the Company and GNE and son of Mr. Zhu Gongshan.

2. These are share options granted by GNE. Such granted share options can be exercised by Mr. Zhu Yufeng at the interval between 24 July 2015 and 23 July 2025 at an exercise price of HK$0.606 per share of GNE and by Ms. Sun Wei and Mr. Yeung Man Chung, Charles at the interval between 24 November 2014 and 23 July 2025 at an exercise price of HK$1.1798 or HK$0.606 per share of GNE.

3. The total number of ordinary shares of GNE in issue as at 31 December 2019 is 19,073,715,441.

Save as disclosed above, as at 31 December 2019, none of the Directors and chief executive of the Company had any interests or short positions in the shares, underlying shares or debentures of the Company or any of its associated corporations (within the meaning of Part XV of the SFO) which were required (a) to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests and short positions which they are taken or deemed to have under such provisions of the SFO); or (b) to be and were entered into the register that was required to be kept under Section 352 of the SFO; or (c) as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code.

Option Schemes

Share option scheme of the Company

The Company adopted a share option scheme (the "Share Option Scheme") on 22 October 2007 which became effective on 13 November 2007. The purpose of the Share Option Scheme is to motivate personnel to optimize their future contributions to the Group and/or to reward them for their past contributions, to attract and retain or otherwise maintain on-going relationships with such personnel who are significant to and/or whose contributions are or will be beneficial to the performance, growth or success of the Group, and additionally in the case of executives of the Company, to enable the Group to attract and retain individuals with experience and ability and/or to reward them for their past contributions. The Share Option Scheme shall be valid and effective for a period of 10 years from 22 October 2007, after which no further options will be granted or offered but the provisions of the Share Option Scheme shall remain in full force and effect to the extent necessary to give effect to the exercise of any subsisting options granted prior to the expiry of the 10-year period or otherwise as may be required in accordance with the provisions of the Share Option Scheme.

At an extraordinary general meeting of the Company held on 26 November 2015, the shareholders of the Company approved the refreshment of the existing limit to an aggregate number of shares of the Company which may be allotted and issued pursuant to the exercise of options granted under the Share Option Scheme and any other share option scheme of the Company not exceeding 200,000,000 shares of the Company.

During the year, no share options was granted, a total of 26,776,150 share options were lapsed, the outstanding share option under the Scheme Option Scheme as at 31 December 2019 is 137,546,290.

Details of the share options outstanding and movements under the Share Option Scheme of the Company during the year are as follows:

				Number of options					
Name or category of participant	Date of grant (note 1)	Exercise period	Exercise Price per share (HK$)	Outstanding as at 1.1.2019	Granted during the year	Lapsed or forfeited during the year	Cancelled during the year	Exercised during the year	Outstanding as at 31.12.2019
Directors/chief executive and their associates									
Zhu Yufeng	16.2.2009	1.4.2009 to 15.2.2019	0.586	1,007,170	—	(1,007,170)	—	—	0
	29.3.2016	18.4.2016 to 28.3.2026	1.324	1,510,755	—	—	—	—	1,510,755
Sun Wei	16.2.2009	1.4.2009 to 15.2.2019	0.586	1,510,755	—	(1,510,755)	—	—	0
	19.2.2016	15.3.2016 to 18.2.2026	1.16	1,712,189	—	—	—	—	1,712,189
Zhu Zhanjun	29.3.2016	18.4.2016 to 28.3.2026	1.324	2,719,359	—	—	—	—	2,719,359
Yeung Man Chung, Charles	29.3.2016	18.4.2016 to 28.3.2026	1.324	1,700,000	—	—	—	—	1,700,000
Jiang Wenwu	19.2.2016	15.3.2016 to 18.2.2026	1.16	1,712,189	—	—	—	—	1,712,189
Zheng Xiongjiu	19.2.2016	15.3.2016 to 18.2.2026	1.16	2,517,924	—	—	—	—	2,517,924
Yip Tai Him	29.3.2016	18.4.2016 to 28.3.2026	1.324	1,007,170	—	—	—	—	1,007,170
Ho Chung Tai, Raymond	29.3.2016	18.4.2016 to 28.3.2026	1.324	1,007,170	—	—	—	—	1,007,170
Zhu Qingsong (associate of Mr. Zhu Gongshan and an employee of the Group)	29.3.2016	18.4.2016 to 28.3.2026	1.324	1,007,170	—	—	—	—	1,007,170
Non-director employees (in aggregate)	16.2.2009	1.4.2009 to 15.2.2019	0.586	6,669,228 (note 2)	—	(6,569,228) (note 2)	—	(100,000)	0
	24.4.2009	1.5.2009 to 23.4.2019	1.046	807,750	—	(807,750)	—	—	0
	12.1.2011	1.3.2011 to 11.1.2021	3.296	5,035,850	—	—	—	—	5,035,850
	15.7.2011	1.9.2011 to 14.7.2021	4.071	6,093,378	—	(1,258,963)	—	—	4,834,415
	5.7.2013	16.9.2013 to 4.7.2023	1.630	20,752,738	—	(5,398,430)	—	—	15,354,308
	24.3.2014	26.5.2014 to 23.3.2024	2.867	21,352,004	—	—	—	—	21,352,004
	19.2.2016	15.3.2016 to 18.2.2026	1.16	83,278,131	—	(10,223,854)	—	—	73,054,277
	29.3.2016	18.4.2016 to 28.3.2026	1.324	3,021,510 (note 2)	—	—	—	—	3,021,510
Total				**164,422,440**		**(26,776,150)**		**(100,000)**	**137,546,290**

Notes: 1) The vesting period under the Share Option Scheme is 20% of the share options granted on the year of grant, the first, second, third and fourth anniversary of the date of grant, respectively. All share options granted will be fully vested on the fourth anniversary of the date of grant.

2) Mr. Ji Jun resigned as an executive director with effect from 1 February 2019 but he retains the position as a consultant of the Company. Upon resignation as an executive director, his entirement of 1,510,755 share options and 705,019 share options granted on 16 February 2009 and 29 March 2016, respectively, were transferred from those held by directors to employee accordingly.

(A) Share option scheme of a subsidiary

GCL New Energy Holdings Limited ("GNE"), a company incorporated in Bermuda with limited liability and the shares of which are listed on the Main Board of The Stock Exchange of Hong Kong Limited (stock code: 451), in which the Company indirectly owned 62.28% issued shares as at 31 December 2019, is a subsidiary of the Company.

GNE adopted a share option scheme (the "GNE Share Option Scheme") on 15 October 2014 for the purpose to motivate personnel to optimise their future contributions to GNE and its subsidiaries ("GNE Group") and/or to reward them for their past contributions, to attract and retain or otherwise maintain on-going relationships with such personnel who are significant to and/or whose contributions are or will be beneficial to the performance, growth or success of the GNE Group, and additionally in the case of executives of GNE, to enable GNE Group to attract and retain individuals with experience and ability and/or to reward them for their past contributions.

The GNE Share Option Scheme shall be valid and effective for a period of 10 years from 15 October 2014, after which no further options will be granted or offered. The total number of shares issued and to be issued upon exercise of the options granted to each eligible person (including both exercised and outstanding options) in any 12-month period must not exceed 1% of the shares of GNE in issue from time to time. Any offer of grant of options shall remain open for acceptance together with an acceptance remittance of HK$1.00 to be received by GNE shall not be more than 30 days from the date of offer. The exercise price of any options granted shall not be less than whichever is the highest of:

(a) the nominal value of the share of GNE;

(b) the closing price of a share of GNE as stated in the Stock Exchange's daily quotations sheet on the date of offer; and

(c) the average closing price of a share of GNE as stated in the Stock Exchange's daily quotation sheets for the five business days immediately preceding the date of offer.

During the year, no share options was granted, exercised nor cancelled under the GNE Share Option Scheme, and 41,773,900 share options were lapsed.

Details of the outstanding and movements of share options under the GNE Share Option Scheme during the year are as follows:

				Number of options				
Name or category of participant	Date of grant	Exercise period	Exercise Price per share (HK$)	Outstanding as at 1.1.2019	Granted during the year	Lapsed or forfeited during the year	Exercised during the year	Outstanding as at 31.12.2019
Directors/chief executive								
Zhu Yufeng	24.7.2015	24.7.2015 to 23.7.2025	0.606	3,523,100	—	—	—	3,523,100
Sun Wei	23.10.2014	24.11.2014 to 22.10.2024	1.1798	24,158,400	—	—	—	24,158,400
	24.7.2015	24.7.2015 to 23.7.2025	0.606	3,019,800	—	—	—	3,019,800
Yeung Man Chung, Charles	23.10.2014	24.11.2014 to 22.10.2024	1.1798	12,079,200	—	—	—	12,079,200
	24.7.2015	24.7.2015 to 23.7.2025	0.606	3,019,800	—	—	—	3,019,800
Directors of GNE and eligible persons of GNE	23.10.2014	24.11.2014 to 22.10.2024	1.1798	253,220,296	—	(16,145,864)	—	237,074,432
	24.7.2015	24.7.2015 to 23.7.2025	0.606	250,814,522	—	(25,628,036)	—	255,186,486
Total				**549,835,118**		**(41,773,900)**		**508,061,218**

Please refer to the 2019 annual report of GNE under the section "Report of Directors" with the heading "Share Option Schemes" for the details of the GNE Share Option Scheme and the movements of options granted thereunder during the year.

Share Award Scheme

The Company has adopted a share award scheme (the "Share Award Scheme") on 16 January 2017 (the "Adoption Date"), pursuant to which existing shares of the Company ("Shares") may be purchased by the trustee from the market out of cash contributed by the Group and/or the Company may allot and issue new Shares to Computershare Hong Kong Trustees Limited (the "Trustee") in accordance with any specific mandate approved by the shareholders. Such Shares would be used to grant to certain eligible persons who are employees of the Company and its subsidiaries. The purpose of the Share Award Scheme is to effectively attract, retain and incentivise core employees of the Group and align their interests and growth with the Group as a whole.

The Share Award Scheme shall be subject to the administration of the Board, a committee (comprising Executive Director, Independent Non-executive Directors and senior executive) and the Trustee in accordance with the Share Award Scheme rules and the trust deed.

The maximum number of Shares that can be held by the Trustee under the Share Award Scheme is limited to 2% of the total number of issued Shares from time to time.

Save as disclosed above, during the year, neither the Company nor any of its subsidiaries is a party to any arrangement to enable the Directors of the Company to acquire benefits by means of the acquisition of shares in, or debt securities of, the Company or any associated corporation and none of the Directors had any right to subscribe for the securities of the Company, or had exercised any such right during the year.

US Subsidiary's Equity Incentive Plan

The Company's US subsidiary, GCL Solar Materials US II, LLC ("GCL US II"), has adopted an equity plan on 31 March 2017 ("Plan Date") pursuant to a resolution passed on the same date to grant non-voting Class B Units ("Class B Units") which will expire on the later of (i) the sixth anniversary of the Plan Date, or (ii) such date that all Class B Units outstanding are fully vested, settled, lapsed, forfeited or cancelled (as the case may be) (the "US Equity Incentive Plan"). The purpose of the US Equity Incentive Plan is to, through the grant of Class B Units to certain eligible persons, effectively attract, retain and incentivise the core employees and align their interests with the growth of GCL US II as a whole.

Under the US Equity Incentive Plan, the board of directors of GCL US II may grant Class B Units of GCL US II to eligible persons. The aggregate number of Class B Units granted shall not exceed 10% of the fully diluted equity of GCL US II.

The Class B Units granted will be vested in full in three years with one-third to be vested on each of the first, the second and the third anniversary of the Plan Date, respectively.

No Class B Unit has been issued to Directors of the Company.

Further details of the US Equity Incentive Plan are set out in note 51a(III) to the consolidated financial statements for the year ended 31 December 2019.

Interests and Short Positions of Substantial Shareholders

As at 31 December 2019, so far as is known to any Director or chief executive of the Company, the following persons (other than a Director or chief executive of the Company) had an interest or short position in the shares or underlying shares of the Company as recorded in the register kept pursuant to Section 336 of the SFO:

(i) Long position in the shares and underlying shares of the Company

Name	Note	**Capacity/nature of interest**	**Number of shares/ underlying shares**	**Approximate percentage of issued share capital of the Company**
Asia Pacific Energy Fund Limited	1	Interest in a controlled corporation	6,370,388,156	32.11%

Notes:

1. An aggregate of 6,370,388,156 shares of the Company are collectively held by Highexcel Investments Limited, Happy Genius Holdings Limited and Get Famous Investments Limited, which are wholly-owned by Golden Concord Group Limited, which in turn is wholly-owned by Asia Pacific Energy Holdings Limited. Asia Pacific Energy Holdings Limited is in turn wholly-owned by Asia Pacific Energy Fund Limited. Asia Pacific Energy Fund Limited is ultimately held under a discretionary trust with Credit Suisse Trust Limited as trustee for Mr. Zhu Gongshan and his family (including Mr. Zhu Yufeng, a Director and the son of Mr. Zhu Gongshan) as beneficiaries.

2. The total number of ordinary shares of the Company in issue as at 31 December 2019 is 19,841,049,207.

Save as disclosed aforesaid, so far as is known to any Directors or chief executive of the Company, as at 31 December 2019, no other persons (other than a Director or chief executive of the Company) who had an interest or short position in the shares or underlying shares of the Company as recorded in the register kept pursuant to Section 336 of the SFO.

Director's Interest in Significant Contracts

Save as disclosed in the heading "Connected Transactions and Continuing Connected Transactions", there is no transaction, arrangement or contract of significance subsisting during or at the end of the year in which a director of the Company is or was materially interested, either directly or indirectly.

Connected Transactions & Continuing Connected Transactions

The INEDs of the Company, have reviewed and considered the report from internal auditors in respect of the internal audit procedures taken and findings on the continuing connected transactions, confirmed that the continuing connected transactions for the year ended 31 December 2019 and that they were entered into:

i. in the ordinary course of the business of the Group;

ii. on normal commercial terms or better; and

iii. in accordance with the relevant written agreements governing them on terms that are fair and reasonable and in the interests of the shareholders of the Company as a whole.

Pursuant to Rule 14A.56 of the Listing Rules, the Company has engaged the auditor of the Company to conduct certain procedures in respect of the continuing connected transactions of the Group in accordance with the Hong Kong Standard on Assurance Engagement 3000 (Revised) "Assurance Engagement Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants.

The auditor has confirmed to the Board in writing that for the year ended 31 December 2019, the continuing connected transactions, which were entered into:

a. have received the approval of the Board;

b. have been in accordance with the pricing policies of the Company for transactions involving the provision of goods or services;

c. have been in accordance with the relevant agreement governing such transactions; and

d. have not exceeded the relevant announced cap amounts for the financial year ended 31 December 2019.

Details of the connected transactions and continuing connected transactions of the Company for the year ended 31 December 2019 that are subject to reporting and annual review requirements under the Listing Rules are as follows:

(A) Connected Transactions

The following is summary of transaction which was disclosed in the announcement of the Company during the year ended 31 December 2019:

Supplemental Loan agreement with GNE Development

Reference is made to the Company's announcement dated 19 April 2018 in relation to the Loan Agreement entered into between the Company as lender and GNE Development (an indirect wholly-own subsidiary of GNE) as borrower; pursuant to which the Company agreed to advance a loan in the principal amount of US$110,000,000 to GNE Development.

On 18 February 2019, the Company and GNE Development entered into the Supplemental Loan Agreement, pursuant to which parties agreed to extend the repayment date for part of the principal amount under the Loan Agreement, being US$70,000,000 from 19 February 2019 to 18 November 2019. The interest rate shall be 8% per annum, calculated based on the actual number of days passed with a year being considered to have 360 days. GNE Development shall make a one-off payment of the principal and the interest on the revised maturity, Date (ie. 18 November 2019).

On 18 February 2019, Mr. Zhu and Mr. Zhu Yufeng are both Directors and therefore connected persons of the Company. Mr. Zhu Yufeng and the Zhu Family Trust, hold approximately 22.12% and 28.09% of the issued shares in GCL System Integration, respectively. GCL System Integration is a substantial shareholder holding 10.01% of GNE. Mr. Zhu and Mr. Zhu Yufeng together can control the exercise of 10% or more of the voting power at GNE's general meetings. GNE and its subsidiaries are therefore connected subsidiaries of the Company and the transaction contemplated under the Loan Agreement constitutes a connected transaction of the Company under Chapter 14A of the Listing Rules.

An announcement of the Company dated 18 February 2019 setting out details of the above-mentioned transaction was issued.

The above-mentioned connected transaction was one-off transaction.

(B) Continuing Connected Transactions

Details of the continuing connected transactions of the Company for the year ended 31 December 2019 are as follows:

(1) Steam supply

(i) The Group entered into the following agreements dated 30 June 2017:

Reference is made to the announcement of the Company dated 30 June 2017 in relation to (A) the supply of steam by Taicang Power to Taicang GCL; and (B) the supply of steam by Yangzhou Power to Yangzhou GCL after the expiry of the Existing Yangzhou Steam Supply Agreement on 9 June 2017.

Steam Supply Agreements

(A) Taicang GCL and Taicang Power entered into the Taicang Steam Supply Agreement dated 30 June 2017 in relation to the supply of steam by Taicang Power to Taicang GCL.

Steam is required by Taicang GCL for production of wafer products purpose.

On 30 June 2017, Zhu Family Trust holds 72% equity interests in Taicang Power therefore Taicang Power is an associate of Mr. Zhu and a connected person of the Company. Accordingly, the transaction contemplated under the Taicang Steam Supply Agreement constitutes a continuing connected transaction for the Company under Chapter 14A of the Listing Rules.

The transaction amounts and the annual caps for the year ended 31 December 2019 under the Taicang Steam Supply Agreement was as follows:

Agreement	**Transaction amount for the year ended 31 December 2019** (RMB)	**Annual Cap for the year ended 31 December 2019** (RMB)
Taicang Steam Supply Agreement	0	5,583,000

(B) Reference is also made to the announcement dated 25 April 2018, in relation to, among other things, the New Yangzhou Steam Supply Agreement and the Supplemental Agreement.

On 30 June 2017, Yangzhou GCL and Yangzhou Power entered into the New Yangzhou Steam Supply Agreement dated 30 June 2017 in relation to the supply of steam by Yangzhou Power to Yangzhou GCL after the expiry of the Existing Yangzhou Steam Supply Agreement on 9 June 2017.

On 25 April 2018, Yangzhou GCL and Yangzhou Power entered into the Supplemental Agreement to, among other things, revise the annual caps for the continuing connected transactions under the New Yangzhou Steam Supply Agreement from RMB3,740,000, RMB3,930,000 and RMB1,720,000 to RMB7,993,000, RMB10,719,000 and RMB5,309,000 for the year ending 31 December 2018, the year ending 31 December 2019 and the five months ending 31 May 2020 respectively.

Steam is required by Yangzhou GCL for production of wafer and black-silicon products purpose.

On 25 April 2018, Zhu Family Trust effectively holds 40.8% equity interests indirectly in Yangzhou Power, therefore Yangzhou Power is an associate of Mr. Zhu and a connected person of the Company. Accordingly, the transaction contemplated under the Supplemental Agreement constitutes a continuing connected transaction for the Company under Chapter 14A of the Listing Rules.

The transaction amounts and the revised annual caps for the year ended 31 December 2019 under the New Yangzhou Steam Supply Agreement (as supplemented by the Supplemental Agreement) was as follows:

Agreement	**Transaction amount for the year ended 31 December 2019** (RMB)	**(Revised) Annual Cap for the year ended 31 December 2019** (RMB)
New Yangzhou Steam Supply Agreement (as supplemented by Supplemental Agreement)	5,698,591	10,719,000

Announcements of the Company dated 30 June 2017 and 25 April 2018 (for the Supplemental Agreement) setting out details of the above-mentioned transactions were issued.

(ii) Reference is made to the announcement dated 19 September 2018 in relation to the supply of steam by Xinjiang Guoxin.

Xinjiang Guoxin Steam Supply Agreement

Xinjiang GCL entered into the Xinjiang Guoxin Steam Supply Agreement dated 19 September 2018 with Xinjiang Guoxin.

Xinjiang Guoxin agreed to supply, and Xinjiang GCL agreed to purchase, steam for industrial use with pressure of more than 1.0 Mpa and temperature at 200ºC to 230ºC for the period commencing from 19 September 2018 and ending on 31 August 2021 in relation to the Xinjiang Project.

The agreed steam supply price under the Xinjiang Guoxin Steam Supply Agreement will be RMB57.60 per tonne if 2.2 million to 3 million tonnes of steam is consumed by Xinjiang GCL per year and shall be payable monthly in arrears based on the amount of steam supplied by Xinjiang Guoxin in the relevant month.

The agreed steam supply price is based on the coal price of RMB89.00 per tonne. The agreed steam supply price is adjustable once every year. Subject to the Xinjiang Guoxin steam supply annual cap, if, in any one-year period, the average market coal price has changed for more than RMB6.00 per tonne, the agreed steam supply price will be adjusted for RMB1.00 per tonne for every RMB6.00 change in coal price.

Steam is required by Xinjiang GCL for the production of polysilicon products.

On 19 September 2018, the Zhu Family Trust is the ultimate controlling shareholder of the Company and a connected person. Xinjiang Guoxin was a subsidiary of the Zhu Family Trust and therefore is an associate of the Zhu Family Trust and connected person of the Company. Accordingly, the transaction contemplated under the Xinjiang Guoxin Steam Supply Agreement dated 19 September 2018 constitutes a continuing connected transaction for the Company under Chapter 14A of the Listing Rules.

The transaction amounts and the annual caps for the year ended 31 December 2019 under the Xinjiang Guoxin Steam Supply Agreement was as follows:

Agreement	**Transaction amount for the year ended 31 December 2019** (RMB)	**Annual Cap for the year ended 31 December 2019** (RMB)
Xinjiang Guoxin Steam Supply Agreement	29,148,587	138,240,000

An announcement of the Company dated 19 September 2018 setting out details of the above-mentioned transaction was issued.

(2) Raw water and Desalted Water Supply

Reference is made to the announcement of the Company dated 19 September 2018 in relation to the Raw Water and Desalted Water Supply Agreement with Xinjiang Guoxin in relation to the supply of raw water and desalted water by Xinjiang Guoxin.

On 19 September 2018, Xinjiang GCL, a subsidiary of the Company, entered into the Xinjiang Guoxin Raw Water and Desalted Water Supply Agreement with Xinjiang Guoxin in relation to the supply of raw water and desalted water by Xinjiang Guoxin.

Xinjiang Guoxin agreed to supply, and Xinjiang GCL agreed to purchase, raw water and desalted water for the period commencing from 19 September 2018 and ending on 31 August 2021 in relation to the Xinjiang Project.

The agreed raw water supply price is RMB10.82 per tonne and the agreed desalted water supply price is RMB24.20 per tonne under the Xinjiang Guoxin Raw Water and Desalted Water Supply Agreement, and shall be payable monthly in arrears based on the amount of raw water and desalted water supplied by Xinjiang Guoxin in the relevant month.

The agreed raw water supply price and desalted water supply price are based on the untreated water price of RMB6.49 per tonne, and are adjustable in accordance with the change in the untreated water price demanded by the relevant supplier.

Raw water and desalted water are required by Xinjiang GCL for the production of polysilicon products.

On 19 September 2018, the Zhu Family Trust is the ultimate controlling shareholder of the Company and a connected person. Xinjiang Guoxin is a subsidiary of the Zhu Family Trust and therefore is an associate of the Zhu Family Trust and connected person of the Company. Accordingly, the transaction contemplated under the Xinjiang Guoxin Raw Water and Desalted Water Supply Agreement constitutes a continuing connected transaction for the Company under Chapter 14A of the Listing Rules.

The transaction amounts and the annual caps for the year ended 31 December 2019 under the Xinjiang Guoxin Raw Water and Desalted Water Supply Agreement was as follows:

Agreement	**Transaction amount for the year ended 31 December 2019** (RMB)	**Annual Cap for the year ended 31 December 2019** (RMB)
Xinjiang Guoxin Raw Water and Desalted Water Supply Agreement	15,212,779	52,728,000

An announcement of the Company dated 19 September 2018 setting out details of the above-mentioned transaction was issued.

(3) Coal Supply

Reference is made to the announcement of the Company dated in relation to the New Coal Supply Framework Agreement dated 6 January 2017.

Due to the surging coal price in the PRC, Jiangsu Zhongneng and Suzhou GCL entered into the New Coal Supply Framework Agreement on 6 January 2017, pursuant to which Suzhou GCL agreed to supply coal to Jiangsu Zhongneng for a period of three years commencing from 1 January 2017. Upon the New Coal Supply Framework Agreement becoming effective, the Existing Coal Supply Framework Agreement will be terminated and superseded by the New Coal Supply Framework Agreement.

Coal is required by Jiangsu Zhongneng for the generation of electricity by its captive power plant, which has been in operation since July 2015. The entering into of the New Coal Supply Framework Agreement will enable Jiangsu Zhongneng to procure a supplier of coal with steady supply and quality, and take the advantage of bulk purchase discount which may be available to Suzhou GCL as it also procures coal for its own group of power plants.

As at the date of the New Coal Supply Framework Agreement, 72% of the equity interest in Suzhou GCL is held by the Zhu Family Trust. As Mr. Zhu and Mr. Zhu Yufeng are both Directors and therefore connected persons of the Company and Suzhou GCL is an associate of them, Suzhou GCL is a connected person of the Company. Accordingly, the transaction contemplated under the New Coal Supply Framework Agreement constitute continuing connected transactions for the Company under Chapter 14A of the Listing Rules.

The transaction amounts and the annual caps for the year ended 31 December 2019 under the New Coal Supply Framework Agreement was as follows:

Agreement	**Transaction amount for the year ended 31 December 2019** (RMB)	**Annual Cap for the year ended 31 December 2019** (RMB)
New Coal Supply Framework Agreement	15,848,374	1,200,000,000

An announcement of the Company dated 6 January 2017 setting out details of the above-mentioned transaction was issued.

(4) Staff Training Services

Reference is made to the announcement on 19 June 2017 in relation to the Staff Training Agreement dated 19 June 2017 relating to GCL-Poly Suzhou New Energy entered into the Staff Training Agreement with Suzhou Xin Zhi Hai.

Under the Staff Training Agreement, Suzhou Xin Zhi Hai provides customised training services for the employees of the Group from 16 June 2017 to 31 May 2020, including:

- standardised training module designed for the entire Group;
- customised training modules targeting specific employees;
- implementation and management of training programs; and
- development of a system to maintain employee training records.

Reference is also made to the announcement of GNE dated 25 May 2017, in which GNE Investment entered into an agreement with Suzhou Xin Zhi Hai, pursuant to which Suzhou Xin Zhi Hai provides customized training services to the employees of the GNE Group from 1 June 2017 to 31 May 2020 ("Previous Agreement") by subscription of the e-learning platform at a cost of RMB730 per employee annually.

Other than the subscription to the E-learning Platform, GCL-Poly Suzhou or GCL New Energy Investment can also coordinate with Suzhou Xin Zhi Hai to arrange for other customised training programs (協鑫大學培訓服務) at additional costs agreed between themselves. GCL-Poly Suzhou or GCL New Energy Investment shall pay the annual subscription fee for the e-learning platform in the first quarter every year. Fees of other training provided by Suzhou Xin Zhi Hai shall be paid under separate arrangements.

The Company believes that it is important to the success of the Group that its staff receives continued professional development and training.

On 19 June 2017, Suzhou Xin Zhi Hai is a subsidiary of Golden Concord, which owns approximately 34.27% of the issued shares in the Company. Further, Golden Concord is held by the Zhu Family Trust. Accordingly, Suzhou Xin Zhi Hai is a connected person of the Company. As a result, the entering into of the Staff Training Agreement with Suzhou Xin Zhi Hai constitutes a continuing connected transaction of the Company under Chapter 14A of the Listing Rules.

The transaction amounts and the annual caps for the year ended 31 December 2019 under the Previous Agreement and the Staff Training Agreement were as follows:

Agreement	**Transaction amount for the year ended 31 December 2019** (RMB)	**Annual Cap for the year ended 31 December 2019** (RMB)
Previous Agreement	2,422,531	8,586,602
Staff Training Agreement	3,397,724	7,802,000

An announcement of the Company dated 19 June 2017 setting out details of the above-mentioned transactions was issued.

(5) Lease of property

(i) Reference is made to the announcement of the Company dated 29 September 2017 and 27 September 2019 in relation to the lease agreements.

Suzhou GCL Research, entered into the following lease agreements as landlord, dated 29 September 2017 and 27 September 2019:

1. the GCL Intelligent Energy Lease Agreement with GCL Intelligent Energy as tenant in relation to the leasing of 3/F Headquarter for use as offices for a term of two years commencing from 1 October 2017 to 30 September 2019;

2. the Jiangsu Jiarun Lease Agreement with Jiangsu Jiarun as tenant in relation to the leasing of 2/F NE Zone Research Building for use as offices for a term of two years commencing from 1 October 2017 to 30 September 2019; and

3. the GCL Energy Technology Lease Agreement with GCL Energy Technology as tenant of 3/F Headquarter for use as offices for a term of two years commencing from 1 October 2019 to 30 September 2021.

3/F Headquarter and 2/F NE Zone Research Building are spare space in the property of the Group. The leasing of such spare space could bring additional rental income to the Group.

On 29 September 2017, GCL Intelligent Energy is an indirectly owned subsidiary of Golden Concord Group Limited, which is in turn ultimately held by Zhu Family Trust. Jiangsu Jiarun is ultimately wholly-owned by Mr. Zhu Yufeng. As both GCL Intelligent Energy and Jiangsu Jiarun are associates of Mr. Zhu and Mr. Zhu Yufeng, respectively, they are connected persons of the Company within the meaning of the Listing Rules. Therefore, the transactions under the GCL Intelligent Energy Lease Agreement and Jiangsu Jiarun Leasing Agreements constitute continuing connected transactions of the Company under Chapter 14A of the Listing Rules.

On 27 September 2019, GCL Energy Technology is an indirect subsidiary of Golden Concord Group Limited, which is in turn ultimately held by Zhu Family Trust, and is therefore an associate of the Zhu Family Trust and a connected person of the Company. Accordingly, the transactions under the GCL Energy Technology Lease Agreement constitutes a continuing connected transaction of the Company under Chapter 14A of the Listing Rules.

The transaction amounts and the annual caps for the year ended 31 December 2019 under the GCL Intelligent Energy Lease Agreement, the Jiangsu Jiarun Lease Agreement and GCL Energy Technology Lease Agreement were as follows:

Agreement	Transaction amount for the year ended 31 December 2019 (RMB)	Annual Cap for the year ended 31 December 2019 (RMB)
GCL Intelligent Energy Lease Agreement	13,713,503	13,713,503
Jiangsu Jiarun Lease Agreement	3,335,378	3,335,378
GCL Energy Technology Lease Agreement	4,571,167.5	4,571,167.5

Announcements of the Company dated 29 September 2017 and 27 September 2019 setting out details of the above-mentioned transactions was issued.

(ii) Reference is made to the announcement on 27 December 2017 in relation to the lease agreements dated 29 September 2017.

(1) GNE Investment, as tenant, and Suzhou GCL Research, as landlord entered into the First Lease Agreement in relation to the lease of a commercial property for a two years term from 1 October 2017 to 30 September 2019; and

(2) GCL Electric, as tenant, and Suzhou GCL Research, as landlord entered into the Second Lease Agreement in relation to the lease of a commercial property for a two years term from 1 October 2017 to 30 September 2019.

The leasing of spare space could maximize the Group's resources and increase efficiency.

Further references are made to the joint announcements of the Company and GNE dated 24 November 2017 and 12 December 2017 in relation to the Acquisitions. As disclosed in the announcement dated 12 December 2017, the separate conditional sale and purchase agreements ("SPAs") dated 11 December 2017 entered into by Dongsheng PV, with the respective Vendors in relation to the sale and purchase of approximately 10.01% of the total issued shares of GNE would only become effective if certain conditions set out therein were fulfilled by 22 December 2017.

All conditions set out in the SPAs were fulfilled upon which the SPAs became effective. While completion of the Acquisitions is expected to take place in early 2018, pursuant to the SPAs, the voting rights of the Subject Shares at general meeting of GNE were vested in Dongsheng PV on 27 December 2017.

On 27 December 2017, approximately 22.40% and 28.19% of the issued shares in GCL System Integration, the holding company of Dongsheng PV, is held by the Zhu Family Trust and Mr. Zhu Yufeng, respectively. As GCL System Integration is a connected person of the Company at the Company level, GNE and its subsidiaries have become connected subsidiaries of the Company pursuant to Chapter 14A of the Listing Rules.

The transaction amounts and the annual caps for the year ended 31 December 2019 under the First Lease Agreement and the Second Lease Agreement were as follows:

Agreement	**Transaction amount for the year ended 31 December 2019** (RMB)	**Annual Cap for the year ended 31 December 2019** (RMB)
First Lease Agreement	17,409,735	17,409,735
Second Lease Agreement	3,233,457	3,233,457

An announcement of the Company dated 27 December 2017 setting out details of the above-mentioned transactions was issued.

(iii) Reference is made to the announcement of the Company, dated 28 February 2019 in relation to the lease agreements.

Suzhou GCL Research, entered into the following lease agreements as landlord dated 28 February 2019:

1. the GCL System Integration Lease Agreement with GCL System Integration Technology (Suzhou) as tenant in relation to the leasing of 5/F Headquarter for use as offices for a term of ten months commencing from 1 March 2019 to 31 December 2019; and

2. the GCL Energy Engineering Lease Agreement with GCL Energy Engineering as tenant in relation to the leasing of 3/F S Zone Research Building for use as offices for a term of ten months commencing from 1 March 2019 to 31 December 2019.

5/F Headquarters and 3/F S Zone Research Building are spare space in the property of the Group. The leasing of such spare space could bring additional rental income to the Group.

On 28 February 2019, GCL System Integration Technology (Suzhou) and GCL Energy Engineering are both wholly-owned subsidiaries of GCL System Integration, which is in turn ultimately controlled by Mr. Zhu Yufeng and the Zhu Family Trust, under which Mr. Zhu Gongshan and his family (including Mr. Zhu Yufeng) are beneficiaries. As Mr. Zhu Gongshan and Mr. Zhu Yufeng are both Directors and therefore connected persons of the Company and GCL System Integration is an associate of them, both GCL System Integration Technology (Suzhou) and GCL Energy Engineering are connected persons of the Company. Accordingly, the transactions under the GCL System Integration Lease Agreement and GCL Energy Engineering Lease Agreements constitute continuing connected transactions of the Company pursuant to Chapter 14A of the Listing Rules.

The transaction amounts and the annual caps for the year ended 31 December 2019 under the GCL System Integration Lease Agreement and the GCL Energy Engineering Lease Agreement were as follows:

Agreements	**Transaction amounts for the year ended 31 December 2019** (RMB)	**Annual Caps for the year ended 31 December 2019** (RMB)
GCL System Integration Lease Agreement	7,364,700	7,364,700
GCL Energy Engineering Lease Agreement	6,173,496	6,173,496

An announcement of the Company dated 28 February 2019 setting out details of the above -mentioned transactions was issued.

(6) Operation and Management Services

Reference is made to the announcement on 27 December 2017 in relation to the operation and management agreements between (1) GNE International, as service provider, and GCL Solar Energy as service recipient entered into the Asset Management & Administrative Services Agreement for a term of three years in relation to the provision of certain asset management and administrative services dated 19 May 2016; and (2) Suzhou GNE Operation as service provider, and Suzhou GCL- Poly, as service recipient entered into the Operation Service Agreement for a term of three years in relation to the provision of operation and management services for the power plants dated 11 July 2017.

Following the subscription of shares in GNE by the Group in 2014, the Group transferred its staff involved in the solar power plants to GNE Group as disclosed in the circular of GNE dated 31 March 2014. As the staff are familiar with the development, operation of the solar power plants of the Group, the entering into the Operation Service Agreement as well as the Asset Management & Administration Services Agreement were in the interests of the Group and also in line with the strategy of the Group.

Further reference is made to the joint announcements of the Company and GNE dated 24 November 2017 and 12 December 2017 in relation to the Acquisitions. As disclosed in the announcement dated 12 December 2017, the SPAs dated 11 December 2017 entered into by Dongsheng PV, with the respective Vendors in relation to the sale and purchase of approximately 10.01% of the total issued shares of GNE would only become effective if certain conditions set out therein were fulfilled by 22 December 2017.

All conditions set out in the SPAs were fulfilled upon which the SPAs became effective. While completion of the Acquisitions is expected to take place in early 2018, pursuant to the SPAs, the voting rights of the Subject Shares at general meeting of GNE were vested in Dongsheng PV on 27 December 2017.

On 27 December 2017, approximately 22.40% and 28.19% of the issued shares in GCL System Integration, the holding company of Dongsheng PV, is held by the Zhu Family Trust and Mr. Zhu Yufeng, respectively. As GCL System Integration is a connected person of the Company at the Company level, GNE and its subsidiaries have become connected subsidiaries of the Company pursuant to Chapter 14A of the Listing Rules.

The transactions amounts and the annual caps for the year ended 31 December 2019 under the Asset Management and Administrative Services Agreement and Operation Service Agreement were as follows:

Agreement	Transaction amount for the year ended 31 December 2019 (RMB/USD)	Annual Cap for the year ended 31 December 2019 (RMB/USD)
Asset Management and Administrative Services Agreement	USD190,860	USD4,190,860
Operation Service Agreement	RMB35,300,000	RMB35,300,000

An announcement of the Company dated 27 December 2017 setting out details of the above-mentioned transaction was issued.

(7) Energy Services

Reference is made to the announcement on 19 September 2018 in relation to the provision of electricity distribution services by Xinjiang Intelligent Energy.

On 19 September 2018, Xinjiang GCL, a subsidiary of the Company, entered into an Energy Services Agreement with Xinjiang Intelligent Energy in relation to the provision of electricity distribution services by Xinjiang Intelligent Energy.

Xinjiang GCL has engaged Xinjiang Intelligent Energy to provide electricity distribution services at Xinjiang GCL Zhundong Industrial Park for the period commencing from 19 September 2018 and ending on 31 August 2021 in relation to the Xinjiang Project.

Xinjiang Intelligent Energy agreed to install the 220kV and 10kV distribution systems (each equipped with devices such as busbar, switchgear, transformer and direct current protection unit) at the 220kV electrical substation at Xinjiang GCL Zhundong Industrial Park, and to provide electricity distribution services with the systems installed. Xinjiang GCL will be responsible for its own onsite electricity distribution facilities under 10kV.

Separately, Xinjiang GCL shall engage a power grid company (the "Power Grid Company") to provide electricity at the 220kV electrical substation in Xinjiang GCL Zhundong Industrial Park. The parties agreed that Xinjiang GCL shall be responsible for paying its electricity bill to the Power Grid Company.

The agreed energy service price under the Energy Services Agreement is fixed at approximately RMB2.83 million per month, and shall be payable monthly in arrears on the same schedule as Xinjiang GCL pays its electricity bill to the Power Grid Company.

Electricity are required by Xinjiang GCL for the production of polysilicon products.

On 19 September 2018, the Zhu Family Trust is the ultimate controlling shareholder of the Company and is therefore a connected person of the Company. Xinjiang Intelligent Energy is a subsidiary of the Zhu Family Trust and therefore is an associate of the Zhu Family Trust and a connected person of the Company. Accordingly, the transaction contemplated under the Energy Services Agreement constitutes a continuing connected transaction for the Company under Chapter 14A of the Listing Rules.

The transaction amounts and the annual cap for the years ended 31 December 2019 under Energy Services Agreement was as follow:

Agreement	**Transaction amount for the year ended 31 December 2019** (RMB)	**Annual Cap for the year ended 31 December 2019** (RMB)
Energy Services Agreement	22,300,287	34,000,000

An announcement of the Company dated 19 September 2018 setting out details of the above-mentioned transaction was issued.

Note:

* English name for identification only.

Terms expressed in the above descriptions relating to connected and continuing connected transactions have the same meanings defined in the respective announcements unless defined in the context of this report.

Loan Agreement with Covenants Relating to Specific Performance of the Controlling Shareholder

As at the date of this report, the following facility agreements contain condition imposing specific performance obligations on the controlling shareholders and breach of such obligation will cause a default in respect of loan that are significant to the operations of the Company:

On 17 August 2017, the Company, as borrower and Richmore International Development Limited, GCL Solar Energy Technology Holdings Limited and Universe Solar Energy Holdings Inc., each a wholly-owned subsidiary of the Company, as guarantors, entered into a facility agreement with various banks relating to a US$200,000,000 (which may be increased up to US$300,000,000 through the accession of additional lenders, subject to the consent of the Company) syndicated term loan facility ("Facility Agreement I"). The Facility Agreement I is scheduled to be fully repaid within 36 months after the first loan is made under it.

Under the terms of the Facility Agreement I, a "Change of Control" would occur if Mr. Zhu Gongshan (and his family) (a) is no longer the single largest shareholder of the Company, or (b) no longer has management control over the Company. A Change of Control will trigger an obligation of mandatory prepayment under the Facility Agreement I and all amounts outstanding under the Facility Agreement I to any lender would become immediately due and payable in full on demand by the agent on behalf of such lender.

On 6 December 2017, the Company, as borrower entered into a facility agreement with the Bank as lender relating to a US$200,000,000 term loan facility ("Facility Agreement II"). The Facility Agreement II is scheduled to be fully repaid approximately 36 months after the first loan is made under it.

By the terms of the Facility Agreement II, if Mr. Zhu Gongshan and his family is no longer the single largest shareholder of the Company, the Bank may by notice to the Company, immediately cancel the Facility Agreement II and declare the outstanding loans together with accrued interest and all other amounts accrued under the Facility Agreement II, and all relevant security documents, to be immediately due and payable.

Up to the date of this report, the above obligations continue to exist.

Directors' Interests in Competing Business

The following Director is considered to have interest in the business which competes or is likely compete, either directly or indirectly, with the business of the Group as required to be disclosed pursuant to the Listing Rules:

Names of Director	Name of company in which the relevant Director has interest	Principal activities of the competing company	% interest in competing company
Mr. Zhu Yufeng	錫林郭勒中能硅業有限公司 Xilingol Zhongneng Silicon Co., Ltd.* (Dormant and inactive)	Intend to produce polysilicon ingot upon completion of construction	Mr. Zhu Yufeng, through companies controlled by him, holds 70% interest

Note: * *English name for identification only*

Deed of Non-competition

Pursuant to a restated non-competition deed dated 8 November 2015 (the "Restated NCD") entered into between the Company and Mr. Zhu Gongshan, Mr. Zhu Yufeng, Highexcel Investments Limited, Happy Genius Holdings Limited and Get Famous Investments Limited (collectively the "Covenantors") and approved by the independent shareholders of the Company on 26 November 2015, each of the Covenantors had undertaken to the Company that he/it would not participate or hold interests in or be engaged in or acquire or hold any business during the restricted period set out in the Restated NCD, which is involved in the business of the Group from time to time, including the production and selling of polysilicon and wafer products, the development, owning and operation of solar power plants in the PRC or overseas (the "Restricted Business"). Nevertheless, under the Restated NCD, each Covenantor had undertaken that if he/it or any of his/its affiliates is offered or becomes aware of any new investment or business opportunity which is in competition, directly or indirectly, or may lead to direct or indirect competition with the Group in connection with the Restricted Business, he/it must first procure that such opportunity be offered to the Company on no less favourable terms, and that such Covenantor would only be allowed to take up the opportunity himself/itself if the Company has declined it (the "Right of First Refusal Arrangement").

On 30 August 2019, meetings were held by the Board to consider the acquisition opportunity of certain PV power stations from some of the customers of GCL System Integration as the settlement proposal of its accounts receivable through judicial mediation. After consideration, the Board resolved to approve GCL System Integration to acquire such PV power stations from its customers through judicial mediation.

The Covenantors have provided confirmations to the Company that they have complied with the Restated NCD.

Emolument Policy

The emolument policy of the Group to reward its employees is based on their performance, qualifications, competence and market comparables. Remuneration package generally comprises salary, contribution to pension schemes and bonuses relating to the profit of the relevant company and individual's performance. The remuneration package of the executive Directors and the senior management are also linked to the performance of the Group and the return to its shareholders. The remuneration policy of the executive Directors is reviewed by the Remuneration Committee of the Company.

The Group has adopted share option schemes as incentives to Directors, employees and eligible participants, details of the schemes are set out under the section headed "Option Schemes" in this report and in note 52 to the consolidated financial statements.

The Company has adopted a share award scheme on 16 January 2017. The purpose of such scheme is, through the grant of awards to certain eligible persons, to effectively attract, retain and incentivise core employees of the Group and align their interests and growth with the Group as a whole. Details of the scheme and the scheme rules are disclosed under an announcement of the Company dated 16 January 2017.

Pre-emptive Rights

There are no provisions for pre-emptive rights under the Company's Articles of Association or relevant laws of the Cayman Islands which would oblige the Company offer new Shares on a pro rata basis to the existing shareholders.

Major Customers and Suppliers

In 2019, the Group's largest supplier accounted for 22.68% of total purchases. The five largest suppliers accounted for 39.72% of the Group's total purchases, evidencing the purchasing department's commitment to ensuring that the Group is not dependent on any one supplier, and that our purchases are at fair market terms.

One of the five largest suppliers of the Company was Inner Mongolia Zhonghuan GCL Solar Material Co., Ltd. ("Inner Mongolia Zhonghuan"), which is indirectly held as to 30% by the Company. Mr. Zhu Gongshan and Mr. Zhu Yufeng with an interest in the Company are interested in Inner Mongolia Zhonghuan through such 30% interest of the Company.

During the year, the respective percentage of the revenue from sales of goods attributable to the Group's five largest customers combined was less than 30% of the total Group revenue.

Save as disclosed above, to the best knowledge of the Directors, there is no Directors or any of their associates or any shareholder who holds more than 5% of the ordinary shares of the Company has any interests in the suppliers or customers disclosed above.

Purchases, Sale or Redemption of the Company's Listed Securities

On 10 June 2019, the Company and placing agent entered into the placing agreement to place out 1,511,000,000 placing shares at a placing price of HK$0.45 per placing share with an aggregate value of approximately HK$680 million to no fewer than six independent placees. The placing was completed on 18 June 2019. Upon completion, the placing shares represent approximately 7.62% of the Company's issued share capital as enlarged by the placing.

Other than disclosed above, during the year ended 31 December 2019, neither the Company nor any of its subsidiaries had purchased, sold or redeemed any of the Company's listed securities.

Related Party Transactions

Details of the related party transactions undertaken in normal course of business are set out in note 55 to the consolidated financial statements. All related party transactions constituted connected transactions/continuing connected transactions under the Listing Rules and that they have complied with the disclosure requirements in accordance with chapter 14A of the Listing Rules.

Public Float

As at the date of this report, based on the information that is publicly available to the Company and within the knowledge of the Directors, there is sufficient public float of not less than 25% of the Company's issued shares as required under the Listing Rules.

Changes in Information on Directors

Changes in information since the date of the 2019 Interim Report which are required to be disclosed by the Directors of the Company pursuant to Rule 13.51(B) of the Listing Rules are set out below:

Name of Director	Details of Change	Effective Date
Dr. Ho Chung Tai, Raymond	The annual Director's fee was adjusted to HK$504,000 per annum which was approved by the Board of the Company	1 January 2020
	Appointed as an independent non-executive director of Fu Shek Financial Holdings Limited	22 January 2020
Mr. Yip Tai Him	The annual Director's fee was adjusted to HK$398,000 per annum which was approved by the Board of the Company	1 January 2020
Dr. Shen Wenzhong	The annual Director's fee was adjusted to HK$234,000 per annum which was approved by the Board of the Company	1 January 2020

Name of Director	Details of Change	Effective Date
Mr. Wong Man Chung, Francis	Resigned as an independent non-executive director of China New Higher Education Group Limited	6 December 2019
	The annual Director's fee was adjusted to HK$280,000 per annum which was approved by the Board of the Company	1 January 2020
	Appointed as an independent non-executive director of IntelliCentrics Global Holdings Ltd.	23 January 2020
	Appointed as an independent non-executive director of Shanghai Dongzheng Automotive Finance Co., Ltd.	24 January 2020

Auditor

The consolidated financial statements for the year ended 31 December 2019 have been audited by Messrs. Deloitte Touche Tohmatsu who will retire on conclusion of the forthcoming annual general meeting. A resolution for re-appointment of Messrs. Deloitte Touche Tohmatsu as auditor of the Company will be proposed at the forthcoming annual general meeting.

Events After Reporting Period

Details of the events after reporting period of the Group are set out in note 53 to the consolidated financial statements.

On behalf of the Board
Zhu Gongshan
Chairman

Hong Kong, 27 April 2020

Deloitte.

德勤

TO THE SHAREHOLDERS OF GCL-POLY ENERGY HOLDINGS LIMITED
保利協鑫能源控股有限公司
(incorporated in the Cayman Islands with limited liability)

OPINION

We have audited the consolidated financial statements of GCL-Poly Energy Holdings Limited (the "Company") and its subsidiaries (collectively referred to as the "Group") set out on pages 162 to 376, which comprise the consolidated statement of financial position as at 31 December 2019, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2019, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRS Standards") issued by the International Accounting Standards Board ("IASB") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

BASIS FOR OPINION

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

MATERIAL UNCERTAINTY RELATED TO GOING CONCERN

We draw attention to note 2 to the consolidated financial statements, which indicates that the Group's current liabilities exceeded its current assets by approximately RMB21,906 million as at 31 December 2019, a portion of which is contributed by its non-wholly owned subsidiary, GCL New Energy Holdings Limited, whose shares are listed on The Stock Exchange of Hong Kong Limited, and whose current liabilities exceeded its current assets by approximately RMB11,267 million and which has entered into agreements which will involve capital commitments of approximately RMB377 million to construct solar farms, and provided financial guarantees to several banks and financial institutions in respect of banking and other facilities of the associates and third parties. In addition, at 31 December 2019, the Group was not able to meet a financial covenant in respect of a bank borrowing in the amount of approximately RMB557 million as stipulated in the loan agreement. Further, the inability to respect the covenant requirement has triggered the cross default clauses in several other bank borrowings of the Group totalling approximately RMB5,172 million. Subsequent to the end of the reporting period, the Group has obtained consents from the relevant lenders to waive the financial covenant concerned and not to demand for immediate repayment of such bank borrowing; and accordingly, the cross default clauses on the relevant bank borrowings are remedied. Notwithstanding this, reclassification of long-term borrowings of approximately RMB2,896 million as current liabilities is still required at 31 December 2019 under applicable accounting standard because the bank waiver was obtained subsequent to the end of the reporting period.

The Company is undertaking a number of financing plans and other measures as described in note 2 to the consolidated financial statements in order to ensure it is able to meet its commitments in the next twelve months. The directors of the Company are of the opinion that based on the assumptions that these financing plans and other measures as set forth in note 2 to the consolidated financial statements can be successfully executed, the Group will have sufficient working capital to finance its operations and to pay its financial obligations as and when they fall due in the foreseeable future. However, the likelihood of successful implementation of these financing plans and other measures, including the Group's on-going compliance with its borrowing covenants, and along with other matters as set forth in note 2 to the consolidated financial statements, indicate that a material uncertainty exists that may cast significant doubt on the Company's ability to continue as a going concern. Our opinion is not modified in respect of this matter.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. In addition to the matter described in the Material Uncertainty Related to Going Concern section, we have determined the matters described below to be the key audit matters to be communicated in our report.

KEY AUDIT MATTERS (Continued)

Key audit matter	How our audit addressed the key audit matter
Impairment assessment of trade receivables of the solar material business segment	
We identified impairment assessment of trade receivables of the solar material business segment as a key audit matter due to its significance to the Group's consolidated financial position and the involvement of subjective judgement and management estimates in evaluating the expected credit losses ("ECL") of the Group's trade receivables at the end of the reporting period. As disclosed in note 25 to the consolidated financial statements, as at 31 December 2019, the Group's trade receivables amounting to approximately RMB10,891 million, net of allowance for credit losses of approximately RMB103 million, which represented approximately 11% of the total assets of the Group and out of these receivables of approximately RMB987 million were past due. Out of the Group's net trade receivables, approximately RMB7,202 million was contributed by the solar material business segment.	Our procedures in relation to the impairment assessment of trade receivables of the solar material business segment included: • Understanding the key controls on how the management estimates the ECL for trade receivables; • Testing the integrity of information used by management to develop the provision matrix, including trade receivables ageing analysis, on a sample basis, by comparing individual items in the analysis with the relevant sales agreements, sales invoices and other supporting documents;

KEY AUDIT MATTERS (Continued)

Key audit matter	How our audit addressed the key audit matter
Impairment assessment of trade receivables of the solar material business segment (Continued)	
As disclosed in note 45 to the consolidated financial statements, the management of the Group estimates the amount of lifetime ECL of trade receivables based on provision matrix through grouping of various debtors that have similar loss patterns, after considering internal credit ratings of trade debtors, ageing, repayment history and/or past due status of respective trade receivables. Estimated loss rates are based on historical observed default rates over the expected life of the debtors and are adjusted for forward-looking information. In addition, trade receivables with significant balance or credit-impaired are assessed for ECL individually. The loss allowance amount of the credit-impaired trade receivables is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows with the consideration of expected future credit losses. As disclosed in note 45b to the consolidated financial statements, the Group recognised a net impairment loss of approximately RMB48 million in respect of trade receivables of solar material business segment for the current year and the lifetime ECL on trade receivables of solar material business segment as at 31 December 2019 amounted to approximately RMB103 million.	• Challenging management's basis and judgement in assessing credit losses on trade receivables, including their identification of credit-impaired trade receivables, the reasonableness of management's grouping of the remaining trade debtors into different categories in the provision matrix, and the basis of estimated loss rates applied in each category in the provision matrix (with reference to historical default rates and forward-looking information); and • Testing subsequent settlements of credit impaired trade receivables, on a sample basis, by inspecting supporting documents in relation to cash receipt from trade debtors subsequent to the end of the current reporting period.

KEY AUDIT MATTERS (Continued)

Key audit matter	How our audit addressed the key audit matter

Impairment assessment of property, plant and equipment and intangible assets

We identified the impairment assessment of property, plant and equipment and intangible assets of CGUs within the solar material business segment as a key audit matter due to the risk that the property, plant and equipment and intangible assets of CGUs operating in the solar material business are vulnerable to the market conditions. During the year ended 31 December 2019, due to the continuing unfavourable market conditions, the polysilicon and wafer faced a stronger than expected price pressure and the solar material business segment recognised a segment loss of approximately RMB419 million during the year. With the impairment indicators identified, the carrying amounts of certain CGUs may be higher than the recoverable amounts which involve estimation uncertainty on assumptions of such recoverable amounts.

As at 31 December 2019, the carrying amount of the Group's property, plant and equipment and intangible assets of CGUs in the solar material business segment was approximately RMB14,934 million and RMB248 million, respectively. As disclosed in notes 15 and 18 to the consolidated financial statements, during the year ended 31 December 2019, the Group recognised impairment losses of approximately RMB2,074 million and RMB479 million on property, plant and equipment and intangible assets of the relevant CGUs in the solar material business segment, respectively.

When a review for impairment is conducted, the recoverable amount is determined based on higher of fair value less cost of disposal and value in use which relies on the management's assumptions and estimates of future income generation from the relevant CGUs.

Our procedures in relation to the impairment assessment of property, plant and equipment and intangible assets of CGUs in the solar material business segment included:

- Understanding the key controls in respect of the impairment assessment process of property, plant and equipment and intangible assets;
- Understanding the management methodology and basis applied in calculating the recoverable amounts;
- Evaluating the management prepared recoverable amount calculations of the relevant CGUs by 1) checking the mathematical accuracy of the impairment models; 2) assessing key assumptions applied in value in use calculations, if relevant; and 3) obtaining external valuation report for those CGUs where their recoverable amounts are determined by income approach and evaluating the methodology and assumptions adopted; and
- Involving our internal valuation experts to review and assess whether the valuation models used by management were appropriate and whether the key assumptions used in the valuation models were reasonable.

KEY AUDIT MATTERS (Continued)

Key audit matter

Revenue recognition on tariff adjustments on electricity sales

We identified the recognition of the Group's revenue on tariff adjustments on electricity sales as a key audit matter due to the significant management judgement involved in determining whether each of the Group's operating solar farms had qualified for, and had met, all the requirements and conditions as required under the prevailing government policies and regulations for entitlement of the tariff adjustments and accordingly, the timing and eligibility of accruing revenue on tariff adjustments.

As disclosed in note 6 to the consolidated financial statements, revenue on tariff adjustments on electricity sales of approximately RMB3,957 million was recognised for the year ended 31 December 2019 in which the applications for tariff adjustments of certain on-grid solar farms of the Group are still pending as they are an ongoing process where the period for the application is opened on a batch by batch basis.

How our audit addressed the key audit matter

Our procedures in relation to the recognition of the Group's revenue on tariff adjustments on electricity sales included:

- Obtaining an understanding of key controls in connection with the recognition of tariff adjustments and assessing the operating effectiveness of key controls;
- Obtaining an understanding of the policies and regulations set by the government authorities on tariff adjustments on sales of electricity in this industry;
- Obtaining relevant supporting documents, for example, power purchase agreements and tariff approvals issued by the PRC government;
- Obtaining legal opinion from the Group's PRC legal advisor in relation to the assessment that all of the Group's solar farms currently in operation had met the requirement and conditions as stipulated in the prevailing government policies and regulations for the entitlement of the tariff adjustment when the electricity was delivered on grid; and
- Assessing whether the previous applications of the group entities operating the solar farms for the entitlement of the tariff subsidy were successfully completed against the historical record of the Group.

OTHER INFORMATION

The directors of the Company are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

RESPONSIBILITIES OF DIRECTORS AND THOSE CHARGED WITH GOVERNANCE FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS Standards issued by the IASB and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion solely to you, as a body, in accordance with our agreed terms of engagement, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with HKSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in the independent auditor's report is Chan Ka Sing.

Deloitte Touche Tohmatsu
Certified Public Accountants
Hong Kong
27 April 2020

Consolidated Statement of Profit or Loss and Other Comprehensive Income

For the year ended 31 December 2019

	NOTES	**2019 RMB'000**	2018 RMB'000
Revenue	6	**19,249,621**	20,565,435
Cost of sales		**(14,571,196)**	(15,532,570)
Gross profit		**4,678,425**	5,032,865
Other income	7	**818,746**	890,844
Distribution and selling expenses		**(126,338)**	(113,271)
Administrative expenses		**(2,051,326)**	(2,019,564)
Finance costs	8	**(3,946,920)**	(3,419,011)
Impairment losses under expected credit loss model, net of reversal	9A	**(462,741)**	247,235
Other expenses, gains and losses, net	9B	**1,058,183**	(1,289,968)
Share of profits of associates	19	**401,019**	139,246
Share of (losses) profits of joint ventures	20	**(51,365)**	20,829
Profit (loss) before tax		**317,683**	(510,795)
Income tax (expense) credit	10	**(206,848)**	52,361
Profit (loss) for the year	11	**110,835**	(458,434)
Other comprehensive (expense) income			
Items that will not be reclassified to profit or loss:			
Fair value loss on:			
Investments in equity instruments at fair value through other comprehensive income		**(49,691)**	(34,672)
Financial liabilities designated as at fair value through profit or loss attributable to changes in credit risk		**—**	(108)
		(49,691)	(34,780)

	2019 RMB'000	2018 RMB'000
Items that may be reclassified subsequently to profit or loss:		
Exchange differences arising on translation of foreign operations	**36,139**	67,605
Fair value loss on investments in debt instruments measured at fair value through other comprehensive income	**—**	(3,540)
Cumulative loss reclassified to profit or loss on sale of investments in debt instruments measured at fair value through other comprehensive income upon disposal	**3,540**	—
	39,679	64,065
Other comprehensive (expense) income for the year	**(10,012)**	29,285
Total comprehensive income (expense) for the year	**100,823**	(429,149)
Profit (loss) for the year attributable to:		
Owners of the Company	**(197,207)**	(693,399)
Non-controlling interests	**308,042**	234,965
	110,835	(458,434)
Total comprehensive income (expense) for the year attributable to:		
Owners of the Company	**(213,514)**	(681,533)
Non-controlling interests	**314,337**	252,384
	100,823	(429,149)

For the year ended 31 December 2019

	NOTE	2019 RMB cents	2018 RMB cents
Loss per share	14		
— Basic		**(1.05)**	(3.81)
— Diluted		**(1.05)**	(3.84)

Consolidated Statement of Financial Position

At 31 December 2019

	NOTES	2019 RMB'000	2018 RMB'000
NON-CURRENT ASSETS			
Property, plant and equipment	15	**52,412,895**	70,999,823
Right-of-use assets	16	**4,529,359**	—
Prepaid lease payments		**—**	1,106,622
Investment properties	17	**65,804**	70,460
Other intangible assets	18	**247,723**	801,307
Interests in associates	19	**7,539,323**	1,814,544
Interests in joint ventures	20	**706,200**	777,596
Other financial assets at fair value through profit or loss	21	**357,542**	315,918
Equity instruments at fair value through other comprehensive income	21	**41,857**	90,716
Convertible bonds receivable	22	**101,097**	76,001
Deferred tax assets	23	**291,711**	364,041
Deposits, prepayments and other non-current assets	25	**2,396,446**	3,727,632
Contract assets	26	**5,639,898**	4,236,405
Amounts due from related companies	27	**826,951**	302,628
Pledged and restricted bank and other deposits	29	**1,132,156**	935,469
		76,288,962	85,619,162
CURRENT ASSETS			
Inventories	24	**751,188**	992,027
Trade and other receivables	25	**13,857,141**	13,309,008
Amounts due from related companies	27	**1,706,133**	934,216
Prepaid lease payments		**—**	26,647
Other financial assets at fair value through profit or loss	21	**477,256**	220,328
Debt instruments at fair value through other comprehensive income	21	**—**	65,606
Held for trading investments	28	**4,339**	108,408
Tax recoverable		**6,651**	116,199
Pledged and restricted bank and other deposits	29	**5,797,270**	5,638,363
Bank balances and cash	29	**1,548,019**	4,075,791
		24,147,997	25,486,593
Assets classified as held for sale	30	**—**	1,388,009
		24,147,997	26,874,602

Consolidated Statement of Financial Position (CONTINUED)

At 31 December 2019

	NOTES	2019 RMB'000	2018 RMB'000
CURRENT LIABILITIES			
Trade and other payables	31	**15,018,649**	20,959,225
Amounts due to related companies	32	**1,816,308**	578,092
Loans from related companies	33	**743,922**	508,000
Contract liabilities	34	**224,939**	195,985
Bank and other borrowings — due within one year	36	**26,976,972**	25,288,840
Lease liabilities/obligations under finance leases — due within one year	37, 38	**530,655**	277,138
Notes and bonds payables — due within one year	39	**422,175**	984,453
Derivative financial instruments	40	**133,400**	26,011
Deferred income		**41,885**	57,495
Tax payables		**144,922**	121,907
		46,053,827	48,997,146
Liabilities associated with assets classified as held for sale	30	**—**	935,463
		46,053,827	49,932,609
NET CURRENT LIABILITIES		**(21,905,830)**	(23,058,007)
TOTAL ASSETS LESS CURRENT LIABILITIES		**54,383,132**	62,561,155

	NOTES	2019 RMB'000	2018 RMB'000
NON-CURRENT LIABILITIES			
Contract liabilities	34	**147,740**	197,411
Loans from related companies	33	**1,031,639**	3,091,789
Bank and other borrowings — due after one year	36	**20,285,750**	26,477,062
Lease liabilities/obligations under finance leases — due after one year	37, 38	**1,910,864**	951,261
Notes and bonds payables — due after one year	39	**3,470,542**	4,136,665
Deferred income		**628,441**	691,003
Deferred tax liabilities	23	**186,748**	183,457
		27,661,724	35,728,648
NET ASSETS		**26,721,408**	26,832,507
CAPITAL AND RESERVES			
Share capital	41	**1,742,850**	1,610,009
Reserves		**20,507,309**	20,255,547
Equity attributable to owners of the Company		**22,250,159**	21,865,556
Non-controlling interests		**4,471,249**	4,966,951
TOTAL EQUITY		**26,721,408**	26,832,507

The consolidated financial statements on pages 162 to 376 were approved and authorised for issue by the board of directors on 27 April 2020 and are signed on its behalf by:

Zhu Gongshan	**Yeung Man Chung, Charles**
DIRECTOR	*DIRECTOR*

Consolidated Statement of Changes in Equity

For the year ended 31 December 2019

	Attributable to owners of the Company															
	Share capital RMB'000	Share premium RMB'000	Shares held for share award scheme RMB'000 (Note i)	Capital redemption reserve RMB'000	Investments revaluation reserve RMB'000	Financial liabilities designated as at fair value through profit or loss ("FVTPL") credit risk reserve RMB'000 (Note ii)	Other reserve RMB'000 (Note iii)	Capital reserve RMB'000 (Note iv)	Statutory reserve funds RMB'000 (Note v)	Special reserves RMB'000 (Note vi)	Share options reserve RMB'000	Translation reserve RMB'000	Accumulated profits RMB'000	Sub-total RMB'000	Non-controlling interests RMB'000	Total RMB'000
At 1 January 2018	1,632,181	9,942,418	(170,097)	—	—	(28,283)	(619,157)	67,251	2,935,624	(2,074,777)	177,085	(74,152)	10,987,124	22,775,217	4,532,362	27,307,579
Exchange differences arising from translation of financial statements of foreign operations	—	—	—	—	—	—	—	—	—	—	—	50,145	—	50,145	17,460	67,605
Fair value loss on investments in debt instruments measured at fair value through other comprehensive income ("FVTOCI")	—	—	—	—	(3,540)	—	—	—	—	—	—	—	—	(3,540)	—	(3,540)
Fair value loss on investments in equity instruments at FVTOCI	—	—	—	—	(34,672)	—	—	—	—	—	—	—	—	(34,672)	—	(34,672)
Fair value loss on financial liabilities designated as FVTPL attributable to changes in credit risk	—	—	—	—	—	(67)	—	—	—	—	—	—	—	(67)	(41)	(108)
(Loss) profit for the year	—	—	—	—	—	—	—	—	—	—	—	—	(693,399)	(693,399)	234,965	(458,434)
Total comprehensive (expense) income for the year	—	—	—	—	(38,212)	(67)	—	—	—	—	—	50,145	(693,399)	(681,533)	252,384	(429,149)
Redemption of convertible bonds	—	—	—	—	—	28,350	—	—	—	—	—	—	(28,350)	—	—	—
Recognition of share-based payment expenses in respect of share options (note 51)	—	—	—	—	—	—	—	—	—	—	5,000	—	—	5,000	12,679	17,679
Exercise of share options	30	292	—	—	—	—	—	—	—	—	(73)	—	—	249	—	249
Forfeitures of share options	—	—	—	—	—	—	—	—	—	—	(10,370)	—	15,117	4,747	(4,747)	—
Purchase of shares under share award scheme (note 51)	—	—	(66,532)	—	—	—	—	—	—	—	—	—	—	(66,532)	—	(66,532)
Share repurchased and cancelled (note 41)	(22,202)	(140,542)	—	22,202	—	—	—	—	—	—	—	—	(22,202)	(162,744)	—	(162,744)
Contribution from non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	—	—	—	68,000	68,000
Dividend declared to non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(44,650)	(44,650)
Non-controlling interests arising on acquisitions of subsidiaries	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25,681	25,681
Deemed disposal of partial interest in a subsidiary	—	—	—	—	—	—	—	—	(1,778)	—	—	—	(3,613)	(5,391)	100,241	94,850
Disposal of partial interests in subsidiaries	—	—	—	—	—	—	—	—	(103)	—	—	—	(3,354)	(3,457)	25,001	21,544
Transfer to reserves	—	—	—	—	—	—	—	—	394,631	—	—	—	(394,631)	—	—	—
At 31 December 2018	1,610,009	9,802,168	(236,629)	22,202	(38,212)	—	(619,157)	67,251	3,328,374	(2,074,777)	171,642	(24,007)	9,856,692	21,865,556	4,966,951	26,832,507

	Attributable to owners of the Company															
	Share capital RMB'000	Share premium RMB'000	Shares held for share award scheme RMB'000 (Note i)	Capital redemption reserve RMB'000	Investments revaluation reserve RMB'000	Financial liabilities designated as at fair value through profit or loss ("FVTPL") credit risk reserve RMB'000 (Note ii)	Other reserve RMB'000 (Note iii)	Capital reserve RMB'000 (Note iv)	Statutory reserve funds RMB'000 (Note v)	Special reserves RMB'000 (Note vi)	Share options reserve RMB'000	Translation reserve RMB'000	Accumulated profits RMB'000	Sub-total RMB'000	Non-controlling interests RMB'000	Total RMB'000
Exchange differences arising from translation of financial statements of foreign operations	—	—	—	—	—	—	—	—	—	—	—	29,844	—	29,844	6,295	36,139
Cumulative loss reclassified to profit or loss on sale of investments in debt instruments measured at FVTOCI upon disposal	—	—	—	—	3,540	—	—	—	—	—	—	—	—	3,540	—	3,540
Fair value loss on investments in equity instruments at FVTOCI	—	—	—	—	(49,691)	—	—	—	—	—	—	—	—	(49,691)	—	(49,691)
(Loss) profit for the year	—	—	—	—	—	—	—	—	—	—	—	—	(197,207)	(197,207)	308,042	110,835
Total comprehensive (expense) income for the year	—	—	—	—	(46,151)	—	—	—	—	—	—	29,844	(197,207)	(213,514)	314,337	100,823
Recognition of share-based payment expenses in respect of share options (note 51)	—	—	—	—	—	—	—	—	—	—	1,735	—	—	1,735	1,787	3,522
Exercise of share options	9	60	—	—	—	—	—	—	—	—	(18)	—	—	51	—	51
Forfeitures of share options	—	—	—	—	—	—	—	—	—	—	(14,394)	—	24,520	10,126	(10,126)	—
Issue of new shares (note 41)	132,832	464,912	—	—	—	—	—	—	—	—	—	—	—	597,744	—	597,744
Transaction costs attributable to the issue of new shares	—	(9,953)	—	—	—	—	—	—	—	—	—	—	—	(9,953)	—	(9,953)
Contribution from non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66,000	66,000
Dividend declared to non-controlling interests	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(383,839)	(383,839)
Acquisition of additional interests in existing subsidiaries	—	—	—	—	—	—	—	—	—	5,399	—	—	—	5,399	(89,645)	(84,246)
Disposal of partial interest in a subsidiary	—	—	—	—	—	—	—	—	—	(5,879)	—	—	—	(5,879)	76,679	70,800
Deemed disposal of partial interest in a subsidiary	—	—	—	—	—	—	—	—	(1,174)	—	—	—	68	(1,106)	29,819	28,713
Disposal of subsidiaries (note 43)	—	—	—	—	—	—	—	—	(87,715)	—	—	—	87,715	—	(500,714)	(500,714)
Transfer to reserves	—	—	—	—	—	—	—	—	728,275	—	—	—	(728,275)	—	—	—
At 31 December 2019	1,742,850	10,257,187	(236,629)	22,202	(84,363)	—	(619,157)	67,251	3,967,760	(2,075,257)	158,965	5,837	9,043,513	22,250,159	4,471,249	26,721,408

Notes:

(i) For the year ended 31 December 2018, the Company paid in total of RMB66,532,000 to a trustee ("Trustee") to purchase 100,000,000 shares of the Company in the market pursuant to the Share Award Scheme (the "Scheme") established on 16 January 2017 ("Adoption Date") by the board of directors of the Company (the "Directors"). As at 31 December 2019, all the shares were held by the Trustee. More details are set out in note 51a(II).

(ii) Financial liabilities designated as at FVTPL credit risk reserve represents the amount of change in fair value of the convertible bonds issued by the Company and GCL New Energy Holdings Limited ("GNE"), which are classified as financial liabilities designated as at FVTPL, that is attributable to changes in credit risk of the convertible bonds and is transferred to accumulated profits on redemption. The convertible bonds issued by the Company and GNE were fully redeemed during the year ended 31 December 2018.

(iii) Other reserve represents the equity (other than share capital) attributable to owners of the Company prior to the reverse acquisition, including share premium, capital reserve, contribution from a shareholder, other reserve, share options reserve, revaluation reserve and deficit. As the Company was accounted for as reverse acquisition by GCL Solar Energy Technology Holdings Inc. ("GCL Solar Energy") in 2009, such reserves attributable to owners of the Company were reclassified to other reserve upon the completion of the reverse acquisition.

Upon disposal of the non-solar power business in 2015, portion of the amount was realised and transferred to the share premium, share options reserve and accumulated profits of the Group.

(iv) Capital reserve represents the amount of contribution from former immediate holding company of GCL Solar Energy of United States dollars ("US$") 15,009,000 (equivalent to RMB126,029,000) net of the 500,000 ordinary shares of GCL Solar Energy repurchased for a consideration of US$7,000,000 (equivalent to RMB58,778,000) and cancelled prior to 2009.

(v) Pursuant to the relevant laws in the People's Republic of China (the "PRC"), each of the subsidiaries established in the PRC is required to transfer 5% — 10% (2018: 5% — 10%) of its profit after tax as per statutory financial statements (as determined by the management of the subsidiary) to the reserve funds (including the general reserve fund and enterprise development fund where appropriate). The general reserve fund is discretionary when the fund balance reaches 50% of the registered capital of the respective company and can be used to make up for previous years' losses or, expand the existing operations or can be converted into additional capital of the subsidiary. The enterprise development fund can only be used for development and is not available for distribution to shareholder.

(vi) Special reserves represent (i) the difference between the consideration to acquire additional interests in subsidiaries and the respective share of the carrying amounts of the net assets acquired; (ii) the difference by which the non-controlling interests were adjusted and the fair value of consideration received in relation to the disposal of partial interest of a subsidiary and (iii) change of interests in existing subsidiaries arising from restructuring.

Consolidated Statement of Cash Flows

For the year ended 31 December 2019

	2019 RMB'000	2018 RMB'000
OPERATING ACTIVITIES		
Profit (loss) for the year	**110,835**	(458,434)
Adjustments for:		
Income tax	**206,848**	(52,361)
Finance costs	**3,946,920**	3,419,011
Interest income	**(284,242)**	(264,918)
Unrealised exchange losses, net	**127,404**	458,661
Depreciation of property, plant and equipment	**4,180,281**	4,157,475
Depreciation of right-of-use assets	**343,768**	—
Depreciation of investment properties	**4,656**	4,656
Amortisation of prepaid lease payments	**—**	28,509
Amortisation of other intangible assets	**101,711**	98,068
Amortisation of deferred income	**(85,381)**	(97,035)
Gain on disposal of property, plant and equipment	**(55,173)**	(583)
Loss on disposal of right-of-use assets	**2,583**	—
Share of losses (profits) of joint ventures	**51,365**	(20,829)
Share of profits of associates	**(401,019)**	(139,246)
Bargain purchase from business combination	**(73,858)**	—
Gain on disposal of solar farm projects	**(26,926)**	(35,146)
Gain on disposal of subsidiaries	**(4,405,876)**	(444,868)
Gain on disposal of joint ventures	**(35,263)**	—
Loss on deemed disposal of an associate	**—**	77,894
Share-based payment expenses	**9,412**	32,752
Loss on fair value change of held for trading investments	**28,053**	15,383
Gain on fair value change of financial assets at FVTPL	**(42,300)**	(84,420)
(Gain) loss on disposal of debt instruments at FVTOCI	**(393)**	215

Consolidated Statement of Cash Flows (CONTINUED)

For the year ended 31 December 2019

	2019 RMB'000	2018 RMB'000
Loss on fair value change of derivative financial instruments	**107,389**	10,112
(Gain) loss on fair value change of convertible bonds receivable	**(29,820)**	1,910
Loss on fair value change of convertible bonds payables	**—**	46,292
Impairment loss on financial assets under expected credit loss ("ECL") model, net of reversal	**462,741**	(247,235)
(Reversal of) write-down of inventories	**(3,712)**	10,236
Impairment loss on property, plant and equipment	**2,130,780**	526,105
Impairment loss on other intangible assets	**479,091**	—
Impairment loss on goodwill	**—**	176,528
Gain on early termination of a lease	**(7)**	—
Operating cash flows before movements in working capital	**6,849,867**	7,218,732
Decrease in inventories	**230,580**	9,770
(Increase) decrease in trade and other receivables including proceeds from bills discounted	**(967,393)**	2,873,632
Decrease (increase) in amounts due from related companies	**97,415**	(96,840)
Increase (decrease) in trade and other payables	**2,132,248**	(395,178)
Increase in amounts due to related companies	**1,146,139**	332,783
Increase in contract assets	**(2,169,795)**	(2,400,313)
Increase (decrease) in contract liabilities	**32,751**	(337,542)
Increase in deposits, prepayments and other non-current assets	**(185,561)**	(269,785)
Decrease (increase) in held for trading investments	**77,287**	(18,197)
Cash generated from operations	**7,243,538**	6,917,062
Income taxes paid	**(35,658)**	(492,901)
NET CASH FROM OPERATING ACTIVITIES	**7,207,880**	6,424,161

	NOTES	2019 RMB'000	2018 RMB'000
INVESTING ACTIVITIES			
Interest received		**193,078**	136,858
Proceeds from disposal of property, plant and equipment		**216,853**	156,944
Proceeds from disposal of right-of-use assets		**641**	—
Payments for construction and purchase of property, plant and equipment		**(5,032,653)**	(10,874,646)
Payments for right-of-use assets (2018: land use rights)		**(14,302)**	(18,254)
Payments for deposits of leases		**(7,804)**	—
Addition of convertible bonds receivable		**—**	(80,334)
Investments in associates		**(1,350,000)**	(424,570)
Investments in joint ventures		**(89,222)**	(8,703)
Dividends received from joint ventures		**47,519**	19,218
Dividends received from associates		**4,542**	—
Proceeds from disposal of joint ventures		**53,780**	—
Addition of other financial assets at FVTPL		**(267,000)**	(212,875)
Proceeds from redemption of other financial assets at FVTPL		**—**	256,830
Proceeds from disposal of debt instruments at FVTOCI		**68,142**	45,979
Addition of equity instruments at FVTOCI		**—**	(31,853)
Addition of debt instruments at FVTOCI		**—**	(12,880)
Addition of other intangible assets		**(27,218)**	(45,823)
Withdrawal of pledged and restricted bank and other deposits		**6,601,426**	5,626,191
Placement of pledged and restricted bank and other deposits		**(8,138,906)**	(7,384,152)
Advances to related companies		**(959,658)**	(225,645)
Repayment from related companies		**382,408**	17,025
Repayment from third parties		**6,000**	3,000
Advance to non-controlling interests		**—**	(59,740)
Settlement of consideration payables for acquisition of subsidiaries with solar farm projects		**(110,298)**	(12,165)
Settlement of consideration receivables from disposal of subsidiaries with solar farm projects		**206,992**	—
Deemed acquisition of a subsidiary	42	**—**	3,422
Net cash inflow from acquisition of subsidiaries	42	**29,669**	21,810
Net cash inflow from disposal of subsidiaries	43	**2,514,686**	435,684
NET CASH USED IN INVESTING ACTIVITIES		**(5,671,325)**	(12,668,679)

Consolidated Statement of Cash Flows (CONTINUED)

For the year ended 31 December 2019

	NOTE	2019 RMB'000	2018 RMB'000
FINANCING ACTIVITIES			
Interest paid		**(3,026,229)**	(3,178,210)
Interest paid for convertible bonds payables		**—**	(44,135)
New bank and other borrowings raised		**16,298,346**	27,416,961
Repayment of bank and other borrowings		**(16,808,950)**	(24,585,382)
Proceeds from sale and finance leaseback arrangements		**—**	96,390
Repayment of lease liabilities/obligations under finance leases		**(252,220)**	(574,948)
Proceeds from issuance of notes payables	39	**—**	3,166,950
Proceeds from re-sell of notes and bonds issued	39	**736,233**	—
Repayment of notes and bonds payables	39	**(1,585,000)**	(2,619,175)
Repurchase of notes and bonds issued	39	**(469,325)**	(503,307)
Transaction costs paid for the issuance of notes payables		**—**	(47,681)
Redemption of convertible bonds payables		**—**	(1,767,522)
Proceeds of loans from related companies		**925,803**	2,835,017
Repayment to loans from related companies		**(508,693)**	(558,454)
Advances from related companies		**87,427**	60,634
Repayment to related companies		**(60,194)**	(4,646)
Contribution from non-controlling interests		**94,713**	68,000
Dividends paid to non-controlling interests		**(126,157)**	(56,463)
Proceeds from exercise of share options		**51**	249
Proceeds from issue of new shares		**597,744**	—
Transaction costs attributable to issue of new shares		**(9,953)**	—
Purchase of shares under the Scheme		**—**	(66,532)
Payment for repurchase of shares		**—**	(162,744)
Proceeds from deemed disposal of partial interests in subsidiaries		**—**	94,850
Proceeds from disposal of partial interest in a subsidiary		**—**	21,544
NET CASH USED IN FINANCING ACTIVITIES		**(4,106,404)**	(408,604)
NET DECREASE IN CASH AND CASH EQUIVALENTS		**(2,569,849)**	(6,653,122)
CASH AND CASH EQUIVALENTS AT 1 JANUARY, represented by			
— Bank balances and cash		**4,075,791**	10,673,203
— Bank balances and cash classified as held for sale		**44,873**	—
		4,120,664	10,673,203

	2019 RMB'000	2018 RMB'000
EFFECT OF EXCHANGE RATE CHANGES ON THE BALANCE OF BANK BALANCES AND CASH HELD IN FOREIGN CURRENCIES	**(2,796)**	100,583
CASH AND CASH EQUIVALENTS AT 31 DECEMBER, represented by		
— Bank balances and cash	**1,548,019**	4,075,791
— Bank balances and cash classified as held for sale	**—**	44,873
	1,548,019	4,120,664

1. GENERAL INFORMATION

GCL-Poly Energy Holdings Limited (the "Company") is an exempted company with limited liability incorporated in the Cayman Islands on 12 July 2006 under the Companies Law, Cap 22 of the Cayman Islands. The shares of the Company are listed on the Main Board of The Stock Exchange of Hong Kong Limited (the "Stock Exchange") on 13 November 2007. The address of the registered office of the Company is at Cricket Square, Hutchins Drive, PO Box 2681, Grand Cayman, KY1-1111, Cayman Islands and the principal place of business is at Units 1703B–1706, Level 17, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong.

The Company is an investment holding company. The principal activities of its subsidiaries (together with the Company collectively referred to as the "Group"), associates and joint ventures are principally engaged in (1) the manufacturing of polysilicon and wafers for the solar industry; and (2) the sales of electricity, development, investment, management and operation of solar projects.

The functional and presentation currency of the Company is Renminbi ("RMB").

2. BASIS OF PREPARATION

The Directors have given careful consideration to the going concern status of the Group in light of the fact that the Group's current liabilities exceeded its current assets by approximately RMB21,906 million as at 31 December 2019. The Group had cash and cash equivalents of approximately RMB1,548 million against the Group's total borrowings (comprising loans from related companies, bank and other borrowings, lease liabilities and notes and bonds payables) amounted to approximately RMB55,373 million, out of which approximately RMB28,674 million will be due in the coming twelve months. In addition, the Group provided financial guarantees to several banks and financial institutions in respect of banking and other facilities of the associates and third parties as at 31 December 2019.

Included in the Group's bank borrowings totalling approximately RMB557 million, the Group has not been able to meet a financial covenant as stipulated in the relevant loan agreement. The relevant bank borrowing is due within one year in accordance with the original repayment term, in which approximately RMB488.3 million and RMB68.7 million was required to be repaid in February 2020 and August 2020, respectively. In addition, the inability to respect the covenant requirement has triggered the cross default clauses in several other bank borrowings of approximately RMB5,172 million. Among this, approximately RMB2,896 million of the bank borrowings are repayable after one year in accordance with the original repayment terms. Subsequent to the end of the reporting period, the Group has obtained consent from the relevant lenders to waive the financial covenant concerned and not to demand for immediate repayment of such bank borrowing, and revised the repayment of approximately RMB348.8 million out of RMB488.3 million from February 2020 to June 2020. Subsequent to the end of the reporting period, the Company has settled approximately RMB139.5 million on 28 February 2020 as agreed with the banks. Accordingly, the cross default clauses on the relevant bank borrowings are then remedied. In light of this, reclassification of long-term borrowings of approximately RMB2,896 million as current liabilities is still required at 31 December 2019 under applicable accounting standard because the bank waiver was obtained subsequent to the end of the reporting period. As a result, in the Group's consolidated statement of financial position as at 31 December 2019, net current liabilities of approximately RMB21,906 million, rather than net current liabilities of approximately RMB19,010 million, were recorded.

2. BASIS OF PREPARATION (Continued)

GNE, whose shares are listed on the Stock Exchange, is a subsidiary of the Company. As at 31 December 2019, the Company and certain subsidiaries of the Company guaranteed bank and other borrowings of GNE and its subsidiaries (collectively referred to as "GNE Group") amounted to approximately RMB2,770 million. The Directors have noted the going concern status of GNE Group in preparing these consolidated financial statements, in light of the fact that, GNE Group's current liabilities exceeded its current assets by approximately RMB11,267 million. In addition, as at 31 December 2019, GNE Group has entered into agreements which will involve capital commitments of approximately RMB377 million to construct solar farms and financial guarantees provided to its associates and third parties for their bank and other borrowings.

As at 31 December 2019, GNE Group's total borrowings comprising bank and other borrowings, lease liabilities, bonds and notes payables and loans from the Company and related companies amounted to approximately RMB37,401 million. The balance of approximately RMB12,507 million will be due in the coming twelve months from the end of the reporting period, including bank borrowings of approximately RMB1,597 million, which shall be due after twelve months from the end of the reporting period in accordance with the scheduled repayment dates as set out in the respective loan agreements but are reclassified to current liabilities as a result of the inability to respect the covenant requirement by the Company, the guarantor of certain bank borrowings of GNE Group and thereby triggered the cross default of these bank borrowings. GNE Group's pledged bank and other deposits and bank balances and cash amounted to approximately RMB1,709 million (including pledged deposit of approximately RMB8 million placed at an associate of the Company for its loans advanced to GNE Group) and RMB1,073 million as at 31 December 2019, respectively. The financial resources available to GNE Group as at 31 December 2019 and up to the date of approval of these consolidated financial statements for issuance may not be sufficient to satisfy the above capital expenditure and other funding requirements. GNE Group is actively pursuing additional financing including, but not limited to, debt financing and bank borrowings.

The above conditions indicate the existence of a material uncertainty which may cast significant doubt on the Group's ability to continue as a going concern and therefore, the Directors have reviewed the Group's cash flow projections which cover a period of not less than twelve months from 31 December 2019. They are of the opinion that the Group will have sufficient working capital to meet its financial obligations, including committed capital expenditures and other commitments, that will be due in the coming twelve months from 31 December 2019.

2. BASIS OF PREPARATION (Continued)

In addition, the Directors have evaluated the Group's current undrawn banking facilities and renewable bank borrowings. In order to improve liquidity, the Group continues to pay close attention in managing the Group's cash position and conducts on-going negotiations with banks to ensure that the existing facilities will be successfully renewed and additional banking facilities are obtained when necessary. The Directors believe that the Group will be able to renew the banking facilities upon maturity dates and raise additional banking facilities as and when required by the Group's operating cash needs.

The Directors have also noted the measures being undertaken by GNE Group to improve their liquidity position, which include:

(i) Subsequent to 31 December 2019, GNE Group successfully obtained new borrowings of approximately RMB541 million from banks and other financial institutions in the PRC;

(ii) GNE Group proposed to issue medium-term notes with an aggregate principal amount of not exceeding RMB3,000 million to institutional investors of the national interbank bond market in the PRC before their expiry date in June 2020. It is expected that the notes will be issued in one or more tranches and that each tranche of the notes shall have a maturity of three years. GNE Group is also negotiating with banks and other financial institutions for credit facilities;

(iii) GNE Group is implementing business strategies, among others, to transform its heavy-asset business model to a light-asset model by (i) divesting certain of its existing wholly-owned solar farm projects in exchange for cash proceeds and to improve GNE Group's indebtedness position; and (ii) striving for providing solar farm operation and maintenance services to those divested solar farms for additional operating cashflow to GNE Group.

On 18 November 2019, GNE and 中國華能集團有限公司 China Huaneng Group Co., Ltd* ("China Huaneng") entered into a cooperation framework agreement (the "Cooperation Framework Agreement") regarding the disposal of (i) certain solar farms of GNE Group in the PRC (the "Power Plants") or (ii) certain project companies of GNE Group which operate the Power Plants (the "Framework Disposal").

* English name for identification only

2. BASIS OF PREPARATION (Continued)

(iii) (Continued)

On 21 January 2020, GNE Group entered into a series of six share purchase agreements with 華能工融一號(天津)股權投資基金合夥企業(有限合夥) Huaneng Gongrong No.1 (Tianjin) Equity Investment Fund Partnership (Limited Partnership)* ("Hua Neng No. 1 Fund ") and 華能工融二號(天津)股權投資基金合夥企業(有限合夥) Huaneng Gongrong No. 2 (Tianjin) Equity Investment Fund Partnership (Limited Partnership)* ("Hua Neng No. 2 Fund"), pursuant to which GNE Group agreed to sell 60% and 40% of the equity interest in six wholly-owned subsidiaries of GNE Group to Hua Neng No. 1 Fund and Hua Neng No. 2 Fund, respectively, of which these subsidiaries own 7 solar farms in the PRC with aggregate installed capacity of approximately 294MW, for a consideration in aggregate of RMB850,500,000 (the "Disposal"). Pursuant to the Listing Rules (as defined in note 4), this transaction is considered as a major transaction of GNE, and it is subject to the approval by the shareholders of GNE in the special general meeting as well as the shareholders of the Company in an extraordinary general meeting. Further details of the Disposal are set out in the announcement of the Company published on 21 January 2020.

GNE Group and China Huaneng are actively working together under the Cooperation Framework Agreement to explore other solar farm assets for the Framework Disposal and will enter into other definitive agreements in respect of and in compliance with the Measures for the Supervision and Administration of State-Owned Assets (國有資產監督管理辦法) in the PRC, the relevant laws and regulations and the Listing Rules, in due course.

On 21 January 2020, GNE Group also entered into two share purchase agreements with 中核(南京)能源發展有限公司 CNI (Nanjing) Energy Development Company Limited* to sell its entire equity interest in 阜陽衡銘太陽能電力有限公司 Fuyang Hengming Solar Power Co., Ltd.* and 鎮江協鑫新能源有限公司 Zhenjiang GCL New Energy Co., Ltd.* ("Zhenjiang GCL") for a consideration in aggregate of RMB77,476,000 (the "Divestment"). Each of them has a solar farm project with capacity of 20MW in operation. One of the Divestments is completed on 13 March 2020 and the other one is expected to be completed before June 2020; and

(iv) GNE Group still owns 176 solar farms with an aggregate grid connected capacity of approximately 5.2GW upon completion of the Disposal and Divestments. Those operational solar farms are expected to generate operating cash inflows to GNE Group.

* English name for identification only

2. BASIS OF PREPARATION (Continued)

Taking into account the undrawn banking facilities, renewal of existing banking facilities, the Group's cash flow projections for the coming twelve months, and the successful implementation of measures of GNE Group as described above, the Directors are of the opinion that the Group will have sufficient working capital to meet its cash flow requirements in the next twelve months. The Directors are satisfied that it is appropriate to prepare these consolidated financial statements on a going concern basis.

Notwithstanding the above, significant uncertainties exist as to whether the Group and GNE Group can achieve the plans and measures described above to generate adequate cash inflow as scheduled. The sufficiency of the Group's working capital to satisfy its present requirements for at least the next twelve months from the date of approval of these consolidated financial statements for issuance is dependent on the Group's ability to generate adequate operating cash flows and financing cash flows through successful renewal of its bank borrowings upon expiries, compliance with the covenants under the borrowing agreements or obtaining waiver from the relevant banks if the Group is not able to satisfy any of the covenant requirements, successful securing of the financing from banks with repayment terms beyond twelve months from the date of approval of these consolidated financial statements for issuance, and other short-term or long-term financing, no default of the financial guarantees provided by the Group to the associates and third parties, as well as the successful implementation of measures of GNE Group as described above. Should the Group be unable to operate as a going concern, adjustments would have to be made to reduce the carrying values of the Group's assets to their realisable values, to provide for financial liabilities which might arise, and to reclassify non-current assets and non-current liabilities as current assets and current liabilities, respectively. The effects of these adjustments have not been reflected in these consolidated financial statements.

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS")

New and amendments to IFRS Standards that are mandatorily effective for the current year

The Group has applied the following new and amendments to IFRS Standards and an interpretation issued by the International Accounting Standards Board (the "IASB") for the first time in the current year:

IFRS 16	Leases
IFRIC 23	Uncertainty over Income Tax Treatments
Amendments to IFRS 9	Prepayment Features with Negative Compensation
Amendments to International Accounting Standard ("IAS") 19	Plan Amendment, Curtailment or Settlement
Amendments to IAS 28	Long-term Interests in Associates and Joint Ventures
Amendments to IFRS Standards	Annual Improvements to IFRS Standards 2015–2017 Cycle

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards that are mandatorily effective for the current year (Continued)

Except as described below, the application of the new and amendments to IFRS Standards and the interpretation in the current year has had no material impact on the Group's financial positions and performance for the current and prior years and/or on the disclosures set out in these consolidated financial statements.

3.1 IFRS 16 *Leases*

The Group has applied IFRS 16 for the first time in the current year. IFRS 16 superseded IAS 17 Leases ("IAS 17") and the related interpretations.

Definition of a lease

The Group has elected the practical expedient to apply IFRS 16 to contracts that were previously identified as leases applying IAS 17 and IFRIC 4 *Determining whether an Arrangement contains a Lease* and not apply this standard to contracts that were not previously identified as containing a lease. Therefore, the Group has not reassessed contracts which already existed prior to the date of initial application.

For contracts entered into or modified on or arising from business combinations after 1 January 2019, the Group applies the definition of a lease in accordance with the requirements set out in IFRS 16 in assessing whether a contract contains a lease. For contracts on sales of electricity, the management of the Company assessed and concluded that the contracts in connection with the sales of electricity do not contain a lease.

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards that are mandatorily effective for the current year (Continued)

3.1 IFRS 16 *Leases* (Continued)

As a lessee

The Group has applied IFRS 16 retrospectively with the cumulative effect recognised at the date of initial application, 1 January 2019.

For leases previously classified as finance leases, the carrying amount of the right-of-use asset and the lease liability at the date of initial application is the carrying amount of the lease asset and lease liability immediately before that date measured applying IAS 17. For those leases, the Group accounted for the right-of-asset and the lease liability applying IFRS 16 from the date of initial application.

For leases previously classified as operating leases, the Group recognised additional lease liabilities and right-of-use assets at amounts equal to the related lease liabilities adjusted by any prepaid lease payments by applying IFRS 16.C8(b)(ii) transition. Any difference at the date of initial application is recognised in the opening accumulated profits and comparative information has not been restated.

When applying the modified retrospective approach under IFRS 16 at transition, the Group applied the following practical expedients to leases previously classified as operating leases under IAS 17, on lease-by-lease basis, to the extent relevant to the respective lease contracts:

i. relied on the assessment of whether leases are onerous by applying IAS 37 *Provisions, Contingent Liabilities and Contingent Assets* as an alternative of impairment review;

ii. elected not to recognise right-of-use assets and lease liabilities for leases with lease term ends within 12 months of the date of initial application; and

iii. excluded initial direct costs from measuring the right-of-use assets at the date of initial application.

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards that are mandatorily effective for the current year (Continued)

3.1 IFRS 16 *Leases* (Continued)

As a lessee (Continued)

When recognising the lease liabilities for leases previously classified as operating leases, the Group has applied incremental borrowing rates of the relevant group entities at the date of initial application. The weighted average incremental borrowing rate applied is 5.68%.

	Note	**At 1 January 2019** RMB'000
Operating lease commitments disclosed as at 31 December 2018		2,409,877
Lease liabilities discounted at relevant incremental borrowing rates		1,493,188
Less: Recognition exemption — short-term leases		(3,321)
Practical expedient — leases with lease term ends within 12 months of the date of initial application		(19,841)
Lease liabilities relating to operating leases recognised upon application of IFRS 16		1,470,026
Add: Obligations under finance leases recognised at 31 December 2018	(c)	1,228,399
Lease liabilities as at 1 January 2019		2,698,425
Lease liabilities		
Current		383,605
Non-current		2,296,388
Lease liabilities under liabilities associated with assets classified as held for sale		18,432
		2,698,425

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards that are mandatorily effective for the current year (Continued)

3.1 IFRS 16 *Leases* (Continued)

As a lessee (Continued)

The Carrying amount of right-of-use assets as at 1 January 2019 comprises the following:

	Notes	**Right-of-use assets** RMB'000
Right-of-use assets relating to operating leases recognised upon application of IFRS 16		1,470,026
Reclassified from prepaid rent	(a)	484,227
Reclassified from prepaid lease payments	(b)	1,135,097
Amounts included in property, plant and equipment under IAS 17 — Assets previously under finance leases	(c)	2,031,808
		5,121,158
By class:		
Leasehold lands		2,851,178
Plant and machinery		1,820,856
Aircraft		210,952
Properties		64,831
Rooftops		137,212
Others		36,129
		5,121,158
Represented by:		
Right-of-use assets		5,093,890
Right-of-use assets under assets classified as held for sale		27,268
		5,121,158

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards that are mandatorily effective for the current year (Continued)

3.1 IFRS 16 *Leases* (Continued)

As a lessee (Continued)

(a) Prepaid rent for parcels of land in the PRC in which the Group leased from third parties under operating leases were classified as prepayments as at 31 December 2018. Upon application of IFRS 16, the current and non-current portion of prepaid rent for parcels of land and prepaid rent for parcels of land classified as held for sale amounting to approximately RMB2,826,000, RMB474,393,000 and RMB7,008,000, respectively, were reclassified to right-of-use assets.

(b) Upfront payments for leasehold land in the PRC in which the Group obtained relevant land use right certificate were classified as prepaid lease payments as at 31 December 2018. Upon application of IFRS 16, the current and non-current portion of prepaid lease payments and the prepaid lease payments classified as held for sale amounting to approximately RMB26,647,000, RMB1,106,622,000 and RMB1,828,000, respectively were reclassified to right-of-use assets.

(c) In relation to assets previously under finance leases, the Group recategorised the carrying amounts of the relevant assets which were still under lease as at 1 January 2019 of approximately RMB2,031,808,000 as right-of-use assets. In addition, the Group reclassified the obligations under finance leases of approximately RMB277,138,000 and RMB951,261,000 to lease liabilities as current and non-current liabilities, respectively at 1 January 2019.

The transition to IFRS 16 has no material impact to the Group's accumulated profits at 1 January 2019.

Sales and leaseback transactions

(d) The Group acts as a seller-lessee

In accordance with the transition provisions of IFRS 16, sale and leaseback transactions entered into before the date of initial application were not reassessed. Upon application of IFRS 16, the Group applies the requirements of IFRS 15 *Revenue from Contracts with Customers* ("IFRS 15") to assess whether sale and leaseback transaction constitutes a sale. During the year, the Group entered into several sale and leaseback transactions in relation to certain machinery and equipment of the Group and the transactions do not satisfy the requirement as a sale in accordance with those contracts, and the Group has right to repurchase the relevant assets. As a result, the buyer-lessors do not obtain control of the assets as the contracts limit its ability to direct the use of and to obtain substantially all of the remaining benefits from the assets. During the year ended 31 December 2019, the Group has raised borrowings amounting to approximately RMB2,389,424,000 in respect of such sale and leaseback arrangements.

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards that are mandatorily effective for the current year (Continued)

3.1 IFRS 16 *Leases* (Continued)

The following adjustments were made to the amounts recognised in the consolidated statement of financial position at 1 January 2019. Line items that were not affected by the changes have not been included.

	Notes	**Carrying amounts previously reported at 31 December 2018** RMB'000	**Adjustments** RMB'000	**Carrying amounts under IFRS 16 at 1 January 2019** RMB'000
Non-current assets				
Property, plant and equipment	(c)	70,999,823	(2,031,808)	68,968,015
Prepaid lease payments	(b)	1,106,622	(1,106,622)	—
Deposits, prepayments and other non-current assets	(a)	3,727,632	(474,393)	3,253,239
Right-of-use assets		—	5,093,890	5,093,890
Current assets				
Trade and other receivables	(a)	13,309,008	(2,826)	13,306,182
Prepaid lease payments	(b)	26,647	(26,647)	—
Assets classified as held for sale				
— Right-of-use assets		—	27,268	27,268
— Other non-current assets	(a)	97,335	(7,008)	90,327
— Prepaid lease payments	(b)	1,828	(1,828)	—
Current liabilities				
Lease liabilities/obligations under finance leases	(c)	277,138	106,467	383,605
Liabilities associated with assets classified as held for sale				
— Lease liabilities		—	18,432	18,432
Non-current liability				
Lease liabilities/obligations under finance leases	(c)	951,261	1,345,127	2,296,388

Note: For the purpose of reporting cash flows from operating activities under indirect method for the year ended 31 December 2019, movements in working capital have been computed based on opening consolidated statement of financial position as at 1 January 2019 as disclosed above.

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards that are mandatorily effective for the current year (Continued)

3.2 Impacts and changes in accounting policies of application of other new and amendments to IFRS Standards

Amendments to IFRS Standards *Annual Improvement to IFRS Standard 2015–2017 Cycle*

The annual improvement packages amended the following standard.

IAS 23 *Borrowings Costs*

The amendments clarify that if any specific borrowing remains outstanding after the related asset is ready for its intended use or sale, that borrowing becomes part of the funds that an entity borrows generally when calculating the capitalisation rate on general borrowings.

The application of the amendments has no material impact to the Group's consolidated financial statements.

New and amendments to IFRS Standards in issue but not yet effective

The Group has not early applied the following new and amendments to IFRS Standards that have been issued but are not yet effective:

IFRS 17	Insurance Contracts[1]
Amendments to IFRS 3	Definition of a Business[2]
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture[3]
Amendments to IAS 1	Classification of Liabilities as Current or Non-current[5]
Amendments to IAS 1 and IAS 8	Definition of Material[4]
Amendments to IFRS 9, IAS 39 and IFRS 7	Interest Rate Benchmark Reform[4]

1 Effective for annual periods beginning on or after 1 January 2021.

2 Effective for business combinations and asset acquisitions for which the acquisition date is on or after the beginning of the first annual period beginning on or after 1 January 2020.

3 Effective for annual periods beginning on or after a date to be determined.

4 Effective for annual periods beginning on or after 1 January 2020.

5 Effective for annual periods beginning on or after 1 January 2022.

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards in issue but not yet effective (Continued)

In addition to the above new and amendments to IFRSs, a revised Conceptual Framework for Financial Reporting was issued in 2018. Its consequential amendments, *the Amendments to References to the Conceptual Framework in IFRS Standards*, will be effective for annual periods beginning on or after 1 January 2020.

Except for the new and amendments to IFRS Standards mentioned below, the Directors anticipate that the application of all other new and amendments to IFRS Standards will have no material impact on the consolidated financial statements in the foreseeable future.

Amendments to IAS 1 *Classification of Liabilities as Current or Non-current*

The amendments provide clarification and additional guidance on the assessment of right to defer settlement for at least twelve months from reporting date for classification of liabilities as current or non-current, which:

- specify that a liability should be classified as non-current if an entity has the right, the classification should not be affected by management intentions or expectations to settle the liability within 12 months;

- clarify that if the right is conditional on the compliance with covenants, the right exists if the conditions are met at the end of the reporting period, even if the lender does not test compliance until a later date; and

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards in issue but not yet effective (Continued)

Amendments to IAS 1 *Classification of Liabilities as Current or Non-current* (Continued)

- clarify that if a liability has terms that could, at the option of the counterparty, result in its settlement by the transfer of the entity's own equity instruments, these terms do not affect its classification as current or non-current only if the entity recognises the option separately as an equity instrument applying IAS 32 *Financial Instruments: Presentation*.

Based on the Group's outstanding liabilities as at 31 December 2019 and the related terms and conditions stipulated in the agreements between the Group and the relevant lenders, the application of the amendments will not result in reclassification of the Group's liabilities.

Amendments to IFRS 3 *Definition of a Business*

The amendments:

- add an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business. The election on whether to apply the optional concentration test is available on transaction-by-transaction basis;

- clarify that to be considered a business, an acquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs; and

- narrow the definitions of a business and of outputs by focusing on goods and services provided to customers and by removing the reference to an ability to reduce costs.

The Group will apply the amendments prospectively to all business combinations and asset acquisitions for which the acquisition date is on or after the annual reporting period beginning on or after 1 January 2020.

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards in issue but not yet effective (Continued)

Amendments to IAS 1 and IAS 8 *Definition of Material*

The amendments provide refinements to the definition of material by including additional guidance and explanations in making materiality judgments. In particular, the amendments:

- include the concept of "obscuring" material information in which the effect is similar to omitting or misstating the information;
- replace threshold for materiality influencing users from "could influence" to "could reasonably be expected to influence"; and
- include the use of the phrase "primary users" rather than simply referring to "users" which was considered too broad when deciding what information to disclose in the financial statements.

The amendments also align the definition across all IFRS Standards and will be mandatorily effective for the Group's annual period beginning on 1 January 2020. The application of the amendments is not expected to have significant impact on the financial position and performance of the Group but may affect the presentation and disclosures in the consolidated financial statements.

Conceptual Framework for Financial Reporting 2018 (the "New Framework") and the Amendments to References to the Conceptual Framework in IFRS Standards

The New Framework:

- reintroduces the terms stewardship and prudence;
- introduces a new asset definition that focuses on rights and a new liability definition that is likely to be broader than the definition it replaces, but does not change the distinction between a liability and an equity instrument;
- discusses historical cost and current value measures, and provides additional guidance on how to select a measurement basis for a particular asset or liability;
- states that the primary measure of financial performance is profit or loss, and that only in exceptional circumstances other comprehensive income ("OCI") will be used and only for income or expenses that arise from a change in the current value of an asset or liability; and
- discusses uncertainty, derecognition, unit of account, the reporting entity and combined financial statements.

3. APPLICATION OF NEW AND AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS ("IFRS STANDARDS") (Continued)

New and amendments to IFRS Standards in issue but not yet effective (Continued)

Conceptual Framework for Financial Reporting 2018 (the "New Framework") and the Amendments to References to the Conceptual Framework in IFRS Standards (Continued)

Consequential amendments have been made so that references in certain IFRS Standards have been updated to the New Framework, whilst some IFRS Standards are still referred to the previous versions of the framework. These amendments are effective for the Group's annual period beginning on or after 1 January 2020. Other than specific standards which still refer to the previous versions of the framework, the Group will rely on the New Framework on its effective date in determining the accounting policies especially for transactions, events or conditions that are not otherwise dealt with under the accounting standards.

4. SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in accordance with IFRS Standards issued by the IASB. In addition, the consolidated financial statements include applicable disclosures required by the Rules Governing the Listing of Securities on the Stock Exchange ("Listing Rules") and by the Hong Kong Companies Ordinance.

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are measured at fair values at the end of each reporting period, as explained in the accounting policies set out below.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for share-based payment transactions that are within the scope of IFRS 2 *Share-based Payment*, leasing transactions that are accounted for in accordance with IFRS 16 (since 1 January 2019) or IAS 17 (before application of IFRS 16), and measurements that have some similarities to fair value but are not fair value, such as net realisable value in IAS 2 *Inventories* or value in use in IAS 36 *Impairment of Assets*.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

The principal accounting policies are set out below.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries. Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

Profit or loss and each item of OCI are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Basis of consolidation (Continued)

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies in line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Non-controlling interests in subsidiaries are presented separately from the Group's equity therein, which represent present ownership interests entitling their holders to a proportionate share of net assets of the relevant subsidiaries upon liquidation.

Changes in the Group's interests in existing subsidiaries

Changes in the Group's interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's relevant components of equity and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries, including re-attribution of relevant reserves between the Group and the non-controlling interests according to the Group's and the non-controlling interests' proportionate interests.

Any difference between the amount by which the non-controlling interests are adjusted, and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, the assets and liabilities of that subsidiary and non-controlling interest (if any) are derecognised. A gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the carrying amount of the assets (including goodwill), and liabilities of the subsidiary attributable to the owners of the Company. All amounts previously recognised in OCI in relation to that subsidiary are accounted for as if the Group had directly disposed of the related assets or liabilities of the subsidiary (i.e. reclassified to profit or loss or transferred to another category of equity as specified/ permitted by applicable IFRS Standards). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IFRS 9 *Financial Instruments* ("IFRS 9") or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Business combinations

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. Acquisition-related costs are generally recognised in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value, except that:

- deferred tax assets or liabilities, and assets or liabilities related to employee benefit arrangements are recognised and measured in accordance with IAS 12 *Income Taxes* and IAS 19 *Employee Benefits* respectively;

- liabilities or equity instruments related to share-based payment arrangements of the acquiree or share-based payment arrangements of the Group entered into to replace share-based payment arrangements of the acquiree are measured in accordance with IFRS 2 at the acquisition date (see the accounting policy below);

- assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations* are measured in accordance with that standard; and

- lease liabilities are recognised and measured at the present value of the remaining lease payments (as defined in IFRS 16) as if the acquired leases were new leases at the acquisition date, except for leases for which (a) the lease term ends within 12 months of the acquisition date; or (b) the underlying asset is of low value. Right-of-use assets are recognised and measured at the same amount as the relevant lease liabilities, adjusted to reflect favourable or unfavourable terms of the lease when compared with market terms, except for right-of-use assets relating to leasehold lands in which the relevant acquirees are the registered owners with full upfront lease payments, which are measured at fair value.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net amount of the identifiable assets acquired and the liabilities assumed as at acquisition date. If, after reassessment, the net amount of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Business combinations (Continued)

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the relevant subsidiary's net assets in the event of liquidation are initially measured at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets or at fair value. The choice of measurement basis is made on a transaction-by-transaction basis. Other types of non-controlling interests are measured at their fair value.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (i.e. the date when the Group obtains control), and the resulting gain or loss, if any, is recognised in profit or loss or OCI, as appropriate. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in OCI and measured under IFRS 9 would be accounted for on the same basis as would be required if the Group had disposed directly of the previously held equity interest.

Acquisition of a subsidiary not constituting a business

When the Group acquires a group of assets and liabilities that do not constitute a business, the Group identifies and recognises the individual identifiable assets acquired and liabilities assumed by allocating the purchase price first to financial assets/financial liabilities at the respective fair values, the remaining balance of the purchase price is then allocated to the other identifiable assets and liabilities on the basis of their relative fair values at the date of purchase. Such a transaction does not give rise to goodwill or bargain purchase gain.

Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Investments in associates and joint ventures (Continued)

The results and assets and liabilities of associates and joint ventures are incorporated in these consolidated financial statements using the equity method of accounting. The financial statements of associates and joint ventures used for equity accounting purposes are prepared using uniform accounting policies as those of the Group for like transactions and events in similar circumstances. Under the equity method, an investment in an associate or a joint venture is initially recognised in the consolidated statement of financial position at cost and adjusted thereafter to recognise the Group's share of the profit or loss and OCI of the associate or joint venture. Changes in net assets of the associate/joint venture other than profit or loss and OCI are not accounted for unless such changes resulted in changes in ownership interest held by the Group. When the Group's share of losses of an associate or a joint venture exceeds the Group's interest in that associate or joint venture (which includes any long-term interests that, in substance, form part of the Group's net investment in the associate or joint venture), the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

An investment in an associate or a joint venture is accounted for using the equity method from the date on which the investee becomes an associate or a joint venture. On acquisition of the investment in an associate or a joint venture, any excess of the cost of the investment over the Group's share of the net fair value of the identifiable assets and liabilities of the investee is recognised as goodwill, which is included within the carrying amount of the investment. Any excess of the Group's share of the net fair value of the identifiable assets and liabilities over the cost of the investment, after reassessment, is recognised immediately in profit or loss in the period in which the investment is acquired. If the initial accounting for acquisition of the investment in an associate or a joint venture is incomplete by the end of the reporting period in which the acquisition occurs, the Group reports provisional amounts for the items for which the accounting is incomplete during measurement period, which cannot exceed one year from the acquisition date. Those provisional amounts are adjusted retrospectively during the measurement period, and additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

The Group assesses whether there is an objective evidence that the interest in an associate or a joint venture may be impaired. When any objective evidence exists, the entire carrying amount of the investment (including goodwill) is tested for impairment in accordance with IAS 36 as a single asset by comparing its recoverable amount (higher of value in use and fair value less costs of disposal) with its carrying amount. Any impairment loss recognised is not allocated to any asset, including goodwill, that forms part of the carrying amount of the investment. Any reversal of that impairment loss is recognised in accordance with IAS 36 to the extent that the recoverable amount of the investment subsequently increases.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Investments in associates and joint ventures (Continued)

When the Group ceases to have significant influence over an associate or joint control over a joint venture, it is accounted for as a disposal of the entire interest in the investee with a resulting gain or loss being recognised in profit or loss. When the Group retains an interest in the former associate or joint venture and the retained interest is a financial asset within the scope of IFRS 9, the Group measures the retained interest at fair value at that date and the fair value is regarded as its fair value on initial recognition. The difference between the carrying amount of the associate or joint venture and the fair value of any retained interest and any proceeds from disposing of the relevant interest in the associate or joint venture is included in the determination of the gain or loss on disposal of the associate or joint venture. In addition, the Group accounts for all amounts previously recognised in OCI in relation to that associate or joint venture on the same basis as would be required if that associate or joint venture had directly disposed of the related assets or liabilities. Therefore, if a gain or loss previously recognised in OCI by that associate or joint venture would be reclassified to profit or loss on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) upon disposal/partial disposal of the relevant associate or joint venture.

When the Group reduces its ownership interest in an associate or a joint venture but the Group continues to use the equity method, the Group reclassifies to profit or loss the proportion of the gain or loss that had previously been recognised in OCI relating to that reduction in ownership interest if that gain or loss would be reclassified to profit or loss on the disposal of the related assets or liabilities.

When a group entity transacts with an associate or a joint venture of the Group, profits and losses resulting from the transactions with the associate or joint venture are recognised in the Group's consolidated financial statements only to the extent of interests in the associate or joint venture that are not related to the Group.

Non-current assets held for sale

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the asset (or disposal group) is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such asset (or disposal group) and its sale is highly probable. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

When the Group is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a non-controlling interest in the relevant subsidiary after the sale.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Non-current assets held for sale (Continued)

When the Group is committed to a sale plan involving disposal of an investment, or a portion of an investment, in an associate or joint venture, the investment or the portion of the investment that will be disposed of is classified as held for sale when the criteria described above are met, and the Group discontinues the use of the equity method in relation to the portion that is classified as held for sale from the time when the investment (or a portion of the investment) is classified as held for sale.

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell, except financial assets within the scope of IFRS 9, which continue to be measured in accordance with the accounting policies as set out in respective sections.

Revenue from contracts with customers

The Group recognises revenue when (or as) a performance obligation is satisfied, i.e. when "control" of the goods or services underlying the particular performance obligation is transferred to the customer.

A performance obligation represents a good or service (or a bundle of goods or services) that is distinct or a series of distinct goods or services that are substantially the same.

Control is transferred over time and revenue is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation if one of the following criteria is met:

- the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs;
- the Group's performance creates or enhances an asset that the customer controls as the Group performs; or
- the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

Otherwise, revenue is recognised at a point in time when the customer obtains control of the distinct good or service.

A contract asset represents the Group's right to consideration in exchange for goods or services that the Group has transferred to a customer that is not yet unconditional. It is assessed for impairment in accordance with IFRS 9. In contrast, a receivable represents the Group's unconditional right to consideration, i.e. only the passage of time is required before payment of that consideration is due.

A contract liability represents the Group's obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer.

A contract asset and a contract liability relating to the same contract are accounted for and presented on a net basis.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Revenue from contracts with customers (Continued)

Over time revenue recognition: measurement of progress towards complete satisfaction of a performance obligation

Output method

The progress towards complete satisfaction of a performance obligation is measured based on output method, which is to recognise revenue on the basis of direct measurements of the value of the goods or services transferred to the customer to date relative to the remaining goods or services promised under the contract, that best depict the Group's performance in transferring control of goods or services.

As a practical expedient, if the Group has a right to consideration in an amount that corresponds directly with the value of the Group's performance completed to date, the Group recognises revenue in the amount to which the Group has the right to invoice.

Variable consideration

For contracts that contain variable consideration in relation to sales of electricity to the grid companies which contain tariff adjustments related to solar farms yet to obtain approval for registration in the Renewable Energy Tariff Subsidy Catalogue (可再生能源電價附加資金輔助目錄, the "Catalogue") by the PRC government, the Group estimates the amount of consideration to which it will be entitled using the most likely amount.

The estimated amount of variable consideration is included in the transaction price only to the extent that it is highly probable that such an inclusion will not result in a significant revenue reversal in the future when the uncertainty with the variable consideration is subsequently resolved.

At the end of each reporting period, the Group updates the estimated transaction price (including updating its assessment of whether an estimate of variable consideration is constrained) to represent faithfully the circumstances present at the end of the reporting period and the changes in circumstances during the reporting period.

Existence of significant financing component

In determining the transaction price, the Group adjusts the promised amount of consideration for the effects of the time value of money if the timing of payments agreed (either explicitly or implicitly) provides the customer or the Group with a significant benefit of financing the transfer of goods or services to the customer. In those circumstances, the contract contains a significant financing component. A significant financing component may exist regardless of whether the promise of financing is explicitly stated in the contract or implied by the payment terms agreed to by the parties to the contract.

For contracts where the period between payment and transfer of the associated goods or services is less than one year, the Group applies the practical expedient of not adjusting the transaction price for any significant financing component.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Leases

Definition of a lease (upon application of IFRS 16 in accordance with transitions in note 3)

A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

For contracts entered into or modified or arising from business combinations on or after the date of initial application, the Group assesses whether a contract is or contains a lease based on the definition under IFRS 16 at inception, modification date or acquisition date, as appropriate. Such contract will not be reassessed unless the terms and conditions of the contract are subsequently changed.

The Group as a lessee (upon application of IFRS 16 in accordance with transitions in note 3)

Allocation of consideration to components of a contract

For a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

The Group also applies practical expedient not to separate non-lease components from lease component, and instead account for the lease component and any associated non-lease components as a single lease component.

As a practical expedient, leases with similar characteristics are accounted on a portfolio basis when the Group reasonably expects that the effects on the consolidated financial statements would not differ materially from individual leases within the portfolio.

Short-term leases and leases of low-value assets

The Group applies the short-term lease recognition exemption to leases of offices, motor vehicles and staff quarters that have a lease term of 12 months or less from the commencement date and do not contain a purchase option. It also applies the recognition exemption for lease of low-value assets. Lease payments on short-term leases and leases of low-value assets are recognised as expense on a straight-line basis or another systematic basis over the lease term.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Leases (Continued)

The Group as a lessee (upon application of IFRS 16 in accordance with transitions in note 3) (Continued)

Right-of-use assets

The cost of right-of-use asset includes:

- the amount of the initial measurement of the lease liability;
- any lease payments made at or before the commencement date, less any lease incentives received;
- any initial direct costs incurred by the Group; and
- an estimate of costs to be incurred by the Group in dismantling and removing the underlying assets, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities.

Right-of-use assets in which the Group is reasonably certain to obtain ownership of the underlying leased assets at the end of the lease term are depreciated from commencement date to the end of the useful life. Otherwise, right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term.

The Group presents right-of-use assets as a separate line item on the consolidated statement of financial position.

Refundable rental deposits

Refundable rental deposits paid are accounted under IFRS 9 and initially measured at fair value. Adjustments to fair value at initial recognition are considered as additional lease payments and included in the cost of right-of-use assets.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Leases (Continued)

The Group as a lessee (upon application of IFRS 16 in accordance with transitions in note 3) (Continued)

Lease liabilities

At the commencement date of a lease, the Group recognises and measures the lease liability at the present value of lease payments that are unpaid at that date. In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable.

The lease payments include:

- fixed payments (including in-substance fixed payments) less any lease incentives receivable;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable by the Group under residual value guarantees;
- the exercise price of a purchase option if the Group is reasonably certain to exercise the option; and
- payments of penalties for terminating a lease, if the lease term reflects the Group exercising an option to terminate the lease.

After the commencement date, lease liabilities are adjusted by interest accretion and lease payments.

The Group remeasures lease liabilities (and makes a corresponding adjustment to the related right-of-use assets) when the lease payments change due to changes in market rental rates following a market rent review, in which cases the related lease liability is remeasured by discounting the revised lease payments using the initial discount rate.

The Group presents lease liabilities as a separate line item on the consolidated statement of financial position.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Leases (Continued)

The Group as a lessee (upon application of IFRS 16 in accordance with transitions in note 3) (Continued)

Lease modifications

The Group accounts for a lease modification as a separate lease if:

- the modification increases the scope of the lease by adding the right to use one or more underlying assets; and
- the consideration for the leases increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments to that stand-alone price to reflect the circumstances of the particular contract.

For a lease modification that is not accounted for as a separate lease, the Group remeasures the lease liability based on the lease term of the modified lease by discounting the revised lease payments using a revised discount rate at the effective date of the modification.

The Group accounts for the remeasurement of lease liabilities by making corresponding adjustments to the relevant right-of-use asset. When the modified contract contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the modified contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

The Group as a lessee (prior to 1 January 2019)

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Assets held under finance leases are recognised as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the consolidated statement of financial position as a finance lease obligation.

Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance expenses are recognised immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalised in accordance with the Group's general policy on borrowing costs (see the accounting policy below).

Operating lease payments, including the cost of acquiring land held under operating leases, are recognised as an expense on a straight-line basis over the lease term.

Lease incentives relating to operating leases are considered as integral part of lease payments, the aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Leases (Continued)

The Group as a lessor

Classification and measurement of leases

Leases for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards incidental to ownership of an underlying asset to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

Rental income from operating leases is recognised in profit or loss on a straight-line basis over the term of the relevant lease. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset, and such costs are recognised as an expense on a straight-line basis over the lease term.

The Group as a lessor (upon application of IFRS 16 in accordance with transitions in note 3)

Refundable rental deposits

Refundable rental deposits received are accounted for under IFRS 9 and initially measured at fair value.

Sale and leaseback transactions (upon application of IFRS 16 since 1 January 2019)

The Group applies the requirements of IFRS 15 to assess whether sale and leaseback transaction constitutes a sale by the Group.

The Group as a seller-lessee

For a transfer that does not satisfy the requirements as a sale, the Group as a seller-lessee accounts for the transfer proceeds as loans from a related company and other loans within the scope of IFRS 9.

Sale and leaseback transactions (prior to 1 January 2019)

The accounting treatment of a sale and leaseback transaction depends on the type of lease involved. The leaseback may be a finance lease if it meets the condition that substantially all the risks and rewards of ownership remain with the lessee, or it may be an operating lease (in which case, some significant risks and rewards of ownership have been transferred to the purchaser).

The Group as a seller-lessee

If a sale and leaseback transaction results in a finance lease, any excess of sale proceeds over the carrying amount is not immediately recognised as income by the Group. Instead, it is deferred and amortised over the lease term. If the fair value at the time of a sale and leaseback transaction is less than the carrying amount of the asset, no adjustment is necessary unless there has been an impairment in value, in which case the carrying amount is reduced to recoverable amount.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Foreign currencies

In preparing the financial statements of each individual group entity, transactions in currencies other than the functional currency of that entity (foreign currencies) are recognised at the rates of exchanges prevailing on the dates of the transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at the date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing on the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are recognised in profit or loss in the period in which they arise.

For the purposes of presenting the consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated into the presentation currency of the Group (i.e. RMB) using exchange rate prevailing at the end of each reporting period. Income and expenses items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during the period, in which case, the exchange rates prevailing at the dates of transactions are used. Exchange differences arising, if any, are recognised in OCI and accumulated in equity under the heading of translation reserve (attributed to non-controlling interests as appropriate).

On the disposal of a foreign operation (that is, a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation, or a partial disposal of an interest in a joint arrangement or an associate that includes a foreign operation of which the retained interest becomes a financial asset), all of the exchange differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

In addition, in relation to a partial disposal of a subsidiary that does not result in the Group losing control over the subsidiary, the proportionate share of accumulated exchange differences are re-attributed to non-controlling interests and are not recognised in profit or loss. For all other partial disposals (i.e. partial disposals of associates or joint arrangements that do not result in the Group losing significant influence or joint control), the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Borrowing costs

Borrowing costs are directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets until such time as the assets are substantially ready for their intended use or sale.

Effective on 1 January 2019, any specific borrowing that remain outstanding after the related asset is ready for its intended use or sale is included in the general borrowing pool for calculation of capitalisation rate on general borrowings. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

Government grants

Government grants are not recognised until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants are recognised in profit or loss on a systematic basis over the periods in which the Group recognises as expenses the related costs for which the grants are intended to compensate. Specifically, government grants whose primary condition is that the Group should purchase, construct or otherwise acquire non-current assets are recognised as deferred income in the consolidated statement of financial position and transferred to profit or loss on a systematic and rational basis over the useful lives of the related assets.

Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognised in profit or loss in the period in which they become receivable.

Retirement benefit costs

Payments to defined contribution retirement benefit plans including state-managed retirement benefit schemes and the Mandatory Provident Fund Scheme are recognised as an expense when employees have rendered service entitling them to the contributions.

Short-term employee benefits

Short-term employee benefits are recognised at the undiscounted amount of the benefits expected to be paid as and when employees rendered the services. All short-term employee benefits are recognised as an expense unless another IFRS Standard requires or permits the inclusion of the benefit in the cost of an asset.

A liability is recognised for benefits accruing to employees (such as wages and salaries, annual leave and sick leave) after deducting any amount already paid.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Share-based payments

Equity-settled share-based payment transactions

Share options granted to employees

Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date.

The fair value of the equity-settled share-based payments determined at the grant date without taking into consideration all non-market vesting conditions is expensed on a straight-line basis over the vesting period, based on the Group's estimate of equity instruments that will eventually vest, with a corresponding increase in equity (share options reserve). At the end of each reporting period, the Group revises its estimates of the number of equity instruments expected to vest based on assessment of all relevant non-market vesting conditions. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to share options reserve. For share options that vest immediately at the date of grant, the fair value of the share options granted is expensed immediately to profit or loss.

When share options are exercised, the amount previously recognised in share options reserve will be transferred to share premium. When the share options are forfeited after the vesting date or are still not exercised at the expiry date, the amount previously recognised in share options reserve will be transferred to accumulated profits.

Cash-settled share-based payment transactions

For cash-settled share-based payments, a liability is recognised for the goods or services acquired, measured initially at the fair value of the liability. The fair value of the cash-settled share-based payments is determined without taking into consideration all non-market vesting conditions.

At the end of each reporting period until the liability is settled, and at the date of settlement, the liability is remeasured to fair value. For cash-settled share-based payments that are already vested, any changes in fair value are recognised in profit or loss for the year. For cash-settled share based payments which are still subject to non-market vesting conditions, the effects of vesting and non-vesting conditions are accounted on the same basis as equity-settled share-based payments.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit/loss before tax because of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities are not recognised if the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. In addition, deferred tax liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill.

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rate (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

For the purposes of measuring deferred tax for leasing transactions in which the Group recognises the right-of-use assets and the related lease liabilities, the Group first determines whether the tax deductions are attributable to the right-of-use assets or the lease liabilities.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Taxation (Continued)

For leasing transactions in which the tax deductions are attributable to the lease liabilities, the Group applies IAS 12 *Income Taxes* requirements to the leasing transaction as a whole. Temporary differences relating to right-of-use assets and lease liabilities are assessed on a net basis. Excess of depreciation on right-of-use assets over the lease payments for the principal portion of lease liabilities resulting in net deductible temporary differences.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied to the same taxable entity by the same taxation authority.

Current and deferred tax are recognised in profit or loss, except when they relate to items that are recognised in OCI or directly in equity, in which case, the current and deferred tax are also recognised in OCI or directly in equity respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

In assessing any uncertainty over income tax treatments, the Group considers whether it is probable that the relevant tax authority will accept the uncertain tax treatment used, or proposed to be use by individual group entities in their income tax filings. If it is probable, the current and deferred taxes are determined consistently with the tax treatment in the income tax filings. If it is not probable that the relevant taxation authority will accept an uncertain tax treatment, the effect of each uncertainty is reflected by using either the most likely amount or the expected value.

Property, plant and equipment

Property, plant and equipment are tangible assets that are held for use in the production or supply of goods or services, or for administration purposes (other than properties under construction as described below). Property, plant and equipment are stated in the consolidated statement of financial position at cost less subsequent accumulated depreciation and subsequent accumulated impairment losses, if any.

Property, plant and equipment in the course of construction for production, supply or administrative purposes are carried at cost, less any recognised impairment loss. Costs include any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management and, for qualifying assets, borrowing costs capitalised in accordance with the Group's accounting policy. Depreciation of these assets, on the same basis as other property assets, commences when the assets are ready for their intended use.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Property, plant and equipment (Continued)

Ownership interests in leasehold land and building

When the Group makes payments for ownership interests of properties which includes both leasehold land and building elements, the entire consideration is allocated between the leasehold land and the building elements in proportion to the relative fair values at initial recognition.

To the extent the allocation of the relevant payments can be made reliably, interest in leasehold land is presented as "right-of-use assets" (upon application of IFRS 16) or "prepaid lease payments" (before application of IFRS 16) in the consolidated statement of financial position. When the consideration cannot be allocated reliably between non-lease building element and undivided interest in the underlying leasehold land, the entire properties are classified as property, plant and equipment.

Depreciation is recognised so as to write off the cost of assets other than properties under construction less their residual values over their estimated useful lives, using the straight-line method. The estimated useful lives, residual values and depreciation method are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

Investment properties

Investment properties are properties held to earn rentals and/or for capital appreciation.

Investment properties are initially measured at cost, including any directly attribution expenditure. Subsequent to initial recognition, investment properties are stated at cost less subsequent accumulated depreciation and any accumulated impairment losses. Depreciation is recognised so as to write off the cost of investment properties over their estimated useful lives and after taking into account of their estimated residual value, using the straight-line method.

An investment property is derecognised upon disposal or when the investment property is permanently withdrawn from use and no future economic benefits are expected from its disposals. Any gain or loss arising on derecognition of the property (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in profit or loss in the period in which the property is derecognised.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Intangible assets

Intangible assets acquired separately

Intangible assets with finite useful lives that are acquired separately are carried at costs less accumulated amortisation and any accumulated impairment losses. Amortisation for intangible assets with finite useful lives is recognised on a straight-line basis over their estimated useful lives. The estimated useful lives and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis.

Internally-generated intangible assets — research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from development activities (or from the development phase of an internal project) is recognised if, and only if, all of the following have been demonstrated:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount initially recognised for internally-generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets the recognition criteria listed above. Where no internally-generated intangible asset can be recognised, development expenditure is recognised in profit or loss in the period in which it is incurred.

Subsequent to initial recognition, internally-generated intangible assets are reported at cost less accumulated amortisation and accumulated impairment losses (if any), on the same basis as intangible assets that are acquired separately.

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Impairment on property, plant and equipment, right-of-use assets and intangible assets other than goodwill

At the end of the reporting period, the Group reviews the carrying amounts of its property, plant and equipment, right-of-use assets and intangible assets with finite useful lives to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the relevant asset is estimated in order to determine the extent of the impairment loss (if any).

The recoverable amount of property, plant and equipment, right-of-use assets and intangible assets are estimated individually. When it is not possible to estimate the recoverable amount individually, the Group estimates the recoverable amount of the cash-generating unit ("CGU") to which the asset belongs.

In addition, corporate assets are allocated to individual CGUs when a reasonable and consistent basis of allocation can be established, or otherwise they are allocated to the smallest group of CGUs for which a reasonable and consistent allocation basis can be established. The Group assesses whether there is indication that corporate assets may be impaired. If such indication exists, the recoverable amount is determined for the CGU or group of CGUs to which the corporate asset belongs, and is compared with the carrying amount of the relevant CGU or group of CGUs.

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset (or a CGU) for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a CGU) is estimated to be less than its carrying amount, the carrying amount of the asset (or the CGU) is reduced to its recoverable amount. For corporate assets or portion of corporate assets which cannot be allocated on a reasonable and consistent basis to a CGU, the Group compares the carrying amount of a group of CGUs, including the carrying amounts of the corporate assets or portion of corporate assets allocated to that group of CGUs, with the recoverable amount of the group of CGUs. In allocating the impairment loss, the impairment loss is allocated first to reduce the carrying amount of any goodwill (if applicable) and then to the other assets on a pro-rata basis based on the carrying amount of each asset in the unit or the group of CGUs. The carrying amount of an asset is not reduced below the highest of its fair value less costs of disposal (if measurable), its value in use (if determinable) and zero. The amount of the impairment loss that would otherwise have been allocated to the asset is allocated pro rata to the other assets of the unit or the group of CGUs. An impairment loss is recognised immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or CGU or a group of CGUs) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or a CGU or a group of CGUs) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Inventories

Inventories are stated at the lower of cost and net realisable value. Costs of inventories are determined on a weighted average method. Net realisable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

Financial instruments

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instruments. All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the market place.

Financial assets and financial liabilities are initially measured at fair value except for trade receivables arising from contracts with customers which are initially measured in accordance with IFRS 15. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at FVTPL) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVTPL are recognised immediately in profit or loss.

The effective interest method is a method of calculating the amortised cost of a financial asset or financial liability and of allocating interest income and interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts and payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset or financial liability, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

Financial assets

Classification and subsequent measurement of financial assets

Financial assets that meet the following conditions are subsequently measured at amortised cost:

- the financial asset is held within a business model whose objective is to collect contractual cash flows; and

- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Classification and subsequent measurement of financial assets (Continued)

Financial assets that meet the following conditions are subsequently measured at FVTOCI:

- the financial asset is held within a business model whose objective is achieved by both selling and collecting contractual cash flows; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

All other financial assets are subsequently measured at FVTPL, except that at the date of initial application of IFRS 9/initial recognition of a financial asset the Group may irrevocably elect to present subsequent changes in fair value of an equity investment in OCI if that equity investment is neither held for trading nor contingent consideration recognised by an acquirer in a business combination to which IFRS 3 *Business Combinations* applies.

A financial asset is held for trading if:

- it has been acquired principally for the purpose of selling in the near term; or
- on initial recognition it is a part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

In addition, the Group may irrevocably designate a financial asset that are required to be measured at the amortised cost or FVTOCI as measured at FVTPL if doing so eliminates or significantly reduces an accounting mismatch.

(i) Amortised cost and interest income

Interest income is recognised using the effective interest method for financial assets measured subsequently at amortised cost and debt instruments subsequently measured at FVTOCI. Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit-impaired (see below). For financial assets that have subsequently become credit-impaired, interest income is recognised by applying the effective interest rate to the amortised cost of the financial asset from the next reporting period. If the credit risk on the credit-impaired financial instrument improves so that the financial asset is no longer credit-impaired, interest income is recognised by applying the effective interest rate to the gross carrying amount of the financial asset from the beginning of the reporting period following the determination that the asset is no longer credit-impaired.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Classification and subsequent measurement of financial assets (Continued)

(ii) **Debt instruments classified as at FVTOCI**

Subsequent changes in the carrying amounts for debt instruments classified as at FVTOCI as a result of interest income calculated using the effective interest method, and foreign exchange gains and losses are recognised in profit or loss. All other changes in the carrying amount of these debt instruments are recognised in OCI and accumulated under the heading of investments revaluation reserve. Impairment allowances are recognised in profit or loss with corresponding adjustment to OCI without reducing the carrying amounts of these debt instruments. When these debt instruments are derecognised, the cumulative gains or losses previously recognised in OCI are reclassified to profit or loss.

(iii) **Equity instruments designated as at FVTOCI**

Investments in equity instruments at FVTOCI are subsequently measured at fair value with gains and losses arising from changes in fair value recognised in OCI and accumulated in the investments revaluation reserve; and are not subject to impairment assessment. The cumulative gain or loss will not be reclassified to profit or loss on disposal of the equity investments, and will be transferred to accumulated profits.

Dividends from these investments in equity instruments are recognised in profit or loss when the Group's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment. Dividends are included in the "other income" line item in profit or loss.

(iv) **Financial assets at FVTPL**

Financial assets that do not meet the criteria for being measured at amortised cost or FVTOCI or designated as FVTOCI are measured at FVTPL.

Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognised in profit or loss. The net gain or loss recognised in profit or loss includes any dividend or interest earned on the financial asset and is included in the "other expenses, gains and losses, net" line item.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Impairment of financial assets, financial guarantee contracts and contract assets

The Group performs impairment assessment under ECL model on financial assets (including debt instruments at FVTOCI, trade and other receivables, amounts due from related companies, pledged and restricted bank and other deposits and bank balances), financial guarantee contracts and contract assets which are subject to impairment under IFRS 9. The amount of ECL is updated at each reporting date to reflect changes in credit risk since initial recognition.

Lifetime ECL represents the ECL that will result from all possible default events over the expected life of the relevant instrument. In contrast, 12-month ECL ("12m ECL") represents the portion of lifetime ECL that is expected to result from default events that are possible within 12 months after the reporting date. Assessments are done based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current conditions at the reporting date as well as the forecast of future conditions.

The Group always recognises lifetime ECL for trade receivables, amounts due from related companies (trade related) and contract assets, including those with significant financing component. The ECL on these assets are assessed individually for debtors with significant balances or credit-impaired and/or collectively using a provision matrix for debtors which shared credit risk characteristics by reference to past default experience of the debtor, adjusted for factors in relation to general economic conditions of the solar industry and an assessment of both the current as well as the forecast direction of conditions at the reporting date.

For all other instruments, the Group measures the loss allowance equals to 12m ECL, unless when there has been a significant increase in credit risk since initial recognition, the Group recognises lifetime ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Impairment of financial assets, financial guarantee contracts and contract assets (Continued)

(i) Significant increase in credit risk

In assessing whether the credit risk has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk, e.g. a significant increase in the credit spread, the credit default swap prices for the debtor;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;
- an actual or expected significant deterioration in the operating results of the debtor; and
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

Despite the aforegoing, the Group assumes that the credit risk on a debt instrument has not increased significantly since initial recognition if the debt instrument is determined to have low credit risk at the reporting date. A debt instrument is determined to have low credit risk if i) it has a low risk of default, ii) the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and iii) adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations. The Group considers a debt instrument to have low credit risk when it has an internal or external credit rating of 'investment grade' as per globally understood definitions.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Impairment of financial assets, financial guarantee contracts and contract assets (Continued)

(i) Significant increase in credit risk (Continued)

For financial guarantee contracts, the date that the Group becomes a party to the irrevocable commitment is considered to be the date of initial recognition for the purposes of assessing impairment. In assessing whether there has been a significant increase in the credit risk since initial recognition of financial guarantee contracts, the Group considers the changes in the risk that the specified debtor will default on the contract.

The Group regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

(ii) Definition of default

For internal credit risk management, the Group considers an event of default occurs when information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Group, in full (without taking into account any collaterals held by the Group).

Irrespective of the above, the Group considers that default has occurred when a financial asset is more than 90 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

(iii) Credit-impaired financial assets

A financial asset is credit-impaired when one or more events of default that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

(a) significant financial difficulty of the issuer or the borrower;

(b) a breach of contract, such as a default or past due event;

(c) the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;

(d) it is becoming probable that the borrower will enter bankruptcy or other financial reorganisation; or

(e) the disappearance of an active market for that financial asset because of financial difficulties.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Impairment of financial assets, financial guarantee contracts and contract assets (Continued)

(iv) Write-off policy

The Group writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, for example, when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are over three years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. A write-off constitutes a derecognition event. Any subsequent recoveries are recognised in profit or loss.

(v) Measurement and recognition of ECL

The measurement of ECL is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data adjusted by forward-looking information. Estimation of ECL reflects an unbiased and probability-weighted amount that is determined with the respective risks of default occurring as the weights.

Generally, the ECL is the difference between all contractual cash flows that are due to the Group in accordance with the contract and the cash flows that the Group expects to receive, discounted at the effective interest rate determined at initial recognition.

For a financial guarantee contract, the Group is required to make payments only in the event of a default by the debtor in accordance with the terms of the instruments that is guaranteed. Accordingly, the expected losses is the present value of the expected payments to reimburse the holder for a credit loss that it incurs less any amounts that the Group expects to receive from the holder, the debtor or any other party.

For ECL on financial guarantee contracts for which the effective interest rate cannot be determined, the Group will apply a discount rate that reflects the current market assessment of the time value of money and the risks that are specific to the cash flows but only if, and to the extent that the risks are taken into account by adjusting the discount rate instead of adjusting the cash shortfalls being discounted.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Impairment of financial assets, financial guarantee contracts and contract assets (Continued)

(v) Measurement and recognition of ECL (Continued)

Where ECL 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 by taking into consideration the following factors:

- nature of debtors (i.e. the Group's trade receivables arising from sales of polysilicon and wafer, trade receivables and contract assets arising from sales of electricity and amounts due from related companies (trade related) are each assessed as a separate group);
- past-due status;
- past default experience of the debtors;
- aging of the debtors;
- general economic conditions of the solar industry; and
- internal and external credit ratings where available.

The grouping is regularly reviewed by management to ensure the constituents of each group continue to share similar credit risk characteristics.

Interest income is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit-impaired, in which case interest income is calculated based on amortised cost of the financial asset.

For financial guarantee contracts, the loss allowances are recognised at the higher of the amount of the loss allowance determined in accordance with IFRS 9; and the amount initially recognised less, where appropriate, cumulative amount of income recognised over the guarantee period.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial assets (Continued)

Impairment of financial assets, financial guarantee contracts and contract assets (Continued)

(v) **Measurement and recognition of ECL (Continued)**

Except for investments in debt instruments that are measured at FVTOCI and financial guarantee contracts, the Group recognises an impairment gain or loss in profit or loss for all financial instruments by adjusting their carrying amount, with the exception of trade receivables, amounts due from related companies (trade related) and contract assets where the corresponding adjustment is recognised through a loss allowance account. For investments in debt instruments that are measured at FVTOCI, the loss allowance is recognised in OCI and accumulated in the investments revaluation reserve without reducing the carrying amounts of these debt instruments. Such amount represents the changes in the investments revaluation reserve in relation to accumulated loss allowance.

Derecognition of financial assets

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

On derecognition of a financial asset measured at amortised cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognised in profit or loss.

On derecognition of an investment in a debt instrument classified as at FVTOCI, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to profit or loss.

On derecognition of an investment in equity instrument which the Group has elected on initial recognition to measure at FVTOCI, the cumulative gain or loss previously accumulated in the investments revaluation reserve is not reclassified to profit or loss, but is transferred to accumulated profits.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial liabilities and equity

Classification as debt or equity

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Company are recognised at the proceeds received, net of direct issue costs.

Repurchase of the Company's own equity instruments is recognised and deducted directly in equity. No gain or loss is recognised in profit or loss on the purchase, sale, issue or cancellation of the Company's own equity instruments.

Financial liabilities

All financial liabilities are subsequently measured at amortised cost using the effective interest method or at FVTPL.

Financial liabilities at FVTPL

Financial liabilities are classified as at FVTPL when the financial liability is (i) held for trading or (ii) it is designated as at FVTPL.

A financial liability is held for trading if:

- it has been acquired principally for the purpose of repurchasing it in the near term; or
- on initial recognition it is a part of a portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative, except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial liabilities and equity (Continued)

Financial liabilities at amortised cost

Financial liabilities including trade and other payables, amounts due to related companies, loans from related companies, bank and other borrowings, notes and bonds payables are subsequently measured at amortised cost, using the effective interest method.

The financing arrangements entered into with financial institutions, where the Group transferred the legal title of certain equipment of the Group to the relevant financial institutions, and the Group is obligated to repay by instalments over the lease period, are accounted for as collateralised borrowing at amortised cost using effective interest method. The relevant equipment is not derecognised and continue to depreciate over their useful lives by the Group during the lease period.

Financial guarantee contracts

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due in accordance with the terms of a debt instrument. Financial guarantee contract liabilities are measured initially at their fair values. It is subsequently measured at the higher of:

- the amount of the loss allowance determined in accordance with IFRS 9; and
- the amount initially recognised less, where appropriate, cumulative amortisation recognised over the guarantee period.

4. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Financial instruments (Continued)

Financial liabilities and equity (Continued)

Derecognition/substantial modification of financial liabilities

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

The Group accounts for an exchange with a lender of a financial liability with substantially different terms as an extinguishment of the original financial liability and the recognition of a new financial liability. A substantial modification of the terms of an existing financial liability or a part of it (whether or not attributable to the financial difficulty of the Group) is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability.

The Group considers that the terms are substantially different if the discounted present value of the cash flows under the new terms, including any fees paid net of any fees received and discounted using the original effective interest rate, is at least 10 per cent different from the discounted present value of the remaining cash flows of the original financial liability. Accordingly, such exchange of debt instruments or modification of terms is accounted for as an extinguishment, any costs or fees incurred are recognised as part of the gain or loss on the extinguishment. The exchange or modification is considered as non-substantial modification when such difference is less than 10 per cent.

Non-substantial modifications of financial liabilities

For non-substantial modifications of financial liabilities that do not result in derecognition, the carrying amount of the relevant financial liabilities will be calculated at the present value of the modified contractual cash flows discounted at the financial liabilities' original effective interest rate. Transaction costs or fees incurred are adjusted to the carrying amount of the modified financial liabilities and are amortised over the remaining term. Any adjustment to the carrying amount of the financial liability is recognised in profit or loss at the date of modification.

Derivative financial instruments

Derivatives are initially recognised at fair value at the date when derivative contracts are entered into and are subsequently remeasured to their fair value at the end of the reporting period. The resulting gain or loss is recognised in profit or loss unless the derivative is designated and effective as a hedging instrument, in which event the timing of the recognition in profit or loss depends on the nature of the hedge relationship.

5. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, which are described in note 4, the Directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and underlying assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

Critical judgements in applying accounting policies

The following are the critical judgements, apart from those involving estimations (see below), that the Directors have made in the process of applying the Group's accounting policies and that have the most significant effect on the amounts recognised in the consolidated financial statements.

Revenue recognition on tariff adjustments on electricity sales

Tariff adjustments represent subsidy received and receivable from the government authorities in respect of the Group's solar power generation business.

Pursuant to the New Tariff Notice issued in August 2013 (the "New Tariff Notice"), a set of standardised procedures for the settlement of the tariff subsidy have come into force and approvals for the registration in the Catalogue on a project-by-project basis are required before the allocation of funds to the state grid companies, which then would make settlement to the Group.

In January 2020, the PRC government has simplified the application and approval process to receive tariff adjustments. Pursuant to the 2020 Measures (as defined in note 6) announced by the PRC government in January 2020, the PRC government will no longer announce new additions to the existing Catalogue while the grid companies will regularly announce a List (as defined in note 6) for solar farm projects which are entitled to the tariff adjustments. All on-grid solar farms already registered in the Catalogue would be enlisted in the List automatically. For those on-grid solar farms which are not yet registered in the Catalogue, they need to meet the relevant requirements and conditions for tariff subsidy as stipulated in the 2020 Measures and to complete the submission and application on the Platform (as defined in note 6). Grid companies will observe the principles set out in the 2020 Measures to determine eligibility and regularly announce the on-grid solar farms that are enlisted in the List.

5. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

Critical judgements in applying accounting policies (Continued)

Revenue recognition on tariff adjustments on electricity sales (Continued)

Tariff adjustments of RMB3,957,235,000 (2018: RMB3,738,439,000) are included in the sales of electricity for the year ended 31 December 2019 as disclosed in note 6, of which certain on-grid solar farms of the Group are still pending for registration to the Catalogue as of 31 December 2019, which was an on-going process as the Catalogue was opened for registration on a batch by batch basis under the requirement of the New Tariff Notice. Accordingly, for certain solar farms which are pending for registration to the Catalogue, the relevant tariff adjustments were recognised only to the extent that it is highly probable that such an inclusion will not result in a significant revenue reversal in the future on the basis that all of the Group's operating solar farms had been qualified for, and had met, all the requirements and conditions as required based on the prevailing nationwide government policies on renewable energy for solar farms, and taking into account the legal opinion as advised by the Group's legal advisor, who considered that all of the Group's solar farms currently in operation had met the requirements and conditions as stipulated in the New Tariff Notice for the entitlement of the tariff subsidy when the electricity was delivered on grid and also the requirements and conditions for the entitlement of the tariff subsidy under the 2020 Measures. Hence, the Group's operating solar farms are able to be established in the List subsequent to the year ended 31 December 2019 and the accrued revenue on tariff subsidy are fully recoverable.

During the year ended 31 December 2019, the Group recognised revenue of approximately RMB2,589 million (2018: RMB2,008 million) in respect of tariff adjustments recognised as revenue relating to solar farms not yet registered in the Catelogue.

Accounting and classification of the Group's various financing arrangements

As at 31 December 2019, the Group has other borrowings of approximately RMB17,639,963,000 (2018: RMB14,744,728,000) via various financing arrangements with details disclosed in note 36.

The Directors have reviewed the Group's financing arrangements and in light of its complex terms and conditions of the contracts and the deployment of different types and nature of financing vehicles, the accounting for these arrangements requires detailed consideration of all facts and circumstances and the application of relevant accounting standards.

Determination on lease term of contracts with renewal options

The Group applies judgment to determine the lease term for lease contracts in which it is a lessee that include renewal option, specifically, the leases relating to land leases where the solar farms are erected and properties. The solar farms have useful life of twenty-five years while the lease agreement for land entered into by the Group with the landlord contains a lease term of twenty years plus a renewal option of five to ten years. The assessment of whether the Group is reasonably certain to exercise renewal options impacts the lease term, which significantly affects the amount of lease liabilities and right-of-use assets recognised. Re-assessment is performed upon the occurrence of either a significant event or a significant change in circumstances that is within the control of lessee and that affects the assessment.

5. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

Critical judgements in applying accounting policies (Continued)

Determination on lease term of contracts with renewal options (Continued)

When assessing reasonable certainty, the Group considers all relevant facts and circumstances including economic incentives/penalties for exercising or not exercising the options. Factors considered include:

- contractual terms and conditions for the optional periods compared with market rates (e.g. whether the amount of payments in the optional periods is below the market rates); and
- costs relating to termination of the lease (e.g. relocation costs, and costs of identifying another location suitable for solar farm purpose).

The management of the Group considered that the Group is certain to exercise the renewal option to extend the lease for land upon the end of the lease term in accordance with the terms and conditions as stipulated in the lease agreements, while it is not reasonably certain to exercise the renewal option to extend the leases on properties. More details are set out in note 16.

Key sources of estimation uncertainty

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period, that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

Useful lives and estimated impairment of property, plant and equipment and intangible assets

Property, plant and equipment and intangible assets are stated at costs less accumulated depreciation and impairment, if any. In determining whether an asset is impaired, the Group has to exercise judgment and make estimation, particularly in assessing: (1) whether an event has occurred or any indicators that may affect the asset value; (2) whether the carrying value of an asset can be supported by the recoverable amount, in the case of value in use, the net present value of future cash flows which are estimated based upon the continued use of the asset; and (3) the appropriate key assumptions to be applied in estimating the recoverable amounts including cash flow projections and an appropriate discount rate. When it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the CGU to which the assets belongs. Changing the assumptions and estimates, including the discount rates or the growth rate in the cash flow projections, could materially affect the net present value used in the impairment test.

5. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

Key sources of estimation uncertainty (Continued)

Useful lives and estimated impairment of property, plant and equipment and intangible assets (Continued)

The Group has made substantial investments in property, plant and equipment. The machineries and equipment are vulnerable to the change in market condition due to government policies. Due to the continuing unfavourable market conditions during the year ended 31 December 2019, the polysilicon and wafer faced a stronger than expected price pressure and the solar material business segment recognised a segment loss of approximately RMB419 million during the year. With the impairment indictors identified, the carrying amounts of the relevant CGUs may be higher than the recoverable amount which involves estimation uncertainty on assumptions of such recoverable amount.

Additionally, the Group determines the estimated useful lives and related depreciation charges for its property, plant and equipment. This estimate is based on the historical experience of the actual useful lives of property, plant and equipment of similar nature and functions. The management will increase the depreciation charge where useful lives are expected to be shorter than previously estimated. Actual economic lives may differ from estimated useful lives. Periodic review could result in a change in depreciable lives and therefore depreciation expense in future periods.

As at 31 December 2019, the carrying amount of property, plant and equipment and intangible assets was approximately RMB52,412,895,000 and RMB247,723,000 (2018: RMB70,999,823,000 and RMB801,307,000), respectively, net of accumulated depreciation and impairment of approximately RMB27,661,521,000 and RMB822,691,000 (2018: RMB23,418,190,000 and RMB241,889,000), respectively.

During the year ended 31 December 2019, the Group recognised impairment on property, plant and equipment and intangible assets amounting to approximately RMB2,130,780,000 and RMB479,091,000 (2018: RMB526,105,000 and nil) (see notes 15 and 18).

Provision of ECL on amounts due from related companies (non-trade related)

The Group measures loss allowance equal to 12m ECL for amounts due from related companies (non-trade related). Management regularly reviews the historical payment patterns, credit rating or financial position of counterparties and overdue status of the receivables. The amount of ECL reflects changes in credit risk since initial recognition and is sensitive to changes in estimates.

As at 31 December 2019, the carrying amounts due from related companies (non-trade related) were approximately RMB2,301,097,000 (2018: RMB631,045,000).

The information about the ECL and the Group's amounts due from related companies (non-trade related) are disclosed in notes 45 and 27, respectively.

5. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

Key sources of estimation uncertainty (Continued)

Provision of ECL for trade receivables, amounts due from related companies (trade related) and contract assets

The Group uses provision matrix to calculate ECL for the trade receivables, amounts due from related companies (trade related) and contract assets. The provision rates are based on internal credit ratings as groupings of various debtors that have similar loss patterns. The provision matrix is based on the Group's historical default rates taking into consideration forward-looking information that is reasonable, supportable and available without undue costs or effort. At every reporting date, the historical observed default rates are reassessed and changes in the forward-looking information are considered. In addition, trade receivables, amounts due from related companies (trade related) and contract assets with significant balances and credit-impaired are assessed for ECL individually.

The provision of ECL is sensitive to changes in estimates. The information about the ECL and the Group's trade receivables, amounts due from related companies (trade related) and contract assets are disclosed in notes 45, 25, 27 and 26, respectively.

Determination of timing of settlement of tariff adjustments on sales of electricity

For the tariff adjustments yet to obtain approval for registration in the Catalogue by the PRC government at the end of the reporting period, the Group considered that it contained a significant financing component over the relevant portion of tariff adjustment until approval is obtained. In determining the period of extended financing, the Group has to exercise judgement and make estimation in timing of collection of the tariff adjustments with reference to historical pattern and experience for application and approval for registration in the Catalogue which was only opened for registrations on a batch by batch basis. The Group has adjusted the respective tariff adjustment for the financing component based on an effective interest rate with reference to state treasury bonds of the PRC, and the aforesaid estimated timing of collection.

The adjustment for financing component is sensitive to changes in expected timing of settlement of the tariff adjustments. Change in facts and circumstances will result in revision of the expected collection period of the tariff adjustments which will be reflected as an increase or a reduction in financing component adjustment for the period in which such a revision takes place.

The revenue of the Group was adjusted by approximately RMB151 million for the year ended 31 December 2019 (2018: RMB152 million) for this financing component and in relation to revision of expected timing of tariff settlement.

5. CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

Key sources of estimation uncertainty (Continued)

Inventories

A significant portion of the Group's working capital is devoted to inventories and the nature of inventories is subject to frequent technological changes. As at 31 December 2019, the carrying amount of inventories was approximately RMB751,188,000 (2018: RMB992,027,000). The management reviews the inventory age listing on a periodic basis to identify slow-moving, obsolete and defective inventories. The management estimates the net realisable value for such inventories based primarily on the latest invoice prices and current market conditions. The amount of allowance would be changed as a result of changes in current market conditions and technology subsequently. During the year, a reversal of write-down of inventories, net of approximately RMB3,712,000 (2018: write-down of inventories, net of approximately RMB10,236,000) were included in cost of sales.

Fair value measurement of financial instruments

Certain of the Group's financial assets and financial liabilities as described in note 46 are measured at fair values with fair values being determined based on unobserved inputs using valuation techniques. Judgement and estimation are required in establishing the relevant valuation techniques and the relevant inputs thereof. Changes in assumptions relating to these factors could affect the reported fair values of these instruments. See note 46 for further disclosures.

6. REVENUE AND SEGMENT INFORMATION

Information reported to the Executive Directors of the Company, being collectively the chief operating decision maker ("CODM"), for the purposes of resource allocation and assessment of segment performance focuses on types of goods delivered or services provided, except for the business operations of GNE, which is assessed by the CODM as a separate operating segment.

No operating segments identified by the CODM have been aggregated in arriving at the reportable segments of the Group.

The Group's reportable and operating segments under IFRS 8 *Operating Segments* are as follows:

(a) Solar material business — mainly manufactures and sales of polysilicon and wafer to companies operating in the solar industry.

(b) Solar farm business — manages and operates 371MW solar farms, of which 18MW is located in the United States of America (the "USA") and 353MW is located in the PRC. These solar farms were constructed or acquired by the Group prior to obtaining a controlling stake in GNE.

(c) New energy business — represents the business operations of GNE, which is principally engaged in the development, construction, operation and management of solar farms.

6. REVENUE AND SEGMENT INFORMATION (Continued)

Segment revenue and results

The following is an analysis of the Group's revenue and results by reportable and operating segment:

Year ended 31 December 2019

	Solar material business RMB'000	Solar farm business RMB'000	New energy business RMB'000 (Note)	Total RMB'000
Segment revenue				
Revenue from external customers	12,708,118	489,516	6,051,987	19,249,621
Segment (loss) profit	(418,799)	116,028	569,649	266,878
Elimination of inter-segment profit				(162,000)
Unallocated income				58,203
Unallocated expenses				(117,005)
Gain on fair value change of convertible bonds receivable (note 22)				29,820
Gain on fair value change of financial assets at FVTPL				31,367
Loss on fair value change of held for trading investments (note 9B)				(28,053)
Share of profits of associates				21,154
Share of profits of joint ventures				10,471
Profit for the year				110,835

6. REVENUE AND SEGMENT INFORMATION (Continued)

Segment revenue and results (Continued)

Year ended 31 December 2018

	Solar material business RMB'000	Solar farm business RMB'000	New energy business RMB'000 (Note)	Total RMB'000
Segment revenue				
Revenue from external customers	14,435,552	497,486	5,632,397	20,565,435
Segment (loss) profit	(1,011,419)	115,976	707,924	(187,519)
Elimination of inter-segment profit				(135,029)
Unallocated income				80,600
Unallocated expenses				(154,128)
Loss on fair value change of convertible bonds receivable (note 22)				(1,910)
Loss on fair value change of convertible bonds issued by the Company				(40,768)
Gain on fair value change of financial assets at FVTPL				55,766
Loss on fair value change of held for trading investments (note 9B)				(15,201)
Loss on deemed disposal of an associate (note 9B)				(77,894)
Share of profits of associates				12,286
Share of profits of joint ventures				5,363
Loss for the year				(458,434)

Note: The operating results of new energy business included allocated corporate expenses.

The accounting policies of the operating segments are the same as the Group's accounting policies described in note 4. Segment (loss) profit represents the (loss) profit of each respective segment excluding unallocated income, unallocated expenses (including certain exchange losses (gains) and unallocated tax expense), change in fair value of convertible bonds receivable, change in fair value of convertible bonds issued by the Company, change in fair value of certain financial assets at FVTPL, change in fair value of held for trading investments, loss on deemed disposal of an associate, shares of profits of certain interests in associates and joint ventures. This is the measure reported to the CODM for the purpose of resource allocation and performance assessment.

6. REVENUE AND SEGMENT INFORMATION (Continued)

Segment assets and liabilities

The following is an analysis of the Group's assets and liabilities by reportable and operating segment:

	2019 RMB'000	2018 RMB'000
Segment assets		
Solar material business	**41,155,374**	45,991,159
Solar farm business	**3,541,357**	3,653,291
New energy business	**54,343,458**	61,109,942
Total segment assets	**99,040,189**	110,754,392
Other financial assets as at FVTPL	**427,543**	391,925
Equity instruments at FVTOCI	**41,857**	90,716
Debt instruments at FVTOCI	**—**	65,606
Held for trading investments	**4,339**	108,408
Convertible bonds receivable	**101,097**	76,001
Interests in associates	**384,611**	362,286
Interests in joint ventures	**198,594**	98,728
Unallocated bank balances and cash	**138,275**	532,387
Unallocated corporate assets	**100,454**	13,315
Consolidated assets	**100,436,959**	112,493,764
Segment liabilities		
Solar material business	**27,477,455**	32,286,905
Solar farm business	**1,915,576**	1,994,059
New energy business	**44,094,269**	51,339,150
Total segment liabilities	**73,487,300**	85,620,114
Unallocated corporate liabilities	**228,251**	41,143
Consolidated liabilities	**73,715,551**	85,661,257

For the purposes of monitoring segment performance and allocating resources between segments:

- All assets are allocated to operating segments, other than unallocated corporate assets, corporate bank balances and cash and other assets (including certain other financial assets at FVTPL, equity instruments at FVTOCI, debt instruments at FVTOCI, held for trading investments, convertible bonds receivable and certain interests in associates and joint ventures) of the management companies and investment holding companies; and

- All liabilities are allocated to operating segments, other than unallocated corporate liabilities of the management companies and investment holding companies.

6. REVENUE AND SEGMENT INFORMATION (Continued)

Other segment information (included in the segment profit or loss or segment assets or regularly provided to the CODM)

Year ended 31 December 2019

	Solar material business RMB'000	Solar farm business RMB'000	New energy business RMB'000	Unallocated RMB'000	Elimination of inter-segment profit RMB'000	Total RMB'000
Amount included in the measure of segment profit or loss or segment assets:						
Interests in joint ventures	407,342	96,636	3,628	198,594	—	706,200
Interests in associates	6,141,428	—	1,013,284	384,611	—	7,539,323
Share of (losses) profits of joint ventures	(108,242)	22,015	24,391	10,471	—	(51,365)
Share of profits of associates	330,769	—	49,096	21,154	—	401,019
Addition to property, plant and equipment, right-of-use assets and other intangible assets						
— arising from acquisition of subsidiaries	—	—	1,036,096	—	—	1,036,096
— other additions	740,460	232	528,897	—	—	1,269,589
Depreciation of property, plant and equipment	(2,389,646)	(148,456)	(1,642,170)	(9)	—	(4,180,281)
Depreciation of right-of-use assets	(212,871)	(20,551)	(91,901)	(18,445)	—	(343,768)
Depreciation of investment properties	(4,656)	—	—	—	—	(4,656)
Finance costs	(948,668)	(113,277)	(2,881,752)	(53,208)	49,985	(3,946,920)
Bank and other interest income	147,767	1,573	24,383	42,286	(49,985)	166,024
Interest arising from contracts containing significant financing components	—	—	118,218	—	—	118,218
(Loss) gain on fair value change of financial instruments	(96,456)	—	—	33,134	—	(63,322)
Amortisation of other intangible assets	(101,711)	—	—	—	—	(101,711)
Gain on disposal of property, plant and equipment	12,167	—	43,006	—	—	55,173
Reversal of write-down of inventories, net	3,712	—	—	—	—	3,712
Impairment losses under ECL model, net of reversal	(462,741)	—	—	—	—	(462,741)
Impairment loss on property, plant and equipment	(2,073,545)	—	(57,235)	—	—	(2,130,780)
Impairment loss on other intangible assets	(479,091)	—	—	—	—	(479,091)
Gain on disposal of subsidiaries	4,405,876	—	—	—	—	4,405,876
Gain on disposal of solar farm projects, net	—	—	26,926	—	—	26,926
Gain on disposal of joint ventures	—	—	35,263	—	—	35,263
Research and development expenses	(736,522)	—	—	—	—	(736,522)
Income tax expense	(5,984)	(23,024)	(177,563)	(277)	—	(206,848)

6. REVENUE AND SEGMENT INFORMATION (Continued)

Other segment information (included in the segment profit or loss or segment assets or regularly provided to the CODM) (Continued)

Year ended 31 December 2018

	Solar material business RMB'000	Solar farm business RMB'000	New energy business RMB'000	Unallocated RMB'000	Elimination of inter-segment profit RMB'000	Total RMB'000
Amount included in the measure of segment profit or loss or segment assets:						
Interests in joint ventures	515,584	97,205	66,079	98,728	—	777,596
Interests in associates	1,415,453	—	36,805	362,286	—	1,814,544
Share of (losses) profits of joint ventures	(997)	11,901	4,562	5,363	—	20,829
Share of profits (losses) of associates	128,001	—	(1,041)	12,286	—	139,246
Addition to property, plant and equipment, prepaid lease payments and other intangible assets						
— arising from acquisition of subsidiaries	—	—	1,747,433	—	—	1,747,433
— other additions	5,916,426	18,327	6,433,191	866	—	12,368,810
Depreciation of property, plant and equipment	(2,484,441)	(164,078)	(1,510,182)	(180)	1,406	(4,157,475)
Depreciation of investment properties	(4,656)	—	—	—	—	(4,656)
Finance costs	(1,064,979)	(124,267)	(2,276,958)	(39,404)	86,597	(3,419,011)
Bank and other interest income	130,780	4,462	36,372	68,614	(86,597)	153,631
Interest arising from contracts containing significant financing components	—	—	111,287	—	—	111,287
Gain (loss) on fair value change of financial instruments	1,752	—	11,266	(2,113)	—	10,905
Amortisation of prepaid lease payments	(25,137)	(299)	(3,073)	—	—	(28,509)
Amortisation of other intangible assets	(98,068)	—	—	—	—	(98,068)
Gain on disposal of property, plant and equipment	583	—	—	—	—	583
Write-down of inventories	(10,236)	—	—	—	—	(10,236)
Reversal of impairment loss on financial assets, net	247,235	—	—	—	—	247,235
Impairment loss on property, plant and equipment	(526,105)	—	—	—	—	(526,105)
Impairment loss on goodwill	(176,528)	—	—	—	—	(176,528)
Loss on deemed disposal of an associate	—	—	—	(77,894)	—	(77,894)
Gain on disposal of a subsidiary	444,868	—	—	—	—	444,868
Gain on disposal of solar farm projects	—	—	35,146	—	—	35,146
Research and development expenses	(521,442)	—	—	—	—	(521,442)
Income tax credit (expense)	80,337	(19,464)	(6,516)	(1,996)	—	52,361

6. REVENUE AND SEGMENT INFORMATION (Continued)

Revenue

(i) Disaggregation of revenue from contracts with customers

For the year ended 31 December 2019

Segments	Solar material business RMB'000	Solar farm business RMB'000	New energy business RMB'000	Total RMB'000
Types of goods or services				
Sales of wafer	8,787,186	—	—	8,787,186
Sales of electricity (Note)	—	489,516	6,051,987	6,541,503
Sales of polysilicon	2,324,761	—	—	2,324,761
Processing fees	811,472	—	—	811,472
Others (comprising the sales of ingots)	784,699	—	—	784,699
Total	12,708,118	489,516	6,051,987	19,249,621
Geographic markets				
The PRC	11,510,152	453,165	5,959,721	17,923,038
Others	1,197,966	36,351	92,266	1,326,583
Total	12,708,118	489,516	6,051,987	19,249,621
Timing of revenue recognition				
A point in time	11,896,646	489,516	6,051,987	18,438,149
Over time	811,472	—	—	811,472
Total	12,708,118	489,516	6,051,987	19,249,621

6. REVENUE AND SEGMENT INFORMATION (Continued)

Revenue (Continued)

(i) Disaggregation of revenue from contracts with customers (Continued)

For the year ended 31 December 2018

Segments	Solar material business RMB'000	Solar farm business RMB'000	New energy business RMB'000	Total RMB'000
Types of goods or services				
Sales of wafer	11,679,412	—	—	11,679,412
Sales of electricity (Note)	—	484,852	5,632,397	6,117,249
Sales of polysilicon	1,579,383	—	—	1,579,383
Processing fees	629,228	—	—	629,228
Others (comprising the sales of ingots and modules)	547,529	12,634	—	560,163
Total	14,435,552	497,486	5,632,397	20,565,435
Geographic markets				
The PRC	11,773,412	448,459	5,572,704	17,794,575
Others	2,662,140	49,027	59,693	2,770,860
Total	14,435,552	497,486	5,632,397	20,565,435
Timing of revenue recognition				
A point in time	13,806,324	497,486	5,632,397	19,936,207
Over time	629,228	—	—	629,228
Total	14,435,552	497,486	5,632,397	20,565,435

Note: Sales of electricity included approximately RMB3,957,235,000 (2018: RMB3,738,439,000) tariff adjustments received and receivable from the local grid companies in the PRC based on the prevailing nationwide government policies on renewable energy for solar farms. Details of settlement arrangement of tariff are disclosed in note 25.

6. REVENUE AND SEGMENT INFORMATION (Continued)

Revenue (Continued)

(ii) Performance obligations from contracts with customers

Revenue from the manufactures and sales of polysilicon and wafer are recognised at a point in time upon goods are delivered and titles have passed. The Group generally grants credit period of approximately one month to customers from the invoice date. For those customers with continuous business relationships, the Group generally would enter into supply framework contracts and receive certain percentage of deposits as advance payments from these customers. Advances from customers are recognised as revenue upon orders are fulfilled. Sales agreements typically do not contain product warranties except for return and replacement of defective products within 30 days from delivery.

Processing income are recognised over time and measured based on output method upon sawing and cutting services are rendered to customers. The Group generally grants credit period of approximately one month to customers from the invoice date.

Revenue arising on sales of electricity is recognised at a point in time. Substantially all of the revenue is derived from electricity sales to local grid companies in the PRC for the years ended 31 December 2019 and 2018.

For sales of electricity, the Group generally entered into power purchase agreements with local grid companies with a term of one to five years which stipulate the price of electricity per watt hour. Revenue is recognised when control of the electricity has transferred, being at the point when electricity has generated and transmitted to the customer and the amount included approximately RMB3,957,235,000 (2018: RMB3,738,439,000) tariff adjustment recognised during the year. The Group generally grants credit period of approximately one month to customers from date of invoice in accordance with the relevant power purchase agreements between the Group and the respective local grid companies. The Group will complete the remaining performance obligations in accordance with the relevant terms as stipulated in the power purchase agreements and the remaining aggregated transaction price will be equal to the quantity of electricity that can be generated and transmitted to the customers times the stipulated price per watt hour.

The financial resource for the tariff adjustment is the national renewable energy fund that accumulated through a special levy on the consumption of electricity of end users. The PRC government is responsible to collect and allocate the fund to the respective state-owned grid companies for settlement to the solar farm companies. Effective from March 2012, the application, approval and settlement of the tariff adjustment are subject to certain procedures as promulgated by Caijian [2012] No. 102 Notice on the Interim Measures for Administration of Subsidy Funds for Tariff Premium of Renewable Energy (可再生能源電價附加輔助資金管理暫行辦法). Caijian [2013] No. 390 Notice issued in July 2013 further simplified the procedures of settlement of the tariff adjustment.

6. REVENUE AND SEGMENT INFORMATION (Continued)

Revenue (Continued)

(ii) Performance obligations from contracts with customers (Continued)

In January 2020, the Several Opinions on Promoting the Healthy Development of Non-Hydro Renewable Energy Power Generation (Caijian [2020] No. 4)* (《關於促進非水可再生能源發電健康發展的若干意見》) (財建[2020]4號) and the Measures for Administration of Subsidy Funds for Tariff Premium of Renewable Energy (Caijian [2020] No. 5)* (《財政部國家發展改革委國家能源局關於印發〈可再生能源電價附加資金管理辦法〉的通知》) (財建[2020]5號) (the "2020 Measures") were jointly announced by the Ministry of Finance, National Development and Reform Commission and National Energy Administration. In accordance with the new government policy as stipulated in the 2020 Measures, the PRC government will not announce new additions to the existing Catalogue and has simplified the application and approval process regarding the registration of tariff adjustments for non-hydro renewable energy power plant projects into the Renewable Energy Tariff Subsidy List (可再生能源發電補助項目清單, the "List"). The state grid companies will regularly announce the list based on the project type, time of grid connection and technical level of the solar farm projects. All solar farms already registered in the Catalogue will be enlisted in the List automatically. For those on-grid solar farm projects which have already started operation but yet to register into the previous Catalogue and now, the List, these solar farm projects are entitled to enlist into the List once they have met the conditions as stipulated on the Administration of Subsidy Funds for Tariff Premium of Renewable Energy (可再生能源電價附加資金管理辦法) and completed the submission and application in the National Renewable Energy Information Management Platform (the "Platform").

Tariff adjustments are recognised as revenue and due from grid companies in the PRC in accordance with the relevant power purchase agreements.

For those tariff adjustments that are subject to approval for registration in the Catalogue by the PRC government at the end of reporting period, the relevant revenue from these tariff adjustments are considered variable consideration, and are recognised only to the extent that it is highly probable that a significant reversal will not occur and are included in contract assets. Management assessed that all of the Group's operating solar farms have qualified and met all the requirements and conditions as required based on the prevailing nationwide government policies on renewable energy for solar farms. The contract asset is transferred to trade receivables upon the relevant solar farm obtained the approval for registration in the Catalogue for the years ended 31 December 2018 and 2019, or when the relevant solar farm is enlisted in the List since the release of the 2020 Measures.

Since certain of the tariff adjustments were yet to obtain approval for registration in the Catalogue by the PRC government at the end of the reporting period, the management considered that it contained a significant financing component over the relevant portion of tariff adjustment until approval was obtained. For the year ended 31 December 2019, the respective tariff adjustment was adjusted for this financing component based on an effective interest rate ranged from 2.55% to 3.01% (2018: 2.90% to 2.98%) per annum and the adjustment in relation to revision of expected timing of tariff collection. As such, the Group's revenue was adjusted by approximately RMB151 million (2018: RMB152 million) and interest income amounting to approximately RMB118 million (2018: RMB111 million) (note 7) was recognised.

* English name for identification only

6. REVENUE AND SEGMENT INFORMATION (Continued)

Revenue (Continued)

(iii) Transaction price allocated to the remaining performance obligation for contracts with customers

For contracts on sales of polysilicon and wafer, the Group will complete the remaining performance obligations in accordance with the relevant terms as stipulated in the supply framework contracts. The quantity of goods to be delivered and the selling price are to be determined.

For contracts on sales of electricity, the Group will complete the remaining performance obligations in accordance with the relevant terms as stipulated in the power purchase agreements and the remaining aggregated transaction price will be equal to the quantity of electricity that can be generated and transmitted to the customers times the stipulated price per watt hour.

Geographical information

The Group's revenue from external customers by customer's location and information about its non-current assets by location of the assets are detailed below:

	Revenue from external customers		Non-current assets*	
	2019	2018	**2019**	2018
	RMB'000	RMB'000	**RMB'000**	RMB'000
The PRC	**17,923,038**	17,794,575	**71,597,208**	81,225,482
Taiwan	**179,438**	670,557	**—**	—
Thailand	**206,301**	518,890	**—**	—
Korea	**119,630**	402,114	**—**	—
Singapore	**552**	283,296	**—**	—
Malaysia	**19,873**	292,098	**—**	—
India	**402,494**	215,578	**—**	—
Vietnam	**21,386**	177,539	**—**	—
The USA	**119,740**	100,455	**1,708,723**	1,815,471
Canada	**199,072**	77,767	**—**	—
Japan	**57,200**	8,319	**371**	87,432
South Africa	**—**	—	**96,693**	97,032
Others	**897**	24,247	**41,858**	1,029
	19,249,621	20,565,435	**73,444,853**	83,226,446

* Non-current assets excluded deferred tax assets and financial instruments.

6. REVENUE AND SEGMENT INFORMATION (Continued)

Information about major customers

There were no customer contributing over 10% of total sales of the Group for both years.

7. OTHER INCOME

	2019 **RMB'000**	2018 RMB'000
Government grants (note 35)	**175,374**	254,634
Interest income		
— bank and other interest income	**165,631**	148,723
— debt instruments at FVTOCI	**393**	4,908
Interest arising from contracts containing significant financing component	**118,218**	111,287
Sales of scrap materials	**113,699**	184,342
Management and consultancy fee income	**88,936**	65,489
Rental income	**24,106**	33,809
Forfeitures of deposits from customers	**72,613**	28,782
Compensation income (note 15)	**6,615**	1,100
Others	**53,161**	57,770
	818,746	890,844

8. FINANCE COSTS

	2019 RMB'000	2018 RMB'000
Interest on financial liabilities at amortised cost		
— bank and other borrowings	**3,224,570**	2,957,016
— notes and bonds payables and senior notes	**329,054**	490,738
— loans from related companies	**274,922**	83,530
Interest on lease liabilities/obligations under finance leases	**167,374**	90,671
Total borrowing costs	**3,995,920**	3,621,955
Less: interest capitalised	**(49,000)**	(202,944)
	3,946,920	3,419,011

Borrowing costs capitalised during the year arose on the general borrowing pool and are calculated by applying a capitalisation rate of 7.80% (2018: 6.32%) per annum to expenditure on qualifying assets.

9A. IMPAIRMENT LOSSES UNDER EXPECTED CREDIT LOSS MODEL, NET OF REVERSAL

	2019 RMB'000	2018 RMB'000
Impairment losses recognised (reversed), net in respect of		
— trade receivables — goods and services	**47,598**	(247,641)
— other receivables	**(39)**	(5,992)
— consideration receivables	**140,000**	—
— amounts due from related companies (trade related)	**275,182**	6,398
	462,741	(247,235)

Details of impairment assessment are set out in note 45.

9B. OTHER EXPENSES, GAINS AND LOSSES, NET

	2019 RMB'000	2018 RMB'000
Research and development costs	**736,522**	521,442
Exchange loss, net	**126,622**	479,501
(Gain) loss on fair value change of convertible bonds receivable (note 22)	**(29,820)**	1,910
Loss on fair value change of convertible bonds payables	**—**	46,292
Gain on fair value change of other financial assets at FVTPL	**(42,300)**	(84,420)
Loss on fair value change of held for trading investments	**28,053**	15,201
Loss on fair value change of derivative financial instruments (note 40)	**107,389**	10,112
Impairment loss on goodwill	**—**	176,528
Impairment loss on property, plant and equipment (note 15)	**2,130,780**	526,105
Impairment loss on other intangible assets (note 18)	**479,091**	—
Gain on disposal of property, plant and equipment	**(55,173)**	(583)
Bargain purchase from business combination (note 42)	**(73,858)**	—
Gain on disposal of subsidiaries (note 43)	**(4,405,876)**	(444,868)
Gain on disposal of joint ventures (note 20)	**(35,263)**	—
Gain on disposal of solar farm projects, net (note 43)	**(26,926)**	(35,146)
Loss on deemed disposal of an associate	**—**	77,894
Others	**2,576**	—
	(1,058,183)	1,289,968

10. INCOME TAX EXPENSE (CREDIT)

	2019 RMB'000	2018 RMB'000
PRC Enterprise Income Tax ("EIT")		
Current tax	**168,699**	126,118
Overprovision in prior years	**(46,130)**	(21,890)
PRC dividend withholding tax	**49,495**	—
	172,064	104,228
USA Federal and State Income Tax		
Current tax	**21**	237
Underprovision in prior years	**2**	3
	23	240
Hong Kong Profits Tax		
Current tax	**277**	312
Deferred tax (note 23)	**34,484**	(157,141)
	206,848	(52,361)

The PRC EIT for the year represents income tax in the PRC which is calculated at the prevailing tax rate on the taxable income of subsidiaries in the PRC.

Under the Law of the PRC on Enterprise Income Tax (the "EIT Law") and Implementation Regulation of the EIT Law, the tax rate of the PRC subsidiaries is 25%, except for those subsidiaries described below. The overprovision of EIT in prior years arose mainly as a result of completion of tax clearance procedures by certain PRC subsidiaries with the respective tax authorities.

Certain subsidiaries operating in the PRC have been accredited as a "High and New Technology Enterprise" for a term of three years, and have been registered with the local tax authorities for enjoying the reduced 15% EIT rate. Accordingly, the profits derived by these subsidiaries are subject to 15% EIT rate for both years. The qualification as a High and New Technology Enterprise will be subject to annual review by the relevant tax authorities in the PRC.

10. INCOME TAX EXPENSE (CREDIT) (Continued)

Certain subsidiaries of GNE Group, being enterprises engaged in solar photovoltaic projects, under the EIT Law and its relevant regulations, are entitled to tax holidays of 3-year full exemption followed by 3-year 50% exemption commencing from their respective years in which their first operating incomes were derived. For the year ended 31 December 2019, certain subsidiaries of GNE engaged in solar photovoltaic projects had their first year of the 3-year 50% exemption period.

Federal and State tax rate in the USA are calculated at 21% and 8.84%, respectively, for both years.

On 21 March 2018, the Hong Kong Legislative Council passed The Inland Revenue (Amendment) (No. 7) Bill 2017 (the "Bill") which introduced the two-tiered profits tax rates regime. The Bill was signed into law on 28 March 2018 and was gazetted on the following day. Under the two-tiered profits tax rates regime, the first HK$2 million of profits of the qualifying group entity will be taxed at 8.25%, and profits above HK$2 million is taxed at 16.5%. The profits of group entities not qualifying for the two-tiered profits tax rates regime will continue to be taxed at a flat rate of 16.5%.

The Directors considered the amount involved upon implementation of the two-tiered profits tax rates regime as insignificant to the consolidated financial statements. Hong Kong Profits Tax is calculated at 16.5% of the estimated assessable profit for both years.

The Group's subsidiaries, associates and joint ventures that are tax residents in the PRC are subject to the PRC dividend withholding tax of 5% or 10% for those non-PRC tax resident immediate holding companies registered in Hong Kong and the British Virgin Islands ("BVI"), respectively, when and if undistributed earnings are declared to be paid as dividends out of profits that arose on or after 1 January 2008. Net reversal of deferred taxation of approximately RMB11,289,000 (2018: RMB51,721,000) in respect of withholding tax on undistributed profits has been credited to profit or loss during the current year.

10. INCOME TAX EXPENSE (CREDIT) (Continued)

The tax charge for the year can be reconciled to the profit (loss) before tax per the consolidated statement of profit or loss and other comprehensive income as follows:

	2019 RMB'000	2018 RMB'000
Profit (loss) before tax	**317,683**	(510,795)
Tax at PRC EIT rate of 25% (Note)	**79,421**	(127,699)
Tax effect of expenses not deductible for tax purpose	**313,435**	449,708
Tax effect of income not taxable for tax purpose	**(285,515)**	(236,742)
Tax effect of share of profits of associates	**(100,255)**	(34,812)
Tax effect of share of losses (profits) of joint ventures	**12,841**	(5,207)
Tax effect of deductible temporary difference not recognised	**405,384**	11,538
Tax effect of tax losses not recognised	**503,157**	356,578
Utilisation of tax losses previously not recognised	**(158,220)**	(32,441)
Effect of tax exemption and tax concessions granted to certain subsidiaries in the PRC	**(555,410)**	(359,440)
Effect of different tax rates of group companies operating in jurisdictions other than the PRC	**(68)**	(236)
Withholding tax on undistributed profits	**(11,289)**	(51,721)
PRC dividend withholding tax	**49,495**	—
Overprovision in prior years, net	**(46,128)**	(21,887)
Income tax expense (credit) for the year	**206,848**	(52,361)

Note: The PRC EIT rate is used as it is the domestic tax in the jurisdiction where the operation of the Group is substantially based.

11. PROFIT (LOSS) FOR THE YEAR

	2019 RMB'000	2018 RMB'000
Profit (loss) for the year has been arrived at after charging the following items:		
Staff costs, including directors' remuneration		
Salaries, wages and other benefits	**1,684,210**	2,041,303
Retirement benefits scheme contributions	**90,414**	92,048
Share-based payment expenses	**9,412**	32,752
Total staff costs	**1,784,036**	2,166,103
Less: amounts included in inventories	**(929,814)**	(1,172,474)
	854,222	993,629
Depreciation of property, plant and equipment	**4,235,163**	4,178,623
Depreciation of investment properties	**4,656**	4,656
Depreciation of right-of-use assets	**343,768**	—
Amortisation of prepaid lease payments	**—**	28,509
Amortisation of other intangible assets	**101,711**	98,068
Total depreciation and amortisation	**4,685,298**	4,309,856
Less: amounts absorbed in opening and closing inventories, net	**(54,882)**	(21,148)
	4,630,416	4,288,708
Less: amounts absorbed in inventories sold, including opening inventories	**(2,311,411)**	(2,227,505)
	2,319,005	2,061,203
Auditor's remuneration	**13,833**	13,088

12. DIRECTORS', CHIEF EXECUTIVE'S EMOLUMENTS AND FIVE HIGHEST PAID EMPLOYEES

Particulars of the emoluments of the Directors, the Chief Executive and the five highest paid employees are as follows:

(a) Directors' and Chief Executive's emoluments

Directors' and Chief Executive's remuneration for the year, disclosed pursuant to the applicable Listing Rules and Hong Kong Companies Ordinance, is as follows:

Year ended 31 December 2019

Name of Director	Directors' fee RMB'000	Salaries and other benefits RMB'000	Performance-related bonuses RMB'000	Retirement benefits scheme contributions RMB'000	Share-based payments RMB'000	Total RMB'000
Executive Directors (Note 2)						
Mr. ZHU Gongshan	—	6,692	2,113	—	—	8,805
Mr. ZHU Zhanjun	—	4,651	1,504	257	48	6,460
Mr. ZHU Yufeng	—	5,281	1,370	81	58	6,790
Ms. SUN Wei	—	4,843	1,769	203	57	6,872
Mr. YEUNG Man Chung, Charles	—	4,843	1,873	196	89	7,001
Mr. JIANG Wenwu	—	3,253	1,181	188	34	4,656
Mr. ZHENG Xiongjiu	—	2,607	1,181	157	50	3,995
Mr. JI Jun (Note 1)	—	102	—	4	12	118
Independent Non-executive Directors (Note 3)						
Ir. Dr. HO Raymond Chung Tai	679	—	—	—	18	697
Mr. YIP Tai Him	498	—	—	—	18	516
Dr. SHEN Wenzhong	272	—	—	—	—	272
Mr. WONG Man Chung, Francis	272	—	—	—	—	272
	1,721	32,272	10,991	1,086	384	46,454

12. DIRECTORS', CHIEF EXECUTIVE'S EMOLUMENTS AND FIVE HIGHEST PAID EMPLOYEES (Continued)

(a) Directors' and Chief Executive's emoluments (Continued)

Year ended 31 December 2018

Name of Director	Directors' fee RMB'000	Salaries and other benefits RMB'000	Performance-related bonuses RMB'000	Retirement benefits scheme contributions RMB'000	Share-based payments RMB'000	Total RMB'000
Executive Directors (Note 2)						
Mr. ZHU Gongshan	—	6,417	2,026	—	—	8,443
Mr. ZHU Zhanjun	—	4,508	1,442	252	140	6,342
Mr. ZHU Yufeng	—	5,074	1,319	78	174	6,645
Ms. SUN Wei	—	4,645	1,696	195	777	7,313
Mr. YEUNG Man Chung, Charles	—	4,645	1,796	117	510	7,068
Mr. JIANG Wenwu	—	3,209	1,132	208	93	4,642
Mr. ZHENG Xiongjiu	—	2,615	1,132	201	138	4,086
Mr. JI Jun (Note 1)	—	1,267	39	58	36	1,400
Independent Non-executive Directors (Note 3)						
Ir. Dr. HO Raymond Chung Tai	651	—	—	—	51	702
Mr. YIP Tai Him	477	—	—	—	51	528
Dr. SHEN Wenzhong	260	—	—	—	—	260
Mr. WONG Man Chung, Francis	260	—	—	—	—	260
	1,648	32,380	10,582	1,109	1,970	47,689

12. DIRECTORS', CHIEF EXECUTIVE'S EMOLUMENTS AND FIVE HIGHEST PAID EMPLOYEES (Continued)

(a) Directors' and Chief Executive's emoluments (Continued)

Note 1: Mr. Ji Jun resigned as an executive director on 1 February 2019.

Note 2: The executive directors' emoluments shown above were for their services in connection with the management of the affairs of the Company and the Group.

Note 3: The independent non-executive directors' emoluments shown above were for their services as directors of the Company.

Bonuses are discretionary and are based on the performance of the Group or its subsidiaries for the year.

Mr. Zhu Zhanjun is also the Chief Executive of the Company and his emoluments disclosed above include those for services rendered by him as the Chief Executive.

There was no arrangement under which a director or the Chief Executive waived or agreed to waive any remuneration during both years.

No other directors waived any emoluments and no incentive paid on joining and no compensation for the loss of office during both years.

(b) Five highest paid employees

The five highest paid employees of the Group during the year included five directors (2018: five directors), details of whose remuneration are set out in (a) above.

(c) Compensation of key management personnel

The remuneration of senior management personnel, comprising Directors' and Chief Executive's remuneration during the year was as follows:

	2019 **RMB'000**	2018 RMB'000
Short-term benefits	**44,984**	44,610
Post-employment benefits	**1,086**	1,109
Share-based payments	**384**	1,970
	46,454	47,689

The remuneration of the Directors and other key executives is determined by the remuneration committee having regard to the performance of individuals and market trends.

13. DIVIDEND

No dividend was paid or proposed for ordinary shareholders of the Company during 2019, nor has any dividend been proposed since the end of the reporting period (2018: nil).

14. LOSS PER SHARE

The calculation of the basic and diluted loss per share attributable to owners of the Company is based on the following data:

Loss figures are calculated as follows:

	2019 RMB'000	2018 RMB'000
Loss		
Loss for the purpose of basic loss per share		
— Loss for the year attributable to owners of the Company	**(197,207)**	(693,399)
Effect of dilutive potential ordinary shares:		
— Adjustment to the share of profit of GNE Group attributable to the Company based on dilution arising on convertible bonds issued by GNE	**—**	(4,981)
Loss for the purpose of diluted loss per share	**(197,207)**	(698,380)

	2019 '000	2018 '000
Number of shares		
Weighted average number of ordinary shares for the purpose of basic and diluted loss per share	**18,822,564**	18,179,089

For the year ended 31 December 2019, the weighted average number of ordinary shares for the purpose of calculation of basic loss per share has been adjusted for the effect of the 322,998,888 ordinary shares purchased by the Trustee from the market pursuant to the Scheme.

For the year ended 31 December 2018, the weighted average number of ordinary shares for the purpose of calculation of basic loss per share has been adjusted for the effect of the 322,998,888 ordinary shares purchased by the Trustee from the market pursuant to the Scheme and the 262,424,000 shares repurchased by the Company during the year ended 31 December 2018.

Diluted loss per share for the years ended 31 December 2019 and 2018 did not assume the exercise of share options granted by the Company since the exercise would decrease the loss per share for the respective year.

Diluted loss per share for the year ended 31 December 2019 did not assume the exercise of share options granted by GNE since the exercise price of the relevant share options is higher than the share price of the respective entities for the year ended 31 December 2019.

Diluted loss per share for the year ended 31 December 2018 did not assume the conversion of the convertible bonds issued by the Company and the exercise of share options granted by GNE, since the exercise prices were higher than the average market prices of the shares of GNE for the year ended 31 December 2018.

15. PROPERTY, PLANT AND EQUIPMENT

	Buildings RMB'000	Plant and machinery RMB'000	Aircraft RMB'000	Office equipment RMB'000	Motor vehicles RMB'000	Construction in progress RMB'000	Total RMB'000
COST							
At 1 January 2018	8,170,484	67,848,700	368,655	563,032	173,405	5,604,398	82,728,674
Additions	111,568	428,685	—	322,283	46,088	11,391,584	12,300,208
Acquired on acquisition of subsidiaries	50,324	1,497,121	—	369	—	199,619	1,747,433
Transfer	472,802	8,775,961	—	89,501	12,717	(9,350,981)	—
Transfer to asset held for sale	(22,962)	(1,100,651)	—	(371)	(354)	(927)	(1,125,265)
Disposal	(106,580)	(108,783)	—	(15,483)	(17,150)	(777)	(248,773)
Disposed on disposal of subsidiaries	(305,048)	(700,182)	—	(5,677)	(174)	(3,446)	(1,014,527)
Effect of foreign currency exchange difference	50	30,005	—	(23)	—	231	30,263
At 31 December 2018	8,370,638	76,670,856	368,655	953,631	214,532	7,839,701	94,418,013
Transfer to right-of-use assets	—	(2,499,975)	(368,655)	—	—	—	(2,868,630)
At 1 January 2019 (restated)	8,370,638	74,170,881	—	953,631	214,532	7,839,701	91,549,383
Additions	24,523	405,864	—	60,563	4,428	591,620	1,086,998
Acquired on acquisition of subsidiaries	24,693	975,102	—	182	386	—	1,000,363
Transfer	2,404,031	3,986,499	—	34,130	19,718	(6,444,378)	—
Disposal	(36,023)	(350,967)	—	(36,804)	(10,605)	—	(434,399)
Disposed on disposal of subsidiaries	(2,428,839)	(10,550,595)	—	(22,490)	(48,339)	(82,427)	(13,132,690)
Effect of foreign currency exchange difference	17	4,730	—	9	—	5	4,761
At 31 December 2019	8,359,040	68,641,514	—	989,221	180,120	1,904,521	80,074,416
ACCUMULATED DEPRECIATION AND IMPAIRMENT							
At 1 January 2018	1,817,541	16,273,464	133,126	210,413	91,260	422,587	18,948,391
Depreciation expense	381,805	3,625,135	24,577	118,890	28,216	—	4,178,623
Transfer to assets held for sale	(620)	(56,458)	—	(74)	(33)	—	(57,185)
Eliminated on disposals of assets	(39,791)	(25,765)	—	(10,658)	(16,198)	—	(92,412)
Eliminated on disposal of subsidiaries	(73,205)	(24,768)	—	—	(12)	—	(97,985)
Impairment losses recognised in profit or loss	—	526,105	—	—	—	—	526,105
Effect of foreign currency exchange difference	50	12,522	—	81	—	—	12,653
At 31 December 2018	2,085,780	20,330,235	157,703	318,652	103,233	422,587	23,418,190
Adjustments upon application of IFRS 16	—	(679,119)	(157,703)	—	—	—	(836,822)
At 1 January 2019 (restated)	2,085,780	19,651,116	—	318,652	103,233	422,587	22,581,368
Depreciation expense	397,936	3,606,352	—	202,173	28,702	—	4,235,163
Eliminated on disposals of assets	(10,858)	(226,434)	—	(27,789)	(7,638)	—	(272,719)
Eliminated on disposals of subsidiaries	(41,888)	(954,122)	—	(7,632)	(10,446)	—	(1,014,088)
Impairment losses recognised in profit or loss	58,330	2,072,041	—	381	28	—	2,130,780
Effect of foreign currency exchange difference	18	993	—	6	—	—	1,017
At 31 December 2019	2,489,318	24,149,946	—	485,791	113,879	422,587	27,661,521
CARRYING AMOUNTS							
At 31 December 2019	5,869,722	44,491,568	—	503,430	66,241	1,481,934	52,412,895
At 31 December 2018	6,284,858	56,340,621	210,952	634,979	111,299	7,417,114	70,999,823

15. PROPERTY, PLANT AND EQUIPMENT (Continued)

The above items of property, plant and equipment, except for construction in progress, are depreciated on a straight-line basis at the following rates per annum:

Buildings	Over the shorter of lease terms or 2%–5%
Plant and machinery	4%–25% or % calculated based on license period
Aircraft	$6^2/_3$%
Office equipment	20%–33%
Motor vehicles	20%–30%

At 31 December 2019, GNE Group was in the process of obtaining property ownership certificates in respect of property interests held under land use rights in the PRC with a carrying amount of approximately RMB1,018,525,000 (2018: RMB1,271,801,000). In the opinion of the directors of GNE, the absence of the property ownership certificates to these property interests does not impair their carrying value to GNE Group as GNE Group paid the full purchase consideration of these property interests and the probability of being evicted on the ground of an absence of property ownership certificates is remote.

Impairment loss on CGUs in solar material business segment

Due to the continuing unfavourable market conditions during the year, the polysilicon and wafer faced a stronger than expected price pressure and the solar material business segment recognised a segment loss of approximately RMB419 million during the year. With the impairment indicators identified, the Directors conducted a review of the recoverable amounts of several CGUs in the solar material business segment to which the property, plant and equipment and intangible assets belonged to as at 31 December 2019.

The recoverable amounts of the relevant CGUs are determined based on value in use calculations by the Directors with reference to the valuation reports of an independent valuer, on the production plants in relation to the production of polysilicon and wafer of the CGUs in the solar material business segment as at 31 December 2019. The calculation uses cash flow projections covering the useful lives of those property, plant and equipment and intangible assets in relation to the production of polysilicon and wafer based on financial budgets approved by management including replacement of assets with shorter useful lives within the relevant CGUs. Key assumptions for the value in use calculations relate to the estimation of cash inflows/outflows include discount rate, budgeted sales and gross margin. Such estimation is based on past performance and management's expectations for the market. The fair value less costs to sell of the CGU is lower than the value in use. The impairment amount has been allocated to each category of property, plant and equipment and intangible assets. Such that the carrying amount of each category of asset is not reduced below the highest of its fair value less cost of disposal, its value in use and zero. As a result, an impairment loss of approximately RMB1,571,069,000 and RMB479,091,000 is recognised on property, plant and equipment and intangible assets during the year ended 31 December 2019, respectively.

15. PROPERTY, PLANT AND EQUIPMENT (Continued)

Impairment loss on CGUs in solar material business segment (Continued)

In addition, the Group has two wafer plants have suspended the operations and operations of some of the machineries and equipments of the polysilicon production have been suspended. Management conducted a review of the relevant machineries and equipments and determined that a number of these assets are no longer to be used in the future. The Group considered recoverable amount based on fair value less disposal cost and recognised an impairment loss of approximately RMB502,476,000 (2018: nil) for such assets during the year ended 31 December 2019. No impairment loss is recognised on property, plant and equipment in relation to the other production plants of wafer in 2019.

During the year ended 31 December 2018, due to the adverse change of market conditions resulting from new government policies on the solar industry, the average selling price of polysilicon and wafer faced a price pressure and several subsidiaries within the solar material business segment incurred loss in late 2018. With the impairment indicators identified, the Directors conducted a review of the recoverable amounts of the property, plant and equipment of the relevant CGUs as at 31 December 2018. The Group determined recoverable amounts based on fair value less costs to sell and recognised an impairment loss of approximately RMB526,105,000 on property, plant and equipment in relation to the production of polysilicon and wafer accordingly.

Impairment loss on new energy business segment

In August 2019, the power generator and related equipment of a solar farm of GNE Group located in Shandong Province, the PRC, was damaged during typhoon. Accordingly, an impairment loss of approximately RMB57,235,000 was recognised for the respective property, plant and equipment for the year ended 31 December 2019. The Group has insurance policies in place to cover damages to property, plant and equipment incidental to typhoon and the related compensation will be recognised only when the compensation becomes receivable. The Group received approximately RMB6,615,000 from insurance claim as of 31 December 2019 which was recognised as compensation income (note 7).

16. RIGHT-OF-USE ASSETS

	Leasehold lands RMB'000	Plant and machinery RMB'000	Aircraft RMB'000	Properties RMB'000	Rooftops RMB'000	Others RMB'000	Total RMB'000
As at 1 January 2019							
Carrying amount	2,851,178	1,820,856	210,952	64,831	137,212	36,129	5,121,158
As at 31 December 2019							
Carrying amount	2,396,703	1,583,103	186,376	203,673	126,438	33,066	4,529,359
For the year ended 31 December 2019							
Depreciation charge	101,542	131,669	23,456	59,033	6,071	21,997	343,768
Expenses relating to:							
— Short-term leases							8,967
— Leases with lease terms ending within 12 months from the date of initial application							19,841
Total cash outflow for leases							438,095
Additions to right-of-use assets (including those arising from acquisition of subsidiaries)							191,106

During the year ended 31 December 2019, the Group entered into an early termination agreement with a landlord to terminate a lease contract, which resulted in derecognition of right-of-use assets and lease liabilities of approximately RMB161,000 and RMB168,000, respectively.

For both years, the Group leases lands, plant and machinery, aircraft, properties, rooftops and other equipment for its operations. Lease contracts are entered into for fixed terms ranging from 2 to 50 years, but may have extension options as described below. Certain leases of property, manufacturing equipment and leasehold lands were accounted for as sale and leaseback and finance leases prior to application of IFRS 16 and carried interest ranging from 5.09% to 6.59%. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. In determining the lease term and assessing the length of the non-cancellable period, the Group applies the definition of a contract and determines the period for which the contract is enforceable.

16. RIGHT-OF-USE ASSETS (Continued)

In addition, the Group owns several leasehold lands where its manufacturing facilities, solar farms and office buildings are primarily located. The Group is the registered owner of these property interests. The Group has obtained the land use right certificates for all leasehold lands except for those with carrying amount of approximately RMB105,402,000 (2018: RMB105,075,000) in which the Group is in the process of obtaining. Lump sum payments were made upfront to acquire these property interests.

The Group regularly entered into short-term leases for offices, motor vehicles and staff quarters. As at 31 December 2019, the portfolio of short-term leases is similar to the portfolio of short-term leases to which the short-term lease expense disclosed above.

The Group has extension options in a number of leases for the leasehold lands and properties. These are used to maximise operational flexibility in terms of managing the assets used in the Group's operations. The majority of extension options held are exercisable only by the Group and not by the respective lessors.

The Group assessed at lease commencement date/date of initial application whether it is reasonably certain to exercise the extension options. The Group is reasonably certain to exercise the extension options in leases for the leasehold lands and is not reasonably certain to exercise the extension options in leases for the properties. As at 31 December 2019, lease liabilities with the exercise of extension options of approximately RMB766,505,000 are recognised. The potential exposures to these future lease payments for extension options in which the Group is not reasonably certain to exercise are summarised below:

	Lease liabilities recognised as at 31 December 2019	**Potential future lease payments not included in lease liabilities (undiscounted)**
	RMB'000	RMB'000
Properties — the PRC	159,676	225,000

In addition, the Group reassesses whether it is reasonably certain to exercise an extension option upon the occurrence of either a significant event or a significant change in circumstances that is within the control of the lessee. During the year ended 31 December 2019, there is no such triggering event.

Details of the lease maturity analysis of lease liabilities are set out in notes 37 and 45b.

16. RIGHT-OF-USE ASSETS (Continued)

Sale and leaseback transactions — seller-lessee

To better manage the Group's capital structure and financing needs, the Group sometimes enters into sale and leaseback arrangements in relation to machinery leases. These legal transfer does not satisfy the requirements of IFRS 15 to be accounted for as a sale of the solar farms. During the year ended 31 December 2019, the Group has raised approximately RMB2,389,424,000 borrowings in respect of such sale and leaseback arrangements. More details are set out in note 36.

17. INVESTMENT PROPERTIES

	RMB'000
COST	
As at 1 January 2018, 31 December 2018, 1 January 2019 and 31 December 2019	103,279
ACCUMULATED DEPRECIATION	
As at 1 January 2018	28,163
Provided for the year	4,656
As at 31 December 2018	32,819
Provided for the year	4,656
As at 31 December 2019	37,475
CARRYING AMOUNTS	
As at 31 December 2019	65,804
As at 31 December 2018	70,460

The investment properties are depreciated on a straight-line basis over the shorter of lease terms of the leasehold land or 5% per annum.

The fair value of the Group's investment properties at 31 December 2019 and 2018 was approximately RMB65,142,000 and RMB79,619,000, respectively. The fair value was determined by the Directors with reference to recent market evidence of transaction prices for similar properties in similar locations and conditions and was classified as level 2 fair value measurement under the fair value hierarchy.

In estimating the fair value of the properties, the highest and best use of the properties is their current use.

18. OTHER INTANGIBLE ASSETS

	Technical know-how RMB'000
COST	
At 1 January 2018	997,373
Addition	45,823
At 31 December 2018	1,043,196
Addition	27,218
At 31 December 2019	1,070,414
ACCUMULATED AMORTISATION AND IMPAIRMENT	
At 1 January 2018	143,821
Amortisation expense	98,068
At 31 December 2018	241,889
Amortisation expense	101,711
Impairment loss recognised	479,091
At 31 December 2019	822,691
CARRYING AMOUNTS	
At 31 December 2019	247,723
At 31 December 2018	801,307

Technical know-how are mainly acquired by solar material business from third parties in relation to technical know-how of hydrochlorination production techniques and hydrochlorination recycling system, trichlorosilane fluidised bed reactor technics, Continuous Czochralski monosilicon technics, perovskite solar cells technics and technical know-how on production for polysilicon and wafer products.

Technical know-how have definite useful lives and are amortised on a straight-line basis over 10 years.

During the year ended 31 December 2019, an impairment loss on other intangible assets of approximately RMB479,091,000 is recognised (see note 15 for details).

19. INTERESTS IN ASSOCIATES

	2019 RMB'000	2018 RMB'000
Cost of investments in associates	**6,987,689**	1,654,991
Share of post-acquisition profit, net of dividends received	**551,634**	159,553
	7,539,323	1,814,544

Details of the Group's associates at the end of the reporting period are as follows:

Name of company	Country of incorporation/ operation	Proportion of ownership interest held by the Group		Proportion of voting right held by the Group		Principal activities
		2019	2018	**2019**	2018	
內蒙古中環協鑫光伏材料有限公司 Inner Mongolia Zhonghuan-GCL Solar Material Co., Ltd.* ("Mongolia Zhonghuan-GCL") (Note a)	PRC	**17.17%**	30%	**17.17%**	30%	Production of silicon rods
芯鑫融資租賃有限責任公司 Xinxin Finance Leasing Company Limited* ("Xinxin") (Note b)	PRC	**5.97%**	5.97%	**5.97%**	5.97%	Finance leasing
浙江瑞翌新材料科技股份有限公司 Zhejiang Ruiyi New Material Technology Co., Ltd.* ("Zhejiang Ruiyi") (Note c)	PRC	**22.17%**	22.17%	**22.17%**	22.17%	Production and sale of diamond-wire
徐州中平協鑫產業升級股權投資基金 (有限合伙) Xuzhou Zhongping GCL Industrial Upgrading Equity Investment Fund LLP* ("Zhongping GCL") (Note d)	PRC	**40.27%**	—	**25%**	—	Investment and asset management
新疆協鑫新能源材料科技有限公司 Xinjiang GCL New Energy Materials Technology Co., Limited* ("Xinjiang GCL") (Note e)	PRC	**38.50%**	N/A	**38.50%**	N/A	Production and sale of polysilicon

19. INTERESTS IN ASSOCIATES (Continued)

Name of company	Country of incorporation/ operation	Proportion of ownership interest held by the Group		Proportion of voting right held by the Group		Principal activities
		2019	2018	**2019**	2018	
喀什博思光伏科技有限公司 Kashgar Solbright Technology Co., Ltd.* ("Kashgar Solbright") (Note f)	PRC	**12.46%**	12.46%	**12.46%**	12.46%	Sale of solar products
華容縣協鑫光伏電力有限公司 Huarong County GCL Solar Power Co. Ltd.* ("Huarong") (Note g)	PRC	**12.46%**	12.46%	**12.46%**	12.46%	Operation of solar farms in the PRC
北京華橋新能源諮詢有限公司 Beijing Hua Qiao New Energy Limited* ("Huaqiao") (Note h)	PRC	**18.68%**	18.68%	**18.68%**	18.68%	Provision of consultancy services on solar farm
林州市新創太陽能有限公司 Linzhou City Xinchuang Solar Company Limited* ("Linzhou Xinchuang") (Note i)	PRC	**12.46%**	N/A	**12.46%**	N/A	Operation of solar farms in the PRC
汝州協鑫光伏電力有限公司 Ruzhou GCL Photovoltaic Power Co., Ltd.* ("Ruzhou") (Note j)	PRC	**28.03%**	N/A	**28.03%**	N/A	Operation of solar farms in the PRC
新安縣協鑫光伏電力有限公司 Xinan County GCL Solar Power Co., Ltd.* ("Xinan") (Note j)	PRC	**28.03%**	N/A	**28.03%**	N/A	Operation of solar farms in the PRC
江陵縣協鑫光伏電力有限公司 Jiangling County GCL Solar Power Co., Ltd.* ("Jiangling") (Note j)	PRC	**28.03%**	N/A	**28.03%**	N/A	Operation of solar farms in the PRC
山西協鑫新能源科技有限公司 Shanxi GCL New Energy Technologies Co., Ltd.* ("Shanxi GNE") (Note k)	PRC	**18.68%**	N/A	**18.68%**	N/A	Operation of solar farms in the PRC

19. INTERESTS IN ASSOCIATES (Continued)

Name of company	Country of incorporation/ operation	Proportion of ownership interest held by the Group		Proportion of voting right held by the Group		Principal activities
		2019	2018	**2019**	2018	
汾西縣協鑫光伏電力有限公司 Fenxi County GCL Photovoltaic Co., Ltd.* ("Fenxi GCL") (Note k)	PRC	**18.68%**	N/A	**18.68%**	N/A	Operation of solar farms in the PRC
芮城縣協鑫光伏電力有限公司 Ruicheng County GCL Photovoltaic Co., Ltd.* ("Ruicheng GCL") (Note k)	PRC	**18.68%**	N/A	**18.68%**	N/A	Operation of solar farms in the PRC
盂縣晉陽新能源發電有限公司 Yu County Jinyang New Energy Power Generation Co., Ltd.* ("Yu County Jinyang") (Note k)	PRC	**18.68%**	N/A	**18.68%**	N/A	Operation of solar farms in the PRC
盂縣協鑫光伏電力有限公司 Yu County GCL Photovoltaic Co., Ltd.* ("Yu County GCL") (Note k)	PRC	**18.68%**	N/A	**18.68%**	N/A	Operation of solar farms in the PRC
邯能廣平縣光伏電力開發有限公司 Hanneng Guangping County Photovoltaic Development Co., Ltd.* ("Hanneng Guangping") (Note k)	PRC	**18.68%**	N/A	**18.68%**	N/A	Operation of solar farms in the PRC
河北協鑫新能源有限公司 Hebei GCL New Energy Co., Ltd.* ("Hebei GNE") (Note k)	PRC	**18.68%**	N/A	**18.68%**	N/A	Operation of solar farms in the PRC

* English name for identification only

Notes:

(a) In November 2017, Mongolia Zhonghuan-GCL was established with independent third parties where the Group injected RMB900,000,000 as capital and holds 30% equity interest in Mongolia Zhonghuan-GCL.

On 30 December 2019, one of the existing shareholders and other investors have further injected RMB2,500,000,000 in total into Mongolia Zhonghuan-GCL for the increase of its registered capital, which resulted in diluting the Group's equity interest in Mongolia Zhonghuan-GCL from 30% to 17.17%. Since the Group is given the right to appoint two out of seven directors on the board of Mongolia Zhonghuan-GCL, the Directors consider that the Group can exercise significant influence over Mongolia Zhonghuan-GCL and it is therefore continued to be classified as an associate of the Group.

19. INTERESTS IN ASSOCIATES (Continued)

Notes: (Continued)

(b) During the year ended 31 December 2018, the Group had injected RMB350,000,000 whereas the other investors injected RMB1,750,000,000 into Xinxin for the increase of its registered capital, resulting the Group holding an aggregate of 5.97% equity interest in Xinxin and is given the right to appoint a director on its board. Given the Group's entitlement to represent on the board of Xinxin, which governs its financial and operating policy decisions, the Directors consider that the Group can exercise significant influence over Xinxin and it is therefore classified as an associate of the Group.

(c) In May 2018, the Group acquired 22.17% equity interest in Zhejiang Ruiyi at a consideration of RMB74,540,000. The Group is given the right to appoint two out of seven directors on the board of Zhejiang Ruiyi.

(d) During the year ended 31 December 2019, the Group entered into a partnership agreement with six independent investors for 40.27% equity interest in Zhongping GCL for a consideration of RMB1,350,000,000 and is fully injected. Pursuant to the partnership agreement of Zhongping GCL, two-third of the votes of the investment committee is required to direct the relevant activities. The Group is entitled to two out of eight voting rights of the investment committee. The Directors consider that the Group can exercise significant influence over Zhongping GCL and it is therefore classified as an associate of the Group.

(e) On 26 June 2019, the Group has entered into an agreement with Zhongping GCL, an associate of the Group, to dispose of its 31.5% out of 70% equity interest in Xinjiang GCL for a consideration of approximately RMB2,490,850,000. The disposal was duly passed by the shareholders of the Company at an extraordinary general meeting on 9 September 2019. The Group retained significant influence over Xinjiang GCL upon completion of the disposal. Following the completion of such disposal, the Group's equity interest in Xinjiang GCL was 38.5%. Xinjiang GCL became an associate of the Group and is accounted for using the equity method. The initial accounting of the investment in Xinjiang GCL is not yet completed and the investment in an associate recognised in the consolidated financial statements for this disposal have been determined provisionally. The relevant purchase price allocation exercise has not yet been finalised at the date of issuance of these consolidated financial statements. The provisional amount of goodwill arising from the disposal was approximately RMB2,417 million. Details of the disposal are set out in note 43(i).

(f) GNE, a 62.28% owned subsidiary of the Group, holds 20% equity interest in Kashgar Solbright. Accordingly, the Group indirectly holds 12.46% equity interest in Kashgar Solbright.

(g) On 10 December 2018, as disclosed in note 43, GNE Group disposed of 80% equity interest in Huarong to an independent third party and retains significant influence on Huarong upon completion of this disposal. Accordingly, the remaining 20% equity interest in Huarong is accounted for as an investment in an associate, which Group indirectly holds 12.46% equity interest in Huarong.

(h) During the year ended 31 December 2018, GNE Group invested in Huaqiao for 30% equity interest with cash consideration of RMB30,000. GNE Group has significant influence on Huaqiao and the investment is accounted for as an associate. Accordingly, the Group indirectly holds 18.68% equity interest in Huaqiao.

(i) On 15 February 2019, as disclosed in note 43(ii)(a), GNE Group disposed of 80% equity interest in Linzhou Xinchuang to an independent third party and retained significant influence on Linzhou Xinchuang upon completion of this disposal. Accordingly, the remaining 20% equity interest in Linzhou Xinchuang is accounted for as an investment in an associate. Accordingly, the Group indirectly holds 12.46% equity interest in Linzhou Xinchuang.

19. INTERESTS IN ASSOCIATES (Continued)

Notes: (Continued)

(j) On 28 March 2019, GNE Group announced that it has entered into share transfer agreements with 五凌電力有限公司 (Wuling Power Corporation Ltd.* ("Wuling"), a subsidiary of China Power Investment Corporation, for the disposal of 55% equity interest in Ruzhou, Jiangling and Xinan for consideration in aggregate of approximately RMB328 million. Ruzhou, Jiangling and Xinan operate a number of solar farms with approximately 280MW installed capacity in aggregate in the PRC. The disposals are completed in April 2019 as disclosed in note 43(ii)(c). Since GNE Group retains 45% equity interest in aggregate in Ruzhou, Jiangling and Xinan and has significant influence, these companies are accounted for as investments in associates. Accordingly, the Group indirectly holds 28.03% equity interest in Ruzhou, Jiangling and Xinan.

(k) On 22 May 2019, GNE Group entered into a series of seven share purchase agreements with 上海榕耀新能源有限公司 Shanghai Rongyao New Energy Co., Ltd* ("Shanghai Rongyao"), an independent third party, in which GNE Group is going to sell 70% of its equity interest in Shanxi GNE, Fenxi GCL, Ruicheng GCL, Yu County Jinyang, Yu County GCL, Hanneng Guangping and Hebei GNE that own 23 operational solar farms in the PRC with an aggregate installed capacity of approximately 977MW, for a consideration in aggregate of RMB1,441,652,000. The disposals are completed in the second half of 2019 with details set out in note 43(ii)(h). Since GNE Group retains 30% equity interest in aggregate in these companies and has significant influence, these companies are accounted for as investments in associates. Accordingly, the Group indirectly holds 18.68% equity interest in these companies.

* English name for identification only

All of the associates are accounted for using the equity method in these consolidated financial statements.

Summarised financial information of material associates

Summarised financial information in respect of the Group's material associates, Xinjiang GCL, Mongolia Zhonghuan-GCL and Zhongping GCL, is set out below.

Xinjiang GCL

	2019 RMB'000
Current assets	3,130,569
Non-current assets	5,062,209
Current liabilities	(5,389,312)
Non-current liabilities	(1,129,131)

19. INTERESTS IN ASSOCIATES (Continued)

Summarised financial information of material associates (Continued)

Xinjiang GCL (Continued)

	9 September 2019 to 31 December 2019 RMB'000
Revenue	813,744
Profit for the period	44,275

The fair values of identifiable assets and liabilities of Xinjiang GCL have been determined on a provisional basis pending the finalisation of their fair value measurements. The summarised financial information of the Xinjiang GCL shown above were based on the provisional fair values of identifiable assets and liabilities of the Xinjiang GCL.

Reconciliation of the above summarised financial information to the carrying amount of the interest in Xinjiang GCL recognised in the consolidated financial statements is set below:

	2019 RMB'000
Net assets of Xinjiang GCL	1,674,335
Proportion of the Group's ownership interest in Xinjiang GCL	38.50%
The Group's share of net assets of Xinjiang GCL	644,619
Goodwill	2,416,798
Carrying amount of the Group's interest in Xinjiang GCL	3,061,417

19. INTERESTS IN ASSOCIATES (Continued)

Summarised financial information of material associates (Continued)

Mongolia Zhonghuan-GCL

	2019 RMB'000	2018 RMB'000
Current assets	**5,047,476**	3,051,317
Non-current assets	**5,321,017**	4,043,532
Current liabilities	**(1,762,782)**	(2,093,349)
Non-current liabilities	**(894,872)**	(1,595,600)

	2019 RMB'000	2018 RMB'000
Revenue	**8,544,169**	6,168,401
Profit for the year	**1,007,270**	406,467

Reconciliation of the above summarised financial information to the carrying amount of the interest in Mongolia Zhonghuan-GCL recognised in the consolidated financial statements is set out below:

	2019 RMB'000	2018 RMB'000
Net assets of Mongolia Zhonghuan-GCL	**7,710,839**	3,405,900
Proportion of the Group's ownership interest in Mongolia Zhonghuan-GCL	**17.17%**	30%
Carrying amount of the Group's interest in Mongolia Zhonghuan-GCL	**1,323,951**	1,021,770

19. INTERESTS IN ASSOCIATES (Continued)

Summarised financial information of material associates (Continued)

Zhongping GCL

	2019 RMB'000
Current assets	366,359
Non-current assets	2,993,988
Current liabilities	—
Non-current liabilities	—

	12 April 2019 to 31 December 2019 RMB'000
Revenue	—
Profit for the period	7,977

Reconciliation of the above summarised financial information to the carrying amount of the interest in Zhongping GCL recognised in the consolidated financial statements is set below:

	2019 RMB'000
Net assets of Zhongping GCL	3,360,347
Proportion of the Group's ownership interest in Zhongping GCL	40.27%
Carrying amount of the Group's interest in Zhongping GCL	1,353,212

19. INTERESTS IN ASSOCIATES (Continued)

Aggregate information of associates that are not individually material

	2019 RMB'000	2018 RMB'000
The Group's share of profits	78,580	17,306

20. INTERESTS IN JOINT VENTURES

Details of the Group's investments in joint ventures are as follows:

	2019 RMB'000	2018 RMB'000
Cost of unlisted investment in joint ventures	929,975	900,560
Share of post-acquisition loss and OCI, net of dividends received	(223,775)	(122,964)
	706,200	777,596

Details of each of the Group's joint ventures at the end of the reporting period are as follows:

Name of company	Country of incorporation/ operation	Proportion of ownership interest held by the Group		Proportion of voting right held by the Group		Principal activities
		2019	2018	2019	2018	
SA Equity Holdco S.a.r.l ("SA Equity") (Note a)	Luxembourg/ South Africa	51%	51%	51%	51%	Investment holding of photovoltaic power generation projects in South Africa
GCL-SR Solar Energy, LLC	USA	50%	50%	50%	50%	Development of photovoltaic power generation projects in the USA
江蘇鑫華半導體材料科技有限公司 Jiangsu Xinhua Semiconductor Material Technology Co., Ltd.* ("Jiangsu Xinhua") (Note b)	PRC	50.98%	50.98%	50.98%	50.98%	Production and trading of semiconductor polysilicon

20. INTERESTS IN JOINT VENTURES (Continued)

Name of company	Country of incorporation/ operation	Proportion of ownership interest held by the Group		Proportion of voting right held by the Group		Principal activities
		2019	2018	**2019**	2018	
蘇州協鑫景世豐股權投資管理有限公司 Suzhou GCL Jingshifeng Investment Management Co., Ltd.* ("Jingshifeng") (Note c)	PRC	**53%**	53%	**53%**	53%	Investment and asset management
江蘇疌泉景世豐投資基金(有限合夥) Jiangsu Jiequan Jingshifeng Investment Fund (Limited Partnership)* ("Jiequan Jingshifeng") (Note d)	PRC	**50%**	50%	**50%**	50%	Investment and asset management
MIT GCL Investment Limited ("MIT GCL") (Note e)	Cayman Islands	**50%**	50%	**50%**	50%	Investment holding
GHC Investment Management Limited ("GHC") (Note f)	Cayman Islands	**50%**	50%	**50%**	50%	Investment holding
啟創環球有限公司 Qichuang Global Limited* ("Qichuang") (Note g)	BVI/Japan	**31.14%**	31.14%	**31.14%**	31.14%	Operation of solar farm in Japan
西安中民協鑫新能源有限公司 Xi'an Zhongmin GCL New Energy Company Limited* ("Zhongmin GCL") (Note h)	PRC	**N/A**	19.93%	**N/A**	19.93%	Operation of solar farm in the PRC
銅陵徽銀北控新能源投資合夥企業(有限合夥) Tonglin Huiyin BE New Energy Investment Partnership Corporation (Limited Partnership)* ("Tongling Huiyin") (Note i)	PRC	**N/A**	9.34%	**N/A**	9.34%	Operation of solar farm in the PRC
北京京糧協鑫科技有限公司 Beijing Jing Liang Xie Xin GCL Technology Limited* ("Jingliang") (Note j)	PRC	**30.52%**	30.52%	**30.52%**	30.52%	Provision of consultancy services on solar farm

20. INTERESTS IN JOINT VENTURES (Continued)

Name of company	Country of incorporation/ operation	Proportion of ownership interest held by the Group		Proportion of voting right held by the Group		Principal activities
		2019	2018	**2019**	2018	
AD Solar No. 3 Godo Kaisha ("AD3") (Note k)	Japan	**N/A**	31.14%	**N/A**	31.14%	Operation of solar farm in Japan
Himeji Tohori Taiyo-No-Sato No.1 Godo Kaisha ("Himeji") (Note k)	Japan	**N/A**	31.14%	**N/A**	31.14%	Operation of solar farm in Japan

* English name for identification only

Notes:

(a) At 31 December 2019 and 2018, the Group holds a 51% equity interests in SA Equity which is an investment holding company for a 76% equity interest in each of Solar Reserve GCL Soutdrift PV1 Proprietary Limited and Solar Reserve GCL Humansrus PV1 Proprietary Limited that indirectly holds a 150MW photovoltaic power plant in South Africa.

Pursuant to the subscription agreement entered into by the Group and the other shareholder, the relevant activities of SA Equity require unanimous consent of the parties sharing control. As a result, SA Equity is accounted for as a joint venture of the Group.

(b) In April 2016, the Group entered into a joint venture investment agreement ("Investment Agreement") with an independent investor ("JV Partner"), pursuant to which the Group invested 50.98% equity interest in Jiangsu Xinhua at a consideration of RMB520,000,000 in the form of property, plant and equipment which approximates the fair values of the relevant assets at date of transfer. According to the Investment Agreement, the relevant activities require unanimous consent of the parties sharing control. The Directors consider that the Group can only exercise joint control over Jiangsu Xinhua and it is therefore classified as a joint venture of the Group.

Pursuant to the Investment Agreement, the JV Partner has the right to request the Group to repurchase its 49.02% equity interest at a premium if Jiangsu Xinhua failed to fulfill certain conditions. As this put option is a derivative financial instrument within the scope of IFRS 9, the Group measured it at fair value and recognised a loss on fair value change of derivative financial instruments of approximately RMB107,389,000 (2018: RMB10,112,000) to profit or loss for the year ended 31 December 2019. Further details are set out in note 40.

(c) In 2017, the Group entered into an agreement with independent third parties, pursuant to which the Group invested 53% equity interest and the independent third parties invested 42% and 5% in Jingshifeng at a consideration of RMB5,300,000, RMB420,000 and RMB50,000, respectively. According to the agreement, two-third of the votes is required to direct the relevant activities of Jingshifeng. The Directors consider that the Group can only exercise joint control over Jingshifeng and it is therefore classified as a joint venture of the Group.

20. INTERESTS IN JOINT VENTURES (Continued)

Notes: (Continued)

(d) In August 2017, the Group entered into a partnership agreement with independent investors, pursuant to which the Group is committed to contribute RMB300,000,000 to the partnership for 50% equity interest and injected fund amounting to RMB90,000,000 as at 31 December 2017. Pursuant to the partnership agreement of Jiequan Jingshifeng, two-third of the votes is required to direct the relevant activities. The Directors consider that the Group can only exercise joint control over Jiequan Jingshifeng and the investment is therefore classified as a joint venture of the Group.

(e) In August 2018, the Group entered into a partnership agreement with an independent third party, pursuant to which the Group is committed to contribute US$13,000,000 (equivalent to RMB89,222,000) to the partnership for 50% equity interest and both parties injected US$25,000 (equivalent to RMB173,000) into MIT GCL as capital. During the year ended 31 December 2019, both the Group and the joint venture partner each further injected US$13,000,000 (equivalent to approximately RMB89,222,000) to MIT GCL. According to the agreement, the relevant activities require unanimous consent from both parties. The Directors consider the Group can only exercise joint control over MIT GCL and it is therefore classified as a joint venture of the Group.

(f) During the year ended 31 December 2018, the Group entered into an agreement with an independent third party, pursuant to which the Group held 50% equity interest in GHC. The Group is given the right to appoint a director and the board comprises of two directors. The Directors consider the Group can only exercise joint control over GHC and it is therefore classified as a joint venture of the Group.

(g) As at 31 December 2019 and 2018, GNE, a 62.28% owned subsidiary of the Group, holds 50% equity interest in Qichuang. Therefore, the Group indirectly holds 31.14% equity interest in Qichuang.

(h) During the year ended 31 December 2019, GNE Group acquired 100% equity interest of 金湖正輝太陽能電力有限公司 Jinhu Zhenghui Photovoltaic Co., Ltd.* ("Jinhu") and 山東萬海電力有限公司 Shandong Wanhai Solar Power Co., Ltd.* ("Wanhai") from Zhongmin GCL, a joint venture of GNE. Upon completion of these acquisitions in March 2019, Jinhu and Wanhai become wholly-owned subsidiaries of GNE Group. Details are set out in note 42. Zhongmin GCL is also disposed of by GNE Group in March 2019. As result of the disposal, a gain of approximately RMB647,000 is recognised and included in other expenses, gains and losses, net during the year 31 December 2019.

(i) Tongling Huiyin was established with an independent third party in which GNE Group holds 15% equity interest and the total attributed registered capital to be contributed by GNE Group amounts to RMB150,000,000. GNE Group has joint control over the arrangement as under the contractual agreement that, unanimous consent is required from all parties to the agreement for directing the relevant activities. During the year ended 31 December 2019, Tongling Huiyin is deregistered and the contributed capital of RMB1,500,000 was repaid.

(j) During the year ended 31 December 2018, GNE Group contributed capital of RMB4,900,000 for a 49% equity interest in Jingliang. GNE Group has joint control over the arrangement as under the contractual agreement, unanimous consent is required from all parties to the agreement for directing the relevant activities. The Group indirectly holds 30.52% equity interest in Jingliang.

(k) GNE Group disposed of its 50% joint venture interest in both AD3 and Himeji to an independent third party in January 2019. As result of the abovesaid disposals, a gain of approximately RMB34,616,000 is recognised during the year ended 31 December 2019 and is included in other expenses, gains and losses, net.

* English name for identification only

All of the joint ventures are accounted for using equity method in these consolidated financial statements.

20. INTERESTS IN JOINT VENTURES (Continued)

Summarised financial information of material joint venture

Summarised financial information in respect of the Group's material joint venture, Jiangsu Xinhua, is set out below.

Jiangsu Xinhua

	2019 RMB'000	2018 RMB'000
Current assets	**396,601**	581,332
Non-current assets	**1,575,083**	1,765,495
Current liabilities	**(356,716)**	(437,340)
Non-current liabilities	**(815,949)**	(898,143)

The above amounts of assets and liabilities include the following:

	2019 RMB'000	2018 RMB'000
Cash and cash equivalents	**23,834**	94,425
Non-current financial liabilities (excluding trade and other payables and provisions)	**(770,042)**	(803,886)

	2019 RMB'000	2018 RMB'000
Revenue	**74,203**	43,521
Loss for the year	**(212,325)**	(1,954)

20. INTERESTS IN JOINT VENTURES (Continued)

Summarised financial information of material joint venture (Continued)

Jiangsu Xinhua (Continued)

The above loss for the year includes the following:

	2019 RMB'000	2018 RMB'000
Depreciation and amortisation	**(93,719)**	(615)
Interest income	**5,476**	1,580
Interest expense	**(42,053)**	—
Income tax (expense) credit	**(24,276)**	7,098

Reconciliation of the above summarised financial information to the carrying amount of the interest in Jiangsu Xinhua recognised in the consolidated financial statements is set out below:

	2019 RMB'000	2018 RMB'000
Net assets of Jiangsu Xinhua	**799,019**	1,011,344
Proportion of the Group's ownership interest in Jiangsu Xinhua	**50.98%**	50.98%
Carrying amount of the Group's interest in Jiangsu Xinhua	**407,340**	515,583

20. INTERESTS IN JOINT VENTURES (Continued)

Aggregate information of joint ventures that are not individually material

	2019 RMB'000	2018 RMB'000
The Group's share of profits	56,878	21,825
The Group's share of OCI	478	1,787
The Group's share of total comprehensive income	57,356	23,612

21. OTHER FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS/EQUITY INSTRUMENTS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME/DEBT INSTRUMENTS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	2019 RMB'000	2018 RMB'000
Current assets		
Other financial assets at FVTPL:		
Unlisted investments (Note b)	477,256	220,328
Debt instruments at FVTOCI:		
Debt securities listed on the Stock Exchange (Note a)	—	65,606
Non-current assets		
Other financial assets at FVTPL:		
Unlisted investments (Note c)	213,221	171,597
Asset management plans (Note d)	100,000	100,000
Unlisted equity investments (Note e)	44,321	44,321
	357,542	315,918
Equity instruments at FVTOCI:		
Listed equity investments (Note f)	41,857	90,716

21. OTHER FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS/EQUITY INSTRUMENTS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME/DEBT INSTRUMENTS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME (Continued)

Notes:

(a) During the year ended 31 December 2019, the Group disposed of the listed investments for total proceeds of approximately RMB68,142,000 (2018: US$7,066,000 (equivalent to RMB45,979,000)), resulting in a gain on disposal of approximately RMB393,000 (2018: loss of approximately RMB215,000) recognised in profit or loss. The cumulative loss of approximately RMB3,540,000 previously recognised in OCI is reclassified to profit or loss upon disposal accordingly.

(b) The unlisted investments represent the financial products issued by financial institutions in Hong Kong and the PRC, out of which the return of the financial products amounting to approximately RMB225,256,000 (2018: RMB220,328,000) is guaranteed by the financial institution with specified rate of return of 7% (2018:7%) per annum. The Directors consider the fair values of the unlisted investments, which are based on the prices provided by the financial institutions, i.e. the prices they would pay to redeem the financial products at the end of the reporting period, approximate to their carrying value.

(c) The Group invested in the form of interests as limited partners, which hold a portfolio of unlisted investments. The primary objective of the investments is to earn income and capital gain. Pursuant to investment agreements, the beneficial interests held by the Group in these unlisted investments are in the form of participating shares or interests which primarily provide the Group with the share of returns from the unlisted investments but not any decision making power nor any voting right to involve in and control the daily operation. The unlisted investments mainly made up of private entities incorporated in the PRC and liquid financial assets (including cash and cash equivalents).

(d) GNE Group invested RMB100,000,000 into an asset management plan managed by a financial institution in the PRC with maturity on 31 March 2021. Since the maturity date of the relevant investment is more than twelve months from the end of the reporting period, the relevant investment is presented as non-current asset as of 31 December 2019 and 2018. The principal is not guaranteed by the relevant financial institution and the expected return rate as stated in the contract is 7.50%.

(e) The amount mainly represents the investments in unlisted equity instruments issued by private entities established in the PRC, Hong Kong and the USA.

(f) The amount mainly represents the investments in Lamtex Holdings Limited, whose shares are listed on the Stock Exchange, and Millennial Lithium Corp. ("Millennial"), whose shares are listed on TSX Venture Exchange.

During the year ended 31 December 2018, the Group subscribed for 1,822,514 units in the capital of Millennial for Canadian dollars 6,379,000 (equivalent to RMB31,860,000), with each unit being comprised of one common share in Millennial and one half of one warrant and each warrant entitling the holder to purchase one common share in Millennial at a specific price for a specific period which would be expired in February 2020. With reference to the market value of the listed warrants, the Directors consider the fair value of the warrants as at initial recognition, 31 December 2018 and 31 December 2019 is insignificant.

These investments are not held for trading; instead, they are held for long-term strategic purpose. The Directors have elected to designate these investments in equity instruments as at FVTOCI as they believe that recognising short-term fluctuations in these investments' fair value in profit or loss would not be consistent with the Group's strategy of holding these investments for long-term purposes and realising their performance potential in the long run.

22. CONVERTIBLE BONDS RECEIVABLE

The Directors have classified the convertible bonds receivable subscribed in 2018 as financial assets at FVTPL on initial recognition, and the fair value of the convertible bonds receivable at initial recognition and as at 31 December 2019 was determined with reference to a valuation prepared by an independent professionally qualified valuer, DTZ Cushman & Wakefield Limited, based on the Binomial Lattice Model.

The reconciliation of the change in fair value of the convertible bonds receivable is as follows:

	RMB'000
As at 1 January 2018	—
Subscription of convertible bonds at initial recognition	80,334
Receipt of interests	(2,423)
Change in fair value charged to profit or loss (note 9B)	(1,910)
As at 31 December 2018	76,001
Receipt of interests	(4,724)
Change in fair value credited to profit or loss (note 9B)	29,820
As at 31 December 2019	101,097

Note: Exchange gain of the convertible bonds receivable of approximately RMB1,648,000 (2018: RMB7,102,000) has been recognised together with change in fair value to profit or loss for the year ended 31 December 2019.

During the year ended 31 December 2018, the Group subscribed for the convertible bonds issued by Asia Energy Logistics Group Limited ("Asia Energy"), whose shares are listed on the Stock Exchange, with principal amount of HK$100,000,000 (equivalent to RMB80,334,000). The convertible bonds carry interest at 5.5% per annum payable semi-annually and mature on 2 March 2021.

22. CONVERTIBLE BONDS RECEIVABLE (Continued)

On 17 September 2019, the Group and Asia Energy entered into a deed of amendment agreement to amend the conversion price to HK$0.375 per share, to adjust the number of conversion shares issuable by Asia Energy upon full exercise of the conversion right attached to the convertible bonds to 266,666,666 conversion shares and to allow the convertible bonds be freely transferrable in whole or in part to any third party which is not a connected person of Asia Energy. The amendment was effective on 20 November 2019. The Directors consider that the fair value change of the convertible bonds receivable resulting from the modification is insignificant.

The following key assumptions were applied:

	31 December 2019	20 November 2019	31 December 2018
Discount rate	**28.40%**	27.51%	27.52%
Share price (per share)	**HK$0.400**	HK$0.340	HK$0.058
Conversion price (per share)	**HK$0.375**	HK$0.375	HK$0.1701
Risk free interest rate	**1.77%**	1.81%	1.7%
Time to maturity	**1.17 years**	1.28 years	2.17 years
Expected volatility	**36.40%**	39.26%	44.51%
Expected dividend yield	**0%**	0%	0%

23. DEFERRED TAXATION

For the purpose of presentation in the consolidated statement of financial position, certain deferred tax assets and liabilities have been offset. The following is the analysis of the deferred tax balances for financial reporting purposes:

	2019 RMB'000	2018 RMB'000
Deferred tax assets	**291,711**	364,041
Deferred tax liabilities	**(186,748)**	(183,457)
	104,963	180,584

23. DEFERRED TAXATION (Continued)

The following are the deferred tax assets (liabilities) recognised and movements thereon during the year:

	Property, plant and equipment	Withholding tax on undistributed profits	Unrealised profits on inventories	Fair value uplift of interest in an associate	Others	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2018	138,484	(186,362)	113,927	—	(27,691)	38,358
Credit (charge) to profit or loss	141,938	51,721	(22,888)	—	(13,630)	157,141
Disposal of solar farm projects	(14,915)	—	—	—	—	(14,915)
At 31 December 2018	265,507	(134,641)	91,039	—	(41,321)	180,584
Credit (charge) to profit or loss	362,769	11,289	(41,050)	(357,326)	(10,166)	(34,484)
Acquisition of solar farm projects (note 42)	(12,165)	—	—	—	—	(12,165)
Disposal of solar farm projects	(36,867)	—	—	—	7,895	(28,972)
At 31 December 2019	579,244	(123,352)	49,989	(357,326)	(43,592)	104,963

Under the tax law of the PRC, withholding tax is imposed on dividends declared in respect of profits earned by the PRC subsidiaries from 1 January 2008 onwards.

Deferred taxation has not been provided for in the consolidated financial statements in respect of temporary differences attributable to accumulated profits of the PRC subsidiaries of GNE Group amounting to approximately RMB2,345,155,000 (2018: RMB3,782,031,000) as GNE Group is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future. During the year ended 31 December 2019, withholding tax of approximately RMB49,495,000 (2018: nil) are charged to profit or loss for the dividends declared and paid by the PRC subsidiaries of GNE Group amounted to RMB989,880,000 (2018: nil).

At the end of the reporting period, the Group has unused tax losses of approximately RMB4,325,267,000 (2018: RMB2,893,763,000) available for offset against future profits. No deferred tax asset has been recognised due to the unpredictability of future profit streams. Unrecognised tax losses of approximately RMB3,682,455,000 (2018: RMB2,130,878,000) will expire from 2020 to 2024 (2018: 2019 to 2023) and approximately RMB642,812,000 (2018: RMB762,885,000), subject to agreement by Hong Kong Inland Revenue Department, may be carried forward indefinitely.

At the end of the reporting period, the Group has deductible temporary differences mainly in respect of impairment of certain assets in aggregate of approximately RMB3,923,177,000 (2018: RMB850,565,000). A deferred tax asset has been recognised in respect of approximately RMB1,977,181,000 (2018: RMB526,105,000) of such deductible temporary differences. No deferred tax asset has been recognised in relation to the remaining deductible temporary differences of approximately RMB1,945,996,000 (2018: RMB324,460,000) as it is not probable that taxable profit will be available against which the deductible temporary differences can be utilised.

24. INVENTORIES

	2019 RMB'000	2018 RMB'000
Raw materials	**185,036**	281,278
Work in progress	**111,605**	258,117
Semi-finished goods (Note)	**206,114**	271,787
Finished goods	**247,631**	180,055
Solar modules	**802**	790
	751,188	992,027

Note: Semi-finished goods mainly represented polysilicon.

During the year ended 31 December 2019, cost of inventories of approximately RMB12,277,366,000 (2018: RMB13,446,890,000) recognised as cost of sales included reversal of write-down of inventories, net of approximately RMB3,712,000 which certain inventories are fully utilised during the year. During the year ended 31 December 2018, cost of inventories recognised as cost of sales included write down of inventories, net of approximately RMB10,236,000 because the cost of certain inventories were higher than their net realisable values.

25. DEPOSITS, PREPAYMENTS AND OTHER NON-CURRENT ASSETS/ TRADE AND OTHER RECEIVABLES

Deposits, prepayments and other non-current assets

	2019 RMB'000	2018 RMB'000
Deposits for acquisitions of property, plant and equipment	**20,525**	85,688
Consideration receivable (note 43)	**92,795**	307,943
Prepayments for engineering, procurement and constructions ("EPC") contracts and constructions (Note a)	**—**	671,189
Refundable value-added tax	**1,716,249**	2,160,282
Prepaid rent for parcels of land	**—**	474,393
Prepayments	**510,000**	—
Others	**56,877**	28,137
	2,396,446	3,727,632

25. DEPOSITS, PREPAYMENTS AND OTHER NON-CURRENT ASSETS/ TRADE AND OTHER RECEIVABLES (Continued)

Trade and other receivables

	2019 RMB'000	2018 RMB'000
Trade receivables (Note b)	**10,993,839**	10,025,417
Less: allowance for credit losses	**(102,669)**	(60,636)
	10,891,170	9,964,781
Other receivables	**809,162**	632,062
Less: allowance for credit losses	**(70,204)**	(76,063)
	738,958	555,999
Refundable value-added tax	**860,714**	1,680,839
Consideration receivables (note 43)	**532,909**	170,686
Receivables for modules procurement	**287,044**	147,577
Other loan receivables (Note c)	**14,250**	20,250
Advance to Borrowers (as defined in Note c)	**13,530**	16,932
Prepayments	**518,566**	751,944
	13,857,141	13,309,008

The current and non-current portion of prepaid rent for parcels of land were adjusted upon the initial application of IFRS 16. Details of the adjustments are set out in note 3.

As at 1 January 2018, trade receivables from contracts with customers amounted to approximately RMB13,903,555,000.

25. DEPOSITS, PREPAYMENTS AND OTHER NON-CURRENT ASSETS/ TRADE AND OTHER RECEIVABLES (Continued)

Notes:

(a) Prepayments for EPC contracts and constructions represent payment in advance to contractors which will be transferred to property, plant and equipment in accordance with the percentage of completion of the constructions.

(b) The Group allows a credit period of approximately one month from the invoice date for trade receivables (excluding sales of electricity) and may further extend 3 to 6 months for settlement through bills issued by banks and financial institutions obtained from trade customers. As at 31 December 2019, the Group's net trade receivables, approximately RMB7,202 million (2018: RMB6,391 million) was contributed by the solar material business segment.

The following is an aged analysis of trade receivables (excluding sales of electricity and bills held by the Group for future settlement), net of allowances for credit losses, presented based on the invoice date at the end of the reporting period:

	2019 RMB'000	2018 RMB'000
Within 3 months	559,711	573,358
3 to 6 months	29,048	20,365
Over 6 months	76,740	127,683
	665,499	721,406

For sales of electricity, the Group generally grants credit period of approximately one month to power grid companies in the PRC from the date of invoice in accordance with the relevant electricity sales contracts between the Group and the respective grid companies.

The following is an aged analysis of trade receivables arising from sales of electricity (excluding bills held by the Group for future settlement), presented based on the invoice date at the end of the reporting period:

	2019 RMB'000	2018 RMB'000
Unbilled (Note)	2,524,359	2,454,010
Within 3 months	280,503	337,718
3 to 6 months	147,892	252,612
Over 6 months	504,380	370,786
	3,457,134	3,415,126

Note: Amount represents unbilled basic tariff receivables for solar farms operated by the Group, and tariff adjustment receivables of those solar farms already registered in the Catalogue. The Directors expect the unbilled tariff adjustments would be generally billed and settled within one year from the end of the reporting period.

25. DEPOSITS, PREPAYMENTS AND OTHER NON-CURRENT ASSETS/ TRADE AND OTHER RECEIVABLES (Continued)

Notes: (Continued)

(b) (Continued)

Note: (Continued)

The aged analysis of the unbilled trade receivables, which is based on revenue recognition date, are as follows:

	2019	2018
	RMB'000	RMB'000
0–90 days	**504,582**	346,782
91–180 days	**401,488**	635,985
181–365 days	**677,679**	873,117
Over 365 days	**940,610**	598,126
	2,524,359	2,454,010

As at 31 December 2019, trade receivables include bills received amounting to approximately RMB6,768,537,000 (2018: RMB5,828,249,000) are held by the Group for future settlement of trade receivables, of which certain bills issued by third parties of approximately RMB3,210,854,000 and RMB2,743,769,000 (2018: RMB2,270,573,000 and RMB1,935,537,000) are further endorsed by the Group with recourse for settlement of payables for purchase of plant and machinery, construction costs and trade payables and discounted to banks for financing with recourse, respectively. The Group continues to recognise their full carrying amount at the end of the reporting periods and details are disclosed in note 47. All bills received by the Group are with a maturity period of less than one year.

The Directors closely monitor the credit quality of trade and other receivables and consider the trade and other receivables, which are neither past due nor impaired, are of a good credit quality in view of the good historical repayment record.

As at 31 December 2019, included in the Group's trade receivables balance (excluding sales of electricity) are debtors with aggregate carrying amount of approximately RMB237,483,000 (2018: RMB278,706,000) which are past due as at the reporting date. Out of the past due balances, approximately RMB86,687,000 (2018: RMB138,482,000) has been past due 90 days or more and is not considered as in default as part of such receivables are either with letters of credit issued by banks and advances from customers or substantially settled subsequent to the end of the reporting period.

As at 31 December 2019, included in these trade receivables arising from sales of electricity are debtors with aggregate carrying amount of RMB749,643,000 (2018: RMB793,090,000) which are past due as at the end of the reporting date. These trade receivables relate to a number of customers represented the local grid companies in the PRC, for whom there is no recent history of default. The Group does not hold any collaterals over these balances.

(c) GNE Group, as lender, entered into loan agreements with independent third parties (the "Borrowers") to provide credit facilities to finance their development and operation of certain solar farm projects in the PRC. As at 31 December 2019, the outstanding balance is approximately RMB14,250,000 (2018: RMB20,250,000). The loans are repayable within twelve months from 31 December 2019 and carry interest at 6% (2018: ranging from 6% to 12%) per annum.

Advance to Borrowers are non-trade in nature, unsecured, non-interest bearing and repayable on demand.

Details of impairment assessment of the trade and other receivables are set out in note 45.

26. CONTRACT ASSETS

	2019 RMB'000	2018 RMB'000
Sales of electricity	**5,639,898**	4,236,405

As at 1 January 2018, contract assets amounted to approximately RMB3,835,070,000.

The contract assets primarily relate to the portion of tariff adjustments for the electricity sold to state grid companies in the PRC in which the relevant on-grid solar farms are still pending for registration to the Catalogue at the end of reporting period, and tariff adjustment is recognised as revenue upon electricity is generated as disclosed in note 6. Pursuant to the 2020 Measures, for those on-grid solar farms yet to be registered on the Catalogue, they are required to meet the relevant requirements and conditions for tariff subsidy as stipulated and to complete the submission and application on the Platform. Local grid companies will observe the principles set out in the 2020 Measures to determine eligibility and regularly announce the on-grid solar farms that are enlisted in the List. The contract assets are transferred to trade receivables when the Group's respective on-grid solar farms are enlisted in the List. The Group considers the settlement terms contain significant financing component, and has adjusted the respective tariff adjustment for the financing component based on estimated timing of collection. Accordingly the amount of consideration is adjusted for the effects of the time value of money taking into consideration the credit characteristics of the relevant counterparties. The revenue of the Group was adjusted by approximately RMB151 million for the year ended 31 December 2019 (2018: RMB152 million) for this financing component and in relation to revision of expected timing of tariff adjustment in the contract assets.

Contract assets are reclassified to trade receivables at the point the respective on-grid solar farm projects are enlisted on the List. The balances as at 31 December 2019 and 2018 are classified as non-current as they are expected to be received after twelve months from the reporting date.

Details of the impairment assessment are set out in note 45.

27. AMOUNTS DUE FROM RELATED COMPANIES

The related companies included associates and joint ventures of the Group and companies controlled by Mr. Zhu Gongshan, the chairman of the Group, and his family members which hold in aggregate approximately 32% (2018: 34%) of the Company's share capital as at 31 December 2019 and exercise significant influence over the Company.

	2019 RMB'000	2018 RMB'000
Amounts due from related companies		
— Trade related (Note a)	**411,143**	611,818
— Non-trade related (Note b)	**19,686**	145,579
	430,829	757,397
Amounts due from associates		
— Trade related (Note a)	**101,719**	—
— Non-trade related (Note c)	**2,273,114**	324,691
	2,374,833	324,691
Amounts due from joint ventures		
— Trade related (Note a)	**705**	379
— Non-trade related (Note d)	**8,297**	160,775
	9,002	161,154
	2,814,664	1,243,242
Less: allowance for credit losses	**(281,580)**	(6,398)
	2,533,084	1,236,844
Analysed for reporting purposes as:		
— Current assets	**1,706,133**	934,216
— Non-current assets	**826,951**	302,628
	2,533,084	1,236,844

27. AMOUNTS DUE FROM RELATED COMPANIES (Continued)

Notes:

(a) The amounts are unsecured, non-interest bearing and the credit period is normally within 30 days (2018: 30 days).

(b) The amounts are unsecured, non-interest bearing and with no fixed repayment term.

The maximum amount outstanding during 2019 is approximately RMB145,579,000 (2018: RMB145,579,000) for non-trade related amounts due from companies in which Mr. Zhu Gongshan and his family have control.

(c) The amounts are unsecured, non-interest bearing and with no fixed repayment term, except for (i) a deposit of approximately RMB38,000,000 (2018: RMB142,194,000) pledged for the loans from Xinxin, an associate of the Group, with repayment terms of 3 to 8 years (2018: 3 to 8 years) and are therefore classified as non-current with details set out in note 33; (ii) loans to Xinjiang GCL of approximately RMB1,243,469,000 (2018: nil) which are unsecured, interest bearing at fixed rates of 5.22% to 5.655% per annum, in which an amount of RMB700,000,000 is agreed to be repaid after one year and are therefore classified as non-current liabilities. The remaining balance of the loans to Xinjiang GCL are with no fixed repayment term and are therefore classified as current liabilities; and (iii) an amount of approximately RMB88,951,000 (2018: nil) which, in the opinion of the directors of GNE, is expected to be received after twelve months from the end of the reporting period and is classified as non-current.

(d) The amounts are unsecured, non-interest bearing and with no fixed repayment term, except for (i) as at 31 December 2018, GNE Group had an amount due from Jinhu amounting to RMB64,000,000, and a loan to Jinhu of RMB38,815,000 with maturity date on 31 December 2022 and interest bearing at 6% per annum. During the year ended 31 December 2019, Jinhu became a wholly-owned subsidiary of GNE (note 42), and accordingly, these inter-group balances are eliminated in group level; and (ii) during the year ended 31 December 2018, GNE Group entered into a loan agreement with Himeji to finance its operations for JPY102,270,000 (equivalent to approximately RMB6,331,000). The loan was unsecured and interest-bearing at 1% per annum. Himeji was disposed of by GNE Group in January 2019 and this loan is settled by the acquirer as part of the consideration on disposal date.

The following is an aged analysis of amounts due from related companies, associates and joint ventures (trade related), net of allowance for credit losses, at the end of the reporting period, presented based on the invoice date which approximated the respective revenue recognition dates:

	2019 **RMB'000**	2018 RMB'000
Within 3 months	**103,108**	163,249
3 to 6 months	**17,306**	399,286
More than 6 months	**111,573**	43,264
	231,987	605,799

The Directors closely monitors the credit quality of amounts due from related companies and consider those accounts, which are neither past due nor impaired, are of a good credit quality in view of the good historical repayment records of such parties. Except for the amount due from an related company with gross carrying amount of approximately RMB402,274,000 which was become credit-impaired because there was a default of payment from the counterparty, an impairment loss of approximately RMB275,182,000 was recognised for the year ended 31 December 2019.

Details of impairment assessment of amounts due from related companies are set out in note 45.

28. HELD FOR TRADING INVESTMENTS

	2019 RMB'000	2018 RMB'000
Listed securities:		
— Equity securities listed in Hong Kong	**4,339**	108,408

29. PLEDGED AND RESTRICTED BANK AND OTHER DEPOSITS AND BANK BALANCES

Bank balances

Bank balances carry interest at floating rates which range from 0.01% to 2% (2018: from 0.01% to 0.385%) per annum or fixed rates which range from 0.35% to 2.75% (2018: 0.03% to 2.75%) per annum.

Pledged bank and other deposits

Pledged bank deposits and other represent deposits pledged to banks and other financial institutions to secure banking facilities granted to the Group. Deposits amounting to approximately RMB914,774,000 (2018: RMB1,809,600,000) have been pledged to secure short-term borrowings granted to the Group and lease liabilities/obligations under finance leases which are due within one year in the PRC and the USA and are therefore classified as current assets. The remaining deposits amounting to approximately RMB1,059,716,000 (2018: RMB830,578,000) have been pledged to secure long-term borrowings granted to the Group and lease liabilities/obligations under finance leases which are due after one year, and are therefore classified as non-current assets.

Pledged bank deposits carry fixed interest rates ranging from 0.30% to 5.23% (2018: 0.15% to 2.75%) per annum.

As at 31 December 2019, pledged other deposit approximate RMB644,168,000 (2018: RMB583,924,000) are non-interesting bearing.

Restricted bank deposits

The deposits carry interest at floating rates of 0.35% (2018: 0.35%) per annum or fixed rates which range from 0.35% to 3.99% (2018: 0.80% to 2.80%) per annum and will be released upon the settlement or discharge of the relevant letters of credit and guarantee.

Restricted bank deposits amounting to approximately RMB4,882,496,000 (2018: RMB3,828,763,000) have been restricted to secure bills and short-term letters of credit for trade and other payables and are therefore classified as current assets. The remaining deposits amounting to approximately RMB72,440,000 (2018: RMB104,891,000) have been restricted to secure lease liabilities/obligations under finance leases and other payables which are due after one year, and are therefore classified as non-current assets.

30. ASSETS CLASSIFIED AS HELD FOR SALE/LIABILITIES ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE

Disposal of solar farms in 2018

(a) Linzhou Xinchuang

On 24 October 2018, GNE Group entered into a share transfer agreement with 中廣核太陽能開發有限公司 CGN Solar Energy Development Co., Ltd* ("CGN Solar"), an independent third party, pursuant to which GNE Group agreed to sell and CGN Solar agreed to purchase 80% equity interest of Linzhou Xinchuang at consideration of RMB93,488,000 and repayment of the corresponding interest in shareholder's loan as at the date of completion of disposal. Linzhou Xinchuang operates solar farm projects in Linzhou, the PRC ("Linzhou Project").

GNE Group guaranteed that for the three-year period following the completion under the equity transfer agreement, Linzhou Project shall generate an average on-grid electricity per year of not less than the guaranteed amount, being 73.1 million kWh ("Guaranteed Amount") and is adjusted in accordance with the degradation rate of the solar panels from benchmark date (i.e. 30 June 2018) to the completion date. In the event that the Linzhou Project fails to reach the aforesaid target, GNE Group shall make up the loss suffered by CGN Solar and such guarantee shall extend for a period of three years. As the average annual on-grid electricity generated by the project in the past two years well exceeded 73.1 million kWh, in the opinion of the directors of GNE, the fair value of the guarantee is insignificant as at completion date on 15 February 2019 and 31 December 2019.

In addition, GNE Group has granted a put option to CGN Solar, pursuant to which GNE Group has agreed that if the Linzhou Project fails to generate an average annual on-grid electricity reaching 70% of the Guaranteed Amount during the three-year period, GNE Group shall repurchase the 80% equity interest in Linzhou Xinchuang from CGN Solar at a repurchase price to be agreed between both parties and replace all advancement from CGN Solar to Linzhou Xinchuang with its loan. As the average annual on-grid electricity generated by the project in the past two years well exceeded the aforesaid 70% requirement, in the opinion of the directors of GNE, the fair value of the option is considered insignificant as at the completion date on 15 February 2019 and 31 December 2019.

Besides, CGN Solar has granted GNE Group a put option, pursuant to which CGN Solar has agreed to grant GNE Group the right, but not an obligation, to request CGN Solar to purchase the remaining 20% equity interest in Linzhou Xinchuang upon the aforesaid guarantees being fulfilled. As the purchase price will be referenced to the fair value of Linzhou Project at the date of purchase of the remaining 20% equity interest in Linzhou Xinchuang by CGN Solar, in the opinion of the directors of GNE, the fair value of the option is considered insignificant as at the completion date on 15 February 2019 and 31 December 2019.

Details of this transaction are set out in the announcement of GNE dated 24 October 2018 and the disposal is completed on 15 February 2019, and GNE Group recognised a gain on disposal amounting to RMB4.9 million in the current year.

30. ASSETS CLASSIFIED AS HELD FOR SALE/LIABILITIES ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE (Continued)

Disposal of solar farms in 2018 (Continued)

(b) Wholly-owned subsidiaries of GNE Group in Inner Mongolia, the PRC

On 30 December 2018, GNE Group entered into share transfer agreements with 中國三峽新能源有限公司 China Three Gorges New Energy Company Limited* ("China Three Gorges New Energy"), an independent third party, pursuant to which GNE Group agreed to sell and China Three Gorges New Energy agreed to purchase 100% equity interest of several wholly-owned subsidiaries of GNE Group for consideration in aggregate of RMB250,891,000. The wholly-owned subsidiaries of GNE Group operate a number of solar farm projects in Inner Mongolia, the PRC. The disposals are completed in May 2019 as disclosed in note 43(ii)(b) and a gain on disposal amounting to RMB17.9 million is recognised in current year.

* English name for identification only

As at 31 December 2018, the assets and liabilities attributable to these solar farm projects have been classified as a disposal group held for sale and are presented separately in the consolidated statement of financial position.

30. ASSETS CLASSIFIED AS HELD FOR SALE/LIABILITIES ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE (Continued)

Disposal of solar farms in 2018 (Continued)

As at 31 December 2018, the major classes of assets and liabilities of the disposal group are as follows:

	RMB'000
Property, plant and equipment	1,068,080
Prepaid lease payments	1,828
Other non-current assets	97,335
Trade and other receivables	175,893
Bank balances and cash	44,873
Total assets classified as held for sale	1,388,009
Other payables	(60,781)
Bank and other borrowings — due within one year	(36,344)
Other current liabilities	(1,582)
Bank and other borrowings — due after one year	(836,611)
Other non-current liabilities	(145)
Total liabilities associated with assets classified as held for sale	(935,463)
Net assets of solar farm projects classified as held for sale	452,546
Intragroup balances	(162,864)
Net assets of solar farm projects	289,682
Remaining net assets of Liuzhou Project held by GNE Group	(24,259)
Net assets to be disposed of	265,423

The following is an aged analysis of trade receivables presented based on the invoice date at 31 December 2018, which approximated the respective revenue recognition date:

	RMB'000
0–90 days	82,190
91–180 days	74,631
	156,821

30. ASSETS CLASSIFIED AS HELD FOR SALE/LIABILITIES ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE (Continued)

Disposal of solar farms in 2018 (Continued)

For the electricity sale business, GNE Group generally granted credit period of approximately one month to local power grid companies in the PRC from the date of invoice in accordance with the relevant electricity sales contract between GNE Group and the respective local grid companies.

The carrying amounts of the above borrowings are repayable*:

	RMB'000
Within one year	36,344
More than one year, but not exceeding two years	54,375
More than two years, but not exceeding five years	238,125
More than five years	544,111
	872,955
Less: bank and other borrowings — due within one year	(36,344)
Bank and other borrowings — due after one year	836,611

* The repayable amounts of bank and other borrowings are based on scheduled repayment dates set out in the respective loan agreements.

31. TRADE AND OTHER PAYABLES

	2019 RMB'000	2018 RMB'000
Trade payables (Note a)	**6,856,052**	5,793,158
Construction payables (Note a)	**5,631,628**	12,764,026
Payables to vendors of solar farms	**92,873**	98,758
Other payables	**949,779**	742,089
Salaries and bonus payable	**281,052**	475,625
Dividend payables to non-controlling shareholders of subsidiaries	**236,453**	16,965
Other tax payables	**139,441**	175,229
Interest payables	**395,339**	217,514
Advance from EPC contractors (Note b)	**123,030**	196,001
Accruals	**313,002**	479,860
	15,018,649	20,959,225

Notes:

(a) Included in the trade payables and construction payables are RMB2,596,413,000 (2018: RMB2,557,898,000) and RMB780,505,000 (2018: RMB2,872,807,000), respectively, in which the Group issued bills to relevant creditors for settlement and remained outstanding at the end of the reporting period, and endorsed bills with recourse with an aggregate amount of approximately RMB3,210,854,000 (2018: RMB2,270,573,000). All these bills are with a maturity period of less than one year.

(b) The advance represents the amounts received from EPC contractors for modules procurement, in which the modules will be used in the construction of GNE Group's solar farms.

The credit period for trade payables is within 3 to 6 months (2018: 3 to 6 months).

The following is an aged analysis of trade payables (excluding bills presented by the Group for settlement and endorsed to banks with recourse) presented based on the invoice date at the end of the reporting period:

	2019 RMB'000	2018 RMB'000
Within 3 months	**2,005,385**	1,862,007
3 to 6 months	**2,046,535**	1,246,563
More than 6 months	**207,719**	126,690
	4,259,639	3,235,260

32. AMOUNTS DUE TO RELATED COMPANIES

The related companies included associates and joint ventures of the Group and companies controlled by Mr. Zhu Gongshan, the chairman of the Group, and his family members which hold in aggregate approximately 32% (2018: 34%) of the Company's share capital as at 31 December 2019 and exercise significant influence over the Company.

	2019 RMB'000	2018 RMB'000
Amounts due to related companies		
— Trade related (Note a)	7,638	120,071
— Non-trade related (Note b)	137,824	68,640
	145,462	188,711
Amounts due to associates		
— Trade related (Note a)	1,174,645	180,607
— Non-trade related (Note b)	417,103	7,815
	1,591,748	188,422
Amount due to a joint venture		
— Trade related (Note a)	79,098	166,216
— Non-trade related (Note b)	—	34,743
	79,098	200,959
	1,816,308	578,092

32. AMOUNTS DUE TO RELATED COMPANIES (Continued)

Notes:

(a) The amounts are unsecured, non-interest bearing and the credit period is normally within 30 days (2018: 30 days).

The following is an aged analysis of amounts due to related companies (trade related) at the end of the reporting period, presented based on the invoice date:

	2019 RMB'000	2018 RMB'000
Within 3 months	**1,151,455**	341,761
3 to 6 months	**38,711**	69,350
More than 6 months	**71,215**	55,783
	1,261,381	466,894

(b) The amounts are unsecured, non-interest bearing and repayable on demand.

33. LOANS FROM RELATED COMPANIES

	2019 RMB'000	2018 RMB'000
Loans from:		
— an associate (Note a)	**601,918**	1,621,949
— companies controlled by Mr. Zhu Gong Shan and his family (Note b)	**1,173,643**	1,977,840
	1,775,561	3,599,789
Analysed for reporting purposes as:		
— Current liabilities	**743,922**	508,000
— Non-current liabilities	**1,031,639**	3,091,789
	1,775,561	3,599,789

33. LOANS FROM RELATED COMPANIES (Continued)

Notes:

(a) As at 31 December 2019, the amounts represent the advances from Xinxin arising from several financing arrangements. Advances of approximately RMB146,679,000 (2018: RMB508,000,000) are secured, interest bearing and repayable within one year, and are therefore classified as current liabilities. The remaining advances of approximately RMB455,239,000 (2018: RMB1,113,949,000) are secured and interest bearing with repayment terms of 3 to 8 years (2018: 3 to 8 years), and are therefore classified as non-current liabilities. Balance of approximately RMB392,507,000 (2018: RMB1,409,355,000) is secured by cash deposits of approximately RMB38,000,000 (2018: RMB142,194,000) and carries interest ranging from 6% to 8.58% (2018: 6% to 8.58%) per annum. The remaining balance of approximately RMB209,411,000 (2018: RMB212,594,000) is secured by certain property, plant and equipment held by the Group and carries interest at 7.81% (2018: 7.80%) per annum.

(b) During the year ended 31 December 2019, GNE Group obtained and renewed six (2018: three) loans from 協鑫集團有限公司 GCL Group Limited*, 南京鑫能陽光產業投資基金企業(有限合夥) Nanjing Xinneng Solar Property Investment Fund Enterprise (Limited Partnership)*, 江蘇協鑫房地產有限公司 Jiangsu GCL Real Estate Co., Ltd.* and 江蘇協鑫建設管理有限公司 Jiangsu GCL Construction Management Co., Ltd.* in total amounted to approximately RMB1,173,643,000 (2018: RMB1,977,840,000). These loans are unsecured, interest bearing at 8% per annum and repayable from 2020 through 2021. Approximately RMB597,243,000 (2018: nil) of the outstanding loans are repayable within twelve months from the end of the reporting period.

* English name for identification only

34. CONTRACT LIABILITIES

	2019 RMB'000	2018 RMB'000
Sales of polysilicon and wafer		
Current	**224,939**	195,985
Non-current	**147,740**	197,411
	372,679	393,396

As at 1 January 2018, contract liabilities amounted to approximately RMB730,938,000.

The Group entered into supply framework contracts with customers with continuous business relationships and received advance payments from these customers. When the Group receives certain percentage of deposits as an advance payment upon signing the supply framework contract, this will give rise to contract liabilities at the start of a contract, until the revenue recognised upon the order is fulfilled.

Contract liabilities are classified as current liabilities and non-current liabilities based on the agreed portion of advance payments to be utilised for the estimated amounts of purchase of goods as stated on the respective supply framework contracts within one year and after one year, respectively.

35. GOVERNMENT GRANTS

	2019 RMB'000	2018 RMB'000
Amounts credited to profit or loss during the year:		
Incentive subsidies (Note a)	**92,889**	160,376
Subsidies related to property, plant and equipment (Note b)	**61,811**	78,054
Value-added tax refunds related to depreciable assets (Note c)	**6,515**	6,515
Income tax credit ("ITC") (Note d)	**14,159**	9,689
	175,374	254,634

	2019 RMB'000	2018 RMB'000
Deferred income related to government grants:		
Subsidies related to property, plant and equipment (Note b)	**203,906**	265,717
Value-added tax refunds related to depreciable assets (Note c)	**31,103**	37,619
ITC (Note d)	**401,857**	409,365
Total	**636,866**	712,701
Less: current portion (included in deferred income)	**(38,958)**	(54,615)
Non-current portion (included in deferred income)	**597,908**	658,086

Notes:

(a) Incentive subsidies were received from the relevant PRC government for improvement of working capital and financial assistance to the operating activities to enhance the competitiveness in the industry. The amount also includes grants for relevant expenses incurred such as those for research and development activities and interest subsidies. The subsidies were granted on a discretionary basis to the Group during the year.

(b) The Group received government subsidies for capital expenditure incurred for the plant and machinery. The amounts are deferred and amortised over the estimated useful lives of the respective assets.

(c) The Group received value-added tax refunds on purchases of domestic manufactured plant and machinery. The amounts are deferred and amortised over the estimated useful lives of the respective plant and machinery.

35. GOVERNMENT GRANTS (Continued)

Notes: (Continued)

(d) Pursuant to the relevant prevailing federal policies in the USA, taxpayers that construct or acquire on or before 31 December 2019 qualified energy property are allowed to claim an energy ITC at 30% for the taxable year in which such property is placed in service by the taxpayer. The directors of GNE analysed the facts and circumstances of the ITC and determined that it is of nature of a government grant that is provided to GNE Group in the form of tax benefits relating to construction or acquisition of qualified energy property.

Against this, GNE Group entered into an inverted lease arrangement in February 2017 for its qualified solar farm projects in the USA ("Qualified Assets") with a third party financial institution, which acts as a tax equity investor, and the arrangement allows GNE Group to pass its entitled ITC ("ITC Benefit") that constitutes the right to offset against future tax payables to the tax equity investor for cash receipts in exchange. During the year ended 31 December 2017, ITC Benefit of GNE Group related to the Qualified Assets amounted to US$34,090,000 (equivalent to approximately RMB222,751,000) and was recognised as a government grant ("Grant") as there is a reasonable assurance that the relevant requirements for the tax benefit have been met. The Grant would be amortised over the useful lives of the Qualified Assets. Pursuant to the arrangement, the ITC Benefit was passed on by GNE Group to the tax equity investor and accordingly, the ITC Benefit was derecognised during the year that the invested lease arrangement was entered into with the tax equity investor. Approximately US$1,136,000 (equivalent to approximately RMB7,839,000) (2018: US$1,136,000 (equivalent to approximately RMB7,917,000)) of the Grant was recognised in profit or loss for the year as a government grant income and included in other income.

During the year ended 31 December 2018, GNE Group entered into another financing arrangement for its four qualified solar farm projects in the USA with a third party financial institution, in which GNE Group passed its ITC Benefit to the financial institution that constitutes the right to offset against future tax payables to the financial institution for cash receipts in exchange. During the year ended 31 December 2019, ITC Benefit of GNE Group related to the four projects amounted to US$26,355,000 (equivalent to approximately RMB183,858,000) (2018: US$27,304,000 (equivalent to approximately RMB187,392,000)) and was recognised as a Grant as there is a reasonable assurance that the relevant requirements for the tax benefit have been met. The Grant would be amortised over the useful lives of the Qualified Assets. Pursuant to the arrangement, the ITC Benefit was passed on by GNE Group to the financial institution and accordingly, the relevant ITC Benefit was derecognised during the year ended 31 December 2018. Approximately US$906,000 (equivalent to approximately RMB6,320,000) (2018: US$215,000 (equivalent to approximately RMB1,772,000)) of the Grant was recognised in profit or loss for the year as a government grant income and included in other income.

36. BANK AND OTHER BORROWINGS

Details of the bank and other borrowings are as follows:

	2019 RMB'000	2018 RMB'000
Bank loans	**29,622,759**	37,021,174
Other loans	**17,639,963**	14,744,728
	47,262,722	51,765,902
Representing:		
Secured	**40,668,330**	40,330,546
Unsecured	**6,594,392**	11,435,356
	47,262,722	51,765,902

36. BANK AND OTHER BORROWINGS (Continued)

The carrying amounts of the above borrowings are repayable*:

	2019	2018
	RMB'000	RMB'000
Short-term borrowings	**10,679,598**	10,699,437
Long-term borrowings		
Within one year	**10,567,917**	6,386,305
More than one year, but not exceeding two years	**3,383,169**	4,617,510
More than two years, but not exceeding five years	**10,765,759**	10,723,815
More than five years	**6,136,822**	11,135,737
	30,853,667	32,863,367
	41,533,265	43,562,804
The carrying amount of bank loans that are repayable on demand due to breach of loan covenants (shown under current liabilities)	**5,729,457**	8,203,098
Less: amounts due within one year shown under current liabilities	**(26,976,972)**	(25,288,840)
Amounts due after one year	**20,285,750**	26,477,062
Analysed as:		
Fixed-rate borrowings	**17,901,742**	11,669,538
Variable-rate borrowings	**29,360,980**	40,096,364
	47,262,722	51,765,902

* The amounts due are based on scheduled repayment dates set out in the loan agreements.

36. BANK AND OTHER BORROWINGS (Continued)

Included in the other loans are approximately RMB12,074 million (2018: RMB13,604 million) in which the Group entered into financing arrangements with financial institutions with lease terms ranging from 2 to 14.5 years (2018: 2 to 14.5 years), with legal title of the respective equipment transferred to the financial institutions. The Group continued to operate and manage the relevant equipment during the lease term without any involvement from the financial institutions, and the Group is entitled to purchase back the equipment at a minimal consideration upon maturity of respective leases, except for one of the financing arrangements with a financial institution that Group can either exercise the early buyout option granted to the Group to purchase back the relevant equipment at a pre-determined price at the end of the seventh year of the lease term, or to purchase back the equipment from this financial institution at fair value upon the end of the lease period. Despite the arrangement involves a legal form of a lease while it does not constitute a sale and leaseback transaction, the Group accounted for the arrangement as a collateralised borrowing at amortised cost using effective interest method under IFRS 9/IAS 39 in prior years before the application of IFRS 16, in accordance with the substance of the arrangement. Effective on 1 January 2019, the Group applies the requirements of IFRS 15 to assess whether sale and leaseback transactions constitute a sale as disclosed in note 16.

The ranges of effective interest rates (which are also equal to contracted interest rates) on the Group's borrowings are analysed as follows:

	2019	2018
Fixed-rate borrowings RMB borrowings	**1.20% to 13%**	1.20% to 13%
Euro ("EUR") borrowings	**N/A**	2%
US$ borrowings	**2.50% to 9.94%**	2.50% to 9.94%
HK$ borrowings	**8% to 21%**	5%
Variable-rate borrowings RMB borrowings	**100% to 180% of Benchmark Borrowing Rate of the People's Bank of China ("Benchmark Rate")**	100% to 161% of Benchmark Rate
US$ borrowings	**London Interbank Offered Rate ("LIBOR") + 2.39% to 4.30%**	LIBOR + 1.75% to 4.30%
HK$ borrowings	**Hong Kong Interbank Offered Rate ("HIBOR") + 1.63% to 4.88%**	N/A
JPY borrowings	**N/A**	LIBOR + 1.60%

36. BANK AND OTHER BORROWINGS (Continued)

The Group's borrowings are denominated in the currencies other than the functional currency of the relevant group entities are set out below:

	2019 RMB'000	2018 RMB'000
EUR	—	111,432
HK$	361,339	256,677
US$	3,264,673	5,247,224
JPY	—	1,407

Certain borrowings are secured by property, plant and equipment, right-of-use assets/prepaid lease payments and bank deposits as set out in note 50.

During the year ended 31 December 2019, the Group discounted bills arising from future settlement of trade receivables with recourse in aggregated amount of RMB3,873,184,000 (2018: RMB4,297,828,000) to banks for short-term financing. At 31 December 2019, the associated borrowings amounted to approximately RMB2,743,769,000 (2018: RMB1,935,537,000). The related cash flows of these borrowings are presented as operating cash flows in the consolidated statement of cash flows as the management considers the cash flows are in substance, the receipts from trade customers.

The Group is required to comply with certain restrictive financial and other covenants and undertaking requirements.

As at 31 December 2019, in respect of a bank borrowing with carrying amount of approximately RMB557 million, the Group was not able to meet a covenant requirement related to the financial ratio of the Group, and thereby triggered the cross default clauses in several other bank borrowings of approximately RMB5,172 million, and in which approximately RMB2,896 million of the bank borrowings will be due and repayable after 2020 in accordance with the original repayment terms. In respect of the relevant borrowing which breached the financial covenant requirement, approximately RMB488.3 million and RMB68.7 million was required to be repaid in February 2020 and August 2020, respectively, in accordance with the original repayment term. On discovery of the breach, the Directors informed the lenders and commenced renegotiation of the terms of the bank borrowing with the relevant bankers which waiver on strict compliance on the financial ratio have been obtained subsequent to the end of the reporting period. As at 31 December 2019, negotiation had not been concluded. Since the lenders have not agreed to waive their right to demand immediate payment as at the end of the reporting period, the bank borrowings have been classified as current liabilities as at 31 December 2019 as required by applicable accounting standard, despite the fact that waiver has been granted by the relevant banks and revised the repayment of approximately RMB348.8 million out of RMB488.3 million from February 2020 to June 2020. Subsequent to the end of the reporting period, the Company has settled approximately RMB139.5 million on 28 February 2020 as agreed with the banks.

36. BANK AND OTHER BORROWINGS (Continued)

As at 31 December 2018, in respect of another bank borrowings with carrying amounts of approximately RMB2,181 million, the Group is not able to meet certain of the covenant requirements primarily related to financial ratios of the Group, and thereby triggered the cross default clauses in several other bank borrowings of approximately RMB6,022 million. On discovery of the breach, the Directors informed the lenders and commenced renegotiations of the terms of the bank borrowings with the relevant bankers which waivers on strict compliance on the financial ratios have been obtained on 22 March 2019 and 27 March 2019. As at 31 December 2018, negotiations had not been concluded. Since the lenders have not agreed to waive their right to demand immediate payment as at the end of the reporting period, the bank borrowings have been classified as current liabilities as at 31 December 2018 as required by applicable accounting standard, despite the fact that waivers have been granted by the relevant banks and in which approximately RMB6,012 million of the bank borrowings will be due and repayable after 2019 in accordance with the original repayment terms.

As at 31 December 2019, part of the shares of a non-wholly owned subsidiary of the Group were pledged to secure other borrowings totalling approximately RMB164,263,000 (2018: nil) granted to the Group. The net asset value of that non-wholly owned subsidiary was amounted to approximately RMB10 billion as at 31 December 2019.

37. LEASE LIABILITIES

	2019 RMB'000
Lease liabilities payable:	
Within one year	530,655
Within a period of more than one year but not more than two years	438,059
Within a period of more than two years but not more than five years	618,394
Within a period of more than five years	854,411
	2,441,519
Less: amount due for settlement with 12 months shown under current liabilities	(530,655)
Amount due for settlement after 12 months shown under non-current liabilities	1,910,864

Lease obligations that are denominated in currencies other than the functional currencies of the relevant group entities are set out below:

	US$ RMB'000	HK$ RMB'000
As at 31 December 2019	251,645	42,226

38. OBLIGATIONS UNDER FINANCE LEASES

The Group entered into sale and leaseback and finance lease agreements with lessors in respect of its property, manufacturing equipment and prepaid lease payments in the PRC, solar farms in the USA and an aircraft in Hong Kong and they were accounted as obligations under finance leases as at 31 December 2018. Upon adoption of IFRS 16 on 1 January 2019, such arrangements are accounted as lease liabilities.

	2018	
	Minimum lease payments RMB'000	Present value of minimum lease payments RMB'000
Amounts payable under finance leases		
Within one year	347,637	277,138
More than one year, but not exceeding two years	412,719	365,589
More than two years, but not exceeding five years	514,640	455,513
More than five years	158,518	130,159
	1,433,514	1,228,399
Less: future finance charges	(205,115)	N/A
Present value of lease obligations	1,228,399	1,228,399
Less: amount due for settlement within one year (shown under current liabilities)		(277,138)
Amount due for settlement after one year shown under non-current liabilities		951,261

Finance lease obligations that are denominated in currencies other than the functional currencies of the relevant group entities are set out below:

	US$ RMB'000	HK$ RMB'000
As at 31 December 2018	316,138	64,360

39. NOTES AND BONDS PAYABLES

The carrying amounts of the Group's notes and bonds payables are as follows:

	2019	2018
	RMB'000	RMB'000
5.60% fixed rate notes due 2018/2020 (Note a)	**424,425**	207,517
4.15% fixed rate notes due 2019/2021 (Note a)	**—**	1,000,000
Less: unamortised issuance costs	**(2,250)**	(20,796)
Net carrying amount	**422,175**	1,186,721
7.50% fixed interest non-public green bonds due 2020 (Note b)	**—**	536,334
7.10% fixed interest senior notes due 2021 (Note c)	**3,470,542**	3,398,063
	3,892,717	5,121,118
Less: amount due within one year shown under current liabilities	**(422,175)**	(984,453)
Amount due for settlement after one year shown under non-current liabilities	**3,470,542**	4,136,665

Notes:

(a) On 16 October 2015, the China Securities Regulatory Commission issued a notice to 保利協鑫(蘇州)新能源有限公司 GCL-Poly (Suzhou) New Energy Co., Limited* ("GCL-Poly Suzhou") that it had approved the issue of not more than RMB2,000,000,000 notes payable to be issued by GCL-Poly Suzhou to qualified investors, and that the first tranche and the second tranche of such issue should be completed within 12 months and 24 months from the date of approval, respectively.

On 30 October 2015, GCL-Poly Suzhou issued notes payable in an aggregate principal amount of RMB1,000,000,000 to qualified investors in the PRC. The maturity date of the notes payable is 28 October 2020. If the option to resell is selected by the investors, the maturity date of the notes payable would be 28 October 2018. Any investor has the option to resell in face value any part of or the whole of the notes held by them to GCL-Poly Suzhou on 28 October 2018. The notes payable bears interest at 5.60% per annum, which is payable annually on 28 October in each year up to maturity date. If any investor selects to sell the notes held back to GCL-Poly Suzhou, the interest payable date will be on 28 October in each year up to 28 October 2018. The interest commencement date is 28 October 2015.

On 28 October 2018, certain investors have exercised the option to resell the notes to GCL-Poly Suzhou with face value of RMB289,176,000 and the amounts are repaid accordingly. In 2018, 江蘇中能硅業科技發展有限公司 Jiangsu Zhongneng Polysilicon Technology Development Co.,Ltd.* ("Jiangsu Zhongneng"), a wholly owned subsidiary of the Company, repurchased part of the first tranche of the notes through secondary market with a face value of RMB503,307,000 and are therefore held by the Group.

During the year ended 31 December 2019, Jiangsu Zhongneng repurchased part of the first tranche of the notes through secondary market with a face value of RMB196,825,000. Besides, part of the first tranche of the notes held by Jiangsu Zhongneng with a face value of RMB413,733,000 are sold to qualified investors through secondary market during the current year.

39. NOTES AND BONDS PAYABLES (Continued)

Notes: (Continued)

(a) (Continued)

As at 31 December 2019, the first tranche of the notes repurchased and held by the group entities, amounting to RMB286,399,000 (2018:RMB503,307,000) and held by the Group.

On 27 September 2016, GCL-Poly Suzhou completed the issue of the second tranche notes payable in an aggregate principal amount of RMB1,000,000,000 to qualified investors in the PRC. The maturity date of the notes payable is 26 September 2021. If the option to resell is selected by the investors, the maturity date of the notes payable would be 26 September 2019. Any investor has the option to resell in face value any part of or the whole of the notes held by them to GCL-Poly Suzhou on the third interest payment date on 26 September 2019. The notes payable bears interest at 4.15% per annum, which is payable annually on 26 September in each year up to maturity date. If any investor selects to sell the notes held back to GCL-Poly Suzhou, the interest payable date will be on 26 September in each year up to September 2019. The interest commencement date is 26 September 2016.

On 26 September 2019, the investors have exercised the option to resell the notes of GCL-Poly Suzhou with face value of RMB1,000,000,000 and the amounts are repaid accordingly.

(b) On 3 August 2017 and 7 December 2017, 蘇州協鑫新能源投資有限公司 Suzhou GCL New Energy Investment Limited* ("Suzhou GCL New Energy"), a subsidiary of GNE Group, completed the first tranche and second tranche of the non-public issuance of green bonds amounting to RMB375,000,000 and RMB560,000,000, respectively, for a term of 3 years with a fixed interest rate of 7.5% per annum. Part of the second tranche amounting to RMB50,000,000 was subscribed by GNE Group via an external trust. As at 31 December 2019, the first tranche and second tranche of the non-public green bonds, amounting to RMB1,000,000 (2018: RMB100,000,000) and RMB76,500,000 (2018: RMB300,000,000) have been acquired by GNE Group, respectively.

In July 2019, RMB275,000,000 out of the first tranche of the non-public green bonds of RMB375,000,000 and RMB310,000,000 out of the second tranche of the non-public green bonds of RMB560,000,000 were redeemed by GNE Group upon maturity while the holders of the remaining first and second tranche of the non-public green bonds exercised their option to extend the maturity of the bonds to July 2020 and December 2020, respectively.

During the year ended 31 December 2019, part of the first tranche and second tranche of the non-public green bonds with a face value of RMB99,000,000 (2018:nil) and RMB173,500,000 (2018: nil), respectively, were repurchased by Jiangsu Zhongneng from the secondary market.

As at 31 December 2019, the first tranche and second tranche of the non-public green bonds repurchased and held by the group entities, amounting to RMB100,000,000 and RMB250,000,000 (31 December 2018: RMB100,000,000 and RMB300,000,000) are held by the Group, respectively.

(c) On 23 January 2018, GNE issued senior notes of US$500 million (equivalent to RMB3,167 million), which bear interest at 7.1% per annum and mature on 30 January 2021. The net proceeds of the notes issuance, after deduction of underwriting discounts and commissions and other expenses, amounted to approximately US$493 million (equivalent to RMB3,120 million).

* English name for identification only

40. DERIVATIVE FINANCIAL INSTRUMENTS

	Put option of interests in Jiangsu Xinhua RMB'000
As at 1 January 2018	15,899
Change in fair value charged to profit or loss (note 9B)	10,112
As at 31 December 2018	26,011
Change in fair value charged to profit or loss (note 9B)	107,389
As at 31 December 2019	133,400

In April 2016, the Group entered into the Investment Agreement with the JV Partner pursuant to which the JV Partner is given a right to request the Group to repurchase its 49.02% equity interest in Jangsu Xinhua at a premium under the following circumstances:

(a) If Jiangsu Xinhua fails to complete a qualified initial public offering ("IPO") at a mutually agreed stock exchange within a specified time frame;

(b) If Jiangsu Xinhua meets the listing requirements of the specified stock exchanges but fails to complete a qualified IPO due to external factors such as a change in government policy or other factors out of Jiangsu Xinhua's control;

(c) If Jiangsu Xinhua fails to produce polysilicon to the level of quality and specification stipulated under the Investment Agreement within a specified time frame; or

(d) If there is a significant breach by the Group on the relevant terms of the Investment Agreement or actions brought by the Group resulting in significant adverse impact to the joint venture and the Group fails to remediate such breach within the period required by the JV Partner.

The Directors had recognised the put option of interests in Jiangsu Xinhua as derivative financial instruments and initially recognised at fair value with subsequent changes in fair value recognised in profit or loss. During the year ended 31 December 2019, the Group remeasured the fair value with a loss on fair value change of the derivative financial instruments of approximately RMB107,389,000 (2018: RMB10,112,000) recognised to profit or loss.

Details of the inputs and assumption adopted in the valuation are described in note 46.

41. SHARE CAPITAL

	Number of shares '000	Amount HK$'000
Ordinary shares of HK$0.1 each		
Authorised		
At 1 January 2018, 31 December 2018, 1 January 2019 and 31 December 2019	30,000,000	3,000,000
Issued and fully paid		
At 1 January 2018	18,592,021	1,859,202
Exercise of share options (Note a)	352	35
Share repurchased and cancelled (Note b)	(262,424)	(26,242)
At 31 December 2018 and 1 January 2019	18,329,949	1,832,995
Exercise of share options (Note a)	100	10
Issue of shares on placement (Note c)	1,511,000	151,100
At 31 December 2019	19,841,049	1,984,105

	2019 **RMB'000**	2018 RMB'000
Shown in the financial statements as	**1,742,850**	1,610,009

Notes:

(a) During the year ended 31 December 2019, share option holders exercised their rights to subscribe for 100,000 (2018: 192,007 and 160,000) ordinary shares in the Company at HK$0.586 (2018: HK$0.586 and HK$1.16) per share, respectively, with the net proceeds of approximately RMB51,000 (2018: RMB249,000).

41. SHARE CAPITAL (Continued)

Notes: (Continued)

(b) The Company repurchased its own ordinary shares through the Stock Exchange as follows:

Month of repurchase	Number of shares of HK$0.1 each	Price per share Highest	Price per share Lowest	Aggregate consideration paid	Equivalent aggregate consideration paid
		HK$	HK$	HK$'000	RMB'000
June 2018	232,424,000	0.78	0.73	176,905	144,620
July 2018	30,000,000	0.69	0.67	20,378	18,124
	262,424,000			197,283	162,744

The Company repurchased and cancelled 262,424,000 shares of its own shares and accordingly the issued share capital of the Company was reduced by the nominal value of these shares. The premium payable on repurchase was charged against the share premium. An amount equivalent to the nominal value of the shares cancelled was transferred from accumulated profits to the capital redemption reserve.

(c) On 10 June 2019, the Company entered in a placing agreement with UBS AG Hong Kong Branch as placing agent (the "Placing Agent"), which is independent and not connected to the Company. Pursuant to the placing agreement, the Placing Agent agreed to place up to 1,511,000,000 placing shares to third parties independent of the Company and connected persons of the Company at HK$0.45 per placing share. The placing was completed on 18 June 2019, with net proceeds of approximately HK$669,104,000 (equivalent to approximately RMB587,791,000).

None of the Company's subsidiaries purchased, sold or redeemed any of the Company's listed securities during both years.

All shares issued during the years ended 31 December 2019 and 2018 rank pari passu in all respects with the then existing shares of the Company.

42. ACQUISITIONS OF SUBSIDIARIES

For the year ended 31 December 2019, GNE Group had several acquisitions due to business expansion, in acquiring a controlling stake in certain companies for a total consideration of approximately RMB264,000,000 (2018: RMB12,759,000).

For the companies set out in note (i) below, these solar farm project companies are in on-grid stage with relevant economic resources as at the date of the respective acquisitions which are considered as businesses. Therefore, those acquisitions are considered as business combinations under IFRS 3 and accounted for using acquisition method. For the other acquisitions as mentioned in note (ii) below are solar farm project companies in development stage and did not have any substantial economic resources and processes for creating economic benefits; accordingly, GNE Group considers the nature of these acquisitions as acquisitions of assets in substance and the considerations have been allocated first to the financial assets acquired and financial liabilities assumed at the respective fair values. The remaining balance of the considerations is then allocated to other identifiable assets and liabilities on the basis of their relative fair values at the date of acquisitions.

There is no asset acquisition during the year ended 31 December 2019.

Year ended 31 December 2019

(i) Business acquisition

On 19 September 2018 and 21 March 2018, Suzhou GCL New Energy entered into share transfer agreements with Zhongmin GCL, pursuant to which GNE Group agreed to repurchase 100% equity interest of Jinhu and Wanhai from Zhongmin GCL, a joint venture which 32% shareholding was held by GNE Group at the date of acquisition at consideration of approximately RMB192,000,000 and RMB72,000,000, respectively. Jinhu and Wanhai each operate a solar farm project with capacity of 110MW and 35MW, respectively.

42. ACQUISITIONS OF SUBSIDIARIES (Continued)

Year ended 31 December 2019 (Continued)

(i) Business acquisition (Continued)

The acquisitions of Jinhu and Wanhai are completed in March 2019.

	Jinhu	Wanhai	Total
	RMB'000	RMB'000	RMB'000
Fair value of assets and liabilities recognised at the date of acquisition:			
Property, plant and equipment (Note 1)	741,478	258,885	1,000,363
Right-of-use assets	15,209	20,524	35,733
Trade receivables	154,526	56,038	210,564
Prepayments and other receivables	30,542	25,525	56,067
Bank balances and cash	23,107	6,562	29,669
Other payables	(166,469)	(71,344)	(237,813)
Deferred tax liabilities	(11,486)	(679)	(12,165)
Lease liabilities	(13,656)	(20,524)	(34,180)
Borrowings	(518,380)	(192,000)	(710,380)
Total fair value of identifiable net assets acquired	254,871	82,987	337,858
Consideration payable to the former owner	(192,000)	(72,000)	(264,000)
Bargain purchase gain recognised (Note 2)	62,871	10,987	73,858
Cash consideration paid	—	—	—
Bank balance and cash acquired	23,107	6,562	29,669
Net cash inflow	23,107	6,562	29,669

Notes:

1. Fair value of property, plant and equipment includes an amount of RMB58 million which represents fair value of relevant licences to operate the solar farms. Licences to operate solar farm is an intangible asset that meets the contractual legal criterion for recognition separately from goodwill, even if GNE Group cannot sell or transfer the licences separately from the acquired solar farms. GNE Group recognised the fair value of the operating licenses and the solar farms as single assets for financial reporting purposes as the useful lives of those assets are similar.

2. The bargain purchase arose because the consideration paid by GNE Group was less than the fair value of the identifiable net assets of the underlying business acquired as determined by the independent professional valuer, mainly due to the vendor was in financial difficulties and was not able to repay the debt as it falls due.

42. ACQUISITIONS OF SUBSIDIARIES (Continued)

Year ended 31 December 2019 (Continued)

(i) Business acquisition (Continued)

Impact of acquisition on the results of the Group

Had the acquisition as mentioned above been effected at the beginning of the year, total amounts of revenue and profit for the year of the Group would have been RMB19,283,512,000 and RMB120,445,000, respectively. Such pro forma information is for illustrative purposes only and is not necessarily an indication of revenue and results of operations of the Group that actually would have been achieved had the acquisition been completed at the beginning of the year, nor is it intended to be a projection of future results.

In determining the above pro forma financial information, depreciation of the property, plant and equipment and right-of-use assets were calculated based on their recognised amounts at the date of the acquisition.

The revenue and profit contributed by entities acquired during the current year are RMB120,459,000 and RMB30,997,000, respectively.

The fair value and gross contractual amount of trade and other receivables at the date of acquisition amounted to RMB234,290,000. The estimate at acquisition date of contractual cash flows not expected to be collected is insignificant.

Year ended 31 December 2018

(i) Business acquisition

(a) Acquisition of 易縣國鑫能源有限公司 ("Yixian")

On 31 January 2018, GNE Group acquired 100% equity interest in Yixian at a consideration of RMB10,000. At the date of acquisition, Yixian had a solar farm project with capacity of 20MW in operation.

(b) Acquisition of 神木縣國泰農牧發展有限公司 ("Guotai")

On 20 April 2018, GNE Group acquired 80% equity interest in Guotai at a consideration of RMB80,000. At the date of acquisition, Guotai had two solar farm projects with total capacity of 40MW in operation.

(c) Acquisition of 伊利協鑫能源有限公司 ("Yili")

As at 31 December 2017, GNE Group held 50% equity interest in Yili which was accounted as a joint venture of the Group. On 24 August 2018, GNE Group acquired an additional 6.51% equity interest in Yili at a consideration of RMB7,369,000. The acquisition is considered as step-acquisition under IFRS 3 and accounted for using acquisition method at the acquisition date. At the date of acquisition, Yili had a solar farm project with total capacity of 30MW in operation.

42. ACQUISITIONS OF SUBSIDIARIES (Continued)

Year ended 31 December 2018 (Continued)

(i) Business acquisition (Continued)

(d) Acquisition of 神木縣晶登電力有限公司 ("Jingdeng")

On 10 September 2018, GNE Group acquired 80% equity interest in Jingdeng at a consideration of RMB700,000. At the date of acquisition, Jingdeng had three solar farm projects with total capacity of 140MW in operation.

	Yixian	**Guotai**	**Yili**	**Jingdeng**	**Total**
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Fair value of assets and liabilities recognised at the date of acquisition					
Property, plant and equipment	164,010	359,732	169,233	1,047,374	1,740,349
Trade receivables	—	2,541	48,303	3,519	54,363
Contract assets	—	35,777	—	197,940	233,717
Prepayments and other receivables	32,319	147,144	15,297	187,642	382,402
Bank balances and cash	5,677	5,311	10,791	10,793	32,572
Other payables	(83,798)	(353,532)	(185,988)	(813,093)	(1,436,411)
Borrowings	(118,198)	(196,873)	—	(633,030)	(948,101)
Total fair value of identifiable net assets acquired	10	100	57,636	1,145	58,891
Non-controlling interest	—	(20)	(25,216)	(445)	(25,681)
Consideration payable to the former owner	(10)	(80)	—	(700)	(790)
Fair value of previously held equity interest	—	—	(25,051)	—	(25,051)
Cash consideration paid	—	—	(7,369)	—	(7,369)
Bank balances and cash acquired	5,677	5,311	10,791	10,793	32,572
Net cash inflow	5,677	5,311	3,422	10,793	25,203

42. ACQUISITIONS OF SUBSIDIARIES (Continued)

Year ended 31 December 2018 (Continued)

(ii) Assets acquisition

(a) Acquisition of 化隆協合太陽能發電有限公司 ("Hualong")

On 31 August 2018, GNE Group acquired 100% equity interest in Hualong at a consideration of RMB1,200,000. At the date of acquisition, Hualong had a 20MW solar farm project under development. The project was completed and connected to the grid in November 2018.

(b) Acquisition of 青海百能光伏投資管理有限公司 ("Qinghai Baineng")

On 31 August 2018, GNE Group acquired 100% equity interest in Qinghai Baineng at a consideration of RMB3,400,000. At the date of acquisition, Qinghai Baineng had a 10MW solar farm project under development. The project was completed and connected to the grid in November 2018.

	Hualong RMB'000	**Qinghai Baineng** RMB'000	**Total** RMB'000
Assets and liabilities recognised at the date of acquisition			
Property, plant and equipment	6,455	629	7,084
Prepayments and other receivables	2,426	2,766	5,192
Bank balances and cash	24	5	29
Other payables	(7,705)	—	(7,705)
Total identifiable net assets acquired	1,200	3,400	4,600
Consideration payable to the former owner	(1,200)	(3,400)	(4,600)
Cash consideration paid	—	—	—
Bank balances and cash acquired	24	5	29
Net cash inflow	24	5	29

43. DISPOSAL OF SUBSIDIARIES

Year ended 31 December 2019

(i) Xinjiang GCL

On 26 June 2019, the Group has entered into an agreement with Zhongping GCL, an associate of the Group, to dispose of its 31.5% out of 70% equity interest in Xinjiang GCL for a consideration of approximately RMB2,490,850,000. The disposal was completed on 9 September 2019, on which date the transaction is approved by the shareholders of the Company at an extraordinary general meeting unconditionally. Upon such disposal, the Group holds 38.5% equity interest in Xinjiang GCL and retains significant influence over Xinjiang GCL, and is therefore accounted as an investment in an associate of the Group.

	RMB'000
Consideration:	
Consideration received	2,490,850
Analysis of assets and liabilities over which control was lost:	
Property, plant and equipment	4,826,605
Other non-current assets	198,533
Trade and other receivables	574,960
Restricted bank deposits	1,153,794
Bank balances and cash	6,552
Other current assets	174,395
Trade and other payables	(3,293,839)
Bank and other borrowings	(1,140,785)
Intragroup payables	(870,156)
Net assets disposed of	1,630,059
Gain on disposal of the subsidiary:	
Consideration received	2,490,850
Non-controlling interests	500,714
Fair value of residual interest	3,044,371
Net assets disposed of	(1,630,059)
Gain on disposal	4,405,876
Net cash inflow arising on disposal:	
Cash consideration received	2,490,850
Less: bank balances and cash disposed of	(6,552)
	2,484,298

43. DISPOSAL OF SUBSIDIARIES (Continued)

Year ended 31 December 2019 (Continued)

(ii) Disposal of solar farm projects in the PRC

(a) Linzhou Xinchuang

On 15 February 2019, the disposal of equity interest in Linzhou Xinchuang is completed. GNE Group retains 20% equity interest in Linzhou Xinchuang after the disposal. Details of this transaction are set out in note 30(a).

(b) Wholly-owned subsidiaries of GNE Group in Inner Mongolia, the PRC

During the year ended 31 December 2019, the disposal of the wholly-owned subsidiaries in Inner Mongolia, the PRC are completed in May 2019. Details of this transaction are set out in note 30(b).

(c) Ruzhou, Xinan and Jiangling

On 28 March 2019, GNE Group announced that it has entered into share transfer agreements with Wuling for the disposal of 55% equity interest in Ruzhou, Jiangling and Xinan for consideration in aggregate of approximately RMB328,400,000. Ruzhou, Jiangling and Xinan operate a number of solar farms with approximately 280MW installed capacity in the PRC. The disposals are completed in April 2019. GNE Group retains 45% equity interest in Ruzhou, Jiangling and Xinan and exercises significant influence; accordingly, these companies are accounted for as associates of GNE Group and indirectly owned associates of the Group.

(d) 紹興協鑫光伏電力有限公司 ("Shaoxing")

On 15 February 2019, GNE Group entered into a share transfer agreement with an independent third party. Pursuant to the agreement, GNE Group agreed to sell 100% equity interest of Shaoxing at a consideration of RMB500,000. The disposal is completed April 2019.

(e) 大柴旦協鑫電力有限公司 ("Dachaidan")

On 5 July 2019, GNE Group entered into a share transfer agreement with an independent third party. Pursuant to the agreement, GNE Group agreed to sell 100% equity interest of Dachaidan at a consideration of RMB100,000. The disposal is completed in 31 July 2019.

(f) 平邑富翔光伏電力有限公司 ("Pingyi")

On 31 July 2019, GNE Group entered into a share transfer agreement with an independent third party. Pursuant to the agreement, GNE Group agreed to sell 100% equity interest of Pingyi at a consideration of RMB10,000,000. The disposal is completed in 9 October 2019.

(g) 光山影環亞農業科技有限公司 ("Guangshan")

On 10 September 2019, GNE Group entered into a share transfer agreement with an independent third party. Pursuant to the agreement, GNE Group agreed to sell 100% equity interest of Guangshan at a consideration of RMB10. The disposal is completed in 14 October 2019.

43. DISPOSAL OF SUBSIDIARIES (Continued)

Year ended 31 December 2019 (Continued)

(ii) Disposal of solar farm projects in the PRC (Continued)

(h) Seven subsidiaries of GNE Group in Shanxi and Hebei, the PRC

On 23 May 2019, GNE Group announced that it has entered into share transfer agreements with Shanghai Rongyao for the disposal of 70% equity interest in Shanxi GNE, Fenxi GCL, Ruicheng GCL, Yu County Jinyang, Yu County GCL, Hanneng Guangping and Hebei GNE (the "Target Company" or collectively as the "Target Companies") for consideration in aggregate of approximately RMB1,441,652,000. The seven subsidiaries operate a number of solar farms with approximately 997MW installed capacity in aggregate in the PRC. The disposals are completed in second half of 2019. Since GNE Group retains 30% equity interest in aggregate in the seven disposed companies and has significant influence, these companies are accounted for as associates.

GNE Group has granted a put option to Shanghai Rongyao, pursuant to which GNE Group has agreed that within five years of the closing date of the respective disposals of the Target Company ("Closing Date") and at the option of Shanghai Rongyao and/or the Target Company, GNE Group shall be required to repurchase the entire equity interest of any direct subsidiaries of the Target Companies ("Project Companies") and any outstanding shareholder's loan advanced to the relevant Project Companies by the Target Company, Shanghai Rongyao and/or its affiliates in accordance with the share purchase agreements upon the occurrence of certain specified events, such as certain material defaults not being rectified by GNE Group within the specified period or any breaches not being rectified leading to certain administrative penalties being imposed on the Project Companies, etc.

In addition, GNE Group has granted a put option to Shanghai Rongyao, pursuant to which GNE Group has agreed that within five years of the Closing Date and at the option of the Shanghai Rongyao, GNE Group shall be required to repurchase the sold equity interest and any outstanding shareholder's loan advanced to the Target Company or each of the Project Companies by Shanghai Rongyao and/or its affiliates in accordance with the share purchase agreements if (i) Shanghai Rongyao has required GNE Group to repurchase not less than 50% of the Project Companies held by the relevant Target Company pursuant to the terms as stipulated in the share purchase agreements; or (ii) the occurrence of other specified repurchase events as stipulated in the share purchase agreement.

Since the management considered the possibility regarding the occurrence of the specified events as stipulated in the share purchase agreement that would trigger the repurchase event is remote, in the opinion of the directors of GNE, the fair value of the option is considered insignificant as at the Closing Date and as of 31 December 2019.

43. DISPOSAL OF SUBSIDIARIES (Continued)

Year ended 31 December 2019 (Continued)

(ii) Disposal of solar farm projects in the PRC (Continued)

The net assets of the solar farm projects at the date of disposal were as follows:

	Linzhou Xinchuang	Wholly-owned subsidiaries of GNE Group in Inner Mongolia	Ruzhou, Xinan and Jiangling	Shaoxing	Dachaidan	Pingyi	Guangshan	Seven subsidiaries of GNE Group in Shanxi and Hebei	Total
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Consideration:									
Consideration received	73,488	142,402	110,900	500	100	—	—	—	327,390
Consideration receivable	20,000	108,489	217,500	—	—	10,000	—	1,441,652	1,797,641
	93,488	250,891	328,400	500	100	10,000	—	1,441,652	2,125,031
Analysis of assets and liabilities over which control was lost:									
Property, plant and equipment	426,928	672,087	1,552,416	3,734	—	180,345	—	5,555,502	8,391,012
Right-of-use assets	13,760	13,508	84,496	—	—	4,963	—	318,224	434,951
Contract assets	—	—	—	—	—	73,757	—	704,795	778,552
Other non-current assets	28,802	95,159	98,402	18	210	5,309	—	62,887	290,787
Trade and other receivables	79,876	124,247	427,470	—	—	67,263	—	1,174,301	1,873,157
Pledged bank and other deposits	—	—	—	—	—	—	—	31,620	31,620
Bank balances and cash	8,116	31,255	44,928	—	—	—	412	212,291	297,002
Trade and other payables	(28,922)	(33,923)	(29,103)	(2,272)	—	(75,289)	(470)	(896,599)	(1,066,578)
Bank and other borrowings	(221,198)	(647,410)	(1,317,785)	—	—	—	—	(4,331,170)	(6,517,563)
Lease liabilities	(12,931)	(6,125)	(85,477)	—	—	(28)	—	(154,191)	(258,752)
Intragroup payables	(181,978)	(15,849)	(168,788)	(538)	—	(220,317)	—	(637,680)	(1,225,150)
Net assets (liabilities) disposed of	112,453	232,949	606,559	942	210	36,003	(58)	2,039,980	3,029,038
Gain on disposal of subsidiaries:									
Total consideration	93,488	250,891	328,400	500	100	10,000	—	1,441,652	2,125,031
Fair value of residual interest	23,859	—	285,174	—	—	—	—	621,900	930,933
Net (assets) liabilities disposed of	(112,453)	(232,949)	(606,559)	(942)	(210)	(36,003)	58	(2,039,980)	(3,029,038)
Gain (loss) on disposal	4,894	17,942	7,015	(442)	(110)	(26,003)	58	23,572	26,926
Net cash inflow arising on disposal:									
Cash consideration received	73,488	142,402	110,900	500	100	—	—	—	327,390
Less: bank balances and cash disposed of	(8,116)	(31,255)	(44,928)	—	—	—	(412)	(212,291)	(297,002)
	65,372	111,147	65,972	500	100	—	(412)	(212,291)	30,388

43. DISPOSAL OF SUBSIDIARIES (Continued)

Year ended 31 December 2018

(i) Disposal of 蘇州客准光伏科技有限公司 (Suzhou Kezhun Photovoltaic Technology Co. Ltd.* ("Suzhou Kezhun")

On 28 December 2018, the Group entered into a share transfer agreement with an independent third party to dispose of its entire 100% equity interest in Suzhou Kezhun at a consideration of RMB850,000,000.

	RMB'000
Consideration:	
Consideration received	297,500
Consideration receivable (Note)	462,488
	759,988
Analysis of assets over which control was lost:	
Property, plant and equipment	199,202
Prepaid lease payments	33,309
Other receivables	7,109
Bank balances and cash	500
Total assets disposed of	240,120
Gain on disposal of the subsidiary:	
Consideration received and receivable	759,988
Total assets disposed of	(240,120)
Expenses attributable to the disposal	(75,000)
Gain on disposal	444,868
Net cash inflow arising on disposal:	
Cash consideration	297,500
Less: bank balances and cash disposed of	(500)
	297,000

43. DISPOSAL OF SUBSIDIARIES (Continued)

Year ended 31 December 2018 (Continued)

(i) Disposal of 蘇州客准光伏科技有限公司 (Suzhou Kezhun Photovoltaic Technology Co. Ltd.* ("Suzhou Kezhun") (Continued)

Note: Pursuant to the share transfer agreement, part of the consideration amounting to RMB552,500,000 will be settled in four instalments by 30 June 2021. During the year ended 31 December 2019, the acquirer has transferred its equity interest in Suzhou Kezhun to a third party and agreed with the Group to transfer the outstanding balance of the consideration receivables to the counterparty. The Group has renegotiated with the counterparty to have the outstanding balance be settled in three installments by 30 June 2020 upon default of one of the scheduled payments by the counterparty in 2019. Accordingly, the amount is adjusted for the effects of time value of money using an effective interest rate of 10% per annum. Such consideration receivables are recorded on the consolidated statement of financial position of the Group as follows:

	2019 **RMB'000**	2018 RMB'000
Other receivables (note 25):		
— Current	**395,793**	154,545
— Non-current	**92,795**	307,943
	488,588	462,488
Less: allowance for credit losses	**(140,000)**	—
	348,588	462,488

Details of impairment assessment of the consideration receivables are set out in note 45.

* English name for identification only

(ii) Disposal of solar farm projects in the PRC

(a) On 20 May 2018, Suzhou GCL New Energy, a subsidiary of GNE Group, entered into a share transfer agreement with an independent third party. Pursuant to the agreement, Suzhou GCL New Energy agreed to sell 100% equity interest of 內蒙古鑫景光伏發電有限公司 Inner Mongolia Xinjing Photovoltaic Electric Power Co., Ltd.* ("Xinjing") at a consideration of RMB22,000,000.

(b) On 10 December 2018, Suzhou GCL New Energy, a subsidiary of GNE Group, entered into a share transfer agreement with an independent third party, CGN Solar. Pursuant to the agreement, Suzhou GCL New Energy agreed to sell 80% equity interest of Huarong at a consideration of RMB119,155,000. Huarong operates solar farm projects in Huarong, the PRC ("Huarong Project").

* English name for identification only

43. DISPOSAL OF SUBSIDIARIES (Continued)

Year ended 31 December 2018 (Continued)

(ii) Disposal of solar farm projects in the PRC (Continued)

(b) (Continued)

GNE Group guaranteed that for the three-year period following the completion date under the equity transfer agreement, Huarong Project shall generate an average on-grid electricity per year of not less than the guaranteed amount, being 115.4 million kWh and is adjusted in accordance with the degradation rate of the solar panels from 30 June 2018 to the completion date. In the event that the Huarong Project fails to reach the aforesaid target, Suzhou GCL New Energy shall make up the loss suffered by CGN Solar and such guarantee shall extend for a period of three years. As the average annual on grid electricity generated by the project in the past two years well exceeded 115.4 million kWh, in the opinion of the directors of GNE, the fair value of the guarantee is insignificant at the completion date on 20 May 2018, 31 December 2018 and 31 December 2019.

In addition, GNE Group has granted a put option to CGN Solar, pursuant to which GNE Group has agreed that (i) if the Huarong Project fails to generate an average annual on-grid electricity reaching 70% of the aforesaid on-grid electricity during the three-year period; (ii) if Huarong fails to receive the tariff adjustment continuously for reasons unrelated to CGN Solar, GNE Group shall repurchase the 80% equity interest in Huarong from CGN Solar at a repurchase price to be agreed between both parties and replace all advancement from CGN Solar to Huarong with its loan. As the average annual on-grid electricity generated by the project in the past 2 years well exceeded the aforesaid 70% requirement, and GNE Group obtained legal opinion from GNE Group's PRC legal advisor that Huarong Project has met the requirement and conditions as stipulated in the New Tariff Notice for the entitlement of the tariff adjustment when the electricity was delivered on grid, in the opinion of the directors of GNE, the fair value of the option is considered insignificant as at the completion date on 20 May 2018, 31 December 2018 and 31 December 2019.

Besides, CGN Solar has granted to GNE Group a put option, pursuant to which CGN Solar has agreed to grant GNE Group the right, but not an obligation, to request CGN Solar to purchase the remaining 20% equity interest in Huarong upon the aforesaid guarantee being fulfilled. As the purchase price will be made reference to the fair value of the project at the date of purchase of the remaining 20% equity interest in Huarong by CGN Solar, in the opinion of the directors of GNE, the fair value of the option is considered insignificant at completion date on 20 May 2018, 31 December 2018 and 31 December 2019.

43. DISPOSAL OF SUBSIDIARIES (Continued)

Year ended 31 December 2018 (Continued)

(ii) Disposal of solar farm projects in the PRC (Continued)

The net assets of those two solar farm projects at the date of disposal were as follows:

	Xinjing	Huarong	Total
	RMB'000	RMB'000	RMB'000
Consideration:			
Consideration receivable	—	10,950	10,950
Consideration received	22,000	108,205	130,205
	22,000	119,155	141,155
Analysis of assets and liabilities over which control was lost:			
Property, plant and equipment	109,403	588,909	698,312
Other non-current assets	16,868	91,447	108,315
Bank balances and cash	—	8,323	8,323
Trade and other receivables	1,712	147,989	149,701
Trade and other payables	(126,305)	(134,694)	(260,999)
Bank and other borrowings	—	(547,964)	(547,964)
Net assets disposed of	1,678	154,010	155,688
Gain on disposal of subsidiaries:			
Total consideration	22,000	119,155	141,155
Carrying amount of the residual interest	—	36,816	36,816
Net assets disposed of	(1,678)	(154,010)	(155,688)
Gain on disposal	20,322	1,961	22,283
Net cash inflow arising on disposal:			
Cash consideration received	22,000	108,205	130,205
Less: bank balances and cash disposed of	—	(8,323)	(8,323)
	22,000	99,882	121,882

43. DISPOSAL OF SUBSIDIARIES (Continued)

Year ended 31 December 2018 (Continued)

(iii) Disposal of solar farm projects in Japan

(a) Disposal of AD3

On 9 February 2018, GNE Group entered into a transfer agreement with an independent third party to dispose 50% beneficial interest of its then wholly-owned subsidiary, AD3, a solar farm project in Japan, at a consideration of JPY419,200,000 (equivalent to approximately RMB24,422,000). Upon completion of the disposal on the same date, GNE Group and the independent third party had joint control over AD3, as under the contractual agreement, unanimous consent is required from both parties to the agreement in directing the relevant activities of AD3. Part of the consideration, amounting to JPY330,100,000 (equivalent to approximately RMB19,231,000), has been received on the date of share transfer agreement as deposits. The remaining consideration of JPY89,100,000 (equivalent to approximately RMB5,191,000) will be paid upon fulfilment of certain conditions. Accordingly, AD3 is classified as a joint venture of GNE Group since 9 February 2018 till GNE Group disposed of its the remaining interest in January 2019.

(b) Disposal of Himeji

On 14 February 2018, GNE Group entered into an equity interest transfer agreement with an independent third party. Pursuant to the agreement, GNE Group agreed to transfer 50% beneficial interest in Himeji to the independent third party resulting GNE Group and the independent third party having joint control over Himeji, as under the contractual agreement, unanimous consent is required from both parties to the agreement for directing the relevant activities. Accordingly, Himeji is classified as a joint venture of GNE Group since 14 February 2018 till GNE Group disposed of its the remaining interest in January 2019.

43. DISPOSAL OF SUBSIDIARIES (Continued)

Year ended 31 December 2018 (Continued)

(iii) Disposal of solar farm projects in Japan (Continued)

	AD3	**Himeji**	**Total**
	RMB'000	RMB'000	RMB'000
Fair value of consideration:			
Consideration received	19,231	—	19,231
Consideration receivable	5,191	—	5,191
	24,422	—	24,422
Carrying amount of residual interest	11,801	1,745	13,546
	36,223	1,745	37,968
Less: net identifiable assets derecognised:			
Property, plant and equipment	19,028	—	19,028
Prepaid lease payments	—	14,564	14,564
Trade and other receivables	4,233	5	4,238
Bank balances and cash	374	2,055	2,429
Trade and other payables	(33)	(15,121)	(15,154)
Net identifiable assets disposed of	23,602	1,503	25,105
Gain on disposal of subsidiaries	12,621	242	12,863
Net cash inflow (outflow) arising on disposal:			
Cash consideration received	19,231	—	19,231
Less: bank balances and cash disposal of	(374)	(2,055)	(2,429)
	18,857	(2,055)	16,802

44. CAPITAL MANAGEMENT

The Group manages its capital to ensure that entities in the Group will be able to continue as a going concern while maximising the return to shareholders through the optimisation of the debt and equity balance. The Group's overall strategy remains unchanged from 2018.

The capital structure of the Group consists of net debt, which mainly includes loans from related companies, bank and other borrowings, lease liabilities/obligations under finance leases, notes and bonds payables, net of cash and cash equivalents, and equity attributable to owners of the Company, comprising issued share capital and reserves.

The Directors review the capital structure on a periodical basis. As part of this review, the Directors consider the cost of capital and the risks associated with each class of capital. Based on recommendations of the Directors, the Group will balance its overall capital structure through the payment of dividends, new share issues and share buy-backs as well as the issue of new debts or the redemption of existing debt.

45. FINANCIAL INSTRUMENTS

45a. Categories of financial instruments

	2019 RMB'000	2018 RMB'000
Financial assets		
FVTPL:		
Mandatorily measured at FVTPL		
— Held for trading	4,339	108,408
— Other financial assets at FVTPL	834,798	536,246
— Convertible bonds receivable	101,097	76,001
Equity instruments at FVTOCI	41,857	90,716
Debt instruments at FVTOCI	—	65,606
Financial assets at amortised cost	23,581,185	23,070,635
Financial liabilities		
FVTPL:		
Derivative financial instruments	133,400	26,011
Amortised cost	69,190,484	81,173,036
Lease liabilities	2,441,519	—

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies

The management provides services to the business units, co-ordinates access to domestic and international financial markets, monitors and manages the financial risks relating to the operations of the Group through internal risk reports which analyse exposures by degree and magnitude of risks. These risks include market risk (including foreign currency risk, interest rate risk and other price risk), credit risk and liquidity risk.

The management reports periodically to the Directors who monitor risks and policies implemented to mitigate exposures.

There has been no change to the types of the Group's exposure in respect of financial instruments or the manner in which it manages and measures the risks.

Market risk

Foreign currency risk management

The Group's exposure to foreign currency risk arose from certain pledged and restricted bank deposits and bank balances, bank and other borrowings, lease liabilities/obligations under finance leases, trade and other receivables and payables, amounts due from related companies, debt instruments at FVTOCI, notes and bonds payables, convertible bonds receivable of the Group that are denominated in foreign currencies. The Group currently does not have a currency risk hedging policy. However, the management monitors foreign currency risk exposure by closely monitoring the movement of foreign currency rate and considers hedging against it should the need arise.

The carrying amounts of the Group's foreign currency denominated monetary assets and monetary liabilities at the reporting date are as follows:

	Assets		Liabilities	
	2019 RMB'000	2018 RMB'000	**2019 RMB'000**	2018 RMB'000
The Group				
EUR	**25,215**	50,174	**2,797**	129,606
HK$	**95,500**	310,426	**795,731**	497,189
US$	**264,253**	1,196,631	**7,157,141**	8,929,539
JPY	**19,313**	—	**—**	—
Inter-company balances				
HK$	**483,752**	210,917	**7,168**	24,674
US$	**1,046,302**	1,187,235	**963,852**	677,577
JPY	**1,279**	45,858	**10,657**	—

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Market risk (Continued)

Foreign currency risk management (Continued)

The foreign currency assets in 2019 and 2018 mainly related to the HK$ and JPY denominated bank balances and convertible bonds receivable, US$ denominated debts instruments at FVTOCI, trade and other receivables, amounts due from related companies, pledged and restricted bank and other deposits and bank balances, and EUR denominated pledged and restricted bank and other deposits and bank balances as set out in notes 29, 22, 28, 21, 25 and 27, respectively.

The foreign currency liabilities in 2019 and 2018 mainly related to the EUR, HK$ and US$ denominated trade and other payables, bank and other borrowings, lease liabilities/obligations under finance leases, and US$ denominated notes and bonds payables as set out in notes 31, 36, 37, 38 and 39, respectively.

Foreign currency sensitivity analysis

The following sensitivity analysis details the Group's sensitivity to a 5% (2018: 5%) increase and decrease in functional currency of respective entities against the relevant foreign currencies. 5% (2018: 5%) is the sensitivity rate used when reporting foreign currency risk internally to key management personnel and represents management's assessment of the reasonably possible change in foreign exchange rates. The sensitivity analysis includes outstanding foreign currency denominated monetary items and adjusts their translation at the end of the reporting period for a 5% (2018: 5%) change in foreign currency rates. The sensitivity analysis also includes inter-company balances where the denomination of the balance is in a currency other than the functional currency of the lender or the borrower. Where functional currency of the respective entities had strengthened 5% (2018: 5%) against the relevant foreign currencies, profit or loss of the respective year would be affected as follows. For a 5% (2018: 5%) weakening of functional currency of respective entities against the relevant foreign currency, there would be an equal and opposite impact on the profit or loss for the respective year.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Market risk (Continued)

Foreign currency sensitivity analysis (Continued)

The Group

	EUR RMB'000	**HK$** RMB'000	**US$** RMB'000	**JPY** RMB'000
2019				
(Decrease) increase in profit for the year	**(841)**	**26,259**	**258,483**	**(724)**
2018				
Decrease in loss for the year	2,979	7,004	289,984	—

Inter-company balances

	HK$ RMB'000	**US$** RMB'000	**JPY** RMB'000
2019			
(Decrease) increase in profit for the year	**(17,872)**	**(3,092)**	**352**
2018			
Increase in loss for the year	(6,984)	(19,112)	(1,720)

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Market risk (Continued)

Interest rate risk management

The Group is exposed to fair value interest rate risk in relation to fixed-rate debt instruments at FVTOCI, amounts due from (to) related companies, loans from related companies, pledged and restricted bank and other deposits, bank and other borrowings, lease liabilities/obligations under finance leases, notes and bonds payables (see notes 21, 27, 29, 32, 33, 36, 37, 38 and 39 for details of the above financial instruments, respectively) and lease liabilities (see note 37 for details). The Group currently has not entered into interest rate swaps to hedge against its exposure to changes in fair values of such financial assets and financial liabilities.

The Group is also exposed to cash flow interest rate risk in relation to variable-rate restricted bank deposits and bank balances and variable-rate bank borrowings (see notes 29 and 36).

The management has considered the Group's exposure to cash flow interest rate risk in relation to variable-rate pledged and restricted bank and other deposits and bank balances (see note 29) to be limited because the current market interest rates on general deposits are relatively low and stable.

It is the Group's policy to maintain an appropriate level between its fixed-rate and variable-rate borrowings so as to minimise the fair value and cash flow interest rate risk.

Interest income from financial assets that are measured at amortised cost or FVTOCI is as follows:

	2019 **RMB'000**	2018 RMB'000
Financial assets at amortised cost	**165,631**	148,723
Financial assets at FVTOCI	**393**	4,908
	166,024	153,631

Interest expense on financial liabilities not measured at FVTPL is as follows:

	2019 **RMB'000**	2018 RMB'000
Financial liabilities at amortised cost	**3,828,546**	3,531,284

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Market risk (Continued)

Interest rate sensitivity analysis

The sensitivity analysis below has been determined based on the exposure to interest rates for non-derivative instruments. The analysis is prepared assuming the financial instruments outstanding at the end of the reporting period were outstanding for the whole year. The following sensitivity analysis is used when reporting interest rate risk internally to key management personnel and represents management's assessment of the reasonably possible change in interest rates.

Variable-rate borrowings

If interest rates had been 50 basis points higher/lower on LIBOR, HIBOR and the lending benchmark interest rate stipulated by Benchmark Rate and all other variables were held constant, the Group's profit for the year ended 31 December 2019 would have decreased/increased by approximately RMB110,104,000 (2018: loss for the year would have increased/decreased by approximately RMB150,361,000). This is mainly attributable to the Group's exposure to interest rates on its variable-rate borrowings. The Group's exposure to cash flow interest rate risk has increased during the current year mainly due to the increase in variable-rate borrowings. On the other hand, the Group's exposure to fair value interest rate risk has decreased during the year mainly due to the decrease in fixed-rate borrowings. The sensitivity analysis for change in discount rate is disclosed in note 46(i).

Other price risk

The Group is exposed to price risk through its quoted and unquoted investments measured at FVTPL and measured at FVTOCI, and convertible bonds receivable. The Group's equity price risk is mainly concentrated on equity instruments operating in solar, and securities and financial service industries sector quoted on the Stock Exchange. In addition, the Group has monitored the price risk and will consider hedging the risk exposure should the need arise.

Other price risk sensitivity analysis

Other than sensitivity analysis of certain investments as disclosed in Note 46(i), sensitivity analysis on other investments is not provided as the amount is considered insignificant.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Credit risk and impairment assessment

As at 31 December 2019, other than financial assets whose carrying amounts best represent the maximum exposure to credit risk, the Group's maximum exposure to credit risk which will cause a financial loss to the Group arising from the financial guarantees provided by the Group is disclosed in note 55. The Group does not hold any collateral or other credit enhancements to cover its credit risk associated with its financial assets and financial guarantee contracts.

Trade receivables, amounts due from related companies (trade related) and contract assets arising from contracts with customers

In order to minimise the credit risk, each major operating business has a policy of credit control in place under which credit evaluations of customers are performed on all customers requiring credit.

Credit terms are granted to customers which are either secured by bills or with letters of credit issued by banks or good credit quality customers. The management also has monitoring procedures to ensure the follow-up action is taken to recover overdue debts. In this regard, the Directors consider that the Group's credit risk is significantly reduced. In addition, the Group performs impairment assessment under ECL model on trade balances individually or based on provision matrix.

Credit risk on sales of polysilicon and wafer is not significant as the major customers are listed entities with good repayment history, and significant portion of trade receivables are either secured by bills or with letters of credit issued by banks or advances from customers.

The trade receivables arising from sales of electricity are mainly due from the local grid companies in various provinces in the PRC. The management considered the probability of default of trade receivables is low by taking into the account the past default experience of the debtors, adjusted for general economic conditions of the solar industry and an assessment of both current as well as forecast direction of market conditions at the reporting date. Accordingly, the management is of the opinion that the credit risk of trade receivables is limited.

In relation to contract assets of tariff adjustment receivables, the management performs impairment assessment on a periodic basis. Based on the assessment, the management is of the opinion that the probability of defaults of the relevant counterparties are insignificant since the solar industry is well supported by the PRC government. In addition, as detailed in note 5, the management are confident that all of the Group's operating solar farms are able to be enlisted in the List in due course and the accrued revenue on tariff subsidy are fully recoverable but only subject to timing of allocation of funds. Accordingly, the credit risk regarding contract assets of tariff adjustment receivables is limited.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Credit risk and impairment assessment (Continued)

Trade receivables, amounts due from related companies (trade related) and contract assets arising from contracts with customers (Continued)

For sales of polysilicon and wafer, the Group's concentration of credit risk by geographical location is mainly the PRC, which accounted for approximately 99% (2018: 95%) of the trade receivables arising from sales of polysilicon and wafer as at 31 December 2019.

For sales of electricity, the Group's concentration of credit risk by geographical location is mainly the PRC, which accounted for over 99% (2018: 99%) of the trade receivables arising from sales of electricity as at 31 December 2019.

As at 31 December 2019, the Group had concentration of credit risk mainly on one (2018: one) related company on amounts due from related companies (trade related) with gross carrying amount of approximately RMB402,274,000 (2018: RMB612,197,000).

Other receivables and amounts due from related companies (non-trade related)

The credit quality of other receivables and amounts due from related parties (non-trade related) excluding prepayments has been assessed with reference to historical information about the counterparties' past payment histories and financial position of the counterparties. The Directors closely monitor the credit quality of other receivables and amounts due from related companies (non-trade related) and consider those amounts, which are neither past due nor impaired, are of a good credit quality in view of the good historical repayment record of such parties.

In addition, the Group performs impairment assessment under ECL model on these balances individually.

For the purpose of impairment assessment of other receivables, consideration receivables, receivables for modules procurement, advance to Borrowers and other loan receivables, the loss allowance is measured at an amount equals to 12m ECL. In determining the ECL for these assets, the Directors have taken into account the financial position of the counterparties, the industries they operate, as well as their latest available operating results, in estimating the probability of default of each of these financial assets occurring within their respective loss assessment time horizon, as well as the loss upon default in each case.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Credit risk and impairment assessment (Continued)

Other receivables and amounts due from related companies (non-trade related) (Continued)

During the year ended 31 December 2019, the Directors considered the credit risk on the consideration receivables from the disposal of Suzhou Kezhun with gross carrying amount of approximately RMB488,588,000 (2018: RMB462,488,000) has increased significantly because there was a default of payment from the counterparty. Such consideration receivables were then become credit-impaired and were assessed for ECL individually. An impairment loss of approximately RMB140,000,000 (2018: nil) was recognised in the current year.

As at 31 December 2019 and 2018, the Group had concentration of credit risk on such consideration receivables as the amounts are due from a single party. The counterparty has pledged 65% of its equity interest in Suzhou Kezhun as a collateral over these balances to the Group. In addition, the Group had concentration of credit risk mainly on one (2018: one) associate on amounts due from related companies (non-trade related) amounted to approximately RMB1,243,469,000 (2018: nil) as at 31 December 2019.

Pledged and restricted bank and other deposits and bank balances

Credit risk on pledged and restricted bank and other deposits and bank balances is limited because the counterparties are reputable banks with high credit ratings assigned by international credit rating agencies in the PRC, Hong Kong and the USA.

The Group assessed 12m ECL for bank balances and pledged and restricted bank and other deposits by reference to information relating to probability of default and loss given default of the respective credit rating grades published by external credit rating agencies. Based on the average loss rates, the ECL on bank balances and pledged and restricted bank and other deposits is considered to be insignificant.

Debt instruments at FVTOCI

The Group only invests in debt securities with low credit risk. The Group's debt instruments at FVTOCI mainly comprise listed bonds and were fully disposed of during the year ended 31 December 2019. The Directors consider the ECL for debt instruments at FVTOCI is insignificant as at 31 December 2018.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Credit risk and impairment assessment (Continued)

Convertible bonds receivable

The Group is exposed to credit risk in respect of convertible bonds receivable as disclosed in note 22 that are measured at FVTPL. The fair value and principal amount of the convertible bonds receivable is approximately RMB101,097,000 (2018: RMB76,001,000) and RMB89,402,000 (2018: RMB87,823,000), respectively.

Financial guarantee contracts

For financial guarantee contracts, the maximum amount that the Group has guaranteed under the respective contracts was RMB10,487,516,000 (2018: RMB697,590,000) as at 31 December 2019. The credit risks on financial guarantee contracts is limited as either the underlying borrowings are secured by assets of the relevant borrowers or the relevant borrowers are with good historical repayment record and with strong future financial performance.

At the end of the reporting period, the Directors have performed impairment assessment, and concluded that there has been no significant increase in credit risk since initial recognition of the financial guarantee contracts. Therefore, the loss allowance is measured at 12m ECL and details of the financial guarantee contracts are set out in note 55.

The management considered the ECL for financial guarantee contracts is insignificant.

The Group's internal credit risk grading assessment comprising the following categories:

Internal credit rating	**Description**	**Trade receivables/ contract assets**	**Other financial assets/other items**
Low risk	The counterparty has a low risk of default	Lifetime ECL (not credit-impaired)	12m ECL
Medium risk	Debtor frequently repays after due dates but usually settle in full	Lifetime ECL (not credit-impaired)	12m ECL
High risk	There has been significant increases in credit risk since initial recognition through information developed internally or external resources	Lifetime ECL (not credit-impaired)	Lifetime ECL (not credit-impaired)
Loss	There is evidence indicating the asset is credit-impaired	Lifetime ECL (credit-impaired)	Lifetime ECL (credit-impaired)
Write-off	There is evidence indicating that the debtor is in severe financial difficulty and the Group has no realistic prospect of recovery	Amount is written off	Amount is written off

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Credit risk and impairment assessment (Continued)

The tables below detail the credit risk exposures of the Group's financial assets, contract assets and financial guarantee contracts, which are subject to ECL assessment:

	Notes	External credit rating	Internal credit rating	12m or lifetime ECL	Gross carrying amount 2019 RMB'000	2018 RMB'000
Debt instruments as FVTOCI						
— investments in listed bonds	21	N/A (2018: B1–Aa3)	N/A	12m ECL	—	65,606
Financial assets at amortised costs						
Trade receivables — goods and services (excluding sales of electricity)	25	N/A	(Note 1)	Lifetime ECL (provision matrix)	493,332	583,757
		N/A	Low risk (Note 1)	Lifetime ECL	182,248	142,663
		N/A	Loss (Note 1)	Credit-impaired	92,588	55,622
		Baa3–Aaa (2018: Baa3–Aaa)*	Low risk (Note 1)	Lifetime ECL	6,768,537	5,828,249
Trade receivables — sales of electricity	25	N/A	(Note 1)	Lifetime ECL (provision matrix)	3,457,134	3,415,126
Amounts due from related companies (trade related)	27	N/A	Low risk (Note 1)	Lifetime ECL	111,293	612,197
			Loss (Note 1)	Credit-impaired	402,274	—
Amounts due from related companies (non-trade related)	27	N/A	(Note 2)	12m ECL	2,301,097	631,045
Other receivables	25	N/A	(Note 2)	12m ECL	1,406,922	1,295,450
		N/A	Loss (Note 1)	Credit-impaired	488,588	—
Pledged and restricted bank deposits	29	Ba1–Aaa (2018: Ba1–Aaa)	N/A	12m ECL	6,285,258	5,989,908
		N/A	(Note 2)	12m ECL	644,168	583,924
Bank balances	29	Ba1–Aaa (2018: Ba3–Aaa)	N/A	12m ECL	1,548,019	4,075,791
Contract assets	26	N/A	(Note 1)	Lifetime ECL (provision matrix)	5,639,898	4,236,405
Financial guarantee contracts	49, 55	N/A	Low risk (Note 3)	12m ECL	10,487,516	697,590

* These represent credit rating grades of the relevant banks which issued the bills.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Credit risk and impairment assessment (Continued)

Notes:

1. For trade receivables, amounts due from related companies (trade related) and contract assets, the Group has applied the simplified approach in IFRS 9 to measure the loss allowance at lifetime ECL. Except for debtors with significant outstanding balances, credit-impaired or to be settled by bills, the Group determines the ECL on these items by using a provision matrix, grouped by internal credit rating.

   Trade receivables with bills received from trade customers amounted to approximately RMB6,768,537,000 (2018: RMB5,828,249,000) as at 31 December 2019. The Directors consider the ECL for these trade receivables is insignificant because the bills are issued by reputable banks with high credit ratings assigned by international credit rating agencies in the PRC.

   The following table provides information about the exposure to credit risk for trade receivables (excluding sales of electricity) which are assessed based on provision matrix as at 31 December 2019 within lifetime ECL (not credit-impaired). Debtors with significant balances or credit-impaired with gross carrying amounts of approximately RMB182,248,000 (2018: RMB142,663,000) and RMB92,588,000 (2018: RMB55,622,000) as at 31 December 2019 were assessed individually, respectively.

Internal credit rating	**Trade receivables (excluding sales of electricity)**			
	2019		2018	
	Average loss rate	**Gross carrying amount RMB'000**	Average loss rate	Gross carrying amount RMB'000
Low risk	**0.10%**	**492,968**	0.10%	569,143
Medium risk	**2.50%**	**364**	2.50%	14,614
		493,332		583,757

   The estimated loss rates are based on any historical observed default rates over the expected life of the debtors and are adjusted for forward-looking information (for example, the current and forecasted economic growth rates in the PRC, which reflect the general economic conditions of the industry in which the debtors operate) that is available without undue cost or effort. Such forward-looking information is used by the management of the Group to assess both the current as well as the forecast direction of conditions at the reporting date. The grouping is regularly reviewed by management to ensure relevant information about specific debtors is updated.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Credit risk and impairment assessment (Continued)

Notes: (Continued)

1. (Continued)

The following table provides information about the exposure to credit risk for trade receivables and contract assets in relation to its sales of electricity operation in the PRC which are based on provision matrix within lifetime ECL (not credit-impaired).

	2019				2018			
	Trade receivables (sales of electricity)		**Contract assets**		Trade receivables (sales of electricity)		Contract assets	
Internal credit rating	**Average loss rate**	**Gross carrying amount RMB'000**	**Average loss rate**	**Gross carrying amount RMB'000**	Average loss rate	Gross carrying amount RMB'000	Average loss rate	Gross carrying amount RMB'000
Low risk	**0.04%**	**3,457,134**	**0.24%**	**5,639,898**	0.06%	3,415,126	0.38%	4,236,405

The Group always measures the loss allowance for trade receivables for sales of electricity and contract assets, including those with significant financing component at an amount equal to lifetime ECL. The ECL on trade receivables and contract assets are estimated using a provision matrix for debtors which shared credit risk characteristics by reference to repayment history of the debtors, taking into account general economic conditions of the solar industry, relevant country default risk, and an assessment of both the current as well as the forecast direction at the reporting date.

During the year ended 31 December 2019, impairment allowance for trade receivables of approximately RMB28,989,000 (2018: RMB277,105,000) was reversed resulting from subsequent settlement.

The Directors are of the opinion that the ECL for trade receivables (sales of electricity) and contract assets of its sale of electricity operation is insignificant for both years.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Credit risk and impairment assessment (Continued)

Notes: (Continued)

1. (Continued)

The following tables show the movement in lifetime ECL that has been recognised for trade receivables (excluding sales of electricity) and amounts due from related companies (trade related) under simplified approach:

Trade receivables (excluding sales of electricity)

	Lifetime ECL (not credit-impaired)	Lifetime ECL (credit-impaired)	Total
	RMB'000	RMB'000	RMB'000
At 1 January 2018	—	333,425	333,425
Impairment loss recognised	5,014	24,450	29,464
Impairment loss reversed	—	(277,105)	(277,105)
Amounts written off as uncollectible	—	(25,148)	(25,148)
At 31 December 2018	5,014	55,622	60,636
Impairment loss recognised	8,948	67,639	76,587
Impairment loss reversed	(3,881)	(25,108)	(28,989)
Amounts written off as uncollectible	—	(5,565)	(5,565)
At 31 December 2019	10,081	92,588	102,669

For amounts due from related companies (trade related), debtors with significant balances with gross carrying amounts of approximately RMB513,567,000 (2018: RMB612,197,000) as at 31 December 2019 were assessed individually. During the year ended 31 December 2019, the Directors considered the credit risk on a receivable of gross carrying amount of approximately RMB402,274,000 from an related company has increased significantly because there was a default of payment from the counterparty. Such balance was then become credit-impaired and was assessed for ECL individually. An impairment loss of approximately RMB275,182,000 was recognised for the current year. Credit risk of the remaining amounts due from related companies (trade related) is considered as limited because the related companies are with good repayment history and with positive operating results/cashflows.

Amounts due from related companies (trade related)

	Lifetime ECL (not credit-impaired)	Lifetime ECL (credit-impaired)
	RMB'000	RMB'000
At 1 January 2018	—	—
Impairment loss recognised	6,398	—
At 31 December 2018	6,398	—
Transfer to credit-impaired	(6,398)	6,398
Impairment loss recognised	—	275,182
At 31 December 2019	—	281,580

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Credit risk and impairment assessment (Continued)

Notes: (Continued)

2. For the purposes of the internal credit risk management, the Group uses past due information to assess whether credit risk has increased significantly since initial recognition.

   As at 31 December 2019 and 2018, the balance of other receivables and pledged deposits is not past due and the internal credit rating is considered as low risk and are measured at lifetime ECL (not credit-impaired), except for the consideration receivables from the disposal of Suzhou Kezhun which became credit-impaired during the year ended 31 December 2019 and were assessed for ECL individually (2018: 12m ECL), and therefore, the ECL of such balances is considered to be insignificant.

   As at 31 December 2019, amounts due from related companies (non-trade related) of approximately RMB6,469,000 (2018: RMB20,105,000) were past due. The ECL of these balances is considered to be insignificant.

3. For financial guarantee contracts, the gross carrying amount represents the maximum amount that Group has guaranteed under the relevant contracts. The Directors assessed and considered the ECL for the financial guarantee contracts is insignificant.

Liquidity risk management

In the management of the liquidity risk, the Group monitors and maintains a level of cash and cash equivalents deemed adequate by the management to finance the Group's operations and mitigate the effects of fluctuations in cash flows. The management monitors the utilisation of bank borrowings to ensure unutilised banking facilities are adequate and ensures compliance with loan covenants or to obtain waiver from the relevant banks if the Group is not able to satisfy any of the covenant requirements.

The Group's current liabilities exceeded its current assets by approximately RMB21,906 million as at 31 December 2019. Further, the Group had cash and cash equivalents of RMB1,548 million with total borrowings due within one year amounted to RMB28,674 million.

The Group finances its capital intensive operations by short-term and long-term bank and other borrowings and shareholders' equity.

As at 31 December 2019, included in the Group's bank borrowings totalling approximately RMB557 million have breached a financial covenant requirement as stipulated in the relevant loan agreement. In addition, the breach of the covenant requirement has triggered the cross default clauses in several other bank borrowings of approximately RMB5,172 million. Subsequent to the end of the reporting period, the Group has obtained consents from the relevant lenders to waive the financial covenant concerned and not to demand for immediate repayment of such bank borrowing; and accordingly, the cross default clauses in the relevant bank borrowings are then remedied.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Liquidity risk management (Continued)

The Group successfully renewed banking facilities that were due during the year. In addition, the Directors have evaluated the Group's current undrawn banking facilities and renewable bank borrowings. The management maintains continuous communication with the Group's principal banks on the renewal of existing banking facilities that will fall due in the coming twelve months and the grant of additional banking facilities. The Directors have reviewed the Group's bank loans and banking facilities available to the Group and are of the opinion that the bank loans and banking facilities would be renewed when their current terms expire. The Directors have evaluated all the relevant facts available to them and are of the opinion that there are good track records or relationship with the relevant banks which enhance the Group's ability to renew the current bank loans upon expiry. Up to the date of approval of these financial statements for issuance, the Directors are not aware of any intention of the Group's principal banks to withdraw their banking facilities granted or request early repayment of the utilised facilities within the next twelve months from the end of the reporting period.

Despite uncertainties and measures mentioned in note 2, the Directors believe that the Group will be able to generate sufficient cash flows to meet its financial obligations as and when they fall due within the next twelve months from the end of the reporting period.

The Directors are of the opinion that, taking into account the Group's current undrawn banking facilities, renewal of existing banking facilities, the Group's cash flow projection for the coming year and the successful implementation of measures of GNE Group, the Group will have sufficient working capital to meet its cashflow requirements in the next twelve months and the on-going loan covenant compliance.

The following tables detail the Group's remaining contractual maturity for its non-derivative financial liabilities and the Group's liquidity analysis for its derivative financial instrument. The tables have been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The maturity dates for other non-derivative financial liabilities are based on the contractual repayment dates.

The tables include both interest and principal cash flows. To the extent that interest flows are floating rate, the undiscounted amount is derived from interest rate at the end of the reporting period.

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Liquidity risk management (Continued)

Liquidity and interest risk tables

	Weighted average interest rate %	On demand or less than 3 months RMB'000	3 months to 1 year RMB'000	1–2 years RMB'000	2–5 years RMB'000	Over 5 years RMB'000	Total undiscounted cash flows RMB'000	Carrying amount RMB'000
At 31 December 2019								
Non-derivative financial liabilities								
Trade and other payables	—	9,636,016	4,807,160	—	—	—	14,443,176	14,443,176
Amounts due to related companies	—	1,816,308	—	—	—	—	1,816,308	1,816,308
Loans from related companies	7.74	42,271	813,992	749,601	366,136	78,888	2,050,888	1,775,561
Bank and other borrowings								
— fixed-rate	6.51	5,887,671	11,533,002	544,252	498,552	573,381	19,036,858	17,901,742
— variable-rate	5.60	1,986,679	9,284,174	3,385,022	10,951,795	5,924,821	31,532,491	29,360,980
Notes and bonds payables	6.97	123,828	554,823	330,968	3,611,928	—	4,621,547	3,892,717
Financial guarantee contracts (Note 1)	—	10,487,516	—	—	—	—	10,487,516	—
Sub-total		29,980,289	26,993,151	5,009,843	15,428,411	6,577,090	83,988,784	69,190,484
Lease liabilities	6.19	213,872	428,204	490,004	723,903	1,912,781	3,768,764	2,441,519
Derivative financial instrument								
Put option of interest in Jiangsu Xinhua (Note 2)	—	133,400	—	—	—	—	133,400	133,400
		30,327,561	27,421,355	5,499,847	16,152,314	8,489,871	87,890,948	71,765,403

	Weighted average interest rate %	On demand or less than 3 months RMB'000	3 months to 1 year RMB'000	1–2 years RMB'000	2–5 years RMB'000	Over 5 years RMB'000	Total undiscounted cash flows RMB'000	Carrying amount RMB'000
At 31 December 2018								
Non-derivative financial liabilities								
Trade and other payables	—	15,744,780	4,363,355	—	—	—	20,108,135	20,108,135
Amounts due to related companies	—	578,092	—	—	—	—	578,092	578,092
Loans from related companies	7.45	267,040	279,126	2,227,261	1,105,460	94,218	3,973,105	3,599,789
Bank and other borrowings								
— fixed-rate	5.31	3,000,433	7,836,789	2,341,240	694,488	546,997	14,419,947	11,669,538
— variable-rate	5.27	9,825,906	7,246,614	4,485,733	12,821,416	13,495,568	47,875,237	40,096,364
Notes and bonds payables	6.48	133,645	1,164,355	1,074,157	3,625,621	—	5,997,778	5,121,118
Financial guarantee contracts (Note 1)	—	697,590	—	—	—	—	697,590	—
Subtotal		30,247,486	20,890,239	10,128,391	18,246,985	14,136,783	93,649,884	81,173,036
Obligations under finance leases	5.65	73,517	274,120	412,719	514,640	158,518	1,433,514	1,228,399
Derivative financial instrument								
Put option of interest in Jiangsu Xinhua (Note 2)	—	26,011	—	—	—	—	26,011	26,011
		30,347,014	21,164,359	10,541,110	18,761,625	14,295,301	95,109,409	82,427,446

45. FINANCIAL INSTRUMENTS (Continued)

45b. Financial risk management objectives and policies (Continued)

Liquidity risk management (Continued)

Liquidity and interest risk tables (Continued)

The amounts included above for variable-rate borrowings are subject to change if changes in variable interest rates differ to those estimates of interest rates determined at the end of the reporting period.

Bank borrowings that are repayable demand due to breach of loan covenants, as disclosed in notes 2 and 36, are included in the "on demand or less than 3 months" time band in the above maturity analysis. As at 31 December 2019, the aggregate carrying amounts of these bank loans amounted to RMB5,729,457,000 (2018: RMB8,203,098,000). The Directors do not believe that the banks will exercise their rights to demand immediate repayment from the Group, given that subsequent to the end of the reporting period, the Group has obtained consents from the relevant bankers to waive the strict compliance on the financial ratio concerned.

The following table details the Group's aggregate principal and interest cash outflows based on scheduled repayments dates set out in the loan agreements for bank borrowings that became repayable on demand due to the aforesaid breach of loan covenants. To the extent that interest flows are variable rate, the undiscounted amount is derived from weighted average interest rate at the end of the reporting period.

	Weighted average effective interest rate %	Less than 1 year RMB'000	1–2 years RMB'000	2–5 years RMB'000	Over 5 years RMB'000	Total undiscounted cash flow RMB'000	Carrying amount RMB'000
As at 31 December 2019	**6.29**	**3,065,523**	**802,758**	**2,317,724**	**88,351**	**6,274,356**	**5,729,457**
As at 31 December 2018	5.28	2,569,772	3,562,038	2,424,701	705,824	9,262,335	8,203,098

Notes:

1. The amounts included above for financial guarantee contracts are the maximum amounts the Group could be required to settle under the arrangements for the full guaranteed amounts if that amount is claimed by the counterparty to the guarantee. Based on expectations at the end of the reporting period, the Group considers that it is more likely than not that no amount will be payable under the arrangements. However, this estimate is subject to change depending on the probability of the counterparty claiming under the guarantee which is a function of the likelihood that the financial receivables held by the counterparty which are guaranteed suffer credit losses.

2. The put option is with notional amount of RMB500 million, which represents the exercise price and potential cash outflow of the Group to purchase the shares of Jiangsu Xinhua if certain specific circumstance(s) as described in note 40 occur(s), which included but not limited to, Jiangsu Xinhua fails to complete IPO on or before 1 January 2021 and the JV Partner exercises the option. The potential cash outflow may be incurred in a period from 1 to 5 years after 31 December 2017.

46. FAIR VALUE MEASUREMENTS

(i) Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis

Some of the Group's financial assets and financial liabilities are measured at fair value at the end of each reporting period. The following table gives information about how the fair values of these financial assets and financial liabilities are determined (in particular, the valuation techniques and inputs used).

Financial assets/ financial liabilities	Fair value as at 2019 RMB'000	Fair value as at 2018 RMB'000	Fair value hierarchy	Valuation techniques and key inputs	Significant unobservable inputs	Relationship of unobservable inputs to fair value
1) Convertible bonds receivable (Note a)	**101,097**	76,001	Level 3	Binomial Option Pricing Model, the key inputs are: underlying share price, exercise price, risk free interest rate, share price volatility and dividend yield.	Share price volatility of 36.40% (2018: 44.51%) and discount rate of 28.40% (2018: 27.52%).	The higher the volatility, the higher the fair value. The higher the discount rate, the lower the fair value.
					Dividend yield of 0% (2018: 0%), taking into account management's experience and knowledge of the dividend to be paid.	The higher the dividend yield, the lower the fair value.
2) Put option of interest in Jiangsu Xinhua classified as derivative financial instruments (Note b)	**133,400**	26,011	Level 3	Income approach — in this approach, the discounted cash flow method was used to capture the present value of future expected cash flows to be derived from Jiangsu Xinhua.	Revenue growth rate, taking into account management's experience and knowledge of market conditions of the specific industries.	The higher the revenue growth rate, the higher the fair value.
					Discount rate of 16% (2018: 16%).	The higher the discount rate, the higher the fair value.
				Scenario analysis, the key inputs are: estimated probability of success or failure in IPO, risk-free rate and credit spread.	Estimated probability of success in IPO, failure in IPO due to external factors and unsatisfactory performance of Jiangsu Xinhua of 70%, 10% and 20%, respectively (2018: 90%, 10% and 0%, respectively) taking into account the best estimate of the Directors.	The higher the estimated probability of failure in IPO, the higher the fair value.
3) Asset management plans investments held by GNE classified as financial assets at FVTPL (Note c)	**100,000**	100,000	Level 3	Income approach — in this approach, the discounted cash flow method was used to capture the present value of future expected cash flows to be derived from the underlying assets.	Discount rate of 7.5% (2018: 7.5%).	The higher the estimated discount rate, the lower the fair value.
4) Listed equity securities classified as held for trading investments	**4,339**	108,408	Level 1	Quoted bid price in an active market.	N/A	N/A
5) Listed debt securities measure at debt instruments at FVTOCI	**—**	65,606	N/A (2018: Level 1)	N/A (2018: Quoted bid price in an active market).	N/A	N/A

46. FAIR VALUE MEASUREMENTS (Continued)

(i) Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis (Continued)

Financial assets/ financial liabilities	Fair value as at 2019 RMB'000	Fair value as at 2018 RMB'000	Fair value hierarchy	Valuation techniques and key inputs	Significant unobservable inputs	Relationship of unobservable inputs to fair value
6) Unlisted equity investments measured at financial assets at FVTPL	**44,321**	44,321	Level 3	Market comparison approach — in this approach, fair value was determined with reference to recent transaction price.	Adjusted market price between comparables and the underlying property held by the unlisted equity investments.	An increase in the price per square meter used would result in an increase in fair value measurement of the underlying property, and vice versa.
7) Listed equity investments measured at equity instruments at FVTOCI	**41,857**	90,716	Level 1	Quoted bid price in an active market.	N/A	N/A
8) Unlisted investments measured at financial assets at FVTPL	**213,221**	171,597	Level 3	Market comparison approach — in this approach, fair value was determined with reference to P/S ratio or P/E ratio or recent transaction price.	P/S ratio of 2.3x–22.07x (2018: 4.29x) or P/E ratio of 72.73x (2018: 21.19x–91.95x).	The higher the P/S or P/E ratio, the higher the fair value.
	477,256	220,328	Level 2	Quoted price from third party financial institutions which determined with reference to the value of underlying investments which mainly composed of listed shares.	N/A	N/A

Notes:

(a) If the share price volatility of the underlying shares was 5% higher/lower while all the other variables were held constant, the gain on change in fair value of the convertible bonds receivable would increase by approximately RMB753,000 (2018: the loss on change in fair value would decrease by approximately RMB244,000)/decrease by approximately RMB753,000 (2018: the loss on change in fair value would increase by approximately RMB124,000).

If the discount rate used was multiplied by 95% or 105% while all the other variables were held constant, the gain on change in fair value of the convertible bonds receivable would increase by approximately RMB83,000 (2018: the loss on change in fair value would decrease by approximately RMB932,000)/decrease by approximately RMB82,000 (2018: the loss on change in fair value would increase by approximately RMB910,000).

(b) If the discount rate was multiplied by 95% or 105% while all the other variables were held constant, the change in fair value of the derivative financial instruments would decrease by approximately RMB11,300,000 (2018: RMB4,738,000)/increase by approximately RMB10,100,000 (2018: RMB4,190,000).

(c) If the estimated discount rate was multiplied by 95% or 105% while all the other variables were held constant, the fair value of the investments would increase by approximately RMB507,000 (2018: RMB776,000)/decrease by approximately RMB503,000 (2018: RMB765,000).

46. FAIR VALUE MEASUREMENTS (Continued)

(i) Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis (Continued)

There is no transfer among the different levels of the fair value hierarchy for both years.

The Directors consider that the carrying amounts of financial assets and financial liabilities and associated interest receivables and interest payables recorded at amortised cost in the consolidated financial statements approximate their fair values.

Included in other expenses, gains and losses set out in note 9B, a net loss of RMB63,322,000 is related to financial assets and financial liabilities measured at FVTPL held during 2019 (2018: a net gain of RMB10,905,000).

Fair value hierarchy as at 31 December 2019

	Level 1 RMB'000	Level 2 RMB'000	Level 3 RMB'000	Total RMB'000
Financial assets at FVTPL				
Listed equity securities classified as held for trading investments	4,339	—	—	4,339
Other financial assets at FVTPL	—	477,256	357,542	834,798
Convertible bonds receivable	—	—	101,097	101,097
Equity instruments at FVTOCI	41,857	—	—	41,857
Total	46,196	477,256	458,639	982,091
Financial liabilities				
Put option of interest in Jiangsu Xinhua classified as derivative financial instruments	—	—	133,400	133,400

46. FAIR VALUE MEASUREMENTS (Continued)

(i) Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis (Continued)

Fair value hierarchy as at 31 December 2018

	Level 1 RMB'000	Level 2 RMB'000	Level 3 RMB'000	Total RMB'000
Financial assets at FVTPL				
Listed equity securities classified as held for trading investments	108,408	—	—	108,408
Other financial assets at FVTPL	—	220,328	315,918	536,246
Convertible bonds receivable	—	—	76,001	76,001
Equity instruments at FVTOCI	90,716	—	—	90,716
Debt instruments at FVTOCI	65,606	—	—	65,606
Total	264,730	220,328	391,919	876,977
Financial liabilities				
Put option of interest in Jiangsu Xinhua classified as derivative financial instruments	—	—	26,011	26,011

(ii) Reconciliation of Level 3 fair value measurements

31 December 2019

	Convertible bonds receivable RMB'000	**Put option of interest in Jiangsu Xinhua classified as derivative financial instruments RMB'000**	**Asset management plans investments held by GNE measured at financial assets at FVTPL RMB'000**	**Unlisted investments/ equity instruments measured at financial assets as FVTPL RMB'000**	**Total RMB'000**
Opening balance	**76,001**	**(26,011)**	**100,000**	**215,918**	**365,908**
Capital contribution	**—**	**—**	**—**	**15,000**	**15,000**
Gain (loss) in profit or loss	**29,820**	**(107,389)**	**—**	**26,624**	**(50,945)**
Receipt of interests	**(4,724)**	**—**	**—**	**—**	**(4,724)**
Closing balance	**101,097**	**(133,400)**	**100,000**	**257,542**	**325,239**

46. FAIR VALUE MEASUREMENTS (Continued)

(ii) Reconciliation of Level 3 fair value measurements (Continued)

31 December 2018

	Convertible bonds receivable RMB'000	Convertible Bonds issued by the Company RMB'000	Convertible bonds issued by GNE RMB'000	Put option of interest in Jiangsu Xinhua classified as derivative financial instruments RMB'000	Asset management plans investments held by GNE measured at financial assets at FVTPL RMB'000	Unlisted investments/ equity instruments measured at financial assets as FVTPL RMB'000	Total RMB'000
Opening balance	—	(839,615)	(925,642)	(15,899)	340,040	131,689	(1,309,427)
Reclassification from available-for-sale investments	—	—	—	—	—	42,321	42,321
Purchase	80,334	—	—	—	—	2,100	82,434
(Loss) gain in profit or loss	(1,910)	(40,768)	(5,524)	(10,112)	16,790	39,808	(1,716)
Fair value attributable to changes in credit risk	—	—	(108)	—	—	—	(108)
Payment of interests	—	3,063	41,072	—	—	—	44,135
Receipt of interests	(2,423)	—	—	—	—	—	(2,423)
Redemption of convertible bonds	—	877,320	890,202	—	—	—	1,767,522
Redemption of asset management plans investments	—	—	—	—	(256,830)	—	(256,830)
Closing balance	76,001	—	—	(26,011)	100,000	215,918	365,908

Of the total losses for the year included in profit or loss, RMB50,945,000 (2018: gains of RMB27,786,000) related to put option of interest in Jiangsu Xinhua, convertible bonds receivable, unlisted investments/equity instruments measured at financial assets at FVTPL and asset management plans investments measured at financial assets at FVTPL held at the end of the reporting period and those fair value gains or losses are included in other expense, gains and losses, net.

46. FAIR VALUE MEASUREMENTS (Continued)

(ii) Reconciliation of Level 3 fair value measurements (Continued)

Fair value measurements and valuation processes

In estimating the fair value of an asset or a liability, the Group uses market-observable data to the extent it is available. Where Level 1 inputs are not available, the Group performed discounted cash flow to derive the present value of other investments or engages third party qualified valuers to perform the valuation of convertible bonds, the put option of interest in Jiangsu Xinhua classified as derivative financial instruments, unlisted investments measured at financial assets at FVTPL, unlisted equity investments measured at financial assets at FVTPL and asset management plans investments held by GNE recognised as financial assets at FVTPL. The Directors work closely with the qualified valuers to establish the appropriate valuation techniques and inputs to the model. The management of the Group reports the findings to the Directors every half year to explain the cause of fluctuations in the fair value of the assets and liabilities.

Information about the valuation techniques and inputs used in determining the fair value of various assets and liabilities are disclosed above.

47. TRANSFERS OF FINANCIAL ASSETS

During the current year, the Group endorsed certain bills for the settlement of payables for purchase of plant and machinery, construction costs and trade and other payables; and discounted certain bills received by the Group to banks for financing.

The following were bills received by the Group as at 31 December 2019 and 2018 that were transferred to banks or creditors by discounting or endorsing the bills, respectively, on a full recourse basis. As the Group has not transferred the significant risks and rewards relating to these bills, it continues to recognise the full carrying amount of trade receivables and recognised the cash received on the transfer as secured borrowings (see note 36) or the amounts outstanding with the creditors remain to be recognised as trade and other payables. These financial assets are carried at amortised cost in the Group's consolidated statement of financial position.

47. TRANSFERS OF FINANCIAL ASSETS (Continued)

At 31 December 2019

	Bills discounted to banks with full recourse RMB'000	Bills endorsed to creditors with full recourse RMB'000	Total RMB'000
Carrying amount of transferred assets	**2,743,769**	**3,210,854**	**5,954,623**
Carrying amount of associated liabilities	**(2,743,769)**	**(3,210,854)**	**(5,954,623)**
Net position	**—**	**—**	**—**

At 31 December 2018

	Bills discounted to banks with full recourse RMB'000	Bills endorsed to creditors with full recourse RMB'000	Total RMB'000
Carrying amount of transferred assets	1,935,537	2,270,573	4,206,110
Carrying amount of associated liabilities	(1,935,537)	(2,270,573)	(4,206,110)
Net position	—	—	—

The Directors consider that the carrying amounts of the endorsed and discounted bills approximate their fair values.

The finance costs recognised for bills discounted to banks were included in interest on bank and other borrowings (note 8).

48. OPERATING LEASES

The Group as lessee

	2018 RMB'000
Minimum lease payments paid under operating leases during the year:	
Buildings	86,379
Land	69,991
Staff quarters	3,391
Motor vehicles	7,306
Others	19,922
	186,989

The Group's commitments for future minimum lease payments under non-cancellable operating leases including lease payments during renewal period in which renewals were reasonably certain, which fall due as follows:

	2018 RMB'000
Within one year	130,948
In the second to fifth year inclusive	457,602
Over five years	1,821,327
	2,409,877

Operating lease payments represented rentals payable by the Group for certain pieces of land, properties and other assets. Leases were negotiated and rentals were fixed for terms ranging from 1 to 34 years for those pieces of land and ranging from 1 to 3 years for the other properties. The lease agreements entered into between the landlords and the Group included renewal options at the discretion of the respective group entities for further 5 to 10 years from the end of the leases with fixed rental.

48. OPERATING LEASES (Continued)

The Group as lessor

The Group had contracted with lessees for the following future minimum lease payments:

	2018 RMB'000
Within one year	20,262
In the second to fifth year inclusive	1,071
	21,333

Operating lease income represented property rental income earned during the year. All of the properties held have committed tenants for the next 1 to 8 years.

49. COMMITMENTS, CONTINGENT ASSET AND LIABILITIES

(i) Commitments

	2019 RMB'000	2018 RMB'000
Capital commitments		
Capital expenditure in respect of acquisitions of property, plant and equipment contracted for but not provided	**662,725**	2,893,232
Other commitments		
Commitment to contribute share capital to investments in joint ventures, associates and/or other investments contracted for but not provided	**2,190,000**	394,182
Commitment to contribute share capital to financial assets at FVTPL contracted for but not provided	**80,000**	95,000
	2,932,725	3,382,414

(ii) Contingent asset

As disclosed in note 15, GNE Group has insurance policies in place to cover damages to property, plant and equipment amounting to approximately RMB57,235,000 incidental to typhoon during the year ended 31 December 2019. GNE Group received approximately RMB6,615,000 from insurance claim as compensation income and has an ongoing insurance claim for the remaining loss as at 31 December 2019 which will be recognised only when the compensation becomes receivable. Based on the insurance policies, the directors of GNE believe that it is possible that their remaining claim will be successful.

49. COMMITMENTS, CONTINGENT ASSET AND LIABILITIES (Continued)

(iii) Contingent liabilities

In July 2019, GNE Group discounted certain bills provided by third parties with a total face value of RMB1,136,390,000 for short-term financing, and the liabilities relating to these arrangements were fully settled to the relevant third parties during the year. As at 31 December 2019, these bills were not yet matured and outstanding. In accordance with the relevant regulations in the PRC, GNE Group, being an endorser of the bills, is jointly and severally liable if the relevant bills are not settled by the issuer upon maturity. However, in the opinion of the directors of GNE, the risk of default in payment of these bills is remote because they are guaranteed by reputable PRC banks. The maximum exposure to GNE Group of these outstanding bills was RMB1,136,390,000 as at 31 December 2019.

(iv) Financial guarantees provided to third parties

In addition to those financial guarantees provided to related parties as set out in note 55, GNE Group also provided financial guarantees to certain third parties for certain of their bank and other borrowings amounting to approximately RMB540,000,000 as at 31 December 2019. Since these bank and other borrowings are secured by the borrowers' (i) property, plant and equipment, (ii) trade receivables, contract assets and fee collection right in relation to sales of electricity, in the opinion of the directors of GNE, the fair value of the guarantees is considered insignificant at initial recognition, and the ECL as at 31 December 2019 is insignificant.

50. PLEDGE OF OR RESTRICTIONS ON ASSETS

Pledge of assets

At the end of the reporting period, the Group has pledged the following assets to secure credit facilities of the Group:

	2019 RMB'000	2018 RMB'000
Bank and other borrowings secured by:		
Pledged and restricted bank and other deposits	**1,894,370**	2,563,058
Right-of-use assets	**468,804**	—
Investment properties	**65,804**	—
Prepaid leases payments	**—**	390,266
Property, plant and equipment	**27,870,791**	35,431,853
Trade receivables and contract assets	**7,275,637**	8,735,113
	37,575,406	47,120,290
Lease liabilities/obligations under finance leases secured by:		
Pledged and restricted bank and other deposits	**240,402**	222,160
Total	**37,815,808**	47,342,450

50. PLEDGE OF OR RESTRICTIONS ON ASSETS (Continued)

Pledge of assets (Continued)

Certain subsidiaries pledged their fee collection rights in relation to the sales of electricity, and as at 31 December 2019, trade receivables and contract assets in respect of such fee collection rights pledged amounted to approximately RMB4,722,846,000 (2018: RMB6,889,576,000).

As at 31 December 2019, the Group has pledged property, plant and equipment and right-of-use assets of approximately RMB160,588,000 (2018: nil) and RMB150,781,000 (2018: nil), respectively, to secure bank and other borrowings of an associate and a joint venture of the Group.

Restrictions on assets

In addition, lease liabilities of approximately RMB2,441,518,000 are recognised with related right-of-use assets of approximately RMB3,416,173,000 as at 31 December 2019. The lease agreements do not impose any covenants other than the security interests in the leased assets that are held by the lessor. Leased assets may not be used as security for borrowing purposes.

The carrying amount of property, plant and equipment as at 31 December 2018 includes (i) an aircraft; (ii) certain plant and machinery located in the PRC; and (iii) certain solar farms in the USA, which are held under finance lease arrangements of approximately RMB210,952,000, RMB1,543,623,000 and RMB277,233,000 respectively.

In addition to the pledged assets above, there are property, plant and equipment of approximately RMB101,056,000 (2018: nil) restricted bank deposits of approximately RMB4,794,654,000 (2018: RMB3,788,614,000), trade receivables of approximately RMB499,672,000 (2018: RMB1,110,981,000) and right-of-use assets of approximately RMB14,134,000 (2018: nil) which have been restricted to secure issuance of bills and short-term letters of credit for trade and other payables. As at 31 December 2019, the loans from a related company were secured by property, plant and equipment amounted to approximately RMB912,365,000 (2018: RMB3,102,494,000) and pledged other deposits amounted to approximately RMB38,000,000 (2018: RMB142,194,000).

51. SHARE-BASED PAYMENT TRANSACTIONS

51a. The Company

(I) Equity-settled share option scheme

On 22 October 2007, a Pre-IPO Share Option Scheme ("Pre-IPO Share Option Scheme") and a Share Option Scheme ("Share Option Scheme") were adopted by the Company pursuant to the resolution of the sole shareholder. Under the schemes, the Company may grant option to directors, employees of the Company and its subsidiaries and qualifying grantees to subscribe for shares of the Company. Options granted are exercisable during the period after respective vesting date to the last day of the ten-year period after grant date.

At 31 December 2019, the number of shares in respect of which options had been granted and remained outstanding under the Company's share option schemes was 137,546,000 (2018: 164,422,000) shares, representing 0.6% (2018: 0.9%) of the issued share capital of the Company at that date.

The total number of shares in respect of which options may be granted under the Share Option Scheme are not permitted to exceed 10% of the shares of the Company in issue at any point in time, without prior approval from the Company's shareholders. The number of shares issued and to be issued in respect of which options granted and may be granted to any individual in any one year is not permitted to exceed 1% of the shares of the Company in issue at any point in time, without prior approval from the Company's shareholders.

The exercise price is determined by the Directors and will not be less than the higher of (i) the closing price of the Company's shares on the date of grant; (ii) the average closing price of the shares of the Company for the five business days immediately preceding the date of grant; and (iii) the nominal value of the Company's share.

Pursuant to the terms of the Pre-IPO Share Option Scheme and Share Option Scheme, the exercise price and number of share options were being adjusted as a result of the determination of entitlements to a rights issue of the Company on 26 January 2016. Details of the adjustments are disclosed in the announcement of the Company on 26 January 2016.

51. SHARE-BASED PAYMENT TRANSACTIONS (Continued)

51a. The Company (Continued)

(I) Equity-settled share option scheme (Continued)

Movements of share options granted during the year are as follows:

Share Option Scheme

2019

	Exercise price	Date of grant	Exercise period	Number of share options					
				Outstanding at 1 January 2019	During the year Exercised	Forfeited	Transferred	Expired	Outstanding at 31 December 2019
					(Note 1)		(Note 2)		
Directors	HK$0.586	16.02.2009	01.04.2009 to 15.02.2019	4,028,680	—	—	(1,510,755)	(2,517,925)	—
	HK$1.16	19.02.2016	15.03.2016 to 18.02.2026	5,942,302	—	—	—	—	5,942,302
	HK$1.324	29.03.2016	18.04.2016 to 28.03.2026	8,649,473	—	—	(705,019)	—	7,944,454
Employees and others	HK$0.586	16.02.2009	01.04.2009 to 15.02.2019	5,158,473	(100,000)	—	1,510,755	(6,569,228)	—
	HK$1.046	24.04.2009	01.05.2009 to 23.04.2019	807,750	—	—	—	(807,750)	—
	HK$3.296	12.01.2011	01.03.2011 to 11.01.2021	5,035,850	—	—	—	—	5,035,850
	HK$4.071	15.07.2011	01.09.2011 to 14.07.2021	6,093,378	—	(1,258,963)	—	—	4,834,415
	HK$1.630	05.07.2013	16.09.2013 to 04.07.2023	20,752,738	—	(5,398,430)	—	—	15,354,308
	HK$2.867	24.03.2014	26.05.2014 to 23.03.2024	21,352,004	—	—	—	—	21,352,004
	HK$1.16	19.02.2016	15.03.2016 to 18.02.2026	83,278,131	—	(10,223,854)	—	—	73,054,277
	HK$1.324	29.03.2016	18.04.2016 to 28.03.2026	3,323,661	—	—	705,019	—	4,028,680
				164,422,440	(100,000)	(16,881,247)	—	(9,894,903)	137,546,290
Exercisable at the end of the year				123,193,662					119,127,748
Weighted average exercise price (HK$)				1.60	0.59	1.53	—	0.66	1.67

2018

	Exercise price	Date of grant	Exercise period	Number of share options			
				Outstanding at 1 January 2018	During the year Exercised	Forfeited	Outstanding at 31 December 2018
					(Note 1)		
Directors	HK$0.586	16.02.2009	01.04.2009 to 15.02.2019	4,028,680	—	—	4,028,680
	HK$3.296	12.01.2011	01.03.2011 to 11.01.2021	—	—	—	—
	HK$4.071	15.07.2011	01.09.2011 to 14.07.2021	—	—	—	—
	HK$2.867	24.03.2014	26.05.2014 to 23.03.2024	—	—	—	—
	HK$1.16	19.02.2016	15.03.2016 to 18.02.2026	5,942,302	—	—	5,942,302
	HK$1.324	29.03.2016	18.04.2016 to 28.03.2026	8,649,473	—	—	8,649,473
Employees and others	HK$0.586	16.02.2009	01.04.2009 to 15.02.2019	5,350,480	(192,007)	—	5,158,473
	HK$1.046	24.04.2009	01.05.2009 to 23.04.2019	807,750	—	—	807,750
	HK$3.296	12.01.2011	01.03.2011 to 11.01.2021	5,035,850	—	—	5,035,850
	HK$4.071	15.07.2011	01.09.2011 to 14.07.2021	6,093,378	—	—	6,093,378
	HK$1.630	05.07.2013	16.09.2013 to 04.07.2023	25,456,222	—	(4,703,484)	20,752,738
	HK$2.867	24.03.2014	26.05.2014 to 23.03.2024	21,855,589	—	(503,585)	21,352,004
	HK$1.16	19.02.2016	15.03.2016 to 18.02.2026	88,272,265	(160,000)	(4,834,134)	83,278,131
	HK$1.324	29.03.2016	18.04.2016 to 28.03.2026	3,323,661	—	—	3,323,661
				174,815,650	(352,007)	(10,041,203)	164,422,440
Exercisable at the end of the year				106,154,112			123,193,662
Weighted average exercise price (HK$)				1.58	0.85	1.47	1.59

51. SHARE-BASED PAYMENT TRANSACTIONS (Continued)

51a. The Company (Continued)

(I) Equity-settled share option scheme (Continued)

Share Option Scheme (Continued)

Notes:

1. In respect of the share options exercised during the year, the weighted average share price at the dates of exercise was HK$0.67 (2018: HK$1.43).

2. Mr. Ji Jun resigned as an executive director with effect from 1 February 2019 but he retains the position as a consultant of the Company. Upon resignation as an executive director, his entitlement of 1,510,755 share options and 705,019 share options granted on 16 February 2009 and 29 March 2016, respectively, were transferred from those held by directors to employees accordingly.

(II) Equity-settled share award scheme

Share award scheme

The Company adopted the Scheme on the Adoption Date for a duration of the later of (i) the 10th anniversary of the Adoption Date, and (ii) such date that all awards outstanding are fully vested, settled, lapsed, forfeited or cancelled. The purpose of the Scheme is, through the grant of the share awards to certain of the Directors and employees ("Eligible Persons") of the Group, to effectively attract, retain and incentivise core employees of the Group and align their interests and growth with the Group as a whole.

The Company has entered into a trust deed with the Trustee for the purpose of facilitating the purchase, holding and sale of shares in the Group for the benefit of the Eligible Persons of the Group. The maximum number of shares that can be held by the Trustee under the Scheme is limited to 2% of the issued share capital of the Company from time to time. All the shares purchased by the Group through the Trustee on the Stock Exchange are recorded as shares held for the share award scheme in the Group's reserves and are for the Scheme only.

The board of the directors of the Company (the "Board") may, from time to time, at its absolute discretion, select any Eligible Persons to participate in the Scheme as grantees ("Award Grantees"), subject to the terms and conditions set out in the rule of the Scheme. In determining the Award Grantees, the Board shall take into consideration matters including, but without limitation, the present and expected contribution of the relevant Award Grantees to the Group. An Award Grantee may be granted an award by the Company during the award period which will vest over a period of time and on such other conditions to be determined by the Board in its absolute discretion.

51. SHARE-BASED PAYMENT TRANSACTIONS (Continued)

51a. The Company (Continued)

(II) Equity-settled share award scheme (Continued)

Share award scheme (Continued)

The Board may from time to time while the Scheme is in force and subject to all applicable laws, determine such vesting criteria and conditions or periods for the award to be vested thereunder. Details of the Scheme are set out in the announcement of the Company dated 16 January 2017. For the purpose of the Scheme, the Company purchased its own ordinary shares through the Trustee as follows:

Month of purchase	**Number of ordinary shares**	**Aggregate consideration paid**	**Equivalent aggregate consideration paid**
		RMB'000	RMB'000
May 2017	182,998,888	163,258	141,692
June 2017	40,000,000	32,729	28,405
June 2018	100,000,000	81,385	66,532
	322,998,888	277,372	236,629

No award shares were granted for both years.

(III) Cash-settled share award scheme

US Equity Incentive Plan granted by GCL US II

GCL Solar Materials US II, LLC ("GCL US II") adopted an equity plan on 31 March 2017 ("Plan Date") pursuant to a resolution passed on the same date for the purpose of providing incentives to eligible employees and will expire on the later of (i) the sixth anniversary of adoption date, or (ii) such date that all class B units of GCL US II ("Class B Units") outstanding are fully vested, settled, lapsed, forfeited or cancelled (as the case may be) (the "US Equity Incentive Plan"). Under the US Equity Incentive Plan, the board of directors of GCL US II may grant Class B Units of GCL US II to eligible employees. Class B Units shall be non-voting and the aggregate number of Class B Units authorised for issuance shall be 12,750,000 which represents up to 10% of the fully diluted equity of GCL US II as of the closing date of the SunEdison Agreement on 31 March 2017 (i.e. US$127,500,000).

In 2017, GCL US II issued Class B Units to the grantees of the US Equity Incentive Plan (the "US Grantees") which will be vested in full in three years with one-third to be vested on each of the first, the second and the third anniversary of the Plan Date, respectively.

51. SHARE-BASED PAYMENT TRANSACTIONS (Continued)

51a. The Company (Continued)

(III) Cash-settled share award scheme (Continued)

US Equity Incentive Plan granted by GCL US II (Continued)

Movement of Class B Units granted during the year is as follows:

	Number of Class B Units
Outstanding at 1 January 2018	10,313,438
Exercised during the year	(3,104,008)
Forfeited during the year	(1,985,264)
Outstanding at 31 December 2018	5,224,166
Exercised during the year	(1,571,162)
Forfeited during the year	(534,491)
Outstanding at 31 December 2019	3,118,513

The US Grantee shall be entitled, on the first and second anniversaries of the Plan Date, to sell 50% of the Class B Units vested to GCL US II or another member of the Group selected by GCL US II at a price equal to US$1 each (the "Floor Price"). The Grantee shall be entitled on the third anniversary of the Plan Date to sell all the vested Class B Units to GCL US II or another member of the Group selected by GCL US II at the higher of valuation of the Class B Units as of the third anniversary of the Plan Date or the Floor Price. If, on the third anniversary of the Plan Date, the Group at its sole and absolute discretion, does not intend to make an IPO of the solar material business unit in the USA in the 36 months following the third anniversary of the Plan Date, GCL US II shall purchase all the vested Class B Units at the price set out above. Valuation shall include GCL Solar Materials US I, LLC, GCL US II, GCL Solar Materials US III, LLC, GCL Solar Materials US IV, LLC and assets and operations acquired pursuant to the SunEdison Agreement, however and wherever held by the Group and take into account all monetisation transactions as defined in the US Equity Incentive Plan for the purposes of valuation.

51. SHARE-BASED PAYMENT TRANSACTIONS (Continued)

51a. The Company (Continued)

(III) Cash-settled share award scheme (Continued)

US Equity Incentive Plan granted by GCL US II (Continued)

In the event there is an IPO prior to the sixth anniversary of the Plan Date and Class B Units are outstanding at the time of such IPO, such Class B Units will be converted into shares of common stock of the company whose shares are sold in the IPO (the "New IPO Company"). The Group will set the conversion rate of Class B Units into shares of the common stock of the New IPO Company upon the conversion date. If there are any vested Class B Units remaining as of the sixth anniversary of the Plan Date and there has been no IPO by that time, there shall be a valuation and GCL US II shall purchase all the remaining vested Class B Units at the price determined based on the higher of valuation of the Class B Units as of the sixth anniversary of the Plan Date or the Floor Price.

The settlements mention above for the vested Class B Units shall be made, in the sole discretion of GCL US II in (i) cash; (ii) shares of a Group entity that is publicly listed in the USA or (iii) a combination of (i) and (ii).

In the opinion of the Directors, the fair value of the outstanding Class B Units as at 31 December 2019 is not higher than US$1 per unit. The Group has recorded liabilities of RMB23,593,000 (2018: RMB28,145,000) in its consolidated statement of financial position as at 31 December 2019 and RMB5,890,000 (2018: RMB15,073,000) as share-based payment expense during the year in respect of the cash-settled share award. During the year ended 31 December 2019, certain US Grantees exercised their rights to sell the Class B units to GCL US II at US$1 per units, resulting a payment of RMB10,853,000 (2018: RMB18,247,000).

51b. Share option plan of GNE

Equity-settled share option scheme

GNE's new share option scheme was adopted pursuant to a resolution passed on 15 October 2014 ("New Share Option Scheme") for the primary purpose of providing incentives to the directors of GNE and eligible employees. Under the New Share Option Scheme, the board of directors of GNE may grant options to eligible employees, including the directors of GNE, to subscribe for shares in GNE. Additionally, GNE may, from time to time, grant share options to outside third parties for settlement in respect of goods or services provided to GNE.

At 31 December 2019, the number of shares in respect of which had been granted under the New Share Option Scheme and remained outstanding was approximately 500,008,000 (2018: 549,835,000) shares, representing 2.6% (2018: 2.9%) of the issued share capital of GNE at that date. The maximum number of shares which may be issued upon exercise of all options to be granted under the New Share Option Scheme shall not in aggregate exceed 10% of the shares of GNE in issue at the date of approval of the New Share Option Scheme. The maximum entitlement for any one participant is that the total number of shares issued or to be issued upon exercise of the options granted to each participant in any twelve-month period shall not exceed 1% of the total number of shares in issue.

The exercise price is determined by the directors of GNE, and will not be less than the higher of (i) the closing price of GNE's shares on the date of grant, (ii) the average closing price of GNE's shares for the five business days immediately preceding the date of grant; and (iii) the nominal value of GNE's share.

51. SHARE-BASED PAYMENT TRANSACTIONS (Continued)

51b. Share option plan of GNE (Continued)

Equity-settled share option scheme (Continued)

The following table discloses movements of GNE's share options:

2019

				Number of share options		
	Exercise price	Date of grant	Exercise period	Outstanding at 1 January 2019	During the year Forfeited	Outstanding at 31 December 2019
Directors	HK$1.1798	23.10.2014	24.11.2014 to 22.10.2024	58,382,800	—	58,382,800
	HK$0.606	24.07.2015	24.07.2015 to 23.07.2025	48,618,780	(8,052,800)	40,565,980
Employees and others providing similar services	HK$1.1798	23.10.2014	24.11.2014 to 22.10.2024	231,075,096	(16,145,864)	214,929,232
	HK$0.606	24.07.2015	24.07.2015 to 23.07.2025	211,758,442	(17,575,236)	194,183,206
				549,835,118	(41,773,900)	508,061,218
Exercisable at the end of the year				274,036,784		273,312,032
Weighted average exercise price (HK$)				0.9255	0.8807	0.9147

2018

				Number of share options		
	Exercise price	Date of grant	Exercise period	Outstanding at 1 January 2018	During the year Forfeited	Outstanding at 31 December 2018
Directors	HK$1.1798	23.10.2014	24.11.2014 to 22.10.2024	58,382,800	—	58,382,800
	HK$0.606	24.07.2015	24.07.2015 to 23.07.2025	48,618,780	—	48,618,780
Employees and others providing similar services	HK$1.1798	23.10.2014	24.11.2014 to 22.10.2024	237,114,696	(6,039,600)	231,075,096
	HK$0.606	24.07.2015	24.07.2015 to 23.07.2025	247,271,290	(35,512,848)	211,758,442
				591,387,566	(41,552,448)	549,835,118
Exercisable at the end of the year				236,720,109		274,036,784
Weighted average exercise price (HK$)				0.8927	0.6894	0.9255

During the current year, share-based payment expense of RMB3,522,000 (2018: RMB17,679,000) has been recognised in profit or loss in respect of equity-settled share option scheme. In addition, certain share options granted to employees have been forfeited after the vesting period, and respective share options reserve of approximately RMB24,520,000 (2018: RMB15,117,000) are transferred to the Group's accumulated profits from share options reserve and non-controlling interests.

At each reporting date, the Group revises its estimates of the number of options that are expected to ultimately vest. The impact of the revision of the estimates, if any, is recognised in profit or loss, with a corresponding adjustment to the share options reserve.

52. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

The table below details changes in the Group's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flow were, or future cash flows will be, classified in the Group's consolidated statement of cash flows as cash flows from financing activities.

	Dividend payables RMB'000 (note 31)	Interest payables RMB'000 (note 31)	Amounts due to related companies (non-trade) RMB'000 (note 32)	Loans from related companies RMB'000 (note 33)	Bank and other borrowings RMB'000 (note 36)	Lease liabilities/ obligations under finance leases RMB'000 (notes 37 & 38)	Notes and bonds payables RMB'000 (note 39)	Convertible bonds payables RMB'000	Total RMB'000
At 1 January 2018	28,778	174,022	42,952	—	49,964,922	1,636,602	4,829,414	1,765,257	58,441,947
Financing cash flows (Note)	(56,463)	(1,014,406)	16,284	2,253,630	1,266,121	(553,796)	(463,684)	(1,811,657)	(363,971)
Loss on fair value change of convertible bonds payables	—	—	—	—	—	—	—	46,292	46,292
Financial liabilities designated as at FVTPL attributable to changes in credit risk	—	—	—	—	—	—	—	108	108
Exchange realignment	—	—	—	—	231,336	17,486	264,650	—	513,472
Finance costs (note 8)	—	855,924	51,962	31,568	1,898,148	90,671	490,738	—	3,419,011
Interest capitalised (note 8)	—	202,944	—	—	—	—	—	—	202,944
Dividends declared to non-controlling interests	44,650	—	—	—	—	—	—	—	44,650
Acquisition of subsidiaries	—	—	—	—	948,101	—	—	—	948,101
Disposal of subsidiaries	—	—	—	—	(547,964)	—	—	—	(547,964)
Transfer to liabilities associated with assets classified as held for sale	—	(970)	—	—	(872,955)	—	—	—	(873,925)
Reclassification to loans from related companies	—	—	—	1,314,591	(1,124,017)	(190,574)	—	—	—
Recognition of deferred income on government grant-ITC	—	—	—	—	(188,869)	—	—	—	(188,869)
Movement of discounted bills with recourse	—	—	—	—	191,079	—	—	—	191,079
Non-cash settlements	—	—	—	—	—	228,010	—	—	228,010
At 31 December 2018	16,965	217,514	111,198	3,599,789	51,765,902	1,228,399	5,121,118	—	62,060,885
Adjustment upon application of IFRS 16	—	—	—	—	—	1,470,026	—	—	1,470,026
At 1 January 2019 (restated)	16,965	217,514	111,198	3,599,789	51,765,902	2,698,425	5,121,118	—	63,530,911
Financing cash flows	(126,157)	(759,433)	(103,654)	328,077	(2,168,323)	(345,514)	(1,613,955)	—	(4,788,959)
Exchange realignment	—	—	801	—	32,374	4,903	56,500	—	94,578
Finance costs (note 8)	—	935,488	188,607	86,315	2,240,082	167,374	329,054	—	3,946,920
Interest capitalised (note 8)	—	49,000	—	—	—	—	—	—	49,000
Dividends declared to non-controlling interests	383,839	—	—	—	—	—	—	—	383,839
Acquisition of subsidiaries	—	—	—	—	710,380	34,180	—	—	744,560
Disposal of subsidiaries	—	(48,200)	342,888	(826,785)	(6,831,563)	(258,752)	—	—	(7,622,412)
Transfer from liabilities associated with assets classified as held for sale	—	970	—	—	872,955	—	—	—	873,925
New leases entered	—	—	—	—	—	141,071	—	—	141,071
Lease terminated (note 16)	—	—	—	—	—	(168)	—	—	(168)
Movement of discounted bills with recourse	—	—	—	—	640,915	—	—	—	640,915
Other operating activities	—	—	15,087	—	—	—	—	—	15,087
Set off with advance to non-controlling interests	(38,194)	—	—	—	—	—	—	—	(38,194)
Set off with consideration receivables and amounts due from associates	—	—	—	(1,400,000)	—	—	—	—	(1,400,000)
Set off with amount due from an associate	—	—	—	(11,835)	—	—	—	—	(11,835)
At 31 December 2019	236,453	395,339	554,927	1,775,561	47,262,722	2,441,519	3,892,717	—	56,559,238

Note: The cash flows from dividends payables, interest payables, amounts due to related companies, loans from related companies, bank and other borrowings, lease liabilities/obligations under finance leases, notes and bonds payables and convertible bonds payables make up the net amount of proceeds and repayments in the consolidated statement of cash flows.

53. EVENTS AFTER REPORTING PERIOD

Other than those disclosed elsewhere in these consolidated financial statements, the Group has the following significant event after the reporting period:

The outbreak of Coronavirus disease ("COVID-19") in the PRC, which subsequently spread throughout other regions, has affected many businesses to different extent in early 2020. The respective governments in the PRC and other regions had implemented different types and levels of precautionary measures in an attempt to curb the spread of the pandemic. Hence, the Group's ability to serve customers will largely depend on (i) the effectiveness of the government measures that have been implemented, (ii) continuous availability of workforce which may be affected by the temporary travel restrictions and home quarantine requirements, and (iii) customers' confidence and demand which may be influenced by the market sentiments and economic performances in different jurisdictions.

Based on available information up to this date, the management of the Group considers that COVID-19 has limited impact on the Group's solar farm business and new energy business, while the Group's solar material business in the PRC and operations of its associates and joint ventures engaged in solar material business are negatively affected, which may affect the carrying amounts of the Group's assets, relating to solar material business, including investments in associates and joint ventures, long-lived assets and ECL on trade receivables. Given the dynamic nature of these circumstances, the related impact on our Group's consolidated results of operations, cash flows and financial condition could not be reasonably estimated at this stage and will be reflected in the Group's future financial statements.

54. RETIREMENT BENEFITS SCHEMES

(a) The PRC

The Group's full-time employees in the PRC are covered by a government sponsored defined contribution pension scheme, and are entitled to a monthly pension from their retirement dates. The PRC Government is responsible for the pension liability to these retired employees. The Group is required to make annual contributions to the retirement plan at a rate of 10% to 20% (2018: 12% to 20%) of employees' salaries, which are charged to profit or loss as an expense when the contributions are due.

(b) Hong Kong

The Group participates in a pension scheme, which was registered under the Mandatory Provident Fund Schemes Ordinance (the "MPF Ordinance"), for all its employees in Hong Kong. The scheme is a defined contribution scheme and is funded by contributions from employers and employees according to the provisions of the MPF Ordinance.

(c) The USA

In 2015, GNE established a 401(k) savings trust plan ("401(k) Plan"), a defined contribution plan and is funded by employers and employees in the USA that qualifies as an Inland Revenue Service ("IRS") deferred salary arrangement under Section 401(k) of the US Internal Revenue Code. Under the 401(k) Plan, participating employees may elect to contribute up to a maximum amount subject to certain IRS limitations.

(d) Japan

GNE Group participates in an employee's pension fund for all its employees in Japan. The scheme is a defined contribution scheme and is funded by contribution from employers and employees according to Employee's Pension Insurance Act.

During the year ended 31 December 2019, total amounts contributed by the Group to the schemes in the PRC, Hong Kong, the USA and Japan and charged to profit or loss, which represent contributions payable to the schemes by the Group at rates specified in the rules of the schemes are approximately RMB90,414,000 (2018: RMB92,048,000).

55. RELATED PARTY DISCLOSURES

During the year, the Group entered into the following material transactions with related parties:

	2019 RMB'000	2018 RMB'000
Transactions with companies in which Mr. Zhu Gongshan and his family have control:		
Consultancy service fee expense	**(5,575)**	(13,373)
Management fee expense	**(15,783)**	(21,513)
Interest expense	**(196,272)**	(12,493)
Purchase of steam	**(31,980)**	(17,368)
Purchase of coal	**(13,662)**	(586,024)
Purchase of raw water and desalted water	**(14,024)**	(1,800)
Purchase of energy service	**(25,915)**	(19,598)
Rental income	**32,180**	33,157
Management fee income	**14,332**	4,596
Sales of wafer	**6,086**	1,392,760
Transactions with joint ventures and associates:		
Interest expense	**(78,651)**	(71,037)
Purchase of polysilicon	**(192,350)**	(89,587)
Purchase of silicon rods	**(2,267,579)**	(1,543,923)
Purchase of property, plant and equipment	**—**	(11,935)
Management fee income	**42,007**	40,692
Sales of raw materials	**85,449**	145,249
Sales of property, plant and equipment	**335**	85,569
Interest income	**16,761**	10,949

At 31 December 2019, the Group provided a total guarantee with maximum amount of approximately RMB4,578,397,000 (2018: nil) to several banks and financial institutions in respect of banking and other facilities of Xinjiang GCL. The Directors consider that the fair value of the guarantee at the date of inception is insignificant.

As at 31 December 2019, GNE Group provided guarantee to its associates, including Shanxi GNE, Ruicheng GCL, Yu County Jinyang, Yu County GCL, Fenxi GCL, Hanneng Guangping and Hebei GNE and their subsidiaries, for certain of their bank and other borrowings with maximum amount of RMB5,369,119,000, out of which a joint guarantee of RMB520,000,000 was provided by the Group with GNE Group to Hebei GNE and one of its subsidiaries for their bank borrowings. Since these bank and other borrowings are secured by the borrowers' (i) property, plant and equipment, (ii) trade receivables, contract assets and fee collection right in relation to sales of electricity, in the opinion of the directors of GNE, the fair value of the guarantee is considered insignificant at initial recognition and the ECL as at 31 December 2019 is insignificant.

55. RELATED PARTY DISCLOSURES (Continued)

As at 31 December 2018, GNE Group provided guarantee to Huarong and Wanhai for certain of their bank and other borrowings amounting to RMB204,000,000 and RMB493,590,000, respectively. Since these bank and other borrowings are secured by their (i) property, plant and equipment, (ii) trade receivables, contract assets and fee collection right in relation to sales of electricity, in the opinion of the directors of GNE, the fair value of the guarantee is considered insignificant at initial recognition and as at 31 December 2018. During the year ended 31 December 2019, Wanhai became a wholly owned subsidiary of GNE Group, the guarantee provided therefore has no financial impact on the Group's consolidated financial statements. Besides, the guarantee provided to Huarong by GNE Group has been released in the current year.

Details of balances and other arrangements with related parties are disclosed in the consolidated statement of financial position and notes 27, 32 and 33.

56. MAJOR NON-CASH TRANSACTIONS

Other than disclosed elsewhere in these consolidated financial statements, the Group has the following major non-cash transactions:

(i) GNE Group acquired 100% equity interest of Jinhu and Wanhai from Zhongmin GCL in March 2019 with aggregate consideration of RMB264,000,000.

Subsequent to the acquisition date, GNE Group partially settled consideration of RMB204,904,000 to Zhongmin GCL by (i) cash payment of RMB86,999,000, (ii) endorsement of bills receivables of RMB47,905,000 and (iii) offset with amount due from Zhongmin GCL by RMB70,000,000.

For the remaining consideration payable of RMB59,096,000, GNE Group further entered into a multi-party debt settlement agreement with Zhongmin GCL, Jinhu, Wanhai, and 中民新能(上海)投資有限公司 Zhongmin New Energy (Shanghai) Investment Company Limited* on 1 April 2019, and approximately RMB41,682,000 of such remaining consideration has been settled among these parties pursuant to this multi-party debt settlement agreement. The remaining sum of RMB17,414,000 was settled by GNE Group in cash during the current year.

(ii) GNE Group disposed of 70% equity interest in seven subsidiaries in Hebei and Shanxi Province to Shanghai Rongyao in 2019 for an aggregate consideration of RMB1,441,652,000.

56. MAJOR NON-CASH TRANSACTIONS (Continued)

(ii) (Continued)

Subsequent to the disposal date, GNE Group, Golden Concord Holdings Limited ("Golden Concord"), a substantial shareholder of the Company with significant influence, Shanghai Rongyao and Yunnan Provincial Energy Investment Group Company Limited ("Yunnan Energy"), a shareholder of Shanghai Rongyao, entered into an offsetting agreement. They agreed to offset part of GNE Group's consideration receivables from Shanghai Rongyao amounting to RMB1,329,674,000 and amounts due from those seven subsidiaries of RMB170,326,000 with (i) the loan from Golden Concord of RMB1,400,000,000 and (ii) a receipt in advance from Yunnan Energy of RMB100,000,000.

(iii) During the year ended 31 December 2019, the Group entered into new lease agreements for land, buildings, offices and staff quarters for 2 to 24 years. On the lease commencement, the Group recognised right-of-use assets of approximately RMB141,071,000 and the related lease liabilities.

* English name for identification only

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES

57a. General information of subsidiaries

Details of the Group's material subsidiaries at the end of the reporting period are set out below.

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group		Principal activities
			2019 %	2018 %	
Directly held:					
Incorporated in the Cayman Islands					
Universe Solar Energy Holdings Inc. 環宇光伏電力控股有限公司	Cayman Islands/ Hong Kong	US$10,500	**100**	100	Investment holding
Incorporated in the BVI					
Elite Time Global Limited 傑泰環球有限公司		US$1	**100**	100	Investment holding
Indirectly held:					
Solar material business					
Established in the PRC					
Jiangsu Zhongneng	PRC	RMB7,261,031,330	**100**	99.55	Manufacture and sale of polysilicon
Jiangsu GCL Silicon Material Technology Development Co., Ltd.* 江蘇協鑫硅材料科技發展有限公司	PRC	RMB3,099,650,000	**100**	99.55	Manufacture and sale of ingot and wafer
Konca Solar Cell Co., Ltd. 高佳太陽能股份有限公司	PRC	RMB1,184,570,000	**70.19**	74.85	Manufacture and sale of ingot and wafer
Changzhou GCL Photovoltaic Technology Co., Ltd.* 常州協鑫光伏科技有限公司	PRC	RMB717,978,270	**100**	99.55	Manufacture and sale of wafer

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57a. General information of subsidiaries (Continued)

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group 2019 %	2018 %	Principal activities
Indirectly held: (Continued)					
Solar material business (Continued) *Established in the PRC (Continued)*					
Suzhou GCL Photovoltaic Technology Co., Ltd.* 蘇州協鑫光伏科技有限公司	PRC	RMB990,298,120	100	99.55	Manufacture and sale of wafer
GCL-Poly (Suzhou)	PRC	RMB4,940,000,000	100	99.55	Investment holding and trading of wafer
Henan GCL Photo voltaic Technology Co., Ltd.* 河南協鑫光伏科技有限公司	PRC	RMB373,500,000	100	99.55	Manufacture and sale of ingot
GCL (Nanjing) Solar Energy Technology Co., Ltd.* 協鑫(南京)太陽能科技有限公司	PRC	RMB250,000,000	100	99.55	Manufacture and trading of solar cell and module
Taicang GCL Photovoltaic Technology Co., Ltd.* 太倉協鑫光伏科技有限公司	PRC	RMB958,775,000	100	99.55	Manufacture and sale of wafer
Funing GCL Photovolatic Technology Co., Ltd.* 阜寧協鑫光伏科技有限公司	PRC	RMB312,621,612	100	99.55	Manufacture and sale of solar products
Ningxia GCL Monocrystalline Silicon Technology Development Co., Ltd.* 寧夏協鑫晶體科技發展有限公司	PRC	RMB301,000,000	69.77	99.55	Manufacture and sale of solar products
Yangzhou GCL Photovoltaic Technology Company Limited* 揚州協鑫光伏科技有限公司	PRC	RMB514,678,595	100	99.55	Manufacture and sale of wafer
Suzhou GCL Technology Development Co., Ltd.* 蘇州協鑫科技發展有限公司	PRC	RMB900,000,000	100	99.55	Manufacture and sale of wafer
GCL-Poly Silicon Material (Taicang) Co., Ltd.* 保利協鑫硅材料(太倉)有限公司	PRC	US$34,000,000	100	100	Trading of solar products
Incorporated in Hong Kong					
GCL Solar Energy Technology Holdings Limited 協鑫光伏電力科技控股有限公司	Hong Kong	HK$1	100	100	Investment holding
Konca Solar Cell (H.K.) Co., Ltd. 高佳太陽能(香港)有限公司	Hong Kong	HK$20,000,000	70.19	74.85	Trading of wafer
Corner Star Limited 各星有限公司	Hong Kong	HK$1	100	99.55	Own a technical know-how

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57a. General information of subsidiaries (Continued)

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group 2019 %	2018 %	Principal activities
Indirectly held: (Continued)					
Solar farm business *Established in the PRC*					
GCL-Poly (Sangri) Solar Power Co., Ltd.* 保利協鑫(桑日)光伏電力有限公司	PRC	RMB62,000,000	100	100	Operation of solar farm
Xuzhou GCL Solar Energy Co., Ltd.* 徐州協鑫光伏電力有限公司	PRC	RMB84,000,000	100	100	Operation of solar farm
Jiangsu Guoneng Solar Technology Co., Ltd.* 江蘇國能新能源科技有限公司	PRC	RMB10,000,000	100	100	Operation of solar farm
Suzhou GCL-Poly Solar Energy Investment Ltd.* 蘇州保利協鑫光伏電力投資 有限公司	PRC	RMB422,000,000	100	100	Investment holding
Datong Xian GCL Solar Energy Co., Ltd.* 大同縣協鑫光伏電力有限公司	PRC	RMB144,600,000	100	100	Operation of solar farm
Baoying Xingneng Renewable Energy Co., Ltd.* 寶應興能可再生能源有限公司	PRC	RMB52,800,000	100	100	Operation of solar farm
Funing Xinneng Solar Energy Co., Ltd.* 阜寧新能光伏電力有限公司	PRC	RMB52,800,000	100	100	Operation of solar farm
Ningxia Qingyang New Energy Co., Ltd.* 寧夏慶陽新能源有限公司	PRC	RMB170,000,000	51	51	Operation of solar farm
Huocheng Xian Tukai New Energy Technology Development Co., Ltd.* 霍城縣圖開新能源科技開發有限公司	PRC	RMB49,380,000	51	51	Operation of solar farm
Ningxia Hengyang New Energy Co., Ltd.* 寧夏恒陽新能源有限公司	PRC	RMB49,800,000	100	100	Operation of solar farm
Datong Xian Xinneng Solar Energy Co., Ltd.* 大同縣鑫能光伏電力有限公司	PRC	RMB32,600,000	100	100	Operation of solar farm
Incorporated in Hong Kong					
GCL Solar Energy Limited 協鑫光伏有限公司	Hong Kong	HK$1	100	100	Investment holding

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57a. General information of subsidiaries (Continued)

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group 2019 %	2018 %	Principal activities
Indirectly held: (Continued)					
Solar farm business (Continued) *Incorporated in the USA*					
GCL Solar Energy. Inc.	USA	US$2,000,000	100	100	Construction and sale of solar farm projects
Incorporated in Luxembourg					
Berimor Investments S.a.r.l.	Luxembourg	US$2,000,000	100	100	Investment holding
New energy business *Incorporated in Hong Kong*					
協鑫新能源國際有限公司 GCL New Energy International Limited	Hong Kong	HK$1	62.28	62.28	Investment holding
協鑫新能源發展有限公司 GCL New Energy Development Limited	Hong Kong	HK$1	62.28	62.28	Investment holding
協鑫新能源管理有限公司 GCL New Energy Management Limited	Hong Kong	HK$1	62.28	62.28	Investment holding
協鑫新能源貿易有限公司 GCL New Energy Trading Limited	Hong Kong	HK$1	62.28	62.28	Investment holding
Established in the PRC					
協鑫新能源投資(中國)有限公司 GCL New Energy Investment (China) Co., Ltd.*	PRC	US$1,188,000,000	62.28	62.28	Investment holding
蘇州協鑫新能源運營科技有限公司 Suzhou GCL New Energy Operation and Technology Co., Ltd.*	PRC	RMB50,000,000	62.28	62.28	Investment holding
南京協鑫新能源發展有限公司 Nanjing GCL New Energy Development Co., Ltd.*	PRC	US$1,188,000,000	62.28	62.28	Investment holding
Suzhou GCL New Energy	PRC	RMB12,928,250,000	57.81	57.81	Investment holding
南京協鑫新能源科技有限公司 Nanjing GCL New Energy Technology Co., Ltd.*	PRC	RMB300,000,000	62.28	62.28	Investment holding
Zhenjiang GCL	PRC	RMB33,000,000	62.28	62.28	Investment holding

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57a. General information of subsidiaries (Continued)

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group 2019 %	2018 %	Principal activities
Indirectly held: (Continued)					
New energy business (Continued) *Established in the PRC (Continued)*					
包頭市中利騰暉光伏發電有限公司 Baotou Shi Zhong Li Photovoltaic Co., Ltd.*	PRC	RMB110,000,000	**62.28**	62.28	Operation of solar farm
冊亨協鑫光伏電力有限公司 Ceheng Solar Power Co., Ltd.*	PRC	RMB130,000,000	**62.28**	62.28	Operation of solar farm
德令哈協合光伏發電有限公司 Delingha Century Concord Photovoltaic Power Co., Ltd.*	PRC	RMB222,000,000	**62.28**	62.28	Operation of solar farm
阜南協鑫光伏電力有限公司 Funan GCL Photovoltaic Power Co., Ltd.*	PRC	RMB165,000,000	**62.28**	62.28	Operation of solar farm
高唐縣協鑫晶輝光伏有限公司 Gaotang County GCL Jing Hui Photovoltaic Co., Ltd.*	PRC	RMB81,000,000	**62.28**	62.28	Operation of solar farm
哈密耀輝光伏電力有限公司 Hami Yaohui Photovoltaic Company Limited.*	PRC	RMB181,960,000	**62.28**	62.28	Operation of solar farm
海豐縣協鑫光伏電力有限公司 Haifeng County GCL Solar Power Co., Ltd.*	PRC	RMB155,900,000	**62.28**	62.28	Operation of solar farm
海南州世能光伏發電有限公司 Hainanzhou Shineng Photovoltaic Power Co., Ltd.*	PRC	RMB60,000,000	**62.28**	62.28	Operation of solar farm
橫山晶合太陽能發電有限公司 Hengshan Jinghe Solar Energy Co., Ltd.*	PRC	RMB222,000,000	**60.01**	60.01	Operation of solar farm
湖北省麻城市金伏太陽能電力有限公司 Hubei Macheng Jinfu Solar Energy Limited*	PRC	RMB191,000,000	**62.28**	62.28	Operation of solar farm
淮北鑫能光伏電力有限公司 Huaibei Xinneng Solar Power Co., Ltd.*	PRC	RMB90,000,000	**62.28**	62.28	Operation of solar farm
靖邊縣順風新能源有限公司 Jingbian County Shunfeng New Energy Limited*	PRC	RMB68,550,000	**59.17**	59.17	Operation of solar farm
靖邊協鑫光伏電力有限公司 Jingbian GCL Solar Power Co., Ltd.*	PRC	RMB80,000,000	**62.28**	62.28	Operation of solar farm
開封華鑫新能源開發有限公司 Kaifeng Huaxin New Energy Development Co., Ltd.*	PRC	RMB200,000,000	**62.28**	62.28	Operation of solar farm

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57a. General information of subsidiaries (Continued)

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group		Principal activities
			2019 %	2018 %	
Indirectly held: (Continued)					
New energy business (Continued) *Established in the PRC (Continued)*					
蘭溪金瑞太陽能發電有限公司 Lanxi Jinrui Photovoltaic Power Co., Ltd.*	PRC	RMB60,320,000	**62.28**	62.28	Operation of solar farm
猛海協鑫光伏農業電力有限公司 Menghai GCL Solar Agricultural Power Co., Ltd.*	PRC	RMB85,000,000	**62.28**	62.28	Operation of solar farm
內蒙古香島新能源發展有限公司 Inner Mongolia Xiangdao New Energy Development Company Limited*	PRC	RMB273,600,000	**56.11**	56.11	Operation of solar farm
寧夏金禮光伏電力有限公司 Ningxia Jinli Photovoltaic Electric Power Co., Ltd.*	PRC	RMB86,830,000	**62.28**	62.28	Operation of solar farm
寧夏金信光伏電力有限公司 Ningxia Jinxin Photovoltaic Electric Power Co., Ltd.*	PRC	RMB126,300,000	**62.28**	62.28	Operation of solar farm
寧夏中衛協鑫光伏電力有限公司 Ningxia Zhongwei GCL Solar Power Co., Ltd.*	PRC	RMB61,600,000	**62.28**	62.28	Operation of solar farm
淇縣協鑫新能源有限公司 Qixian GCL New Energy Limited*	PRC	RMB84,000,000	**62.28**	62.28	Operation of solar farm
汝陽協鑫新能源有限公司 Ruyang GCL New Energy Limited*	PRC	RMB146,000,000	**62.28**	62.28	Operation of solar farm
三門峽協立光伏電力有限公司 Sanmenxia Xie Li Solar Power Co., Ltd.*	PRC	RMB65,000,000	**62.28**	62.28	Operation of solar farm
上林協鑫光伏電力有限公司 Shanglin GCL Solar Power Co., Ltd.*△	PRC	RMB124,800,000	**42.32**	42.32	Operation of solar farm
神木市晶富電力有限公司 Shenmu Jingfu Solar Power Co., Ltd.*△	PRC	RMB75,400,000	**49.82**	49.82	Operation of solar farm
神木市平西電力有限公司 Shenmu Ping Xi Power Co., Ltd.*	PRC	RMB82,000,000	**62.28**	62.28	Operation of solar farm
神木市平元電力有限公司 Shenmu Ping Yuan Power Co., Ltd.*	PRC	RMB78,700,000	**62.28**	62.28	Operation of solar farm
Guotai△	PRC	RMB20,000,000	**49.82**	49.82	Operation of solar farm

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57a. General information of subsidiaries (Continued)

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group		Principal activities
			2019 %	2018 %	
Indirectly held: (Continued)					
New energy business (Continued) *Established in the PRC (Continued)*					
Jingdeng△	PRC	RMB50,000,000	49.82	49.82	Operation of solar farm
石城協鑫光伏電力有限公司 Shicheng GCL Solar Power Co., Ltd.*△	PRC	RMB112,838,100	31.76	31.76	Operation of solar farm
天長市協鑫光伏電力有限公司 Tianchang GCL Solar Energy Limited*	PRC	RMB63,960,000	62.28	62.28	Operation of solar farm
烏拉特後旗源海新能源有限責任公司 Wulate Houqi Yuanhai New Energy Limited*	PRC	RMB50,000,000	62.28	62.28	Operation of solar farm
宿州協鑫光伏電力有限公司 Suzhou GCL Solar Power Co., Ltd.*△	PRC	RMB74,000,000	62.28	62.28	Operation of solar farm
鹽邊鑫能光伏電力有限公司 Yanbian Xin Neng Solar Power Co., Ltd.*	PRC	RMB56,000,000	62.28	62.28	Operation of solar farm
鹽源縣白烏新能源科技有限公司 Yanyuan County Bai Wu New Energy Technology Co., Ltd.*	PRC	RMB113,000,000	62.28	62.28	Operation of solar farm
餘幹縣協鑫新能源有限責任公司 Yugan County GCL New Energy Limited*	PRC	RMB139,300,000	62.28	62.28	Operation of solar farm
榆林隆源光伏電力有限公司 Yulin Longyuan Solar Energy Limited*	PRC	RMB465,000,000	62.28	62.28	Operation of solar farm
榆林市榆神工業區東投能源有限公司 Yulin Yushen Industrial Area Energy Co., Ltd.*	PRC	RMB170,000,000	62.28	62.28	Operation of solar farm
元謀綠電新能源開發有限公司 Yuanmou Green Power New Energy Development Limited*△	PRC	RMB85,000,000	49.82	49.82	Operation of solar farm
鄆城鑫華能源開發有限公司 Yuncheng Xinhua Energy Development Co,. Ltd.*△	PRC	RMB58,597,800	31.76	62.28	Operation of solar farm
正藍旗國電光伏發電有限公司 Zhenglanqi State Power Photovoltaic Company Limited*	PRC	RMB125,000,000	61.78	61.78	Operation of solar farm
中利騰暉海南電力有限公司 Zhongli Tenghui Hainan Solar Power Co., Ltd.*	PRC	RMB105,500,000	62.28	62.28	Operation of solar farm

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57a. General information of subsidiaries (Continued)

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group 2019 %	2018 %	Principal activities
Indirectly held: (Continued)					
New energy business (Continued) *Established in the PRC (Continued)*					
東海縣協鑫光伏電力有限公司 Donghai County GCL Solar Energy Co., Ltd.*	PRC	RMB54,470,000	**62.28**	62.28	Operation of solar farm
阜寧縣鑫源光伏電力有限公司 Funing County Yuan Solar Power Co., Ltd.*	PRC	RMB52,000,000	**62.28**	62.28	Operation of solar farm
碭山協鑫光伏電力有限公司 Dangshan GCL Solar Power Co., Ltd.*	PRC	RMB44,000,000	**62.28**	62.28	Operation of solar farm
欽州鑫金光伏電力有限公司 Qinzhou Xin Jin Solar Power Co., Ltd.*△	PRC	RMB134,950,000	**43.82**	43.82	Operation of solar farm
永城鑫能光伏電力有限公司 Yongcheng Xin Neng Photovoltaic Electric Power Co, Ltd.*	PRC	RMB101,600,000	**62.28**	62.28	Operation of solar farm
商水協鑫光伏電力有限公司 Shangshui GCL Photovoltaic Electric Power Co, Ltd.*	PRC	RMB130,000,000	**62.28**	62.28	Operation of solar farm
微山鑫能光伏電力有限公司 Weishan Xin Neng Solar Power Co., Ltd.*	PRC	RMB75,000,000	**62.28**	62.28	Operation of solar farm
互助昊陽光伏發電有限公司 Huzhu Haoyang Photoroltaic Electric Power Co., Ltd.*	PRC	RMB66,000,000	**62.28**	62.28	Operation of solar farm
Jinhu	PRC	RMB160,000,000	**62.28**	—	Operation of solar farm
河南協鑫新能源投資有限公司 Henan GCL New Energy Investment Co., Ltd.*	PRC	RMB600,000,000	**62.28**	62.28	Operation of solar farm
南召鑫力光伏電力有限公司 Nanzhao Xin Li Photovoltaic Electric Farms Co., Ltd.*△	PRC	RMB100,000,000 (2018: RMB181,600,000)	**31.14**	31.14	Operation of solar farm
江蘇協鑫新能源有限公司 Jiangsu GCL New Energy Co., Ltd.*	PRC	RMB500,000,000	**62.28**	62.28	Operation of solar farm
西安協鑫新能源管理有限公司 Xi'an GCL New Energy Management Co., Ltd.*	PRC	RMB1,500,000,000	**62.28**	62.28	Operation of solar farm
神木市晶普電力有限公司 Shenmu Jinpu Farms Co., Ltd.*△	PRC	RMB266,400,000	**49.82**	49.82	Operation of solar farm

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57a. General information of subsidiaries (Continued)

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group		Principal activities
			2019	2018	
			%	%	
Indirectly held: (Continued)					
New energy business (Continued)					
Established in the PRC (Continued)					
安徽協鑫新能源投資有限公司 Anhui GCL New Energy Investment Co., Ltd.*	PRC	RMB238,000,000	**62.28**	62.28	Operation of solar farm
內蒙古協鑫光伏電力有限公司 Inner Mongolia GCL Photovoltaic Electric Farms Co., Ltd.*	PRC	RMB200,000,000	**62.28**	62.28	Operation of solar farm
上林縣鑫安光伏電力有限公司 Shanglin County Xinan Photovoltaic Electric Power Co., Ltd.*△	PRC	RMB50,000,000	**37.37**	37.37	Operation of solar farm
Wanhai	PRC	RMB60,000,000	**62.28**	—	Operation of solar farm
寧夏協鑫新能源投資有限公司 Ningxia GCL New Energy Investment Co., Ltd.*	PRC	RMB200,000,000	**62.28**	62.28	Operation of solar farm
江蘇協鑫新能源投資有限公司 Jiangsu GCL New Energy Investment Co., Ltd.*	PRC	RMB100,000,000	**62.28**	62.28	Operation of solar farm
汾西縣協鑫光伏電力有限公司 Fenxi County GCL Photovoltaic Power Co., Ltd.*	PRC	RMB130,000,000	**N/A**	62.28	Operation of solar farm
邯能廣平縣光伏電力開發有限公司 Hanneng Guangping Solar Energy Development Limited*#	PRC	RMB130,000,000	**N/A**	62.28	Operation of solar farm
江陵縣協鑫光伏電力有限公司 Jiang Ling County GCL Solar Power Co., Ltd.*#	PRC	RMB230,000,000	**N/A**	62.28	Operation of solar farm
汝州協鑫光伏電力有限公司 Ru Zhou GCL Photovoltaic Power Co., Ltd.*#	PRC	RMB15,000,0000	**N/A**	62.28	Operation of solar farm
芮城縣協鑫光伏電力有限公司 Ruicheng County GCL Solar Power Co., Ltd.*#	PRC	RMB134,000,000	**N/A**	62.28	Operation of solar farm
山西佳盛能源股份有限公司 Shanxi Jiasheng Energy Holding Ltd.*#	PRC	RMB50,000,000	**N/A**	59.78	Operation of solar farm
尚義元辰新能源開發有限公司 Shangyi Yuanchen New Energy Development Company Limited*#	PRC	RMB400,650,000	**N/A**	62.28	Operation of solar farm

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57a. General information of subsidiaries (Continued)

Name of subsidiary	Place of establishment/ operations	Particulars of issued share capital/ registered capital	Attributable equity interest held by the Group		Principal activities
			2019 **%**	2018 %	
Indirectly held: (Continued)					
New energy business (Continued) *Established in the PRC (Continued)*					
新安縣協鑫光伏電力有限公司 Xinan County GCL Solar Power Co., Ltd*#	PRC	RMB120,000,000	**N/A**	62.28	Operation of solar farm
盂縣晉陽新能源發電有限公司 Yu County Jinyang New Energy Power Generation Co., Ltd.*#	PRC	RMB171,800,000	**N/A**	61.66	Operation of solar farm
盂縣協鑫光伏電力有限公司 Yu County GCL Solar Power Co., Ltd.*#	PRC	RMB140,000,000	**N/A**	62.28	Operation of solar farm

* English name for identification only

△ Despite the Group indirectly holds less than 50% of the effective equity interest of these companies, the Group considers to exercise control over these companies through GNE as GNE holds more than 50% of the equity interest.

\# The controlling stake of the entity was disposed of by GNE Group during the year ended 31 December 2019 which becomes an associate of GNE Group as well as an associate of the Group indirectly.

The above table lists the subsidiaries of the Group which, in the opinion of the Directors, principally affected the results or assets of the Group. To give details of other subsidiaries would, in the opinion of the Directors, result in particulars of excessive length.

Other than GCL-Poly (Suzhou), GNE and Suzhou GCL New Energy issued notes and bonds as disclosed in note 39, none of the subsidiaries had issued any debt securities at the end of the year.

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57b. Details of non-wholly owned subsidiaries that have material non-controlling interests

The table below shows details of a non-wholly owned subsidiary of the Group that has material non-controlling interests:

Name of subsidiary	Place of incorporation and principal place of business	Proportion of ownership interests and voting rights held by non-controlling interests		Profit (loss) allocated to non-controlling interests		Accumulated non-controlling interests	
		2019	2018	**2019 RMB'000**	2018 RMB'000	**2019 RMB'000**	2018 RMB'000
GNE	Bermuda and Hong Kong	**37.72%**	37.72%	**111,156**	177,166	**2,546,268**	2,437,826
Non-wholly owned subsidiaries of GNE				**148,065**	144,645	**1,359,943**	1,565,228
Individually immaterial subsidiaries of the Group with non-controlling interests				**48,821**	(86,846)	**565,038**	963,897
				308,042	234,965	**4,471,249**	4,966,951

Summarised financial information in respect of GNE is set out below. The summarised financial information below represents amounts before intragroup eliminations and fair value adjustments arising from the acquisition of GNE.

	2019 RMB'000	2018 RMB'000
Current assets	**7,834,484**	9,333,190
Non-current assets	**46,581,742**	51,846,671
Current liabilities	**(19,101,411)**	(20,574,506)
Non-current liabilities	**(25,345,172)**	(30,903,815)
Equity attributable to owners of the Company	**6,063,432**	5,698,486
Non-controlling interests of GNE	**2,546,268**	2,437,826
Non-controlling interests of GNE's subsidiaries	**1,359,943**	1,565,228

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57b. Details of non-wholly owned subsidiaries that have material non-controlling interests (Continued)

	2019 RMB'000	2018 RMB'000
Revenue	**6,051,987**	5,632,397
Expenses	**(5,447,234)**	(4,883,043)
Profit for the year	**604,753**	749,354
Profit for the year attributable to owners of GNE	**294,688**	469,680
Profit for the year attributable to non-controlling interests		
— owners of perpetual notes*	**162,000**	135,029
— other non-controlling interests	**148,065**	144,645
Profit for the year	**604,753**	749,354
Profit attributable to owners of the Company	**345,532**	427,543
Profit attributable to non-controlling interests of GNE	**111,156**	177,166
Profit attributable to non-controlling interests of GNE's subsidiaries	**148,065**	144,645
Profit for the year	**604,753**	749,354
Other comprehensive income attributable to owners of the Company	**10,394**	28,756
Other comprehensive income attributable to non-controlling interests of GNE	**6,295**	17,419
Other comprehensive income attributable to non-controlling interests of GNE's subsidiaries	**—**	—
Other comprehensive income for the year	**16,689**	46,175

57. PARTICULARS OF PRINCIPAL SUBSIDIARIES (Continued)

57b. Details of non-wholly owned subsidiaries that have material non-controlling interests (Continued)

	2019 RMB'000	2018 RMB'000
Total comprehensive income attributable to owners of the Company	**355,926**	456,299
Total comprehensive income attributable to non-controlling interests of GNE	**117,451**	194,585
Total comprehensive income attributable to non-controlling interests of GNE's subsidiaries	**148,065**	144,645
Total comprehensive income for the year	**621,442**	795,529
Dividends paid to non-controlling interests of GNE's subsidiaries	**(126,157)**	(44,685)
Net cash inflow from operating activities	**2,664,041**	2,462,346
Net cash outflow from investing activities	**(2,739,602)**	(7,729,278)
Net cash (outflow) inflow from financing activities	**(286,919)**	2,451,905
Net cash outflow	**(362,480)**	(2,815,027)

* The perpetual notes were held by wholly owned subsidiaries of the Group and therefore is included in profit attributable to owners of the Company.

58. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY

Statement of financial position

	31 December 2019 RMB'000	31 December 2018 RMB'000
NON-CURRENT ASSETS		
Interest in subsidiaries	**11,258,742**	14,932,839
Amounts due from subsidiaries (Note a)	**14,852,461**	13,786,173
Equity instruments at FVTOCI	**31,927**	81,351
Restricted bank deposits (Note a)	**—**	34,316
	26,143,130	28,834,679
CURRENT ASSETS		
Prepayments and deposits	**41,757**	4,042
Amounts due from subsidiaries (Note a)	**1,863,824**	3,573,407
Debt instruments at FVTOCI	**—**	65,606
Pledged and restricted bank deposits (Note a)	**34,881**	68,632
Bank balances and cash (Note a)	**75,132**	560,313
	2,015,594	4,272,000
CURRENT LIABILITIES		
Other payables	**21,586**	37,981
Amounts due to subsidiaries	**—**	3,076
Bank borrowings — due within one year	**1,940,829**	3,531,577
	1,962,415	3,572,634
NET CURRENT ASSETS	**53,179**	699,366
TOTAL ASSETS LESS CURRENT LIABILITIES	**26,196,309**	29,534,045
NET ASSETS	**26,196,309**	29,534,045
CAPITAL AND RESERVES		
Share capital (note 41)	**1,742,850**	1,610,009
Reserves	**24,453,459**	27,924,036
TOTAL EQUITY	**26,196,309**	29,534,045

Notes:

(a) ECL for amounts due from subsidiaries, pledged and restricted bank deposits, and bank balances are assessed on a 12m ECL basis as there had been no significant increase in credit risk since initial recognition and impairment allowance is considered to be insignificant.

(b) The Directors consider that the impact on initial application of IFRS 16 is insignificant to the Company.

58. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY (Continued)

Movement in the Company's reserves

	Share premium RMB'000	Capital redemption reserve RMB'000	Investments revaluation reserve RMB'000	Capital reserve RMB'000	Share options reserve RMB'000	Accumulated losses RMB'000	Total RMB'000
At 1 January 2018	30,884,335	—	—	19,206	177,085	(4,153,381)	26,927,245
Fair value loss on investments in debt instruments at FVTOCI	—	—	(3,540)	—	—	—	(3,540)
Fair value loss on investments in equity instruments at FVTOCI	—	—	(11,806)	—	—	—	(11,806)
Profit for the year	—	—	—	—	—	1,147,460	1,147,460
Profit and total comprehensive (expense) income for the year	—	—	(15,346)	—	—	1,147,460	1,132,114
Recognition of share-based payment expenses in respect of share options (note 51)	—	—	—	—	5,000	—	5,000
Exercise of share options	292	—	—	—	(73)	—	219
Forfeitures of share options	—	—	—	—	(10,370)	10,370	—
Share repurchased and cancelled (note 41)	(140,542)	22,202	—	—	—	(22,202)	(140,542)
At 31 December 2018	30,744,085	22,202	(15,346)	19,206	171,642	(3,017,753)	27,924,036
Fair value loss on investments in equity instruments at FVTOCI	**—**	**—**	**(49,424)**	**—**	**—**	**—**	**(49,424)**
Cumulative loss reclassified to profit or loss on sale of investments in debt instruments measured at FVTOCI upon disposal	**—**	**—**	**3,540**	**—**	**—**	**—**	**3,540**
Loss for the year	**—**	**—**	**—**	**—**	**—**	**(3,881,429)**	**(3,881,429)**
Loss and total comprehensive expense for the year	**—**	**—**	**(45,884)**	**—**	**—**	**(3,881,429)**	**(3,927,313)**
Recognition of share-based payment expenses in respect of share options (note 51)	**—**	**—**	**—**	**—**	**1,735**	**—**	**1,735**
Exercise of share options	**60**	**—**	**—**	**—**	**(18)**	**—**	**42**
Forfeitures of share options	**—**	**—**	**—**	**—**	**(14,394)**	**14,394**	**—**
Issue of new shares (note 41)	**464,912**	**—**	**—**	**—**	**—**	**—**	**464,912**
Transactions costs attributable to the issue of new shares	**(9,953)**	**—**	**—**	**—**	**—**	**—**	**(9,953)**
At 31 December 2019	**31,199,104**	**22,202**	**(61,230)**	**19,206**	**158,965**	**(6,884,788)**	**24,453,459**

Note: Differences between the reserves of the Company and of the Group, as disclosed in the consolidated statement of changes in equity, represented the consolidation adjustments arising from the reverse acquisition by GCL Solar in 2009. For more details, please refer to 2009 annual report of the Group.

CORPORATE INFORMATION

Chairman

Zhu Gongshan

Executive Directors

Zhu Gongshan
Zhu Zhanjun *(CEO)*
Zhu Yufeng
Sun Wei
Yeung Man Chung, Charles *(CFO and Company Secretary)*
Jiang Wenwu
Zheng Xiongjiu

Independent Non-executive Directors

Ho Chung Tai, Raymond
Yip Tai Him
Shen Wenzhong
Wong Man Chung, Francis

Composition of Board Committees

Audit Committee

Yip Tai Him *(Chairman)*
Ho Chung Tai, Raymond
Shen Wenzhong
Wong Man Chung, Francis

Remuneration Committee

Ho Chung Tai, Raymond *(Chairman)*
Yip Tai Him
Zhu Yufeng

Nomination Committee

Yip Tai Him *(Chairman)*
Ho Chung Tai, Raymond
Yeung Man Chung, Charles

Corporate Governance Committee

Ho Chung Tai, Raymond *(Chairman)*
Yip Tai Him
Yeung Man Chung, Charles

Strategy & Investment Committee

Ho Chung Tai, Raymond *(Chairman)*
Zhu Gongshan
Yip Tai Him
Shen Wenzhong
Wong Man Chung, Francis
Zhu Zhanjun
Yeung Man Chung, Charles

Company Secretary

Yeung Man Chung, Charles

Authorized Representatives

Zhu Zhanjun
Yeung Man Chung, Charles

Auditor

Deloitte Touche Tohmatsu
Certified Public Accountants
Registered Public Interest Entity Auditors
35th Floor, One Pacific Place
88 Queensway
Hong Kong

Registered Office

Cricket Square, Hutchins Drive
P.O. Box 2681
Grand Cayman, KY1-1111
Cayman Islands

Principal Place of Business in Hong Kong

Unit 1703B-1706, Level 17
International Commerce Centre
1 Austin Road West
Kowloon, Hong Kong

CORPORATE INFORMATION (CONTINUED)

Cayman Islands Principal Share Registrar and Transfer Office

SMP Partners (Cayman) Limited
3rd Floor, Royal Bank House
24 Shedden Road
P.O. Box 1586, Grand Cayman
KY1-1110, Cayman Islands

Hong Kong Branch Share Registrar and Transfer Office

Tricor Investor Services Limited
Level 54, Hopewell Centre
183 Queen's Road East
Hong Kong

Legal Advisers to the Company

As to Hong Kong law

Freshfields Bruckhaus Deringer
55th Floor
One Island East
Taikoo Place, Quarry Bay
Hong Kong

As to Cayman Islands law

Conyers Dill & Pearman
Cricket Square, Hutchins Drive
P.O. Box 2681
Grand Cayman, KY1-1111
Cayman Islands

Company's Website

www.gcl-poly.com.hk

INFORMATION FOR INVESTORS

Listing information

Listing: Main Board of the Hong Kong Stock Exchange Limited
Stock Code: 3800

Share Information

Board Lot Size: 1,000 shares
Shares Outstanding as at 31 December 2019:19,841,049,207 shares

Financial Calendar

31 March 2020: Announcement of 2019 Annual Results
29 April 2020: Publication of Annual Report
17 June 2020: Annual General Meeting

Enquiries Contact

IR Department

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GLOSSARY OF TERMS

In this report, the following expressions have the meanings set out below unless defined in the context of this report:

"Board" or "Board of Directors"	board of Directors
"C$"	Canadian dollars, the lawful currency of Canada
"China" or "PRC"	the People's Republic of China, for the purposes of this report, excludes Hong Kong and Macau Special Administrative Region of the PRC
"Company" or "GCL-Poly"	GCL-Poly Energy Holdings Limited (保利協鑫能源控股有限公司), a company incorporated in the Cayman Islands with limited liability, the shares of which are listed on the Main Board of the Stock Exchange (stock code: 3800). As at the date of this report, GCL-Poly is interested in approximately 62.28% of the issued share capital of GNE
"Director(s)"	director(s) of the Company or any one of them
"Dongsheng PV"	Dongsheng Photovoltaic Technology (Hong Kong) Limited* (東昇光伏科技(香港)有限公司), a limited liability company incorporated in Hong Kong and a subsidiary of GCL System Integration
"GCL Electric"	GCL Electric Power Design and Research Co., Ltd.* (協鑫電力設計研究有限公司), a limited liability company incorporated in the PRC and a subsidiary of the Company and GNE
"GCL Energy Engineering"	GCL Energy Engineering Co., Ltd.* (協鑫能源工程有限公司), a company incorporated in the PRC and a subsidiary of GCL System Integration
"GCL Intelligent Energy"	GCL Intelligent Energy Co., Ltd.* (協鑫智慧能源股份有限公司) (formerly known as GCL Intelligent Energy (Suzhou) Co., Ltd.* (協鑫智慧能源(蘇州)有限公司) and GCL-Poly Limited* (保利協鑫有限公司)), a company established in the PRC
"GCL-Poly Suzhou New Energy"	GCL-Poly (Suzhou) New Energy Co., Ltd.* (保利協鑫(蘇州)新能源有限公司), an indirect subsidiary of the Company which is incorporated in the PRC with limited liability

"GCL Solar Energy"	GCL Solar Energy Limited, a company incorporated in Hong Kong with limited liability, which is a subsidiary of the Company
"GCL System Integration"	GCL System Integration Technology Co., Ltd. (協鑫集成科技股份有限公司) (a company incorporated in the PRC with its shares listed on the SME Board of the Shenzhen Stock Exchange) (stock code: 002506)
"GCL System Integration (Suzhou)"	GCL System Integration Technology (Suzhou) Ltd.* (協鑫集成科技(蘇州)有限公司), a company established in the PRC and a subsidiary of GCL System Integration
"GNE"	GCL New Energy Holdings Limited (協鑫新能源控股有限公司), a company incorporated in Bermuda with limited liability, the shares of which are listed on the Main Board of the Stock Exchange (stock code: 451), which is a subsidiary of the Company
"GNE Development"	GCL New Energy Development Limited 協鑫新能源發展有限公司, a company incorporated in Hong Kong with limited liability and a subsidiary of GNE
"GNE Directors"	The director of GNE
"GNE Group"	GNE and its subsidiaries
"GNE International"	GCL New Energy International Limited, a company incorporated in Hong Kong with limited liability, which is a subsidiary of the Company and GNE
"GNE Investment"	GCL New Energy Investment (China) Co., Ltd* (協鑫新能源投資(中國)有限公司), a company incorporated in the PRC with limited liability, which is a subsidiary of the Company and GNE
"Group"	GCL-Poly and its subsidiaries
"GW"	gigawatts
"Jiangsu Jiarun"	Jiangsu Jiarun Property Co., Ltd.* (江蘇嘉潤置業有限公司), a company established in the PRC

"Jiangsu Zhongneng"	Jiangsu Zhongneng Polysilicon Technology Development Co., Ltd.* (江蘇中能硅業科技發展有限公司), a company incorporated in the PRC and a subsidiary of the Company
"Kunming Xufeng"	Kunming Xufeng Photovoltaic Power Co., Ltd* (昆明旭峰光伏發電有限公司), a subsidiary of the Company and GNE which is incorporated in the PRC with limited liability
"Listing Rules"	The Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited
"Mr. Zhu"	Mr. Zhu Gongshan, the Chairman and an executive Director
"Mr. Zhu Yufeng"	son of Mr. Zhu and an executive Director
"MT"	metric tonnes
"MW"	megawatts
"MWh"	megawatt hour
"Nanjing GCL New Energy"	Nanjing GCL New Energy Development Co., Ltd.* (南京協鑫新能源發展有限公司), a subsidiary of the Company and GNE which is incorporated in the PRC with limited liability
"Pei County Xinri"	Pei County Xinri Photovoltaic Power Co., Ltd* (沛縣鑫日光伏電力有限公司), a subsidiary of the Company and GNE which is incorporated in the PRC with limited liability
"PRC"	the People's Republic of China
"PV"	photovoltaic
"Stock Exchange"	The Stock Exchange of Hong Kong Limited
"Suzhou GCL"	Suzhou GCL Energy Technology Co., Ltd.* (蘇州協鑫能源科技有限公司) a company established in the PRC

"Suzhou GCL-Poly"	Suzhou GCL-Poly Solar Power Investment Ltd.* (蘇州保利協鑫光伏電力投資有限公司), a company incorporated in the PRC with limited liability, a subsidiary of the Company
"Suzhou GCL Research"	Suzhou GCL Industrial Applications Research Co., Ltd.* (蘇州協鑫工業應用研究院有限公司), a subsidiary of the Company and a company established in the PRC
"Suzhou GCL New Energy"	Suzhou GCL New Energy Investment Co., Ltd.* (蘇州協鑫新能源投資有限公司), a subsidiary of the Company and GNE which is incorporated in the PRC with limited liability
"Suzhou GNE Operation"	Suzhou GCL New Energy Operation and Technology Co., Ltd.* (蘇州協鑫新能源運營科技有限公司), a company incorporated in the PRC with limited liability, a subsidiary of the Company and GNE
"Suzhou Xin Zhi Hai"	Suzhou Xin Zhi Hai Management Consulting Co., Ltd.* (蘇州鑫之海企業管理諮詢有限公司), a company incorporated in the PRC with limited liability
"Taicang GCL"	Taicang GCL Photovoltaic Technology Co., Ltd* (太倉協鑫光伏科技有限公司), a company incorporated in the PRC and a subsidiary of the Company
"Taicang Power"	Taicang GCL Power Generation Co., Ltd* (太倉港協鑫發電有限公司), a company incorporated in the PRC
"U.S."	United States of America
"W"	watts
"Wuxi Huaguang"	Wuxi Huaguang Boiler Co., Ltd.* (無錫華光鍋爐股份有限公司), a company incorporated in the PRC and the shares of which are listed on the Shanghai Stock Exchange with stock code 600475
"Xi'an Datang Electric"	Xi'an Datang Electric Power Design and Research Institute Co., Ltd.* (西安大唐電力設計研究院有限公司), a company incorporated in the PRC with limited liability
"Xinjiang GCL"	Xinjiang GCL New Energy Materials Technology Co., Limited* (新疆協鑫新能源材料科技有限公司), a company incorporated in the PRC and an indirect subsidiary of the Company

"Xinjiang Guoxin"	Xinjiang Guoxin Coal Energy Co., Limited* (新疆國信煤電能源有限公司), a company incorporated in the PRC
"Xinjiang Intelligent Energy"	Xinjiang GCL Intelligent Energy Services Co., Limited* (新疆協鑫智慧能源服務有限公司), a company incorporated in the PRC
"Yangzhou GCL"	Yangzhou GCL Photovoltaic Technology Co., Ltd* (揚州協鑫光伏科技有限公司), a company incorporated in the PRC and a subsidiary of the Company
"Yangzhou Power"	Yangzhou Harbour Sludge Power Co., Ltd* (揚州港口污泥發電有限公司), a company incorporated in the PRC
"Zhu Family Trust"	the discretionary trust known as "Asia Pacific Energy Fund", of which Mr. Zhu and his family (including Mr. Zhu Yufeng, an executive Director and son of Mr. Zhu) are beneficiaries

* English name for identification only.

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